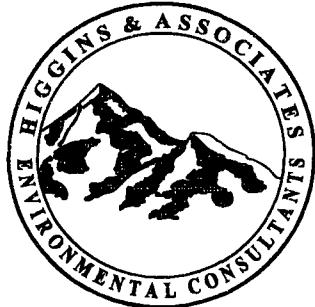


**AP - OIS**

**ANNUAL  
MONITORING REPORT**

**YEAR(S):  
2002/2003**



May 29, 2003

*Higgins and Associates, LLC*

Mr. Bill Olsen  
State of New Mexico  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Re: Annual Monitoring, and Remediation Installation and Startup Report  
ConocoPhillips East Hobbs Junction  
Hobbs, New Mexico

Dear Mr. Olsen:

On behalf of ConocoPhillips, formerly Phillips Pipe Line Company, Higgins and Associates, L.L.C. (Higgins) has prepared the following annual status report. This report is a summary of the following activities performed in 2002 through April 2003:

- Groundwater Sampling
- Free Product Gauging
- Free Product Recovery
- Remediation System Installation
- Remediation System Startup

Project activities commenced at the site in January of 2000 following the discovery of a release of crude oil from a gathering line at the East Hobbs Junction. Assessment and remediation activities have been conducted at the site to define and address the crude oil impacts with the most recent activities consisting of the installation of a comprehensive soil and groundwater remediation system. The remediation system installation consisted of a soil vapor extraction (SVE) system, a sparging system, and expanding the existing product recovery system. A site map illustrating the location of surface facilities, pipelines, monitoring wells, and remediation wells is presented as Figure 1 in Appendix A.

#### **Groundwater Monitoring and Sampling Activities**

Groundwater monitoring and sampling activities were conducted on May 21, 2002; October 15, 2002; January 22 and 23, 2003; and on April 24 and 25, 2003. Accessible monitoring wells were gauged for groundwater elevations prior to the sampling events and groundwater samples were obtained from wells that did not contain free product. On May 21, 2002 wells MW-4, MW-5, MW-8, MW-12, MW-13, MW-14, MW-16, MW-17, MW-18, MW-19, and MW-20 were sampled. On June 13, 2002, wells MW-21, MW-22, and MW-23 were sampled. On October 15, 2002; January 22 and 23, 2003; and on April 24 and 25, 2003 wells MW-4, MW-5, MW-8, MW-12, MW-13, MW-

14, MW-16, MW-17, MW-18, MW-19, MW-20, MW-21, MW-22, MW-23, and SVE-10 were sampled. The groundwater samples were transported to Higgins's contract laboratory by standard chain-of-custody procedures for the analysis of benzene, toluene, ethylbenzene, total xylenes (BTEX) by EPA Method 8021B, total volatile petroleum hydrocarbons (TVPH) by EPA Method 8015, total extractable petroleum hydrocarbons (TEPH) by EPA modified Method 8015, and chloride by EPA Method 9251.

Groundwater depths ranged from 24 to 32 feet below top of the well casing (TOC) during the sampling events. Groundwater elevation measurements are summarized in Table 1 in Appendix B. The data obtained from the groundwater gauging events were compared to surveyed TOC elevations in order to evaluate the direction of groundwater flow beneath the site. Maps depicting the direction of groundwater flow have been prepared for each gauging event. As illustrated on Figures 2A, 2B, 2C and 2D in Appendix A, the groundwater flow direction is variable. Depending on site location, flow direction was observed towards the southeast-south-southwest-west as shown in Figures 2A, 2B, and 2C and 2D.

Groundwater analytical results from the monitoring events show that the lateral extent of the dissolved phase plume remains defined to the east, south, and west. The lateral extent of contamination to the north has not yet been defined. Increases in BTEX levels in wells MW-4 and MW-5 have been observed as expected due to the flat groundwater gradient, and the dispersion and diffusion of the dissolved plume. Results from groundwater modeling have indicated that an increase in BTEX levels in wells MW-4 and MW-5 should be expected. Continued remediation should decrease the BTEX levels in wells MW-4 and MW-5. Groundwater analytical results for wells MW-13, MW-16, MW-17, MW-19, and MW-20 through MW-23 were below the New Mexico groundwater standards for BTEX. Groundwater monitoring wells MW-4, MW-5, MW-12, MW-13, MW-14 and MW-18 contained benzene concentrations above the New Mexico groundwater standard of 10 micrograms/liter (ug/L) in the four sampling events. Groundwater analytical results for chloride were also below the New Mexico groundwater standard for chloride of 250 mg/L with the exception of well MW-21. Figures illustrating groundwater analytical results for the quarterly sampling events are included as Figures 3A, 3B, 3C and 3D in Appendix A. A table showing the groundwater analytical results is included in Table 2, Appendix B.

### **Free Product Gauging**

Free phase petroleum product was measured in wells MW-2, MW-3, MW-6, MW-7, MW-9, MW-10, MW-11, and MW-15 on November 5, 2002, February 25, 2003 and April 24, 2003. The pneumatic recovery pumps in the wells were removed prior to measuring free product, and then re-deployed. A pneumatic recovery pump has not been installed in well MW-15. Higgins believes the product in this well originated from an unknown source and is not associated with the Hobbs East free product plume. In the wells with pneumatic pumps, thickness of product ranged from 0.74 feet in MW-11 to 4.06 feet in MW-2 on November 5, 2002; from 1.82 feet in MW-6 to 3.48 feet in MW-7 on February 25, 2003; and from 1.99 feet in MW-11 to 2.90 feet in MW-7 on April 24, 2003. Figures illustrating free product thickness are included as Figures 4A, 4B, and 4C in Appendix A. Field free product measurements are summarized in Table 1 in Appendix B.



## Free Product Recovery

A pneumatic product recovery system was installed at the site in February 2001 and expanded in 2002. The system consists of Durham Geo F.A.P. Plus pumps installed in wells MW-2, MW-3, MW-6, MW-7, MW-9, MW-10, and MW-11. Crude oil is pumped from the wells through petroleum rated hoses contained in PVC piping to a 150 barrel above ground storage tank (AST) located adjacent to the product recovery system compound. From January 2002 to March 13, 2003 the system recovered approximately 289 barrels of crude oil. The recovered crude oil was transported to the Gaines Pump Station where it was added to the main crude oil pipe line. From initial abatement activities and ongoing product removal activities, approximately 319 barrels of crude oil have been recovered.

## Remediation System Installation

The following is a summary of the remedial system installation activities completed in 2002/2003 and a description of the system components and their integration in the overall remedial process.

### Health and Safety Program

Prior to commencement of work, the Site Specific Health and Safety Plan (HASP) was prepared by the Higgins safety staff. The HASP was reviewed and signed by all personnel working at the site. Safety procedures were reviewed during tailgate safety meetings prior to the start of work each day.

### Drilling and Completion of Remediation Wells

To obtain the coverage necessary for remediation of the crude oil impacts, the first phase of construction began with the installation of eighteen (18) sparging wells, one (1) additional SVE well, and three (3) additional monitoring wells. The wells were installed over the period of May 20 through May 30, 2002 using an air rotary drilling rig. During the drilling activities soil samples were collected at five foot intervals and were logged by a geologist. Representative samples were placed in a sealable plastic bag for screening. After an equilibration period, each soil sample was analyzed with a photoionization detector (PID) calibrated to an isobutylene standard of 100 ppm. Based on visual observations and field screening one sample per boring at monitoring wells MW-21, MW-22, and MW-23 was submitted for laboratory analysis. The soil samples were submitted for the analysis of BTEX by EPA Method 8260, TVPH by EPA Method 8015 and TEPH by EPA Method 8015. Concentrations of BTEX, TVPH, and TEPH were either not observed above laboratory detection limits or at low levels at the 25-30 interval in MW-21, and the 20-25 foot intervals in MW-22 and MW-23. Soil samples were not collected for analysis for the other system wells installed in 2002. A summary showing the soil analytical results is included in Table 3, Appendix B. The soil lithology consisted of caliche overlying silty pebbly sands. A map illustrating the locations of all wells is shown as Figure 1 in Appendix A. Drill logs depicting the soil lithology and well construction details were prepared for each monitoring well and are shown in Appendix C.

The sparging wells were completed with 2-inch polyvinyl chloride (PVC) pipe. The wells were drilled to depths ranging from 34 to 40 feet below ground surface (BGS). All sparging wells were



constructed with 2.5-feet of 0.020 slot screen set at total depth (TD). Sand pack was placed from TD to 2 feet above the screened interval. A 2-foot bentonite seal was placed directly above the sand pack. The wells were grouted from surface to the bentonite seal.

Well SVE-10 was completed with 4-inch PVC pipe with 0.020 slot screen from approximately 15 to 25 feet BGS. Sand pack was placed from TD to 2 feet above the screened interval. A 2-foot bentonite seal was placed directly above the sand pack. The well was grouted from surface to the bentonite seal.

Monitoring wells MW-21, MW-22, and MW-23 were completed with 2-inch polyvinyl chloride (PVC) pipe. The wells were drilled to 30 feet BGS and constructed with 15-feet of 0.020 slot screen from approximately 15 to 30 feet BGS. Sand pack was placed from TD to 2 feet above the screened interval. A 2-foot bentonite seal was placed directly above the sand pack. The wells were grouted from surface to the bentonite seal.

#### Trenching and Conduit/Containment Pipe Installation

The second phase of construction consisted of trenching and installation of conduit for the SVE and sparging systems. Prior to any trenching, underground locates were conducted for all areas of excavation locating crude oil pipelines and utility services. Higgins met with pipeline locators from respective pipeline companies in the areas of construction. During trenching near any high-pressure (HP) pipelines, ConocoPhillips personnel were on site during the excavation work to monitor and aid in locating the HP pipelines. Trenching was performed by hand in the near vicinity of all pipelines. All remediation conduit and containment lines were generally installed 18-inches above or below pipelines. Field as-built trench diagrams were completed for all pipeline crossings.

Trenching, pipe installation, and backfilling activities were conducted in June, 2002. Individual piping runs were installed to each of the nineteen sparging wells and the thirteen SVE wells. The SVE conduit lines consists of 4-inch PVC pipe, the sparging conduit piping consists of 1-inch high-density polyethylene (HDPE) pipe, and the containment pipe installed for the free product pneumatic recovery lines system is 4-inch PVC pipe.

#### Remediation Building

The remediation building permit application was approved by the General Construction Bureau, Construction Industries Division, State of New Mexico on June 20, 2002. The remediation building is a 14 by 14-foot by 8-foot high pre-engineered metal building (196 square feet) on concrete slab with a metal roof. The building was constructed next to the existing product recovery building, maintaining a safe distance from any nearby pipelines. A 4-inch concrete slab (rated at 3,000 psi) with wire mesh was poured over the remediation inlet/outlet piping. There are two separate rooms, a larger room containing the SVE equipment and manifolds which is an explosion-proof (XP) environment, and a smaller room containing the EPG Companies, Inc. (EPG) control panel and compressor which is a non-XP environment. The building construction was completed in July 2002. The building permit and design drawings were stamped by a New Mexico Professional Engineer meeting code requirements.



### Cattle Guards

Cattle guards were constructed in June 2002 and deployed to prevent livestock from damaging well piping for the sparge, SVE, and product recovery systems.

### Underground Sparge Conduit Pressure Testing

Sparge conduits were tested to demonstrate their integrity prior to system startup. The conduits were tested at 60 psi for a period of ten minutes.

### SVE and Sparging System Installation and Process Equipment Description

The process equipment was installed from August through October, 2002. EPG is the supplier of the SVE and sparge equipment packages. A map illustrating the location of the SVE, sparge, and product recovery systems is presented as Figure 1 in Appendix A.

The sparge system was installed to remove contaminants in the dissolved phase in the groundwater by mechanically volatilizing the contaminants, and to stimulate groundwater bio-activity by increasing the dissolved oxygen concentration in the groundwater. The major components of the sparging system are the compressor, the solenoid control valves, the manifold, and the associated gauges, valves, and piping. A 20-hp Sullivan-Palatek rotary screw air compressor with a 120-gallon tank was installed in the non-XP room of the remediation building. The air compressor is used for compressed air injection into the nineteen sparging wells to provide the sparge air supply, and compressed air for the free product pneumatic pump recovery system. The compressor package is rated at 75 cfm up to 125 psi, has an auto water drain, a 460 volt 3 phase 20-hp motor equipped with high and low temperature shutdowns, a pressure regulator, particulate filter, and an oil coalescing filter.

The sparge flow from the compressor is first divided into four manifolds controlled by a separate solenoid valve for each manifold. Flow from the four manifolds is then divided to the nineteen injection conduits. Flow from each of the nineteen nutrient injection conduits is controlled by a 1-inch ball valve to allow regulation of the flow across the system. The system operates by cycling sparging intervals. Sparging intervals can be varied by changing the 24-hour cycle timer inside the control panel.

The SVE system was installed to remove contaminants in the gas phase in the unsaturated zone by vapor extraction, and to stimulate soil bio-activity by increasing air flow to the unsaturated zone. The major components of the SVE system are the vacuum blower, the manifold, and the associated gauges, valves, and piping. An EPG panel controls the operation of both systems. The EPG vacuum blower package is equipped with a Roots 615 URAI positive displacement blower rated at 1105 ACFM at 107 inches of water column vacuum (Model VES-PD30R), a 30-hp 460 volt 3-phase XP motor, a condensate filter separator, a discharge silencer, and associated gauges, valves, and piping.

The vapor extraction manifold is connected to thirteen SVE wells. Each SVE conduit is controlled by a 4-inch ball valve. A sample port was installed in the 4-inch galvanized steel SVE effluent line to monitor for temperature, flowrate, and volatile organic compounds (VOCs).



### SVE and Sparging System Startup and Operation

The SVE system was placed on line on October 17, 2002. Wellhead vacuum measurements for wells SVE-1, SVE-2, SVE-5, and SVE-8 through SVE-10 have been recorded since startup and have ranged from 4.5 to 10 inches of water column. Wellhead vacuum measurements were not taken at wells SVE-3, SVE-4, SVE-6, and SVE-7 since these wells were not readily accessible due to product recovery piping. Wellhead vacuum for wells MW-13, MW-16, MW-17, MW-19, MW-20, MW-21, MW-22, and MW-23 have been monitored to determine ROI and system performance. The SVE ROI was observed at approximately 353 feet on October 18, 2002 (from SVE-12 to MW-20). The SVE effluent has been monitored for temperature, flowrate, and VOCs since startup. For air quality compliance, a field photo-ionizaton detector (PID) has been used to monitor VOCs. The PID measures VOCs as organic vapor in air in parts per million (ppm). Effluent temperatures, flowrates, and PID readings have ranged from 51 to 111 degrees Fahrenheit, from 860 to 875 cubic feet per minute (cfm), and from 93 to 907 ppm, respectively. Approximately 16,592 pounds of volatile organic compounds have been removed from the vadoze zone by SVE operation from start up on October 17, 2002 to April 11, 2003. A summary of SVE effluent measurements is presented in Table 4 in Appendix B.

The sparge system was placed on line on October 21, 2002. Injection pressures have been observed ranging from 10 to 15 psi measured at the sparge manifold. Wellhead pressure for wells MW-13, MW-16, MW-17, MW-19, MW-20, MW-21, MW-22, and MW-23 have been monitored to determine ROI and system performance. The sparging ROI was observed over 395 feet on November 4, 2002 (from SP-10 to MW-20). Since the sparging system is sequenced with a 24-hour timer for each of the four sparging legs, ROI will vary depending on sparge migration pathways. Operating time for each leg is varied to optimize the system performance. Sparge wells in the vicinity of free product (SP-1 through SP-9) have not been operated. A summary of monitoring wellhead pressure measurements is presented in Table 4 in Appendix B (included with SVE operational data).

### **Conclusions**

Based on the data collected during the reporting period, the following conclusions are evident.

- Groundwater sampling data documents that the crude oil impacts to soil and groundwater remain defined to the west, south, and east.
- The remedial system outlined in the Stage II abatement plan has been implemented.
- The SVE and sparging systems are operating within anticipated design parameters.
- Approximately 16,592 pounds of volatile organic compounds have been removed from the vadoze zone by SVE operation from start up on October 17, 2002 to April 11, 2003.
- Crude oil recovery operations are continuing at the site. From initial abatement activities to March 13, 2003 approximately 319 barrels of crude oil have been recovered with the pneumatic pumps.
- The rate of crude oil recovery is anticipated to increase by adjusting and optimizing production of the pneumatic recovery pumps.



- The remedial system will be adjusted as warranted based on performance data collected over the next several months to optimize the remediation of the crude oil constituents.

Should you have any questions or comments upon review of this report, please contact Chris Higgins at (303) 708-9846.

Sincerely,

**Higgins and Associates, L.L.C.**



Nick Fischer  
Project Engineer



Chris Higgins  
Project Manager

**Appendices:**

Appendix A: Figures

Figure 1 - Site Diagram

Figure 2A - Groundwater Contour Map for May 2002

Figure 2B - Groundwater Contour Map for October 2002

Figure 2C - Groundwater Contour Map for January 2003

Figure 2D - Groundwater Contour Map for April 2003

Figure 3A - Hydrocarbon Concentration Map for May 20 2002

Figure 3B - Hydrocarbon Concentration Map for October 2002

Figure 3C - Hydrocarbon Concentration Map January 2003

Figure 3D - Hydrocarbon Concentration Map April 2003

Figure 4A - Product Thickness Map for November 5, 2002

Figure 4B - Product Thickness Map for February 25, 2003

Figure 4C - Product Thickness Map for April 9, 2003

Appendix B: Tables

Table 1 - Field Groundwater and Free Product Level Measurements

Table 2 - Groundwater Analytical Data

Table 3 - Soil Analytical Data

Table 4 - SVE / Sparge Operation Data

Appendix C: Geologic/Lithologic and Well Completion Logs

Appendix D: Laboratory Data

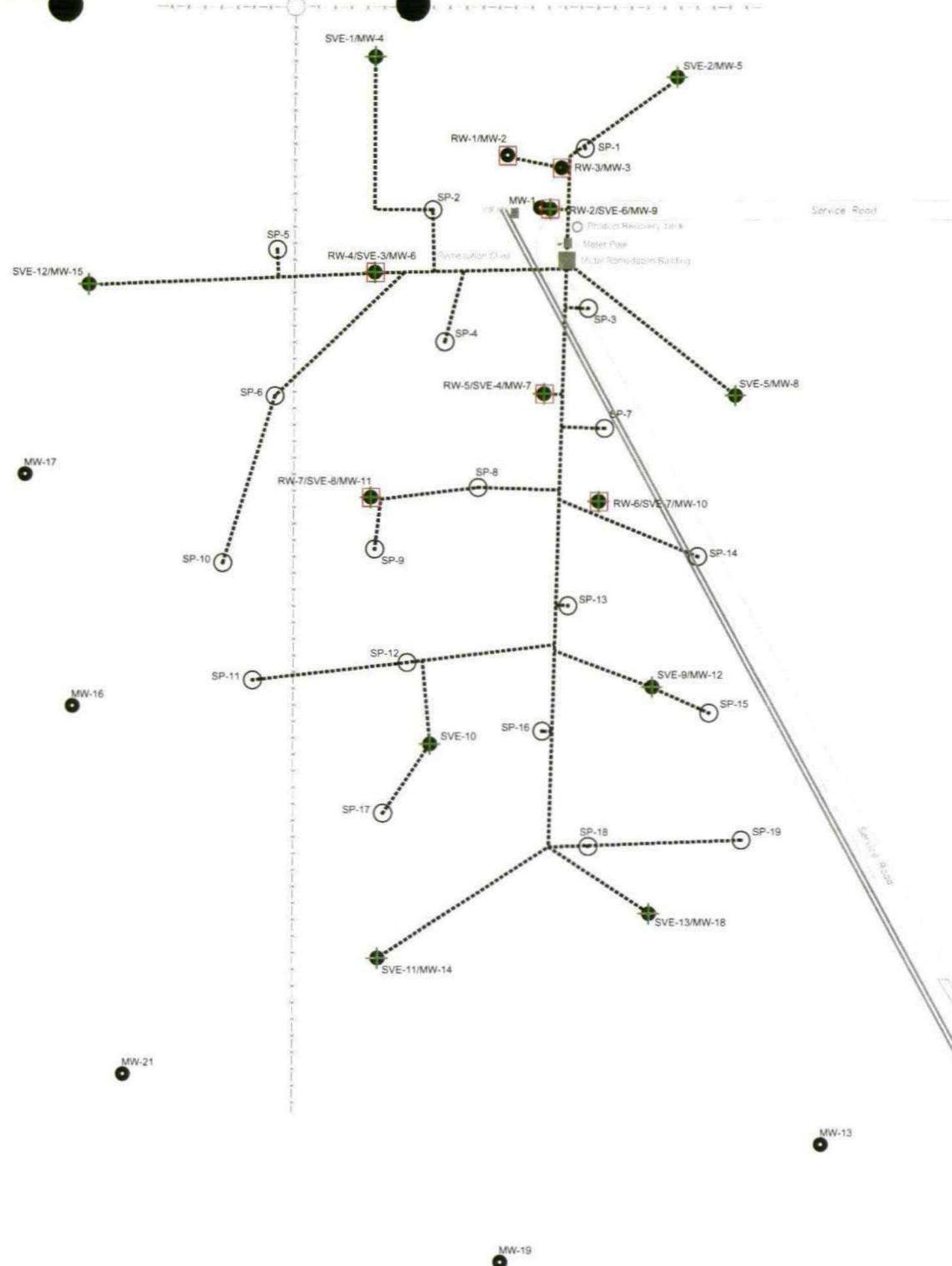


## Appendix A

### Figures

*Higgins and Associates, I.L.C.*





### LEGEND

- MW-1** ● Existing Monitor Well Location and Designation
- SVE-1** ● Soil Vapor Extraction Location and Designation
- SP-2** ○ Sparge Well Location and Designation
- RW-1** □ Product Recovery Well Location and Designation
- Alignment of Conveyance Piping Corridor



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Scale (ft)

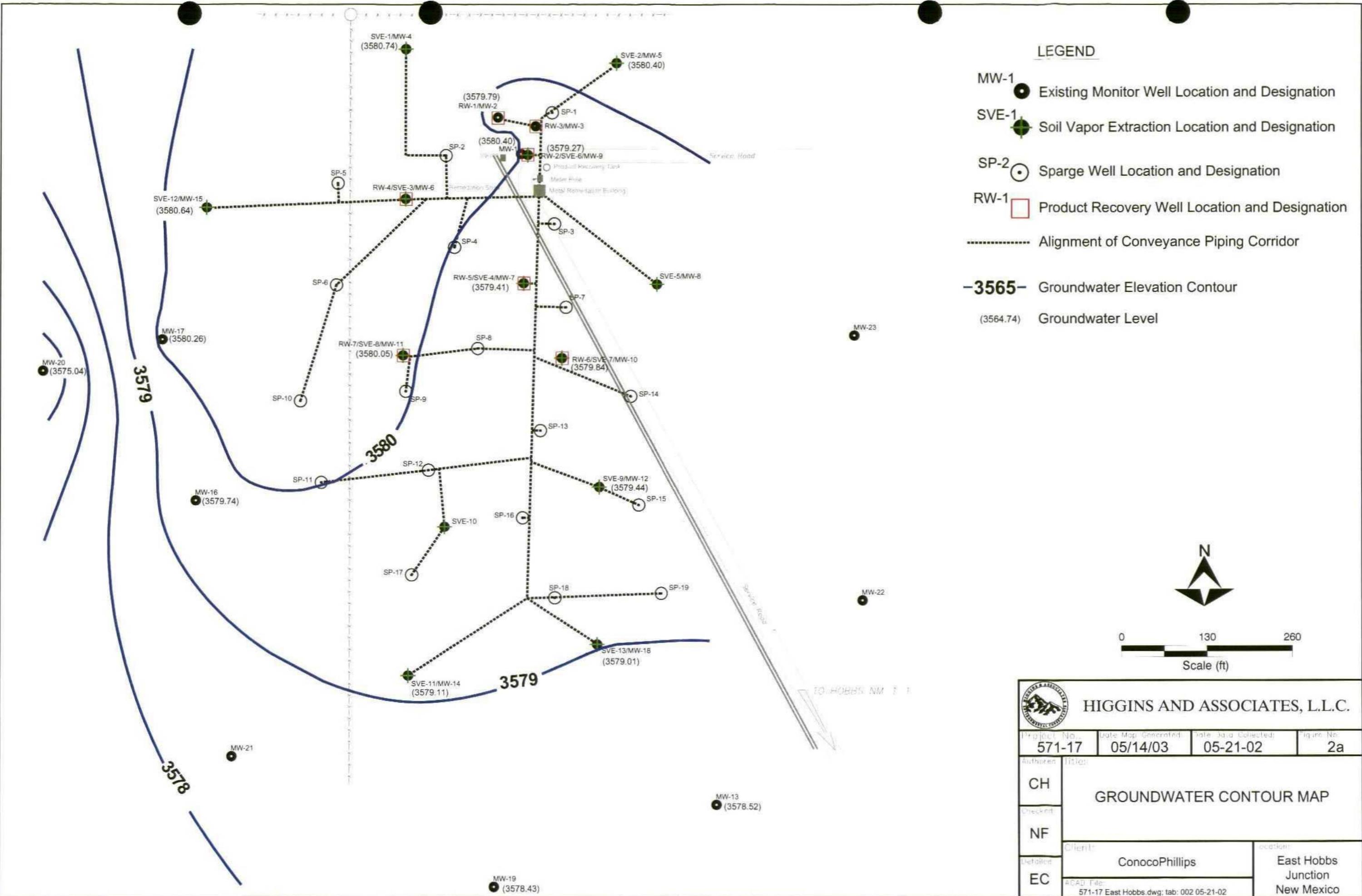


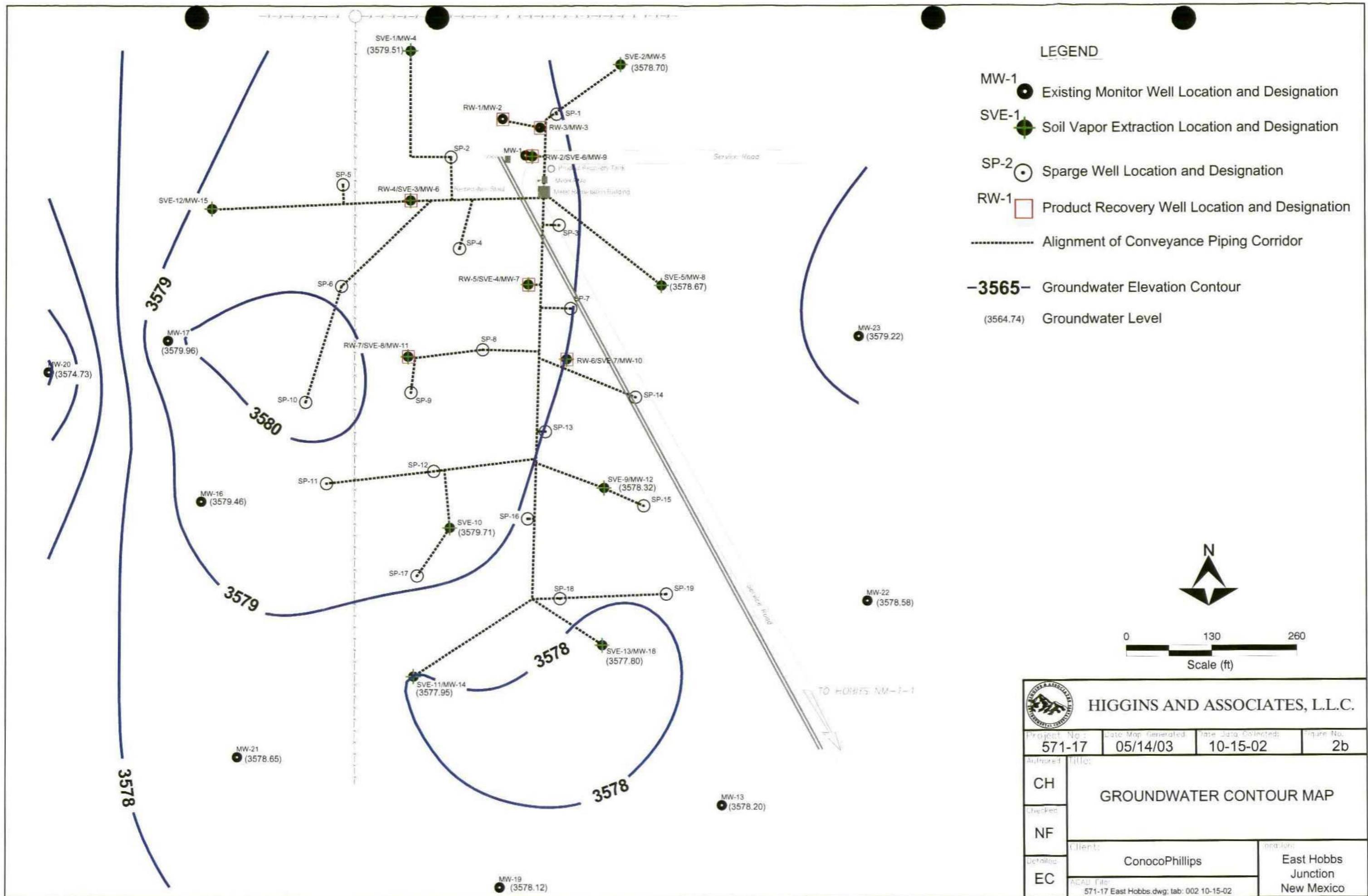
HIGGINS AND ASSOCIATES, L.L.C.

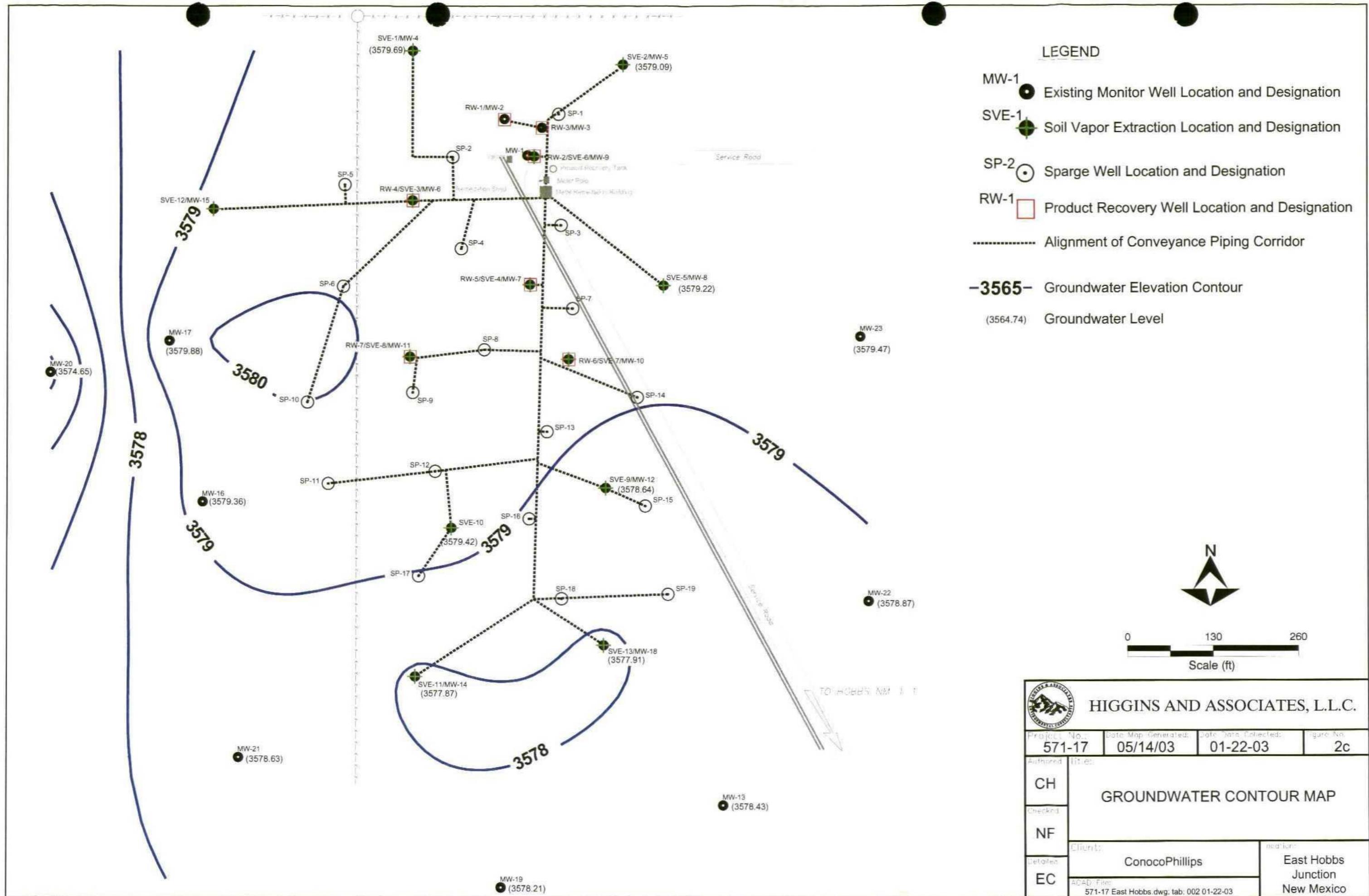
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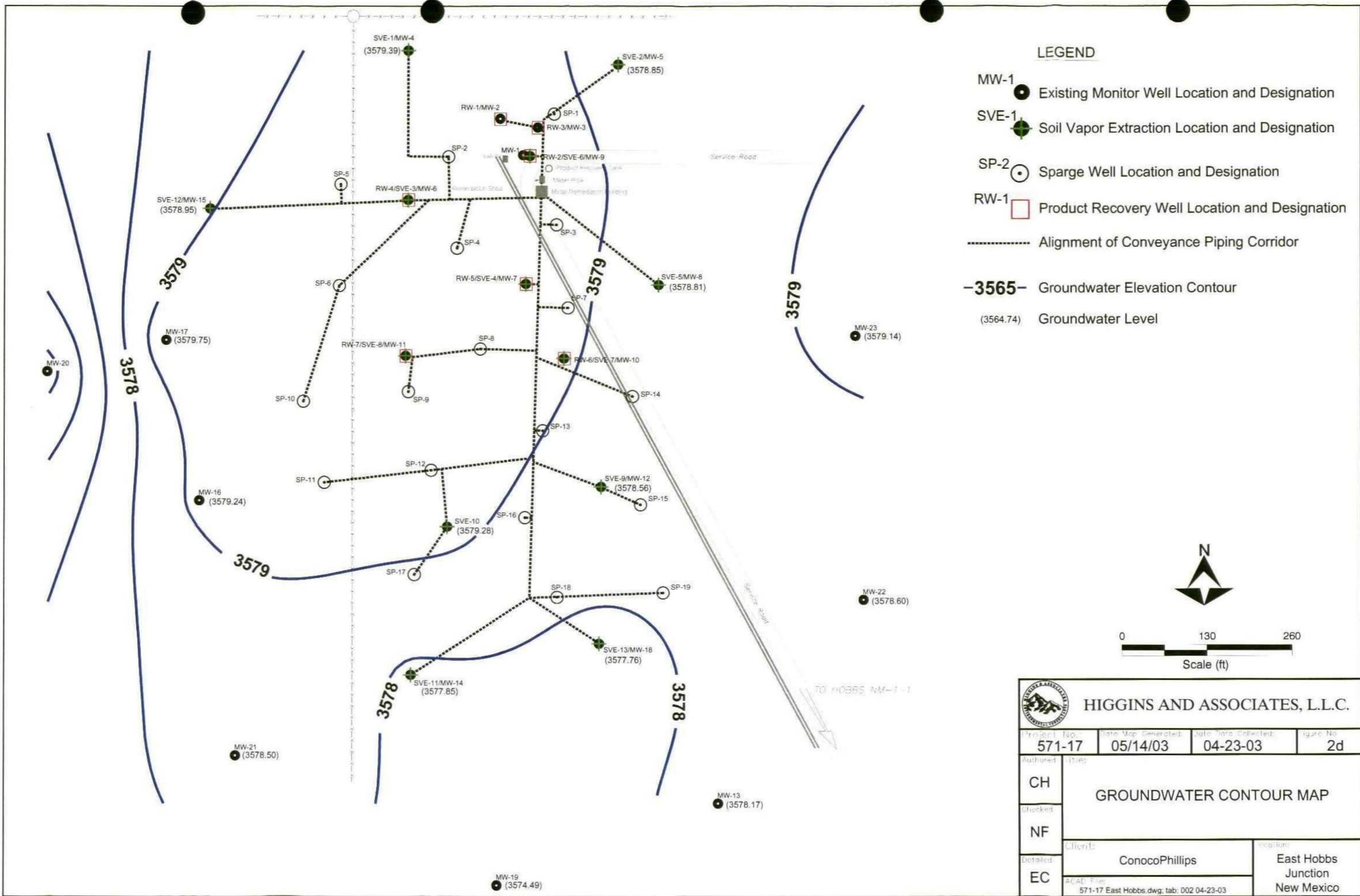
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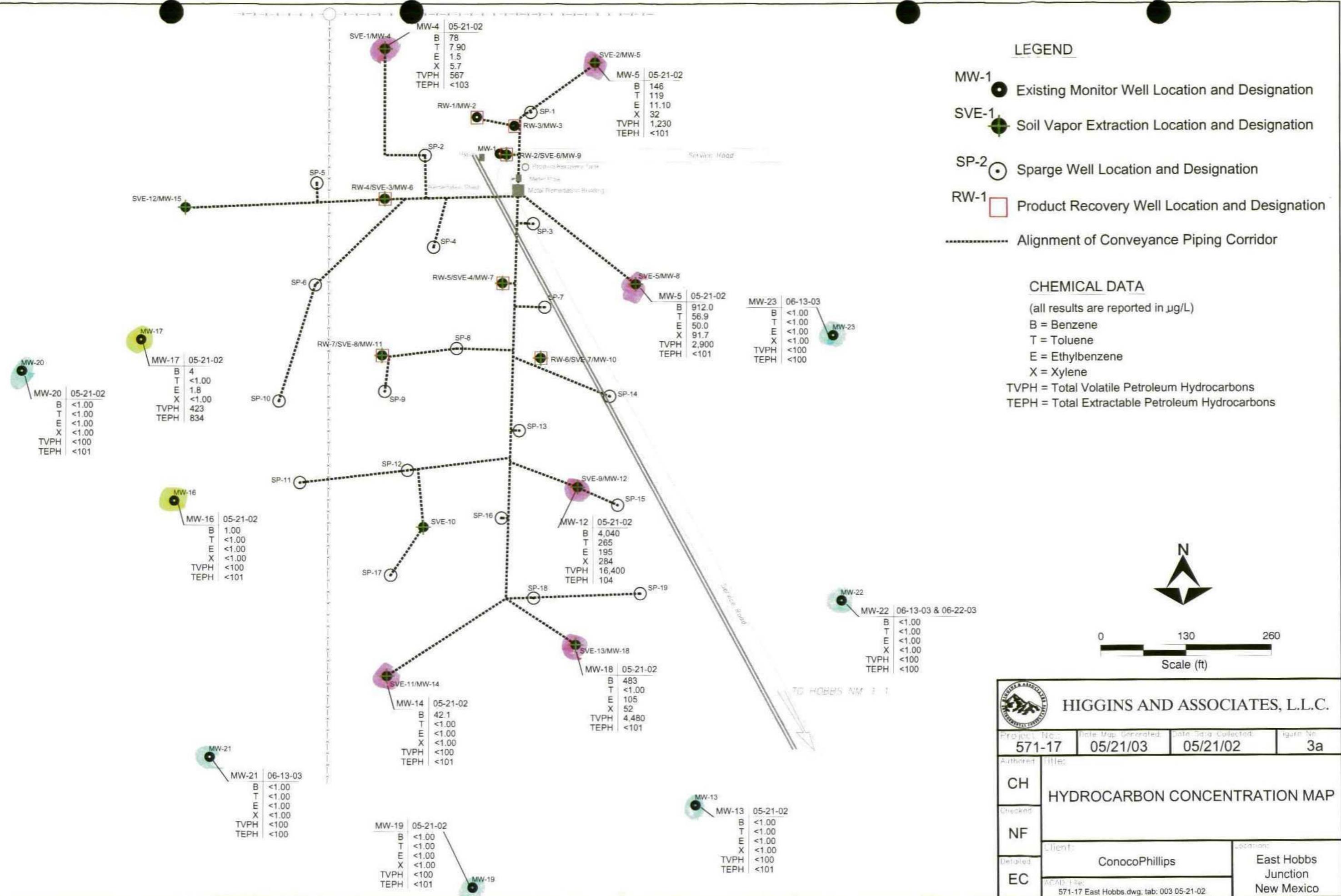
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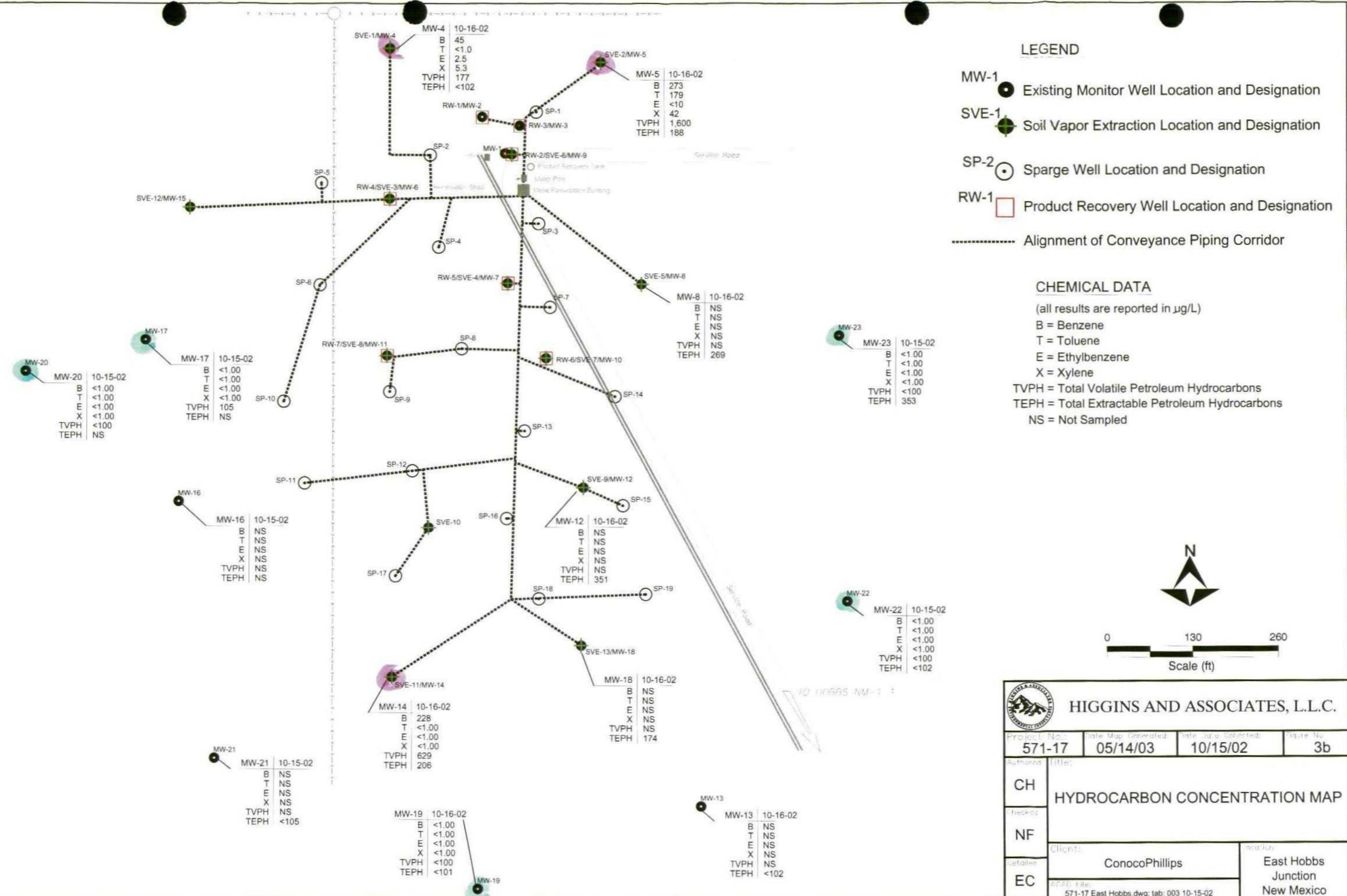


