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## **REPORTS**

YEAR(S):

1997 - 1996



## GW-140

## 1997

# SUPPLEMENTAL SUBSURFACE INVESTIGATION REPORT

TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11 LEA COUNTY, NEW MEXICO



MAR 1 : 1997

Environmental Bureau
Oil Conservation Division



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### SUBSURFACE INVESTIGATION REPORT

TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11 LEA COUNTY, NEW MEXICO



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#### SUBSURFACE INVESTIGATION REPORT

#### **TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11** LEA COUNTY, NEW MEXICO

PREPARED FOR:

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#### **EXECUTIVE SUMMARY**

The Texas - New Mexico Pipe Line Company (TNMPL) site SPS-11 is located approximately 12 miles northwest of Monument in Lea County, New Mexico, in Section 18, Township 18 South, Range 36 East. A site location map is presented as FIG. 1. Specific site details are presented on FIG. 2. This report summarizes subsurface investigation activities performed at the project site from March 1997 through May 1997.

Subsurface investigation activities performed included the following:

- Installation of monitoring wells MW-10 through MW-16;
- Advancement of soil borings B-1 through B-6;
- Collection of native soil samples from the monitoring wells and soil borings and laboratory analysis of the samples for determination of benzene, toluene, ethylbenzene, and xylenes (BTEX) and total petroleum hydrocarbons (TPH) concentrations;
- Gauging of ground water levels in monitoring wells MW-1 through MW-16; and
- Collection of ground water samples from monitoring wells MW-1 through MW-4, MW-6, MW-7, and MW-9 through MW-16 and submittal of the samples for determination of BTEX concentrations.

The following conclusions are based on the field and laboratory data:

 The standard New Mexico Oil Conservation Division (OCD) closure levels for soils at the site are:

Total Petroleum Hydrocarbons (TPH)	100 mg/kg
Benzene	10 mg/kg
Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX)	50 mg/kg

- Soil samples at the site indicated TPH, benzene, and BTEX concentrations above closure standards.
- Ground water samples at the site indicated BTEX concentrations above the New Mexico Water Quality Control Commission (NMWQCC) drinking water standards for benzene.

#### PURPOSE AND SCOPE

The objective of the subsurface investigation activities was to delineate hydrocarbon impact across the site. The following activities were performed to achieve this objective:

- Installation of additional monitoring wells and soil borings upgradient and downgradient from release location;
- Gauging of water levels in all on-site monitoring wells;
- Collection of soil samples for analysis of hydrocarbon concentrations; and
- Collection of ground water samples for analysis of hydrocarbon concentrations.

#### FIELD INVESTIGATION

#### SOIL INVESTIGATION AND SOIL DESCRIPTION

During the subsurface investigation, six soil borings (B-1 through B-6) were advanced and six monitoring wells (MW-10 through MW-16) were installed utilizing air rotary technology. Soil samples were collected at selected intervals from the ground surface to termination boring depth. The soils were classified in the field, soil samples were field screened, and selected samples were prepared and shipped to the laboratory for determination of benzene, toluene, ethylbenzene, xylenes (BTEX) and total petroleum hydrocarbons (TPH) concentrations.

Upon advancement to total depth and collection of soil samples, a permanent well consisting of two-inch perforated PVC and blank riser was placed in the open hole of each boring designated as a permanent monitoring well. The borings were advanced until refusal was encountered or apparent ground water was encountered.

All drilling equipment was cleaned prior to first use and between boring locations. Sampling equipment was cleaned prior to first use and between sampling intervals with a Liqui-Nox detergent wash followed by a distilled water rinse.

The soil boring and monitoring well locations were surveyed by a Professional Land Surveyor registered in the state of New Mexico. Copies of the well reports are included as APPENDIX A. The locations of all soil borings advanced and monitoring wells installed are presented on FIG. 2.

#### SOIL DESCRIPTION

The subsurface soil profile was classified in general accordance with the Unified Soil Classification System by visually observing the soil samples obtained during the assessment. In general, three soil types were encountered. A general description of the soil, approximate thickness, and head-space sample results for each soil type are as follows:

#### Soil Type I

This soil type consisted of a brown clay and was encountered at depths ranging from 0 to 3.5 feet below ground surface. It was observed at all soil boring locations and monitoring well MW-10 through MW-13, MW-15, and MW-16 locations. The clay contained gravel and was silty, sandy, firm to stiff, moist, and contained roots. This soil type varied in thickness from approximately 1 to 3.5 feet. The head-space readings from samples of this soil type varied from ND to 57 ppm.

#### Soil Type II

This soil type consisted of a gray to light tan gravel and was encountered at depths ranging from 1 to 29 feet below ground surface. It was observed at all soil boring and monitoring well locations. The gravel was silty, sand, and moist. This soil type varied in thickness from approximately 2.5 to 27.5 feet. The head-space readings from samples of this soil type varied from ND to 1,282 ppm.

#### Soil Type III

This soil type consisted of a light brown to brown sand and was encountered at depths ranging from 4.5 to 72 feet below ground surface. It was observed at all soil boring and monitoring well locations. The sand was silty, fine-grained, moist to wet, and contained occasional cemented lenses. This soil type varied in thickness from approximately 7.5 to 49 feet. The head-space readings from samples of this soil type varied from ND to 1,661 ppm.

Logs indicating the typical subsurface soil profile, depths at which soil samples were obtained, head-space results, laboratory results, and generalized geologic profiles are presented in APPENDIX B.

#### SOIL SAMPLING AND ANALYTICAL RESULTS

Native soil samples were collected at selected intervals from the ground surface to a depth of approximately two feet below ground water by pushing a pitcher sampler. The soil samples were used to evaluate water levels and the distribution of phase-separate hydrocarbon (PSH).

Representative soil samples were divided into two separate portions using clean, disposable gloves and clean sampling tools. One portion of the soil sample was placed in a disposable sample bag. The bag was labeled and sealed for head-space analysis using a photo-ionization detector (PID) calibrated to a 100 ppm isobutylene standard. Each sample was allowed to volatilize for approximately 30 minutes at ambient temperature prior to conducting the PID analysis.

The other portion of the soil sample was placed in a sterile glass container equipped with a Teflon-lined lid furnished by the analytical laboratory. The container was filled to capacity with soil to limit the amount of head-space present. Each container was labeled and placed on ice in an insulated cooler. Upon selection of samples for analysis, the cooler was sealed for shipment to the laboratory. Proper chain-of-custody documentation was maintained throughout the sampling process.

The samples were transported to for determination of TPH concentrations by EPA Method 418.1. Eight soil samples were selected and submitted to Environmental Lab of Texas (ELOT) located in Odessa, Texas for determination of BTEX and TPH concentrations by EPA Method SW846-8020 and 418.1, respectively.

Laboratory results indicated the following concentrations ranges:

PARAMETER	CONCENTRATION RANGE (mg/kg)
Benzene	ND to 22.853
BTEX	ND to 304.373
TPH	ND to 12,100

Soil laboratory results are summarized in TABLE I and are graphically presented on FIG. 3. Analytical laboratory reports are included in APPENDIX C.

#### GROUND WATER SAMPLING AND ANALYTICAL RESULTS

On May 1, 1997, each monitoring well was purged of approximately three well volumes of water using a PVC bailer. The bailer was cleaned prior to each use with Liqui-Nox detergent and rinsed with water. After purging the wells, ground water samples were collected with a disposable Teflon bailer and polyethylene line.

Water samples collected for BTEX analyses were placed in sterile, 40 ml glass VOA vials equipped with Teflon-lined caps. The containers were provided by the analytical laboratory. The vials were filled to a positive meniscus, sealed, and visually checked for the presence of air bubbles.

The filled containers were labeled and placed on ice in an insulated cooler. The cooler was sealed for shipment to ELOT in Odessa, Texas for determination of BTEX concentrations using EPA Method SW846-8020. Proper chain-of-custody documentation was maintained throughout the sampling process.

Laboratory results indicated the following concentrations ranges:

PARAMETER	CONCENTRATION RANGE (mg/kg)
Benzene	ND to 9.639
BTEX	ND to 17.448

Soil laboratory results are summarized in TABLE II and are graphically presented on FIG. 4. Analytical laboratory reports are included in APPENDIX C.

Ground water elevations indicate an approximate gradient of 0.003 ft/ft towards the southeast. Ground water contours are presented on FIG. 5.

Purged water collected during the event was stored in steel drums pending disposal.

#### CONCLUSIONS

The following conclusions are based on field and laboratory data:

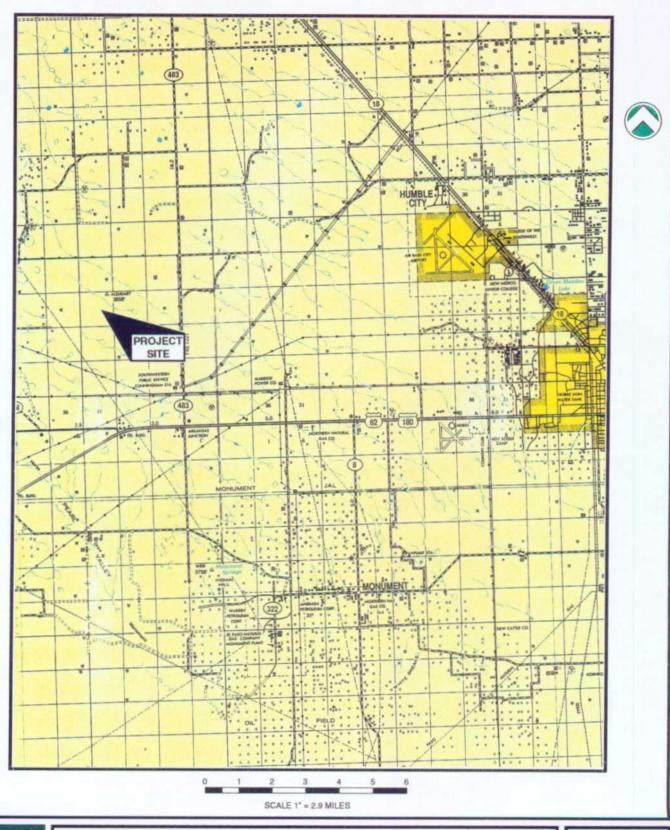
 The standard New Mexico Oil Conservation Division (OCD) levels for soils at the site are:

Total Petroleum Hydrocarbons (TPH)	100 mg/kg
Benzene	10 mg/kg
Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX)	50 mg/kg

- Soil samples obtained from soil borings B-3 through B-6 and monitoring wells MW-10, MW-11, MW-12, MW-14, and MW-16 indicated TPH, benzene, and BTEX concentrations above closure standards.
- Ground water samples obtained from monitoring wells MW-1, MW-7, MW-9, MW-10, MW-11, MW-14, and MW-16 indicated benzene concentrations above the New Mexico Water Quality Control Commission (NMWQCC) drinking water standard for benzene.

#### THE ROADS OF NEW MEXICO MAP NEW MEXICO-LEA CO.

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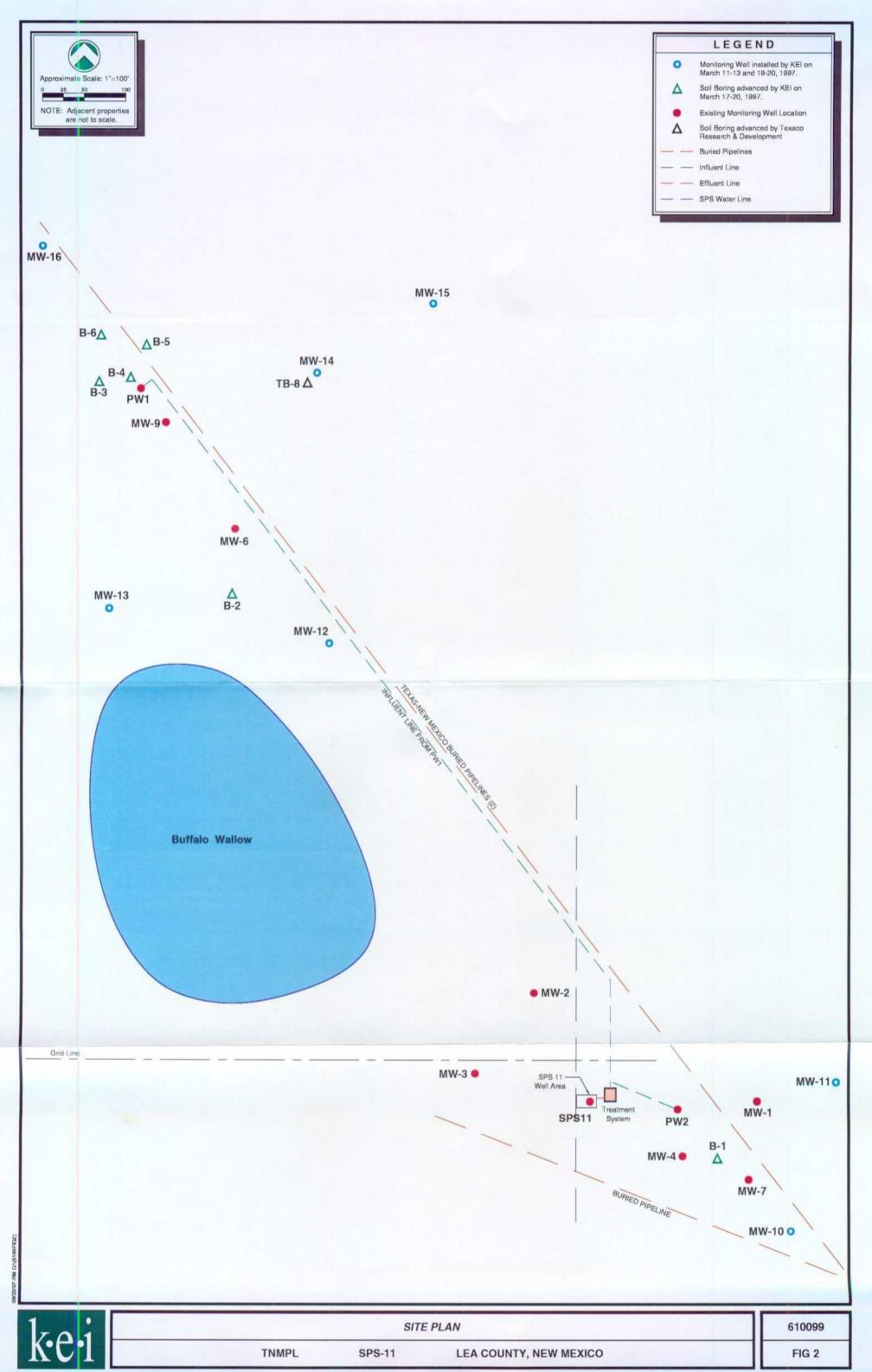
SITE LOCATION MAP