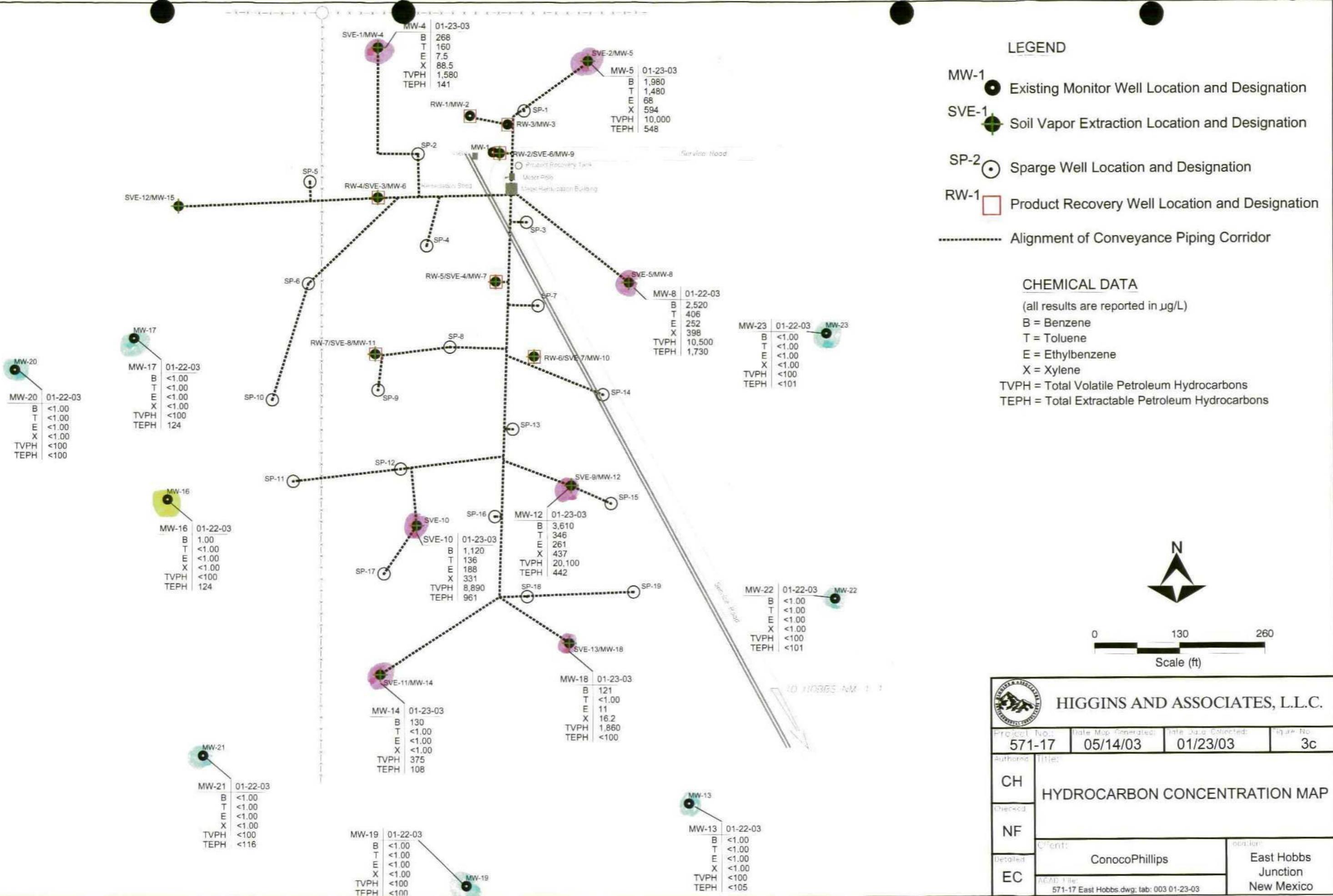


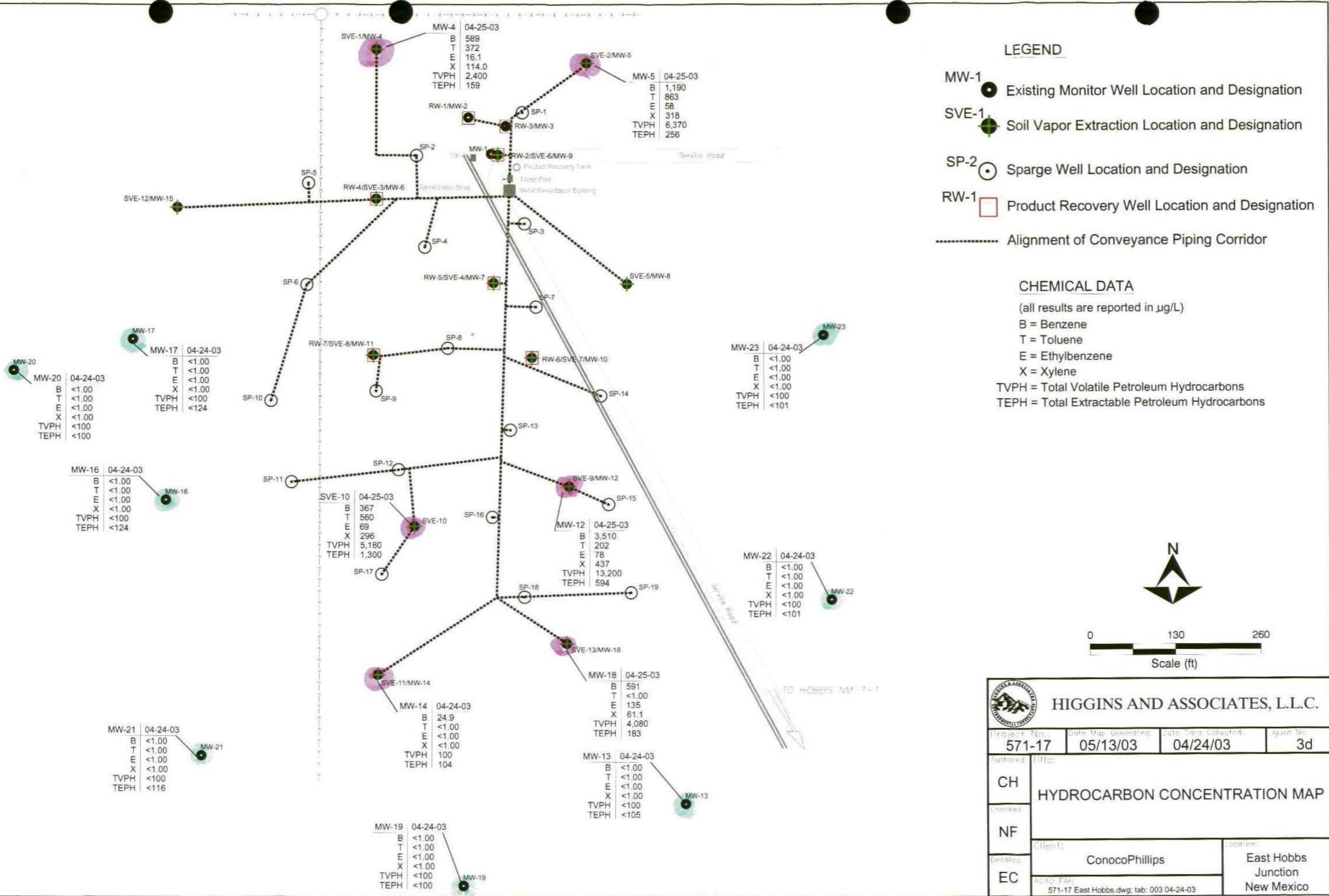


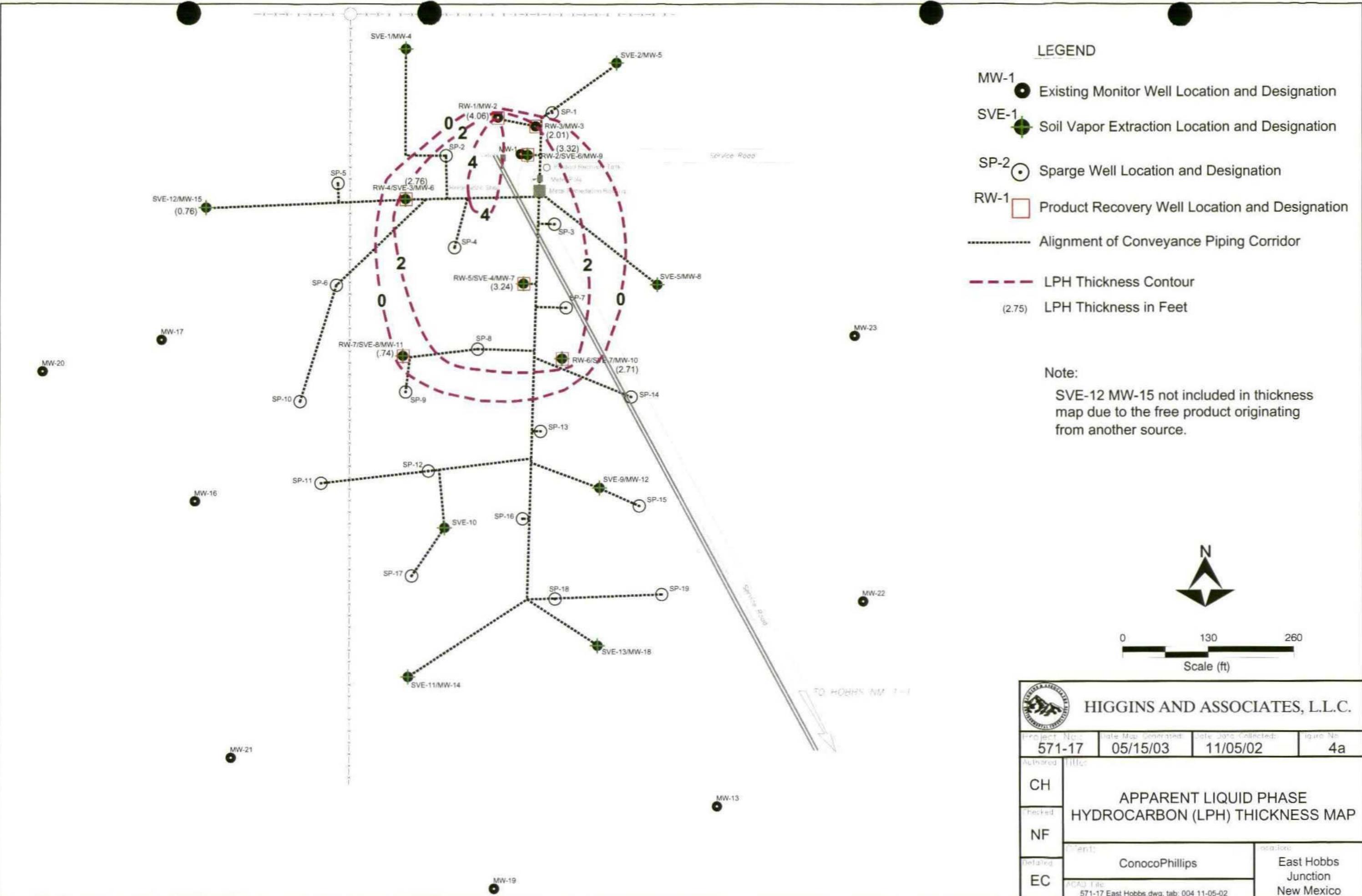


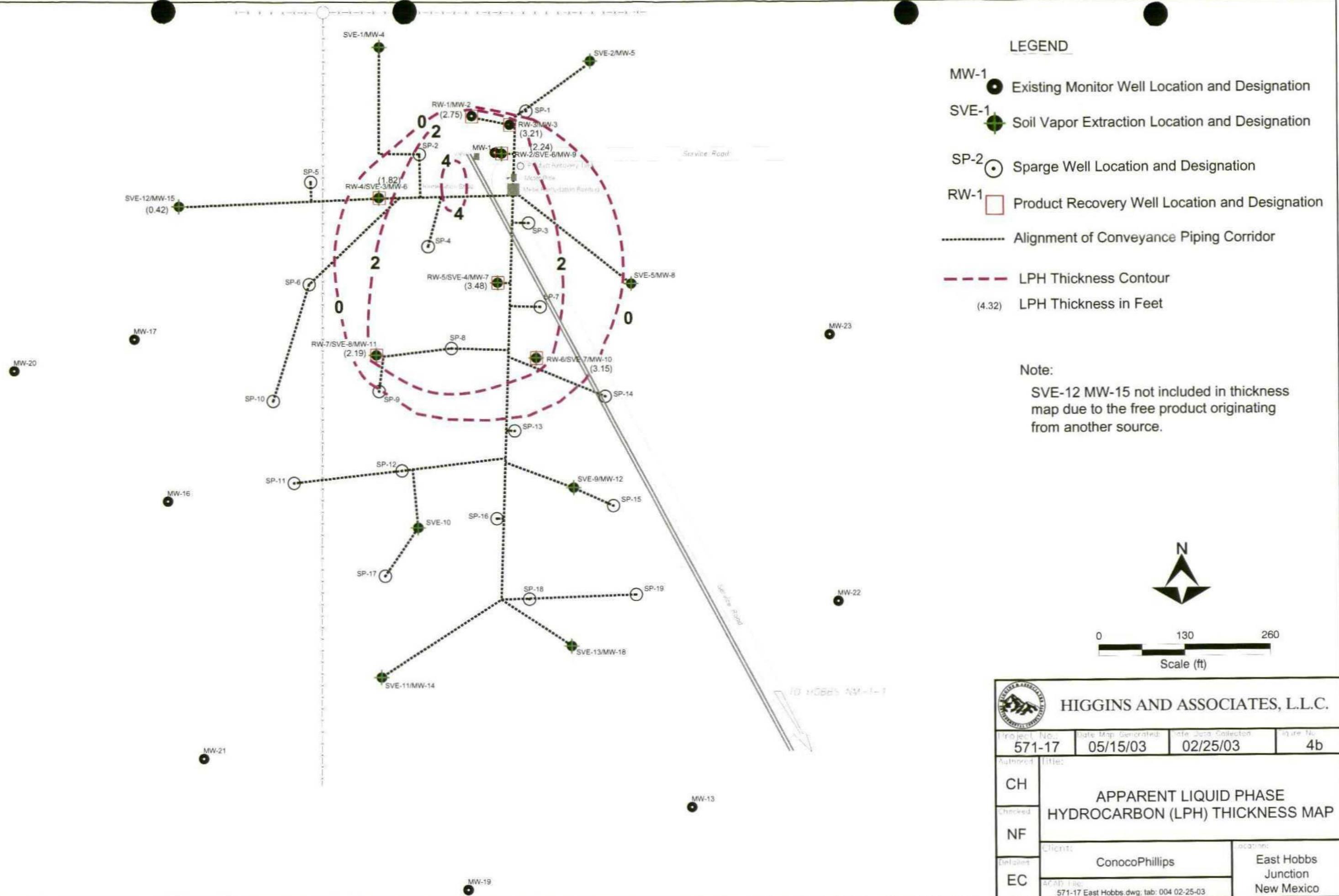


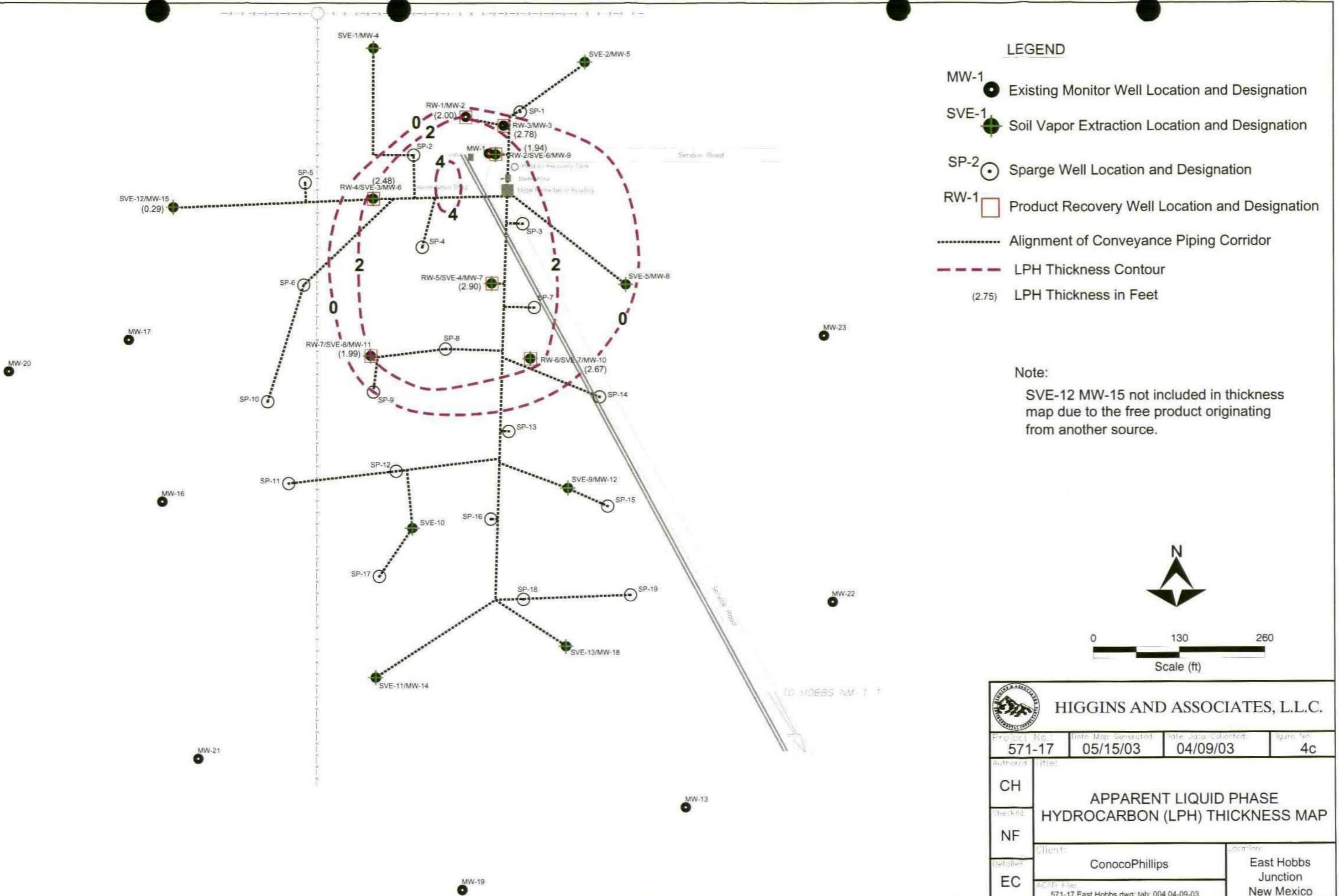












## Appendix B

### Tables

*Higgins and Associates, LLC*



**Table 1**  
**ConocoPhillips**  
**East Hobbs**  
**Hobbs, New Mexico**  
**Water Level Measurements**  
*(all measurements in feet)*

<b>Well</b>	<b>Date</b>	<b>Casing Elevation</b>	<b>Depth to Water</b>	<b>Depth to L.P.H.</b>	<b>L.P.H. Thickness</b>	<b>L.P.H. Thickness X 0.8</b>	<b>Adjusted Depth to Water</b>	<b>Groundwater Elevation</b>
MW-1	03/01/01	3606.28	27.14	24.19	2.95	2.36	24.78	3581.50
	06/25/01	3606.28	NM		0.00	0.00		
	09/25/01	3606.28	NM		0.00	0.00		
	12/11/01	3606.28	NM		0.00	0.00		
	05/22/02	3606.28	27.85	25.39	2.46	1.97	25.88	3580.40
MW-2	03/01/01	3606.45	26.88	24.29	2.59	2.07	24.81	3581.64
	06/25/01	3606.45	26.67	25.73	0.94	0.75	25.92	3580.53
	09/25/01	3606.45	26.59	26.04	0.55	0.44	26.15	3580.30
	12/11/01	3606.45	28.20	25.73	2.47	1.98	26.22	3580.23
	05/22/02	3606.45	28.00	26.33	1.67	1.34	26.66	3579.79
	11/05/02	3606.45	28.73	24.67	4.06	3.25	25.48	3580.97
	02/25/03	3606.45	29.30	26.55	2.75	2.20	27.10	3579.35
	04/09/03	3606.45	28.41	26.41	2.00	1.60	26.81	3579.64
MW-3	03/01/01	3606.33	26.92	24.19	2.73	2.18	24.74	3581.59
	06/25/01	3606.33	27.01	24.91	2.10	1.68	25.33	3581.00
	09/25/01	3606.33	27.52	25.09	2.43	1.94	25.58	3580.75
	12/11/01	3606.33	27.70	25.29	2.41	1.93	25.77	3580.56
	11/05/02	3606.33	28.14	26.13	2.01	1.61	26.53	3579.80
	02/25/03	3606.33	29.55	26.34	3.21	2.57	26.98	3579.35
	04/09/03	3606.33	29.02	26.24	2.78	2.22	26.80	3579.53
MW-4	03/01/01	3606.69	24.60		0.00	0.00	24.60	3582.09
	06/25/01	3606.69	25.14		0.00	0.00	25.14	3581.55
	09/25/01	3606.69	25.36		0.00	0.00	25.36	3581.33
	12/11/01	3606.69	24.54		0.00	0.00	24.54	3582.15
	05/21/02	3606.69	25.95		0.00	0.00	25.95	3580.74
	06/08/02	3606.69	26.00		0.00	0.00	26.00	3580.69
	10/15/02	3606.37	26.86		0.00	0.00	26.86	3579.51
	01/22/03	3606.37	26.68		0.00	0.00	26.68	3579.69
	04/24/03	3606.37	26.98		0.00	0.00	26.98	3579.39
MW-5	03/01/01	3605.52	24.03		0.00	0.00	24.03	3581.49
	06/25/01	3605.52	24.23		0.00	0.00	24.23	3581.29
	09/25/01	3605.52	24.48		0.00	0.00	24.48	3581.04
	12/11/01	3605.52	24.68		0.00	0.00	24.68	3580.84
	05/21/02	3605.52	25.12		0.00	0.00	25.12	3580.40
	06/08/02	3604.90	25.13		0.00	0.00	25.13	3579.77
	10/15/02	3604.90	26.20		0.00	0.00	26.20	3578.70
	01/22/03	3604.90	25.81		0.00	0.00	25.81	3579.09
	04/24/03	3604.90	26.05		0.00	0.00	26.05	3578.85
MW-6	03/01/01	3606.14	25.54	24.51	1.03	0.82	24.72	3581.42
	06/25/01	3606.14	26.88	24.42	2.46	1.97	24.91	3581.23
	09/25/01	3606.14	25.96	25.93	0.03	0.02	25.94	3580.20
	12/11/01	3606.14	27.64	25.66	1.98	1.58	26.06	3580.08
MW-7	03/01/01	3605.50	26.61	23.73	2.88	2.30	24.31	3581.19

**Table 1**  
**ConocoPhillips**  
**East Hobbs**  
**Hobbs, New Mexico**  
**Water Level Measurements**  
*(all measurements in feet)*

Well	Date	Casing Elevation	Depth to Water	Depth to L.P.H.	L.P.H. Thickness	L.P.H. Thickness X 0.8	Adjusted Depth to Water	Groundwater Elevation
	06/25/01	3605.50	25.35	25.30	0.05	0.04	25.31	3580.19
	09/25/01	3605.50	26.05	25.41	0.64	0.51	25.54	3579.96
	05/22/02	3605.50	26.54	25.98	0.56	0.45	26.09	3579.41
	11/05/02	3605.50	28.68	25.44	3.24	2.59	26.09	3579.41
	02/25/03	3605.50	29.56	26.08	3.48	2.78	26.78	3578.72
	04/09/03	3605.50	29.18	26.28	2.90	2.32	26.86	3578.64
MW-8	03/01/01	3605.25	24.29		0.00	0.00	24.29	3580.96
	06/25/01	3605.25	25.54		0.00	0.00	25.54	3579.71
	09/25/01	3605.25	24.82		0.00	0.00	24.82	3580.43
	12/11/01	3605.25	25.03		0.00	0.00	25.03	3580.22
	05/21/02	3605.25	25.40		0.00	0.00	25.40	3579.85
	06/08/02	3605.25	25.45		0.00	0.00	25.45	3579.80
	10/15/02	3604.92	26.25		0.00	0.00	26.25	3578.67
	01/22/03	3604.92	25.70		0.00	0.00	25.70	3579.22
	04/24/03	3604.92	26.11	26.01	0.10	0.08	26.03	3578.89
MW-9	03/01/01	3605.75	26.82	23.68	3.14	2.51	24.31	3581.44
	06/25/01	3605.75	24.79	24.73	0.06	0.05	24.74	3581.01
	09/25/01	3605.75	26.28	25.90	0.38	0.30	25.98	3579.77
	12/11/01	3605.75	28.73	25.49	3.24	2.59	26.14	3579.61
	05/22/02	3605.75	27.64	26.19	1.45	1.16	26.48	3579.27
	11/05/02	3605.75	29.15	25.83	3.32	2.66	26.49	3579.26
	02/25/03	3605.75	28.62	26.38	2.24	1.79	26.83	3578.92
	04/09/03	3605.75	28.24	26.30	1.94	1.55	26.69	3579.06
	04/22/03	3605.75	28.95	26.30	2.65	2.12	26.83	3578.92
MW-10	03/01/01	3604.94	25.57	23.53	2.04	1.63	23.94	3581.00
	06/25/01	3604.94	25.95	23.75	2.20	1.76	24.19	3580.75
	09/25/01	3604.94	24.47		0.00	0.00	24.47	3580.47
	12/11/01	3604.94	26.31	24.27	2.04	1.63	24.68	3580.26
	05/22/02	3604.94	25.50	25.00	0.50	0.40	25.10	3579.84
	11/05/02	3604.94	28.84	25.33	3.51	2.81	26.03	3578.91
	02/25/03	3604.94	28.41	25.26	3.15	2.52	25.89	3579.05
	04/09/03	3604.94	28.15	25.48	2.67	2.14	26.01	3578.93
MW-11	03/01/01	3608.06	27.09		0.00	0.00	27.09	3580.97
	06/25/01	3608.06	27.30		0.00	0.00	27.30	3580.76
	09/25/01	3608.06	28.26	27.51	0.75	0.60	27.66	3580.40
	12/11/01	3608.06	28.36	27.50	0.86	0.69	27.67	3580.39
	05/21/02	3608.06	29.67	27.60	2.07	1.66	28.01	3580.05
	06/16/02	3608.06	30.95	28.48	2.47	1.98	28.97	3579.09
	10/25/02	3608.06	30.73	27.90	2.83	2.26	28.47	3579.59
	11/05/02	3608.06	30.97	27.92	3.05	2.44	28.53	3579.53
	02/24/03	3608.06	30.96	28.97	1.99	1.59	29.37	3578.69
	11/05/02	3608.06	30.57	29.83	0.74	0.59	29.98	3578.08
	02/25/03	3608.06	30.90	28.71	2.19	1.75	29.15	3578.91
	04/09/03	3608.06	30.96	28.97	1.99	1.59	29.37	3578.69
MW-12	03/01/01	3604.40	23.87		0.00	0.00	23.87	3580.53
	06/25/01	3604.40	24.14		0.00	0.00	24.14	3580.26

**Table 1**  
**ConocoPhillips**  
**East Hobbs**  
**Hobbs, New Mexico**  
**Water Level Measurements**  
*(all measurements in feet)*

Well	Date	Casing Elevation	Depth to Water	Depth to L.P.H.	L.P.H. Thickness	L.P.H. Thickness X 0.8	Adjusted Depth to Water	Groundwater Elevation
	09/25/01	3604.40	24.38		0.00	0.00	24.38	3580.02
	12/11/01	3604.40	24.62		0.00	0.00	24.62	3579.78
	05/21/02	3604.40	24.96		0.00	0.00	24.96	3579.44
	06/16/02	3604.40	25.64		0.00	0.00	25.64	3578.76
	10/15/02	3604.14	25.82		0.00	0.00	25.82	3578.32
	01/22/03	3604.14	25.50		0.00	0.00	25.50	3578.64
	04/24/03	3604.14	25.58		0.00	0.00	25.58	3578.56
MW-13	03/01/01	3604.31	24.70		0.00	0.00	24.70	3579.61
	06/25/01	3604.31	24.95		0.00	0.00	24.95	3579.36
	09/25/01	3604.31	25.23		0.00	0.00	25.23	3579.08
	12/11/01	3604.31	25.48		0.00	0.00	25.48	3578.83
	05/21/02	3604.31	25.79		0.00	0.00	25.79	3578.52
	06/15/02	3604.31	25.85		0.00	0.00	25.85	3578.46
	10/15/02	3604.31	26.11		0.00	0.00	26.11	3578.20
	01/22/03	3604.31	25.88		0.00	0.00	25.88	3578.43
	04/24/03	3604.31	26.14		0.00	0.00	26.14	3578.17
MW-14	03/01/01	3604.11	23.96		0.00	0.00	23.96	3580.15
	06/25/01	3604.11	24.14		0.00	0.00	24.14	3579.97
	09/25/01	3604.11	24.45		0.00	0.00	24.45	3579.66
	12/11/01	3604.11	24.63		0.00	0.00	24.63	3579.48
	05/21/02	3604.11	25.00		0.00	0.00	25.00	3579.11
	06/15/02	3604.11	25.08		0.00	0.00	25.08	3579.03
	10/15/02	3603.77	25.82		0.00	0.00	25.82	3577.95
	01/22/03	3603.77	25.90		0.00	0.00	25.90	3577.87
	04/24/03	3603.77	25.92		0.00	0.00	25.92	3577.85
MW-15	03/01/01	3609.78	28.26	28.20	0.06	0.05	28.21	3581.57
	06/25/01	3609.78	28.90	28.24	0.66	0.53	28.37	3581.41
	09/25/01	3609.78	NM		0.00	0.00		
	12/11/01	3609.78	NM		0.00	0.00		
	05/21/02	3609.78	29.77	28.98	0.79	0.63	29.14	3580.64
	06/08/02	3609.78	29.85	29.05	0.80	0.64	29.21	3580.57
	06/15/02	3609.23	30.42	29.65	0.77	0.62	29.80	3579.43
	10/25/02	3609.23	30.57	29.67	0.90	0.72	29.85	3579.38
	11/04/02	3609.23	30.62	29.80	0.82	0.66	29.96	3579.27
	11/22/02	3609.23	30.59	29.81	0.78	0.62	29.97	3579.26
	11/29/02	3609.23	30.59	29.70	0.89	0.71	29.88	3579.35
	02/08/03	3609.23	30.44	30.10	0.34	0.27	30.17	3579.06
	02/24/03	3609.23	30.51	30.09	0.42	0.34	30.17	3579.06
	04/07/03	3609.23	30.50	30.21	0.29	0.23	30.27	3578.96
	04/24/03	3609.23	30.44	30.24	0.20	0.16	30.28	3578.95
	11/05/02	3609.23	30.57	29.81	0.76	0.61	29.96	3579.27
	02/25/03	3609.23	30.51	30.09	0.42	0.34	30.17	3579.06
	04/09/03	3609.23	30.50	30.21	0.29	0.23	30.27	3578.96
	04/22/03	3609.23	30.49	30.27	0.22	0.18	30.31	3578.92
MW-16	03/01/01	3606.31	25.57		0.00	0.00	25.57	3580.74
	06/25/01	3606.31	25.78		0.00	0.00	25.78	3580.53

**Table 1**  
**ConocoPhillips**  
**East Hobbs**  
**Hobbs, New Mexico**  
**Water Level Measurements**  
*(all measurements in feet)*

Well	Date	Casing Elevation	Depth to Water	Depth to L.P.H.	L.P.H. Thickness	L.P.H. Thickness X 0.8	Adjusted Depth to Water	Groundwater Elevation
	09/25/01	3606.31	26.01		0.00	0.00	26.01	3580.30
	12/11/01	3606.31	26.21		0.00	0.00	26.21	3580.10
	05/21/02	3606.31	26.57		0.00	0.00	26.57	3579.74
	06/15/02	3606.31	26.64		0.00	0.00	26.64	3579.67
	10/15/02	3606.31	26.85		0.00	0.00	26.85	3579.46
	01/22/03	3606.31	26.95		0.00	0.00	26.95	3579.36
	04/24/03	3606.31	27.07		0.00	0.00	27.07	3579.24
MW-17	03/01/01	3609.03	27.78		0.00	0.00	27.78	3581.25
	06/25/01	3609.03	27.99		0.00	0.00	27.99	3581.04
	09/25/01	3609.03	28.21		0.00	0.00	28.21	3580.82
	12/11/01	3609.03	28.39		0.00	0.00	28.39	3580.64
	05/21/02	3609.03	28.77		0.00	0.00	28.77	3580.26
	06/15/02	3609.03	28.81		0.00	0.00	28.81	3580.22
	10/15/02	3609.03	29.07		0.00	0.00	29.07	3579.96
	01/22/03	3609.03	29.15		0.00	0.00	29.15	3579.88
	04/24/03	3609.03	29.28		0.00	0.00	29.28	3579.75
MW-18	03/01/01	3605.71	25.59		0.00	0.00	25.59	3580.12
	06/25/01	3605.71	25.85		0.00	0.00	25.85	3579.86
	09/25/01	3605.71	26.10		0.00	0.00	26.10	3579.61
	12/11/01	3605.71	26.33		0.00	0.00	26.33	3579.38
	05/21/02	3605.71	26.70		0.00	0.00	26.70	3579.01
	06/15/02	3605.71	26.75		0.00	0.00	26.75	3578.96
	10/15/02	3605.34	27.54		0.00	0.00	27.54	3577.80
	01/22/03	3605.34	27.43		0.00	0.00	27.43	3577.91
	04/24/03	3605.34	27.58		0.00	0.00	27.58	3577.76
MW-19	03/01/01	3606.69	27.20		0.00	0.00	27.20	3579.49
	06/25/01	3606.69	27.45		0.00	0.00	27.45	3579.24
	09/25/01	3606.69	27.71		0.00	0.00	27.71	3578.98
	12/11/01	3606.69	27.93		0.00	0.00	27.93	3578.76
	05/21/02	3606.69	28.26		0.00	0.00	28.26	3578.43
	06/15/02	3606.69	28.33		0.00	0.00	28.33	3578.36
	10/15/02	3606.69	28.57		0.00	0.00	28.57	3578.12
	01/22/03	3606.69	28.48		0.00	0.00	28.48	3578.21
	04/24/03	3606.69	28.62		0.00	0.00	28.62	3578.07
MW-20	03/01/01	3606.25	30.24		0.00	0.00	30.24	3576.01
	06/08/01	3606.25	31.26		0.00	0.00	31.26	3574.99
	06/25/01	3606.25	30.45		0.00	0.00	30.45	3575.80
	09/25/01	3606.25	30.67		0.00	0.00	30.67	3575.58
	12/11/01	3606.25	30.84		0.00	0.00	30.84	3575.41
	05/21/02	3606.25	31.21		0.00	0.00	31.21	3575.04
	06/08/02	3606.25	31.26		0.00	0.00	31.26	3574.99
	10/15/02	3606.25	31.52		0.00	0.00	31.52	3574.73
	01/22/03	3606.25	31.60		0.00	0.00	31.60	3574.65
	04/24/03	3606.25	31.76		0.00	0.00	31.76	3574.49
MW-21	06/08/02	3603.51	24.62		0.00	0.00	24.62	3578.89
	10/15/02	3603.51	24.86		0.00	0.00	24.86	3578.65

**Table 1**  
**ConocoPhillips**  
**East Hobbs**  
**Hobbs, New Mexico**  
**Water Level Measurements**  
*(all measurements in feet)*

Well	Date	Casing Elevation	Depth to Water	Depth to L.P.H.	L.P.H. Thickness	L.P.H. Thickness X 0.8	Adjusted Depth to Water	Groundwater Elevation
	01/22/03	3603.51	24.88		0.00	0.00	24.88	3578.63
	04/24/03	3603.51	25.01		0.00	0.00	25.01	3578.50
MW-22	06/08/02	3603.27	24.20		0.00	0.00	24.20	3579.07
	10/15/02	3603.27	24.69		0.00	0.00	24.69	3578.58
	01/22/03	3603.27	24.40		0.00	0.00	24.40	3578.87
	04/24/03	3603.27	24.67		0.00	0.00	24.67	3578.60
MW-23	06/08/02	3604.62	25.15		0.00	0.00	25.15	3579.47
	10/15/02	3604.62	25.40		0.00	0.00	25.40	3579.22
	01/22/03	3604.62	25.15		0.00	0.00	25.15	3579.47
	04/24/03	3604.62	25.48		0.00	0.00	25.48	3579.14
SVE-10	10/15/02	3605.12	25.41		0.00	0.00	25.41	3579.71
	01/22/03	3605.12	25.70		0.00	0.00	25.70	3579.42
	04/24/03	3605.12	25.84		0.00	0.00	25.84	3579.28

L.P.H. = Liquid Phase Hydrocarbon

NM = Not Measured

Table 2  
 Groundwater Analytical Data  
 ConocoPhillips  
 East Hobbs  
 Hobbs, New Mexico

Well	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	TVPH/TEPH (ug/L)
<b>MW-3</b>	01/23/03	1,440	19	30	79	5,560/13,600
<b>MW-4</b>	01/13/00	<0.5	<0.5	<0.5	<0.5	<2,000
<b>MW-4</b>	04/06/00	19	0.83	1.2	3.2	<1,000
<b>MW-4</b>	08/02/00	2	<0.5	<0.5	<2	<980
<b>MW-4</b>	11/15/00	24	0.64	0.6	<2	520/<500
<b>MW-4</b>	03/06/01	110	1.60	9.4	16.0	1,700/<550
<b>MW-4</b>	06/25/01	66	0.73	1.3	<2	830/<590
<b>MW-4</b>	09/26/01	80	0.50	3.9	5.7	550/<500
<b>MW-4</b>	12/12/01	39	1.50	<1.00	<1.00	369/<101
<b>MW-4</b>	05/21/02	78	7.90	1.5	5.7	567/<103
<b>MW-4</b>	10/16/02	45	<1.0	2.5	5.3	177/<102
<b>MW-4</b>	01/23/03	268	160	7.5	88.5	1,580/141
<b>MW-4</b>	04/25/03	589	372	16.1	114.0	2,400/159
<b>MW-5</b>	01/13/00	<0.5	<0.5	<0.5	<0.5	<2,000
<b>MW-5</b>	04/06/00	<0.5	<0.5	<0.5	<2	<1,000
<b>MW-5</b>	08/02/00	<0.5	<0.5	<0.5	<2	<990
<b>MW-5</b>	11/15/00	1.2	0.78	<0.5	<2	260/920
<b>MW-5</b>	03/06/01	8.1	7	0.65	<2	660/<540
<b>MW-5</b>	06/25/01	19	26	2.30	<2	870/<530
<b>MW-5</b>	09/26/01	85	46	2.80	18	760/<500
<b>MW-5</b>	12/12/01	164	106	7.30	50	1,420/<101
<b>MW-5</b>	05/21/02	146	119	11.10	32	1,230/<101
<b>MW-5</b>	10/16/02	273	179	<10	42	1,600/188
<b>MW-5</b>	01/23/03	1,980	1,480	68	594	10,000/548
<b>MW-5</b>	04/25/03	1,190	863	58	318	6,370/256
<b>MW-6</b>	01/13/00	3,300	2,000	240	580	<2,000
<b>MW-6</b>	04/06/00	3,900	1,100	270	540	<1,000
<b>MW-8</b>	01/13/00	<0.5	<0.5	<0.5	<0.5	<2,000
<b>MW-8</b>	04/06/00	<0.5	<0.5	<0.5	<2	<1,000
<b>MW-8</b>	08/02/00	<0.5	<0.5	<0.5	<2	<940
<b>MW-8</b>	11/15/00	<0.5	<0.5	<0.5	<2	<1,000/860
<b>MW-8</b>	03/06/01	<0.5	<0.5	<0.5	<2	<1,000/<540
<b>MW-8</b>	06/25/01	<0.5	<0.5	<0.5	<2	<100/<550
<b>MW-8</b>	09/26/01	54.0	0.6	<0.5	2.4	240/<500
<b>MW-8</b>	12/12/01	593.0	18.0	8.5	48.0	1,560/107
<b>MW-8</b>	05/21/02	912.0	56.9	50.0	91.7	2,900/<101
<b>MW-8</b>	10/16/02	NA	NA	NA	NA	NA/269
<b>MW-8</b>	01/22/03	2,520	406	252	398	10500/1730
<b>MW-10</b>	01/13/00	4,100	490	440	720	<2,000
<b>MW-10</b>	04/06/00	400	53	66	98	<1,000
<b>MW-10</b>	08/02/00	220	12	27	55	<1100

Table 2  
 Groundwater Analytical Data  
 ConocoPhillips  
 East Hobbs  
 Hobbs, New Mexico

Well	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	TVPH/TEPH (ug/L)
<b>MW-11</b>	04/06/00	4,100	2,400	290	420	1,600
<b>MW-11</b>	08/02/00	3,900	2,100	260	510	2,500
<b>MW-11</b>	11/15/00	4,800	2,500	220	350	30,000/<530
<b>MW-11</b>	03/06/01	5,300	3,400	340	580	41,000/590
<b>MW-11</b>	06/25/01	5,100	3,700	340	<40	49,000/870
<b>MW-12</b>	04/06/00	2,000	200	110	200	<1,200
<b>MW-12</b>	08/02/00	2,900	22	97	160	<970
<b>MW-12</b>	11/15/00	4,100	87	170	220	21,000/1,400
<b>MW-12</b>	03/06/01	4,300	120	210	290	24,000/<560
<b>MW-12</b>	06/25/01	4,100	120	220	<40	30,000/1,100
<b>MW-12</b>	09/26/01	3,300	120	150	200	19,000/850
<b>MW-12</b>	12/12/01	3,520	290	258	376	18,500/285
<b>MW-12</b>	05/21/02	4,040	265	195	284	16,400/104
<b>MW-12</b>	10/16/02	NA	NA	NA	NA	NA/351
<b>MW-12</b>	01/23/03	3,610	346	261	437	20,100/442
<b>MW-12</b>	04/25/03	3,510	202	78	437	13,200/594
<b>MW-13</b>	6/2/2000	<0.5	<0.5	<0.5	<2	<1000
<b>MW-13</b>	8/2/2000	<0.5	<0.5	<0.5	<2	<990
<b>MW-13</b>	11/15/2000	<0.5	<0.5	<0.5	<2	<100/1,100
<b>MW-13</b>	3/6/2001	<0.5	<0.5	<0.5	<2	<100/500
<b>MW-13</b>	6/25/2001	480	1	<0.5	<2	2,000/<530
<b>MW-13</b>	9/26/2001	<0.5	<0.5	<0.5	<2	<100/<510
<b>MW-13</b>	12/12/2001	<1.00	<1.00	<1.00	<1.00	<100/132
<b>MW-13</b>	05/21/02	<1.00	<1.00	<1.00	<1.00	<100/<101
<b>MW-13</b>	10/16/02	NA	NA	NA	NA	NA/<102
<b>MW-13</b>	01/22/03	<1	<1	<1	<1	<100/<105
<b>MW-13</b>	04/24/03	<1	<1	<1	<1	<100/<105
<b>MW-14</b>	6/2/2000	370	5.3	1.7	11	<1000
<b>MW-14</b>	8/2/2000	760	1.9	2.9	13	<1000
<b>MW-14</b>	11/15/2000	840	0.9	<0.5	11	2,600/1,500
<b>MW-14</b>	3/6/2001	730	<2.5	<2.5	11	2,800/<560
<b>MW-14</b>	6/25/2001	340	0.82	<0.5	<2	1,400/NS
<b>MW-14</b>	9/26/2001	370	<1.0	<1.0	<4.0	960/<500
<b>MW-14</b>	12/12/2001	393	<10	<10	<10	890 /148
<b>MW-14</b>	05/21/02	42.1	<1.00	<1.00	<1.00	<100/<101
<b>MW-14</b>	10/16/02	228	<1.00	<1.00	<1.00	629 /206
<b>MW-14</b>	01/23/03	130	<1.00	<1.00	<1.00	375/108
<b>MW-14</b>	04/25/03	24.9	<1.00	<1.00	<1.00	100/104
<b>MW-15</b>	06/02/00	830	770	130	170	2,100
<b>MW-15</b>	08/02/00	330	250	42	52	2,800
<b>MW-15</b>	11/15/00	2,000	2,000	470	650	29,000/3,000

Table 2  
 Groundwater Analytical Data  
 ConocoPhillips  
 East Hobbs  
 Hobbs, New Mexico

Well	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	TVPH/TEPH (ug/L)
<b>MW-16</b>	06/02/00	0.94	0.96	21	6.9	<1000
<b>MW-16</b>	08/02/00	<0.5	<0.5	13	<2	<1000
<b>MW-16</b>	11/15/00	<0.5	1.10	4	<2	200/<500
<b>MW-16</b>	03/06/01	<0.5	1.20	7.6	<2	310/<560
<b>MW-16</b>	06/25/01	<0.5	<0.5	<0.5	<2	300/<560
<b>MW-16</b>	09/26/01	<0.5	1.20	<0.5	<2	190/<500
<b>MW-16</b>	12/12/01	1.80	<1.00	<1.00	<1.00	132 /248
<b>MW-16</b>	05/21/02	1.00	<1.00	<1.00	<1.00	<100/<101
<b>MW-16</b>	10/15/02	NA	NA	NA	NA	NA
<b>MW-16</b>	01/22/03	1.00	<1	<1	<1	<100/124
<b>MW-16</b>	04/24/03	<1	<1	<1	<1	<100/124
<b>MW-17</b>	06/02/00	<0.5	<0.5	<0.5	<2	<1000
<b>MW-17</b>	08/02/00	6	<0.5	9.3	<2	<970
<b>MW-17</b>	11/15/00	3.9	1.9	5.4	2.1	650/5,600
<b>MW-17</b>	03/06/01	6.8	1.9	39.0	14	980/<540
<b>MW-17</b>	06/25/01	1.3	<0.5	0.7	<2	440/NS
<b>MW-17</b>	09/26/01	1.4	2.2	1.2	<2	490/<500
<b>MW-17</b>	12/12/01	8	<1.00	50.4	40.1	1,120/1,820
<b>MW-17</b>	05/21/02	4	<1.00	1.8	<1.00	423 /834
<b>MW-17</b>	10/15/02	<1.00	<1.00	<1.00	<1.00	105/NA
<b>MW-17</b>	01/22/03	<1	<1	<1	<1	<100/124
<b>MW-17</b>	04/24/03	<1	<1	<1	<1	<100/124
<b>MW-18</b>	06/02/00	600	0.66	120	45	<1000
<b>MW-18</b>	08/02/00	780	<0.5	150	46	<990
<b>MW-18</b>	11/15/00	850	0.94	93	50	4,600/1,100
<b>MW-18</b>	03/06/01	840	<2.5	160	65	8,700/<550
<b>MW-18</b>	06/25/01	660	2.60	150	<2	1,000/590
<b>MW-18</b>	09/26/01	500	<5.0	93	39	4,400/<510
<b>MW-18</b>	12/12/01	529	<10	127	54	4,050/261
<b>MW-18</b>	05/21/02	483	<1.00	105	52	4,480/<101
<b>MW-18</b>	10/16/02	NA	NA	NA	NA	NA/174
<b>MW-18</b>	01/23/03	121	<1	11	16.2	1,860/<100
<b>MW-18</b>	04/25/03	591	<1	135	61.1	4,080/183
<b>MW-19</b>	06/02/00	<0.5	<0.5	<0.5	<2	<1000
<b>MW-19</b>	08/02/00	1.8	6.3	<0.5	11.2	<1000
<b>MW-19</b>	11/15/00	<0.5	<0.5	<0.5	<2	<100/<510
<b>MW-19</b>	03/06/01	<0.5	<0.5	<0.5	<2	<100/<550
<b>MW-19</b>	06/25/01	<0.5	0.58	<0.5	<2	<100/<560
<b>MW-19</b>	09/26/01	<0.5	<0.5	<0.5	<2	<100/<540
<b>MW-19</b>	12/12/01	<1.00	<1.00	<1.00	<1.00	<100/<101
<b>MW-19</b>	05/21/02	<1.00	<1.00	<1.00	<1.00	106/<101
<b>MW-19</b>	10/15/02	<1.00	<1.00	<1.00	<1.00	<100/<101
<b>MW-19</b>	01/22/03	<1.00	<1.00	<1.00	<1.00	<100/<100
<b>MW-19</b>	04/24/03	<1.00	<1.00	<1.00	<1.00	<100/<100

Table 2  
 Groundwater Analytical Data  
 ConocoPhillips  
 East Hobbs  
 Hobbs, New Mexico

Well	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	TVPH/TEPH (ug/L)
<b>MW-20</b>	06/02/00	<0.5	<0.5	<0.5	<2	<1000
<b>MW-20</b>	08/02/00	4	3.8	4.1	12.7	<1000
<b>MW-20</b>	11/15/00	<0.5	<0.5	<0.5	<2	<100/1,200
<b>MW-20</b>	03/06/01	<0.5	<0.5	<0.5	<2	<100/550
<b>MW-20</b>	06/25/01	<0.5	0.7	<0.5	<2	<100/<560
<b>MW-20</b>	09/26/01	<0.5	<0.5	<0.5	<2	<100/<520
<b>MW-20</b>	12/12/01	<1.00	<1.00	<1.00	<1.00	<100/<101
<b>MW-20</b>	05/21/02	<1.00	<1.00	<1.00	<1.00	<100/<101
<b>MW-20</b>	10/15/02	<1.00	<1.00	<1.00	<1.00	<100/NA
<b>MW-20</b>	01/22/03	<1.00	<1.00	<1.00	<1.00	<100/<100
<b>MW-20</b>	04/24/03	<1.00	<1.00	<1.00	<1.00	<100/<100
<b>MW-21</b>	06/13/02	<1.00	<1.00	<1.00	<1.00	<100/<100
<b>MW-21</b>	10/15/02	NA	NA	NA	NA	NA/<105
<b>MW-21</b>	01/22/03	<1	<1	<1	<1	<100/<116
<b>MW-21</b>	04/24/03	<1	<1	<1	<1	<100/<116
<b>MW-22</b>	06/13/02	NS	NS	NS	NS	NS/<100
<b>MW-22</b>	06/20/02	<1.0	<1.0	<1.0	<1.0	<100/<101
<b>MW-22</b>	10/15/02	<1.0	<1.0	<1.0	<1.0	<100/<102
<b>MW-22</b>	01/22/03	<1.0	<1.0	<1.0	<1.0	<100/<101
<b>MW-22</b>	04/24/03	<1.0	<1.0	<1.0	<1.0	<100/<101
<b>MW-23</b>	06/13/02	<1.00	<1.00	<1.00	<1.00	<100/<100
<b>MW-23</b>	10/15/02	<1.00	<1.00	<1.00	<1.00	<100/353
<b>MW-23</b>	01/22/03	<1.00	<1.00	<1.00	<1.00	<100/<101
<b>MW-23</b>	04/24/03	<1.00	<1.00	<1.00	<1.00	<100/<101
<b>SVE-10</b>	01/23/03	1,120	136	188	331	8,890/961
<b>SVE-10</b>	04/25/03	367	560	69	296	5,180/1,300
<b>SP-1</b>	06/02/00	9.4	7.4	2.5	7	<1000

**Table 2**  
**Groundwater Analytical Data**  
**ConocoPhillips**  
**East Hobbs**  
**Hobbs, New Mexico**

Well	Date	Chloride (mg/L)	Total Hardness (mg/L)	Iron (ug/L)	Manganese (ug/L)
<b>MW-3</b>	01/23/03	176			
<b>MW-4</b>	01/13/00	210			
<b>MW-4</b>	04/06/00	180			
<b>MW-4</b>	08/02/00	140			
<b>MW-4</b>	11/15/00	180			
<b>MW-4</b>	03/06/01	180			
<b>MW-4</b>	06/25/01	200			
<b>MW-4</b>	09/26/01	180			
<b>MW-4</b>	12/12/01	158			
<b>MW-4</b>	05/21/02	144	569	1,330	51
<b>MW-4</b>	10/16/02	81			
<b>MW-4</b>	01/23/03	173			
<b>MW-4</b>	04/25/03	159			
<b>MW-5</b>	01/13/00	130			
<b>MW-5</b>	04/06/00	130			
<b>MW-5</b>	08/02/00	130			
<b>MW-5</b>	11/15/00	180			
<b>MW-5</b>	03/06/01	210			
<b>MW-5</b>	06/25/01	240			
<b>MW-5</b>	09/26/01	260			
<b>MW-5</b>	12/12/01	216			
<b>MW-5</b>	05/21/02	180	619	698	29
<b>MW-5</b>	10/16/02	51			
<b>MW-5</b>	01/23/03	187			
<b>MW-5</b>	04/25/03	173			
<b>MW-6</b>	01/13/00	230			
<b>MW-6</b>	04/06/00	200			
<b>MW-8</b>	01/13/00	160			
<b>MW-8</b>	04/06/00	90			
<b>MW-8</b>	08/02/00	84			
<b>MW-8</b>	11/15/00	100			
<b>MW-8</b>	03/06/01	87			
<b>MW-8</b>	06/25/01	75			
<b>MW-8</b>	09/26/01	72			
<b>MW-8</b>	12/12/01	85			
<b>MW-8</b>	05/21/02	104	546	638	76
<b>MW-8</b>	10/16/02	42.4			
<b>MW-8</b>	01/22/03	106			
<b>MW-10</b>	01/13/00	180			
<b>MW-10</b>	04/06/00	180			
<b>MW-10</b>	08/02/00	140			

**Table 2**  
**Groundwater Analytical Data**  
**ConocoPhillips**  
**East Hobbs**  
**Hobbs, New Mexico**

Well	Date	Chloride (mg/L)	Total Hardness (mg/L)	Iron (ug/L)	Manganese (ug/L)
<b>MW-11</b>	04/06/00	310			
<b>MW-11</b>	08/02/00	270			
<b>MW-11</b>	11/15/00	300			
<b>MW-11</b>	03/06/01	280			
<b>MW-11</b>	06/25/01	290			
<b>MW-12</b>	04/06/00	190			
<b>MW-12</b>	08/02/00	150			
<b>MW-12</b>	11/15/00	190			
<b>MW-12</b>	03/06/01	180			
<b>MW-12</b>	06/25/01	190			
<b>MW-12</b>	09/26/01	180			
<b>MW-12</b>	12/12/01	169			
<b>MW-12</b>	05/21/02	180	864	2,050	478
<b>MW-12</b>	10/16/02	69.5			
<b>MW-12</b>	01/23/03	180			
<b>MW-12</b>	04/25/03	179			
<b>MW-13</b>	6/2/2000	91			
<b>MW-13</b>	8/2/2000	61			
<b>MW-13</b>	11/15/2000	63			
<b>MW-13</b>	3/6/2001	66			
<b>MW-13</b>	6/25/2001	200			
<b>MW-13</b>	9/26/2001	66			
<b>MW-13</b>	12/12/2001	69.5			
<b>MW-13</b>	05/21/02	58.5	617	563	23
<b>MW-13</b>	10/16/02	71.5			
<b>MW-13</b>	01/22/03	72.6			
<b>MW-13</b>	04/24/03	67.0			
<b>MW-14</b>	6/2/2000	180			
<b>MW-14</b>	8/2/2000	170			
<b>MW-14</b>	11/15/2000	190			
<b>MW-14</b>	3/6/2001	190			
<b>MW-14</b>	6/25/2001	200			
<b>MW-14</b>	9/26/2001	200			
<b>MW-14</b>	12/12/2001	197			
<b>MW-14</b>	05/21/02	162	745	3,290	342
<b>MW-14</b>	10/16/02	67			
<b>MW-14</b>	01/23/03	228			
<b>MW-14</b>	04/25/03	194			
<b>MW-15</b>	06/02/00	170			
<b>MW-15</b>	08/02/00	160			
<b>MW-15</b>	11/15/00	170			

Table 2  
 Groundwater Analytical Data  
 ConocoPhillips  
 East Hobbs  
 Hobbs, New Mexico

Well	Date	Chloride (mg/L)	Total Hardness (mg/L)	Iron (ug/L)	Mangnese (ug/L)
<b>MW-16</b>	06/02/00	220			
<b>MW-16</b>	08/02/00	210			
<b>MW-16</b>	11/15/00	210			
<b>MW-16</b>	03/06/01	240			
<b>MW-16</b>	06/25/01	240			
<b>MW-16</b>	09/26/01	67			
<b>MW-16</b>	12/12/01	172			
<b>MW-16</b>	05/21/02	159	540	2,940	83
<b>MW-16</b>	10/15/02	194			
<b>MW-16</b>	01/22/03	206			
<b>MW-16</b>	04/24/03	176			
<b>MW-17</b>	06/02/00	140			
<b>MW-17</b>	08/02/00	110			
<b>MW-17</b>	11/15/00	130			
<b>MW-17</b>	03/06/01	130			
<b>MW-17</b>	06/25/01	140			
<b>MW-17</b>	09/26/01	130			
<b>MW-17</b>	12/12/01	147			
<b>MW-17</b>	05/21/02	132	575	1,040	202
<b>MW-17</b>	10/15/02	149			
<b>MW-17</b>	01/22/03	76.7			
<b>MW-17</b>	04/24/03	84.3			
<b>MW-18</b>	06/02/00	190			
<b>MW-18</b>	08/02/00	160			
<b>MW-18</b>	11/15/00	210			
<b>MW-18</b>	03/06/01	190			
<b>MW-18</b>	06/25/01	210			
<b>MW-18</b>	09/26/01	190			
<b>MW-18</b>	12/12/01	182			
<b>MW-18</b>	05/21/02	184	1,070	2,930	374
<b>MW-18</b>	10/16/02	102			
<b>MW-18</b>	01/23/03	218			
<b>MW-18</b>	04/25/03	195			
<b>MW-19</b>	06/02/00	140			
<b>MW-19</b>	08/02/00	110			
<b>MW-19</b>	11/15/00	130			
<b>MW-19</b>	03/06/01	130			
<b>MW-19</b>	06/25/01	150			
<b>MW-19</b>	09/26/01	140			
<b>MW-19</b>	12/12/01	144			
<b>MW-19</b>	05/21/02	150	824	2,750	40
<b>MW-19</b>	10/15/02	180			
<b>MW-19</b>	01/22/03	177			
<b>MW-19</b>	04/24/03	161			

Table 2  
 Groundwater Analytical Data  
 ConocoPhillips  
 East Hobbs  
 Hobbs, New Mexico

Well	Date	Chloride (mg/L)	Total Hardness (mg/L)	Iron (ug/L)	Mangnese (ug/L)
<b>MW-20</b>	06/02/00	83			
<b>MW-20</b>	08/02/00	66			
<b>MW-20</b>	11/15/00	66			
<b>MW-20</b>	03/06/01	62			
<b>MW-20</b>	06/25/01	71			
<b>MW-20</b>	09/26/01	210			
<b>MW-20</b>	12/12/01	69			
<b>MW-20</b>	05/21/02	72	638	1,840	26
<b>MW-20</b>	10/15/02	85			
<b>MW-20</b>	01/22/03	83.6			
<b>MW-20</b>	04/24/03	77.0			
<b>MW-21</b>	06/13/02	832			
<b>MW-21</b>	10/15/02	857			
<b>MW-21</b>	01/22/03	806			
<b>MW-21</b>	04/24/03	414			
<b>MW-22</b>	06/13/02	76.5			
<b>MW-22</b>	10/15/02	86.5			
<b>MW-22</b>	01/22/03	85.7			
<b>MW-22</b>	04/24/03	77.0			
<b>MW-23</b>	06/13/02	63			
<b>MW-23</b>	10/15/02	36.2			
<b>MW-23</b>	01/22/03	58.5			
<b>MW-23</b>	04/24/03	130			
<b>SVE-10</b>	01/23/03	282			
<b>SVE-10</b>	04/25/03	241			
<b>SP-1</b>	06/02/00	180			

Table 2  
 Groundwater Analytical Data  
 ConocoPhillips  
 East Hobbs  
 Hobbs, New Mexico

Well	Date	Chloride (mg/L)	Total Hardness (mg/L)	Iron (ug/L)	Mangnese (ug/L)
<b>MW-3</b>	01/23/03	176			
<b>MW-4</b>	01/13/00	210			
<b>MW-4</b>	04/06/00	180			
<b>MW-4</b>	08/02/00	140			
<b>MW-4</b>	11/15/00	180			
<b>MW-4</b>	03/06/01	180			
<b>MW-4</b>	06/25/01	200			
<b>MW-4</b>	09/26/01	180			
<b>MW-4</b>	12/12/01	158			
<b>MW-4</b>	05/21/02	144	569	1,330	51
<b>MW-4</b>	10/16/02	81			
<b>MW-4</b>	01/23/03	173			
<b>MW-4</b>	04/25/03	159			
<b>MW-5</b>	01/13/00	130			
<b>MW-5</b>	04/06/00	130			
<b>MW-5</b>	08/02/00	130			
<b>MW-5</b>	11/15/00	180			
<b>MW-5</b>	03/06/01	210			
<b>MW-5</b>	06/25/01	240			
<b>MW-5</b>	09/26/01	260			
<b>MW-5</b>	12/12/01	216			
<b>MW-5</b>	05/21/02	180	619	698	29
<b>MW-5</b>	10/16/02	51			
<b>MW-5</b>	01/23/03	187			
<b>MW-5</b>	04/25/03	173			
<b>MW-6</b>	01/13/00	230			
<b>MW-6</b>	04/06/00	200			
<b>MW-8</b>	01/13/00	160			
<b>MW-8</b>	04/06/00	90			
<b>MW-8</b>	08/02/00	84			
<b>MW-8</b>	11/15/00	100			
<b>MW-8</b>	03/06/01	87			
<b>MW-8</b>	06/25/01	75			
<b>MW-8</b>	09/26/01	72			
<b>MW-8</b>	12/12/01	85			
<b>MW-8</b>	05/21/02	104	546	638	76
<b>MW-8</b>	10/16/02	42.4			
<b>MW-8</b>	01/22/03	106			
<b>MW-10</b>	01/13/00	180			
<b>MW-10</b>	04/06/00	180			
<b>MW-10</b>	08/02/00	140			

Table 2  
 Groundwater Analytical Data  
 ConocoPhillips  
 East Hobbs  
 Hobbs, New Mexico

Well	Date	Chloride (mg/L)	Total Hardness (mg/L)	Iron (ug/L)	Mangnese (ug/L)
<b>MW-11</b>	04/06/00	310			
<b>MW-11</b>	08/02/00	270			
<b>MW-11</b>	11/15/00	300			
<b>MW-11</b>	03/06/01	280			
<b>MW-11</b>	06/25/01	290			
<b>MW-12</b>	04/06/00	190			
<b>MW-12</b>	08/02/00	150			
<b>MW-12</b>	11/15/00	190			
<b>MW-12</b>	03/06/01	180			
<b>MW-12</b>	06/25/01	190			
<b>MW-12</b>	09/26/01	180			
<b>MW-12</b>	12/12/01	169			
<b>MW-12</b>	05/21/02	180	864	2,050	478
<b>MW-12</b>	10/16/02	69.5			
<b>MW-12</b>	01/23/03	180			
<b>MW-12</b>	04/25/03	179			
<b>MW-13</b>	6/2/2000	91			
<b>MW-13</b>	8/2/2000	61			
<b>MW-13</b>	11/15/2000	63			
<b>MW-13</b>	3/6/2001	66			
<b>MW-13</b>	6/25/2001	200			
<b>MW-13</b>	9/26/2001	66			
<b>MW-13</b>	12/12/2001	69.5			
<b>MW-13</b>	05/21/02	58.5	617	563	23
<b>MW-13</b>	10/16/02	71.5			
<b>MW-13</b>	01/22/03	72.6			
<b>MW-13</b>	04/24/03	67.0			
<b>MW-14</b>	6/2/2000	180			
<b>MW-14</b>	8/2/2000	170			
<b>MW-14</b>	11/15/2000	190			
<b>MW-14</b>	3/6/2001	190			
<b>MW-14</b>	6/25/2001	200			
<b>MW-14</b>	9/26/2001	200			
<b>MW-14</b>	12/12/2001	197			
<b>MW-14</b>	05/21/02	162	745	3,290	342
<b>MW-14</b>	10/16/02	67			
<b>MW-14</b>	01/23/03	228			
<b>MW-14</b>	04/25/03	194			
<b>MW-15</b>	06/02/00	170			
<b>MW-15</b>	08/02/00	160			
<b>MW-15</b>	11/15/00	170			

**Table 2**  
**Groundwater Analytical Data**  
**ConocoPhillips**  
**East Hobbs**  
**Hobbs, New Mexico**

Well	Date	Chloride (mg/L)	Total Hardness (mg/L)	Iron (ug/L)	Mangnese (ug/L)
<b>MW-16</b>	06/02/00	220			
<b>MW-16</b>	08/02/00	210			
<b>MW-16</b>	11/15/00	210			
<b>MW-16</b>	03/06/01	240			
<b>MW-16</b>	06/25/01	240			
<b>MW-16</b>	09/26/01	67			
<b>MW-16</b>	12/12/01	172			
<b>MW-16</b>	05/21/02	159	540	2,940	83
<b>MW-16</b>	10/15/02	194			
<b>MW-16</b>	01/22/03	206			
<b>MW-16</b>	04/24/03	176			
<b>MW-17</b>	06/02/00	140			
<b>MW-17</b>	08/02/00	110			
<b>MW-17</b>	11/15/00	130			
<b>MW-17</b>	03/06/01	130			
<b>MW-17</b>	06/25/01	140			
<b>MW-17</b>	09/26/01	130			
<b>MW-17</b>	12/12/01	147			
<b>MW-17</b>	05/21/02	132	575	1,040	202
<b>MW-17</b>	10/15/02	149			
<b>MW-17</b>	01/22/03	76.7			
<b>MW-17</b>	04/24/03	84.3			
<b>MW-18</b>	06/02/00	190			
<b>MW-18</b>	08/02/00	160			
<b>MW-18</b>	11/15/00	210			
<b>MW-18</b>	03/06/01	190			
<b>MW-18</b>	06/25/01	210			
<b>MW-18</b>	09/26/01	190			
<b>MW-18</b>	12/12/01	182			
<b>MW-18</b>	05/21/02	184	1,070	2,930	374
<b>MW-18</b>	10/16/02	102			
<b>MW-18</b>	01/23/03	218			
<b>MW-18</b>	04/25/03	195			
<b>MW-19</b>	06/02/00	140			
<b>MW-19</b>	08/02/00	110			
<b>MW-19</b>	11/15/00	130			
<b>MW-19</b>	03/06/01	130			
<b>MW-19</b>	06/25/01	150			
<b>MW-19</b>	09/26/01	140			
<b>MW-19</b>	12/12/01	144			
<b>MW-19</b>	05/21/02	150	824	2,750	40
<b>MW-19</b>	10/15/02	180			
<b>MW-19</b>	01/22/03	177			
<b>MW-19</b>	04/24/03	161			

**Table 2**  
**Groundwater Analytical Data**  
**ConocoPhillips**  
**East Hobbs**  
**Hobbs, New Mexico**

Well	Date	Chloride (mg/L)	Total Hardness (mg/L)	Iron (ug/L)	Mangnese (ug/L)
<b>MW-20</b>	06/02/00	83			
<b>MW-20</b>	08/02/00	66			
<b>MW-20</b>	11/15/00	66			
<b>MW-20</b>	03/06/01	62			
<b>MW-20</b>	06/25/01	71			
<b>MW-20</b>	09/26/01	210			
<b>MW-20</b>	12/12/01	69			
<b>MW-20</b>	05/21/02	72	638	1,840	26
<b>MW-20</b>	10/15/02	85			
<b>MW-20</b>	01/22/03	83.6			
<b>MW-20</b>	04/24/03	77.0			
<b>MW-21</b>	06/13/02	832			
<b>MW-21</b>	10/15/02	857			
<b>MW-21</b>	01/22/03	806			
<b>MW-21</b>	04/24/03	414			
<b>MW-22</b>	06/13/02	76.5			
<b>MW-22</b>	10/15/02	86.5			
<b>MW-22</b>	01/22/03	85.7			
<b>MW-22</b>	04/24/03	77.0			
<b>MW-23</b>	06/13/02	63			
<b>MW-23</b>	10/15/02	36.2			
<b>MW-23</b>	01/22/03	58.5			
<b>MW-23</b>	04/24/03	130			
<b>SVE-10</b>	01/23/03	282			
<b>SVE-10</b>	04/25/03	241			
<b>SP-1</b>	06/02/00	180			

**Table 3**  
**ConocoPhillips**  
**East Hobbs**  
**Hobbs, New Mexico**

**Soil Analytical Data**

Well	Date	Depth (ft)	PID Reading (ppm)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylenes (mg/Kg)	TPH (mg/Kg)
MW-1	04/27/99	22 - 24	264	0.071	1.202	1.014	3.487	5420
MW-1	04/27/99	35 - 36	13	<0.002	0.008	0.007	0.024	372
MW-2	04/27/99	20 - 22	>2,000	0.082	1.589	1.369	5.002	7930
MW-2	04/27/99	36 - 40	21	0.002	0.023	0.018	0.061	801
MW-3	07/15/99	18 - 20	>2,000	0.448	4.767	2.338	7.485	5790
MW-3	07/15/99	36 - 38	12	<0.002	0.002	<0.002	0.006	293
MW-4	01/11/00	14 - 16	0.8	<0.025	<0.025	<0.025	<0.025	<10
MW-4	01/11/00	24 - 26	2.8	<0.025	<0.025	<0.025	<0.025	<10
MW-5	01/11/00	14 - 16	0.8	<0.025	<0.025	<0.025	<0.025	<10
MW-5	01/11/00	24 - 26	1.6	<0.025	<0.025	<0.025	<0.025	<10
MW-6	01/11/00	14 - 16	1.7	<0.025	<0.025	<0.025	<0.025	<10
MW-6	01/11/00	24 - 26	20	<0.025	<0.025	<0.025	<0.025	12
MW-7	01/12/00	14 - 16	1.1	<0.025	<0.025	<0.025	<0.025	<10
MW-7	01/12/00	24 - 26	177	<0.025	<0.025	<0.025	<0.025	32.7
MW-8	01/11/00	14 - 16	0.8	<0.025	<0.025	<0.025	<0.025	<10
MW-8	01/11/00	24 - 26	3.3	<0.025	<0.025	<0.025	<0.025	<10
MW-10	01/12/00	14 - 16	13	<0.025	<0.025	<0.025	<0.025	<10
MW-10	01/12/00	24 - 26	39	<0.025	<0.025	<0.025	<0.025	<10
MW-11	04/06/00	22	1	<0.002	<0.002	<0.002	<0.002	<9.8
MW-11	04/06/00	24 - 26	1.4	<0.002	<0.002	<0.002	<0.002	<9.8
MW-12	04/06/00	14 - 16	0	<0.002	<0.002	<0.002	<0.002	<9.9
MW-12	04/06/00	20 - 22	1.1	<0.002	<0.002	<0.002	<0.002	<9.7
MW-13	05/31/00	20-22		<0.002	<0.002	<0.002	<0.002	<9.9
MW-14	05/31/00	20-22		<0.002	<0.002	<0.002	<0.002	<9.8
MW-15	05/31/00	5		<0.002	<0.002	<0.002	<0.002	<9.8
MW-15	05/31/00	24-26		<0.002	<0.002	<0.002	<0.002	<9.7
MW-15	05/31/00	28-30		<0.002	<0.002	<0.002	<0.002	<9.8
MW-16	05/31/00	20-22		<0.002	<0.002	<0.002	<0.002	<9.7
MW-17	06/01/00	22-24	0	<0.002	<0.002	<0.002	<0.002	<9.9
MW-18	06/01/00	22-24	0	<0.002	<0.002	<0.002	<0.002	<9.9

**Table 3**  
**ConocoPhillips**  
**East Hobbs**  
**Hobbs, New Mexico**

**Soil Analytical Data**

Well	Date	Depth (ft)	PID Reading (ppm)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylenes (mg/Kg)	TPH (mg/Kg)
MW-19	06/01/00	20-22	0	<0.002	<0.002	<0.002	<0.002	<9.8
MW-20	06/01/00	22-24	0	<0.002	<0.002	<0.002	<0.002	<9.9
MW-21	05/23/02	25-30	0	<0.01	<0.01	<0.01	<0.01	<10.1
MW-22	05/20/02	20-25	1	<0.01	<0.01	<0.01	<0.01	<9.96
MW-23	05/23/02	20-25	0	<0.01	<0.01	0.027	0.08	<10.1

Table 4

**SVF / Sparge Operation Data**  
**ConocoPhillips**  
**Hobbs, New Mexico**

Date	Time	Delta T (hours)	Temp (F)	PID (ppm)	Flow (cfm)	Monitoring Point						
						MW-13	MW-16	MW-17	(inches of water at wellhead)	MW-19	MW-20	MW-21
17-Oct	5:00 PM	0	79	458	0.01	0.01	0.01	vacuum	0.01	0.00	0.00	0.00
	6:00 PM	1	87	302	0.02	0.01	0.02	vacuum	NM	NM	0.01	NM
	7:00 PM	2	88	225	0.02	0.02	0.05	vacuum	NM	NM	0.02	NM
	10:00 PM	5	86	189	0.02	NM	0.07	vacuum	NM	NM	0.01	NM
18-Oct	7:00 AM	14	85	113	0.01	0.04	0.17	vacuum	0.01	0.14	0.08	0.01
	9:00 AM	16	86	634	875	0.00	0.00	vacuum	0.00	0.00	0.00	0.00
	11:00 AM	18	85	486	865	0.00	0.00	vacuum	0.00	0.10	0.00	0.00
	12:00 PM	19	86	492	875	0.00	0.00	vacuum	0.00	0.20	0.00	NM
	4:00 PM	23	85	512	860	NM	NM	(raining very hard)	NM	NM	NM	NM
21-Oct	7:00 AM	85	75	426	875	0.04	0.03		0.09	vacuum	0.04	0.05
21-Oct	8:00 AM	86	77	423	875	NM	NM		NM	NM	0.01	0.01
21-Oct	9:00 AM	sparging system online							NM	NM	NM	NM
21-Oct	10:00 AM	85	75	426	875	0.01	0.03	0.01	pressure	0.01	0.01	0.01
21-Oct	4:00 PM	91	88	235	875	0.00	0.03	0.02	pressure	0.01	0.01	0.02
22-Oct	9:00 AM	110	90	187	875	0.01	0.03	0.01	pressure	0.01	0.01	0.01
22-Oct	10:00 AM	111	88	192	875	NM	NM		NM	NM	NM	NM
22-Oct	1:00 PM	114	89	188	875	0.06	0.04	0.11	pressure	0.04	0.07	0.05
22-Oct	4:00 PM	117	88	167	875	0.06	0.04	0.12	pressure	NM	0.08	NM
23-Oct	9:00 AM	134	88	278	875	vacuum (sparge offline for previous 5 hours)						
23-Oct	9:00 AM	134				-0.04	-0.05	-0.11	vacuum	NM	-0.07	-0.06
23-Oct	10:00 AM	135	87	343	875	NM	NM		NM	NM	NM	NM
23-Oct	1:00 PM	138	86	454	875	NM	NM		NM	NM	NM	NM
23-Oct	4:00 PM	141	84	378	875	+0.03	+0.02	+0.08	pressure	+0.03	+0.04	+0.03
24-Oct	10:00 AM	159	78	404	875	+0.02	+0.02	-0.06	pressure/vacuum	+0.02	-0.03	+0.04
24-Oct	11:00 AM	160	79	386	870	NM	NM	NM	NM	NM	NM	NM

continued

Table 4

**SVE / Sparge Operation Data**  
**ConocoPhillips**  
**Hobbs, New Mexico**

Date	Time	Delta T (hours)	Temp (F)	PID (ppm) (cfm)	Monitoring Point (inches of water at wellhead)							
					MW-13	MW-16	MW-17	MW-19	MW-20	MW-21	MW-22	MW-23
24-Oct	1:00 PM	162	79	422	875	NM	NM	NM	NM	NM	NM	NM
24-Oct	4:00 PM	165	80	410	875	+0.03	+0.06	+0.01	pressure/vacuum	+0.02	+0.09	+0.01
25-Oct	9:00 AM	182	82	287	875	+0.02	-0.06	-0.18	pressure/vacuum	+0.01	-0.08	+0.01
25-Oct	10:00 AM	183	83	351	875	NM	NM	NM	NM	NM	NM	NM
25-Oct	2:00 PM	187	80	398	875	+0.03	+0.06	+0.01	pressure/vacuum	+0.02	+0.09	+0.01
SVE system offline from 8:00 pm Oct 26 to 11:00 am Nov 4, sparge system was online during the same period												
4-Nov	checked water knockout drum at 10:30 am - no fluid recovery, placed SVE system on line at 11:00 am											
4-Nov	11:05 AM	217	77	93	875							
4-Nov	11:15 AM	217	78	235	875	+0.07	+0.06	+0.30	pressure	+0.10	+0.15	+0.04
4-Nov	4:00 PM	222	79	589	875	-0.01	-0.02	-0.04	pressure/vacuum	-0.01	-0.02	-0.01
4-Nov	checked water knockout drum at 4:00 pm - no fluid recovery											
5-Nov	9:00 AM	239	79	907	875	+0.02	-0.02	-0.20	pressure/vacuum	+0.04	-0.08	-0.03
5-Nov	11:00 AM	241	82	612	870	NM	NM	NM	NM	NM	NM	NM
5-Nov	5:00 PM	247	87	376	875	NM	NM	NM	NM	NM	NM	NM
6-Nov	8:00 AM	262	84	345	875	NM	NM	NM	NM	NM	NM	NM
6-Nov	10:00 AM	264	88	678	860	NM	NM	NM	NM	NM	NM	NM
6-Nov	12:00 PM	266	89	280	870	NM	NM	NM	NM	NM	NM	NM
6-Nov	free product recovery system online at 8:30 am											
6-Nov	SVE wells 3, 4, 6, 7 offline to install vent lines											
6-Nov	sparge system offline at 12:00 pm											
7-Nov	8:00 AM	286	86	443	865	NM	NM	NM	NM	NM	NM	NM
7-Nov	sparge system online at 8:30 am											
7-Nov	10:00 AM	288	89	398	875	NM	NM	NM	NM	NM	NM	NM
7-Nov	12:00 PM	290	89	387	870	NM	NM	NM	NM	NM	NM	NM

continued

Table 4

**SVI / Sparge Operation Data**  
**ConocoPhillips**  
**Hobbs, New Mexico**

Date	Time	Delta T (hours)	Temp (F)	PID (ppm) (cfm)	Monitoring Point (inches of water at wellhead)							
					MW-13	MW-16	MW-17	MW-19	MW-20	MW-21	MW-22	MW-23
7-Nov	7:00 PM	297	89	489	870	NM	NM	NM	NM	NM	NM	NM
8-Nov	8:00 AM	310	86	612	865	NM	NM	NM	NM	NM	NM	NM
8-Nov	12:00 PM	314	90	333	860	+0.03	-0.03	-0.17	pressure/vacuum	+0.03	-0.09	-0.03
8-Nov	SVE wells 3, 4, 6, 7 offline for vent line silicon seal drying										+0.02	-0.02
8-Nov	4:00 PM	318	89	401	865	NM	NM	NM	NM	NM	NM	NM
8-Nov	checked water knockout drum at 4:00 pm - no fluid recovery											
15-Nov	8:50 AM	479	86	612	865							
15-Nov	SVE wells 3, 4, 6, 7 online											
15-Nov	9:00 AM	479	86	589	875	-0.01	+0.01	-0.09	pressure/vacuum	+0.01	-0.05	-0.03
15-Nov	12:00 PM	482	88	483	870	NM	NM	NM	NM	NM	NM	NM
15-Nov	1:00 PM	483	89	401	860	NM	NM	NM	NM	NM	NM	NM
15-Nov	5:00 PM	487	89	678	860	NM	NM	NM	NM	NM	NM	NM
15-Nov	checked water knockout drum at 5:00 pm - no fluid recovery (moist on bottom of knockout drum)											
22-Nov	7:00 AM	647	87	817	875	NM	NM	NM	NM	NM	NM	NM
22-Nov	12:00 PM	652	92	686	875	NM	NM	NM	NM	NM	NM	NM
22-Nov	2:00 PM	654	93	703	875	+0.01	+0.08	+0.09	pressure/vacuum	+0.01	+0.08	-0.01
22-Nov	4:00 PM	656	91	477	875	NM	NM	NM	NM	NM	NM	NM
22-Nov	6:00 PM	658	90	633	875	NM	NM	NM	NM	NM	NM	NM
22-Nov	12:00 PM	818	89	553	875	+0.01	+0.06	+0.12	pressure	+0.02	+0.09	+0.01
29-Nov	1:00 PM	819	89	423	875	NM	NM	NM	NM	NM	NM	NM
30-Nov	11:00 AM	840	87	536	860	NM	NM	NM	NM	NM	NM	NM
30-Nov	12:00 PM	841	89	549	875	+0.01	+0.02	+0.06	pressure	+0.02	+0.04	+0.01
30-Nov	1:00 PM	842	91	520	865	NM	NM	NM	NM	NM	NM	NM

Table 4

**SVI / Sparge Operation Data**  
**ConocoPhillips**  
**Hobbs, New Mexico**

Date	Time	Delta T (hours)	Temp (F)	PID (ppm) (cfm)	Monitoring Point (inches of water at wellhead)							
					MW-13	MW-16	MW-17	MW-19	MW-20	MW-21	MW-22	MW-23
9-Dec	3:00 PM	1060	NM	NM	+0.02	+0.02	+0.11	pressure	+0.07	+0.02	+0.03	+0.02
9-Dec	4:00 PM	1061	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
16-Dec	7:00 AM	1220	72	432	870	NM	NM	pressure	NM	NM	NM	NM
16-Dec	5:00 PM	1230	76	389	870	ND	+0.01	+0.01	+0.01	ND	ND	ND
17-Dec	7:00 AM	1244	78	444	875	NM	NM	NM	NM	NM	NM	NM
18-Dec	8:00 AM	1269	77	320	875	NM	NM	NM	NM	NM	NM	NM
19-Dec	4:00 PM	1301	76	464	875	ND	+0.01	+0.01	pressure/vacuum	-0.01	+0.06	+0.03
20-Dec	5:00 AM	1313	71	388	875	NM	NM	NM	NM	NM	NM	NM
20-Dec	6:00 AM	1314	71	373	875	NM	NM	NM	NM	NM	NM	NM
20-Dec	1:00 PM	1321	74	458	875	NM	NM	NM	NM	NM	NM	NM
27-Dec	1:00 PM	1489	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
14-Jan	6:55 AM	system offline due to unknown reason, placed system on line at approximately 6:55 am					NM	NM	NM	NM	NM	NM
14-Jan	7:30 AM	1854	64	487	875	NM	NM	pressure/vacuum	-0.01	-0.03	-0.01	+0.01
14-Jan	1:00 PM	1859	71	274	855	ND	+0.01	-0.06	NM	NM	NM	NM
15-Jan	8:00 AM	1878	77	334	870	NM	NM	NM	NM	NM	NM	NM
16-Jan	12:30 PM	system off due to a faulty high water separator alarm, no water in water knockout drum, placed system on line					NM	NM	NM	NM	NM	NM
16-Jan	1:00 PM	1902	73	408	875	NM	NM	NM	NM	NM	NM	NM
22-Jan	9:00 AM	2043	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
23-Jan	9:00 AM	2067	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
7-Feb	9:00 AM	2427	system offline due to a faulty high water separator alarm					NM	NM	NM	NM	NM
8-Feb	10:00 AM	2427	system off due to a faulty high water separator alarm, approximately 1/2 inch water in water knockout drum					NM	NM	NM	NM	NM
8-Feb	10:00 AM	2427	NA	NA	NA	sparge wells #1, #2, #3, #4, #5, #7, #8, #9, #12 offline						

continued

Table 4

**SVF / Sparge Operation Data**  
**ConocoPhillips**  
**Hobbs, New Mexico**

Date	Time	Delta T	Temp (hours)	PID (F)	Flow (ppm) (cfm)	Monitoring Point (inches of water at wellhead)						
						MW-13	MW-16	MW-17	MW-19	MW-20	MW-21	MW-22
8-Feb	10:00 AM	2427	NA	NA	NA	+0.07	+0.13	+0.26	pressure	+0.07	+0.20	+0.11
8-Feb	1:00 PM	2427	63	267	875	SVE system on line						
8-Feb	3:00 PM	2429	72	624	865	+0.03	+0.06	+0.11	pressure	+0.04	+0.02	+0.04
13-Feb	10:00 AM	2548				SVE system on line for 2 hours, had not yet reached system equilibrium						
14-Feb	10:00 AM	2548	system off due to a faulty high water separator alarm, no water in water knockout separator tank			SVE system offline on Feb 13 at 10:00 am (for approximately 24 hours)						
14-Feb	10:00 AM	2548	NA	NA	NA	sparge wells #1, #2, #3, #4, #5, #6, #7, #8, #9, #12, #14 offline						
14-Feb	10:00 AM	2548	NA	NA	NA	+0.10	+0.05	+0.10	pressure	+0.08	+0.05	+0.11
14-Feb	12:00 PM	2550	NM	127	NM	SVE system on line at 11:50 am						
14-Feb	3:00 PM	2553	NM	223	NM	+0.08	+0.04	+0.09	pressure	+0.05	+0.05	+0.06
14-Feb						SVE system on line for 3 hours, had not yet reached system equilibrium						
15-Feb	10:00 AM	2572	NM	204	NM	-0.01	-0.02	-0.05	pressure/vacuum	-0.01	-0.02	+0.02
24-Feb	8:00 AM	2786	51	327	875	-0.02	-0.02	-0.06	pressure/vacuum	-0.01	-0.04	+0.02
24-Feb	9:00 AM	2787	52	334	875	NM	NM	NM		NM	NM	NM
24-Feb	6:00 PM	2793	52	345	875	NM	NM	NM		NM	NM	NM
25-Feb	8:00 AM	2809	51	303	875	+0.09	ND	+0.10	pressure	+0.08	+0.04	+0.10
25-Feb	11:00 AM	2812	62	309	870	NM	NM	NM		NM	NM	NM
25-Feb	4:00 PM	2817	69	327	875	NM	NM	NM		NM	NM	NM
26-Feb	8:00 AM	2834	63	333	875	NM	NM	NM		NM	NM	NM
26-Feb	10:00 AM	2836	67	281	870	NM	+0.01	+0.06	pressure	NM	+0.05	+0.01
26-Feb	6:00 PM	2844	72	354	875	NM	NM	NM		NM	NM	NM

continued

**Table 4**  
**SVE / Sparge Operation Data**  
**ConocoPhillips**  
**Hobbs, New Mexico**

Date	Time	Delta T (hours)	Temp (F)	PID (ppm)	Flow (cfm)	Monitoring Point (inches of water at wellhead)					
						MW-13	MW-16	MW-17	MW-19	MW-20	MW-21
27-Feb	8:00 AM	2858	61	345	875	NM	NM	NM	NM	NM	NM
27-Feb	10:00 AM	2860	64	320	875	NM	NM	NM	NM	NM	NM
27-Feb	5:00 PM	2867	71	289	875	NM	NM	NM	NM	NM	NM
28-Feb	8:00 AM	2882	69	321	875	NM	NM	NM	NM	NM	NM
28-Feb	10:00 AM	2862	72	342	875	NM	NM	NM	NM	NM	NM
28-Feb	12:00 PM	2864	72	336	875	NM	NM	NM	NM	NM	NM
13-Mar	11:00 AM	3198	89	223	875	NM	NM	NM	NM	NM	NM
14-Mar	11:00 AM	3222	90	217	875	NM	NM	NM	NM	NM	NM
21-Mar	12:00 PM					system offline due to a faulty high water separator and high tank alarm					
28-Mar	11:00 AM	3391	NM	NM	NM	placed system online					
29-Mar	11:00 AM	3415	NM	NM	NM	NM	NM	NM	NM	NM	NM
7-Apr	11:00 AM	3623	92	234	875	+0.02	+0.01	+0.05	pressure/vacuum		
8-Apr	12:00 PM	3648	89	217	875	NM	NM	NM	NM	NM	NM
8-Apr	5:00 PM	3653	89	173	875	NM	NM	NM	NM	NM	NM
9-Apr	12:00 PM	3672	92	188	875	NM	NM	NM	NM	NM	NM
10-Apr	1:00 PM	3697	93	155	875	NM	NM	NM	NM	NM	NM
11-Apr	1:00 PM	3721	106	123	875	NM	NM	NM	NM	NM	NM
11-Apr	4:45 PM	3724	103	159	875	+0.02	+0.01	-0.10	pressure/vacuum	+0.01	+0.02
15-Apr	4:45 PM	3819				system offline due to faulty high water separator, possible power surge due to 90 hr mile winds					
18-Apr	3:00 PM	3819	NM	NM	NM	placed system online					
21-Apr	3:00 PM	3891	NM	NM	NM	system running					
25-Apr	3:00 PM	3987	NM	NM	NM	system running					

**TABLE 4**  
**SVE System VOC Removal/Emissions Calculations**  
 ConocoPhillips  
 East Hobbs Junction  
 New Mexico

Date	Total Time (days)	Effluent Concentration (ppm)	Flow Rate (SCFM)	"SnapShot" Discharge (lbs/day)	Average Discharge for Period (lbs/day)	Incremental Discharge (lbs)	Cumulative Discharge (lbs)	Incremental Time (Days)
10/17/2002	0	246	875	62.71	62.71	62.71	62.71	0
10/18/2002	1	447	870	113.30	87.82	87.82	150.53	1
10/21/2002	4	377	875	96.10	105.03	315.08	465.61	3
10/22/2002	5	183	875	46.65	71.38	71.38	536.98	1
10/23/2002	6	363	875	92.53	69.59	69.59	606.58	1
10/24/2002	7	405	875	103.24	97.89	97.89	704.46	1
10/25/2002	8	345	875	87.95	95.59	95.59	800.06	1
11/4/2002	18	412	875	105.03	96.49	964.86	1764.91	10
11/5/2002	19	631	875	160.85	132.94	132.94	1897.85	1
11/6/2002	20	434	870	110.00	134.97	134.97	2032.82	1
11/7/2002	21	429	875	109.36	110.00	110.00	2142.82	1
11/8/2002	22	336	865	84.67	96.39	96.39	2239.21	1
11/15/2002	29	552	865	139.11	111.89	783.22	3022.43	7
11/22/2002	36	663	875	169.01	154.86	1084.03	4106.46	7
11/29/2002	43	488	875	124.40	146.70	1026.93	5133.39	7
11/30/2002	44	534	870	135.35	129.52	129.52	5262.90	1
12/16/2002	60	389	870	98.60	116.97	1871.54	7134.44	16
12/17/2002	61	444	875	113.18	106.17	106.17	7240.62	1
12/18/2002	62	320	875	81.57	97.38	97.38	7337.99	1
12/19/2002	63	464	875	118.28	99.93	99.93	7437.92	1
12/20/2002	64	373	875	95.08	106.68	106.68	7544.60	1
1/14/2003	89	380	865	95.76	94.88	2371.97	9916.58	25
1/15/2003	90	334	870	84.66	90.48	90.48	10007.06	1
1/16/2003	91	408	875	104.01	94.57	94.57	10101.63	1
2/8/2003	114	445	870	112.79	108.10	2486.31	12587.94	23
2/14/2003	120	175	875	44.61	79.02	474.14	13062.08	6
2/24/2003	130	335	875	85.40	65.00	650.03	13712.12	10
2/25/2003	131	313	870	79.33	82.12	82.12	13794.24	1
2/26/2003	132	322	875	82.08	80.94	80.94	13875.17	1
2/27/2003	133	318	875	81.06	81.57	81.57	13956.75	1
2/28/2003	134	339	875	86.42	83.74	83.74	14040.49	1
3/13/2003	147	223	875	56.85	71.63	931.21	14971.69	13
3/14/2003	148	217	875	55.32	56.08	56.08	15027.78	1
4/7/2003	172	234	875	59.65	57.48	1379.60	16407.38	24
4/8/2003	173	195	875	49.71	54.68	54.68	16462.06	1
4/9/2003	174	188	875	47.92	48.82	48.82	16510.87	1
4/10/2003	175	155	875	39.51	43.72	43.72	16554.59	1
4/11/2003	176	141	875	35.94	37.73	37.73	16592.32	1

Estimated average pounds per day removed: 77.53

Estimated total pounds VOCs removed: 16592.32

Notes and Calculations:

VOC Discharge (lbs/day) = ((Co (ppm)\*(78 g/mole)/24.05)\*(1 g/1000 mg)\*(1 m<sup>3</sup>/35.31 cf)\*(1 lb/454 g)\*(Q (scfm)\*1440 min/day)

Where: Co = Average Effluent VOC concentration (ppm) from previous time period

Q = flow rate of effluent air (scfm)

24.05 = gas law constant

## Appendix C

# Geologic/Lithologic and Well Completion Logs

*Higgins and Associates, I.I.C.*





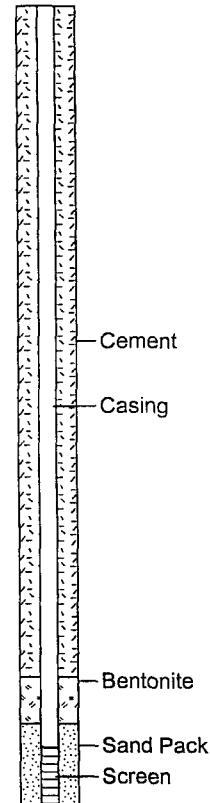
Phillips Pipe Line  
East Hobbs  
Hobbs, New Mexico

## DRILLING LOG SP-2

(Page 1 of 1)

Date Started	: 5/23/02	Drilling Company	: Scarborough Drilling
Date Completed	: 5/23/02	Northing Coord.	:
Hole Diameter	: 4.25 inches	Easting Coord.	:
Drilling Method	: Air Rotary	Survey By	:
Sampling Method	: Grab	Logged By	: Z. Ceplecha

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	PID (ppm)	Sample ID #	Well: SP-2 Elev.:
0				Silty Gravelly SAND some Caliche, Grey, Fine to Coarse grained, subangular, loose, dry.	1	Grab	1.8		
5				Pebby SAND, Tan, Well Sorted, Fine to Medium Grained, Subrounded, Loose, Damp.	2	Grab	12.0		
10				Silty Pebby SAND, Same as Above.	3	Grab	9.9		
15		SM		Silty Pebby SAND, Same as Above.	4	Grab	35.3		
20				Silty Pebby SAND, Same as Above.	5	Grab	1025		
25				Pebby SAND, Same as Above, Brown, Wet.	6	Grab	75		
30									
35									
40									
45									
50									
55									





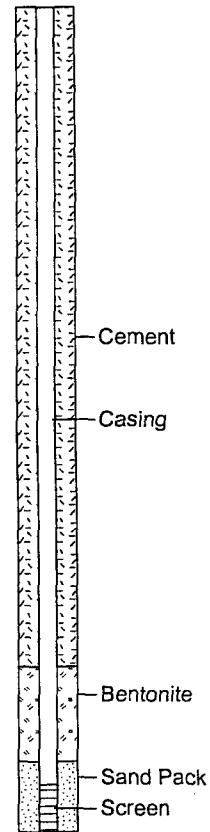
Phillips Pipe Line  
East Hobbs  
Hobbs, New Mexico

## DRILLING LOG SP-3

(Page 1 of 1)

Date Started	: 5/23/02	Drilling Company	: Scarborough Drilling
Date Completed	: 5/23/02	Northing Coord.	:
Hole Diameter	: 4.25 inches	Easting Coord.	:
Drilling Method	: Air Rotary	Survey By	:
Sampling Method	: Grab	Logged By	: Z. Ceplecha

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	PID (ppm)	Sample ID #	Well: SP-3 Elev.:
0				SAND and Caliche, White/Grey, dense, dry.	1	Grab	9.2		
5				Pebby SAND, Tan, Well Sorted, Fine Grained, Subrounded, Loose, Dry.	2	Grab	2.2		
10				Pebby SAND, Tan, Moderately Sorted, Fine Grained, Subrounded, Loose, Damp.	3	Grab	5.8		
15		SM		Pebby SAND, Tan, Moderately to Poorly Sorted, Fine to Medium Grained, Subrounded, Loose, Damp.	4	Grab	3.9		
20				Pebby SAND, Same as Above, Moist.	5	Grab	625		
25				Pebby SAND, Same as Above.	6	Grab	91.9		
30				Pebby SAND and Caliche, Light Brown, Fine to Medium Grained, Subrounded, Loose, Moist.	7	Grab	4.5		
35									
40									
45									
50									
55									



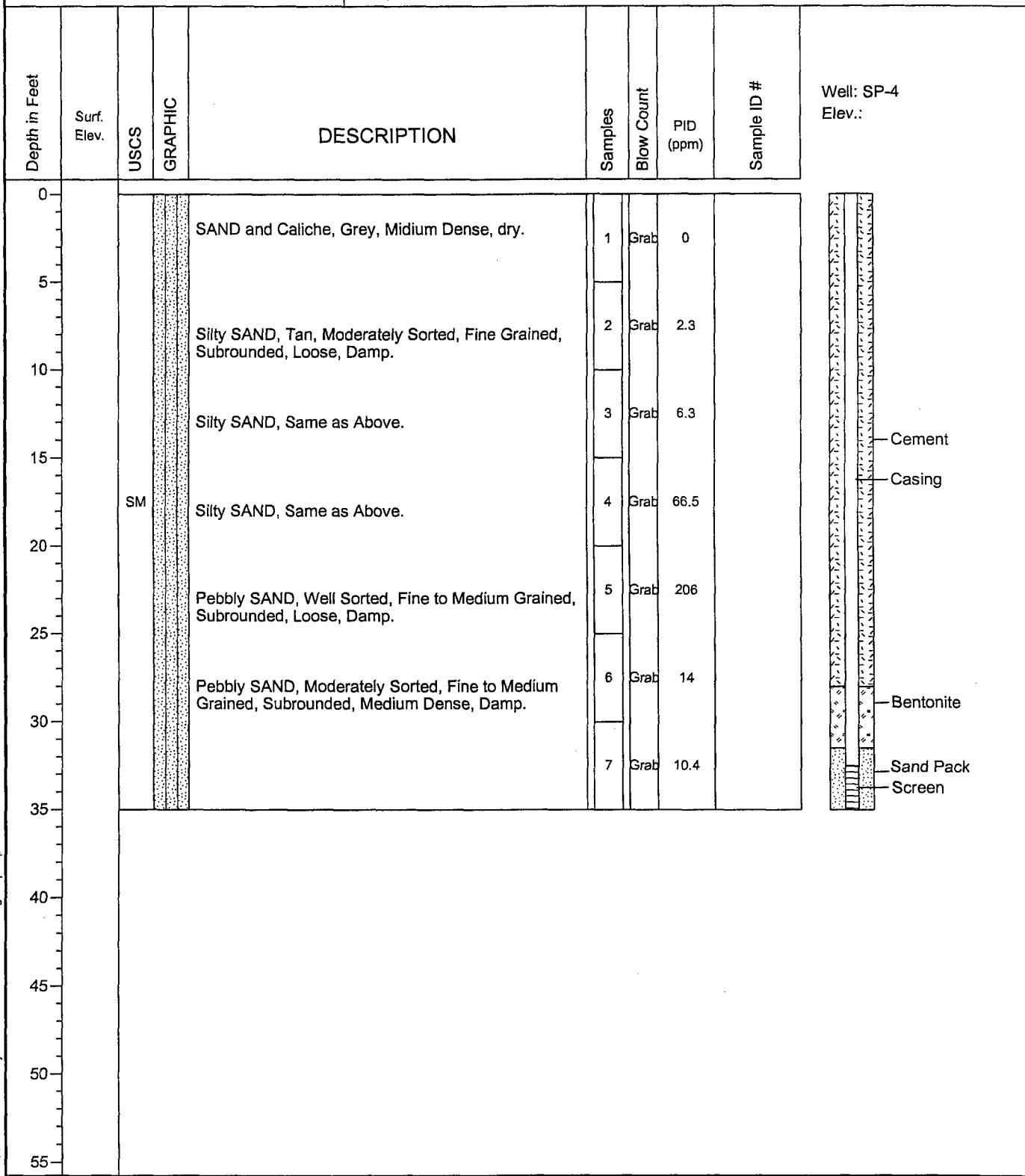


Phillips Pipe Line  
East Hobbs  
Hobbs, New Mexico

## DRILLING LOG SP-4

(Page 1 of 1)

Date Started	: 5/22/02	Drilling Company	: Scarborough Drilling
Date Completed	: 5/22/02	Northing Coord.	:
Hole Diameter	: 4.25 inches	Easting Coord.	:
Drilling Method	: Air Rotary	Survey By	:
Sampling Method	: Grab	Logged By	: R. Knight





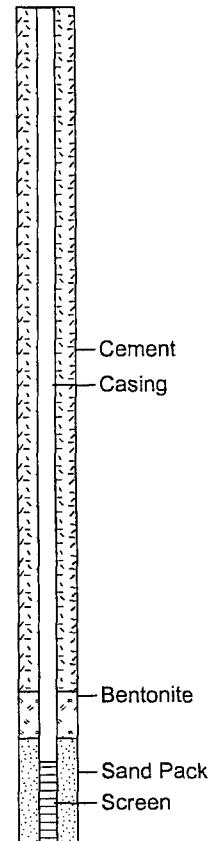
Phillips Pipe Line  
East Hobbs  
Hobbs, New Mexico

## DRILLING LOG SP-5

(Page 1 of 1)

Date Started	: 5/22/02	Drilling Company	: Scarborough Drilling
Date Completed	: 5/22/02	Northing Coord.	:
Hole Diameter	: 4.25 inches	Easting Coord.	:
Drilling Method	: Air Rotary	Survey By	:
Sampling Method	: Grab	Logged By	: R. Knight