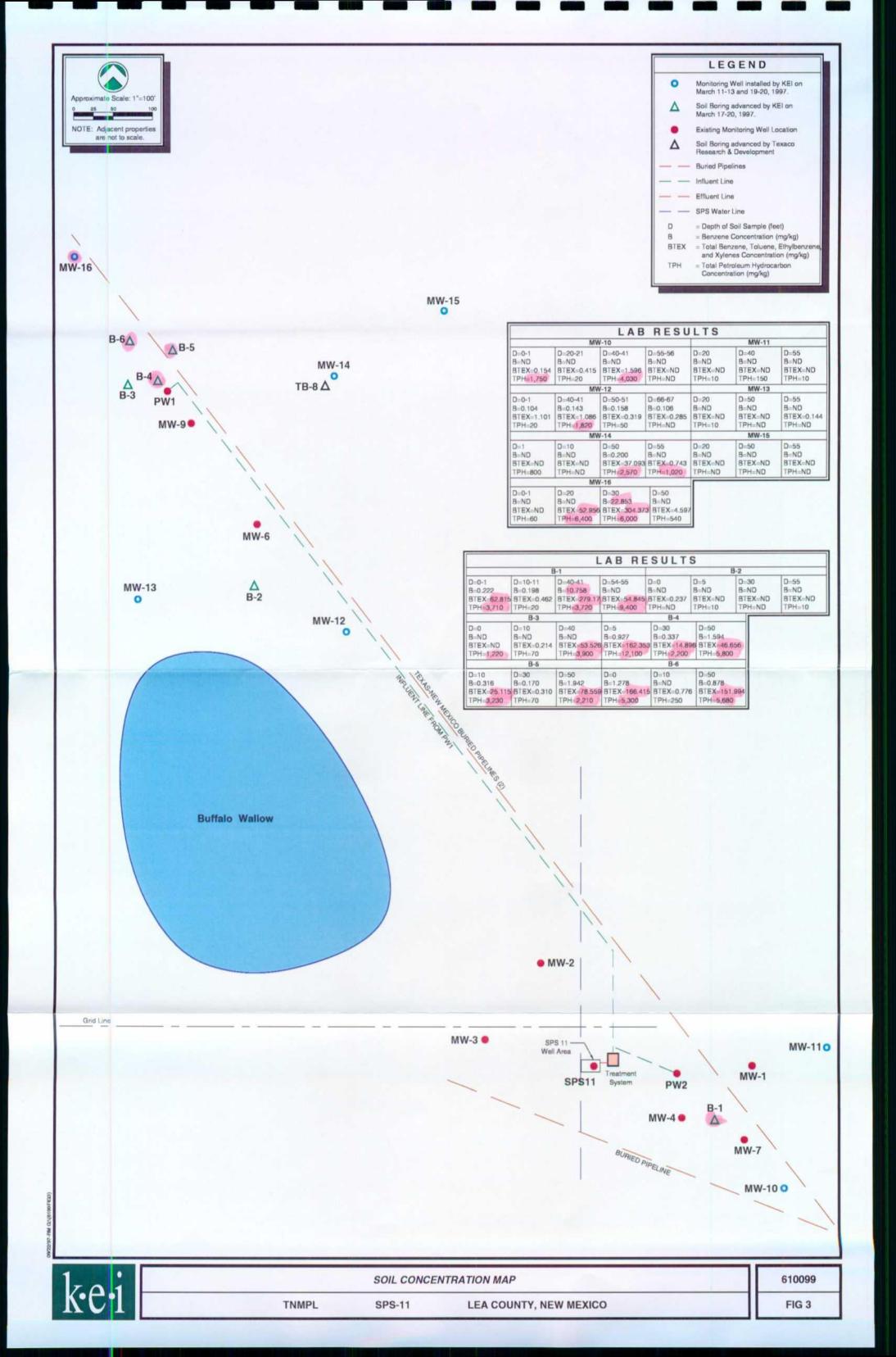
TNMPL SPS-11

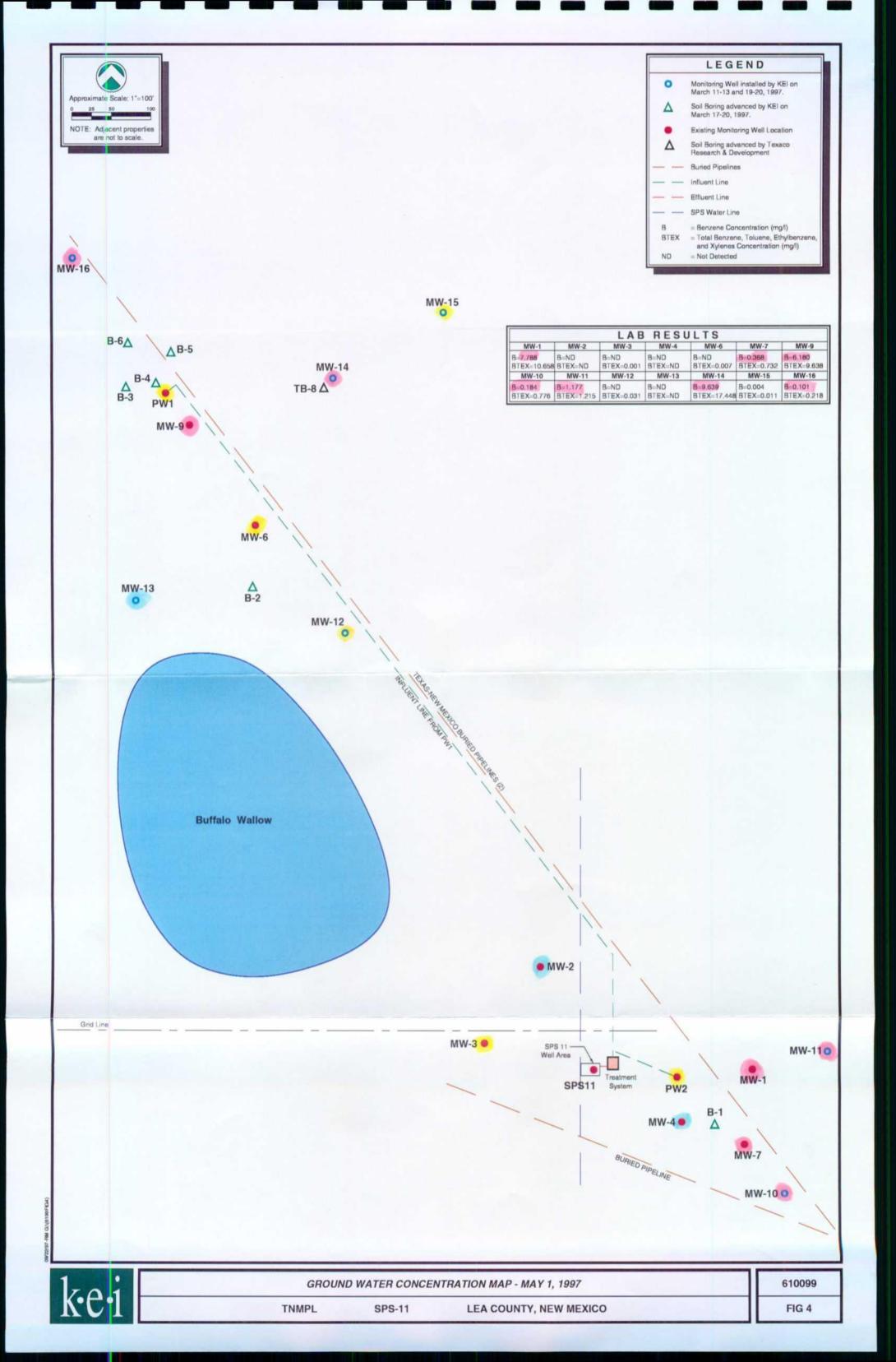
LEA COUNTY, NEW MEXICO

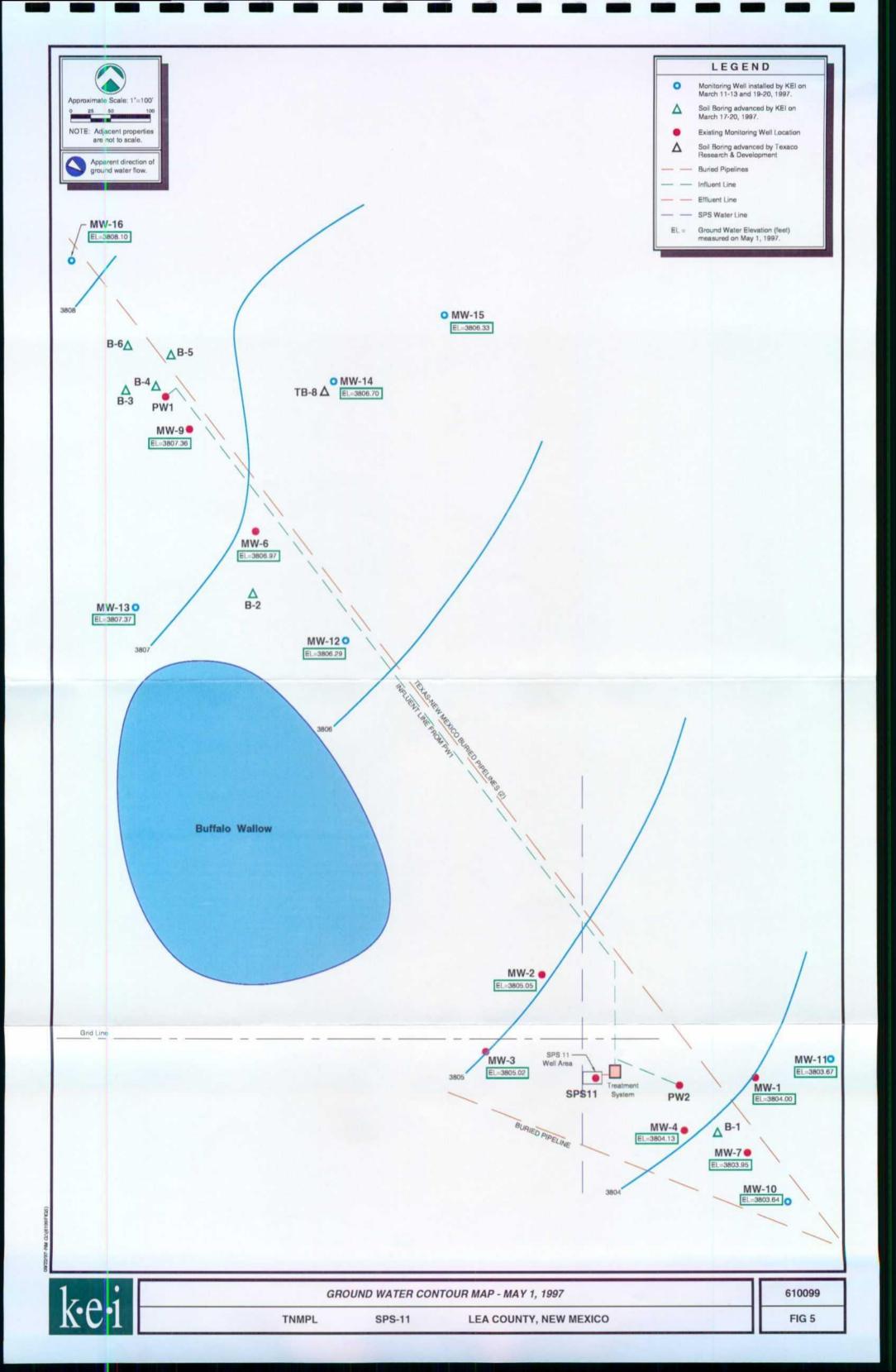
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FIG 1









#### **GENERAL NOTES**

ND - Indicates constituent was not detected above the method detection limit.

Method detection limits:

Soil:

BTEX - 0.02 mg/kg

TPH - 10 mg/kg

Water:

BTEX - 0.001 mg/l

Laboratory test methods: BTEX - EPA Method SW846-8020

TPH - EPA Method 418.1

#### TABLE I

#### SUMMARY OF LABORATORY RESULTS - SOIL TEXAS - NEW MEXICO PIPE LINE COMPANY TNMPL SPS-11 LEA COUNTY, NEW MEXICO

							TOTAL	
SAMPLE	SAMPLE	DEPTH	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES	BTEX	TPH
LOCATION	DATE	(feet)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
<u> </u>	00/00/07		0.000	40.004	40.770	20.000	60.045	2.740
B-1	03/20/97	0-1	0.222	10.991	18.776	32.826	62.815	3,710
B-1	03/20/97	10 - 11	0.198	0.151	ND 75,000	0.113	0.462	20
B-1	03/20/97	40 - 41	10.758	85.292	75.323	108.244	279.617	3,720
B-1	03/20/97	53 - 54	ND	8.441	17.652	28.752	54.845	9,400
B-2	03/17/97	0	ND	ND	ND ND	0.237	0.237	ND 10
B-2	03/17/97	5	ND	ND	ND	ND	ND	10
B-2	03/17/97	30	ND	ND	ND	ND	ND	ND 40
B-2	03/17/97	55	ND	ND	ND	ND	ND	10
B-3	03/17/97	0	ND	ND	ND	ND 0.014	ND 0.044	1,220
B-3	03/17/97	10	ND	ND 7.040	ND 40.704	0.214	0.214	70
B-3	03/17/97	40	ND	7.219	16.764	29.543	53.526	3,900
B-4	03/18/97	5	0.927	7.593	55.077	98.756	162.353	12,100
B-4	03/18/97	30	0.337	0.485	0.639	13.435	14.896	2,200
B-4	03/18/97	50	1.594	11.293	11.954	21.815	46.656	5,800
B-5	03/19/97	10	0.316	ND	8.727	16.076	25.119	3,230
B-5	03/19/97	30	0.17	ND	ND SO SO T	0.14	0.31	70
B-5	03/19/97	51	1.942	20.447	22.087	34.083	78.559	2,210
B-6	03/18/97	0	1.278	15.924	55.441	93.772	166.415	5,300
B-6	03/18/97	10	ND	0.123	0.163	0.49	0.776	250
B-6	03/18/97	50	0.878	50.806	40.788	59.522	151.994	5,680
MW-10	03/21/97	0 - 1	ND	ND	ND ND	0.154	0.154	1,750
MW-10	03/21/97	20 - 21	ND	ND	ND_	0.415	0.415	20
MW-10	03/21/97	40 - 41	ND	ND	0.196	1.4	1.596	4,030
MW-10	03/21/97	55 - 56	ND	ND	ND ND	ND	ND	ND 10
MW-11	03/11/97	20	ND	ND	ND ND	ND	ND	10
MW-11	03/11/97	40	ND	ND	ND_	ND	ND	150
MW-11	03/11/97	55	ND	ND	ND ND	ND	ND	10
MW-12	03/20/97	0 - 1	0.104	0.136	ND	0.861	1.101	20
MW-12	03/20/97	40 - 41	0.143	ND	ND	0.943	1.086	1,820
MW-12	03/20/97	50 - 51	0.158	ND	ND_	0.161	0.319	50
MW-12	03/20/97	66 - 67	0.106	ND	ND	0.179	0.285	ND 10
MW-13	03/12/97	20	ND	ND	ND	ND	ND	10
MW-13	03/12/97	50	ND	ND	ND ND	ND 0.444	ND	ND_
MW-13	03/12/97	55	ND	ND	ND	0.144	0.144	ND
MW-14	03/13/97	1	ND	ND	ND	ND	ND	800
MW-14	03/12/97	10	ND	ND 4 400	ND 11.461	ND 24.02	ND 27,000	ND 0.570
MW-14	03/12/97	50	0.2	1.402	11.461	24.03	37.093	2,570
MW-14	03/13/97	55	ND	ND	0.182	0.561	0.743	1,020
MW-15	03/13/97	20	ND	ND	ND	ND	ND	ND
MW-15	03/13/97	50	ND	ND	ND ND	ND	ND	ND_
MW-15	03/13/97	55	ND	ND	ND	ND	ND	ND 00
MW-16	03/19/97	0 - 1	ND	ND 4.050	ND 11.700	ND 04.407	ND	60
MW-16	03/19/97	20	ND	4.056	14.763	34.137	52.956	6,400
MW-16	03/19/97	30	22.853	99.739	72.631	109.15	304.373	6,000
MW-16	03/19/97	50	ND	0.644	1.169	2.784	4.597	540