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	PID (ppm)	Sample ID #	Well: SP-5	
									Elev.:	
0				SAND and Caliche, grey, fine to coarse grained, subrounded, loose, dry.	1	Grab	0.8			
5				Pebbly SAND, tan, moderately sorted, fine to medium grained, subrounded, loose, dry.	2	Grab	1.4			
10				Pebbly SAND, same as above.	3	Grab	0.4			
15				Pebbly SAND, same as above, damp.	4	Grab	0.6			
20				Pebbly SAND, well to moderately sorted, fine to medium grained, subrounded, loose.	5	Grab	0.4			
25				Pebbly SAND, well to moderately sorted, fine to medium grained, subrounded, loose, sandstone at 30'.	6	Grab	1.6			
30					7	Grab	0			
35										
40										
45										
50										
55										





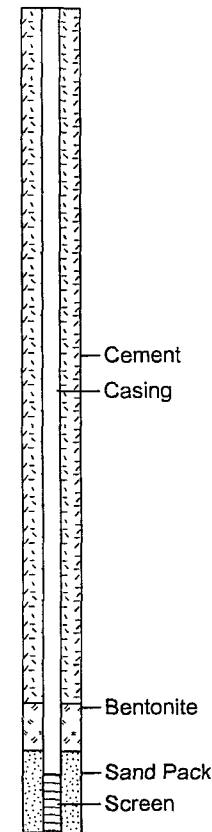
Phillips Pipe Line  
East Hobbs  
Hobbs, New Mexico

## DRILLING LOG SP-6

(Page 1 of 1)

Date Started	: 5/22/02	Drilling Company	: Scarborough Drilling
Date Completed	: 5/22/02	Northing Coord.	:
Hole Diameter	: 4.25 inches	Easting Coord.	:
Drilling Method	: Air Rotary	Survey By	:
Sampling Method	: Grab	Logged By	: R. Knight

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	PID (ppm)	Sample ID #	Well: SP-6	
									Elev.:	
0				SAND and Caliche, grey/white, dry.	1	Grab	0.2			
5				Pebby SAND, tan, well to moderately sorted, fine grained, rounded, loose, dry.	2	Grab	2.6			
10				Pebby SAND, tan, well to moderately sorted, fine grained, subrounded, loose, dry.	3	Grab	3.3			
15				Pebby SAND, same as above, damp.	4	Grab	4.0			
20				Pebby SAND, moderately sorted, fine to medium grained, subrounded, loose, damp.	5	Grab	95			
25				Pebby SAND, same as above.	6	Grab	1.0			
30				Pebby SAND, same as above, sandstone at 35'.	7	Grab	1.9			
35										
40										
45										
50										
55										





Phillips Pipe Line  
East Hobbs  
Hobbs, New Mexico

## DRILLING LOG SP-7

(Page 1 of 1)

Date Started	: 5/22/02	Drilling Company	: Scarborough Drilling
Date Completed	: 5/22/02	Northing Coord.	:
Hole Diameter	: 4.25 inches	Easting Coord.	:
Drilling Method	: Air Rotary	Survey By	:
Sampling Method	: Grab	Logged By	: Z. Ceplecha

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	PID (ppm)	Sample ID #	Well: SP-7 Elev.:
0				Gravelly SAND , tan, poorly sorted, medium grained, subrounded, loose, dry.	1	Grab	0.0		
5				Pebby Silty SAND, tan, well sorted, fine grained, subrounded, loose, dry.	2	Grab	2.0		
10				Pebby Silty SAND, tan, well sorted, fine grained, subrounded, loose, damp.	3	Grab	1.3		
15	SM			Pebby Silty SAND, same as above.	4	Grab	7.3		
20				Pebby Silty SAND, light brown, moderately sorted, fine grained, subrounded, loose, moist.	5	Grab	542		
25				Pebby Silty SAND, brown, moderately sorted, fine grained, subrounded, loose, moist.	6	Grab	55.4		
30				Pebby Silty SAND, brown, moderately sorted, medium to coarse grained, subrounded, loose, moist/wet.	7	Grab			
35									
40									
45									
50									
55									



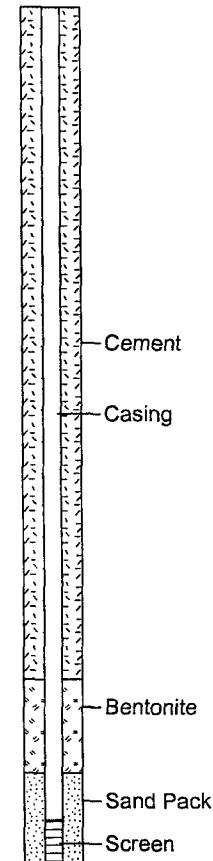
Phillips Pipe Line  
East Hobbs  
Hobbs, New Mexico

## DRILLING LOG SP-8

(Page 1 of 1)

Date Started	: 5/22/02	Drilling Company	: Scarborough Drilling
Date Completed	: 5/22/02	Northing Coord.	:
Hole Diameter	: 4.25 inches	Easting Coord.	:
Drilling Method	: Air Rotary	Survey By	:
Sampling Method	: Grab	Logged By	: Z. Ceplecha

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	PID (ppm)	Sample ID #	Well: SP-8	
									Elev.:	
0	SM			Pebby SAND , tan, moderately sorted, medium grained, subrounded, loose, dry.	1	Grab	15.8			
5				Pebby Silty SAND, light tan, well sorted, fine grained, subrounded, loose, dry/damp.	2	Grab	1.6			
10				Pebby Silty SAND, tan, well to moderately sorted, fine to medium grained, subrounded, loose, damp.	3	Grab	9.9			
15				Pebby Silty SAND, tan, well sorted, fine grained, subrounded, loose, damp/moist.	4	Grab	7.8			
20				Pebby Silty SAND, tan, moderately sorted, fine grained, subrounded, loose, moist.	5	Grab	354			
25				Pebby SAND, light brown, poorly sorted, coarse grained, subrounded, loose, moist/wet.	6	Grab	43.6			
30				gravelly SAND, brown, moderately sorted, medium to coarse grained, subrounded, loose, moist/wet, limestone layer at bottom.	7	Grab	10.2			
35										
40										
45										
50										
55										





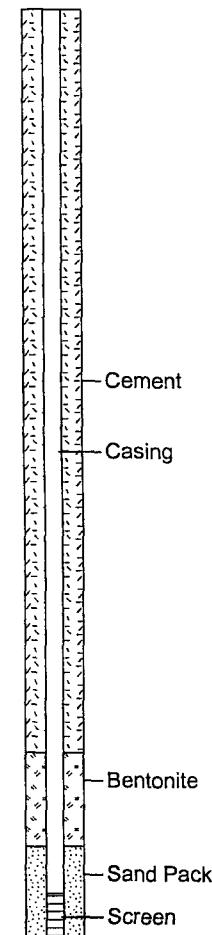
Phillips Pipe Line  
East Hobbs  
Hobbs, New Mexico

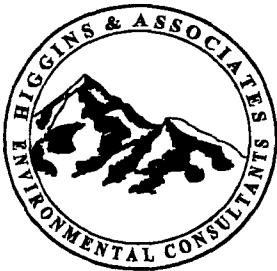
## DRILLING LOG SP-9

(Page 1 of 1)

Date Started	: 5/22/02	Drilling Company	: Scarborough Drilling
Date Completed	: 5/22/02	Northing Coord.	:
Hole Diameter	: 4.25 inches	Easting Coord.	:
Drilling Method	: Air Rotary	Survey By	:
Sampling Method	: Grab	Logged By	: R. Knight

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	PID (ppm)	Sample ID #	Well: SP-9 Elev.:
0				SAND , White/tan, well sorted, fine grained, subrounded, loose, dry.	1	Grab	0.0		
5				Silty SAND, tan, well sorted, fine grained, subrounded, loose, dry.	2	Grab	0.5		
10				Pebbly Silty SAND, tan, well sorted, fine grained, subrounded, loose, dry.	3	Grab	0.0		
15				Silty SAND, tan, well sorted, fine grained, subrounded, loose, dry.	4	Grab	0.0		
20	SM			Silty SAND, tan, well sorted, fine grained, subrounded, loose, damp/moist.	5	Grab	23		
25				Pebbly SAND, tan, moderately sorted, fine grained, subrounded, loose, moist.	6	Grab	9.0		
30				Pebbly Silty SAND, light brown, moderately sorted, medium grained, subrounded, loose, moist.	7	Grab	2.4		
35				Pebbly SAND, brown, moderately sorted, medium grained, subrounded, moist.	8	Grab	0.0		
40									
45									
50									
55									





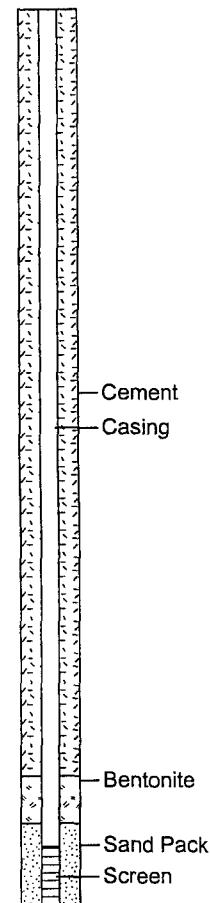
Phillips Pipe Line  
East Hobbs  
Hobbs, New Mexico

## DRILLING LOG SP-10

(Page 1 of 1)

Date Started	: 5/23/02	Drilling Company	: Scarborough Drilling
Date Completed	: 5/23/02	Northing Coord.	:
Hole Diameter	: 4.25 inches	Easting Coord.	:
Drilling Method	: Air Rotary	Survey By	:
Sampling Method	: Grab	Logged By	: R. Knight

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	PID (ppm)	Sample ID #	Well: SP-10	Elev.:
0				Silty SAND and caliche , grey, poorly sorted, fine to coarse grained, subrounded, loose, dry.	1	Grab	0.0			
5				Silty SAND and caliche , grey, poorly sorted, fine to coarse grained, subangular, loose, dry.	2	Grab	0.0			
10				Pebbly SAND, tan, moderately sorted, fine grained, subangular, loose, dry.	3	Grab	0.0			
15		SM		Pebbly SAND, tan, moderately sorted, fine grained, subrounded, loose, dry.	4	Grab	0.7			
20				SAND, moderately sorted, fine grained, subrounded, loose, dry.	5	Grab	2.3			
25				Pebbly SAND, tan, moderately sorted, fine to medium grained, subrounded, loose, damp.	6	Grab	0.4			
30				Pebbly SAND, tan, moderately sorted, fine to medium grained, subrounded, loose, damp.	7	Grab	0.5			
35				Pebbly SAND, moderately sorted, fine to medium grained, subrounded, damp.	8	Grab	2.9			
40										
45										
50										
55										





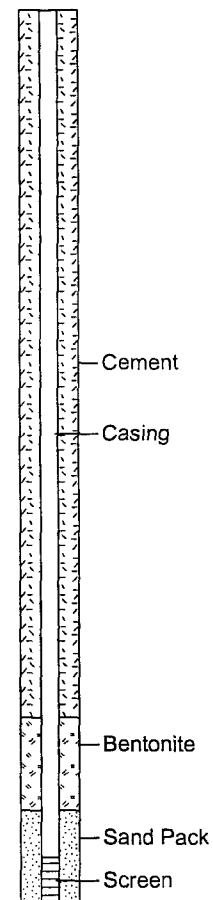
Phillips Pipe Line  
East Hobbs  
Hobbs, New Mexico

## DRILLING LOG SP-11

(Page 1 of 1)

Date Started	: 5/23/02	Drilling Company	: Scarborough Drilling
Date Completed	: 5/23/02	Northing Coord.	:
Hole Diameter	: 4.25 inches	Easting Coord.	:
Drilling Method	: Air Rotary	Survey By	:
Sampling Method	: Grab	Logged By	: R. Knight

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	PID (ppm)	Sample ID #	Well: SP-11
0				Gravel/SAND and caliche , white, subangular, dry.	1	Grab	0.0		
5				Pebbly SAND, white/tan, well sorted, fine grained, subrounded, loose, damp.	2	Grab	0.0		
10				Pebbly SAND, tan, well sorted, fine grained, subrounded, loose, damp.	3	Grab	0.0		
15				Pebbly SAND, tan, well sorted, fine grained, subrounded, loose, damp.	4	Grab	0.0		
20	SM			Pebbly SAND, tan, well sorted, fine grained, subrounded, loose, damp.	5	Grab	0.8		
25				Pebbly SAND, tan, well sorted, fine grained, subrounded, loose, damp.	6	Grab	1.0		
30				Pebbly SAND, light brown, moderately sorted, medium grained, subrounded, loose, moist.	7	Grab	0.3		
35				Pebbly SAND, light brown, moderately sorted, medium grained, subrounded, loose, moist.	8	Grab	0.0		
40				Pebbly SAND, brown, well sorted, fine grained, subrounded, loose, moist.					
45									
50									
55									



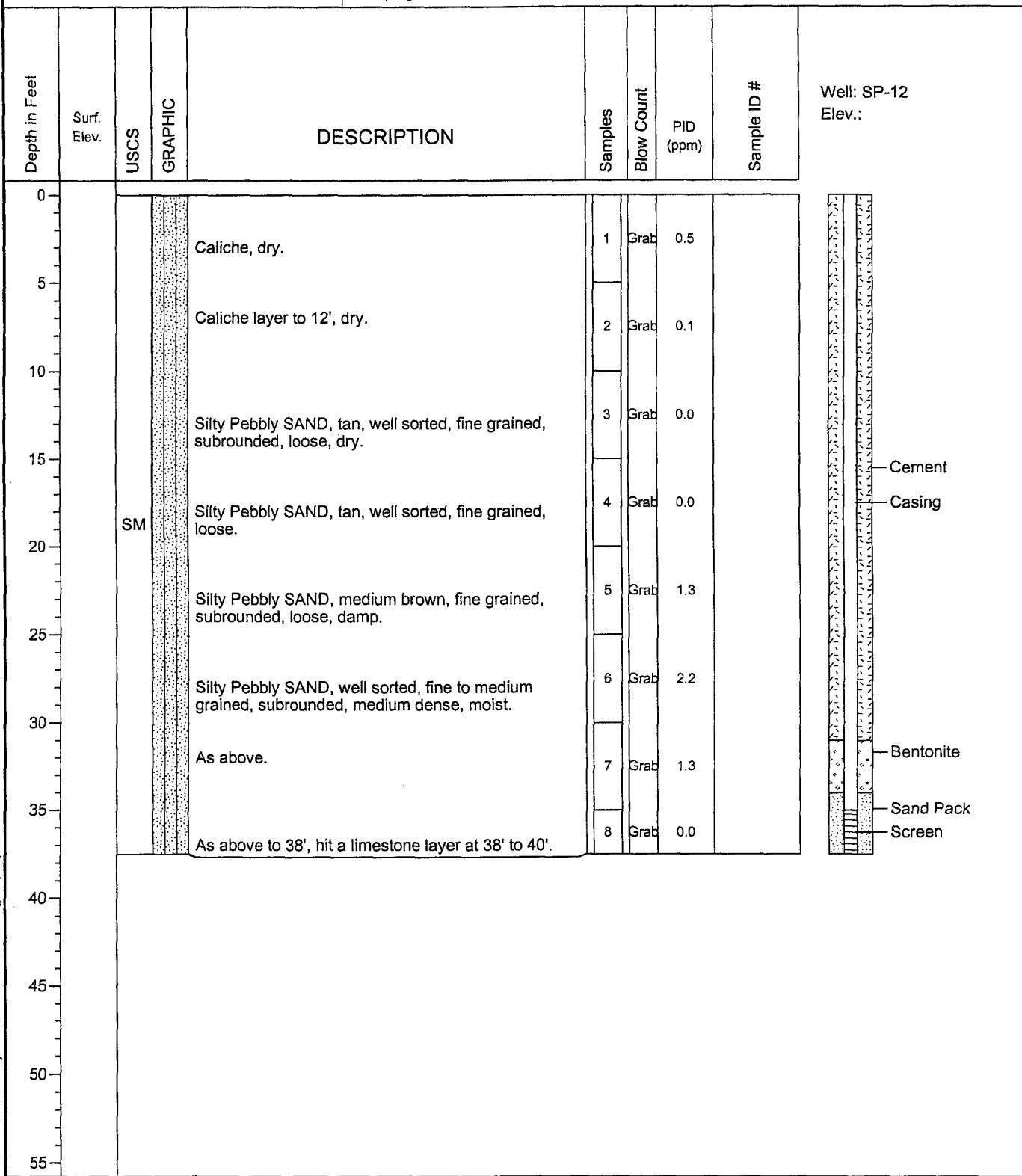


Phillips Pipe Line  
East Hobbs  
Hobbs, New Mexico

## DRILLING LOG SP-12

(Page 1 of 1)

Date Started	: 5/23/02	Drilling Company	: Scarborough Drilling
Date Completed	: 5/23/02	Northing Coord.	:
Hole Diameter	: 4.25 inches	Easting Coord.	:
Drilling Method	: Air Rotary	Survey By	:
Sampling Method	: Grab	Logged By	: C. Higgins





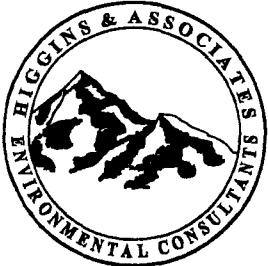
Phillips Pipe Line  
East Hobbs  
Hobbs, New Mexico

## DRILLING LOG SP-13

(Page 1 of 1)

Date Started	: 5/22/02	Drilling Company	: Scarborough Drilling
Date Completed	: 5/22/02	Northing Coord.	:
Hole Diameter	: 4.25 inches	Easting Coord.	:
Drilling Method	: Air Rotary	Survey By	:
Sampling Method	: Grab	Logged By	: C. Higgins

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	PID (ppm)	Sample ID #	Well: SP-13 Elev.:
0				Caliche, dry.	1	Grab	2.1		
5				Pebbly SAND, tan, well sorted, fine grained, subrounded, loose, dry.	2	Grab	2.3		
10				SAND, as above with increasing pebbles, damp.	3	Grab	4.3		
15		SM		As above, damp	4	Grab	16.6		
20				Silty Pebby SAND, medium brown, fine to medium grained, subrounded, loose, moist.	5	Grab	6.6		
25				Pebbly SAND, medium brown, fine to medium grained, subrounded, medium dense, moist.	6	Grab	3.7		
30				As above.	7	Grab	1.4		
35				Silty SAND, medium brown, well sorted, fine to medium grained, medium dense, moist. Hard limestone layer at 37'.	8	Grab	0.0		
40									
45									
50									
55									



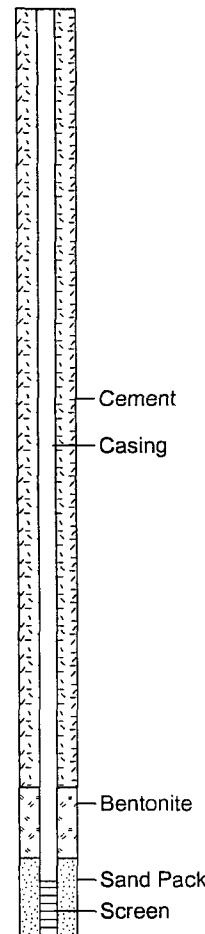
Phillips Pipe Line  
East Hobbs  
Hobbs, New Mexico

## DRILLING LOG SP-14

(Page 1 of 1)

Date Started	: 5/22/02	Drilling Company	: Scarborough Drilling
Date Completed	: 5/23/02	Northing Coord.	:
Hole Diameter	: 4.25 inches	Easting Coord.	:
Drilling Method	: Air Rotary	Survey By	:
Sampling Method	: Grab	Logged By	: C. Higgins

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	PID (ppm)	Sample ID #	Well: SP-14	
									Elev.:	
0				Caliche, white/grey, dry.	1	Grab	0.0			
5				Pebbly SAND, tan, well sorted, fine to very fine grained, subrounded, loose, dry.	2	Grab	1.9			
10				SAND, as above with increasing pebbles.	3	Grab	1.2			
15					4	Grab	1.7			
20	SM			Silty Pebby SAND, light brown, fine grained, subrounded, medium dense, damp.	5	Grab	143			
25				Silty Pebby SAND, light brown, fine to medium grained, subrounded, medium dense, moist.	6	Grab	22			
30				Pebbly SAND, medium brown, fine to medium grained, subrounded, medium dense, moist.	7	Grab	9.7			
35				As above. Hard limestone layer at 34' to 36'.	8	Grab	2.6			
40				Silty SAND, medium brown, fine to medium grained, subrounded, loose.						
45										
50										
55										





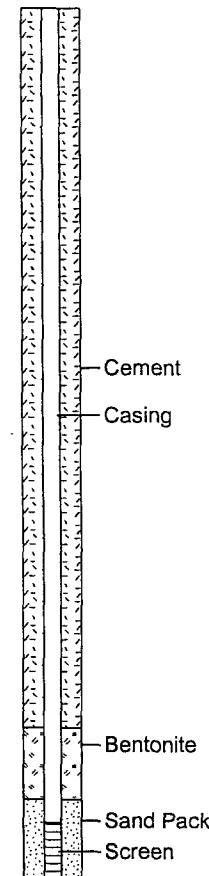
Phillips Pipe Line  
East Hobbs  
Hobbs, New Mexico

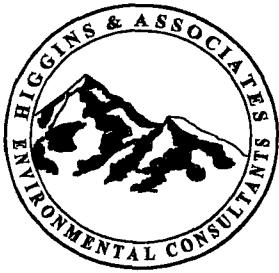
## DRILLING LOG SP-15

(Page 1 of 1)

Date Started	: 5/21/02	Drilling Company	: Scarborough Drilling
Date Completed	: 5/21/02	Northing Coord.	:
Hole Diameter	: 4.25 inches	Easting Coord.	:
Drilling Method	: Air Rotary	Survey By	:
Sampling Method	: Grab	Logged By	: C. Higgins

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	PID (ppm)	Sample ID #	Well: SP-15	
									Elev.:	
0	SM			Caliche, white/grey, dry. Some limestone in cuttings.	1	Grab	0.2			
5				Pebbly silty SAND, tan, well sorted, fine grained, subrounded, loose, dry.	2	Grab	0.1			
10				SAND, as above, light brown.	3	Grab	0.2			
15				Silty Pebby SAND, light brown, fine to medium grained, subrounded, loose, damp.	4	Grab	5.4			
20				Silty Pebby SAND, medium brown, fine to medium grained, subrounded, loose, moist.	5	Grab	3.1			
25				Silty Pebby SAND, light brown, well sorted, fine to medium grained, subrounded, loose, damp to moist.	6	Grab	0.5			
30				Silty SAND, light brown, fine to medium grained, subrounded, loose, moist.	7	Grab	0.2			
35				Silty SAND, light brown, fine to medium grained, subrounded, loose, moist.	8	Grab	0.0			
40										
45										
50										
55										





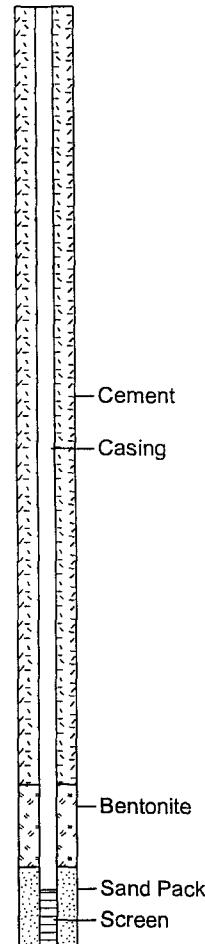
Phillips Pipe Line  
East Hobbs  
Hobbs, New Mexico

## DRILLING LOG SP-16

(Page 1 of 1)

Date Started	: 5/21/02	Drilling Company	: Scarborough Drilling
Date Completed	: 5/21/02	Northing Coord.	:
Hole Diameter	: 5.13 inches	Easting Coord.	:
Drilling Method	: Air Rotary	Survey By	:
Sampling Method	: Grab	Logged By	: C. Higgins

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	PID (ppm)	Sample ID #	Well: SP-16 Elev.:
SM	0			Caliche, white/grey, dry. Some limestone in cuttings.	1	Grab	0.2		
	5			Pebbly SAND, tan/light brown, fine grained, subrounded, loose, dry.	2	Grab	0.1		
	10			Silty Pebby SAND, light brown, fine grained, subrounded, loose, damp.	3	Grab	0.3		
	15			Silty Pebby SAND, as above.	4	Grab	1.4		
	20			Silty Pebby SAND, well sorted, fine to medium grained, subrounded, loose, moist.	5	Grab	7.5		
	25			Silty Pebby SAND, as above.	6	Grab	1.5		
	30			Silty Pebby SAND, as above.	7	Grab	0.0		
	35			Silty Pebby SAND, as above.	8	Grab			
	40								
45									
50									
55									





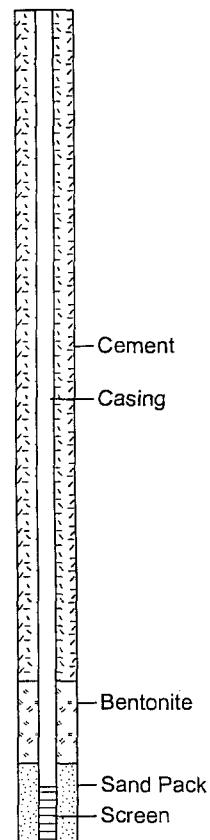
Phillips Pipe Line  
East Hobbs  
Hobbs, New Mexico

## DRILLING LOG SP-17

(Page 1 of 1)

Date Started	5/22/02	Drilling Company	Scarborough Drilling
Date Completed	5/22/02	Northing Coord.	:
Hole Diameter	5.13 inches	Easting Coord.	:
Drilling Method	Air Rotary	Survey By	:
Sampling Method	Grab	Logged By	C. Higgins

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	PID (ppm)	Sample ID #	Well: SP-17	
									Elev.:	
0				Caliche and SAND, white/tan, well sorted, fine grained, loose, dry.	1	Grab	0.0			
5				Silty Pebby SAND, tan, fine grained, subrounded, loose, dry.	2	Grab	0.0			
10				Silty SAND, tan, well sorted, fine grained, loose, dry.	3	Grab	0.0			
15		SM		SAND, tan, fine grained, subrounded, loose, dry.	4	Grab	0.0			
20				Silty SAND, light brown, fine grained, subrounded, loose, moist.	5	Grab	0.6			
25				Silty Pebby SAND, medium brown, fine to medium grained, subrounded, medium dense, moist.	6	Grab	0.5			
30				Silty Pebby SAND, as above. Hard limestone layer at 36'.	7	Grab	0.0			
35										
40										
45										
50										
55										





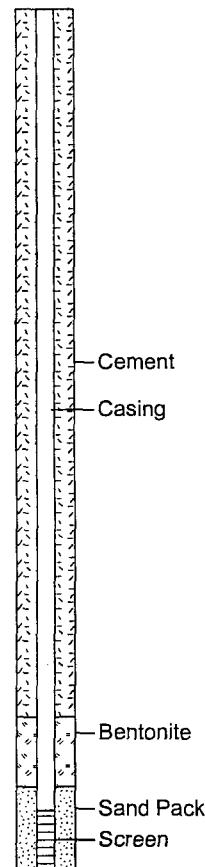
Phillips Pipe Line  
East Hobbs  
Hobbs, New Mexico

## DRILLING LOG SP-18

(Page 1 of 1)

Date Started	: 5/21/02	Drilling Company	: Scarborough Drilling
Date Completed	: 5/21/02	Northing Coord.	:
Hole Diameter	: 5.13 inches	Easting Coord.	:
Drilling Method	: Air Rotary	Survey By	:
Sampling Method	: Grab	Logged By	: C. Higgins

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	PID (ppm)	Sample ID #	Well: SP-18	
									Elev.:	
0	SM			Caliche and SAND, white/grey, fined grained, dense, dry.	1	Grab	0.0			
5				Pebbly SAND, tan, well sorted, fine grained, subrounded, loose, dry.	2	Grab	0.0			
10				Silty Pebby SAND, tan/light brown, well sorted, fine grained, loose, dry.	3	Grab	0.0			
15				Silty Pebby SAND, light brown, well sorted, fine to medium grained, subrounded, loose, damp.	4	Grab	0.5			
20				Silty Pebby SAND, light brown, well sorted, fine to medium grained, subrounded, loose, moist.	5	Grab	0.3			
25				Silty Pebby SAND, as above. Decreasing pebbles.	6	Grab	0.0			
30				Silty Pebby SAND, as above.	7	Grab	0.0			
35										
40										
45										
50										
55										





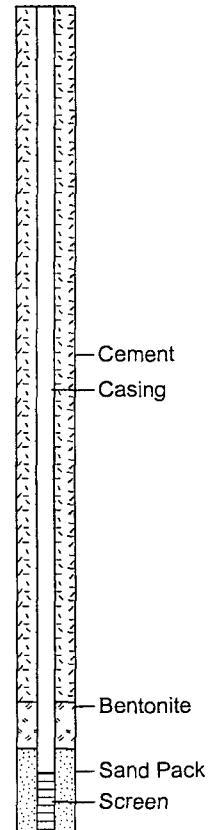
Phillips Pipe Line  
East Hobbs  
Hobbs, New Mexico

## DRILLING LOG SP-19

(Page 1 of 1)

Date Started	: 5/21/02	Drilling Company	: Scarborough Drilling
Date Completed	: 5/21/02	Northing Coord.	:
Hole Diameter	: 5.13 inches	Easting Coord.	:
Drilling Method	: Air Rotary	Survey By	:
Sampling Method	: Grab	Logged By	: C. Higgins

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	PID (ppm)	Sample ID #	Well: SP-19 Elev.:
0				Caliche and SAND, white/grey, dense, dry. Limestone in cuttings	1	Grab	0.0		
5				Silty Pebby SAND, tan, well sorted, fine grained, subrounded, loose, dry.	2	Grab	0.5		
10				Silty Pebby SAND, as above, increasing pebbles and gravel.	3	Grab	0.0		
15		SM		Silty Pebby SAND, as above.	4	Grab			
20				Silty Pebby SAND, brown, fine to medium grained, subrounded, loose, damp.	5	Grab	0.0		
25				Silty Pebby SAND, as above. Small hard lenses noted by driller.	6	Grab	0.0		
30				Silty SAND, tan, well sorted, fine to medium grained, subrounded, loose, wet.	7	Grab			
35									
40									
45									
50									
55									





Phillips Pipe Line  
East Hobbs  
Hobbs, New Mexico

## DRILLING LOG MW-21

(Page 1 of 1)

Date Started	: 5/23/02	Drilling Company	: Scarborough Drilling
Date Completed	: 5/23/02	Northing Coord.	:
Hole Diameter	: 5.13 inches	Easting Coord.	:
Drilling Method	: Air Rotary	Survey By	:
Sampling Method	: Grab	Logged By	: R. Knight

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	PID (ppm)	Sample ID #	Well: MW-21 Elev.:	
0				Caliche and SAND, grey, poorly sorted, fined to coarse grained, subrounded to angular, loose, dry.	1	Grab	0.0			
5				Pebby SAND, tan, well sorted, fine grained, subrounded, loose, damp.	2	Grab	0.0			
10				Pebby SAND, tan, well sorted, very fine to fine grained, subrounded, loose, damp.	3	Grab	0.0			
15		SM		Silty Pebby SAND, moderately sorted, fine grained, subrounded, loose, moist.	4	Grab	0.0			
20				Silty Pebby SAND, moderately sorted, fine grained, subrounded, loose, moist.	5	Grab	0.2			
25										
30										
35										
40										
45										
50										
55										



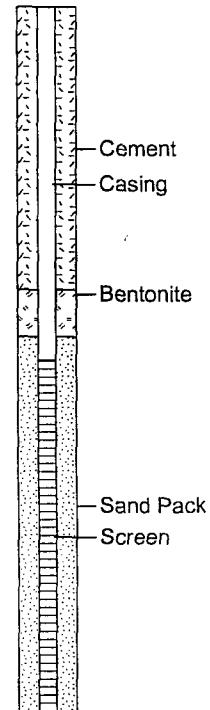
Phillips Pipe Line  
East Hobbs  
Hobbs, New Mexico

## DRILLING LOG MW-22

(Page 1 of 1)

Date Started	: 5/20/02	Drilling Company	: Scarborough Drilling
Date Completed	: 5/20/02	Northing Coord.	:
Hole Diameter	: 5.13 inches	Easting Coord.	:
Drilling Method	: Air Rotary	Survey By	:
Sampling Method	: Grab	Logged By	: C. Higgins

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	PID (ppm)	Sample ID #	Well: MW-22	Elev.:
0				Caliche and SAND, light grey/grey, fine grained, dense, dry.	1	Grab	0.0			
5				Caliche and SAND, white/tan, fine grained, medium dense.	2	Grab	0.0			
10				Silty SAND, tan, well sorted, fine grained, subrounded, loose, damp.	3	Grab	0.0			
15	SM			Silty Pebby SAND, brown, fine to medium grained, subrounded, loose, damp.	4	Grab	0.0			
20				Silty Pebby SAND, brown, fine to medium grained, subrounded, loose, wet.	5	Grab	1.0			
25				Silty Pebby SAND, as above.	6	Grab	0.0			
30										
35										
40										
45										
50										
55										





Phillips Pipe Line  
East Hobbs  
Hobbs, New Mexico

## DRILLING LOG MW-23

(Page 1 of 1)

Date Started	: 5/23/02	Drilling Company	: Scarborough Drilling
Date Completed	: 5/23/02	Northing Coord.	:
Hole Diameter	: 5.13 inches	Easting Coord.	:
Drilling Method	: Air Rotary	Survey By	:
Sampling Method	: Grab	Logged By	: C. Higgins

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	PID (ppm)	Sample ID #	Well: MW-23	
									Elev.:	
0				Caliche and SAND, white/grey, dense, dry. Sand at 6'.	1	Grab	0.3			
5				Pebby SAND, tan, well sorted, fine grained, loose, dry.	2	Grab	0.0			
10				Pebby SAND, as above.	3	Grab	0.3			
15		SM		Pebby SAND, as above.	4	Grab	0.3			
20				Silty Pebby SAND, medium brown, well sorted, fine to medium grained, moist.	5	Grab	0.4	MW-23 20-25'		
25				SAND as above.	6	Grab	0.3			
30										
35										
40										
45										
50										
55										

## Appendix D

### Laboratory Data

*Higgins and Associates, LLC*



# TestAmerica

INCORPORATED

6/ 1/02

HIGGINS AND ASSOCIATES 9898

8200 SOUTH AKRON ST, STE 120  
ENGLEWOOD, CO 80112

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project PPL EAST HOBBS. The Laboratory Project number is 286263. An executed copy of the chain of custody and the sample receipt form are also included as an addendum to this report.

Sample Identification	Lab Number	Collection Date
MW-4	02-A86357	5/21/02
MW-5	02-A86358	5/21/02
MW-8	02-A86359	5/21/02
MW-12	02-A86360	5/21/02
MW-13	02-A86361	5/21/02
MW-14	02-A86362	5/21/02
MW-16	02-A86363	5/21/02
MW-17	02-A86364	5/21/02
MW-18	02-A86365	5/21/02
MW-19	02-A86366	5/21/02
MW-20	02-A86367	5/21/02

These results relate only to the items tested.  
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By:



Paul E. Lane, Jr., Lab Director  
Michael H. Dunn, M.S., Technical Director  
Johnny A. Mitchell, Dir. Technical Serv.  
Eric S. Smith, Assistant Technical Director  
Jennifer P. Flynn, Technical Services

Report Date: 6/ 1/02

Gail A. Lage, Technical Serv.  
Glenn L. Norton, Technical Serv.  
Kelly S. Comstock, Technical Serv.  
Pamela A. Langford, Technical Serv.

# TestAmerica

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## ANALYTICAL REPORT

HIGGINS AND ASSOCIATES 9898

8200 SOUTH AKRON ST, STE 120  
ENGLEWOOD, CO 80112

Lab Number: 02-A86357

Sample ID: MW-4

Sample Type: Water

Site ID:

Date Collected: 5/21/02

Time Collected: 15:51

Date Received: 5/25/02

Time Received: 9:00

Page: 1

Project:  
Project Name: PPL EAST HOBBS  
Sampler: ROGER KNIGHT

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<b>*ORGANIC PARAMETERS*</b>									
Benzene	78.0	ug/L	1.0	1.0	5/31/02	20:37	D.Yeager	8021B	7105
Ethylbenzene	1.5	ug/L	1.0	1.0	5/31/02	20:37	D.Yeager	8021B	7105
Toluene	7.9	ug/L	1.0	1.0	5/31/02	20:37	D.Yeager	8021B	7105
Xylenes (Total)	5.7	ug/L	1.0	1.0	5/31/02	20:37	D.Yeager	8021B	7105
TPH (Gasoline Range)	567.	ug/L	100.	1.0	5/31/02	20:37	D.Yeager	8015B	7105
TPH (Diesel Range)	ND	ug/L	103.	1.0	5/30/02	9:44	K.Phelps	8015B/3510	7314
<b>*METALS*</b>									
Iron	1530	ug/L	50.0	1.0	5/28/02	19:31	G.McCord	6010B	5228
Manganese	51.0	ug/L	15.0	1.0	5/28/02	19:31	G.McCord	6010B	5228
<b>*MISCELLANEOUS CHEMISTRY*</b>									
Hardness	569.	mg/L	5.00	1.0	6/ 1/02	0:10	D. Hessin	130.1	5824
Chloride	144.	mg/L	20.0	20.0	5/28/02	22:02	A.Bamarni	9251	5847

### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	970. ml	1.00 ml	5/28/02		D. Harris	3510

Sample report continued . . .

# TestAmerica<sup>®</sup>

INCORPORATED

## ANALYTICAL REPORT

Laboratory Number: 02-A86357  
Sample ID: MW-4  
Project:  
Page 2

Surrogate	% Recovery	Target Range
surr-o-Terphenyl	85.	50. - 150.
BTEX/GRO Surr., a,a,a-TFT	72.	67. - 135.

### LABORATORY COMMENTS:

- ND - Not detected at the report limit.  
B - Analyte was detected in the method blank.  
J - Estimated Value below Report Limit.  
# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

HIGGINS AND ASSOCIATES 9898

8200 SOUTH AKRON ST, STE 120  
ENGLEWOOD, CO 80112

Lab Number: 02-A86358

Sample ID: MW-5

Sample Type: Water

Site ID:

Project:

Project Name: PPL EAST HOBBS

Sampler: ROGER KNIGHT

Date Collected: 5/21/02

Time Collected: 15:32

Date Received: 5/25/02

Time Received: 9:00

Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	146.	ug/L	1.0	1.0	5/31/02	21:04	D.Yeager	8021B	7105
Ethylbenzene	11.1	ug/L	1.0	1.0	5/31/02	21:04	D.Yeager	8021B	7105
Toluene	119.	ug/L	1.0	1.0	5/31/02	21:04	D.Yeager	8021B	7105
Xylenes (Total)	32.2	ug/L	1.0	1.0	5/31/02	21:04	D.Yeager	8021B	7105
TPH (Gasoline Range)	1230	ug/L	100.	1.0	5/31/02	21:04	D.Yeager	8015B	7105
TPH (Diesel Range)	ND	ug/L	101.	1.0	5/30/02	10:04	K.Phelps	8015B/3510	7314
<hr/>									
*METALS*									
Iron	698.	ug/L	50.0	1.0	5/28/02	19:31	G.McCord	6010B	5228
Manganese	29.0	ug/L	15.0	1.0	5/28/02	19:31	G.McCord	6010B	5228
<hr/>									
*MISCELLANEOUS CHEMISTRY*									
Hardness	619.	mg/L	5.00	1.0	6/ 1/02	0:10	D. Hessian	130.1	5824
Chloride	180.	mg/L	50.0	50.0	5/28/02	22:02	A.Bamarni	9251	5847

---

### Sample Extraction Data

Parameter	Wt/Vol		Date	Time	Analyst	Method
	Extracted	Extract Vol				
EPH	990. ml	1.00 ml	5/28/02		D. Harris	3510

Sample report continued . . .

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

Laboratory Number: 02-A86358  
Sample ID: MW-5  
Project:  
Page 2

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Surrogate	% Recovery	Target Range
surr-o-Terphenyl	87.	50. - 150.
BTEX/GRO Surr., a,a,a-TFT	68.	67. - 135.

### LABORATORY COMMENTS:

- ND - Not detected at the report limit.  
B - Analyte was detected in the method blank.  
J - Estimated Value below Report Limit.  
# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

HIGGINS AND ASSOCIATES 9898

8200 SOUTH AKRON ST, STE 120  
ENGLEWOOD, CO 80112

Lab Number: 02-A86359

Sample ID: MW-8

Sample Type: Water

Site ID:

Project:

Project Name: PPL EAST HOBBS

Sampler: ROGER KNIGHT

Date Collected: 5/21/02

Time Collected: 14:59

Date Received: 5/25/02

Time Received: 9:00

Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	912.	ug/L	10.0	10.0	6/ 1/02	11:23	D.Yeager	8021B	9405
Ethylbenzene	50.0	ug/L	1.0	1.0	5/31/02	21:32	D.Yeager	8021B	7105
Toluene	56.9	ug/L	1.0	1.0	5/31/02	21:32	D.Yeager	8021B	7105
Xylenes (Total)	91.7	ug/L	1.0	1.0	5/31/02	21:32	D.Yeager	8021B	7105
TPH (Gasoline Range)	2900	ug/L	1000	10.0	6/ 1/02	11:23	D.Yeager	8015B	9405
TPH (Diesel Range)	ND	ug/L	101.	1.0	5/30/02	10:23	K.Phelps	8015B/3510	7314
<hr/>									
*METALS*									
Iron	638.	ug/L	50.0	1.0	5/28/02	19:31	G.McCord	6010B	5228
Manganese	76.0	ug/L	15.0	1.0	5/28/02	19:31	G.McCord	6010B	5228
<hr/>									
*MISCELLANEOUS CHEMISTRY*									
Hardness	546.	mg/L	5.00	1.0	6/ 1/02	0:10	D. Hessin	130.1	5824
Chloride	104.	mg/L	20.0	20.0	5/28/02	22:02	A.Bamarni	9251	5847

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### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	990. ml	1.00 ml	5/28/02		D. Harris	3510

Sample report continued . . .

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

Laboratory Number: 02-A86359  
Sample ID: MW-8  
Project:  
Page 2

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Surrogate	% Recovery	Target Range
surr-o-Terphenyl	88.	50. - 150.
BTEX/GRO Surr., a,a,a-TFT	100.	67. - 135.

### LABORATORY COMMENTS:

- ND - Not detected at the report limit.  
B - Analyte was detected in the method blank.  
J - Estimated Value below Report Limit.  
# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

HIGGINS AND ASSOCIATES 9898  
 8200 SOUTH AKRON ST, STE 120  
 ENGLEWOOD, CO 80112

Lab Number: 02-A86360  
 Sample ID: MW-12  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name: PPL EAST HOBBS  
 Sampler: ROGER KNIGHT

Date Collected: 5/21/02  
 Time Collected: 14:42  
 Date Received: 5/25/02  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	4040	ug/L	100.	100.	6/ 1/02	11:51	D.Yeager	8021B	9405
Ethylbenzene	195.	ug/L	10.0	10.0	5/31/02	21:59	D.Yeager	8021B	7105
Toluene	265.	ug/L	10.0	10.0	5/31/02	21:59	D.Yeager	8021B	7105
Xylenes (Total)	284.	ug/L	10.0	10.0	5/31/02	21:59	D.Yeager	8021B	7105
TPH (Gasoline Range)	16400	ug/L	10000	100.	6/ 1/02	11:51	D.Yeager	8015B	9405
TPH (Diesel Range)	104.	ug/L	101.	1.0	5/30/02	7:51	K.Phelps	8015B/3510	7314
<hr/>									
*METALS*									
Iron	2050	ug/L	50.0	1.0	5/28/02	19:31	G.McCord	6010B	5228
Manganese	478.	ug/L	15.0	1.0	5/28/02	19:31	G.McCord	6010B	5228
<hr/>									
*MISCELLANEOUS CHEMISTRY*									
Hardness	864.	mg/L	5.00	1.0	6/ 1/02	0:10	D. Hessin	130.1	5824
Chloride	180.	mg/L	50.0	50.0	5/28/02	22:02	A.Bamarni	9251	5847

### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	990. ml	1.00 ml	5/28/02		D. Harris	3510

Sample report continued . . .

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

Laboratory Number: 02-A86360  
Sample ID: MW-12  
Project:  
Page 2

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Surrogate	% Recovery	Target Range
surr-o-Terphenyl	75.	50. - 150.
BTEX/GRO Surr., a,a,a-TFT	102.	67. - 135.

### LABORATORY COMMENTS:

- ND - Not detected at the report limit.  
B - Analyte was detected in the method blank.  
J - Estimated Value below Report Limit.  
# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

HIGGINS AND ASSOCIATES 9898

8200 SOUTH AKRON ST, STE 120  
ENGLEWOOD, CO 80112

Lab Number: 02-A86361

Sample ID: MW-13

Sample Type: Water

Site ID:

Project:

Project Name: PPL EAST HOBBS  
Sampler: ROGER KNIGHT

Date Collected: 5/21/02

Time Collected: 11:17

Date Received: 5/25/02

Time Received: 9:00

Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	ND	ug/L	1.0	1.0	5/31/02	23:21	D.Yeager	8021B	7105
Ethylbenzene	ND	ug/L	1.0	1.0	5/31/02	23:21	D.Yeager	8021B	7105
Toluene	ND	ug/L	1.0	1.0	5/31/02	23:21	D.Yeager	8021B	7105
Xylenes (Total)	ND	ug/L	1.0	1.0	5/31/02	23:21	D.Yeager	8021B	7105
TPH (Gasoline Range)	ND	ug/L	100.	1.0	5/31/02	23:21	D.Yeager	8015B	7105
TPH (Diesel Range)	ND	ug/L	101.	1.0	5/30/02	15:40	K.Phelps	8015B/3510	7314
<hr/>									
*METALS*									
Iron	563.	ug/L	50.0	1.0	5/28/02	19:31	G.McCord	6010B	5228
Manganese	23.0	ug/L	15.0	1.0	5/28/02	19:31	G.McCord	6010B	5228
<hr/>									
*MISCELLANEOUS CHEMISTRY*									
Hardness	617.	mg/L	5.00	1.0	6/ 1/02	0:10	D. Hessin	130.1	5824
Chloride	58.5	mg/L	5.00	5.0	5/28/02	22:02	A.Bamarni	9251	5998

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### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	990. ml	1.00 ml	5/28/02		D. Harris	3510

Sample report continued . . .

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

Laboratory Number: 02-A86361  
Sample ID: MW-13  
Project:  
Page 2

Surrogate	% Recovery	Target Range
surr-o-Terphenyl	73.	50. - 150.
BTEX/GRO Surr., a,a,a-TFT	100.	67. - 135.

### LABORATORY COMMENTS:

- ND - Not detected at the report limit.  
B - Analyte was detected in the method blank.  
J - Estimated Value below Report Limit.  
# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

HIGGINS AND ASSOCIATES 9898

8200 SOUTH AKRON ST, STE 120  
ENGLEWOOD, CO 80112

Lab Number: 02-A86362

Sample ID: MW-14

Sample Type: Water

Site ID:

Project:

Project Name: PPL EAST HOBBS

Sampler: ROGER KNIGHT

Date Collected: 5/21/02

Time Collected: 11:51

Date Received: 5/25/02

Time Received: 9:00

Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	42.1	ug/L	1.0	1.0	5/31/02	23:48	D.Yeager	8021B	7105
Ethylbenzene	ND	ug/L	1.0	1.0	5/31/02	23:48	D.Yeager	8021B	7105
Toluene	ND	ug/L	1.0	1.0	5/31/02	23:48	D.Yeager	8021B	7105
Xylenes (Total)	ND	ug/L	1.0	1.0	5/31/02	23:48	D.Yeager	8021B	7105
TPH (Gasoline Range)	ND	ug/L	100.	1.0	5/31/02	23:48	D.Yeager	8015B	7105
TPH (Diesel Range)	ND	ug/L	102.	1.0	5/30/02	8:29	K.Phelps	8015B/3510	7314
<hr/>									
*METALS*									
Iron	3290	ug/L	50.0	1.0	5/30/02	9:02	Rob Hunt	6010B	5229
Manganese	342.	ug/L	15.0	1.0	5/30/02	9:02	Rob Hunt	6010B	5229
<hr/>									
*MISCELLANEOUS CHEMISTRY*									
Hardness	745.	mg/L	5.00	1.0	6/ 1/02	0:10	D. Hessin	130.1	5824
Chloride	162.	mg/L	50.0	50.0	5/28/02	22:02	A.Bamarni	9251	5998

### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	980. ml	1.00 ml	5/28/02		D. Harris	3510

Sample report continued . . .

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

Laboratory Number: 02-A86362  
Sample ID: MW-14  
Project:  
Page 2

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Surrogate	% Recovery	Target Range
surr-o-Terphenyl	91.	50. - 150.
BTEX/GRO Surr., a,a,a-TFT	91.	67. - 135.

### LABORATORY COMMENTS:

- ND - Not detected at the report limit.  
B - Analyte was detected in the method blank.  
J - Estimated Value below Report Limit.  
# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

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## ANALYTICAL REPORT

HIGGINS AND ASSOCIATES 9898

8200 SOUTH AKRON ST, STE 120  
ENGLEWOOD, CO 80112

Lab Number: 02-A86363

Sample ID: MW-16

Sample Type: Water

Site ID:

Project:

Project Name: PPL EAST HOBBS

Sampler: ROGER KNIGHT

Date Collected: 5/21/02

Time Collected: 10:00

Date Received: 5/25/02

Time Received: 9:00

Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	1.0	ug/L	1.0	1.0	6/ 1/02	0:16	D.Yeager	8021B	7105
Ethylbenzene	ND	ug/L	1.0	1.0	6/ 1/02	0:16	D.Yeager	8021B	7105
Toluene	ND	ug/L	1.0	1.0	6/ 1/02	0:16	D.Yeager	8021B	7105
Xylenes (Total)	ND	ug/L	1.0	1.0	6/ 1/02	0:16	D.Yeager	8021B	7105
TPH (Gasoline Range)	ND	ug/L	100.	1.0	6/ 1/02	0:16	D.Yeager	8015B	7105
TPH (Diesel Range)	ND	ug/L	101.	1.0	5/30/02	8:49	K.Phelps	8015B/3510	7314
<hr/>									
*METALS*									
Iron	2940	ug/L	50.0	1.0	5/30/02	9:02	Rob Hunt	6010B	5229
Manganese	83.0	ug/L	15.0	1.0	5/30/02	9:02	Rob Hunt	6010B	5229
<hr/>									
*MISCELLANEOUS CHEMISTRY*									
Hardness	540.	mg/L	5.00	1.0	6/ 1/02	0:10	D. Hessin	130.1	5824
Chloride	159.	mg/L	20.0	20.0	5/28/02	22:02	A.Bamarni	9251	5998

### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	990. ml	1.00 ml	5/28/02		D. Harris	3510

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 02-A86363  
Sample ID: MW-16  
Project:  
Page 2

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Surrogate	% Recovery	Target Range
surr-o-Terphenyl	63.	50. - 150.
BTEX/GRO Surr., a,a,a-TFT	104.	67. - 135.

### LABORATORY COMMENTS:

- ND - Not detected at the report limit.  
B - Analyte was detected in the method blank.  
J - Estimated Value below Report Limit.  
# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

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## ANALYTICAL REPORT

HIGGINS AND ASSOCIATES 9898

8200 SOUTH AKRON ST, STE 120  
ENGLEWOOD, CO 80112

Lab Number: 02-A86364

Sample ID: MW-17

Sample Type: Water

Site ID:

Project:

Project Name: PPL EAST HOBBS

Sampler: ROGER KNIGHT

Date Collected: 5/21/02

Time Collected: 10:30

Date Received: 5/25/02

Time Received: 9:00

Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	4.0	ug/L	1.0	1.0	6/ 1/02	12:18	D.Yeager	8021B	9405
Ethylbenzene	1.8	ug/L	1.0	1.0	6/ 1/02	12:18	D.Yeager	8021B	9405
Toluene	ND	ug/L	1.0	1.0	6/ 1/02	12:18	D.Yeager	8021B	9405
Xylenes (Total)	ND	ug/L	1.0	1.0	6/ 1/02	12:18	D.Yeager	8021B	9405
TPH (Gasoline Range)	423.	ug/L	100.	1.0	6/ 1/02	12:18	D.Yeager	8015B	9405
TPH (Diesel Range)	834.	ug/L	101.	1.0	5/30/02	9:08	K.Phelps	8015B/3510	7314
<hr/>									
*METALS*									
Iron	1040	ug/L	50.0	1.0	5/30/02	9:02	Rob Hunt	6010B	5229
Manganese	202.	ug/L	15.0	1.0	5/30/02	9:02	Rob Hunt	6010B	5229
<hr/>									
*MISCELLANEOUS CHEMISTRY*									
Hardness	575.	mg/L	5.00	1.0	6/ 1/02	0:10	D. Hessin	130.1	5824
Chloride	132.	mg/L	20.0	20.0	5/28/02	22:02	A.Bamarni	9251	5998

### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	990. ml	1.00 ml	5/28/02		D. Harris	3510

Sample report continued . . .

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INCORPORATED

## ANALYTICAL REPORT

Laboratory Number: 02-A86364  
Sample ID: MW-17  
Project:  
Page 2

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Surrogate	% Recovery	Target Range
surr-o-Terphenyl	76.	50. - 150.
BTEX/GRO Surr., a,a,a-TFT	128.	67. - 135.

### LABORATORY COMMENTS:

- ND - Not detected at the report limit.  
B - Analyte was detected in the method blank.  
J - Estimated Value below Report Limit.  
# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

HIGGINS AND ASSOCIATES 9898

8200 SOUTH AKRON ST, STE 120  
ENGLEWOOD, CO 80112

Lab Number: 02-A86365

Sample ID: MW-18

Sample Type: Water

Site ID:

Project:

Project Name: PPL EAST HOBBS

Sampler: ROGER KNIGHT

Date Collected: 5/21/02

Time Collected: 12:23

Date Received: 5/25/02

Time Received: 9:00

Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	483.	ug/L	10.0	10.0	6/ 1/02	12:46	D.Yeager	8021B	9405
Ethylbenzene	105.	ug/L	1.0	1.0	6/ 1/02	1:10	D.Yeager	8021B	7105
Toluene	ND	ug/L	1.0	1.0	6/ 1/02	1:10	D.Yeager	8021B	7105
Xylenes (Total)	51.7	ug/L	1.0	1.0	6/ 1/02	1:10	D.Yeager	8021B	7105
TPH (Gasoline Range)	4480	ug/L	1000	10.0	6/ 1/02	12:46	D.Yeager	8015B	9405
TPH (Diesel Range)	ND	ug/L	101.	1.0	5/30/02	9:27	K.Phelps	8015B/3510	7314
<hr/>									
*METALS*									
Iron	2930	ug/L	50.0	1.0	5/30/02	9:02	Rob Hunt	6010B	5229
Manganese	374.	ug/L	15.0	1.0	5/30/02	9:02	Rob Hunt	6010B	5229
<hr/>									
*MISCELLANEOUS CHEMISTRY*									
Hardness	1070	mg/L	5.00	1.0	6/ 1/02	0:10	D. Hessin	130.1	5824
Chloride	184.	mg/L	50.0	50.0	5/28/02	22:02	A.Bamarni	9251	5998

### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	990. ml	1.00 ml	5/28/02		D. Harris	3510

Sample report continued . . .

# TestAmerica

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## ANALYTICAL REPORT

Laboratory Number: 02-A86365  
Sample ID: MW-18  
Project:  
Page 2

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Surrogate	% Recovery	Target Range
surr-o-Terphenyl	52.	50. - 150.
BTEX/GRO Surr., a,a,a-TFT	126.	67. - 135.

### LABORATORY COMMENTS:

- ND - Not detected at the report limit.  
B - Analyte was detected in the method blank.  
J - Estimated Value below Report Limit.  
# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

HIGGINS AND ASSOCIATES 9898  
 8200 SOUTH AKRON ST, STE 120  
 ENGLEWOOD, CO 80112

Lab Number: 02-A86366  
 Sample ID: MW-19  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name: PPL EAST HOBBS  
 Sampler: ROGER KNIGHT

Date Collected: 5/21/02  
 Time Collected: 12:23  
 Date Received: 5/25/02  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<b>*ORGANIC PARAMETERS*</b>									
Benzene	ND	ug/L	1.0	1.0	6/ 1/02	1:38	D.Yeager	8021B	7105
Ethylbenzene	ND	ug/L	1.0	1.0	6/ 1/02	1:38	D.Yeager	8021B	7105
Toluene	ND	ug/L	1.0	1.0	6/ 1/02	1:38	D.Yeager	8021B	7105
Xylenes (Total)	ND	ug/L	1.0	1.0	6/ 1/02	1:38	D.Yeager	8021B	7105
TPH (Gasoline Range)	106.	ug/L	100.	1.0	6/ 1/02	1:38	D.Yeager	8015B	7105
TPH (Diesel Range)	ND	ug/L	102.	1.0	5/30/02	16:00	K.Phelps	8015B/3510	7314
<b>*METALS*</b>									
Iron	2750	ug/L	50.0	1.0	5/30/02	9:02	Rob Hunt	6010B	5229
Manganese	40.0	ug/L	15.0	1.0	5/30/02	9:02	Rob Hunt	6010B	5229
<b>*MISCELLANEOUS CHEMISTRY*</b>									
Hardness	824.	mg/L	5.00	1.0	6/ 1/02	0:10	D. Hessin	130.1	5824
Chloride	150.	mg/L	20.0	20.0	5/28/02	22:02	A.Bamarni	9251	5998

### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	980. ml	1.00 ml	5/28/02		D. Harris	3510

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 02-A86366  
Sample ID: MW-19  
Project:  
Page 2

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Surrogate	% Recovery	Target Range
surr-o-Terphenyl	81.	50. - 150.
BTEX/GRO Surr., a,a,a-TFT	100.	67. - 135.

### LABORATORY COMMENTS:

- ND - Not detected at the report limit.  
B - Analyte was detected in the method blank.  
J - Estimated Value below Report Limit.  
# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

HIGGINS AND ASSOCIATES 9898  
8200 SOUTH AKRON ST, STE 120  
ENGLEWOOD, CO 80112

Lab Number: 02-A86367  
Sample ID: MW-20  
Sample Type: Water  
Site ID:

Project:  
Project Name: PPL EAST HOBBS  
Sampler: ROGER KNIGHT

Date Collected: 5/21/02  
Time Collected: 10:20  
Date Received: 5/25/02  
Time Received: 9:00  
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<b>*ORGANIC PARAMETERS*</b>									
Benzene	ND	ug/L	1.0	1.0	6/ 1/02	2:05	D.Yeager	8021B	7105
Ethylbenzene	ND	ug/L	1.0	1.0	6/ 1/02	2:05	D.Yeager	8021B	7105
Toluene	ND	ug/L	1.0	1.0	6/ 1/02	2:05	D.Yeager	8021B	7105
Xylenes (Total)	ND	ug/L	1.0	1.0	6/ 1/02	2:05	D.Yeager	8021B	7105
TPH (Gasoline Range)	ND	ug/L	100.	1.0	6/ 1/02	2:05	D.Yeager	8015B	7105
TPH (Diesel Range)	ND	ug/L	102.	1.0	5/30/02	16:20	K.Phelps	8015B/3510	7314
<b>*METALS*</b>									
Iron	1840	ug/L	50.0	1.0	5/30/02	9:02	Rob Hunt	6010B	5229
Manganese	26.0	ug/L	15.0	1.0	5/30/02	9:02	Rob Hunt	6010B	5229
<b>*MISCELLANEOUS CHEMISTRY*</b>									
Hardness	638.	mg/L	5.00	1.0	6/ 1/02	0:10	D. Hessin	130.1	5824
Chloride	71.5	mg/L	10.0	10.0	5/28/02	22:02	A.Bamarni	9251	5998

### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	980. ml	1.00 ml	5/28/02		D. Harris	3510

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 02-A86367  
Sample ID: MW-20  
Project:  
Page 2

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Surrogate	% Recovery	Target Range
surr-o-Terphenyl	70.	50. - 150.
BTEX/GRO Surr., a,a,a-TFT	99.	67. - 135.

### LABORATORY COMMENTS:

- ND - Not detected at the report limit.  
B - Analyte was detected in the method blank.  
J - Estimated Value below Report Limit.  
# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

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## PROJECT QUALITY CONTROL DATA

Project Number:

Page: 1

### Matrix Spike Recovery

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C.	Batch	Spike Sample
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#### \*\*UST ANALYSIS\*\*

Benzene	mg/l	< 0.0006	0.0479	0.0500	96	82. - 125.	7105	BLANK
Benzene	mg/l	< 0.0006	0.0485	0.0500	97	82. - 125.	9405	BLANK
Toluene	mg/l	< 0.0006	0.0489	0.0500	98	77. - 121.	7105	BLANK
Toluene	mg/l	< 0.0006	0.0494	0.0500	99	77. - 121.	9405	BLANK
Ethylbenzene	mg/l	< 0.0007	0.0485	0.0500	97	76. - 128.	7105	BLANK
Ethylbenzene	mg/l	< 0.0007	0.0488	0.0500	98	76. - 128.	9405	BLANK
Xylenes (Total)	mg/l	< 0.0006	0.0945	0.100	94	79. - 125.	7105	BLANK
Xylenes (Total)	mg/l	< 0.0006	0.0952	0.100	95	79. - 125.	9405	BLANK
TPH (Gasoline Range)	mg/l	0.116	0.950	1.00	83	72. - 126.	7105	BLANK
TPH (Gasoline Range)	mg/l	0.109	0.950	1.00	84	72. - 126.	9405	BLANK
TPH (Diesel Range)	mg/l	< 0.100	1.01	1.00	101	41. - 121.	7314	BLANK
BTEX/GRO Surr., a,a,a-TFT	% Recovery				97	67. - 135.	7105	
BTEX/GRO Surr., a,a,a-TFT	% Recovery				98	67. - 135.	9405	

### Matrix Spike Recovery

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C.	Batch	Spike Sample
---------	-------	------------	--------	------------	----------	--------------	------	-------	--------------

#### \*\*METALS\*\*

Iron	mg/l	1.13	2.03	1.00	90	80 - 120	5228	Duplicate
Iron	mg/l	5.54	6.64	1.00	110	80 - 120	5229	Duplicate
Manganese	mg/l	0.0250	0.507	0.500	96	80 - 120	5228	Duplicate
Manganese	mg/l	1.39	1.92	0.500	106	80 - 120	5229	Duplicate

Project QC continued . . .

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## PROJECT QUALITY CONTROL DATA

Project Number:

Page: 2

### Matrix Spike Recovery

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
---------	-------	------------	--------	------------	----------	--------------	------------	--------------

### Matrix Spike Recovery

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
---------	-------	------------	--------	------------	----------	--------------	------------	--------------

### \*\*MISC PARAMETERS\*\*

Chloride	mg/l	8.07	21.0	12.5	103	80 - 120	5847	02-A83501
----------	------	------	------	------	-----	----------	------	-----------

### Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
---------	-------	------------	-----------	-----	-------	------------

### \*\*UST PARAMETERS\*\*

Benzene	mg/l	0.0479	0.0487	1.66	13.	7105
Benzene	mg/l	0.0485	0.0485	0.00	13.	9405
Toluene	mg/l	0.0489	0.0496	1.42	13.	7105
Toluene	mg/l	0.0494	0.0493	0.20	13.	9405
Ethylbenzene	mg/l	0.0485	0.0492	1.43	13.	7105
Ethylbenzene	mg/l	0.0488	0.0489	0.20	13.	9405
Xylenes (Total)	mg/l	0.0945	0.0959	1.47	13.	7105
Xylenes (Total)	mg/l	0.0952	0.0954	0.21	13.	9405
TPH (Gasoline Range)	mg/l	0.950	0.864	9.48	20.	7105
TPH (Gasoline Range)	mg/l	0.950	0.864	9.48	20.	9405
TPH (Diesel Range)	mg/l	1.01	0.956	5.49	46.	7314
BTEX/GRO Surr., a,a,a-TFT	% Recovery		99.			7105
BTEX/GRO Surr., a,a,a-TFT	% Recovery		99.			9405

Project QC continued . . .

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## PROJECT QUALITY CONTROL DATA

Project Number:

Page: 3

### Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
Iron	mg/l	2.03	1.98	2.49	20	5228
Iron	mg/l	6.64	6.48	2.44	20	5229
Manganese	mg/l	0.507	0.498	1.79	20	5228
Manganese	mg/l	1.92	1.88	2.11	20	5229

### Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
Chloride	mg/l	21.0	21.0	0.00	20	5847

### Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Benzene	mg/l	0.100	0.0955	96	82 - 122	7105
Benzene	mg/l	0.100	0.0914	91	82 - 122	9405
Toluene	mg/l	0.100	0.0963	96	77 - 119	7105
Toluene	mg/l	0.100	0.0918	92	77 - 119	9405
Ethylbenzene	mg/l	0.100	0.0948	95	76 - 125	7105
Ethylbenzene	mg/l	0.100	0.0907	91	76 - 125	9405
Xylenes (Total)	mg/l	0.200	0.183	92	73 - 123	7105
Xylenes (Total)	mg/l	0.200	0.176	88	73 - 123	9405
TPH (Gasoline Range)	mg/l	1.00	0.950	95	75 - 126	7105
TPH (Gasoline Range)	mg/l	1.00	0.950	95	75 - 126	9405
TPH (Diesel Range)	mg/l	1.00	0.949	95	46 - 118	7314

Project QC continued . . .

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## PROJECT QUALITY CONTROL DATA

Project Number:

Page: 4

BTEX/GRO Surr., a,a,a-TFT	% Recovery	94	67 - 135	7105
BTEX/GRO Surr., a,a,a-TFT	% Recovery	95	67 - 135	9405

### Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Iron	mg/l	1.00	0.923	92	80 - 120	5228
Iron	mg/l	1.00	1.00	100	80 - 120	5229
Manganese	mg/l	0.500	0.486	97	80 - 120	5228
Manganese	mg/l	0.500	0.510	102	80 - 120	5229

### Continuing Calibration Verification

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch

### \*\*METALS\*\*

### Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch

### \*\*MISC PARAMETERS\*\*

Chloride	mg/l	10.0	9.93	99	90 - 110	5847
Chloride	mg/l	10.0	9.60	96	90 - 110	5998

### Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd
Chloride	mg/l	180.	180.	0.00	15.	5847	02-A86360
Chloride	mg/l	3980	3940	1.01	15.	5998	02-A86685

Project QC continued . . .

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## PROJECT QUALITY CONTROL DATA

Project Number:

Page: 5

### Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
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#### \*\*UST PARAMETERS\*\*

Benzene	< 0.0006	mg/l	7105	5/31/02	17:25
Benzene	< 0.0006	mg/l	9405	6/ 1/02	3:27
Toluene	< 0.0006	mg/l	7105	5/31/02	17:25
Toluene	< 0.0006	mg/l	9405	6/ 1/02	3:27
Ethylbenzene	< 0.0007	mg/l	7105	5/31/02	17:25
Ethylbenzene	< 0.0007	mg/l	9405	6/ 1/02	3:27
Xylenes (Total)	< 0.0006	mg/l	7105	5/31/02	17:25
Xylenes (Total)	< 0.0006	mg/l	9405	6/ 1/02	3:27
TPH (Gasoline Range)	0.116	mg/l	7105	5/31/02	17:25
TPH (Gasoline Range)	0.109	mg/l	9405	6/ 1/02	3:27
TPH (Diesel Range)	< 0.100	mg/l	7314	5/30/02	8:08

### Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
---------	-------------	-------	------------	---------------	---------------

#### \*\*UST PARAMETERS\*\*

BTEX/GRO Surr., a,a,a-TFT	98.	% Recovery	7105	5/31/02	17:25
BTEX/GRO Surr., a,a,a-TFT	97.	% Recovery	9405	6/ 1/02	3:27

### Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
---------	-------------	-------	------------	---------------	---------------

#### \*\*METALS\*\*

Iron	< 0.0288	mg/l	5228	5/28/02	19:31
Iron	< 0.0288	mg/l	5229	5/30/02	9:02
Manganese	< 0.0003	mg/l	5228	5/28/02	19:31
Manganese	< 0.0003	mg/l	5229	5/30/02	9:02

Project QC continued . . .

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## PROJECT QUALITY CONTROL DATA

Project Number:

Page: 6

### Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
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### \*\*MISC PARAMETERS\*\*

Chloride	< 1.00	mg/l	5847	5/28/02	22:02
Chloride	< 1.00	mg/l	5998	5/28/02	22:02

# - Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 286263

# TestAmerica

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Nashville Division  
2960 Foster Creighton  
Nashville, TN 37204

Phone: 615-726-0177  
Fax: 615-726-3404

28le2le3

To assist us in using the proper analytical methods,  
is this work being conducted for regulatory purposes?  
Compliance Monitoring

Client Name Hicks and Associates Client #: 9899  
Address: Dave S. Atchison ST.

City/State/Zip Code: Centennial CO 80112  
Project Manager: CHRIS HICKS  
Telephone Number: 303 708-9846 Fax: 303 708-9848  
Sampler Name: (Print Name) Rose Knapp  
Sampler Signature: Rose Knapp

Project Name: PPL East Hobbs  
Project #: Hicks

Site/Location ID: Hicks State: CO  
Report To: Chris Hicks  
Invoice To: Chris Hicks  
Quote #:  Proj #:

SAMPLE ID	Date Sampled	Time Sampled	Matrix	Preservation & # of Containers	Analyze For:							QC Deliverables		
					SL - Sludge	DW - Drinking Water	GW - Groundwater	S - Soil/Solid	WW - Wastewater	Specify Other	BTEX	TUPH	TERPH	REMARKS
MW-4	5/24/02	3:51	air	1	X									None
MW-5		3:32												Level 2
MW-8		2:59												(Batch QC)
MW-12		2:42												Level 3
MW-13		1:17												Level 4
MW-14		1:51												Other:
MW-16		1:00												
MW-17		1:30												
MW-18		1:23												
MW-19		1:32												

Special Instructions:

Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Rec Lab Temp:	Init Lab Temp:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Custody Seal: Y N N/A	Bottles Supplied by Test America: Y N
Relinquished By:	Date:	Time:	Received By:	Date:	Time:		Method of Shipment:

# Test America

Nashville Division  
2860 Foster Creighton  
Nashville, TN 37204

Phone: 615-726-0177  
Fax: 615-726-3404

8/20/03

To assist us in using the proper analytical methods,  
is this work being conducted for regulatory purposes?  
Compliance Monitoring

Client Name Hoggins and Associates Client #: 7858  
Address: 8100 S. Akers St. #120

City/State/Zip Code:

Centennial Co 80112

Project Manager:

Chris Hoggins

Telephone Number:

303 708-9948

Sampler Name: (Print Name)

Roger Hoggins

Sampler Signature:

Roger Hoggins

Nashville Division  
2860 Foster Creighton  
Nashville, TN 37204

Phone: 615-726-0177  
Fax: 615-726-3404

8/20/03

To assist us in using the proper analytical methods,  
is this work being conducted for regulatory purposes?  
Compliance Monitoring

Project Name: PPL East Hobbs  
Project #:

Site/Location ID:

Hobbs

State: KY

Report To:

Chris Hoggins

Invoice To:

Chris Hoggins

Quote #:

PO#

Analyze For:

QC Deliverables

<input checked="" type="checkbox"/> Standard	<input type="checkbox"/> None
<input type="checkbox"/> Rush (surcharges may apply)	<input type="checkbox"/> Level 2 (Batch QC)
<input type="checkbox"/> Date Needed:	<input type="checkbox"/> Level 3
<input checked="" type="checkbox"/> Fax Results:	<input type="checkbox"/> Level 4
<input type="checkbox"/> N	<input type="checkbox"/> Other:

<input checked="" type="checkbox"/> G = Grab, C = Composite	<input type="checkbox"/> None
<input type="checkbox"/> Field Filtered	<input type="checkbox"/> Level 2 (Batch QC)
<input type="checkbox"/> SL - Sludge DW - Drinking Water	<input type="checkbox"/> Level 3
<input type="checkbox"/> GW - Groundwater S - Soil/Solid	<input type="checkbox"/> Level 4
<input type="checkbox"/> WW - Wastewater Specify Other	<input type="checkbox"/> Other:

<input checked="" type="checkbox"/> HNO <sub>3</sub>	<input type="checkbox"/> REMARKS
<input type="checkbox"/> HCl	<input type="checkbox"/> REMARKS
<input type="checkbox"/> NaOH	<input type="checkbox"/> REMARKS
<input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub>	<input type="checkbox"/> REMARKS
<input type="checkbox"/> Methanol	<input type="checkbox"/> REMARKS
<input type="checkbox"/> None	<input type="checkbox"/> REMARKS
<input type="checkbox"/> Other (Specify)	<input type="checkbox"/> REMARKS

<input checked="" type="checkbox"/> BTEX	<input type="checkbox"/> REMARKS
<input checked="" type="checkbox"/> TPH	<input type="checkbox"/> REMARKS
<input checked="" type="checkbox"/> TEPH	<input type="checkbox"/> REMARKS
<input checked="" type="checkbox"/> chloro	<input type="checkbox"/> REMARKS
<input checked="" type="checkbox"/> total Hardness	<input type="checkbox"/> REMARKS
<input checked="" type="checkbox"/> Fe	<input type="checkbox"/> REMARKS
<input checked="" type="checkbox"/> Mn	<input type="checkbox"/> REMARKS
<input checked="" type="checkbox"/> Sulfate	<input type="checkbox"/> REMARKS

LABORATORY COMMENTS:	
Rec Lab Temp:	Int Lab Temp:

<input checked="" type="checkbox"/> Relinquished By: <u>Chris Hoggins</u>	Date: <u>5/24/02</u>	Time: <u>1200</u>	Received By: <u>Chris Hoggins</u>	Date: <u>5/24/02</u>	Time: <u>1200</u>
<input type="checkbox"/> Received By: <u>Chris Hoggins</u>	Date: <u>5/24/02</u>	Time: <u>1200</u>	<input type="checkbox"/> Received By: <u>Chris Hoggins</u>	Date: <u>5/24/02</u>	Time: <u>1200</u>
<input type="checkbox"/> Received By: <u>Chris Hoggins</u>	Date: <u>5/24/02</u>	Time: <u>1200</u>	<input type="checkbox"/> Received By: <u>Chris Hoggins</u>	Date: <u>5/24/02</u>	Time: <u>1200</u>

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6/ 3/02

HIGGINS & ASSOCIATES, LLC/UST 10588

CHRIS HIGGINS

8200 S. AKRON, STE 120

ENGLEWOOD, CO 80112

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project HOBBS EAST. The Laboratory Project number is 286261. An executed copy of the chain of custody and the sample receipt form are also included as an addendum to this report.

Sample Identification	Lab Number	Collection Date
MW-21	02-A86354	5/23/02
MW-22	02-A86355	5/20/02
MW-23	02-A86356	5/23/02

These results relate only to the items tested.  
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: Gail A. Lage

Report Date: 6/ 3/02

Paul E. Lane, Jr., Lab Director  
Michael H. Dunn, M.S., Technical Director  
Johnny A. Mitchell, Dir. Technical Serv.  
Eric S. Smith, Assistant Technical Director  
Jennifer P. Flynn, Technical Services

Gail A. Lage, Technical Serv.  
Glenn L. Norton, Technical Serv.  
Kelly S. Comstock, Technical Serv.  
Pamela A. Langford, Technical Serv.

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## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
 CHRIS HIGGINS  
 8200 S. AKRON, STE 120  
 ENGLEWOOD, CO 80112

Lab Number: 02-A86354  
 Sample ID: MW-21  
 Sample Type: Soil  
 Site ID:

Project:  
 Project Name: HOBBS EAST  
 Sampler: CHRIS HIGGINS

Date Collected: 5/23/02  
 Time Collected: 10:55  
 Date Received: 5/25/02  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	ND	mg/kg	0.0100	1	6/ 1/02	19:42	J. Redmond	8021B	4943
Ethylbenzene	ND	mg/kg	0.0100	1	6/ 1/02	19:42	J. Redmond	8021B	4943
Toluene	ND	mg/kg	0.0100	1	6/ 1/02	19:42	J. Redmond	8021B	4943
Xylenes, total	ND	mg/kg	0.0100	1	6/ 1/02	19:42	J. Redmond	8021B	4943
TPH (Gasoline Range)	ND	mg/kg	5.00	1	6/ 1/02	19:42	J. Redmond	8015B	4943
TPH (Diesel Range)	ND	mg/kg	10.1	1	5/29/02	7:58	K. Phelps	8015B	6251

---

### Sample Extraction Data

Parameter	Wt/Vol	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH/DRO		24.8 gm	1.0 ml	5/28/02		M. Cauthen	3550

---

Surrogate	% Recovery	Target Range
UST surr-Trifluorotoluene	93.	65. - 135.
EPH surr-o-Terphenyl	59.	50. - 150.

Sample report continued . . .



## ANALYTICAL REPORT

Laboratory Number: 02-A86354  
Sample ID: MW-21  
Project:  
Page 2

### LABORATORY COMMENTS:

ND - Not detected at the report limit.  
B - Analyte was detected in the method blank.  
J - Estimated Value below Report Limit.  
# - Recovery outside Laboratory historical or method prescribed limits.  
All results reported on a wet weight basis.

End of Sample Report.

# TestAmerica<sup>®</sup>

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## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
 CHRIS HIGGINS  
 8200 S. AKRON, STE 120  
 ENGLEWOOD, CO 80112

Lab Number: 02-A86355  
 Sample ID: MW-22  
 Sample Type: Soil  
 Site ID:

Project:  
 Project Name: HOBBS EAST  
 Sampler: CHRIS HIGGINS

Date Collected: 5/20/02  
 Time Collected: 16:00  
 Date Received: 5/25/02  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	ND	mg/kg	0.0100	1	6/ 1/02	20:16	J. Redmond	8021B	4943
Ethylbenzene	ND	mg/kg	0.0100	1	6/ 1/02	20:16	J. Redmond	8021B	4943
Toluene	ND	mg/kg	0.0100	1	6/ 1/02	20:16	J. Redmond	8021B	4943
Xylenes, total	ND	mg/kg	0.0100	1	6/ 1/02	20:16	J. Redmond	8021B	4943
TPH (Gasoline Range)	ND	mg/kg	5.00	1	6/ 1/02	20:16	J. Redmond	8015B	4943
TPH (Diesel Range)	ND	mg/kg	9.96	1	5/29/02	8:18	K. Phelps	8015B	6251

---

### Sample Extraction Data

Parameter	Wt/Vol	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH/DRO		25.1 gm	1.0 ml	5/28/02		M. Cauthen	3550

---

Surrogate	% Recovery	Target Range
UST surr-Trifluorotoluene	93.	65. - 135.
EPH surr-o-Terphenyl	50.	50. - 150.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 02-A86355  
Sample ID: MW-22  
Project:  
Page 2

### LABORATORY COMMENTS:

ND - Not detected at the report limit.  
B - Analyte was detected in the method blank.  
J - Estimated Value below Report Limit.  
# - Recovery outside Laboratory historical or method prescribed limits.  
All results reported on a wet weight basis.

End of Sample Report.

# TestAmerica

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## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
 CHRIS HIGGINS  
 8200 S. AKRON, STE 120  
 ENGLEWOOD, CO 80112

Lab Number: 02-A86356  
 Sample ID: MW-23  
 Sample Type: Soil  
 Site ID:

Project:  
 Project Name: HOBBS EAST  
 Sampler: CHRIS HIGGINS

Date Collected: 5/23/02  
 Time Collected: 7:40  
 Date Received: 5/25/02  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Benzene	ND	mg/kg	0.0100	1	6/ 1/02	20:49	J. Redmond	8021B	4943
Ethylbenzene	0.0270	mg/kg	0.0100	1	6/ 1/02	20:49	J. Redmond	8021B	4943
Toluene	ND	mg/kg	0.0100	1	6/ 1/02	20:49	J. Redmond	8021B	4943
Xylenes, total	0.0800	mg/kg	0.0100	1	6/ 1/02	20:49	J. Redmond	8021B	4943
TPH (Gasoline Range)	ND	mg/kg	5.00	1	6/ 1/02	20:49	J. Redmond	8015B	4943
TPH (Diesel Range)	ND	mg/kg	10.1	1	5/29/02	8:38	K. Phelps	8015B	6251

### Sample Extraction Data

Parameter	Extracted	Wt/Vol	Extract Vol	Date	Time	Analyst	Method
EPH/DRO	24.8 gm	1.0 ml		5/28/02		M. Cauthen	3550

Surrogate	% Recovery	Target Range
UST surr-Trifluorotoluene	100.	65. - 135.
EPH surr-o-Terphenyl	57.	50. - 150.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 02-A86356  
Sample ID: MW-23  
Project:  
Page 2

### LABORATORY COMMENTS:

ND ~ Not detected at the report limit.  
B - Analyte was detected in the method blank.  
J - Estimated Value below Report Limit.  
# - Recovery outside Laboratory historical or method prescribed limits.  
All results reported on a wet weight basis.

End of Sample Report.

# TestAmerica<sup>®</sup>

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## PROJECT QUALITY CONTROL DATA

Project Number:

Page: 1

### Matrix Spike Recovery

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
<b>**UST ANALYSIS**</b>								
Benzene	mg/kg	< 0.0100	0.223	0.250	89	77. - 131.	4943	blank
Toluene	mg/kg	< 0.0100	0.208	0.250	83	71. - 121.	4943	blank
Ethylbenzene	mg/kg	< 0.0100	0.223	0.250	89	73. - 129.	4943	blank
Xylenes, total	mg/kg	< 0.0100	0.435	0.500	87	68. - 128.	4943	blank
TPH (Gasoline Range)	mg/kg	< 5.00	56.1	50.0	112	62. - 129.	4943	blank
TPH (Diesel Range)	mg/kg	< 9.96	34.7	40.0	87	24. - 127.	6251	02-A86355

### Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
<b>**UST PARAMETERS**</b>						
Benzene	mg/kg	0.223	0.223	0.00	17.	4943
Toluene	mg/kg	0.208	0.208	0.00	17.	4943
Ethylbenzene	mg/kg	0.223	0.222	0.45	17.	4943
Xylenes, total	mg/kg	0.435	0.435	0.00	14.	4943
TPH (Gasoline Range)	mg/kg	56.1	54.4	3.08	21.	4943
TPH (Diesel Range)	mg/kg	34.7	30.0	14.53	52.	6251

### Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
<b>**UST PARAMETERS**</b>						
Benzene	mg/kg	0.500	0.443	89	77 - 131	4943
Toluene	mg/kg	0.500	0.416	83	75 - 118	4943
Ethylbenzene	mg/kg	0.500	0.438	88	74 - 126	4943
Xylenes, total	mg/kg	1.00	0.854	85	71 - 125	4943
TPH (Gasoline Range)	mg/kg	50.0	56.1	112	75 - 121	4943

Project QC continued . . .

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## PROJECT QUALITY CONTROL DATA

Project Number:

Page: 2

### Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
TPH (Diesel Range)	mg/kg	40.0	28.6	72	49 - 120	6251

### Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed

### \*\*UST PARAMETERS\*\*

Benzene	< 0.0100	mg/kg	4943	6/ 1/02	19:08
Toluene	< 0.0100	mg/kg	4943	6/ 1/02	19:08
Ethylbenzene	< 0.0100	mg/kg	4943	6/ 1/02	19:08
Xylenes, total	< 0.0100	mg/kg	4943	6/ 1/02	19:08
TPH (Gasoline Range)	< 5.00	mg/kg	4943	6/ 1/02	19:08
TPH (Diesel Range)	< 10.0	mg/kg	6251	5/29/02	5:38

### Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed

### \*\*UST PARAMETERS\*\*

UST surr-Trifluorotoluene	93.	% Recovery	4943	6/ 1/02	19:08
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End of Report for Project 286261

# TestAmerica

INCORPORATED

Nashville Division  
2960 Foster Croaghton  
Nashville, TN 37204

Phone: 615-726-0177  
Fax: 615-726-3404

To assist us in using the proper analytical methods,  
is this work being conducted for regulatory purposes?

Compliance Monitoring

Client Name Hopkins and Associates Client #: 10588

Address: 920 S. Akim St. #120

City/State/Zip Code:

Project Manager:

Telephone Number:

Sampler Name: (Print Name)

Sampler Signature:

Project #: Hobbs East

Site/Location ID: Hobbs State: TN

Report To: Chris Hopkins

Invoice To: Chris Hopkins

Quote #:  PO#:

SAMPLE ID	TAT Standard Rush (surcharges may apply)	Date Sampled	Time Sampled	Matrix	Preservation & # of Containers	Analyze For:										QC Deliverables
						G = Grab, C = Composite	Field Filtered	SL - Sludge	DW - Drinking Water	GW - Groundwater	S - Soil/Solid	WW - Wastewater	Specify Other	BOD <sub>5</sub>	8021	
MW-21	5/24/02	1045	2	HNO <sub>3</sub>	X	X	X	X	X	X	X	X	X	802351		
MW-22	5/24/02	1600	3	HCl	X	X	X	X	X	X	X	X	X	( 55		
MW-23	5/24/02	1740	2	NaOH	X	X	X	X	X	X	X	X	X	802350		
				H <sub>2</sub> SO <sub>4</sub>												
				Methanol												
				None												
				Other (Specify)												

## REMARKS

Initial Lab Temp.:  
Reg. Lab Temp.:

Relinquished By: <u>Myself</u>	Date: <u>5/24/02</u>	Received By: <u>Carey</u>	Date: <u></u>	Time: <u>1200</u>	Received By: <u>Chris Green</u>	Date: <u>5/24/02</u>	Time: <u>1245</u>
Relinquished By: <u></u>	Date: <u></u>	Received By: <u></u>	Date: <u></u>	Time: <u></u>	Received By: <u>Chris Green</u>	Date: <u>5/25/02</u>	Time: <u>9:00</u>
Relinquished By: <u></u>	Date: <u></u>	Received By: <u></u>	Date: <u></u>	Time: <u></u>	Received By: <u>Chris Green</u>	Date: <u>5/25/02</u>	Time: <u>9:00</u>

Custody Seals: Y N N/A

Bottles Supplied by Test America: Y N

Method of Shipment:

Special Instructions:

LABORATORY COMMENTS:

# TestAmerica<sup>®</sup>

INCORPORATED

6/19/02

HIGGINS & ASSOCIATES, LLC/UST 10588  
CHRIS HIGGINS  
8200 S. AKRON, STE 120  
ENGLEWOOD, CO 80112

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project PHILLIPS HOBBS EAST. The Laboratory Project number is 289124. An executed copy of the chain of custody and the sample receipt form are also included as an addendum to this report.

Sample Identification	Lab Number	Collection Date
MW#21	02-A98615	6/13/02
MW#22	02-A98616	6/13/02
MW#23	02-A98617	6/13/02

These results relate only to the items tested.  
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By:

Paul E. Lane

Report Date: 6/19/02

Paul E. Lane, Jr., Lab Director  
Michael H. Dunn, M.S., Technical Director  
Johnny A. Mitchell, Dir. Technical Serv.  
Eric S. Smith, Assistant Technical Director

Gail A. Lage, Technical Serv.  
Glenn L. Norton, Technical Serv.  
Kelly S. Comstock, Technical Serv.  
Pamela A. Langford, Technical Serv.

# TestAmerica<sup>®</sup>

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## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
 CHRIS HIGGINS  
 8200 S. AKRON, STE 120  
 ENGLEWOOD, CO 80112

Lab Number: 02-A98615  
 Sample ID: MW#21  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name: PHILLIPS HOBBS EAST  
 Sampler: NICK FISCHER

Date Collected: 6/13/02  
 Time Collected:  
 Date Received: 6/15/02  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report	Dil	Analysis		Analyst	Method	Batch
			Limit	Factor	Date	Time			
<b>*ORGANIC PARAMETERS*</b>									
Benzene	ND	ug/L	1.0	1.0	6/18/02	0:15	D.Ramey	8021B	437
Ethylbenzene	ND	ug/L	1.0	1.0	6/18/02	0:15	D.Ramey	8021B	437
Toluene	ND	ug/L	1.0	1.0	6/18/02	0:15	D.Ramey	8021B	437
Xylenes (Total)	ND	ug/L	1.0	1.0	6/18/02	0:15	D.Ramey	8021B	437
TPH (Gasoline Range)	ND	ug/L	100.	1.0	6/18/02	0:15	D.Ramey	8015B	437
TPH (Diesel Range)	ND	ug/L	100.	1.0	6/19/02	0:18	D.Haywood	8015B/3510	1801

### \*MISCELLANEOUS CHEMISTRY\*

Chloride	832.	mg/L	40.0	40.0	6/18/02	1:41	A.Bamarni	9251	9929
----------	------	------	------	------	---------	------	-----------	------	------

### Sample Extraction Data

Parameter	Wt/Vol		Date	Time	Analyst	Method
	Extracted	Extract Vol				
EPH	1000 ml	1.00 ml	6/18/02		M. Ricke	3510

Surrogate	% Recovery	Target Range
surr-o-Terphenyl	86.	50. - 150.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 02-A98615  
Sample ID: MW#21  
Project:  
Page 2

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Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	103.	67. - 135.

### LABORATORY COMMENTS:

ND - Not detected at the report limit.  
B - Analyte was detected in the method blank.  
J - Estimated Value below Report Limit.  
# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica<sup>®</sup>

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## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
CHRIS HIGGINS  
8200 S. AKRON, STE 120  
ENGLEWOOD, CO 80112

Lab Number: 02-A98616  
Sample ID: MW#22  
Sample Type: Water  
Site ID:

Project:  
Project Name: PHILLIPS HOBBS EAST  
Sampler: NICK FISCHER

Date Collected: 6/13/02  
Time Collected:  
Date Received: 6/15/02  
Time Received: 9:00  
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

\*ORGANIC PARAMETERS\*

TPH (Diesel Range)	ND	ug/L	100.	1.0	6/19/02	0:37	D.Haywood	8015B/3510	1801
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\*MISCELLANEOUS CHEMISTRY\*

Chloride	76.5	mg/L	5.00	5.0	6/18/02	1:41	A.Bamarni	9251	9929
----------	------	------	------	-----	---------	------	-----------	------	------

Sample Extraction Data

Parameter	Wt/Vol	Extracted	Extract Vol	Date	Time	Analyst	Method
-----	-----	-----	-----	-----	-----	-----	-----
EPH	1000 ml	1.00 ml	6/18/02			M. Ricke	3510

Surrogate	% Recovery	Target Range
-----	-----	-----
surr-o-Terphenyl	87.	50. - 150.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 02-A98616  
Sample ID: MW#22  
Project:  
Page 2

### LABORATORY COMMENTS:

ND - Not detected at the report limit.  
B - Analyte was detected in the method blank.  
J - Estimated Value below Report Limit.  
# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
 CHRIS HIGGINS  
 8200 S. AKRON, STE 120  
 ENGLEWOOD, CO 80112

Lab Number: 02-A98617  
 Sample ID: MW#23  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name: PHILLIPS HOBBS EAST  
 Sampler: NICK FISCHER

Date Collected: 6/13/02  
 Time Collected:  
 Date Received: 6/15/02  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	ND	ug/L	1.0	1.0	6/18/02	0:43	D.Ramey	8021B	437
Ethylbenzene	ND	ug/L	1.0	1.0	6/18/02	0:43	D.Ramey	8021B	437
Toluene	ND	ug/L	1.0	1.0	6/18/02	0:43	D.Ramey	8021B	437
Xylenes (Total)	ND	ug/L	1.0	1.0	6/18/02	0:43	D.Ramey	8021B	437
TPH (Gasoline Range)	ND	ug/L	100.	1.0	6/18/02	0:43	D.Ramey	8015B	437
TPH (Diesel Range)	ND	ug/L	100.	1.0	6/19/02	0:57	D.Haywood	8015B/3510	1801

\*MISCELLANEOUS CHEMISTRY\*

Chloride	63.0	mg/L	5.00	5.0	6/18/02	1:41	A.Bamarni	9251	9929
----------	------	------	------	-----	---------	------	-----------	------	------

Sample Extraction Data

Parameter	Wt/Vol	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH		1000 ml	1.00 ml	6/18/02		M. Ricke	3510

Surrogate	% Recovery	Target Range
surr-o-Terphenyl	92.	50. - 150.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 02-A98617  
Sample ID: MW#23  
Project:  
Page 2

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	103.	67. - 135.

### LABORATORY COMMENTS:

- ND - Not detected at the report limit.  
B - Analyte was detected in the method blank.  
J - Estimated Value below Report Limit.  
# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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## PROJECT QUALITY CONTROL DATA

Project Number:

Page: 1

### Matrix Spike Recovery

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
<b>**UST ANALYSIS**</b>								
Benzene	mg/l	< 0.0006	0.0531	0.0500	106	82. - 125.	437	BLANK
Toluene	mg/l	< 0.0006	0.0518	0.0500	104	77. - 121.	437	BLANK
Ethylbenzene	mg/l	< 0.0007	0.0555	0.0500	111	76. - 128.	437	BLANK
Xylenes (Total)	mg/l	< 0.0006	0.106	0.100	106	79. - 125.	437	BLANK
TPH (Diesel Range)	mg/l	< 0.100	0.600	1.00	60	41. - 121.	1801	BLANK
BTEX/GRO Surr., a,a,a-TFT	% Recovery				94	67. - 135.	437	

### Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
<b>**UST PARAMETERS**</b>						
Benzene	mg/l	0.0531	0.0533	0.38	13.	437
Toluene	mg/l	0.0518	0.0521	0.58	13.	437
Ethylbenzene	mg/l	0.0555	0.0550	0.90	13.	437
Xylenes (Total)	mg/l	0.106	0.103	2.87	13.	437
TPH (Diesel Range)	mg/l	0.600	0.800	28.57	46.	1801
BTEX/GRO Surr., a,a,a-TFT	% Recovery		96.			437

### Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
<b>**UST PARAMETERS**</b>						
Benzene	mg/l	0.100	0.0927	93	82 - 122	437
Toluene	mg/l	0.100	0.0891	89	77 - 119	437
Ethylbenzene	mg/l	0.100	0.0936	94	76 - 125	437
Xylenes (Total)	mg/l	0.200	0.173	86	73 - 123	437
TPH (Diesel Range)	mg/l	1.00	0.673	67	46 - 118	1801

Project QC continued . . .

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## PROJECT QUALITY CONTROL DATA

Project Number:

Page: 2

BTEX/GRO Surr., a,a,a-TFT	% Recovery	93	67 - 135	437
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### Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
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#### \*\*MISC PARAMETERS\*\*

Chloride	mg/l	10.0	10.1	101	90 - 110	9929
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Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd
---------	-------	------------	-----------	-----	-------	------------	--------------

Chloride	mg/l	63.0	60.5	4.05	15.	9929	02-A98617
----------	------	------	------	------	-----	------	-----------

### Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
---------	-------------	-------	------------	---------------	---------------

#### \*\*UST PARAMETERS\*\*

Benzene	< 0.0006	mg/l	437	6/17/02	23:18
Toluene	< 0.0006	mg/l	437	6/17/02	23:18
Ethylbenzene	< 0.0007	mg/l	437	6/17/02	23:18
Xylenes (Total)	< 0.0006	mg/l	437	6/17/02	23:18
TPH (Gasoline Range)	< 0.042	mg/l	437	6/17/02	23:18
TPH (Diesel Range)	< 0.100	mg/l	1801	6/18/02	19:24

### Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
---------	-------------	-------	------------	---------------	---------------

#### \*\*UST PARAMETERS\*\*

BTEX/GRO Surr., a,a,a-TFT	104.	% Recovery	437	6/17/02	23:18
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Project QC continued . . .



**PROJECT QUALITY CONTROL DATA**

Project Number:

Page: 3

**Blank Data**

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed

**\*\*MISC PARAMETERS\*\***

Chloride	< 1.00	mg/l	9929	6/18/02	1:41
----------	--------	------	------	---------	------

End of Report for Project 289124

# TestAmerica

Nashville Division  
2960 Foster Creighton  
Nashville, TN 37204  
INCORPORATED

Phone: 615-726-0177  
Fax: 615-726-3404

To assist us in using the proper analytical methods,  
is this work being conducted for regulatory purposes?  
Compliance Monitoring

Special Instructions:											
SAMPLE ID			Matrix			Preservation & # of Containers			Analyze For:		
Mrk # 21	5/13								BTEX	QC Deliverables	
Mrk # 22	5/13								TVP4	None	
Mrk # 23	6/13								TEPH	Level 2 (Batch QC)	
									Chlorides	Level 3	
										Level 4	
										Other:	
REMARKS											
LABORATORY COMMENTS:											
Init Lab Temp: 4.0											
Rec Lab Temp: 4.0											
Relinquished By: <u>Chris Fischer</u>	Date: <u>5/14</u>	Time: <u>8:40</u>	Received By: <u>Ma. Hall</u>	Date: <u>5/15/2</u>	Time: <u>9:00</u>	Custody Seals: <u>Y</u>	<u>N</u>	<u>N/A</u>	Bottles Supplied by Test America: <u>Y</u>	<u>N</u>	Method of Shipment:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:						
Relinquished By:	Date:	Time:	Received By:	Date:	Time:						

# TestAmerica<sup>®</sup>

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6/28/02

HIGGINS & ASSOCIATES, LLC/UST 10588

CHRIS HIGGINS

8200 S. AKRON, STE 120

ENGLEWOOD, CO 80112

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project PHILLIPS HOBBS EAST. The Laboratory Project number is 289924. An executed copy of the chain of custody and the sample receipt form are also included as an addendum to this report.