#### TABLE II

#### SUMMARY OF LABORATORY RESULTS - GROUND WATER **TEXAS - NEW MEXICO PIPE LINE COMPANY** SPS-11

#### LEA COUNTY, NEW MEXICO

MONITORING	SAMPLE	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES	BTEX
WELL	DATE	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)
MW-1	04/10/92	4.92	2.06	1.20	1.13	9.31
MW-1	10/15/96	6.445	1.132	1.184	0.913	9.674
MW-1	05/01/97	7.788	0.778	1.282	0.810	10.658
MW-2	04/10/92	0.005	0.014	ND	ND	0.019
MW-2	10/15/96	ND	ND	ND	ND	ND
MW-2	05/01/97	ND	ND	ND	ND	ND
MW-3	04/10/92	ND	0.010	ND	ND	0.010
MW-3	10/15/96	0.003	ND	ND	ИD	0.003
MW-3	05/01/97	ND	ND	ND	0.001	0.001
MW-4	04/10/92	ND	0.008	ND	ND	0.008
MW-4	10/15/96	0.005	ND	ND	ND	0.005
MW-4	05/01/97	ND	ND	ND	ND	ND
MW-6	04/10/92	0,130	0.011	ND	ND	0.141
MW-6	10/15/96	0.210	0.002	0.021	0.006	0.239
MW-6	05/01/97	ND	0.001	0.002	0.004	0.007
	20/01/01		0.001	0.002	0.001	0.007
MW-7	04/10/92	1.590	0.590	0.470	0.310	2.960
MW-7	10/15/96	0.211	0.016	0.095	0.066	0.388
MW-7	05/01/97	0.368	0.034	0.206	0.124	0.732
10144-1	03/01/37	0.000	0.004	0.200	0.124	0.132
MW-9	04/10/92	5.270	4.650	1.380	1.660	12.960
MW-9	10/15/96	4.224		1.252		
			0.056		0.865	6.397
MW-9	05/01/97	6.180	0.019	2.056	1.383	9.638
10140	05/04/07	0.404	0.000	0.404	0.400	
MW-10	05/01/97	0.184	0.292	0.124	0.180	0.776
MW-11	05/01/97	1.177	ND	0.011	0.027	1.215
MW-12	05/01/97	ND	0.003	0.001	0.027	0.031
MW-13	05/01/97	ND	ND	ND	ND	ND_
MW-14	05/01/97	9.639	2.414	2.626	2.769	17.448
MW-15	05/01/97	0.004	0.002	0.002	0.003	0.011

## TABLE II (continued)

# SUMMARY OF LABORATORY RESULTS - GROUND WATER TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11 LEA COUNTY, NEW MEXICO

MONITORING WELL	SAMPLE DATE	BENZENE (mg/l)	TOLUENE (mg/l)	ETHYLBENZENE (mg/l)	XYLENES (mg/l)	BTEX (mg/l)
MW-16	05/01/97	0.101	0.090	0.015	0.012	0.218
10100-10	03/01/97	0.101	0.090	0.013	0.012	0.210
PW-1	10/15/96	0.007	ND	ND	ND	0.007
PW-2	05/07/92	0.048	0.054	0.022	0.024	0.148
PW-2	10/15/96	ND	0.001	0.001	0.013	0.015

#### TABLE III

#### SUMMARY OF GROUND WATER MONITORING TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11 LEA COUNTY, NEW MEXICO

		PVC	DEPTH	GROUNI	WATER	PSH
WELL	DATE	ELEVATION	TO WATER	ELEV	ATION	THICKNESS
NO.	MEASURED	(feet)	(feet)	Actual	Corrected	(feet)
	05/06/92_	3,859.20	55.37	3803.83		
MW-1	07/13/92	3,859.20	55.93	3803.27		
	05/01/97	3,859.20	55.20	3804.00		u
	05/06/92	3,860.90	56.06	3804.84		
MW-2	07/13/92	3,860.90	56.43	3804.47		
	05/01/97	3,860.90	55.85	3805.05		
	05/06/92	3,861.30	56.48	3804.82		
MW-3	07/13/92	3,861.30	56.86	3804.44		
	05/01/97	3,861.30	56.28	3805.02		
	05/06/92	3,859.40	55.36	3804.04		
MW-4	07/13/92	3,859.40	55.83	3803.57		
	05/01/97	3,859.40	55.27	3804.13		
MW-5	07/13/92	Unknown	26.48			
	05/06/92	3,862.70	55.78	3806.92		
MW-6	07/13/92	3,862.70	56.23	3806.47		
	05/01/97	3,862.70	55.73	3806.97		
MW-7	05/06/92	3,859.40	55.65	3803.75		
IVIVY-7	07/13/92	3,859.40	56.15	3803.25	-	
	05/01/97	3,859.40	55.45	3803.95		
	05/06/92	3,862.10	54.69	3807.41		
MW-9	07/13/92	3,862.10	55.18	3806.92		
	05/01/97	3,862.10	54.74	3807.36		
MW-10	05/01/97	3,860.60	56.96	3803.64		
MW-11	05/01/97	3,860.10	56.43	3803.67		
MW-12	05/01/97	3,863.20	56.91	3806.29		
MW-13	05/01/97	3,862.60	55.23	3807.37		
MW-14	05/01/97	3,863.10	56.40	3806.70		
MW-15	05/01/97	3,861.90	55.57	3806.33		
MW-16	05/01/97	3,863.40	55.30	3808.10		

#### LEGEND



Clay (CL), silty, sandy, gravel, firm to stiff, moist, brown to dark brown, roots.



Gravel (GM), silty, sandy, moist, gray to tan.



Sand (SP), silty, fine-grained, dense to very dense, moist to wet, brown to light brown.

Indicates the depth interval from which a soil sample was selected and prepared for field head-space and/or laboratory analysis. The soil samples were obtained by a pitcher sampler.



Indicates approximate depth to ground water during drilling.



Indicates sample selected for laboratory analysis.

B = Benzene Concentration (mg/kg)

BTEX = Total Benzene, Toluene, Ethylbenzene, and Xylenes Concentration (mg/kg)

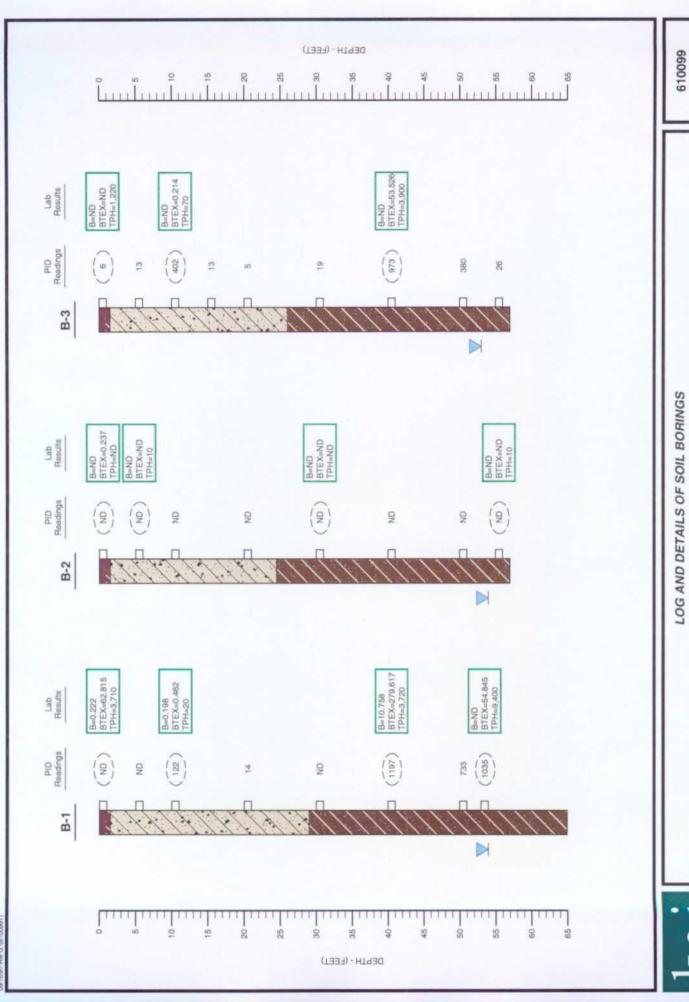
TPH = Total Petroleum Hydrocarbon Concentration (mg/kg)

PID Head-space readings in ppm obtained with a photoionization detector.

ND = Indicates the concentration was below laboratory detection limits.

#### NOTES:

- 1. The soil borings were advanced March 17-20, 1997 using an air rotary sampling device.
- The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- 3. The depths indicated are referenced from the ground surface.
- 4. The soil borings were backfilled with cement/bentonite grout and capped at the surface.





APPENDIX A

LEA COUNTY, NEW MEXICO

**SPS-11** 

TNMPL



LOG AND DETAILS OF SOIL BORINGS

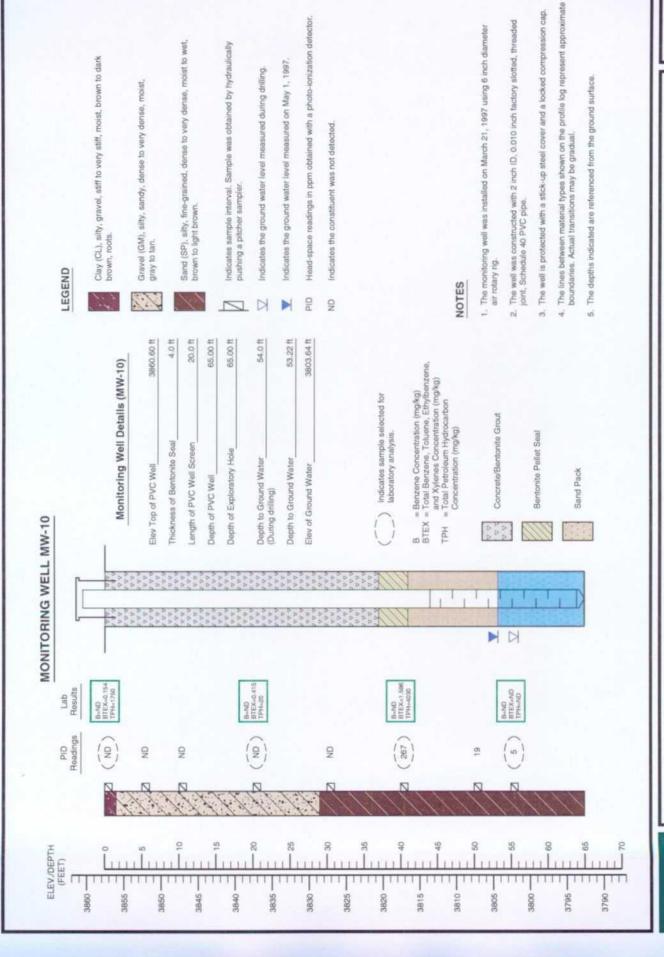
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LEA COUNTY, NEW MEXICO

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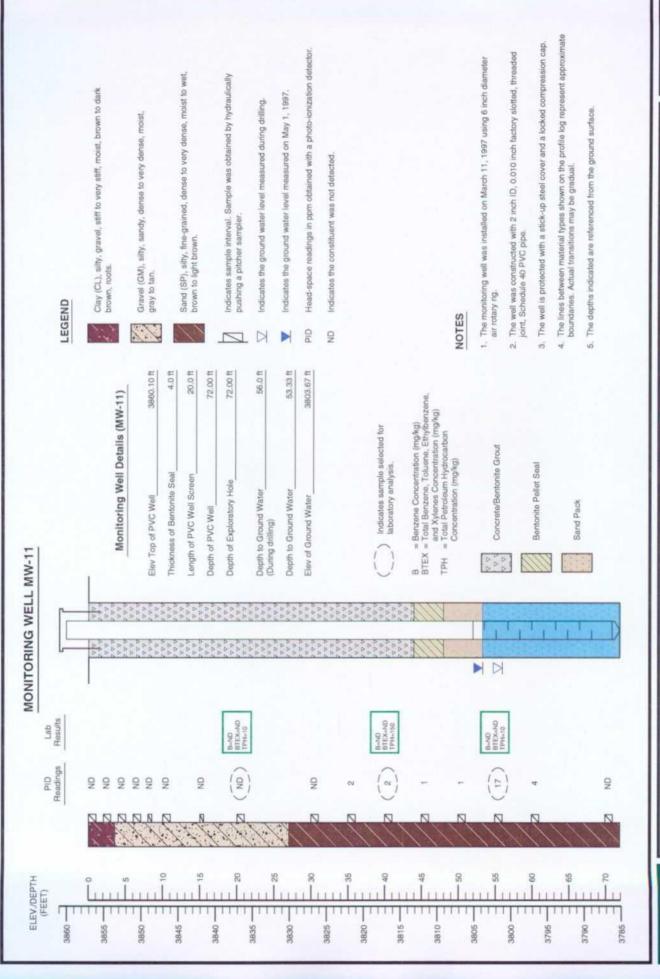
LOG AND DETAILS OF MONITORING WELL MW-10

TNMPL

SPS-11

LEA COUNTY, NEW MEXICO

610099

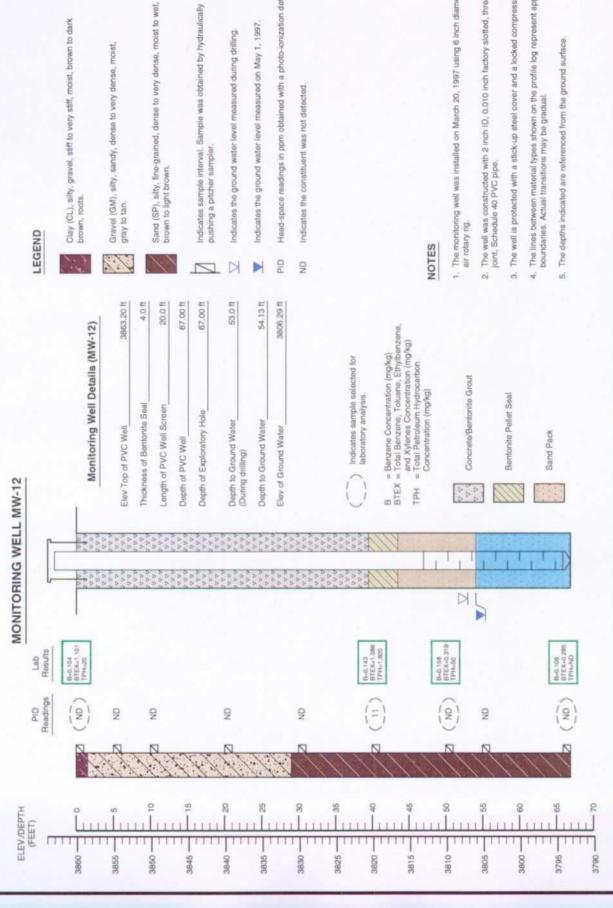


LOG AND DETAILS OF MONITORING WELL MW-11

TNMPL

LEA COUNTY, NEW MEXICO

610099



Clay (CL), silty, gravel, stiff to very stiff, moist, brown to dark brown, roots.

Indicates sample interval. Sample was obtained by hydraulically pushing a pitcher sampler.

indicates the ground water level measured during drilling.

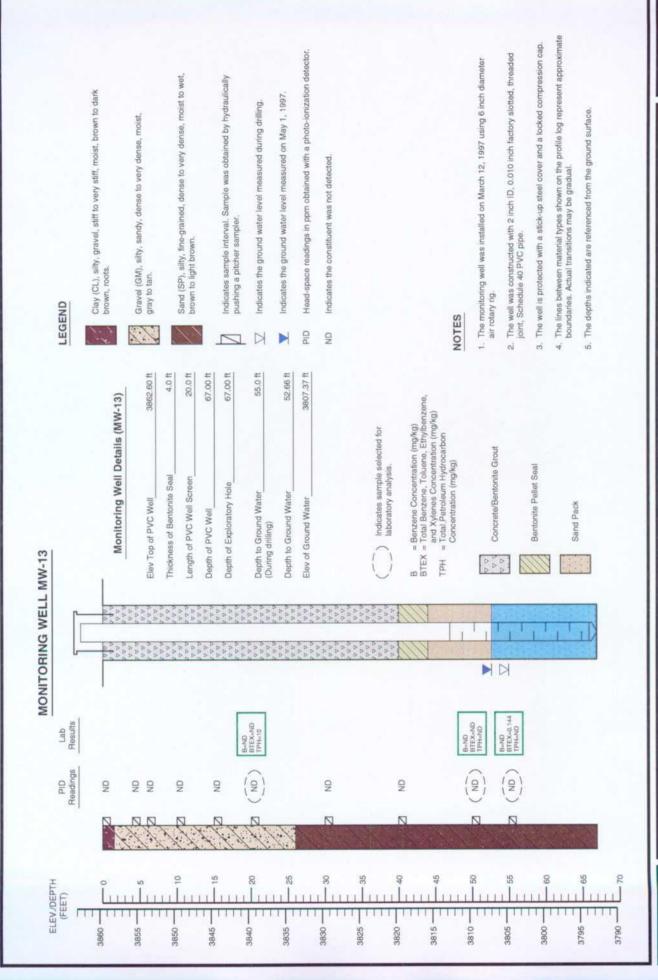
Head-space readings in ppm obtained with a photo-ionization detector.

- 1. The monitoring well was installed on March 20, 1997 using 6 inch diameter
- The well was constructed with 2 inch ID, 0.010 inch factory slotted, threaded joint, Schedule 40 PVC pipe.
- The well is protected with a stick-up steel cover and a locked compression cap.
- The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- 5. The depths indicated are referenced from the ground surface.

LOG AND DETAILS OF MONITORING WELL MW-12

TNMPL

LEA COUNTY, NEW MEXICO



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LOG AND DETAILS OF MONITORING WELL MW-13

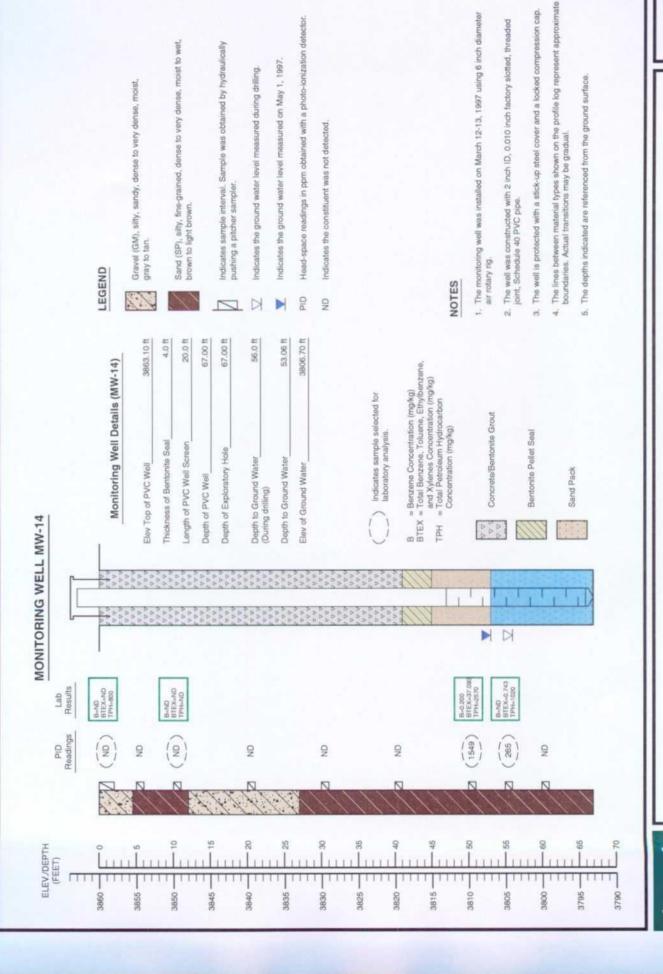
LEA

SPS-11

TNMPL

LEA COUNTY, NEW MEXICO

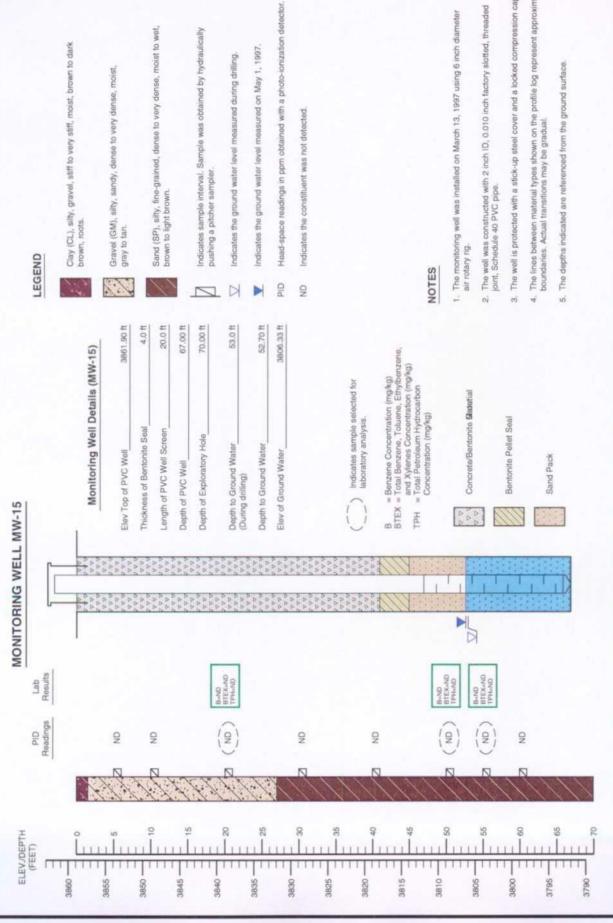
610099



LOG AND DETAILS OF MONITORING WELL MW-14

TNMPL

LEA COUNTY, NEW MEXICO



Indicates the ground water level measured during drilling.

- The monitoring well was installed on March 13, 1997 using 6 inch diameter
- The well was constructed with 2 inch ID, 0.010 inch factory slotted, threaded joint, Schedule 40 PVC pipe.
- The well is protected with a stick-up steel cover and a locked compression cap.
- The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.

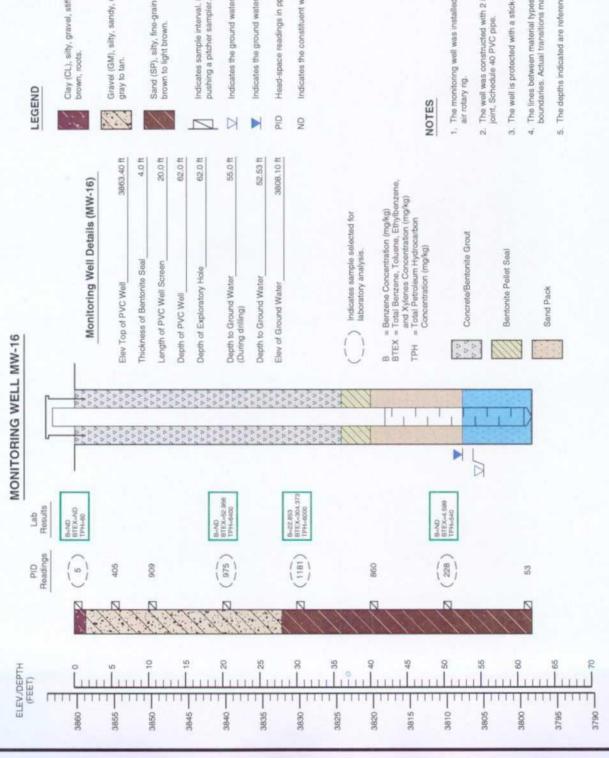


LOG AND DETAILS OF MONITORING WELL MW-15

TNMPL

SPS-11

LEA COUNTY, NEW MEXICO



Clay (CL), sifty, gravel, stiff to very stiff, moist, brown to dark

Gravel (GM), silty, sandy, dense to very dense, moist, gray to tan.

Sand (SP), silty, fine-grained, dense to very dense, moist to wet, brown to light brown.

Indicates sample interval. Sample was obtained by hydraulically pushing a pitcher sampler.

Indicates the ground water level measured during drilling.

indicates the ground water level measured on May 1, 1997.

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



- 1. The monitoring well was installed on March 19, 1997 using 6 inch diameter
- The well was constructed with 2 inch ID, 0.010 inch factory slotted, threaded
- The well is protected with a stick-up steel cover and a locked compression cap.
- The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- The depths indicated are referenced from the ground surface.

LOG AND DETAILS OF MONITORING WELL MW-16

TNMPL

LEA COUNTY, NEW MEXICO

APPENDIX A

610099

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

KEI ATTN: MR. PAUL HARTNETT 5309 WURZBACH SUITE 100 SAN ANTONIO, TEXAS 78238 FAX: 210-680-3763

Receiving Date: 03/14/97 Sample Type: SOIL Project: 610099, SPS-11 Project Location: NONE GIVEN Analysis Date: 03/17/97 Sampling Date: 3/11/97 THRU 3/13/97 Sample Condition: Intact/Iced

ELT#	FIELD CODE	BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m,p-XYLENE mg/kg	o-XYLENE mg/kg	TPH mg/kg
10458	MW-11 @ 20'	<0.100	<0.100	<0.100	<0.100	<0.100	10
10459	MW-11 @ 40'	<0.100	<0.100	<0.100	<0.100	<0.100	150
10460	MW-11 @ 55'	<0.100	<0.100	<0.100	<0.100	<0.100	10
10461	MW-13 @ 20'	<0.100	<0.100	<0.100	<0.100	<0.100	10
10462	MW-13 @ 50'	<0.100	<0.100	<0.100	<0.100	<0.100	<10
10463	MW-13 @ 55'	<0.100	<0.100	<0.100	0.144	<0.100	<10
10464	MW-14 @ 1'	<0.100	<0.100	<0.100	<0.100	<0.100	800
10465	MW-14 @ 10'	<0.100	<0.100	<0.100	<0.100	<0.100	<10
10466	MW-14 @ 50'	0.200	1.402	11.461	17.889	6.141	2570
10467	MW-14 @ 55'	<0.100	<0.100	0.182	0.390	0.171	1020
10468	MW-15 @ 20'	<0.100	<0.100	<0.100	<0.100	<0.100	<10
10469	MW-15 @ 50'	<0.100	<0.100	<0.100	<0.100	<0.100	<10
10470	MW-15 @ 55'	<0.100	<0.100	<0.100	<0.100	<0.100	<10
	% IA	92	92	94	113	93	102
	% EA	91	89	88	106	88	106
	BLANK	<0.001	<0.001	<0.001	<0.001	<0.001	<10