Page 1

Sample Identification	Lab Number	Collection Date
-----	-----	-----
MW#22	02-A101935	6/20/02

These results relate only to the items tested.  
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By:

Report Date: 6/28/02

Paul E. Lane, Jr., Lab Director  
Michael H. Dunn, M.S., Technical Director  
Johnny A. Mitchell, Dir. Technical Serv.  
Eric S. Smith, Assistant Technical Director

Gail A. Lage, Technical Serv.  
Glenn L. Norton, Technical Serv.  
Kelly S. Comstock, Technical Serv.  
Pamela A. Langford, Technical Serv.

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## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
CHRIS HIGGINS  
8200 S. AKRON, STE 120  
ENGLEWOOD, CO 80112

Lab Number: 02-A101935  
Sample ID: MW#22  
Sample Type: Water  
Site ID: HOBBS EAST

Project:  
Project Name: PHILLIPS HOBBS EAST  
Sampler: NICK FISCHER

Date Collected: 6/20/02  
Time Collected:  
Date Received: 6/21/02  
Time Received: 9:00  
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	ND	ug/L	1.0	1.0	6/27/02	20:15	M.Himelick	8021B	4334
Ethylbenzene	ND	ug/L	1.0	1.0	6/27/02	20:15	M.Himelick	8021B	4334
Toluene	ND	ug/L	1.0	1.0	6/27/02	20:15	M.Himelick	8021B	4334
Xylenes (Total)	ND	ug/L	1.0	1.0	6/27/02	20:15	M.Himelick	8021B	4334
TPH (Gasoline Range)	ND	ug/L	100.	1.0	6/27/02	20:15	M.Himelick	8015B	4334

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	100.	67. ~ 135.

### LABORATORY COMMENTS:

- ND - Not detected at the report limit.  
B - Analyte was detected in the method blank.  
J - Estimated Value below Report Limit.  
# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica<sup>®</sup>

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## PROJECT QUALITY CONTROL DATA

Project Number:

Page: 1

### Matrix Spike Recovery

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
Benzene	mg/l	< 0.0006	0.0522	0.0500	104	74. - 129.	4334	BLANK
Toluene	mg/l	< 0.0006	0.0513	0.0500	103	74. - 128.	4334	BLANK
Ethylbenzene	mg/l	< 0.0007	0.0512	0.0500	102	75. - 128.	4334	BLANK
Xylenes (Total)	mg/l	< 0.0006	0.101	0.100	101	72. - 126.	4334	BLANK
TPH (Gasoline Range)	mg/l	< 0.042	1.00	1.00	100	59. - 128.	4334	BLANK
BTEX/GRO Surr., a,a,a-TFT	% Recovery				101	67. - 135.	4334	

### Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
Benzene	mg/l	0.0522	0.0525	0.57	15.	4334
Toluene	mg/l	0.0513	0.0516	0.58	15.	4334
Ethylbenzene	mg/l	0.0512	0.0518	1.17	15.	4334
Xylenes (Total)	mg/l	0.101	0.102	0.99	19.	4334
TPH (Gasoline Range)	mg/l	1.00	0.849	16.33	22.	4334
BTEX/GRO Surr., a,a,a-TFT	% Recovery		101.			4334

### Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Benzene	mg/l	0.100	0.105	105	74 - 124	4334
Toluene	mg/l	0.100	0.103	103	74 - 121	4334
Ethylbenzene	mg/l	0.100	0.102	102	75 - 123	4334
Xylenes (Total)	mg/l	0.200	0.202	101	72 - 120	4334
TPH (Gasoline Range)	mg/l	1.00	1.00	100	61 - 139	4334

Project QC continued . . .

# TestAmerica<sup>®</sup>

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## PROJECT QUALITY CONTROL DATA

Project Number:

Page: 2

BTEX/GRO Surr., a,a,a-TFT	% Recovery	101	67 - 135	4334
---------------------------	------------	-----	----------	------

### Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
-----	-----	-----	-----	-----	-----

### \*\*UST PARAMETERS\*\*

Benzene	< 0.0006	mg/l	4334	6/27/02	3:14
Toluene	< 0.0006	mg/l	4334	6/27/02	3:14
Ethylbenzene	< 0.0007	mg/l	4334	6/27/02	3:14
Xylenes (Total)	< 0.0006	mg/l	4334	6/27/02	3:14
TPH (Gasoline Range)	< 0.042	mg/l	4334	6/27/02	3:14

### Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
-----	-----	-----	-----	-----	-----

### \*\*UST PARAMETERS\*\*

BTEX/GRO Surr., a,a,a-TFT	101.	% Recovery	4334	6/27/02	3:14
---------------------------	------	------------	------	---------	------

End of Report for Project 289924

# TESTAMERICA, INC.-NASHVILLE

## COOLER RECEIPT FORM

Client HIGGINS & ASSOCIATES BC# 289924

Cooler Received On: 6/21/02 And Opened On: 6/21/02 By: Ben Wright

BW

(Signature)

1. Temperature of Cooler when opened 30 Degrees Celsius
2. Were custody seals on outside of cooler? .....  YES ...  NO

  1. If yes, how many, what kind and where: 1-TAPE-FRONT

3. Were custody seals on containers and intact? .....  NO ...  YES
4. Were the seals intact, signed, and dated correctly? .....  YES ...  NO NA
5. Were custody papers inside cooler? .....  YES ...  NO
6. Were custody papers properly filled out (ink, signed, etc)? .....  YES ...  NO
7. Did you sign the custody papers in the appropriate place? .....  YES ...  NO
8. What kind of packing material used? Bubblewrap Peanuts Vermiculite Other None
9. Was sufficient ice used (if appropriate)? .....  YES ...  NO
10. Did all bottles arrive in good condition (unbroken)? .....  YES ...  NO
11. Were all bottle labels complete (#, date, signed, pres, etc)? .....  YES ...  NO
12. Did all bottle labels and tags agree with custody papers? .....  YES ...  NO
13. Were correct bottles used for the analysis requested? .....  YES ...  NO
14. a. Were VOA vials received? .....  YES ...  NO  
b. Was there any observable head space present in any VOA vial? .....  NO ...  YES
15. Was sufficient amount of sample sent in each bottle? .....  YES ...  NO
16. Were correct preservatives used? .....  YES ...  NO
17. Was residual chlorine present? .....  NO ...  YES NA
18. Corrective action taken, if necessary:

See attached for resolution

# TestAmerica

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Nashville Division  
2960 Foster Creighton  
Nashville, TN 37204

Phone: 615-726-0177  
Fax: 615-726-3404

2899124

To assist us in using the proper analytical methods,  
is this work being conducted for regulatory purposes?

Compliance Monitoring

**Client Name:** Higgins & Associates Client #: \_\_\_\_\_  
**Address:** Englewood, CO 80212

**City/State/Zip Code:** Englewood, CO 80212  
**Project Manager:** Chris Higgins

**Telephone Number:** (303) 708-2884 Fax: - 1048  
**Sampler Name: (Print Name)** Nick Fischer

**Sampler Signature:** Nick Fischer  
**Sampler Signature:** Nick Fischer

**Project #:** Phillips  
**Project Name:** Hobbs East

**Site/Location ID:** Hobbs East State: New Mexico  
**Report To:** Chris Higgins

**Invoice To:** Patti Carson  
**Quote #:** PO#:

**Matrix:** Preservation & # of Containers  
**Analyze For:** QC Deliverables

Standard None  
 Rush (surcharges may apply) Level 2  
 Date Needed: (Batch QC)  
 Fax Results: Y N Level 3  
 Field Filtered Level 4  
 SL - Sludge DW - Drinking Water  
 GW - Groundwater S - Soil/Solid  
 WW - Wastewater Specify Other  
 HNO<sub>3</sub>  
 HCl  
 NaOH  
 H<sub>2</sub>SO<sub>4</sub>  
 Methanol  
 None  
 Other (Specify)

**REMARKS**

BTEX  
TUPX  
101935

**SAMPLE ID**

MR #22 6/20

Date Sampled

Time Sampled

G = Grab, C = Composite

Field Filtered

SL - Sludge DW - Drinking Water  
GW - Groundwater S - Soil/Solid  
WW - Wastewater Specify Other

Rec Lab Temp:	LABORATORY COMMENTS:									
Initial Lab Temp:										
Relinquished By: <i>Phil Parker</i>	Date: 6/2	Time: 12:15	Received By:	Date:	Time:	Custody Seals: Y	N	N/A		
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Bottles Supplied by Test America: Y	N			
Relinquished By:	Date:	Time:	Received By: <i>Phil Parker</i>	Date: 6/20	Time: 12:00	Method of Shipment:				

**Special Instructions:**

# TestAmerica<sup>®</sup>

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6/19/02

HIGGINS & ASSOCIATES, LLC/UST 10588

CHRIS HIGGINS

8200 S. AKRON, STE 120

ENGLEWOOD, CO 80112

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project PHILLIPS HOBBS EAST. The Laboratory Project number is 289124. An executed copy of the chain of custody and the sample receipt form are also included as an addendum to this report.

Sample Identification	Lab Number	Collection Date
MW#21	02-A98615	6/13/02
MW#22	02-A98616	6/13/02
MW#23	02-A98617	6/13/02

These results relate only to the items tested.  
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By:

Paul E. Lane

Report Date: 6/19/02

Paul E. Lane, Jr., Lab Director  
Michael H. Dunn, M.S., Technical Director  
Johnny A. Mitchell, Dir. Technical Serv.  
Eric S. Smith, Assistant Technical Director

Gail A. Lage, Technical Serv.  
Glenn L. Norton, Technical Serv.  
Kelly S. Comstock, Technical Serv.  
Pamela A. Langford, Technical Serv.

# TestAmerica<sup>®</sup>

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## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
 CHRIS HIGGINS  
 8200 S. AKRON, STE 120  
 ENGLEWOOD, CO 80112

Lab Number: 02-A98615  
 Sample ID: MW#21  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name: PHILLIPS HOBBS EAST  
 Sampler: NICK FISCHER

Date Collected: 6/13/02  
 Time Collected:  
 Date Received: 6/15/02  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report	Dil	Analysis		Analyst	Method	Batch
			Limit	Factor	Date	Time			
<b>*ORGANIC PARAMETERS*</b>									
Benzene	ND	ug/L	1.0	1.0	6/18/02	0:15	D.Ramey	8021B	437
Ethylbenzene	ND	ug/L	1.0	1.0	6/18/02	0:15	D.Ramey	8021B	437
Toluene	ND	ug/L	1.0	1.0	6/18/02	0:15	D.Ramey	8021B	437
Xylenes (Total)	ND	ug/L	1.0	1.0	6/18/02	0:15	D.Ramey	8021B	437
TPH (Gasoline Range)	ND	ug/L	100.	1.0	6/18/02	0:15	D.Ramey	8015B	437
TPH (Diesel Range)	ND	ug/L	100.	1.0	6/19/02	0:18	D.Haywood	8015B/3510	1801

### \*MISCELLANEOUS CHEMISTRY\*

Chloride	832.	mg/L	40.0	40.0	6/18/02	1:41	A.Bamarni	9251	9929
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### Sample Extraction Data

Parameter	Wt/Vol		Date	Time	Analyst	Method
	Extracted	Extract Vol				
EPH	1000 ml	1.00 ml	6/18/02		M. Ricke	3510

Surrogate	% Recovery	Target Range
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surr-o-Terphenyl	86.	50. - 150.
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Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 02-A98615  
Sample ID: MW#21  
Project:  
Page 2

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Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	103.	67. - 135.

### LABORATORY COMMENTS:

ND - Not detected at the report limit.  
B - Analyte was detected in the method blank.  
J - Estimated Value below Report Limit.  
# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

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## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
CHRIS HIGGINS  
8200 S. AKRON, STE 120  
ENGLEWOOD, CO 80112

Lab Number: 02-A98616  
Sample ID: MW#22  
Sample Type: Water  
Site ID:

Project:  
Project Name: PHILLIPS HOBBS EAST  
Sampler: NICK FISCHER

Date Collected: 6/13/02  
Time Collected:  
Date Received: 6/15/02  
Time Received: 9:00  
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
TPH (Diesel Range)	ND	ug/L	100.	1.0	6/19/02	0:37	D.Haywood	8015B/3510	1801
<hr/>									
*MISCELLANEOUS CHEMISTRY*									
Chloride	76.5	mg/L	5.00	5.0	6/18/02	1:41	A.Bamarni	9251	9929

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### Sample Extraction Data

Parameter	Wt/Vol	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH		1000 ml	1.00 ml	6/18/02		M. Ricke	3510

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Surrogate	% Recovery	Target Range
surr-o-Terphenyl	87.	50. - 150.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 02-A98616  
Sample ID: MW#22  
Project:  
Page 2

### LABORATORY COMMENTS:

ND - Not detected at the report limit.  
B - Analyte was detected in the method blank.  
J - Estimated Value below Report Limit.  
# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

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## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
 CHRIS HIGGINS  
 8200 S. AKRON, STE 120  
 ENGLEWOOD, CO 80112

Lab Number: 02-A98617  
 Sample ID: MW#23  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name: PHILLIPS HOBBS EAST  
 Sampler: NICK FISCHER

Date Collected: 6/13/02  
 Time Collected:  
 Date Received: 6/15/02  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	ND	ug/L	1.0	1.0	6/18/02	0:43	D.Ramey	8021B	437
Ethylbenzene	ND	ug/L	1.0	1.0	6/18/02	0:43	D.Ramey	8021B	437
Toluene	ND	ug/L	1.0	1.0	6/18/02	0:43	D.Ramey	8021B	437
Xylenes (Total)	ND	ug/L	1.0	1.0	6/18/02	0:43	D.Ramey	8021B	437
TPH (Gasoline Range)	ND	ug/L	100.	1.0	6/18/02	0:43	D.Ramey	8015B	437
TPH (Diesel Range)	ND	ug/L	100.	1.0	6/19/02	0:57	D.Haywood	8015B/3510	1801
<hr/>									
*MISCELLANEOUS CHEMISTRY*									
Chloride	63.0	mg/L	5.00	5.0	6/18/02	1:41	A.Bamarni	9251	9929

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### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	1000 ml	1.00 ml	6/18/02		M. Ricke	3510

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Surrogate	% Recovery	Target Range
surr-o-Terphenyl	92.	50. - 150.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 02-A98617  
Sample ID: MW#23  
Project:  
Page 2

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Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	103.	67. - 135.

### LABORATORY COMMENTS:

ND - Not detected at the report limit.  
B - Analyte was detected in the method blank.  
J - Estimated Value below Report Limit.  
# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

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## PROJECT QUALITY CONTROL DATA

Project Number:

Page: 1

### Matrix Spike Recovery

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
<b>**UST ANALYSIS**</b>								
Benzene	mg/l	< 0.0006	0.0531	0.0500	106	82. - 125.	437	BLANK
Toluene	mg/l	< 0.0006	0.0518	0.0500	104	77. - 121.	437	BLANK
Ethylbenzene	mg/l	< 0.0007	0.0555	0.0500	111	76. - 128.	437	BLANK
Xylenes (Total)	mg/l	< 0.0006	0.106	0.100	106	79. - 125.	437	BLANK
TPH (Diesel Range)	mg/l	< 0.100	0.600	1.00	60	41. - 121.	1801	BLANK
BTEX/GRO Surr., a,a,a-TFT	% Recovery				94	67. - 135.	437	

### Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
<b>**UST PARAMETERS**</b>						
Benzene	mg/l	0.0531	0.0533	0.38	13.	437
Toluene	mg/l	0.0518	0.0521	0.58	13.	437
Ethylbenzene	mg/l	0.0555	0.0550	0.90	13.	437
Xylenes (Total)	mg/l	0.106	0.103	2.87	13.	437
TPH (Diesel Range)	mg/l	0.600	0.800	28.57	46.	1801
BTEX/GRO Surr., a,a,a-TFT	% Recovery		96.			437

### Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
<b>**UST PARAMETERS**</b>						
Benzene	mg/l	0.100	0.0927	93	82 - 122	437
Toluene	mg/l	0.100	0.0891	89	77 - 119	437
Ethylbenzene	mg/l	0.100	0.0936	94	76 - 125	437
Xylenes (Total)	mg/l	0.200	0.173	86	73 - 123	437
TPH (Diesel Range)	mg/l	1.00	0.673	67	46 - 118	1801

Project QC continued . . .

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## PROJECT QUALITY CONTROL DATA

Project Number:

Page: 2

BTEX/GRO Surr., a,a,a-TFT	% Recovery	93	67 - 135	437
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### Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
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#### \*\*MISC PARAMETERS\*\*

Chloride	mg/l	10.0	10.1	101	90 - 110	9929
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Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd
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Chloride	mg/l	63.0	60.5	4.05	15.	9929	02-A98617
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### Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
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#### \*\*UST PARAMETERS\*\*

Benzene	< 0.0006	mg/l	437	6/17/02	23:18
Toluene	< 0.0006	mg/l	437	6/17/02	23:18
Ethylbenzene	< 0.0007	mg/l	437	6/17/02	23:18
Xylenes (Total)	< 0.0006	mg/l	437	6/17/02	23:18
TPH (Gasoline Range)	< 0.042	mg/l	437	6/17/02	23:18
TPH (Diesel Range)	< 0.100	mg/l	1801	6/18/02	19:24

### Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
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#### \*\*UST PARAMETERS\*\*

BTEX/GRO Surr., a,a,a-TFT	104.	% Recovery	437	6/17/02	23:18
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Project QC continued . . .

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## PROJECT QUALITY CONTROL DATA

Project Number:

Page: 3

### Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
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### \*\*MISC PARAMETERS\*\*

Chloride	< 1.00	mg/l	9929	6/18/02	1:41
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End of Report for Project 289124

# TestAmerica

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10/21/02

HIGGINS & ASSOCIATES, LLC/UST 10588  
CHRIS HIGGINS  
8200 S. AKRON, STE 120  
ENGLEWOOD, CO 80112

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project PHILLIPS PIPELINE HOBBS. The Laboratory Project number is 305392.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report.

Page 1

Sample Identification	Lab Number	Collection Date
MW-4	02-A170870	10/16/02
MW-5	02-A170871	10/16/02
MW-8	02-A170872	10/16/02
MW-12	02-A170873	10/16/02
MW-13	02-A170874	10/16/02
MW-14	02-A170875	10/16/02
MW-18	02-A170876	10/16/02
MW-16	02-A170877	10/15/02
MW-17	02-A170878	10/15/02
MW-19	02-A170879	10/15/02
MW-20	02-A170880	10/15/02
MW-21	02-A170881	10/15/02
MW-22	02-A170882	10/15/02
MW-23	02-A170883	10/15/02

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Page 2

Sample Identification

Lab Number

Collection Date

These results relate only to the items tested.  
This report shall not be reproduced except in full and with  
permission of the laboratory.

Report Approved By:



Report Date: 10/21/02

Paul E. Lane, Jr., Lab Director  
Michael H. Dunn, M.S., Technical Director  
Johnny A. Mitchell, Dir. Technical Serv.  
Eric S. Smith, Assistant Technical Director  
Roxanne L. Connor, Technical Services

Gail A. Lage, Technical Serv.  
Glenn L. Norton, Technical Serv.  
Kelly S. Comstock, Technical Serv.  
Pamela A. Langford, Technical Serv.

# TestAmerica

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## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
 CHRIS HIGGINS  
 8200 S. AKRON, STE 120  
 ENGLEWOOD, CO 80112

Lab Number: 02-A170870  
 Sample ID: MW-4  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name: PHILLIPS PIPELINE HOBBS  
 Sampler: NICK FISCHER

Date Collected: 10/16/02  
 Time Collected:  
 Date Received: 10/17/02  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Benzene	45.1	ug/L	1.0	1.0	10/21/02	13:08	D. Cooper	8021B	954
Ethylbenzene	2.5	ug/L	1.0	1.0	10/21/02	13:08	D. Cooper	8021B	954
Toluene	ND	ug/L	1.0	1.0	10/21/02	13:08	D. Cooper	8021B	954
Xylenes (Total)	5.3	ug/L	1.0	1.0	10/21/02	13:08	D. Cooper	8021B	954
TPH (Gasoline Range)	177.	ug/L	100.	1.0	10/21/02	13:08	D. Cooper	8015B	954
TPH (Diesel Range)	ND	ug/L	102.	1.0	10/19/02	13:51	D. Haywood	8015B/3510	36

### \*ORGANIC PARAMETERS\*

Benzene	45.1	ug/L	1.0	1.0	10/21/02	13:08	D. Cooper	8021B	954
Ethylbenzene	2.5	ug/L	1.0	1.0	10/21/02	13:08	D. Cooper	8021B	954
Toluene	ND	ug/L	1.0	1.0	10/21/02	13:08	D. Cooper	8021B	954
Xylenes (Total)	5.3	ug/L	1.0	1.0	10/21/02	13:08	D. Cooper	8021B	954
TPH (Gasoline Range)	177.	ug/L	100.	1.0	10/21/02	13:08	D. Cooper	8015B	954
TPH (Diesel Range)	ND	ug/L	102.	1.0	10/19/02	13:51	D. Haywood	8015B/3510	36

### \*MISCELLANEOUS CHEMISTRY\*

Chloride	81000	ug/L	5000	5.0	10/19/02	19:39	A.Bamarni	9251	9877
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### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	985. ml	1.00 ml	10/18/02		M. Ricke	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	88.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	93.	69. - 132.

Sample report continued . . .

# TestAmerica

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## ANALYTICAL REPORT

Laboratory Number: 02-A170870  
Sample ID: MW-4  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

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## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
 CHRIS HIGGINS  
 8200 S. AKRON, STE 120  
 ENGLEWOOD, CO 80112

Lab Number: 02-A170871  
 Sample ID: MW-5  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name: PHILLIPS PIPELINE HOBBS  
 Sampler: NICK FISCHER

Date Collected: 10/16/02  
 Time Collected:  
 Date Received: 10/17/02  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Benzene	273.	ug/L	10.0	10.0	10/21/02	13:39	D. Cooper	8021B	954
Ethylbenzene	ND	ug/L	10.0	10.0	10/21/02	13:39	D. Cooper	8021B	954
Toluene	179.	ug/L	10.0	10.0	10/21/02	13:39	D. Cooper	8021B	954
Xylenes (Total)	42.0	ug/L	10.0	10.0	10/21/02	13:39	D. Cooper	8021B	954
TPH (Gasoline Range)	1600	ug/L	1000	10.0	10/21/02	13:39	D. Cooper	8015B	954
TPH (Diesel Range)	188.	ug/L	103.	1.0	10/19/02	18:00	D. Haywood	8015B/3510	36

### \*ORGANIC PARAMETERS\*

Benzene	273.	ug/L	10.0	10.0	10/21/02	13:39	D. Cooper	8021B	954
Ethylbenzene	ND	ug/L	10.0	10.0	10/21/02	13:39	D. Cooper	8021B	954
Toluene	179.	ug/L	10.0	10.0	10/21/02	13:39	D. Cooper	8021B	954
Xylenes (Total)	42.0	ug/L	10.0	10.0	10/21/02	13:39	D. Cooper	8021B	954
TPH (Gasoline Range)	1600	ug/L	1000	10.0	10/21/02	13:39	D. Cooper	8015B	954
TPH (Diesel Range)	188.	ug/L	103.	1.0	10/19/02	18:00	D. Haywood	8015B/3510	36

### \*MISCELLANEOUS CHEMISTRY\*

Chloride	51000	ug/L	5000	5.0	10/19/02	19:40	A. Bamarni	9251	9877
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### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	975. ml	1.00 ml	10/18/02		M. Ricke	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	100.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	92.	69. - 132.

Sample report continued . . .



## ANALYTICAL REPORT

Laboratory Number: 02-A170871  
Sample ID: MW-5  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.  
Low BTEX surrogate due to sample matrix.

End of Sample Report.

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
CHRIS HIGGINS  
8200 S. AKRON, STE 120  
ENGLEWOOD, CO 80112

Lab Number: 02-A170872  
Sample ID: MW-8  
Sample Type: Water  
Site ID:

Project:  
Project Name: PHILLIPS PIPELINE HOBBS  
Sampler: NICK FISCHER

Date Collected: 10/16/02  
Time Collected:  
Date Received: 10/17/02  
Time Received: 9:00  
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

\*ORGANIC PARAMETERS\*

TPH (Diesel Range)	269.	ug/L	102.	1.0	10/19/02	18:21	D.Haywood	8015B/3510	36
--------------------	------	------	------	-----	----------	-------	-----------	------------	----

\*MISCELLANEOUS CHEMISTRY\*

Chloride	42400	ug/L	2000	2.0	10/19/02	19:40	A.Bamarni	9251	9877
----------	-------	------	------	-----	----------	-------	-----------	------	------

-----  
Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
-----	-----	-----	-----	-----	-----	-----
EPH	980. ml	1.00 ml	10/18/02		M. Riche	3510

-----  
Surrogate % Recovery Target Range

TPH Hi Surr., o-Terphenyl	105.	41. - 155.
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-----  
Sample report continued . . .

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

Laboratory Number: 02-A170872  
Sample ID: MW-8  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
CHRIS HIGGINS  
8200 S. AKRON, STE 120  
ENGLEWOOD, CO 80112

Lab Number: 02-A170873  
Sample ID: MW-12  
Sample Type: Water  
Site ID:

Project:  
Project Name: PHILLIPS PIPELINE HOBBS  
Sampler: NICK FISCHER

Date Collected: 10/16/02  
Time Collected:  
Date Received: 10/17/02  
Time Received: 9:00  
Page: 1

Analyte	Result	Units	Report	Dil	Analysis	Analysis	Analyst	Method	Batch
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

\*ORGANIC PARAMETERS\*

TPH (Diesel Range)	351.	ug/L	106.	1.0	10/19/02	18:42	D.Haywood	8015B/3510	36
--------------------	------	------	------	-----	----------	-------	-----------	------------	----

\*MISCELLANEOUS CHEMISTRY\*

Chloride	69500	ug/L	5000	5.0	10/19/02	19:41	A.Bamarni	9251	9877
----------	-------	------	------	-----	----------	-------	-----------	------	------

-----  
Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
-----	-----	-----	-----	-----	-----	-----
EPH	940. ml	1.00 ml	10/18/02		M. Ricke	3510

Surrogate	% Recovery	Target Range
-----	-----	-----
TPH Hi Surr., o-Terphenyl	81.	41. - 155.

Sample report continued . . .

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INCORPORATED

## ANALYTICAL REPORT

Laboratory Number: 02-A170873  
Sample ID: MW-12  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

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## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
CHRIS HIGGINS  
8200 S. AKRON, STE 120  
ENGLEWOOD, CO 80112

Lab Number: 02-A170874  
Sample ID: MW-13  
Sample Type: Water  
Site ID:

Project:  
Project Name: PHILLIPS PIPELINE HOBBS  
Sampler: NICK FISCHER

Date Collected: 10/16/02  
Time Collected:  
Date Received: 10/17/02  
Time Received: 9:00  
Page: 1

Analyte	Result	Units	Report	Dil	Analysis	Analysis	Analyst	Method	Batch
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

\*ORGANIC PARAMETERS\*

TPH (Diesel Range)	ND	ug/L	102.	1.0	10/19/02	19:03	D.Haywood	8015B/3510	36
--------------------	----	------	------	-----	----------	-------	-----------	------------	----

\*MISCELLANEOUS CHEMISTRY\*

Chloride	71500	ug/L	5000	5.0	10/19/02	19:41	A.Bamarni	9251	9877
----------	-------	------	------	-----	----------	-------	-----------	------	------

Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
-----	-----	-----	-----	-----	-----	-----
EPH	985. ml	1.00 ml	10/18/02		M. Rieke	3510

Surrogate	% Recovery	Target Range
-----	-----	-----
TPH Hi Surr., o-Terphenyl	96.	41. - 155.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 02-A170874  
Sample ID: MW-13  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

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## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
 CHRIS HIGGINS  
 8200 S. AKRON, STE 120  
 ENGLEWOOD, CO 80112

Lab Number: 02-A170875  
 Sample ID: MW-14  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name: PHILLIPS PIPELINE HOBBS  
 Sampler: NICK FISCHER

Date Collected: 10/16/02  
 Time Collected:  
 Date Received: 10/17/02  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report	Dil	Analysis		Analyst	Method	Batch
			Limit	Factor	Date	Time			
<b>*ORGANIC PARAMETERS*</b>									
Benzene	228.	ug/L	5.0	5.0	10/21/02	14:11	D. Cooper	8021B	954
Ethylbenzene	ND	ug/L	1.0	1.0	10/19/02	0:39	D. Cooper	8021B	3245
Toluene	ND	ug/L	1.0	1.0	10/19/02	0:39	D. Cooper	8021B	3245
Xylenes (Total)	ND	ug/L	1.0	1.0	10/19/02	0:39	D. Cooper	8021B	3245
TPH (Gasoline Range)	629.	ug/L	500.	5.0	10/21/02	14:11	D. Cooper	8015B	954
TPH (Diesel Range)	206.	ug/L	102.	1.0	10/19/02	19:24	D. Haywood	8015B/3510	36
<b>*MISCELLANEOUS CHEMISTRY*</b>									
Chloride	67000	ug/L	5000	5.0	10/19/02	19:42	A. Bamarni	9251	9877

### Sample Extraction Data

Parameter	Wt/Vol		Date	Time	Analyst	Method
	Extracted	Extract Vol				
EPH	985. ml	1.00 ml	10/18/02		M. Ricke	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	107.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	89.	69. - 132.

Sample report continued . . .



## ANALYTICAL REPORT

Laboratory Number: 02-A170875  
Sample ID: MW-14  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
CHRIS HIGGINS  
8200 S. AKRON, STE 120  
ENGLEWOOD, CO 80112

Lab Number: 02-A170876  
Sample ID: MW-18  
Sample Type: Water  
Site ID:

Project:  
Project Name: PHILLIPS PIPELINE HOBBS  
Sampler: NICK FISCHER

Date Collected: 10/16/02  
Time Collected:  
Date Received: 10/17/02  
Time Received: 9:00  
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

\*ORGANIC PARAMETERS\*

TPH (Diesel Range)	174.	ug/L	104.	1.0	10/19/02	20:06	D.Haywood	8015B/3510	36
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\*MISCELLANEOUS CHEMISTRY\*

Chloride	102000	ug/L	5000	5.0	10/19/02	19:42	A.Bamarni	9251	9877
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Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
-----	-----	-----	-----	-----	-----	-----
EPH	960. ml	1.00 ml	10/18/02		M. Ricke	3510

Surrogate	% Recovery	Target Range
-----	-----	-----

TPH Hi Surr., o-Terphenyl	86.	41. - 155.
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Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 02-A170876  
Sample ID: MW-18  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
CHRIS HIGGINS  
8200 S. AKRON, STE 120  
ENGLEWOOD, CO 80112

Lab Number: 02-A170877  
Sample ID: MW-16  
Sample Type: Water  
Site ID:

Project:  
Project Name: PHILLIPS PIPELINE HOBBS  
Sampler: NICK FISCHER

Date Collected: 10/15/02  
Time Collected:  
Date Received: 10/17/02  
Time Received: 9:00  
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
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### \*MISCELLANEOUS CHEMISTRY\*

Chloride	194000	ug/L	10000	10.0	10/19/02	19:43	A.Bamarni	9251	9877
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### LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
CHRIS HIGGINS  
8200 S. AKRON, STE 120  
ENGLEWOOD, CO 80112

Lab Number: 02-A170878  
Sample ID: MW-17  
Sample Type: Water  
Site ID:

Project:  
Project Name: PHILLIPS PIPELINE HOBBS  
Sampler: NICK FISCHER

Date Collected: 10/15/02  
Time Collected:  
Date Received: 10/17/02  
Time Received: 9:00  
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
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\*ORGANIC PARAMETERS\*

Benzene	ND	ug/L	1.0	1.0	10/21/02	15:45	D. Cooper	8021B	954
Ethylbenzene	ND	ug/L	1.0	1.0	10/19/02	1:11	D. Cooper	8021B	3245
Toluene	ND	ug/L	1.0	1.0	10/19/02	1:11	D. Cooper	8021B	3245
Xylenes (Total)	ND	ug/L	1.0	1.0	10/19/02	1:11	D. Cooper	8021B	3245
TPH (Gasoline Range)	105.	ug/L	100.	1.0	10/19/02	1:11	D. Cooper	8015B	3245

\*MISCELLANEOUS CHEMISTRY\*

Chloride	149000	ug/L	10000	10.0	10/19/02	19:43	A.Bamarni	9251	9877
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Surrogate	% Recovery	Target Range
-----	-----	-----

BTEX/GRO Surr., a,a,a-TFT 100. 69. - 132.

LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica<sup>®</sup>

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## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
 CHRIS HIGGINS  
 8200 S. AKRON, STE 120  
 ENGLEWOOD, CO 80112

Lab Number: 02-A170879  
 Sample ID: MW-19  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name: PHILLIPS PIPELINE HOBBS  
 Sampler: NICK FISCHER

Date Collected: 10/15/02  
 Time Collected:  
 Date Received: 10/17/02  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
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### \*ORGANIC PARAMETERS\*

Benzene	ND	ug/L	1.0	1.0	10/19/02	1:42	D. Cooper	8021B	3245
Ethylbenzene	ND	ug/L	1.0	1.0	10/19/02	1:42	D. Cooper	8021B	3245
Toluene	ND	ug/L	1.0	1.0	10/19/02	1:42	D. Cooper	8021B	3245
Xylenes (Total)	ND	ug/L	1.0	1.0	10/19/02	1:42	D. Cooper	8021B	3245
TPH (Gasoline Range)	ND	ug/L	100.	1.0	10/19/02	1:42	D. Cooper	8015B	3245
TPH (Diesel Range)	ND	ug/L	101.	1.0	10/19/02	16:37	D.Haywood	8015B/3510	36

### \*MISCELLANEOUS CHEMISTRY\*

Chloride	180000	ug/L	10000	10.0	10/19/02	19:45	A.Bamarni	9251	9877
----------	--------	------	-------	------	----------	-------	-----------	------	------

### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	990. ml	1.00 ml	10/18/02		M. Ricke	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	111.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	96.	69. - 132.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 02-A170879  
Sample ID: MW-19  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
CHRIS HIGGINS  
8200 S. AKRON, STE 120  
ENGLEWOOD, CO 80112

Lab Number: 02-A170880  
Sample ID: MW-20  
Sample Type: Water  
Site ID:

Project:  
Project Name: PHILLIPS PIPELINE HOBBS  
Sampler: NICK FISCHER

Date Collected: 10/15/02  
Time Collected:  
Date Received: 10/17/02  
Time Received: 9:00  
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	ND	ug/L	1.0	1.0	10/19/02	2:14	D. Cooper	8021B	3245
Ethylbenzene	ND	ug/L	1.0	1.0	10/19/02	2:14	D. Cooper	8021B	3245
Toluene	ND	ug/L	1.0	1.0	10/19/02	2:14	D. Cooper	8021B	3245
Xylenes (Total)	ND	ug/L	1.0	1.0	10/19/02	2:14	D. Cooper	8021B	3245
TPH (Gasoline Range)	ND	ug/L	100.	1.0	10/19/02	2:14	D. Cooper	8015B	3245

*MISCELLANEOUS CHEMISTRY*									
Chloride	85000	ug/L	5000	5.0	10/19/02	19:45	A.Bamarni	9251	9877

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	94.	69. - 132.

### LABORATORY COMMENTS:

- ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica<sup>®</sup>

INCORPORATED

## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
CHRIS HIGGINS  
8200 S. AKRON, STE 120  
ENGLEWOOD, CO 80112

Lab Number: 02-A170881  
Sample ID: MW-21  
Sample Type: Water  
Site ID:

Project:  
Project Name: PHILLIPS PIPELINE HOBBS  
Sampler: NICK FISCHER

Date Collected: 10/15/02  
Time Collected:  
Date Received: 10/17/02  
Time Received: 9:00  
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Date	Analysis Time	Analyst	Method	Batch
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

### \*ORGANIC PARAMETERS\*

TPH (Diesel Range)	ND	ug/L	105.	1.0	10/19/02	16:58	D.Haywood	8015B/3510	36
--------------------	----	------	------	-----	----------	-------	-----------	------------	----

### \*MISCELLANEOUS CHEMISTRY\*

Chloride	857000	ug/L	100000	100.	10/19/02	19:46	A.Bamarni	9251	9877
----------	--------	------	--------	------	----------	-------	-----------	------	------

### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
-----	-----	-----	-----	-----	-----	-----
EPH	950. ml	1.00 ml	10/18/02		M. Ricke	3510

Surrogate	% Recovery	Target Range
-----	-----	-----
TPH Hi Surr., o-Terphenyl	111.	41. - 155.

Sample report continued . . .

# TestAmerica<sup>®</sup>

INCORPORATED

## ANALYTICAL REPORT

Laboratory Number: 02-A170881  
Sample ID: MW-21  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
 CHRIS HIGGINS  
 8200 S. AKRON, STE 120  
 ENGLEWOOD, CO 80112

Lab Number: 02-A170882  
 Sample ID: MW-22  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name: PHILLIPS PIPELINE HOBBS  
 Sampler: NICK FISCHER

Date Collected: 10/15/02  
 Time Collected:  
 Date Received: 10/17/02  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

### \*ORGANIC PARAMETERS\*

Benzene	ND	ug/L	1.0	1.0	10/19/02	3:48	D. Cooper	8021B	3245
Ethylbenzene	ND	ug/L	1.0	1.0	10/19/02	3:48	D. Cooper	8021B	3245
Toluene	ND	ug/L	1.0	1.0	10/19/02	3:48	D. Cooper	8021B	3245
Xylenes (Total)	ND	ug/L	1.0	1.0	10/19/02	3:48	D. Cooper	8021B	3245
TPH (Gasoline Range)	ND	ug/L	100.	1.0	10/19/02	3:48	D. Cooper	8015B	3245
TPH (Diesel Range)	ND	ug/L	102.	1.0	10/19/02	17:19	D. Haywood	8015B/3510	36

### \*MISCELLANEOUS CHEMISTRY\*

Chloride	86500	ug/L	5000	5.0	10/19/02	19:46	A. Bamarni	9251	9877
----------	-------	------	------	-----	----------	-------	------------	------	------

### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
-----	-----	-----	-----	-----	-----	-----
EPH	980. ml	1.00 ml	10/18/02		M. Ricke	3510

Surrogate	% Recovery	Target Range
-----	-----	-----
TPH Hi Surr., o-Terphenyl	111.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	94.	69. - 132.

Sample report continued . . .



## ANALYTICAL REPORT

Laboratory Number: 02-A170882  
Sample ID: MW-22  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
 CHRIS HIGGINS  
 8200 S. AKRON, STE 120  
 ENGLEWOOD, CO 80112

Lab Number: 02-A170883  
 Sample ID: MW-23  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name: PHILLIPS PIPELINE HOBBS  
 Sampler: NICK FISCHER

Date Collected: 10/15/02  
 Time Collected:  
 Date Received: 10/17/02  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	ND	ug/L	1.0	1.0	10/19/02	4:20	D. Cooper	8021B	3245
Ethylbenzene	ND	ug/L	1.0	1.0	10/19/02	4:20	D. Cooper	8021B	3245
Toluene	ND	ug/L	1.0	1.0	10/19/02	4:20	D. Cooper	8021B	3245
Xylenes (Total)	ND	ug/L	1.0	1.0	10/19/02	4:20	D. Cooper	8021B	3245
TPH (Gasoline Range)	ND	ug/L	100.	1.0	10/19/02	4:20	D. Cooper	8015B	3245
TPH (Diesel Range)	353.	ug/L	103.	1.0	10/19/02	17:40	D. Haywood	8015B/3510	36

### \*MISCELLANEOUS CHEMISTRY\*

Chloride	36200	ug/L	2000	2.0	10/19/02	19:47	A. Bamarni	9251	9877
----------	-------	------	------	-----	----------	-------	------------	------	------

### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	970. ml	1.00 ml	10/18/02		M. Ricke	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	106.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	95.	69. - 132.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 02-A170883  
Sample ID: MW-23  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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## PROJECT QUALITY CONTROL DATA

Project Number:

Page: 1

### Matrix Spike Recovery

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C.	Batch	Spike Sample
<hr/>									
**UST ANALYSIS**									
Benzene	mg/l	< 0.0010	0.0540	0.0500	108	74. - 129.	3245	02-A170879	
Benzene	mg/l	< 0.0005	0.0460	0.0500	92	74. - 129.	954	BLANK	
Toluene	mg/l	< 0.0010	0.0530	0.0500	106	74. - 128.	3245	02-A170879	
Toluene	mg/l	< 0.0006	0.0458	0.0500	92	74. - 128.	954	BLANK	
Ethylbenzene	mg/l	< 0.0010	0.0557	0.0500	111	75. - 128.	3245	02-A170879	
Ethylbenzene	mg/l	< 0.0006	0.0480	0.0500	96	75. - 128.	954	BLANK	
Xylenes (Total)	mg/l	< 0.0010	0.0892	0.100	89	72. - 126.	3245	02-A170879	
Xylenes (Total)	mg/l	< 0.0010	0.0901	0.100	90	72. - 126.	954	BLANK	
TPH (Gasoline Range)	mg/l	< 0.100	1.02	1.00	102	59. - 128.	3245	02-A170879	
TPH (Gasoline Range)	mg/l	< 0.0740	1.00	1.00	100	59. - 128.	954	BLANK	
TPH (Diesel Range)	mg/l	< 0.100	0.764	1.00	76	23. - 120.	36	BLANK	
BTEX/GRO Surr., a,a,a-TFT	# Recovery				95	69. - 132.	3245		
BTEX/GRO Surr., a,a,a-TFT	# Recovery				95	69. - 132.	954		

### Matrix Spike Recovery

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C.	Batch	Spike Sample
<hr/>									
**MISC PARAMETERS**									
Chloride	mg/l	14.6	25.9	12.5	90	80 - 120	9877	02-A170113	

### Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
<hr/>						
**UST PARAMETERS**						
Benzene	mg/l	0.0540	0.0531	1.68	15.	3245
Benzene	mg/l	0.0460	0.0491	6.52	15.	954
Toluene	mg/l	0.0530	0.0524	1.14	15.	3245

Project QC continued . . .

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## PROJECT QUALITY CONTROL DATA

Project Number:

Page: 2

### Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
Toluene	mg/l	0.0458	0.0484	5.52	15.	954
Ethylbenzene	mg/l	0.0557	0.0550	1.26	15.	3245
Ethylbenzene	mg/l	0.0480	0.0505	5.08	15.	954
Xylenes (Total)	mg/l	0.0892	0.0886	0.67	19.	3245
Xylenes (Total)	mg/l	0.0901	0.0939	4.13	19.	954
TPH (Gasoline Range)	mg/l	1.02	0.946	7.53	22.	3245
TPH (Gasoline Range)	mg/l	1.00	0.945	5.66	22.	954
TPH (Diesel Range)	mg/l	0.764	0.758	0.79	20.	36
BTEX/GRO Surr., a,a,a-TFT	% Recovery		96.			3245
BTEX/GRO Surr., a,a,a-TFT	% Recovery		96.			954

### Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
Chloride	mg/l	25.9	26.1	0.77	20	9877

### Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Benzene	mg/l	0.100	0.0952	95	74 - 124	3245
Benzene	mg/l	0.100	0.0945	94	74 - 124	954
Toluene	mg/l	0.100	0.0953	95	74 - 121	3245
Toluene	mg/l	0.100	0.0935	94	74 - 121	954
Ethylbenzene	mg/l	0.100	0.0997	100	75 - 123	3245
Ethylbenzene	mg/l	0.100	0.0987	99	75 - 123	954
Xylenes (Total)	mg/l	0.200	0.182	91	72 - 120	3245
Xylenes (Total)	mg/l	0.200	0.180	90	72 - 120	954

Project QC continued . . .

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## PROJECT QUALITY CONTROL DATA

Project Number:

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### Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
TPH (Gasoline Range)	mg/l	1.00	1.02	102	61 - 139	3245
TPH (Gasoline Range)	mg/l	1.00	1.00	100	61 - 139	954
TPH (Diesel Range)	mg/l	1.00	0.532	53	42 - 115	36
BTEX/GRO Surr., a,a,a-TFT	% Recovery			93	69 - 132	3245
BTEX/GRO Surr., a,a,a-TFT	% Recovery			94	69 - 132	954

### Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Chloride	mg/l	10.0	10.6	106	90 - 110	9877

#### Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd
Chloride	mg/l	14.0	14.4	2.82	15.	9877	02-A170523

### Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed

### \*\*UST PARAMETERS\*\*

Benzene	< 0.0005	mg/l	3245	10/18/02	17:18
Benzene	< 0.0005	mg/l	954	10/21/02	8:32
Toluene	< 0.0006	mg/l	3245	10/18/02	17:18
Toluene	< 0.0006	mg/l	954	10/21/02	8:32
Ethylbenzene	< 0.0006	mg/l	3245	10/18/02	17:18
Ethylbenzene	< 0.0006	mg/l	954	10/21/02	8:32
Xylenes (Total)	< 0.0010	mg/l	3245	10/18/02	17:18
Xylenes (Total)	< 0.0010	mg/l	954	10/21/02	8:32

Project QC continued . . .

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## PROJECT QUALITY CONTROL DATA

Project Number:

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### Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
TPH (Gasoline Range)	< 0.0740	mg/l	3245	10/18/02	17:18
TPH (Gasoline Range)	< 0.0740	mg/l	954	10/21/02	8:32
TPH (Diesel Range)	< 0.100	mg/l	36	10/19/02	12:28

### Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed

### \*\*UST PARAMETERS\*\*

TPH Hi Surr., o-Terphenyl	98.	% Recovery	36	10/19/02	12:28
BTEX/GRO Surr., a,a,a-TFT	96.	% Recovery	3245	10/18/02	17:18
BTEX/GRO Surr., a,a,a-TFT	98.	% Recovery	954	10/21/02	8:32

### Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed

### \*\*MISC PARAMETERS\*\*

Chloride	< 1.00	mg/l	9877	10/19/02	17:49
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End of Report for Project 305392

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10/23/02

HIGGINS & ASSOCIATES, LLC/UST 10588

CHRIS HIGGINS

8200 S. AKRON, STE 120

ENGLEWOOD, CO 80112

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project PHILLIPS PIPE LINE HOBBS. The Laboratory Project number is 305756.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report.

Page 1

Sample Identification	Lab Number	Collection Date
MW-16	02-A172683	10/18/02
MW-17	02-A172684	10/18/02
MW-20	02-A172685	10/18/02
MW-8	02-A172686	10/18/02
MW-12	02-A172687	10/18/02
MW-13	02-A172688	10/18/02
MW-18	02-A172689	10/18/02
MW-21	02-A172690	10/18/02

These results relate only to the items tested.  
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: Gail A. Lage

Report Date: 10/23/02

Paul E. Lane, Jr., Lab Director  
Michael H. Dunn, M.S., Technical Director  
Johnny A. Mitchell, Dir. Technical Serv.  
Eric S. Smith, Assistant Technical Director  
Roxanne L. Connor, Technical Services

Gail A. Lage, Technical Serv.  
Glenn L. Norton, Technical Serv.  
Kelly S. Comstock, Technical Serv.  
Pamela A. Langford, Technical Serv.

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## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
 CHRIS HIGGINS  
 8200 S. AKRON, STE 120  
 ENGLEWOOD, CO 80112

Lab Number: 02-A172683  
 Sample ID: MW-16  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name: PHILLIPS PIPE LINE HOBBS  
 Sampler: NICK FISCHER

Date Collected: 10/18/02  
 Time Collected:  
 Date Received: 10/19/02  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
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### \*ORGANIC PARAMETERS\*

Benzene	ND	ug/L	1.0	1.0	10/23/02	1:40	H. Wagner	8021B	1071
Ethylbenzene	ND	ug/L	1.0	1.0	10/23/02	1:40	H. Wagner	8021B	1071
Toluene	ND	ug/L	1.0	1.0	10/23/02	1:40	H. Wagner	8021B	1071
Xylenes (Total)	ND	ug/L	1.0	1.0	10/23/02	1:40	H. Wagner	8021B	1071
TPH (Gasoline Range)	103.	ug/L	100.	1.0	10/23/02	1:40	H. Wagner	8015B	1071
TPH (Diesel Range)	ND	ug/L	101.	1.0	10/22/02	19:04	D.Haywood	8015B/3510	2168

### Sample Extraction Data

Parameter	Extracted	Wt/Vol	Extract Vol	Date	Time	Analyst	Method
-----	-----	-----	-----	-----	-----	-----	-----
EPH	990. ml	1.00 ml	10/22/02			M. Ricke	3510

Surrogate	% Recovery	Target Range
-----	-----	-----
TPH Hi Surr., o-Terphenyl	90.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	99.	69. - 132.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 02-A172683  
Sample ID: MW-16  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
CHRIS HIGGINS  
8200 S. AKRON, STE 120  
ENGLEWOOD, CO 80112

Lab Number: 02-A172684  
Sample ID: MW-17  
Sample Type: Water  
Site ID:

Project:  
Project Name: PHILLIPS PIPE LINE HOBBS  
Sampler: NICK FISCHER

Date Collected: 10/18/02  
Time Collected:  
Date Received: 10/19/02  
Time Received: 9:00  
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Date	Analysis Time	Analyst	Method	Batch
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

\*ORGANIC PARAMETERS\*

TPH (Diesel Range)	117.	ug/L	104.	1.0	10/22/02	19:23	D.Haywood	8015B/3510	2168
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-----  
Sample Extraction Data

Parameter	Extracted Wt/Vol	Extract Vol	Date	Time	Analyst	Method
-----	-----	-----	-----	-----	-----	-----
EPH	960. ml	1.00 ml	10/22/02		M. Ricke	3510

Surrogate	% Recovery	Target Range
-----	-----	-----
TPH Hi Surr., o-Terphenyl	113.	41. - 155.

**LABORATORY COMMENTS:**

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
CHRIS HIGGINS  
8200 S. AKRON, STE 120  
ENGLEWOOD, CO 80112

Lab Number: 02-A172685  
Sample ID: MW-20  
Sample Type: Water  
Site ID:

Project:  
Project Name: PHILLIPS PIPE LINE HOBBS  
Sampler: NICK FISCHER

Date Collected: 10/18/02  
Time Collected:  
Date Received: 10/19/02  
Time Received: 9:00  
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
TPH (Diesel Range)	ND	ug/L	104.	1.0	10/22/02	19:42	D.Haywood	8015B/3510	2168

### \*ORGANIC PARAMETERS\*

### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	960. ml	1.00 ml	10/22/02		M. Ricke	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	122.	41. - 155.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
CHRIS HIGGINS  
8200 S. AKRON, STE 120  
ENGLEWOOD, CO 80112

Lab Number: 02-A172686  
Sample ID: MW-8  
Sample Type: Water  
Site ID:

Project:  
Project Name: PHILLIPS PIPE LINE HOBBS  
Sampler: NICK FISCHER

Date Collected: 10/18/02  
Time Collected:  
Date Received: 10/19/02  
Time Received: 9:00  
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Benzene	2610	ug/L	20.0	20.0	10/23/02	2:15	H. Wagner	8021B	1071
Ethylbenzene	146.	ug/L	20.0	20.0	10/23/02	2:15	H. Wagner	8021B	1071
Toluene	644.	ug/L	20.0	20.0	10/23/02	2:15	H. Wagner	8021B	1071
Xylenes (Total)	358.	ug/L	20.0	20.0	10/23/02	2:15	H. Wagner	8021B	1071
TPH (Gasoline Range)	10700	ug/L	2000	20.0	10/23/02	2:15	H. Wagner	8015B	1071

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	94.	69. - 132.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
CHRIS HIGGINS  
8200 S. AKRON, STE 120  
ENGLEWOOD, CO 80112

Lab Number: 02-A172687  
Sample ID: MW-12  
Sample Type: Water  
Site ID:

Project:  
Project Name: PHILLIPS PIPE LINE HOBBS  
Sampler: NICK FISCHER

Date Collected: 10/18/02  
Time Collected:  
Date Received: 10/19/02  
Time Received: 9:00  
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Benzene	4940	ug/L	50.0	50.0	10/23/02	11:15	H. Wagner	8021B	2492
Ethylbenzene	370.	ug/L	50.0	50.0	10/23/02	11:15	H. Wagner	8021B	2492
Toluene	470.	ug/L	50.0	50.0	10/23/02	11:15	H. Wagner	8021B	2492
Xylenes (Total)	580.	ug/L	50.0	50.0	10/23/02	11:15	H. Wagner	8021B	2492
TPH (Gasoline Range)	23500	ug/L	5000	50.0	10/23/02	11:15	H. Wagner	8015B	2492

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	96.	69. - 132.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
CHRIS HIGGINS  
8200 S. AKRON, STE 120  
ENGLEWOOD, CO 80112

Lab Number: 02-A172688  
Sample ID: MW-13  
Sample Type: Water  
Site ID:

Project:  
Project Name: PHILLIPS PIPE LINE HOBBS  
Sampler: NICK FISCHER

Date Collected: 10/18/02  
Time Collected:  
Date Received: 10/19/02  
Time Received: 9:00  
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	36.9	ug/L	1.0	1.0	10/23/02	3:23	H. Wagner	8021B	1071
Ethylbenzene	8.9	ug/L	1.0	1.0	10/23/02	3:23	H. Wagner	8021B	1071
Toluene	ND	ug/L	1.0	1.0	10/23/02	3:23	H. Wagner	8021B	1071
Xylenes (Total)	4.7	ug/L	1.0	1.0	10/23/02	3:23	H. Wagner	8021B	1071
TPH (Gasoline Range)	283.	ug/L	100.	1.0	10/23/02	3:23	H. Wagner	8015B	1071

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	98.	69. - 132.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.



## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
CHRIS HIGGINS  
8200 S. AKRON, STE 120  
ENGLEWOOD, CO 80112

Lab Number: 02-A172689  
Sample ID: MW-18  
Sample Type: Water  
Site ID:

Project:  
Project Name: PHILLIPS PIPE LINE HOBBS  
Sampler: NICK FISCHER

Date Collected: 10/18/02  
Time Collected:  
Date Received: 10/19/02  
Time Received: 9:00  
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
<b>*ORGANIC PARAMETERS*</b>									
Benzene	574.	ug/L	10.0	10.0	10/23/02	11:49	H. Wagner	8021B	2492
Ethylbenzene	113.	ug/L	1.0	1.0	10/23/02	3:57	H. Wagner	8021B	1071
Toluene	ND	ug/L	1.0	1.0	10/23/02	3:57	H. Wagner	8021B	1071
Xylenes (Total)	54.3	ug/L	1.0	1.0	10/23/02	3:57	H. Wagner	8021B	1071
TPH (Gasoline Range)	5170	ug/L	1000	10.0	10/23/02	11:49	H. Wagner	8015B	2492

Surrogate	% Recovery	Target Range
-----	-----	-----
BTEX/GRO Surr., a,a,a-TFT	77.	69. - 132.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
CHRIS HIGGINS  
8200 S. AKRON, STE 120  
ENGLEWOOD, CO 80112

Lab Number: 02-A172690  
Sample ID: MW-21  
Sample Type: Water  
Site ID:

Project:  
Project Name: PHILLIPS PIPE LINE HOBBS  
Sampler: NICK FISCHER

Date Collected: 10/18/02  
Time Collected:  
Date Received: 10/19/02  
Time Received: 9:00  
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	ND	ug/L	1.0	1.0	10/23/02	4:31	H. Wagner	8021B	1071
Ethylbenzene	ND	ug/L	1.0	1.0	10/23/02	4:31	H. Wagner	8021B	1071
Toluene	ND	ug/L	1.0	1.0	10/23/02	4:31	H. Wagner	8021B	1071
Xylenes (Total)	ND	ug/L	1.0	1.0	10/23/02	4:31	H. Wagner	8021B	1071
TPH (Gasoline Range)	ND	ug/L	100.	1.0	10/23/02	4:31	H. Wagner	8015B	1071

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	102.	69. - 132.

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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## PROJECT QUALITY CONTROL DATA

Project Number:

Page: 1

### Matrix Spike Recovery

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Sample
<b>**UST ANALYSIS**</b>								
Benzene	mg/l	2.61	3.32	1.00	71#	74. - 129.	1071	02-A172686
Benzene	mg/l	< 0.0005	0.0508	0.0500	102	74. - 129.	2492	blank
Toluene	mg/l	0.644	1.49	1.00	85	74. - 128.	1071	02-A172686
Toluene	mg/l	< 0.0006	0.0501	0.0500	100	74. - 128.	2492	blank
Ethylbenzene	mg/l	0.146	1.04	1.00	89	75. - 128.	1071	02-A172686
Ethylbenzene	mg/l	< 0.0006	0.0503	0.0500	101	75. - 128.	2492	blank
Xylenes (Total)	mg/l	0.358	2.33	2.00	99	72. - 126.	1071	02-A172686
Xylenes (Total)	mg/l	< 0.0010	0.101	0.100	101	72. - 126.	2492	blank
TPH (Gasoline Range)	mg/l	< 0.0740	0.948	1.00	95	59. - 128.	1071	blank
TPH (Gasoline Range)	mg/l	< 0.0740	0.948	1.00	95	59. - 128.	2492	blank
TPH (Diesel Range)	mg/l	< 0.100	0.744	1.00	74	23. - 120.	2168	BLANK
BTEX/GRO Surr., a,a,a-TFT	% Recovery				93	69. - 132.	1071	
BTEX/GRO Surr., a,a,a-TFT	% Recovery				99	69. - 132.	2492	

### Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
<b>**UST PARAMETERS**</b>						
Benzene	mg/l	3.32	3.42	2.97	15.	1071
Benzene	mg/l	0.0508	0.0519	2.14	15.	2492
Toluene	mg/l	1.49	1.55	3.95	15.	1071
Toluene	mg/l	0.0501	0.0513	2.37	15.	2492
Ethylbenzene	mg/l	1.04	1.08	3.77	15.	1071
Ethylbenzene	mg/l	0.0503	0.0514	2.16	15.	2492
Xylenes (Total)	mg/l	2.33	2.22	4.84	19.	1071
Xylenes (Total)	mg/l	0.101	0.104	2.93	19.	2492
TPH (Gasoline Range)	mg/l	0.948	0.906	4.53	22.	1071
TPH (Gasoline Range)	mg/l	0.948	0.906	4.53	22.	2492
TPH (Diesel Range)	mg/l	0.744	0.798	7.00	20.	2168

Project QC continued . . .

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## PROJECT QUALITY CONTROL DATA

Project Number:

Page: 2

### Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
BTEX/GRO Surr., a,a,a-TFT	% Recovery		93.			1071
BTEX/GRO Surr., a,a,a-TFT	% Recovery		99.			2492

### Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
<b>**UST PARAMETERS**</b>						
Benzene	mg/l	0.100	0.104	104	74 - 124	1071
Benzene	mg/l	0.100	0.105	105	74 - 124	2492
Toluene	mg/l	0.100	0.102	102	74 - 121	1071
Toluene	mg/l	0.100	0.103	103	74 - 121	2492
Ethylbenzene	mg/l	0.100	0.102	102	75 - 123	1071
Ethylbenzene	mg/l	0.100	0.103	103	75 - 123	2492
Xylenes (Total)	mg/l	0.200	0.205	102	72 - 120	1071
Xylenes (Total)	mg/l	0.200	0.207	104	72 - 120	2492
TPH (Gasoline Range)	mg/l	1.00	0.948	95	61 - 139	1071
TPH (Gasoline Range)	mg/l	1.00	0.948	95	61 - 139	2492
TPH (Diesel Range)	mg/l	1.00	0.639	64	42 - 115	2168
BTEX/GRO Surr., a,a,a-TFT	% Recovery			98	69 - 132	1071
BTEX/GRO Surr., a,a,a-TFT	% Recovery			98	69 - 132	2492

### Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
<b>**UST PARAMETERS**</b>					
Benzene	< 0.0005	mg/l	1071	10/23/02	1:06
Benzene	< 0.0005	mg/l	2492	10/23/02	1:06
Toluene	< 0.0006	mg/l	1071	10/23/02	1:06
Toluene	< 0.0006	mg/l	2492	10/23/02	1:06

Project QC continued . . .

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## PROJECT QUALITY CONTROL DATA

Project Number:

Page: 3

### Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Ethylbenzene	< 0.0006	mg/l	1071	10/23/02	1:06
Ethylbenzene	< 0.0006	mg/l	2492	10/23/02	1:06
Xylenes (Total)	< 0.0010	mg/l	1071	10/23/02	1:06
Xylenes (Total)	< 0.0010	mg/l	2492	10/23/02	1:06
TPH (Gasoline Range)	< 0.0740	mg/l	1071	10/23/02	1:06
TPH (Gasoline Range)	< 0.0740	mg/l	2492	10/23/02	1:06
TPH (Diesel Range)	< 0.100	mg/l	2168	10/22/02	17:46

### Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
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### \*\*UST PARAMETERS\*\*

TPH Hi Surr., o-Terphenyl	105.	% Recovery	2168	10/22/02	17:46
BTEX/GRO Surr., a,a,a-TFT	100.	% Recovery	1071	10/23/02	1:06
BTEX/GRO Surr., a,a,a-TFT	100.	% Recovery	2492	10/23/02	1:06

End of Report for Project 305756

**TestAmerica**  
INCORPORATED

Nashville Division  
2960 Foster Caleigh  
Nashville, TN 37204

**Phone:** 615-726-0177  
**Fax:** 615-726-3404

305256

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?

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1/27/03

HIGGINS AND ASSOCIATES 9898

8200 SOUTH AKRON ST, STE 120  
CENTENNIAL, CO 80112

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project

PPL HOBBS EAST. The Laboratory Project number is  
317516.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report.

Sample Identification	Lab Number	Collection Date
MW-22	03-A10068	1/22/03
MW-23	03-A10069	1/22/03
MW-21	03-A10070	1/22/03
MW-16	03-A10071	1/22/03
MW-17	03-A10072	1/22/03
MW-20	03-A10073	1/22/03
MW-13	03-A10074	1/22/03
MW-19	03-A10075	1/22/03
MW-8 SVES	03-A10076	1/22/03

These results relate only to the items tested.  
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By:



Report Date: 1/27/03

Paul E. Lane, Jr., Lab Director  
Michael H. Dunn, M.S., Technical Director  
Johnny A. Mitchell, Dir. Technical Serv.  
Eric S. Smith, Assistant Technical Director  
Roxanne L. Connor, Technical Services

Gail A. Lage, Technical Serv.  
Glenn L. Norton, Technical Serv.  
Kelly S. Comstock, Technical Serv.  
Pamela A. Langford, Technical Serv.

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## ANALYTICAL REPORT

HIGGINS AND ASSOCIATES 9898  
 8200 SOUTH AKRON ST, STE 120  
 CENTENNIAL, CO 80112

Lab Number: 03-A10068  
 Sample ID: MW-22  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name: PPL HOBBS EAST  
 Sampler: NICK FISCHER

Date Collected: 1/22/03  
 Time Collected:  
 Date Received: 1/23/03  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	ND	ug/L	1.0	1.0	1/24/03	13:59	A. Cobbs	8021B	1605
Ethylbenzene	ND	ug/L	1.0	1.0	1/24/03	13:59	A. Cobbs	8021B	1605
Toluene	ND	ug/L	1.0	1.0	1/24/03	13:59	A. Cobbs	8021B	1605
Xylenes (Total)	ND	ug/L	1.0	1.0	1/24/03	13:59	A. Cobbs	8021B	1605
TPH (Gasoline Range)	ND	ug/L	100.	1.0	1/24/03	13:59	A. Cobbs	8015B	1605
TPH (Diesel Range)	ND	ug/L	101.	1.0	1/25/03	19:37	D.Haywood	8015B/3510	3115

### \*MISCELLANEOUS CHEMISTRY\*

Chloride	85700	ug/L	10000	10.0	1/25/03	18:05	S. Duncan	325.2	1682
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### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	995. ml	1.00 ml	1/24/03		M. Ricke	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	60.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	103.	69. - 132.

Sample report continued . . .



## ANALYTICAL REPORT

Laboratory Number: 03-A10068  
Sample ID: MW-22  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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## ANALYTICAL REPORT

HIGGINS AND ASSOCIATES 9898  
8200 SOUTH AKRON ST, STE 120  
CENTENNIAL, CO 80112

Lab Number: 03-A10069  
Sample ID: MW-23  
Sample Type: Water  
Site ID:

Project:  
Project Name: PPL HOBBS EAST  
Sampler: NICK FISCHER

Date Collected: 1/22/03  
Time Collected:  
Date Received: 1/23/03  
Time Received: 9:00  
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
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\*ORGANIC PARAMETERS\*

Benzene	ND	ug/L	1.0	1.0	1/24/03	14:30	A. Cobbs	8021B	1605
Ethylbenzene	ND	ug/L	1.0	1.0	1/24/03	14:30	A. Cobbs	8021B	1605
Toluene	ND	ug/L	1.0	1.0	1/24/03	14:30	A. Cobbs	8021B	1605
Xylenes (Total)	ND	ug/L	1.0	1.0	1/24/03	14:30	A. Cobbs	8021B	1605
TPH (Gasoline Range)	ND	ug/L	100.	1.0	1/24/03	14:30	A. Cobbs	8015B	1605
TPH (Diesel Range)	ND	ug/L	101.	1.0	1/25/03	19:56	D.Haywood	8015B/3510	3115

\*MISCELLANEOUS CHEMISTRY\*

Chloride	58500	ug/L	10000	10.0	1/25/03	18:05	S. Duncan	325.2	1682
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Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
-----	-----	-----	-----	-----	-----	-----
EPH	995. ml	1.00 ml	1/24/03		M. Ricke	3510

Surrogate	% Recovery	Target Range
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TPH Hi Surr., o-Terphenyl	71.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	103.	69. - 132.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 03-A10069  
Sample ID: MW-23  
Project:  
Page 2

### LABORATORY COMMENTS:

ND - Not detected at the report limit.  
B - Analyte was detected in the method blank.  
J - Estimated Value below Report Limit.  
E - Estimated Value above the calibration limit of the instrument.  
# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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## ANALYTICAL REPORT

HIGGINS AND ASSOCIATES 9898  
 8200 SOUTH AKRON ST, STE 120  
 CENTENNIAL, CO 80112

Lab Number: 03-A10070  
 Sample ID: MW-21  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name: PPL HOBBS EAST  
 Sampler: NICK FISCHER

Date Collected: 1/22/03  
 Time Collected:  
 Date Received: 1/23/03  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	ND	ug/L	1.0	1.0	1/24/03	15:01	A. Cobbs	8021B	1605
Ethylbenzene	ND	ug/L	1.0	1.0	1/24/03	15:01	A. Cobbs	8021B	1605
Toluene	ND	ug/L	1.0	1.0	1/24/03	15:01	A. Cobbs	8021B	1605
Xylenes (Total)	ND	ug/L	1.0	1.0	1/24/03	15:01	A. Cobbs	8021B	1605
TPH (Gasoline Range)	ND	ug/L	100.	1.0	1/24/03	15:01	A. Cobbs	8015B	1605
TPH (Diesel Range)	ND	ug/L	116.	1.0	1/25/03	20:16	D. Haywood	8015B/3510	3115

### \*MISCELLANEOUS CHEMISTRY\*

Chloride	806000	ug/L	100000	100.	1/25/03	18:06	S. Duncan	325.2	1682
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### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	860. ml	1.00 ml	1/24/03		M. Ricke	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	88.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	103.	69. - 132.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 03-A10070  
Sample ID: MW-21  
Project:  
Page 2

### LABORATORY COMMENTS:

ND - Not detected at the report limit.  
B - Analyte was detected in the method blank.  
J - Estimated Value below Report Limit.  
E - Estimated Value above the calibration limit of the instrument.  
# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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## ANALYTICAL REPORT

HIGGINS AND ASSOCIATES 9898  
 8200 SOUTH AKRON ST, STE 120  
 CENTENNIAL, CO 80112

Lab Number: 03-A10071  
 Sample ID: MW-16  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name: PPL HOBBS EAST  
 Sampler: NICK FISCHER

Date Collected: 1/22/03  
 Time Collected:  
 Date Received: 1/23/03  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Benzene	1.0	ug/L	1.0	1.0	1/24/03	15:32	A. Cobbs	8021B	1605
Ethylbenzene	ND	ug/L	1.0	1.0	1/24/03	15:32	A. Cobbs	8021B	1605
Toluene	ND	ug/L	1.0	1.0	1/24/03	15:32	A. Cobbs	8021B	1605
Xylenes (Total)	ND	ug/L	1.0	1.0	1/24/03	15:32	A. Cobbs	8021B	1605
TPH (Gasoline Range)	ND	ug/L	100.	1.0	1/24/03	15:32	A. Cobbs	8015B	1605
TPH (Diesel Range)	124.	ug/L	113.	1.0	1/25/03	20:36	D.Haywood	8015B/3510	3115

### \*ORGANIC PARAMETERS\*

Benzene	1.0	ug/L	1.0	1.0	1/24/03	15:32	A. Cobbs	8021B	1605
Ethylbenzene	ND	ug/L	1.0	1.0	1/24/03	15:32	A. Cobbs	8021B	1605
Toluene	ND	ug/L	1.0	1.0	1/24/03	15:32	A. Cobbs	8021B	1605
Xylenes (Total)	ND	ug/L	1.0	1.0	1/24/03	15:32	A. Cobbs	8021B	1605
TPH (Gasoline Range)	ND	ug/L	100.	1.0	1/24/03	15:32	A. Cobbs	8015B	1605
TPH (Diesel Range)	124.	ug/L	113.	1.0	1/25/03	20:36	D.Haywood	8015B/3510	3115

### \*MISCELLANEOUS CHEMISTRY\*

Chloride	206000	ug/L	20000	20.0	1/25/03	18:06	S. Duncan	325.2	1682
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### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	885. ml	1.00 ml	1/24/03		M. Ricke	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	88.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	102.	69. - 132.

Sample report continued . . .



## ANALYTICAL REPORT

Laboratory Number: 03-A10071  
Sample ID: MW-16  
Project:  
Page 2

### LABORATORY COMMENTS:

ND - Not detected at the report limit.  
B - Analyte was detected in the method blank.  
J - Estimated Value below Report Limit.  
E - Estimated Value above the calibration limit of the instrument.  
# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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## ANALYTICAL REPORT

HIGGINS AND ASSOCIATES 9898  
 8200 SOUTH AKRON ST, STE 120  
 CENTENNIAL, CO 80112

Lab Number: 03-A10072  
 Sample ID: MW-17  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name: PPL HOBBS EAST  
 Sampler: NICK FISCHER

Date Collected: 1/22/03  
 Time Collected:  
 Date Received: 1/23/03  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	ND	ug/L	1.0	1.0	1/24/03	16:03	A. Cobbs	8021B	1605
Ethylbenzene	ND	ug/L	1.0	1.0	1/24/03	16:03	A. Cobbs	8021B	1605
Toluene	ND	ug/L	1.0	1.0	1/24/03	16:03	A. Cobbs	8021B	1605
Xylenes (Total)	ND	ug/L	1.0	1.0	1/24/03	16:03	A. Cobbs	8021B	1605
TPH (Gasoline Range)	ND	ug/L	100.	1.0	1/24/03	16:03	A. Cobbs	8015B	1605
TPH (Diesel Range)	124.	ug/L	106.	1.0	1/25/03	20:55	D.Haywood	8015B/3510	3115

### \*MISCELLANEOUS CHEMISTRY\*

Chloride	76700	ug/L	10000	10.0	1/25/03	18:07	S. Duncan	325.2	1682
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### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	940. ml	1.00 ml	1/24/03		M. Ricke	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	76.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	101.	69. - 132.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 03-A10072  
Sample ID: MW-17  
Project:  
Page 2

### LABORATORY COMMENTS:

ND - Not detected at the report limit.  
B - Analyte was detected in the method blank.  
J - Estimated Value below Report Limit.  
E - Estimated Value above the calibration limit of the instrument.  
# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

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## ANALYTICAL REPORT

HIGGINS AND ASSOCIATES 9898  
 8200 SOUTH AKRON ST, STE 120  
 CENTENNIAL, CO 80112

Lab Number: 03-A10073  
 Sample ID: MW-20  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name: PPL HOBBS EAST  
 Sampler: NICK FISCHER

Date Collected: 1/22/03  
 Time Collected:  
 Date Received: 1/23/03  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	ND	ug/L	1.0	1.0	1/24/03	16:34	A. Cobbs	8021B	1605
Ethylbenzene	ND	ug/L	1.0	1.0	1/24/03	16:34	A. Cobbs	8021B	1605
Toluene	ND	ug/L	1.0	1.0	1/24/03	16:34	A. Cobbs	8021B	1605
Xylenes (Total)	ND	ug/L	1.0	1.0	1/24/03	16:34	A. Cobbs	8021B	1605
TPH (Gasoline Range)	ND	ug/L	100.	1.0	1/24/03	16:34	A. Cobbs	8015B	1605
TPH (Diesel Range)	ND	ug/L	100.	1.0	1/25/03	21:15	D.Haywood	8015B/3510	3115

### \*MISCELLANEOUS CHEMISTRY\*

Chloride	83600	ug/L	10000	10.0	1/25/03	18:07	S. Duncan	325.2	1682
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### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	1000 ml	1.00 ml	1/24/03		M. Ricke	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	80.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	104.	69. - 132.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 03-A10073  
Sample ID: MW-20  
Project:  
Page 2

### LABORATORY COMMENTS:

ND - Not detected at the report limit.  
B - Analyte was detected in the method blank.  
J - Estimated Value below Report Limit.  
E - Estimated Value above the calibration limit of the instrument.  
# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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## ANALYTICAL REPORT

HIGGINS AND ASSOCIATES 9898  
 8200 SOUTH AKRON ST, STE 120  
 CENTENNIAL, CO 80112

Lab Number: 03-A10074  
 Sample ID: MW-13  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name: PPL HOBBS EAST  
 Sampler: NICK FISCHER

Date Collected: 1/22/03  
 Time Collected:  
 Date Received: 1/23/03  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Benzene	ND	ug/L	1.0	1.0	1/24/03	17:05	A. Cobbs	8021B	1605
Ethylbenzene	ND	ug/L	1.0	1.0	1/24/03	17:05	A. Cobbs	8021B	1605
Toluene	ND	ug/L	1.0	1.0	1/24/03	17:05	A. Cobbs	8021B	1605
Xylenes (Total)	ND	ug/L	1.0	1.0	1/24/03	17:05	A. Cobbs	8021B	1605
TPH (Gasoline Range)	ND	ug/L	100.	1.0	1/24/03	17:05	A. Cobbs	8015B	1605
TPH (Diesel Range)	ND	ug/L	105.	1.0	1/25/03	21:34	D.Haywood	8015B/3510	3115

### \*ORGANIC PARAMETERS\*

Benzene	ND	ug/L	1.0	1.0	1/24/03	17:05	A. Cobbs	8021B	1605
Ethylbenzene	ND	ug/L	1.0	1.0	1/24/03	17:05	A. Cobbs	8021B	1605
Toluene	ND	ug/L	1.0	1.0	1/24/03	17:05	A. Cobbs	8021B	1605
Xylenes (Total)	ND	ug/L	1.0	1.0	1/24/03	17:05	A. Cobbs	8021B	1605
TPH (Gasoline Range)	ND	ug/L	100.	1.0	1/24/03	17:05	A. Cobbs	8015B	1605
TPH (Diesel Range)	ND	ug/L	105.	1.0	1/25/03	21:34	D.Haywood	8015B/3510	3115

### \*MISCELLANEOUS CHEMISTRY\*

Chloride	72600	ug/L	10000	10.0	1/25/03	18:08	S. Duncan	325.2	1682
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### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	950. ml	1.00 ml	1/24/03		M. Ricke	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	83.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	103.	69. - 132.

Sample report continued . . .



## ANALYTICAL REPORT

Laboratory Number: 03-A10074  
Sample ID: MW-13  
Project:  
Page 2

### LABORATORY COMMENTS:

ND - Not detected at the report limit.  
B - Analyte was detected in the method blank.  
J - Estimated Value below Report Limit.  
E - Estimated Value above the calibration limit of the instrument.  
# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica<sup>®</sup>

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## ANALYTICAL REPORT

HIGGINS AND ASSOCIATES 9898  
 8200 SOUTH AKRON ST, STE 120  
 CENTENNIAL, CO 80112

Lab Number: 03-A10075  
 Sample ID: MW-19  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name: PPL HOBBS EAST  
 Sampler: NICK FISCHER

Date Collected: 1/22/03  
 Time Collected:  
 Date Received: 1/23/03  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Benzene	ND	ug/L	1.0	1.0	1/24/03	18:38	A. Cobbs	8021B	1605
Ethylbenzene	ND	ug/L	1.0	1.0	1/24/03	18:38	A. Cobbs	8021B	1605
Toluene	ND	ug/L	1.0	1.0	1/24/03	18:38	A. Cobbs	8021B	1605
Xylenes (Total)	ND	ug/L	1.0	1.0	1/24/03	18:38	A. Cobbs	8021B	1605
TPH (Gasoline Range)	ND	ug/L	100.	1.0	1/24/03	18:38	A. Cobbs	8015B	1605
TPH (Diesel Range)	ND	ug/L	100.	1.0	1/25/03	21:54	D. Haywood	8015B/3510	3115

### \*ORGANIC PARAMETERS\*

Benzene	ND	ug/L	1.0	1.0	1/24/03	18:38	A. Cobbs	8021B	1605
Ethylbenzene	ND	ug/L	1.0	1.0	1/24/03	18:38	A. Cobbs	8021B	1605
Toluene	ND	ug/L	1.0	1.0	1/24/03	18:38	A. Cobbs	8021B	1605
Xylenes (Total)	ND	ug/L	1.0	1.0	1/24/03	18:38	A. Cobbs	8021B	1605
TPH (Gasoline Range)	ND	ug/L	100.	1.0	1/24/03	18:38	A. Cobbs	8015B	1605
TPH (Diesel Range)	ND	ug/L	100.	1.0	1/25/03	21:54	D. Haywood	8015B/3510	3115

### \*MISCELLANEOUS CHEMISTRY\*

Chloride	177000	ug/L	20000	20.0	1/25/03	18:08	S. Duncan	325.2	1682
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### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	1000 ml	1.00 ml	1/24/03		M. Ricke	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	86.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	103.	69. - 132.

Sample report continued . . .



## ANALYTICAL REPORT

Laboratory Number: 03-A10075  
Sample ID: MW-19  
Project:  
Page 2

### LABORATORY COMMENTS:

- ND - Not detected at the report limit.
- B - Analyte was detected in the method blank.
- J - Estimated Value below Report Limit.
- E - Estimated Value above the calibration limit of the instrument.
- # - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

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## ANALYTICAL REPORT

HIGGINS AND ASSOCIATES 9898  
 8200 SOUTH AKRON ST, STE 120  
 CENTENNIAL, CO 80112

Lab Number: 03-A10076  
 Sample ID: MW-8 SVES  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name: PPL HOBBS EAST  
 Sampler: NICK FISCHER

Date Collected: 1/22/03  
 Time Collected:  
 Date Received: 1/23/03  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	2520	ug/L	20.0	20.0	1/25/03	12:33	A. Cobbs	8021B	3004
Ethylbenzene	252.	ug/L	20.0	20.0	1/25/03	12:33	A. Cobbs	8021B	3004
Toluene	406.	ug/L	20.0	20.0	1/25/03	12:33	A. Cobbs	8021B	3004
Xylenes (Total)	398.	ug/L	20.0	20.0	1/25/03	12:33	A. Cobbs	8021B	3004
TPH (Gasoline Range)	10500	ug/L	2000	20.0	1/25/03	12:33	A. Cobbs	8015B	3004
TPH (Diesel Range)	1730	ug/L	100.	1.0	1/25/03	22:14	D.Haywood	8015B/3510	3115

### \*MISCELLANEOUS CHEMISTRY\*

Chloride	106000	ug/L	10000	10.0	1/25/03	18:09	S. Duncan	325.2	1682
----------	--------	------	-------	------	---------	-------	-----------	-------	------

### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	1000 ml	1.00 ml	1/24/03		M. Ricke	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	50.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	97.	69. - 132.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 03-A10076  
Sample ID: MW-8 SVES  
Project:  
Page 2

### LABORATORY COMMENTS:

- ND - Not detected at the report limit.
- B - Analyte was detected in the method blank.
- J - Estimated Value below Report Limit.
- E - Estimated Value above the calibration limit of the instrument.
- # - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

## PROJECT QUALITY CONTROL DATA

Project Number:

Project Name: PPL HOBBS EAST

Page: 1

Laboratory Receipt Date: 1/23/03

### Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for MS/MSD analysis for that method and the method requirements for MS/MSD analysis could not be met.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C.	Batch	Spike Sample
<b>**UST ANALYSIS**</b>									
Benzene	mg/l	0.0014	0.0549	0.0500	107	74. - 129.	1605	03-A9570	
Benzene	mg/l	< 0.0005	0.0509	0.0500	102	74. - 129.	3004	blank	
Toluene	mg/l	< 0.0010	0.0515	0.0500	103	74. - 128.	1605	03-A9570	
Toluene	mg/l	< 0.0006	0.0486	0.0500	97	74. - 128.	3004	blank	
Ethylbenzene	mg/l	0.0017	0.0524	0.0500	101	75. - 128.	1605	03-A9570	
Ethylbenzene	mg/l	< 0.0006	0.0486	0.0500	97	75. - 128.	3004	blank	
Xylenes (Total)	mg/l	0.0023	0.102	0.100	100	72. - 126.	1605	03-A9570	
Xylenes (Total)	mg/l	< 0.0010	0.0969	0.100	97	72. - 126.	3004	blank	
TPH (Gasoline Range)	mg/l	0.199	0.951	1.00	75	59. - 128.	1605	03-A9570	
TPH (Gasoline Range)	mg/l	< 0.0740	0.951	1.00	95	59. - 128.	3004	blank	
TPH (Diesel Range)	mg/l	< 0.100	0.754	1.00	75	23. - 120.	3115	BLANK	
BTEX/GRO Surr., a,a,a-TFT	% Recovery				102	69 - 132	1605		
BTEX/GRO Surr., a,a,a-TFT	% Recovery				102	69 - 132	3004		

### Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
<b>**UST PARAMETERS**</b>						
Benzene	mg/l	0.0549	0.0582	5.84	15.	1605
Benzene	mg/l	0.0509	0.0506	0.59	15.	3004
Toluene	mg/l	0.0515	0.0545	5.66	15.	1605
Toluene	mg/l	0.0486	0.0483	0.62	15.	3004
Ethylbenzene	mg/l	0.0524	0.0555	5.75	15.	1605
Ethylbenzene	mg/l	0.0486	0.0484	0.41	15.	3004
Xylenes (Total)	mg/l	0.102	0.108	5.71	19.	1605
Xylenes (Total)	mg/l	0.0969	0.0964	0.52	19.	3004

Project QC continued . . .

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## PROJECT QUALITY CONTROL DATA

Project Number:

Project Name: PPL HOBBS EAST

Page: 2

Laboratory Receipt Date: 1/23/03

### Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
TPH (Gasoline Range)	mg/l	0.951	0.875	8.32	22.	1605
TPH (Gasoline Range)	mg/l	0.951	0.875	8.32	22.	3004
TPH (Diesel Range)	mg/l	0.754	0.704	6.86	20.	3115
BTEX/GRO Surr., a,a,a-TFT	% Recovery		102.			1605
BTEX/GRO Surr., a,a,a-TFT	% Recovery		102.			3004

### Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch

### \*\*UST PARAMETERS\*\*

Benzene	mg/l	0.100	0.0986	99	74 - 124	1605
Benzene	mg/l	0.100	0.0986	99	74 - 124	3004
Toluene	mg/l	0.100	0.0928	93	74 - 121	1605
Toluene	mg/l	0.100	0.0927	93	74 - 121	3004
Ethylbenzene	mg/l	0.100	0.0909	91	75 - 123	1605
Ethylbenzene	mg/l	0.100	0.0913	91	75 - 123	3004
Xylenes (Total)	mg/l	0.200	0.181	90	72 - 120	1605
Xylenes (Total)	mg/l	0.200	0.182	91	72 - 120	3004
TPH (Gasoline Range)	mg/l	1.00	0.951	95	61 - 139	1605
TPH (Gasoline Range)	mg/l	1.00	0.951	95	61 - 139	3004
TPH (Diesel Range)	mg/l	1.00	0.716	72	42 - 115	3115
BTEX/GRO Surr., a,a,a-TFT	% Recovery			101	69 - 132	1605
BTEX/GRO Surr., a,a,a-TFT	% Recovery			101	69 - 132	3004

Project QC continued . . .

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## PROJECT QUALITY CONTROL DATA

Project Number:

Project Name: PPL HOBBS EAST

Page: 3

Laboratory Receipt Date: 1/23/03

### Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
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### Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
-----	-----	-----	-----	-----	-----	-----

### \*\*MISC PARAMETERS\*\*

Chloride	mg/l	10.0	10.0	100	90 - 110	1682
	Duplicates					

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd
Chloride	mg/l	106.	112.	5.50	15.	1682	03-A10076

### Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
-----	-----	-----	-----	-----	-----

### \*\*UST PARAMETERS\*\*

Benzene	< 0.0005	mg/l	1605	1/24/03	13:00
Benzene	< 0.0005	mg/l	3004	1/25/03	6:01
Toluene	< 0.0006	mg/l	1605	1/24/03	13:00
Toluene	< 0.0006	mg/l	3004	1/25/03	6:01
Ethylbenzene	< 0.0006	mg/l	1605	1/24/03	13:00
Ethylbenzene	< 0.0006	mg/l	3004	1/25/03	6:01
Xylenes (Total)	< 0.0010	mg/l	1605	1/24/03	13:00
Xylenes (Total)	< 0.0010	mg/l	3004	1/25/03	6:01
TPH (Gasoline Range)	< 0.0740	mg/l	1605	1/24/03	13:00
TPH (Gasoline Range)	< 0.0740	mg/l	3004	1/25/03	6:01
TPH (Diesel Range)	< 0.100	mg/l	3115	1/25/03	17:59

Project QC continued . . .

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## PROJECT QUALITY CONTROL DATA

Project Number:

Project Name: PPL HOBBS EAST

Page: 4

Laboratory Receipt Date: 1/23/03

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
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### \*\*UST PARAMETERS\*\*

TPH Hi Surr., o-Terphenyl	83.	% Recovery	3115	1/25/03	17:59
BTEX/GRO Surr., a,a,a-TFT	103.	% Recovery	1605	1/24/03	13:00
BTEX/GRO Surr., a,a,a-TFT	103.	% Recovery	3004	1/25/03	6:01

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
-----	-----	-----	-----	-----	-----

### \*\*MISC PARAMETERS\*\*

Chloride	< 1.00	mg/l	1682	1/25/03	17:35
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# - Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 317516

# TestAmerica

Nashville Division  
2860 Foster Greighton  
Nashville, TN 37204

Phone: 615-726-0177  
Fax: 615-726-3404

Client Name: Higgins & Associates Client #: 96946

Address: 8200 S. Akers, Suite 120  
City/State/Zip Code: Englewood, CO 80212

Project Manager: Chris Higgins  
Telephone Number: 303-708-2846 FAX: 2848

Sampler Name: (Print Name) Vick Fischer

Sampler Signature: *Vick Fischer*  
Date: 505-760-1767

Project Name: PPK Hobbs East

Project #:

Site/Location ID: Hobbs East State: New Mexico

Report To: Mr. Chris Higgins

Invoiced To: Ms. Patty Jensen

Quote #:

PO#:

To assist us in using the proper analytical methods,  
is this work being conducted for regulatory purposes?  
Compliance Monitoring \_\_\_\_\_

3/7/5/3 3/15/04

TEST	Standard — Rush (Surcharge may apply)	Data Needed:	Date Sampled	Time Sampled	G = Grab, C = Composite Field Filtered	Matrix	Preservation & # of Containers	Analyze For						
								QC Deliverables						
MW - 22	1/22				HNO <sub>3</sub>	X	X	X	X	X	X	X	X	None
MW - 23	1/23				HCl	X	X	X	X	X	X	X	X	Level 2 (Batch QC)
MW - 24	1/24				NaOH	X	X	X	X	X	X	X	X	Level 3
MW - 16	1/16				H <sub>2</sub> SO <sub>4</sub>	X	X	X	X	X	X	X	X	Level 4
MW - 17	1/17				Merchandise	X	X	X	X	X	X	X	X	Other: _____
MW - 20	1/20				None	X	X	X	X	X	X	X	X	REMARKS
														10/06/88
														69
														70
														71
														72
														73
														74
LABORATORY COMMENTS:														
Rec Lab Temp: 10														
Custody Seal: Y N N/A Bottle Supplied by Test America: Y N Method of Shipment:														

Special Instructions:

Relinquished By: <i>Chris Fischer</i>	Date: 1/22	Time: 4:15	Received By: <i>M. M.</i>	Date: 1/23/03	Time: 9:00
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

# TestAmerica

Nashville Division  
2960 Foster Creek Road  
Nashville, TN 37204  
Phone: 615-726-0177  
Fax: 615-726-3404

317515

To assist us in using the proper analytical methods,  
is this work being conducted for regulatory purposes?  
Compliance Monitoring

Client Name: <u>Higgins &amp; Associates</u>		Client #: _____	
Address: <u>8300 S Akers Suite 170</u>		Project Manager: <u>Chris Higgins</u>	
City/State/Zip Code: <u>Englewood CO 80112</u>		Telephone Number: <u>303.708.2846</u>	
Date Needed: <u>10/03/98</u>		Fax: <u>90348</u>	
Sample Name: (Print Name) <u>Rocky Flats</u>		Sample Signature: <u>Chris Higgins</u>	
Special Instructions:		LABORATORY COMMENTS:	
Reinquished By: <u>Phil Jensen</u>		Init Lab Temp: _____	
Date: <u>1/22</u> Time: <u>4:25</u>		Received By: <u>MB</u>	Date: <u>1/23/98</u> Time: <u>9:40</u>
Reinquished By: _____		Received By: _____	Date: _____ Time: _____
Reinquished By: _____		Received By: _____	Date: _____ Time: _____
Method of Shipment:			
TAJ	Standard	Preservation & # of Containers	Analyze For:
Rush (surcharge may apply)		QC Deliverables	
Date Needed:	<input checked="" type="checkbox"/>		None
Fax Results:	<input checked="" type="checkbox"/> N		Level 2
SAMPLE ID	Date Sampled		Batch QC
MW-13	Time Sampled		Level 3
MW-19	G = Grab, C = Composite		Level 4
MWB (SUE 5)	Field Filtered		Other: _____
		BTEX	REMARKS
		TUPH	100% 1%
		TEPH	100% 1%
		chlorides	100% 1%

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1/30/03

HIGGINS AND ASSOCIATES 9898

8200 SOUTH AKRON ST, STE 120  
CENTENNIAL, CO 80112

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project

PPL HOBBS EAST. The Laboratory Project number is  
317675.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report.

Page 1

Sample Identification	Lab Number	Collection Date
MW-12	03-A10726	1/23/03
MW-14	03-A10727	1/23/03
SVE-10	03-A10728	1/23/03
MW-3	03-A10729	1/23/03
MW-4	03-A10730	1/23/03
MW-5	03-A10731	1/23/03
MW-18	03-A10732	1/23/03

These results relate only to the items tested.  
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By:

Report Date: 1/30/03

Paul E. Lane, Jr., Lab Director  
Michael H. Dunn, M.S., Technical Director  
Johnny A. Mitchell, Dir. Technical Serv.  
Eric S. Smith, Assistant Technical Director  
Roxanne L. Connor, Technical Services

Gail A. Lage, Technical Serv.  
Glenn L. Norton, Technical Serv.  
Kelly S. Comstock, Technical Serv.  
Pamela A. Langford, Technical Serv.

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## ANALYTICAL REPORT

HIGGINS AND ASSOCIATES 9898  
 8200 SOUTH AKRON ST, STE 120  
 CENTENNIAL, CO 80112

Lab Number: 03-A10726  
 Sample ID: MW-12  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name: PPL HOBBS EAST  
 Sampler: NICK FISCHER

Date Collected: 1/23/03  
 Time Collected:  
 Date Received: 1/24/03  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	3610	ug/L	100.	100.	1/26/03	8:05	F.Gundi	8021B	2398
Ethylbenzene	261.	ug/L	10.0	10.0	1/27/03	20:23	F.Gundi	8021B	3162
Toluene	346.	ug/L	10.0	10.0	1/27/03	20:23	F.Gundi	8021B	3162
Xylenes (Total)	437.	ug/L	10.0	10.0	1/27/03	20:23	F.Gundi	8021B	3162
TPH (Gasoline Range)	20100	ug/L	1000	10.0	1/27/03	20:23	F.Gundi	8015B	3162
TPH (Diesel Range)	442.	ug/L	100.	1.0	1/29/03	4:31	M.Jarrett	8015B/3510	4630

### \*MISCELLANEOUS CHEMISTRY\*

Chloride	180000	ug/L	20000	20.0	1/28/03	10:40	S. Duncan	325.2	2308
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### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	1000 ml	1.00 ml	1/28/03		M. Ricke	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	92.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	104.	69. - 132.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 03-A10726  
Sample ID: MW-12  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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## ANALYTICAL REPORT

HIGGINS AND ASSOCIATES 9898  
 8200 SOUTH AKRON ST, STE 120  
 CENTENNIAL, CO 80112

Lab Number: 03-A10727  
 Sample ID: MW-14  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name: PPL HOBBS EAST  
 Sampler: NICK FISCHER

Date Collected: 1/23/03  
 Time Collected:  
 Date Received: 1/24/03  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	130.	ug/L	1.0	1.0	1/27/03	21:26	F.Gundi	8021B	3162
Ethylbenzene	ND	ug/L	1.0	1.0	1/27/03	21:26	F.Gundi	8021B	3162
Toluene	ND	ug/L	1.0	1.0	1/27/03	21:26	F.Gundi	8021B	3162
Xylenes (Total)	ND	ug/L	1.0	1.0	1/27/03	21:26	F.Gundi	8021B	3162
TPH (Gasoline Range)	375.	ug/L	100.	1.0	1/27/03	21:26	F.Gundi	8015B	3162
TPH (Diesel Range)	108.	ug/L	100.	1.0	1/29/03	4:50	M.Jarrett	8015B/3510	4630

### \*MISCELLANEOUS CHEMISTRY\*

Chloride	228000	ug/L	20000	20.0	1/28/03	10:41	S. Duncan	325.2	2308
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### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	1000 ml	1.00 ml	1/28/03		M. Ricke	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	86.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	101.	69. - 132.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 03-A10727  
Sample ID: MW-14  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica<sup>®</sup>

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## ANALYTICAL REPORT

HIGGINS AND ASSOCIATES 9898  
 8200 SOUTH AKRON ST, STE 120  
 CENTENNIAL, CO 80112

Lab Number: 03-A10728  
 Sample ID: SVE-10  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name: PPL HOBBS EAST  
 Sampler: NICK FISCHER

Date Collected: 1/23/03  
 Time Collected:  
 Date Received: 1/24/03  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	1120	ug/L	10.0	10.0	1/27/03	21:57	F.Gundi	8021B	3162
Ethylbenzene	188.	ug/L	10.0	10.0	1/27/03	21:57	F.Gundi	8021B	3162
Toluene	136.	ug/L	10.0	10.0	1/27/03	21:57	F.Gundi	8021B	3162
Xylenes (Total)	331.	ug/L	10.0	10.0	1/27/03	21:57	F.Gundi	8021B	3162
TPH (Gasoline Range)	8890	ug/L	1000	10.0	1/27/03	21:57	F.Gundi	8015B	3162
TPH (Diesel Range)	961.	ug/L	100.	1.0	1/29/03	5:10	M.Jarrett	8015B/3510	4630
<hr/>									
*MISCELLANEOUS CHEMISTRY*									
Chloride	282000	ug/L	20000	20.0	1/28/03	10:41	S. Duncan	325.2	2308

### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	1000 ml	1.00 ml	1/28/03		M. Ricke	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	57.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	103.	69. - 132.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 03-A10728  
Sample ID: SVE-10  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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## ANALYTICAL REPORT

HIGGINS AND ASSOCIATES 9898  
 8200 SOUTH AKRON ST, STE 120  
 CENTENNIAL, CO 80112

Lab Number: 03-A10729  
 Sample ID: MW-3  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name: PPL HOBBS EAST  
 Sampler: NICK FISCHER

Date Collected: 1/23/03  
 Time Collected:  
 Date Received: 1/24/03  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	1440	ug/L	10.0	10.0	1/27/03	22:29	F.Gundi	8021B	3162
Ethylbenzene	30.0	ug/L	10.0	10.0	1/27/03	22:29	F.Gundi	8021B	3162
Toluene	19.0	ug/L	10.0	10.0	1/27/03	22:29	F.Gundi	8021B	3162
Xylenes (Total)	79.0	ug/L	10.0	10.0	1/27/03	22:29	F.Gundi	8021B	3162
TPH (Gasoline Range)	5560	ug/L	1000	10.0	1/27/03	22:29	F.Gundi	8015B	3162
TPH (Diesel Range)	13600	ug/L	1000	10.0	1/29/03	5:29	M.Jarrett	8015B/3510	4630

### \*MISCELLANEOUS CHEMISTRY\*

Chloride	176000	ug/L	20000	20.0	1/28/03	10:42	S. Duncan	325.2	2308
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### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPR	1000 ml	1.00 ml	1/28/03		M. Ricke	3510

Surrogate	% Recovery	Target Range
BTEX/GRO Surr., a,a,a-TFT	101.	69. - 132.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 03-A10729  
Sample ID: MW-3  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.  
tRPH SURROGATE DILUTED OUT DUE TO SAMPLE MATRIX.

End of Sample Report.