METHODS: SW 846-8020,5030, EPA 418.1

Michael R Fowler

<u>ラ"/ 0</u> Date

MAR 2 2 1997

Environmental Lab of Texas, Inc. 12600 West I-20 East Odessa, Texas 79763 (915) 563-1800 FAX (915) 563-1713	exas,	Inc	. 12	(3)	Nest 15) 5	1-20 63-1	East 800	FA	essa X	) West I-20 East Odessa, Texas 79763 (915) 562-1800 FAX (915) 563-1713	9763	B	NI V	ភ្ជ	STO	DY R	- O B	A ON COLOR	, √ <del>6</del>	WLYSI 7/2	O Sis E	0 B.T	لغ		
Project Manager: PAUL HARTNET				Phone #: FAX #:	Phone #: (200) FAX #: (210)	(2kg)		680-3767	-37	-3767					1 2	IALY	SISR	ANALYSIS REQUEST	ST			_			
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10462 MW-13 @ 50'	-	8=c	×					-R		3/12/57		×	থ	<u> </u>		<del> </del>		$\vdash$	-		-		+-	-	1
10463 MW-13 @ 55'	7)	1200	<u>×</u>					×		3/12/87	0821	×	マ					-			-		-	-	T
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SK **™∢**は Q **A** N n 4 2 0 0 0 1 Contractor COC # OOO Turn-around 7214 Standard 48 Trs Remarks # 25 # \* ASAP Lab. Batch # PO No: Quote #: HOH BERBY CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM Remarks No coolers this shipment 1400 TIME BTEX (5030,8020,-802) Airbill No Carrior 3/4/67 X × × DATE × ž ಕ COZHKL Unknown Tenk No: Sample Description Phone (200) 680-3767 78238 Ķ SOIL Soll 501 MIKE HAWTHORN PEST HASTAM Unl Dies Waste Oil E Zo: 9100099-1 SA TX Houston Texas 77082 Fay (713) 589 0695 Receiped by Proservative Q page Project Manager Project Director Project Na Sze Type to × X × O 9 S Container TIME 001-1 8 052 |X|802| 22 X 80c X 3/14/67 SWITH 3/14/57 DATE OOEL **≯<⊢**ພ∝ SAMPLE CHARACTERIZATION 
 X
 3/13/67 (1320 SO' X)  $\times$ 5309 WURZBACH Prik (Contractor), Yellow & White (Lab). 2 58, 13/13/67 (1342) 3/13/47 1159 Project Location ( N 99977 Time Signama SPS-11 KENT TH Latingenies Date Sempler Signature 55' MW-15 Contractor MW-IS Field ID 20°, MW-15 Project Name Š Address 101 101 Patrol 10479

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Page 2

Pre-scheduling is recommended

Precision Analytical Services

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

KEI ATTN: MR. PAUL HARTNETT 5309 WURZBACH SUITE 100 SAN ANTONIO, TEXAS 78238

FAX: 210-680-3763

Receiving Date: 03/24/97 Sample Type: SOIL

Project: 610099 SPS-11 TNMPL

Project Location: SPS-11

Analysis Date: 03/24/97 Sampling Date: 3/20,21/97 Sample Condition: Intact/Iced

ELT#	FIELD CODE	BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m,p-XYLENE mg/kg	o-XYLENE mg/kg	TPH mg/kg
<u> </u>							
10556	MW 12, 0-1'	0.104	0.136	<.100	0.607	0.254	20
10557	MW 12, 40-41'	0.143	<.100	<.106	0.651	0.292	1,820
10558	MW 12, 50-51'	0.158	<.100	<.100	0.161	<.100	50
10559	MW 12, 66-67'	0.106	<.100	<.100	0.179	<.100	<10
10560	B-1, 0-1'	0.222	10.991	18.776	22.958	9.868	3,710
10561	B-1, 10-11'	0.198	0.151	<.100	0.113	<.100	20
10562	B-1, 40-41'	10.758	85.292	75.323	79.196	29.048	3720
10563	B-1, 53-54'	<.100	8.441	17.652	19.805	8.947	9400
10564	MW 10, 0-1'	<.100	<.100	<.100	0.154	<.100	1750
10565	MW 10, 20-21'	<.100	<.100	<.100	0.296	0.119	20
10566	MW 10, 40-41'	<.100	<.100	0.196	1.400	<.100	4030
10567	MW 10, 55-56'	<.100	<.100	<.100	<.100	<.100	<10
	% IA	107	102	99	98	100	95
	% EA	114	119	122	123	118	110
•	BLANK	<0.001	<0.001	<0.001	<0.001	<0.001	<10

METHODS: SW 846-8020,5030 , EPA 418.1

Michael R. Fowler

3-25-97

MAR 2 8 1997

12600 West I-20 East • Odessa, Texas 79765 • (915) 563-1800 • Fax (915) 563-1713

CHAIN OF CUSTODY NO: PROJECT MANAGER: FRUC HOATING! PROJECT MANAGER: FRUC HOATING!  ALTERNATE CONTACT: THACKERS NI! X  ANALYSIS (1) 10 00 00 10 10 10 10 10 10 10 10 10 10	BATHIX COMPOSITE NO. OF STAIN ON GRAS CONTAINERS	1 GRAD X	-67'		74.	20-21	MECENTO BY:	RECEIVED BY; (SIGNATURE)  RECEIVED BY; (SIGNATURE)  REMARKS:  REMARKS:  CC T CO / 6  CC T CO / 6  REMARKS:  REMARKS:
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79 79 No Other	SAMPLE LOCATION / DESCRIPTION	MW 12,0-1'	Mus. 12, 50-51	32-	18-1 40-41, 18-1 53-54'	MW 10	12/4	TO TANK TO
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TWET SOF 2	PRESERVATION (CC)	
CHAIN OF CUSTODY NO:  PROJECT MANAGER: FOLL HAR  ALTERNATE CONTACT: THERESOL	NAMBER: LABORATORY:	NEWARKS:  CCCTTOOLG  COTTOOLG  DOTT 7214
SADP WURZEACH, SUTTE 100 SANY MURZEACH, SUTTE 100 SANY MUTOWIC, TEXAS (210) 680-3767 (210) 680-3763 FAX	COMPOSITE ON GARA CONTY	\$\frac{1}{4}
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# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

KEI ATTN: MR. PAUL HARTNETT 5309 WURZBACH SUITE 100 SAN ANTONIO, TEXAS 78238

FAX: 210-680-3763

Receiving Date: 03/20/97 Sample Type: SOIL

Project: 610099 SPS-11 TNMPL

Project Location: SPS-11

Analysis Date: TPH 03/20/97 Analysis Date: BTEX 03/21/97 Sampling Date: 3/17/97

Sample Condition: Intact/Iced

ELT#	FIELD CODE	BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m,p-XYLENE mg/kg	o-XYLENE mg/kg	TPH mg/kg
40507	<b>D D D D</b>		4400	4400		- 400	
10527	B-3 @ 0'	<.100	<.100	<.100	<.100	<.100	1,220
10528	B-3 @ 10'	<.100	<.100	<.100	0.214	<.100	70
10529	B-3 @ 40'	<.100	7.219	16.764	20.74	8.803	3,900
10530	B-2 @ 0'	<.100	<.100	<.100	0.237	<.100	<10
10531	B-2 @ 55'	<.100	<.100	<.100	<.100	<.100	10
10532	B-2 @ 30'	<.100	<.100	<.100	<.100	<.100	<10
10533	B-2 @ 5	<.100	<.100	<.100	<.100	<.100	10
	% IA	89	88	89	93	92	100
	% EA	107	103	104	106	104	
,	BLANK	<0.001	<0.001	<0.001	<0.001	<0.001	<10

METHODS: SW 846-8020,5030 , EPA 418.1

Michael P Four

Date

Date



"Don't Treat Your Soil Like Dirt!" ATTN: MR. PAUL HARTNETT 5309 WURZBACH SUITE 100 SAN ANTONIO, TEXAS 78238 FAX: 210-680-3763

Receiving Date: 03/20/97 Sample Type: SOIL

Project: 610099 SPS-11 TNMPL

Project Location: SPS-11

Analysis Date: TPH 03/20/97 Analysis Date: BTEX 03/24/97 Sampling Date: 3/18/97

Sample Condition: Intact/Iced

ELT#	FIELD CODE	BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m,p-XYLENE mg/kg	o-XYLENE mg/kg	TPH mg/kg
10534	B-6 @ 0'	1.278	15.924	55.441	68.474	25.298	5,300
10535	B-6 @ 10 <sup>4</sup>	<.100	0.123	0.163	0.345	0.145	250
10536	B-6 @ 50'	0.878	50.806	40.788	42.973	16.549	5,680
10537	B-4 @ 5'	0.927	7.593	55.077	75.326	23.430	12,100
10538	B-4 @ 30'	0.337	0.485	0.639	8.498	4.937	2,200
10539	B-4 @ 50'	1.594	11.293	11.954	15.301	6.514	5800
10540	B-5 @ 10'	0.316	<.100	8.727	12.014	4.062	3230
10541	B-5 @ 30'	0.170	<.100	<.100	0.140	<.100	70
10542	B-5 @ 51'	1.942	20.447	22.087	24.464	9.619	2210
10543	MW-16@0-1'	<.100	<.100	<.100	<.100	<.100	60
10544	MW-16 @ 20'	<.100	4.056	14.763	24.840	9.297	6400
10545	MW-16 @ 30'	22.853	99.739	72.631	79.628	29.522	6000
10546	MW-16 @ 50'	<.100	0.644	1.169	1.949	0.835	540
	% IA	107	102	99	98	100	100
•	% <b>EA</b>	97	95	99	100	97	
i	BLANK	<0.001	<0.001	<0.001	<0.001	<0.001	<10

METHODS: SW 846-8020,5030, EPA 418.1

MAR 2 8 1997

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Project Managers				Phone #		(072)	200	17	680-3767											L			
PAM HARTNEY				FAX #	C /I	lonz	680	17	-3763					₹	¥ĽX	SIS R	analysis request	4					
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# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

KEI CONSULTANTS
ATTN: MS TERESA NIX
5309 WURZBACH, SUITE 100
SAN ANTONIO, TEXAS 78238
FAX: 210-680-3763

Receiving Date: 05/02/97 Sample Type: WATER Project: 610099, SPS-11

Project Location: HOBBS, LEA COUNTY

Analysis Date: 05/05/97 Sampling Date: 05/01/97 Sample Condition: Intact/Iced

ELT#	FIELD CODE	BENZENE (mg/l)	TOLUENE (mg/l)	ETHYLBENZENE (mg/l)	m.p-XYLENE (mg/l)	o-XYLENE (mg/l)
ELIN	1 1220 0022					
11086	MW-1	7.788	0.778	1.282	0.536	0.274
11087	MW-2	<0.001	<0.001	<0.001	<0.001	<0.001
11088	MW-3	<0.001	<0.001	<0.001	0.001	<0.001
11089	MW-4	<0.001	< 0.001	< 0.001	<0.001	<0.001
11090	MW-6	< 0.001	0.001	0.002	0.004	<0.001
11091	MW-7	0.368	0.034	0.206	0.082	0.042
11092	MW-9	6.180	0.019	2.056	1.243	0.140
11093	MW-10	0.184	0.292	0.124	0.118	0.062
11094	MW-11	1,177	<0.001	0.011	0.025	0.002
11095	MW-12	<0.001	0.003	0.001	0.016	0.011
11096	MW-13	<0.001	<0.001	<0.001	<0.001	<0.001
11097	MW-14	9.639	2.414	2,626	1.831	0.938
11098	MW-15	0.004	0.002	0.002	0.003	<0.001
11099	MW-16	0.101	0.090	0.015	0.003	0.009
9	6 IA	87	89	89	88	87
	6 EA	113	98	76	102	121
	BLANK	<0.001	<0.001	<0.001	<0.001	<0.001

METHODS: SW 846-8020,5030

Spiked w/ 100 ppb

Michael R. Fowler

Date

MA/ 1 2 1997

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5309 Wurzbach, Suite 100 San Antonio, Texas 78238 (210) 680-3767 (210) 680-3763 FAX

## SUPPLEMENTAL SUBSURFACE INVESTIGATION REPORT

TEXAS - NEW MEXICO PIPE LINE COMPANY
SPS-11
LEA COUNTY, NEW MEXICO

PREPARED FOR:

TEXAS - NEW MEXICO PIPE LINE COMPANY

P. O. Box 1030 Jal, New Mexico 88252

Mr. Tony Savoie

PREPARED BY:

KEI

Theresa Nix

Project Manager

Paul Hartnett, P.E. Senior Engineer

Michael Hawthorne, P.G., REM

Senior Geologist

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APPENDIX A - Monitoring Well and Soil Boring Logs

APPENDIX B - Soil Analytical Laboratory Reports

APPENDIX C - Ground Water Analytical Laboratory Reports

### **EXECUTIVE SUMMARY**

The Texas - New Mexico Pipe Line Company (TNMPL) site SPS-11 is located approximately 12 miles northwest of Monument in Lea County, New Mexico, in Section 18, Township 18 South, Range 36 East. A site location map is presented as FIG. 1. Specific site details are presented on FIG. 2. This report summarizes supplemental subsurface investigation activities performed at the project site from December 1997 through January 1998.

Supplemental subsurface investigation activities performed included the following:

- Installation of monitoring wells MW-17 through MW-25;
- Advancement of soil borings B-7 through B-9;
- Collection of native soil samples from the monitoring wells and soil borings and laboratory analysis of the samples for determination of benzene, toluene, ethylbenzene, and xylenes (BTEX) and total petroleum hydrocarbons (TPH) concentrations;
- Gauging of ground water levels in monitoring wells MW-1 through MW-4, MW-6, MW-7, and MW-9 through MW-25; and
- Collection of ground water samples from monitoring wells MW-1 through MW-4, MW-6, MW-7, and MW-9 through MW-25 and submittal of the samples for determination of BTEX concentrations.

The following conclusions are based on the field and laboratory data:

 The standard New Mexico Oil Conservation Division (OCD) closure levels for soils at the site are:

CONSTITUENT	SOIL CLOSURE STANDARD
TPH	100 mg/kg
BENZENE	10 mg/kg
BTEX	50 mg/kg

- Soil samples at the site indicated benzene concentrations below closure standards, 3
  BTEX soil samples above closure standards (B-9 and MW-24), and 7 soil samples
  above TPH closure standards (B-8, B-9, MW-17, and MW-24).
- Ground water samples at the site indicated BTEX concentrations above New Mexico Environment Department (NMED) Drinking Water Standards (MW-1, MW-7, MW-9, MW-10, MW-11, MW-12, MW-14, MW-15, MW-17, MW-21, and MW-24). The NMED Drinking Water Standards for BTEX are as follows:

CONSTITUENT	DRINKING WATER STANDARD
BENZENE	0.01 mg/l
TOLUENE	0.75 mg/l
ETHYLBENZENE	0.75 mg/l
XYLENES	0.62 mg/l

### PURPOSE AND SCOPE

The objective of the supplemental subsurface investigation activities was to delineate hydrocarbon impact across the site. The following activities were performed to achieve this objective:

- Installation of additional monitoring wells and soil borings upgradient and downgradient from the release location;
- Gauging of water levels in all on-site monitoring wells;
- Collection of soil samples for analysis of hydrocarbon concentrations; and
- Collection of ground water samples for analysis of hydrocarbon concentrations.