# TestAmerica

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## ANALYTICAL REPORT

HIGGINS AND ASSOCIATES 9898  
 8200 SOUTH AKRON ST, STE 120  
 CENTENNIAL, CO 80112

Lab Number: 03-A10730  
 Sample ID: MW-4  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name: PPL HOBBS EAST  
 Sampler: NICK FISCHER

Date Collected: 1/23/03  
 Time Collected:  
 Date Received: 1/24/03  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<b>*ORGANIC PARAMETERS*</b>									
Benzene	268.	ug/L	5.0	5.0	1/27/03	23:00	F.Gundi	8021B	3162
Ethylbenzene	7.5	ug/L	5.0	5.0	1/27/03	23:00	F.Gundi	8021B	3162
Toluene	160.	ug/L	5.0	5.0	1/27/03	23:00	F.Gundi	8021B	3162
Xylenes (Total)	88.5	ug/L	5.0	5.0	1/27/03	23:00	F.Gundi	8021B	3162
TPH (Gasoline Range)	1580	ug/L	500.	5.0	1/27/03	23:00	F.Gundi	8015B	3162
TPH (Diesel Range)	141.	ug/L	100.	1.0	1/29/03	5:48	M.Jarrett	8015B/3510	4630

### \*MISCELLANEOUS CHEMISTRY\*

Chloride	173000	ug/L	20000	20.0	1/28/03	10:42	S. Duncan	325.2	2308
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### Sample Extraction Data

Parameter	Wt/Vol	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH		1000 ml	1.00 ml	1/28/03		M. Ricke	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	79.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	97.	69. - 132.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 03-A10730  
Sample ID: MW-4  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

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## ANALYTICAL REPORT

HIGGINS AND ASSOCIATES 9898  
 8200 SOUTH AKRON ST, STE 120  
 CENTENNIAL, CO 80112

Lab Number: 03-A10731  
 Sample ID: MW-5  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name: PPL HOBBS EAST  
 Sampler: NICK FISCHER

Date Collected: 1/23/03  
 Time Collected:  
 Date Received: 1/24/03  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	1980	ug/L	20.0	20.0	1/26/03	10:44	F.Gundi	8021B	2398
Ethylbenzene	68.0	ug/L	20.0	20.0	1/26/03	10:44	F.Gundi	8021B	2398
Toluene	1480	ug/L	20.0	20.0	1/26/03	10:44	F.Gundi	8021B	2398
Xylenes (Total)	594.	ug/L	20.0	20.0	1/26/03	10:44	F.Gundi	8021B	2398
TPH (Gasoline Range)	10000	ug/L	2000	20.0	1/26/03	10:44	F.Gundi	8015B	2398
TPH (Diesel Range)	548.	ug/L	100.	1.0	1/29/03	6:08	M.Jarrett	8015B/3510	4630

\*MISCELLANEOUS CHEMISTRY\*

Chloride	187000	ug/L	20000	20.0	1/28/03	10:43	S. Duncan	325.2	2308
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Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	1000 ml	1.00 ml	1/28/03		M. Ricke	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	84.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	108.	69. - 132.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 03-A10731  
Sample ID: MW-5  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica<sup>®</sup>

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## ANALYTICAL REPORT

HIGGINS AND ASSOCIATES 9898  
 8200 SOUTH AKRON ST, STE 120  
 CENTENNIAL, CO 80112

Lab Number: 03-A10732  
 Sample ID: MW-18  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name: PPL HOBBS EAST  
 Sampler: NICK FISCHER

Date Collected: 1/23/03  
 Time Collected:  
 Date Received: 1/24/03  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	121.	ug/L	1.0	1.0	1/26/03	11:16	F.Gundi	8021B	2398
Ethylbenzene	11.0	ug/L	1.0	1.0	1/26/03	11:16	F.Gundi	8021B	2398
Toluene	ND	ug/L	1.0	1.0	1/26/03	11:16	F.Gundi	8021B	2398
Xylenes (Total)	16.2	ug/L	1.0	1.0	1/26/03	11:16	F.Gundi	8021B	2398
TPH (Gasoline Range)	1860	ug/L	100.	1.0	1/26/03	11:16	F.Gundi	8015B	2398
TPH (Diesel Range)	ND	ug/L	100.	1.0	1/29/03	6:27	M.Jarrett	8015B/3510	4630

\*MISCELLANEOUS CHEMISTRY\*

Chloride	218000	ug/L	20000	20.0	1/28/03	10:43	S. Duncan	325.2	2308
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Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	1000 ml	1.00 ml	1/28/03		M. Ricke	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	76.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	112.	69. - 132.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 03-A10732  
Sample ID: MW-18  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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## PROJECT QUALITY CONTROL DATA

Project Number:

Project Name: PPL HOBBS EAST

Page: 1

Laboratory Receipt Date: 1/24/03

### Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for MS/MSD analysis for that method and the method requirements for MS/MSD analysis could not be met.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spiked Sample
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#### \*\*UST ANALYSIS\*\*

Benzene	mg/l	0.121	0.165	0.0500	88	74. - 129.	2398	03-A10732
Benzene	mg/l	< 0.0005	0.0495	0.0500	99	74. - 129.	3162	blank
Toluene	mg/l	< 0.0010	0.0510	0.0500	102	74. - 128.	2398	03-A10732
Toluene	mg/l	< 0.0006	0.0485	0.0500	97	74. - 128.	3162	blank
Ethylbenzene	mg/l	0.0110	0.0578	0.0500	94	75. - 128.	2398	03-A10732
Ethylbenzene	mg/l	< 0.0006	0.0481	0.0500	96	75. - 128.	3162	blank
Xylenes (Total)	mg/l	0.0162	0.113	0.100	97	72. - 126.	2398	03-A10732
Xylenes (Total)	mg/l	< 0.0010	0.0959	0.100	96	72. - 126.	3162	blank
TPH (Gasoline Range)	mg/l	< 0.100	1.05	1.00	105	59. - 128.	2398	blank
TPH (Gasoline Range)	mg/l	< 0.0740	0.989	1.00	99	59. - 128.	3162	blank
TPH (Diesel Range)	mg/l	< 0.100	0.766	1.00	77	23. - 120.	4630	BLANK
BTEX/GRO Surr., a,a,a-TFT	% Recovery				112	69 - 132	2398	
BTEX/GRO Surr., a,a,a-TFT	% Recovery				98	69 - 132	3162	

### Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
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#### \*\*UST PARAMETERS\*\*

Benzene	mg/l	0.165	0.166	0.60	15.	2398
Benzene	mg/l	0.0495	0.0500	1.01	15.	3162
Toluene	mg/l	0.0510	0.0528	3.47	15.	2398
Toluene	mg/l	0.0485	0.0489	0.82	15.	3162
Ethylbenzene	mg/l	0.0578	0.0595	2.90	15.	2398
Ethylbenzene	mg/l	0.0481	0.0486	1.03	15.	3162
Xylenes (Total)	mg/l	0.113	0.116	2.62	19.	2398
Xylenes (Total)	mg/l	0.0959	0.0965	0.62	19.	3162

Project QC continued . . .

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## PROJECT QUALITY CONTROL DATA

Project Number:

Project Name: PPL HOBBS EAST

Page: 2

Laboratory Receipt Date: 1/24/03

### Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
TPH (Gasoline Range)	mg/l	1.05	0.962	8.75	22.	2398
TPH (Gasoline Range)	mg/l	0.989	0.961	2.87	22.	3162
TPH (Diesel Range)	mg/l	0.766	0.744	2.91	20.	4630
BTEX/GRO Surr., a,a,a-TFT	% Recovery		112.			2398
BTEX/GRO Surr., a,a,a-TFT	% Recovery		98.			3162

### Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
<b>**UST PARAMETERS**</b>						
Benzene	mg/l	0.100	0.0972	97	74 - 124	2398
Benzene	mg/l	0.100	0.0994	99	74 - 124	3162
Toluene	mg/l	0.100	0.0935	94	74 - 121	2398
Toluene	mg/l	0.100	0.0965	96	74 - 121	3162
Ethylbenzene	mg/l	0.100	0.0950	95	75 - 123	2398
Ethylbenzene	mg/l	0.100	0.0956	96	75 - 123	3162
Xylenes (Total)	mg/l	0.200	0.189	94	72 - 120	2398
Xylenes (Total)	mg/l	0.200	0.191	96	72 - 120	3162
TPH (Gasoline Range)	mg/l	1.00	1.05	105	61 - 139	2398
TPH (Gasoline Range)	mg/l	1.00	0.989	99	61 - 139	3162
TPH (Diesel Range)	mg/l	1.00	0.769	77	42 - 115	4630
BTEX/GRO Surr., a,a,a-TFT	% Recovery			108	69 - 132	2398
BTEX/GRO Surr., a,a,a-TFT	% Recovery			100	69 - 132	3162

Project QC continued . . .

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**PROJECT QUALITY CONTROL DATA**

**Project Number:**

**Project Name: PPL HOBBS EAST**

**Page: 3**

**Laboratory Receipt Date: 1/24/03**

**Laboratory Control Data**

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
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**Laboratory Control Data**

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
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**\*\*MISC PARAMETERS\*\***

Chloride	mg/l	10.0	9.69	97	90 - 110	2308
Duplicates						

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd
Chloride	mg/l	12.6	13.0	3.12	15.	2308	03-A10396

**Blank Data**

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
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**\*\*UST PARAMETERS\*\***

Benzene	< 0.0005	mg/l	2398	1/26/03	1:46
Benzene	< 0.0005	mg/l	3162	1/27/03	19:20
Toluene	< 0.0006	mg/l	2398	1/26/03	1:46
Toluene	< 0.0006	mg/l	3162	1/27/03	19:20
Ethylbenzene	< 0.0006	mg/l	2398	1/26/03	1:46
Ethylbenzene	< 0.0006	mg/l	3162	1/27/03	19:20
Xylenes (Total)	< 0.0010	mg/l	2398	1/26/03	1:46
Xylenes (Total)	< 0.0010	mg/l	3162	1/27/03	19:20
TPH (Gasoline Range)	< 0.0740	mg/l	2398	1/26/03	1:46
TPH (Gasoline Range)	< 0.0740	mg/l	3162	1/27/03	19:20
TPH (Diesel Range)	< 0.100	mg/l	4630	1/29/03	18:45

Project QC continued . . .

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**PROJECT QUALITY CONTROL DATA****Project Number:****Project Name: PPL HOBBS EAST****Page: 4****Laboratory Receipt Date: 1/24/03**

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
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**\*\*UST PARAMETERS\*\***

TPH Hi Surr., o-Terphenyl	98.	% Recovery	4630	1/29/03	18:45
BTEX/GRO Surr., a,a,a-TFT	104.	% Recovery	2398	1/26/03	1:46
BTEX/GRO Surr., a,a,a-TFT	97.	% Recovery	3162	1/27/03	19:20

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
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**\*\*MISC PARAMETERS\*\***

Chloride	< 1.00	mg/l	2308	1/28/03	10:05
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# = Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 317675

TestAmerica

Nashville Division  
2960 Foster Creight  
Nashville, TN 37204

**Phone:** 615-726-0111  
**Fax:** 615-726-3404

317675

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?

**TestAmerica**  
INCORPORATED

**Nashville Division  
2960 Foster Creighton  
Nashville, TN 37204**

**Phone:** 615-726-0177  
**Fax:** 615-726-3404

31915

To assist us in using the proper analytical methods,  
is this work being conducted for regulatory purposes?  
Compliance Monitoring

2960 FOSTER CREIGHTON DRIVE • NASHVILLE, TENNESSEE 37204  
800-765-0980 • 615-726-3404 FAX

5 / 2/03

HIGGINS & ASSOCIATES, LLC/UST 10588

CHRIS HIGGINS  
8200 S. AKRON, STE 120  
ENGLEWOOD, CO 80112

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: HOBBS EAST

Project Number: .

Laboratory Project Number: 329344.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980.

Sample Identification	Lab Number	Collection Date
MW#13	03-A64011	4/24/03
MW#16	03-A64012	4/24/03
MW#17	03-A64013	4/24/03
MW#19	03-A64014	4/24/03
MW#20	03-A64015	4/24/03
MW#21	03-A64016	4/24/03
MW#22	03-A64017	4/24/03
MW#23	03-A64018	4/24/03

# TestAmerica

ANALYTICAL TESTING CORPORATION

2960 FOSTER CREIGHTON DRIVE • NASHVILLE, TENNESSEE 37204

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Page 2

Sample Identification

Lab Number

Collection Date

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These results relate only to the items tested.

This report shall not be reproduced except in full and with  
permission of the laboratory.

Report Approved By:

Report Date: 5/ 2/03

Paul E. Lane, Jr., Lab Director

Gail A. Lage, Technical Serv.

Michael H. Dunn, M.S., Technical Director

Glenn L. Norton, Technical Serv.

Johnny A. Mitchell, Dir. Technical Serv.

Kelly S. Comstock, Technical Serv.

Eric S. Smith, Assistant Technical Director

Pamela A. Langford, Technical Serv.

Roxanne L. Connor, Technical Services

4

## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
 CHRIS HIGGINS  
 8200 S. AKRON, STE 120  
 ENGLEWOOD, CO 80112

Lab Number: 03-A64011  
 Sample ID: MW#13  
 Sample Type: Water  
 Site ID: HOBBS

Project:  
 Project Name: HOBBS EAST  
 Sampler: NICK FISCHER

Date Collected: 4/24/03  
 Time Collected:  
 Date Received: 4/25/03  
 Time Received: 8:05  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	ND	ug/L	1.00	1.0	4/27/03	18:58	H. Wagner	8021B	9609
Ethylbenzene	ND	ug/L	1.0	1.0	4/27/03	18:58	H. Wagner	8021B	9609
Toluene	ND	ug/L	1.0	1.0	4/27/03	18:58	H. Wagner	8021B	9609
Xylenes (Total)	ND	ug/L	1.0	1.0	4/27/03	18:58	H. Wagner	8021B	9609
TPH (Gasoline Range)	ND	ug/L	100.	1.0	4/27/03	18:58	H. Wagner	8015B	9609
TPH (Diesel Range)	ND	ug/L	105.	1.0	5/ 1/03	0:36	Weatherly	8015B/3510	3432

\*MISCELLANEOUS CHEMISTRY\*

Chloride	67.0	mg/L	5.00	5.0	4/26/03	22:04	W. Choate	9251	9325
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Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	950. ml	1.00 ml	4/29/03		M. Cauthen	3510

Surrogate	* Recovery	Target Range
TPH Hi Surr., o-Terphenyl	85.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	106.	69. - 132.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 03-A64011  
Sample ID: MW#13  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
 CHRIS HIGGINS  
 8200 S. AKRON, STE 120  
 ENGLEWOOD, CO 80112

Lab Number: 03-A64012  
 Sample ID: MW#16  
 Sample Type: Water  
 Site ID: HOBBS

Project:  
 Project Name: HOBBS EAST  
 Sampler: NICK FISCHER

Date Collected: 4/24/03  
 Time Collected:  
 Date Received: 4/25/03  
 Time Received: 8:05  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
<b>*ORGANIC PARAMETERS*</b>									
Benzene	ND	ug/L	1.00	1.0	4/27/03	19:29	H. Wagner	8021B	9609
Ethylbenzene	ND	ug/L	1.0	1.0	4/27/03	19:29	H. Wagner	8021B	9609
Toluene	ND	ug/L	1.0	1.0	4/27/03	19:29	H. Wagner	8021B	9609
Xylenes (Total)	ND	ug/L	1.0	1.0	4/27/03	19:29	H. Wagner	8021B	9609
TPH (Gasoline Range)	ND	ug/L	100.	1.0	4/27/03	19:29	H. Wagner	8015B	9609
TPH (Diesel Range)	ND	ug/L	100.	1.0	5/ 1/03	0:56	Weatherly	8015B/3510	3432

### \*MISCELLANEOUS CHEMISTRY\*

Chloride	176.	mg/L	10.0	10.0	4/26/03	22:06	W. Choate	9251	9325
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### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
-----	-----	-----	-----	-----	-----	-----
EPH	1000 ml	1.00 ml	4/29/03		M. Cauthen	3510

Surrogate	% Recovery	Target Range
-----	-----	-----
TPH Hi Surr., o-Terphenyl	99.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	105.	69. - 132.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 03-A64012  
Sample ID: MW#16  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.  
DRO liter pH 7.

End of Sample Report.

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## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
CHRIS HIGGINS  
8200 S. AKRON, STE 120  
ENGLEWOOD, CO 80112

Lab Number: 03-A64013  
Sample ID: MW#17  
Sample Type: Water  
Site ID: HOBBS

Project:  
Project Name: HOBBS EAST  
Sampler: NICK FISCHER

Date Collected: 4/24/03  
Time Collected:  
Date Received: 4/25/03  
Time Received: 8:05  
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	ND	ug/L	1.00	1.0	4/27/03	19:59	H. Wagner	8021B	9609
Ethylbenzene	ND	ug/L	1.0	1.0	4/27/03	19:59	H. Wagner	8021B	9609
Toluene	ND	ug/L	1.0	1.0	4/27/03	19:59	H. Wagner	8021B	9609
Xylenes (Total)	ND	ug/L	1.0	1.0	4/27/03	19:59	H. Wagner	8021B	9609
TPH (Gasoline Range)	ND	ug/L	100.	1.0	4/27/03	19:59	H. Wagner	8015B	9609
TPH (Diesel Range)	ND	ug/L	100.	1.0	5/ 1/03	1:16	Weatherly	8015B/3510	3432

\*MISCELLANEOUS CHEMISTRY\*

Chloride	84.3	mg/L	10.0	10.0	4/26/03	23:01	W. Choate	9251	9325
----------	------	------	------	------	---------	-------	-----------	------	------

Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	1000 ml	1.00 ml	4/29/03		M. Cauthen	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	85.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	101.	69. - 132.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 03-A64013  
Sample ID: MW#17  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
CHRIS HIGGINS  
8200 S. AKRON, STE 120  
ENGLEWOOD, CO 80112

Lab Number: 03-A64014  
Sample ID: MW#19  
Sample Type: Water  
Site ID: HOBBS

Project:  
Project Name: HOBBS EAST  
Sampler: NICK FISCHER

Date Collected: 4/24/03  
Time Collected:  
Date Received: 4/25/03  
Time Received: 8:05  
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	ND	ug/L	1.00	1.0	4/27/03	20:29	H. Wagner	8021B	9609
Ethylbenzene	ND	ug/L	1.0	1.0	4/27/03	20:29	H. Wagner	8021B	9609
Toluene	ND	ug/L	1.0	1.0	4/27/03	20:29	H. Wagner	8021B	9609
Xylenes (Total)	ND	ug/L	1.0	1.0	4/27/03	20:29	H. Wagner	8021B	9609
TPH (Gasoline Range)	ND	ug/L	100.	1.0	4/27/03	20:29	H. Wagner	8015B	9609
TPH (Diesel Range)	185.	ug/L	100.	1.0	5/ 1/03	1:36	Weatherly	8015B/3510	3432

\*MISCELLANEOUS CHEMISTRY\*

Chloride	161.	mg/L	10.0	10.0	4/26/03	22:07	W. Choate	9251	9325
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Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	1000 ml	1.00 ml	4/29/03		M. Cauthen	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	104.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	106.	69. - 132.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 03-A64014  
Sample ID: MW#19  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.  
DRO liter pH 4.

End of Sample Report.

## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
 CHRIS HIGGINS  
 8200 S. AKRON, STE 120  
 ENGLEWOOD, CO 80112

Lab Number: 03-A64015  
 Sample ID: MW#20  
 Sample Type: Water  
 Site ID: HOBBS

Project:  
 Project Name: HOBBS EAST  
 Sampler: NICK FISCHER

Date Collected: 4/24/03  
 Time Collected:  
 Date Received: 4/25/03  
 Time Received: 8:05  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

\*ORGANIC PARAMETERS\*

Benzene	ND	ug/L	1.00	1.0	4/27/03	22:00	H. Wagner	8021B	9609
Ethylbenzene	ND	ug/L	1.0	1.0	4/27/03	22:00	H. Wagner	8021B	9609
Toluene	ND	ug/L	1.0	1.0	4/27/03	22:00	H. Wagner	8021B	9609
Xylenes (Total)	ND	ug/L	1.0	1.0	4/27/03	22:00	H. Wagner	8021B	9609
TPH (Gasoline Range)	ND	ug/L	100.	1.0	4/27/03	22:00	H. Wagner	8015B	9609
TPH (Diesel Range)	ND	ug/L	100.	1.0	5/ 1/03	1:56	Weatherly	8015B/3510	3432

\*MISCELLANEOUS CHEMISTRY\*

Chloride	77.0	mg/L	5.00	5.0	4/26/03	22:07	W. Choate	9251	9325
----------	------	------	------	-----	---------	-------	-----------	------	------

Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
-----	-----	-----	-----	-----	-----	-----
EPH	1000 ml	1.00 ml	4/29/03		M. Cauthen	3510

Surrogate	% Recovery	Target Range
-----	-----	-----
TPH Hi Surr., o-Terphenyl	102.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	105.	69. - 132.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 03-A64015  
Sample ID: MW#20  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
 CHRIS HIGGINS  
 8200 S. AKRON, STE 120  
 ENGLEWOOD, CO 80112

Lab Number: 03-A64016  
 Sample ID: MW#21  
 Sample Type: Water  
 Site ID: HOBBS

Project:  
 Project Name: HOBBS EAST  
 Sampler: NICK FISCHER

Date Collected: 4/24/03  
 Time Collected:  
 Date Received: 4/25/03  
 Time Received: 8:05  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	ND	ug/L	1.00	1.0	4/27/03	22:31	H. Wagner	8021B	9609
Ethylbenzene	ND	ug/L	1.0	1.0	4/27/03	22:31	H. Wagner	8021B	9609
Toluene	ND	ug/L	1.0	1.0	4/27/03	22:31	H. Wagner	8021B	9609
Xylenes (Total)	ND	ug/L	1.0	1.0	4/27/03	22:31	H. Wagner	8021B	9609
TPH (Gasoline Range)	ND	ug/L	100.	1.0	4/27/03	22:31	H. Wagner	8015B	9609
TPH (Diesel Range)	ND	ug/L	100.	1.0	5/ 1/03	2:16	Weatherly	8015B/3510	3432

\*MISCELLANEOUS CHEMISTRY\*

Chloride	76.5	mg/L	5.00	5.0	4/26/03	22:08	W. Choate	9251	9325
----------	------	------	------	-----	---------	-------	-----------	------	------

Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	1000 ml	1.00 ml	4/29/03		M. Cauthen	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	88.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	106.	69. - 132.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 03-A64016  
Sample ID: MW#21  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
 CHRIS HIGGINS  
 8200 S. AKRON, STE 120  
 ENGLEWOOD, CO 80112

Lab Number: 03-A64017  
 Sample ID: MW#22  
 Sample Type: Water  
 Site ID: HOBBS

Project:  
 Project Name: HOBBS EAST  
 Sampler: NICK FISCHER

Date Collected: 4/24/03  
 Time Collected:  
 Date Received: 4/25/03  
 Time Received: 8:05  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	ND	ug/L	1.00	1.0	4/27/03	23:01	H. Wagner	8021B	9609
Ethylbenzene	ND	ug/L	1.0	1.0	4/27/03	23:01	H. Wagner	8021B	9609
Toluene	ND	ug/L	1.0	1.0	4/27/03	23:01	H. Wagner	8021B	9609
Xylenes (Total)	ND	ug/L	1.0	1.0	4/27/03	23:01	H. Wagner	8021B	9609
TPH (Gasoline Range)	ND	ug/L	100.	1.0	4/27/03	23:01	H. Wagner	8015B	9609
TPH (Diesel Range)	ND	ug/L	100.	1.0	5/ 1/03	2:36	Weatherly	8015B/3510	3432

\*MISCELLANEOUS CHEMISTRY\*

Chloride	414.	mg/L	20.0	20.0	4/26/03	23:02	W. Choate	9251	9325
----------	------	------	------	------	---------	-------	-----------	------	------

Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	1000 ml	1.00 ml	4/29/03		M. Cauthen	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	86.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	105.	69. - 132.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 03-A64017  
Sample ID: MW#22  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.  
DRO liter pH 4.

8

End of Sample Report.

## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
 CHRIS HIGGINS  
 8200 S. AKRON, STE 120  
 ENGLEWOOD, CO 80112

Lab Number: 03-A64018  
 Sample ID: MW#23  
 Sample Type: Water  
 Site ID: HOBBS

Project:  
 Project Name: HOBBS EAST  
 Sampler: NICK FISCHER

Date Collected: 4/24/03  
 Time Collected:  
 Date Received: 4/25/03  
 Time Received: 8:05  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

\*ORGANIC PARAMETERS\*

Benzene	ND	ug/L	1.00	1.0	4/27/03	23:31	H. Wagner	8021B	9609
Ethylbenzene	ND	ug/L	1.0	1.0	4/27/03	23:31	H. Wagner	8021B	9609
Toluene	ND	ug/L	1.0	1.0	4/27/03	23:31	H. Wagner	8021B	9609
Xylenes (Total)	ND	ug/L	1.0	1.0	4/27/03	23:31	H. Wagner	8021B	9609
TPH (Gasoline Range)	ND	ug/L	100.	1.0	4/27/03	23:31	H. Wagner	8015B	9609
TPH (Diesel Range)	ND	ug/L	100.	1.0	5/ 1/03	3:16	Weatherly	8015B/3510	3432

\*MISCELLANEOUS CHEMISTRY\*

Chloride	130.	mg/L	10.0	10.0	4/26/03	22:10	W. Choate	9251	9325
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Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
-----	-----	-----	-----	-----	-----	-----
EPH	1000 ml	1.00 ml	4/29/03		M. Cauthen	3510

Surrogate	% Recovery	Target Range
-----	-----	-----
TPH Hi Surr., o-Terphenyl	93.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	106.	69. - 132.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 03-A64018  
Sample ID: MW#23  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

4  
End of Sample Report.

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## PROJECT QUALITY CONTROL DATA

**Project Number:**

**Project Name: HOBBS EAST**

**Page: 1**

**Laboratory Receipt Date: 4/25/03**

### Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C.	Batch	Spike Sample
---------	-------	------------	--------	------------	----------	--------------	------	-------	--------------

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#### \*\*UST ANALYSIS\*\*

Benzene	mg/l	< 0.00060	0.0517	0.0500	103	74. - 129.	9609	03a60477
Toluene	mg/l	< 0.0006	0.0512	0.0500	102	74. - 128.	9609	03a60477
Ethylbenzene	mg/l	< 0.0006	0.0516	0.0500	103	75. - 128.	9609	03a60477
Xylenes (Total)	mg/l	< 0.0010	0.103	0.100	103	72. - 126.	9609	03a60477
TPH (Gasoline Range)	mg/l	< 0.0740	1.01	1.00	101	59. - 128.	9609	blank
TPH (Diesel Range)	mg/l	< 0.100	0.829	1.00	83	23. - 120.	3432	blank
BTEX/GRO Surr., a,a,a-TFT	% Recovery				98	69 - 132	9609	

### Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C.	Batch	Spike Sample
---------	-------	------------	--------	------------	----------	--------------	------	-------	--------------

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#### \*\*MISC PARAMETERS\*\*

Chloride	mg/l	67.0	110.	50.0	86	80 - 120	9325	03-A64011
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### Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C.	Batch
---------	-------	------------	-----------	-----	-------	------	-------

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#### \*\*UST PARAMETERS\*\*

Benzene	mg/l	0.0517	0.0539	4.17	15.	9609
Toluene	mg/l	0.0512	0.0536	4.58	15.	9609
Ethylbenzene	mg/l	0.0516	0.0544	5.28	15.	9609
Xylenes (Total)	mg/l	0.103	0.108	4.74	19.	9609
TPH (Gasoline Range)	mg/l	1.01	1.12	10.33	22.	9609

Project QC continued . . .

# TestAmerica

ANALYTICAL TESTING CORPORATION

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## PROJECT QUALITY CONTROL DATA

Project Number:

Project Name: HOBBS EAST

Page: 2

Laboratory Receipt Date: 4/25/03

### Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
TPH (Diesel Range)	mg/l	0.829	0.741	11.21	20.	3432
BTEX/GRO Surr., a,a,a-TFT	% Recovery		98.			9609

### Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch

### \*\*MISC PARAMETERS\*\*

Chloride	mg/l	110.	110.	0.00	20	9325
----------	------	------	------	------	----	------

### Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch

### \*\*UST PARAMETERS\*\*

Benzene	mg/l	0.100	0.0836	84	74 - 124	9609
Toluene	mg/l	0.100	0.0823	82	74 - 121	9609
Ethylbenzene	mg/l	0.100	0.0848	85	75 - 123	9609
Xylenes (Total)	mg/l	0.200	0.171	86	72 - 120	9609
TPH (Gasoline Range)	mg/l	1.00	1.01	101	61 - 139	9609
TPH (Diesel Range)	mg/l	1.00	0.886	89	42 - 115	3432
BTEX/GRO Surr., a,a,a-TFT	% Recovery			99	69 - 132	9609

Project QC continued . . .

# TestAmerica

ANALYTICAL TESTING CORPORATION

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## PROJECT QUALITY CONTROL DATA

Project Number:

Project Name: HOBBS EAST

Page: 3

Laboratory Receipt Date: 4/25/03

### Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
-----	-----	-----	-----	-----	-----	-----

### Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
-----	-----	-----	-----	-----	-----	-----

### \*\*MISC PARAMETERS\*\*

Chloride	mg/l	10.0	9.44	94	90 - 110	9325
Duplicates						

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd
-----	-----	-----	-----	-----	-----	-----	-----
Chloride	mg/l	130.	132.	1.53	15.	9325	03-A64018

### Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
-----	-----	-----	-----	-----	-----

### \*\*UST PARAMETERS\*\*

Benzene	< 0.00060	mg/l	9609	4/27/03	14:46
Toluene	< 0.0006	mg/l	9609	4/27/03	14:46
Ethylbenzene	< 0.0006	mg/l	9609	4/27/03	14:46
Xylenes (Total)	< 0.0010	mg/l	9609	4/27/03	14:46
TPH (Gasoline Range)	< 0.0740	mg/l	9609	4/27/03	14:46
TPH (Diesel Range)	< 0.100	mg/l	3432	4/30/03	19:55

Project QC continued . . .

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**PROJECT QUALITY CONTROL DATA****Project Number:****Project Name: HOBBS EAST****Page: 4****Laboratory Receipt Date: 4/25/03**

Blank Data

Analyte	Blank Value	Units	Q.C.	Batch	Date Analyzed	Time Analyzed
-----	-----	-----	-----	-----	-----	-----

**\*\*UST PARAMETERS\*\***

BTEX/GRO Surr., a,a,a-TFT	108.	% Recovery	9609	4/27/03	14:46
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Blank Data

Analyte	Blank Value	Units	Q.C.	Batch	Date Analyzed	Time Analyzed
-----	-----	-----	-----	-----	-----	-----

**\*\*MISC PARAMETERS\*\***

Chloride	< 1.00	mg/l	9325	4/26/03	22:03
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End of Report for Project 329344

**TestAmerica**  
INTEGRATION

Nashville Division  
2360 Foster Creek Rd.  
Nashville, TN 37204

Phone: 816-725-0177

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To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?

P.001/001

10:8-15053933065

APR-24-2003 12:40 FROM:

# TestAmerica

ANALYTICAL TESTING CORPORATION

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5/ 6/03

HIGGINS & ASSOCIATES, LLC/UST 10588

CHRIS HIGGINS

8200 S. AKRON, STE 120

ENGLEWOOD, CO 80112

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: HOBBS EAST

Project Number: .

Laboratory Project Number: 329436.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980.

Page 1

Sample Identification	Lab Number	Collection Date
SVE10	03-A64591	4/25/03
MW#4	03-A64592	4/25/03
MW#5	03-A64593	4/25/03
MW#12	03-A64594	4/25/03
MW#14	03-A64595	4/25/03
MW#18	03-A64596	4/25/03

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Page 2

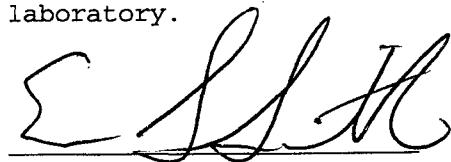
Sample Identification

Lab Number

Collection Date

These results relate only to the items tested.  
This report shall not be reproduced except in full and with  
permission of the laboratory.

Report Approved By:



Report Date: 5/ 6/03

Paul E. Lane, Jr., Lab Director  
Michael H. Dunn, M.S., Technical Director  
Johnny A. Mitchell, Dir. Technical Serv.  
Eric S. Smith, Assistant Technical Director  
Roxanne L. Connor, Technical Services

Gail A. Lage, Technical Serv.  
Glenn L. Norton, Technical Serv.  
Kelly S. Comstock, Technical Serv.  
Pamela A. Langford, Technical Serv.

## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
 CHRIS HIGGINS  
 8200 S. AKRON, STE 120  
 ENGLEWOOD, CO 80112

Lab Number: 03-A64591  
 Sample ID: SVE10  
 Sample Type: Water  
 Site ID: HOBBS EAST

Project:  
 Project Name: HOBBS EAST  
 Sampler: NICK FISCHER

Date Collected: 4/25/03  
 Time Collected:  
 Date Received: 4/26/03  
 Time Received: 8:30  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	367.	ug/L	5.00	5.0	4/30/03	12:05	H. Wagner	8021B	2693
Ethylbenzene	69.0	ug/L	5.0	5.0	4/30/03	12:05	H. Wagner	8021B	2693
Toluene	560.	ug/L	5.0	5.0	4/30/03	12:05	H. Wagner	8021B	2693
Xylenes (Total)	296.	ug/L	5.0	5.0	4/30/03	12:05	H. Wagner	8021B	2693
TPH (Gasoline Range)	5180	ug/L	500.	5.0	4/30/03	12:05	H. Wagner	8015B	2693
TPH (Diesel Range)	1300	ug/L	100.	1.0	5/ 4/03	23:23	Weatherly	8015B/3510	5430

\*MISCELLANEOUS CHEMISTRY\*

Chloride	241.	mg/L	10.0	10.0	4/26/03	22:19	W. Choate	325.2	9835
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Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	1000 ml	1.00 ml	5/ 2/03		M. Ricke	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	111.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	101.	69. - 132.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 03-A64591  
Sample ID: SVE10  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
 CHRIS HIGGINS  
 8200 S. AKRON, STE 120  
 ENGLEWOOD, CO 80112

Lab Number: 03-A64592  
 Sample ID: MW#4  
 Sample Type: Water  
 Site ID: HOBBS EAST

Project:  
 Project Name: HOBBS EAST  
 Sampler: NICK FISCHER

Date Collected: 4/25/03  
 Time Collected:  
 Date Received: 4/26/03  
 Time Received: 8:30  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	589.	ug/L	5.00	5.0	4/30/03	12:35	H. Wagner	8021B	2693
Ethylbenzene	16.1	ug/L	1.0	1.0	4/29/03	23:25	H. Wagner	8021B	2665
Toluene	372.	ug/L	5.0	5.0	4/30/03	12:35	H. Wagner	8021B	2693
Xylenes (Total)	114.	ug/L	1.0	1.0	4/29/03	23:25	H. Wagner	8021B	2665
TPH (Gasoline Range)	2400	ug/L	500.	5.0	4/30/03	12:35	H. Wagner	8015B	2693
TPH (Diesel Range)	258.	ug/L	100.	1.0	5/ 5/03	0:46	Weatherly	8015B/3510	5430

### \*MISCELLANEOUS CHEMISTRY\*

Chloride	159.	mg/L	10.0	10.0	4/26/03	22:20	W. Choate	325.2	9835
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### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	1000 ml	1.00 ml	5/ 2/03		M. Ricke	3510

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Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	146.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	78.	69. - 132.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 03-A64592  
Sample ID: MW#4  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.  
DRO liter pH 7.

End of Sample Report.

## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
 CHRIS HIGGINS  
 8200 S. AKRON, STE 120  
 ENGLEWOOD, CO 80112

Lab Number: 03-A64593  
 Sample ID: MW#5  
 Sample Type: Water  
 Site ID: HOBBS EAST

Project:  
 Project Name: HOBBS EAST  
 Sampler: NICK FISCHER

Date Collected: 4/25/03  
 Time Collected:  
 Date Received: 4/26/03  
 Time Received: 8:30  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	1190	ug/L	10.0	10.0	4/29/03	23:55	H. Wagner	8021B	2665
Ethylbenzene	58.0	ug/L	10.0	10.0	4/29/03	23:55	H. Wagner	8021B	2665
Toluene	863.	ug/L	10.0	10.0	4/29/03	23:55	H. Wagner	8021B	2665
Xylenes (Total)	318.	ug/L	10.0	10.0	4/29/03	23:55	H. Wagner	8021B	2665
TPH (Gasoline Range)	6370	ug/L	1000	10.0	4/29/03	23:55	H. Wagner	8015B	2665
TPH (Diesel Range)	256.	ug/L	100.	1.0	5/ 5/03	1:07	Weatherly	8015B/3510	5430

### \*MISCELLANEOUS CHEMISTRY\*

Chloride	173.	mg/L	10.0	10.0	4/26/03	22:20	W. Choate	325.2	9835
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### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	1000 ml	1.00 ml	5/ 2/03		M. Ricke	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	67.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	94.	69. - 132.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 03-A64593  
Sample ID: MW#5  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
 CHRIS HIGGINS  
 8200 S. AKRON, STE 120  
 ENGLEWOOD, CO 80112

Lab Number: 03-A64594  
 Sample ID: MW#12  
 Sample Type: Water  
 Site ID: HOBBS EAST

Project:  
 Project Name: HOBBS EAST  
 Sampler: NICK FISCHER

Date Collected: 4/25/03  
 Time Collected:  
 Date Received: 4/26/03  
 Time Received: 8:30  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	3510	ug/L	25.0	25.0	4/30/03	13:06	H. Wagner	8021B	2693
Ethylbenzene	78.0	ug/L	10.0	10.0	4/30/03	0:26	H. Wagner	8021B	2665
Toluene	202.	ug/L	10.0	10.0	4/30/03	0:26	H. Wagner	8021B	2665
Xylenes (Total)	307.	ug/L	10.0	10.0	4/30/03	0:26	H. Wagner	8021B	2665
TPH (Gasoline Range)	13200	ug/L	1000	10.0	4/30/03	0:26	H. Wagner	8015B	2665
TPH (Diesel Range)	594.	ug/L	100.	1.0	5/ 5/03	1:27	Weatherly	8015B/3510	5430

\*MISCELLANEOUS CHEMISTRY\*

Chloride	179.	mg/L	10.0	10.0	4/26/03	22:21	W. Choate	325.2	9835
----------	------	------	------	------	---------	-------	-----------	-------	------

Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	1000 ml	1.00 ml	5/ 2/03		M. Ricke	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	115.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	85.	69. - 132.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 03-A64594  
Sample ID: MW#12  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.  
DRO liter pH 7.

End of Sample Report.

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## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
CHRIS HIGGINS  
8200 S. AKRON, STE 120  
ENGLEWOOD, CO 80112

Lab Number: 03-A64595  
Sample ID: MW#14  
Sample Type: Water  
Site ID: HOBBS EAST

Project:  
Project Name: HOBBS EAST  
Sampler: NICK FISCHER

Date Collected: 4/25/03  
Time Collected:  
Date Received: 4/26/03  
Time Received: 8:30  
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	24.9	ug/L	1.00	1.0	4/30/03	0:56	H. Wagner	8021B	2665
Ethylbenzene	ND	ug/L	1.0	1.0	4/30/03	0:56	H. Wagner	8021B	2665
Toluene	ND	ug/L	1.0	1.0	4/30/03	0:56	H. Wagner	8021B	2665
Xylenes (Total)	ND	ug/L	1.0	1.0	4/30/03	0:56	H. Wagner	8021B	2665
TPH (Gasoline Range)	100.	ug/L	100.	1.0	4/30/03	0:56	H. Wagner	8015B	2665
TPH (Diesel Range)	104.	ug/L	100.	1.0	5/ 5/03	2:08	Weatherly	8015B/3510	5430

\*MISCELLANEOUS CHEMISTRY\*

Chloride	194.	mg/L	10.0	10.0	4/26/03	22:21	W. Choate	325.2	9835
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Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	1000 ml	1.00 ml	5/ 2/03		M. Ricke	3510

Surrogate	* Recovery	Target Range
TPH Hi Surr., o-Terphenyl	86.	41. - 155.
BTEX/GRO Surr., a,a,a-TFT	95.	69. - 132.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 03-A64595  
Sample ID: MW#14  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.  
DRO liter pH 7.

End of Sample Report.

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## ANALYTICAL REPORT

HIGGINS & ASSOCIATES, LLC/UST 10588  
CHRIS HIGGINS  
8200 S. AKRON, STE 120  
ENGLEWOOD, CO 80112

Lab Number: 03-A64596  
Sample ID: MW#18  
Sample Type: Water  
Site ID: HOBBS EAST

Project:  
Project Name: HOBBS EAST  
Sampler: NICK FISCHER

Date Collected: 4/25/03  
Time Collected:  
Date Received: 4/26/03  
Time Received: 8:30  
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<hr/>									
*ORGANIC PARAMETERS*									
Benzene	591.	ug/L	5.00	5.0	4/30/03	13:36	H. Wagner	8021B	2693
Ethylbenzene	135.	ug/L	1.0	1.0	4/30/03	1:26	H. Wagner	8021B	2665
Toluene	ND	ug/L	1.0	1.0	4/30/03	1:26	H. Wagner	8021B	2665
Xylenes (Total)	61.1	ug/L	1.0	1.0	4/30/03	1:26	H. Wagner	8021B	2665
TPH (Gasoline Range)	4080	ug/L	500.	5.0	4/30/03	13:36	H. Wagner	8015B	2693
TPH (Diesel Range)	183.	ug/L	100.	1.0	5/ 5/03	1:48	Weatherly	8015B/3510	5430

\*MISCELLANEOUS CHEMISTRY\*

Chloride	195.	mg/L	10.0	10.0	4/26/03	22:22	W. Choate	325.2	9835
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Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	1000 ml	1.00 ml	5/ 2/03		M. Ricke	3510

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	92.	41. ~ 155.
BTEX/GRO Surr., a,a,a-TFT	76.	69. ~ 132.

Sample report continued . . .

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## ANALYTICAL REPORT

Laboratory Number: 03-A64596  
Sample ID: MW#18  
Project:  
Page 2

### LABORATORY COMMENTS:

ND = Not detected at the report limit.  
B = Analyte was detected in the method blank.  
J = Estimated Value below Report Limit.  
E = Estimated Value above the calibration limit of the instrument.  
# = Recovery outside Laboratory historical or method prescribed limits.  
DRO liter pH 7.

End of Sample Report.

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**PROJECT QUALITY CONTROL DATA**

**Project Number:**

**Project Name: HOBBS EAST**

**Page: 1**

**Laboratory Receipt Date: 4/26/03**

**Matrix Spike Recovery**

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
TPH (Diesel Range)	mg/l	0.087	0.631	1.00	54	23. - 120.	5430	BLANK
BTEX/GRO Surr., a,a,a-TFT	% Recovery				96	69 - 132	2665	

**Matrix Spike Duplicate**

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
TPH (Gasoline Range)	mg/l	1.19	1.28	7.29	22.	2665
TPH (Diesel Range)	mg/l	0.631	0.653	3.43	20.	5430
BTEX/GRO Surr., a,a,a-TFT	% Recovery		93.			2665

**Laboratory Control Data**

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Benzene	mg/l	0.100	0.106	106	74 - 124	2665
Benzene	mg/l	0.100	0.106	106	74 - 124	2693
Toluene	mg/l	0.100	0.103	103	74 - 121	2665
Toluene	mg/l	0.100	0.102	102	74 - 121	2693
Ethylbenzene	mg/l	0.100	0.102	102	75 - 123	2665
Ethylbenzene	mg/l	0.100	0.101	101	75 - 123	2693
Xylenes (Total)	mg/l	0.200	0.201	100	72 - 120	2665
Xylenes (Total)	mg/l	0.200	0.198	99	72 - 120	2693
TPH (Gasoline Range)	mg/l	1.00	1.19	119	61 - 139	2665

Project QC continued . . .

# TestAmerica

ANALYTICAL TESTING CORPORATION

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**PROJECT QUALITY CONTROL DATA**

**Project Number:**

**Project Name: HOBBS EAST**

**Page: 2**

**Laboratory Receipt Date: 4/26/03**

**Laboratory Control Data**

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
TPH (Gasoline Range)	mg/l	1.00	0.971	97	61 - 139	2693
TPH (Diesel Range)	mg/l	1.00	0.601	60	42 - 115	5430
BTEX/GRO Surr., a,a,a-TFT	% Recovery			93	69 - 132	2665
BTEX/GRO Surr., a,a,a-TFT	% Recovery			100	69 - 132	2693

**Laboratory Control Data**

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
<b>**MISC PARAMETERS**</b>						
Chloride	mg/l	10.0	9.33	93	90 - 110	9835
Duplicates						

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd
Chloride	mg/l	195.	199.	2.03	15.	9835	03-A64596

**Blank Data**

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed

**\*\*UST PARAMETERS\*\***

Benzene	< 0.00060	mg/l	2665	4/29/03	17:21
Benzene	< 0.00060	mg/l	2693	4/30/03	11:35
Toluene	< 0.0006	mg/l	2665	4/29/03	17:21
Toluene	< 0.0006	mg/l	2693	4/30/03	11:35
Ethylbenzene	< 0.0006	mg/l	2665	4/29/03	17:21
Ethylbenzene	< 0.0006	mg/l	2693	4/30/03	11:35
Xylenes (Total)	< 0.0010	mg/l	2665	4/29/03	17:21

Project QC continued . . .

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## PROJECT QUALITY CONTROL DATA

Project Number:

Project Name: HOBBS EAST

Page: 3

Laboratory Receipt Date: 4/26/03

### Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Xylenes (Total)	< 0.0010	mg/l	2693	4/30/03	11:35
TPH (Gasoline Range)	< 0.0740	mg/l	2665	4/29/03	17:21
TPH (Gasoline Range)	< 0.0740	mg/l	2693	4/30/03	11:35
TPH (Diesel Range)	0.087	mg/l	5430	5/ 4/03	17:05

### Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
**UST PARAMETERS**					
TPH Hi Surr., o-Terphenyl	113.	% Recovery	5430	5/ 4/03	17:05
BTEX/GRO Surr., a,a,a-TFT	104.	% Recovery	2665	4/29/03	17:21
BTEX/GRO Surr., a,a,a-TFT	104.	% Recovery	2693	4/30/03	11:35

### Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
**MISC PARAMETERS**					
Chloride	< 1.00	mg/l	9835	4/26/03	22:18

End of Report for Project 329436

## **Appendix E**

### **Building Permit**

329436

**Test America**Nashville Division  
2660 Foster Crofton  
Nashville, TN 37204Phone: 615-728-0177  
Fax: 615-728-0464Client Name Higgins & Associates Client # \_\_\_\_\_Address 820 S. 1K 100 Suite 117City/State/Zip Code Centennial, CO 80112Project Manager Chris HigginsTelephone Number 303-708-9848 Fax 9848Sampler Name: (Print Name) Nick FischerSampler Signature: Nick Fischer

To assist us in using the proper analytical methods,  
is this work being conducted for regulatory purposes?  
Compliance Monitoring \_\_\_\_\_

Project Name: PPL Hobbs EastProject #: PPLSite Location ID: Hobbs East State: NM  
Report To: Chris HigginsInvoice To: Parry TenseeQuote #: PC#

Analyze For:

QC Deliverables

— None

— Level 2

(Batch QC)

— Level 3

— Level 4

Other \_\_\_\_\_

SAMPLE ID	Date Sampled	Time Sampled	Matrix	Preservation & # of Containers	Analyze For:			
					STEX	TUPH	TEPH	Chloride
SWE 10	4/25	6	SL - Sludge DW - Drinking Water	X	X	X	X	
MW #4	4/25	6	GW - Groundwater S - Soil/Solid	X	X	X	X	
MW #5	4/25	6	WW - Wastewater Specialty Other	X	X	X	X	
MW #12	4/25	6	HNO <sub>3</sub>	X	X	X	X	
MW #14	4/25	6	HCl	X	X	X	X	
MW #19	4/25	6	NaOH	X	X	X	X	
			H <sub>2</sub> SO <sub>4</sub>	X	X	X	X	
			Methanol	X	X	X	X	
			None	X	X	X	X	
			Other (Specify)	X	X	X	X	

REMARKS

44591

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44596

Special Instructions:

LABORATORY COMMENTS:

Int'l Lab Tech:

Rec Lab Tech: 3, 7

Released By	Date	Time	Received By	Date	Time	Customary Scale: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	Bottles Supplied by Test America: Y <input type="checkbox"/> N <input checked="" type="checkbox"/>
<u>Theel Fischer</u>	4/15	4:22pm					

Received By: JL Date: 4/15 Time: 4:22pmReceived By: JL Date: 4/15 Time: 4:22pmReleased By: JL Date: 4/15 Time: 4:22pm