### FIELD INVESTIGATION

#### SOIL INVESTIGATION AND SOIL DESCRIPTION

During the subsurface investigation, three soil borings (B-7 through B-9) were advanced and nine monitoring wells (MW-17 through MW-25) were installed utilizing air rotary technology. Soil samples were collected at selected intervals from the ground surface to termination boring depth. The soils were classified in the field, soil samples were field screened, and selected samples were prepared and shipped to the laboratory for determination of benzene, toluene, ethylbenzene, xylenes (BTEX) and total petroleum hydrocarbons (TPH) concentrations.

Upon advancement to total depth and collection of soil samples, a permanent well consisting of two-inch perforated PVC and blank riser was placed in the open hole of each boring designated as a permanent monitoring well. The borings not designated as a permanent monitoring well were advanced until apparent ground water was encountered and grouted to the ground surface upon completion. The borings designated as a permanent monitoring well were advanced approximately ten feet below the apparent ground water depth.

All drilling equipment was cleaned prior to first use and between boring locations. Sampling equipment was cleaned prior to first use and between sampling intervals with a Liqui-Nox detergent wash followed by a distilled water rinse.

The soil boring and monitoring well locations were surveyed by a Professional Land Surveyor registered in the state of New Mexico. Copies of the well reports are included as APPENDIX A. The locations of all soil borings advanced and monitoring wells installed are presented on FIG. 2.

### SOIL DESCRIPTION

The subsurface soil profile was classified in general accordance with the Unified Soil Classification System by visually observing the soil samples obtained during the assessment. In general, three soil types were encountered. A general description of the soil, approximate thickness, and head-space sample results for each soil type are as follows:

### Soil Type I

This soil type consisted of a brown to dark brown clay and was encountered at depths ranging from 0 to 2.0 feet below ground surface. It was observed at all soil boring locations and monitoring well MW-10 through MW-13, MW-15, and MW-16 locations. The clay contained gravel and was silty, sandy, firm to stiff, moist, and contained roots. This soil type varied in thickness from approximately 1.5 to 2.0 feet. Head-space readings from samples of this soil type were not measured.

### Soil Type II

This soil type consisted of a gray to light tan gravel and was encountered at depths ranging from 1.5 to 30 feet below ground surface. It was observed at all soil boring and monitoring well locations. The gravel was silty, sand, and moist. This soil type varied in thickness from approximately 1.0 to 27 feet. The head-space readings from samples of this soil type varied from non-detect to 1 ppm.

### Soil Type III

This soil type consisted of a light brown to brown sand and was encountered at depths ranging from 5.5 to 64 feet below ground surface. It was observed at all soil boring and monitoring well locations. The sand was silty, fine-grained, moist to wet, and contained occasional cemented lenses. This soil type varied in thickness from approximately 2.5 to 51 feet. The head-space readings from samples of this soil type varied from non-detect to 254 ppm.

Logs indicating the typical subsurface soil profile, depths at which soil samples were obtained, head-space results, laboratory results, and generalized geologic profiles are presented in APPENDIX A.

#### SOIL SAMPLING AND ANALYTICAL RESULTS

Native soil samples were collected at selected intervals from the ground surface to a depth of approximately two feet below ground water by pushing a split spoon sampler. The soil samples were used to delineate and evaluate the distribution of phase-separate hydrocarbon (PSH).

Representative soil samples were divided into two separate portions using clean, disposable gloves and clean sampling tools. One portion of the soil sample was placed in a disposable sample bag. The bag was labeled and sealed for head-space analysis using a photo-ionization detector (PID) calibrated to a 100 ppm isobutylene standard. Each sample was allowed to volatilize for approximately 30 minutes at ambient temperature prior to conducting the PID analysis.

The other portion of the soil sample was placed in a sterile glass container equipped with a Teflon-lined lid furnished by the analytical laboratory. The container was filled to capacity with soil to limit the amount of head-space present. Each container was labeled and placed on ice in an insulated cooler. Upon selection of samples for analysis, the cooler was sealed for shipment to the laboratory. Proper chain-of-custody documentation was maintained throughout the sampling process.

Twenty eight soil samples were selected and submitted to Xenco Laboratories located in San Antonio, Texas for determination of BTEX and TPH concentrations by EPA Method

SW846-8020 and 8015 DRO (diesel range organics), respectively. Soil samples from MW-17 were also selected and submitted to Xenco Laboratories for determination of TPH concentrations by EPA Method 8015 GRO (gasoline range organics). The soil sample from the monitoring well location and soil boring with the highest TPH concentration (MW-17 and B-9) were selected for determination of SPLP Volatile Organic Compounds (VOC), SPLP Semi-Volatile Organic Compounds (SVOC), and SPLP TPH using EPA Method 1312/8260, 1312/8270, and 1312/418.1, respectively.

Laboratory results indicated the following concentrations ranges:

PARAMETER	CONCENTRATION RANGE (mg/kg)			
Benzene	ND to 4.11			
BTEX	ND to 103.29			
ТРН	ND to 3030			
SPLP Ethylbenzene	0.741 to 0.610			
SPLP Isopropylbenzene	0.066 to 0.068			
SPLP Naphthalene	0.055 to 0.073			
SPLP Toluene	ND to 0.226			
SPLP 1, 2, 4 - Trimethylbenzene	0.131 to 0.235			
SPLP 1, 3, 5 - Trimethylbenzene	0.050 to 0.055			
SPLP m, p - Xylenes	0.557 to 0.615			
SPLP n - Propylbenzene	0.090 to 0.111			
SPLP o - Xylene	0.296 to 0.281			
SPLP Trichlorofluoromethane	ND to 0.864*			
SPLP 2 - Methylnaphthalene	0.024 to 0.044			
SPLP Naphthalene	0.019 to 0.048			
SPLP bis [2 - Ethylhexyl] phthalate	ND to 0.028			
SPLP TPH	20.6 to 34.3			

<sup>\* -</sup> Results beyond calibration limits.

Soil laboratory results are summarized in TABLE I and TABLE II, and are graphically presented on FIG. 3. FIGS 4 through 6 present all soil laboratory results for BTEX at different ranges of depth. Soil analytical laboratory reports are included in APPENDIX B.

#### GROUND WATER SAMPLING AND ANALYTICAL RESULTS

On January 21 and 22, 1998, each monitoring well was purged of approximately three well volumes of water using a PVC bailer. The bailer was cleaned prior to each use with Liqui-Nox detergent and rinsed with water. After purging the wells, ground water samples were collected with a disposable Teflon sampler and polyethylene line.

Water samples collected for BTEX analyses were placed in sterile, 40 ml glass VOA vials equipped with Teflon-lined caps. The containers were provided by the analytical laboratory.

The vials were filled to a positive meniscus, sealed, and visually checked for the presence of air bubbles.

The filled containers were labeled and placed on ice in an insulated cooler. The cooler was sealed for shipment to Xenco Laboratories in San Antonio, Texas for determination of BTEX concentrations using EPA Method SW846-8020. Proper chain-of-custody documentation was maintained throughout the sampling process.

Laboratory results indicated the following concentrations ranges:

PARAMETER	CONCENTRATION RANGE (mg/kg)
Benzene	ND to 11.2
BTEX	ND to 16.7

Ground water laboratory results are summarized in TABLE III and are graphically presented on FIGS. 8 and 9. Ground water analytical laboratory reports are included in APPENDIX C.

Ground water elevations indicate an approximate gradient of 0.003 ft/ft towards the southeast. Ground water contours are presented on FIG. 10.

Purged water collected during the event was stored in steel drums pending disposal.

### CONCLUSIONS

The following conclusions are based on field and laboratory data:

 The standard New Mexico Oil Conservation Division (OCD) levels for soils at the site are:

CONSTITUENT	SOIL CLOSURE STANDARD
TPH	100 mg/kg
BENZENE	10 mg/kg
BTEX	50 mg/kg

The NMED Drinking Water Standards for BTEX are as follows:

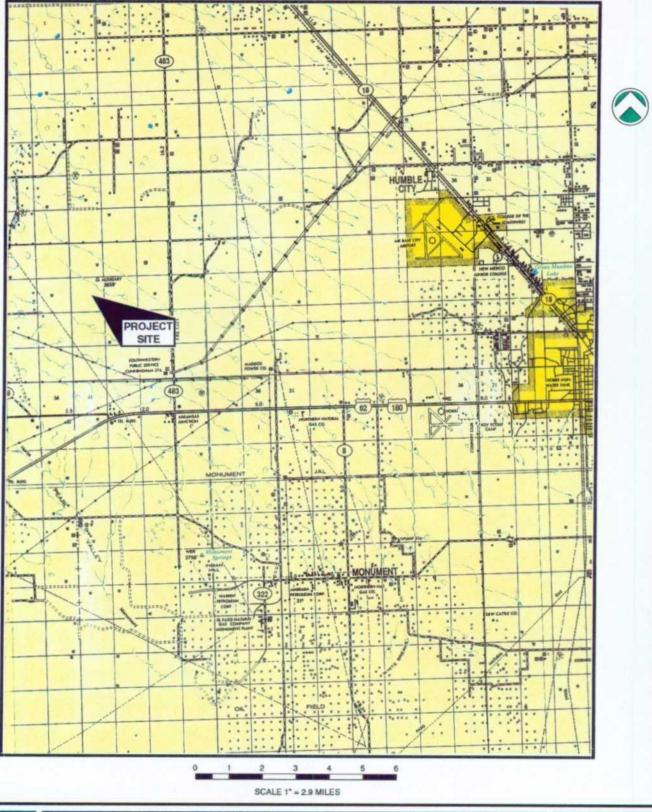
CONSTITUENT	DRINKING WATER STANDARD
BENZENE	0.01 mg/l
TOLUENE	0.75 mg/l
ETHYLBENZENE	0.75 mg/l
XYLENES	0.62 mg/l

 Soil samples obtained from soil borings B-8 and B-9, monitoring wells, and MW-17 and MW-24 indicated TPH and/or BTEX concentrations above closure standards.

- Ground water samples obtained from monitoring wells MW-1, MW-7, MW-9, MW-11, MW-12, MW-14, MW-15 MW-17, MW-21, and MW-24 indicated BTEX concentrations above the New Mexico Water Quality Control Commission (NMWQCC) drinking water standard for BTEX.
- Hydrocarbon impact in soils has been delineated across the site.
- Hydrocarbon impact in ground water has been delineated across the site.

### THE ROADS OF NEW MEXICO MAP NEW MEXICO-LEA CO.

PRINTED 1993





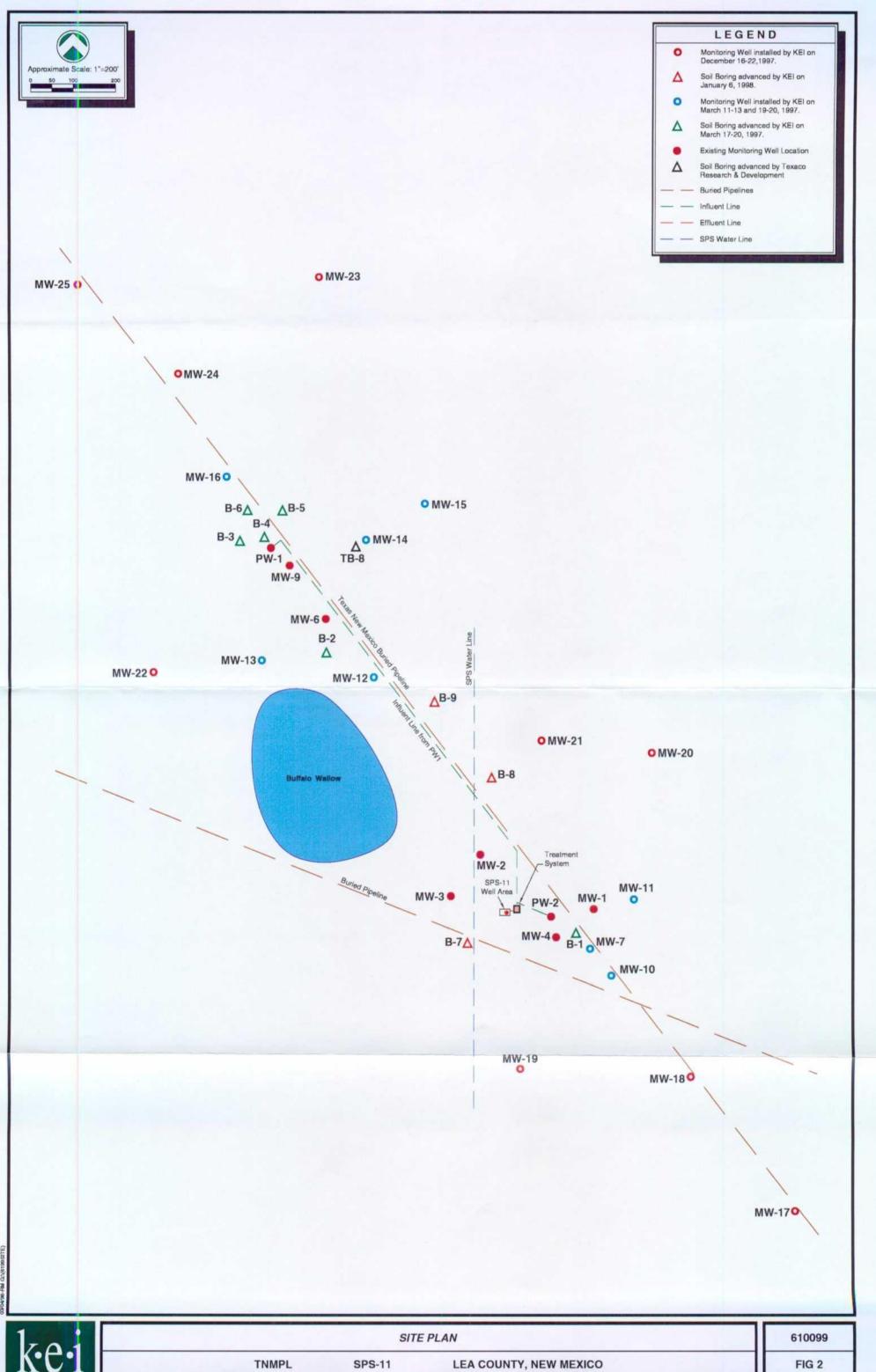
SITE LOCATION MAP

TNMPL

SPS-11

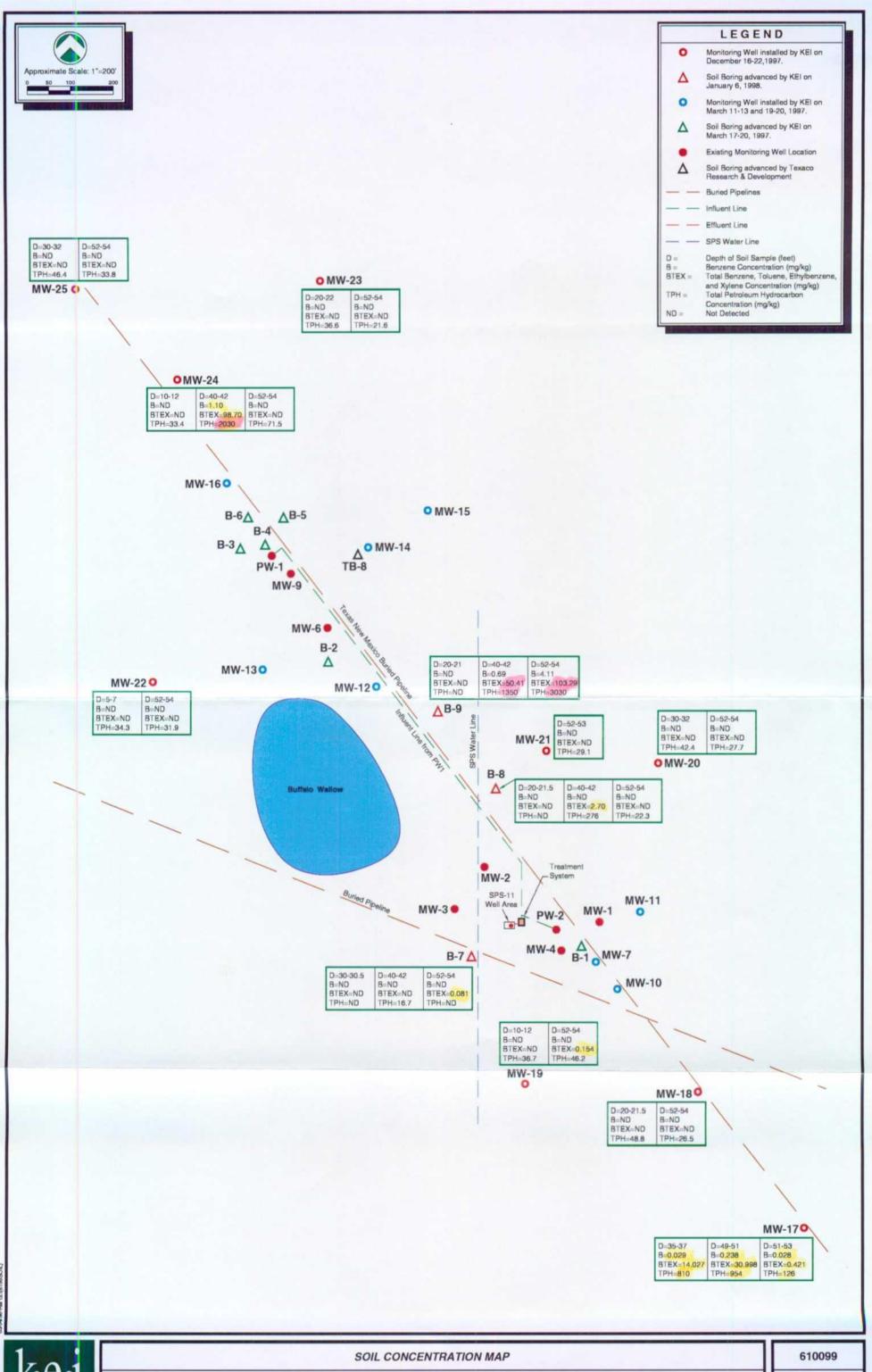
LEA COUNTY, NEW MEXICO

610099



SPS-11

LEA COUNTY, NEW MEXICO



kei

TNMPL

**SPS-11** 

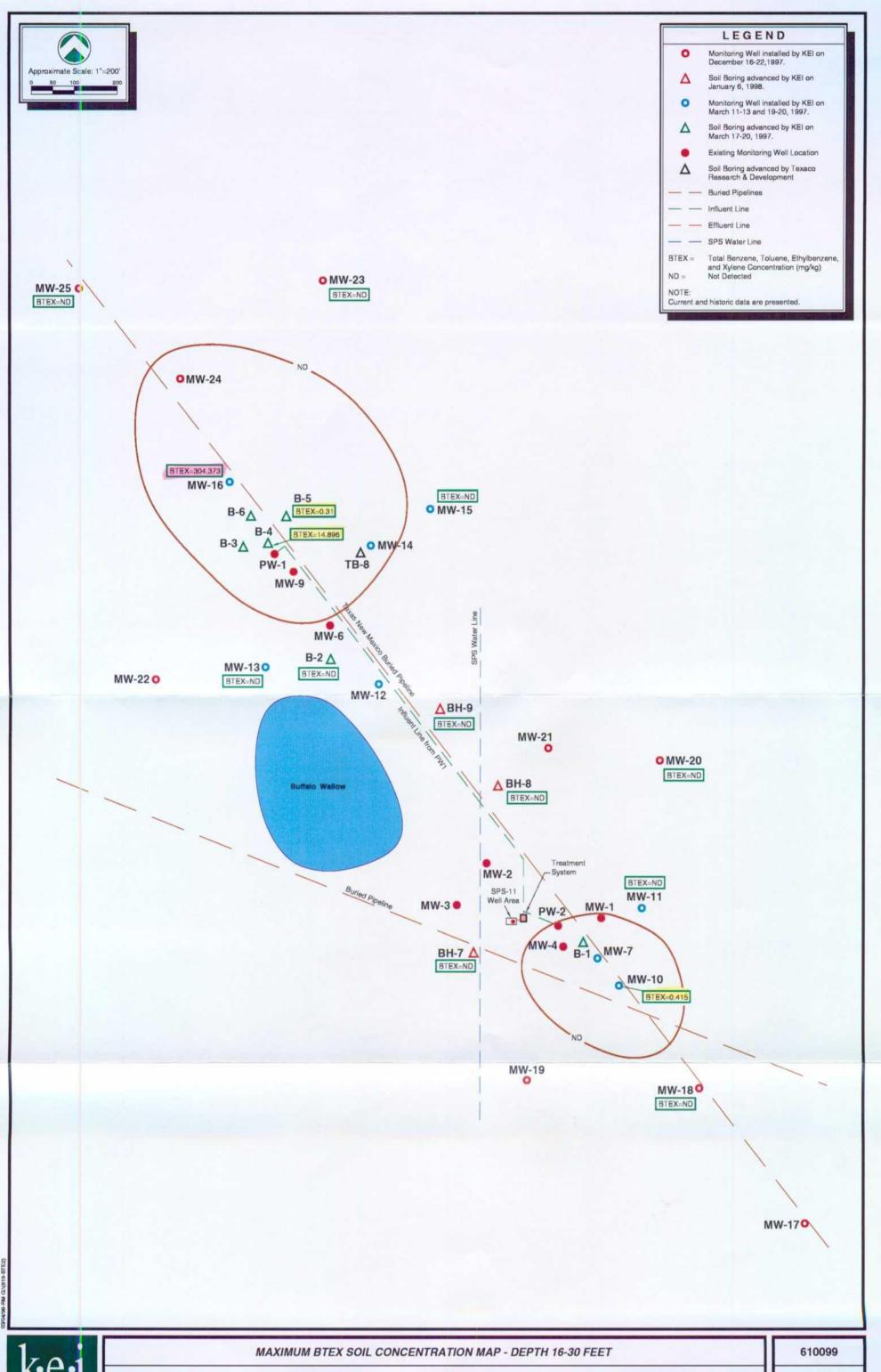
LEA COUNTY, NEW MEXICO



TNMPL

**SPS-11** 

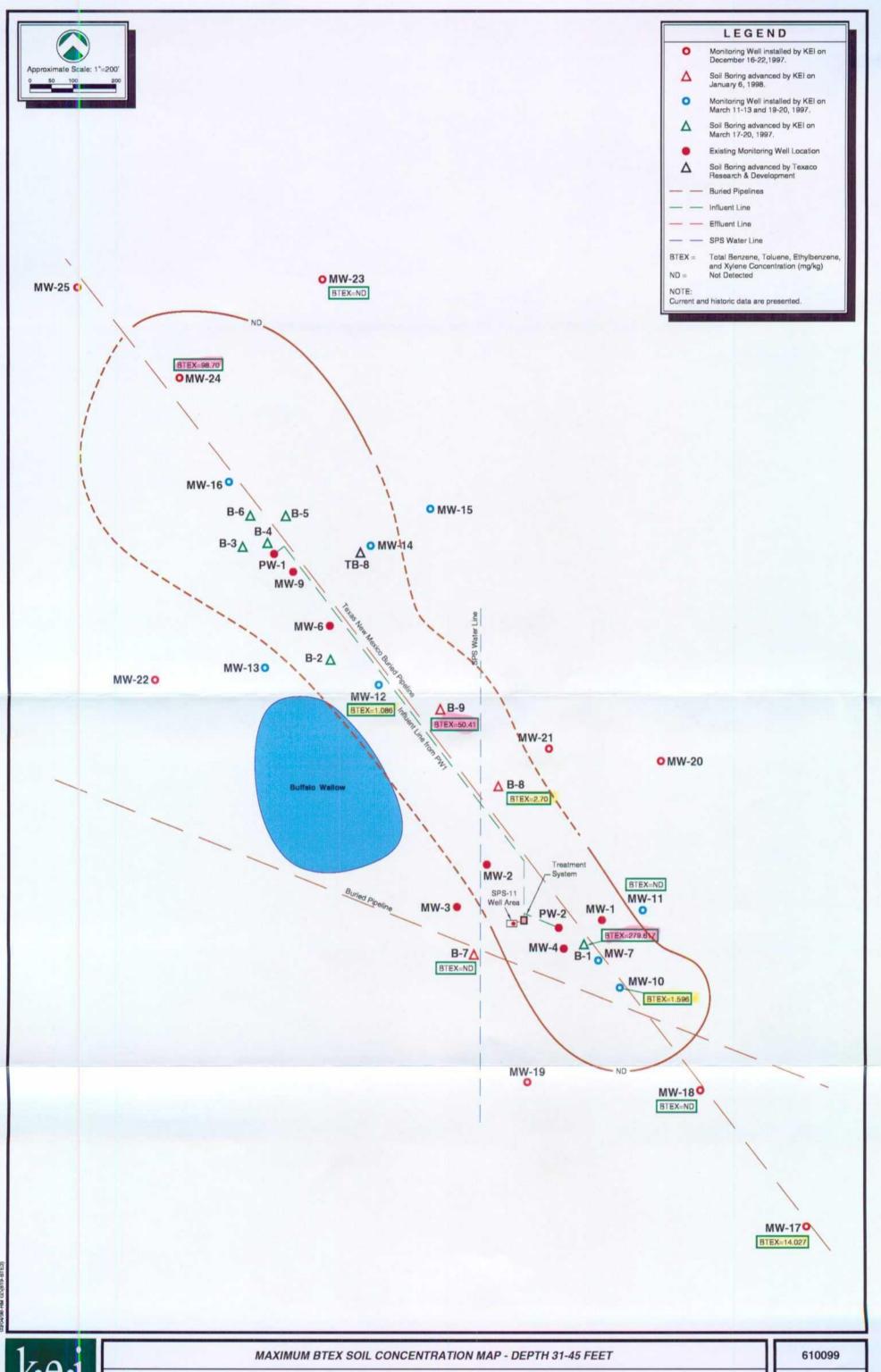
LEA COUNTY, NEW MEXICO



TNMPL

SPS-11

LEA COUNTY, NEW MEXICO

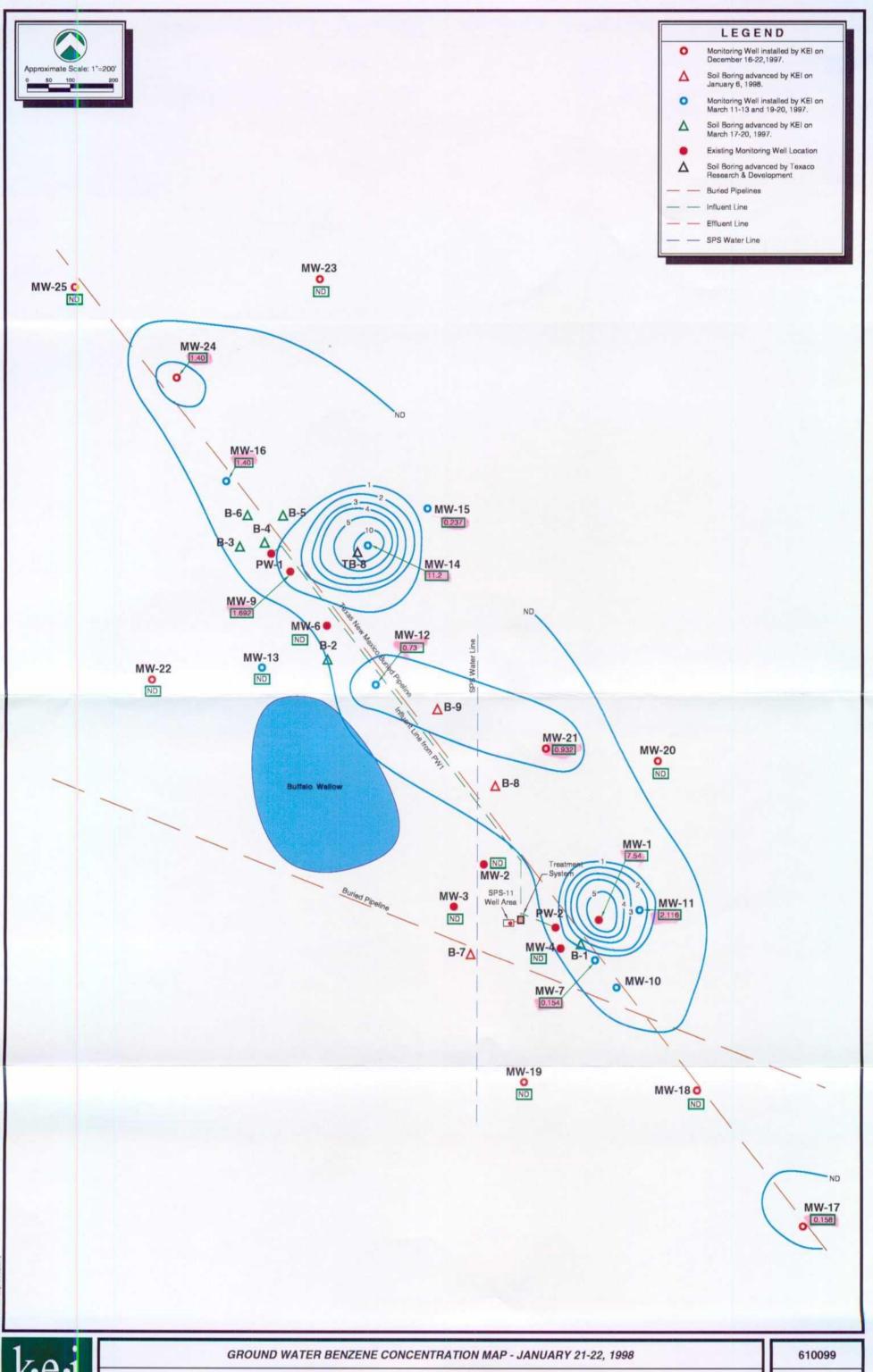


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SPS-11

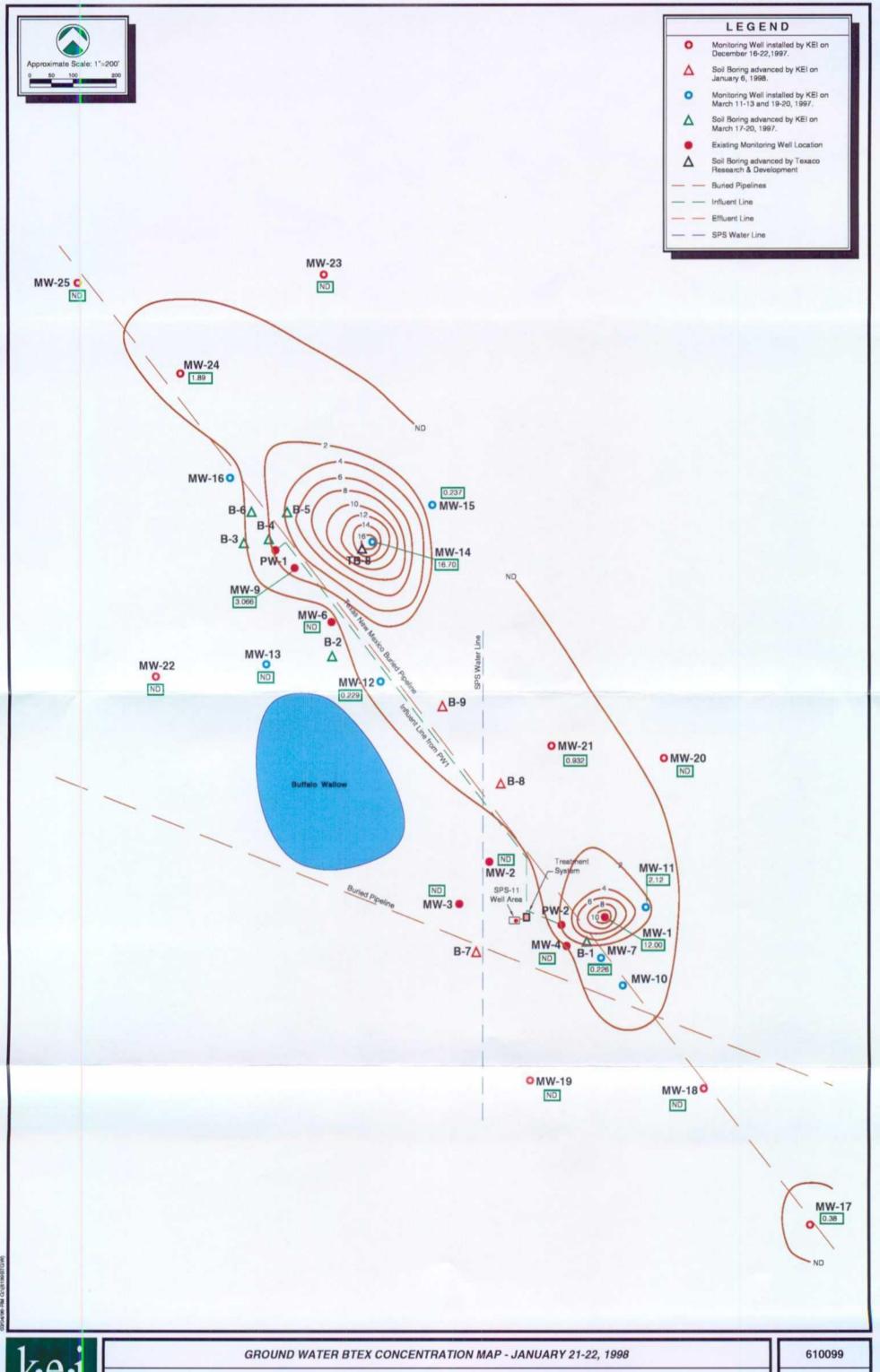
LEA COUNTY, NEW MEXICO



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**SPS-11** 

LEA COUNTY, NEW MEXICO

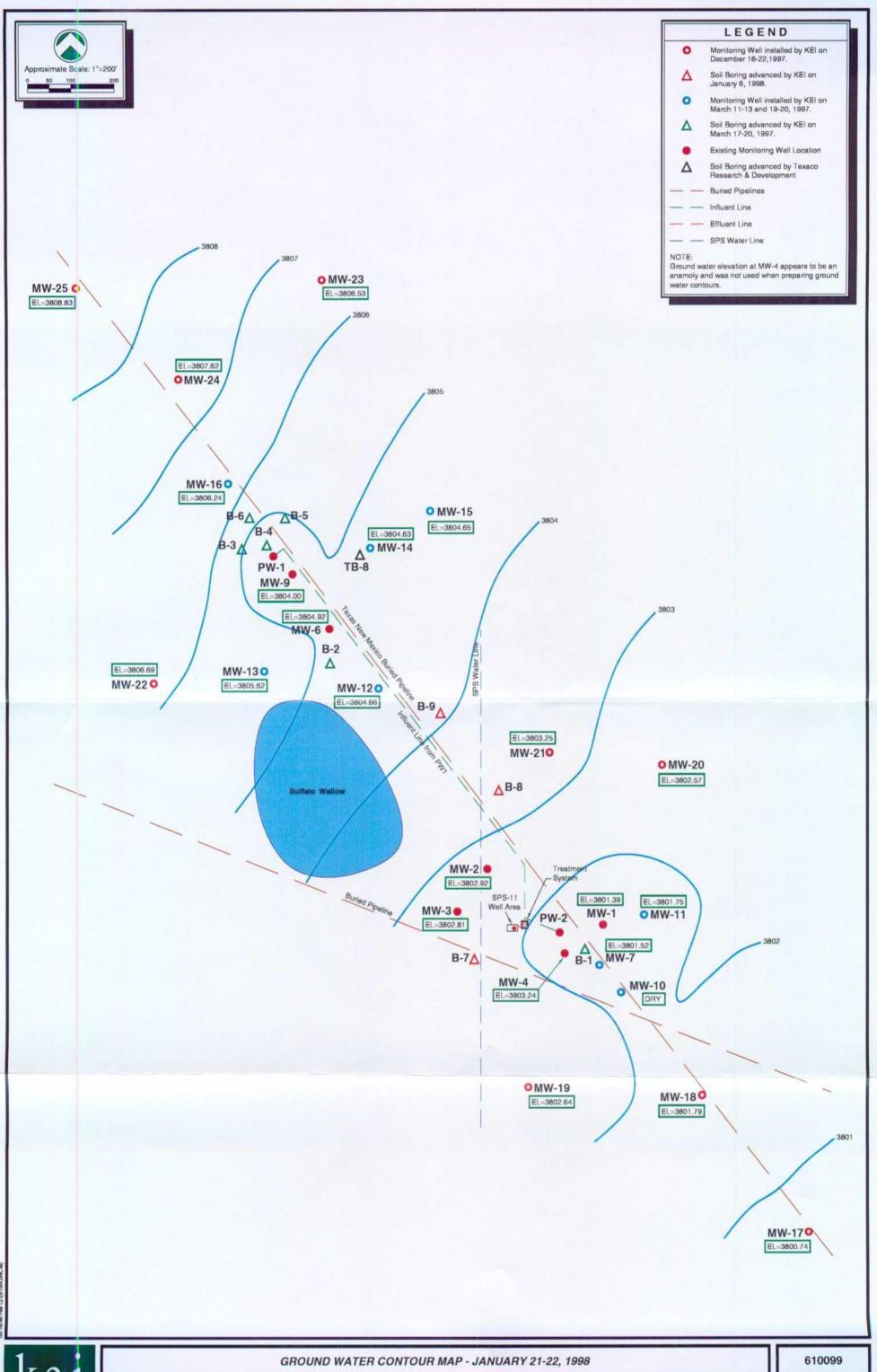


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**SPS-11** 

LEA COUNTY, NEW MEXICO



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SPS-11

LEA COUNTY, NEW MEXICO

### **GENERAL NOTES**

- Indicates constituent was not detected above the method detection limit. ND

#### Method detection limits:

Soil:

BTEX

0.020 to 0.20 mg/kg

TPH SPLP VOC

10 to 100 mg/kg 0.025 to 0.50 mg/kg

SPLP SVOC 0.010 to 0.025 mg/kg

SPLP TPH TPH (GRO) 1.1 to 5.0 mg/kg 10 to 100 mg/kg

Water:

BTEX

0.001 to 0.2 mg/l

Metals

0.02 to 0.56 mg/l

Laboratory test methods: BTEX

EPA Method SW846-8020

TPH

EPA Method 8015 DRO and GRO

SPLP VOC

EPA Method 1312/8260 SPLP SVOC EPA Method 1312/8270

SPLP TPH

EPA Method 1312/418.1

Metals

EPA Method 6010

### TABLE I

## SUMMARY OF SOIL LABORATORY RESULTS - BTEX AND TPH TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11 LEA COUNTY, NEW MEXICO

B-7	SAMPLE LOCATION	SAMPLE DATE	DEPTH (feet)	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL- BENZENE (mg/kg)	XYLENES (mg/kg)	TOTAL BTEX (mg/kg)	TPH (mg/kg)
B-7 01/06/98 40 - 42 ND ND ND ND ND ND 16.7 B-7 01/06/98 52 - 54 ND ND ND ND ND 0.081 0.081 ND B-8 01/06/98 20 - 21.5 ND									
B-7	B-7	01/06/98	30 - 30.5	ND	ND	ND	ND	ND	ND
B-8	B-7	01/06/98	40 - 42	ND	ND	ND	ND	ND	16.7
B-8         01/06/98         40 - 42         ND         0.17         0.66         1.87         2.70         276           B-8         01/06/98         52 - 54         ND         ND         ND         ND         ND         22           B-9         01/06/98         20 - 21         ND         ND         ND         ND         ND           B-9         01/06/98         40 - 42         0.69         0.79         19.50         29.43         50.41         1,350           B-9         01/06/98         52 - 54         4.11         0.88         39.70         58.60         103.29         3,030           MW-17         12/16/97         35 - 37         0.029         0.778         4.720         8.500         14.027         810 (165*)           MW-17         12/16/97         49 - 51         0.238         5.800         9.600         15.360         30.998         954 (251*)           MW-18         12/16/97         51 - 53         0.028         ND	B-7	01/06/98	52 - 54	ND	ND	ND	0.081	0.081	ND
B-8         01/06/98         40 - 42         ND         0.17         0.66         1.87         2.70         276           B-8         01/06/98         52 - 54         ND         ND         ND         ND         ND         22           B-9         01/06/98         20 - 21         ND         ND         ND         ND         ND           B-9         01/06/98         40 - 42         0.69         0.79         19.50         29.43         50.41         1,350           B-9         01/06/98         52 - 54         4.11         0.88         39.70         58.60         103.29         3,030           MW-17         12/16/97         35 - 37         0.029         0.778         4.720         8.500         14.027         810 (165*)           MW-17         12/16/97         49 - 51         0.238         5.800         9.600         15.360         30.998         954 (251*)           MW-18         12/16/97         51 - 53         0.028         ND									
B-8         01/06/98         52 - 54         ND         ND         ND         ND         ND         ND         22           B-9         01/06/98         20 - 21         ND	B-8	01/06/98	20 - 21.5				ND		
B-9         01/06/98         20 - 21         ND	B-8	01/06/98	40 - 42	ND	0.17	0.66	1.87	2.70	
B-9         01/06/98         40 - 42         0.69         0.79         19.50         29.43         50.41         1,350           B-9         01/06/98         52 - 54         4.11         0.88         39.70         58.60         103.29         3,030           MW-17         12/16/97         35 - 37         0.029         0.778         4.720         8.500         14.027         810 (165*)           MW-17         12/16/97         49 - 51         0.238         5.800         9.600         15.360         30.998         954 (251*)           MW-17         12/16/97         51 - 53         0.028         ND         0.132         0.261         0.421         126 (52.6*)           MW-18         12/16/97         20 - 21.5         ND         ND<	B-8	01/06/98	52 - 54	ND	ND	DN	ND	ND	22
B-9         01/06/98         40 - 42         0.69         0.79         19.50         29.43         50.41         1,350           B-9         01/06/98         52 - 54         4.11         0.88         39.70         58.60         103.29         3,030           MW-17         12/16/97         35 - 37         0.029         0.778         4.720         8.500         14.027         810 (165*)           MW-17         12/16/97         49 - 51         0.238         5.800         9.600         15.360         30.998         954 (251*)           MW-17         12/16/97         51 - 53         0.028         ND         0.132         0.261         0.421         126 (52.6*)           MW-18         12/16/97         20 - 21.5         ND         ND<									
B-9         01/06/98         52 - 54         4.11         0.88         39.70         58.60         103.29         3,030           MW-17         12/16/97         35 - 37         0.029         0.778         4.720         8.500         14.027         810 (165*)           MW-17         12/16/97         49 - 51         0.238         5.800         9.600         15.360         30.998         954 (251*)           MW-17         12/16/97         51 - 53         0.028         ND         0.132         0.261         0.421         126 (52.6*)           MW-18         12/16/97         20 - 21.5         ND	B-9	01/06/98	20 - 21	ND	ND	ND	ND	ND	ND
MW-17         12/16/97         35 - 37         0.029         0.778         4.720         8.500         14.027         810 (165*)           MW-17         12/16/97         49 - 61         0.238         5.800         9.600         15.360         30.998         954 (251*)           MW-17         12/16/97         51 - 53         0.028         ND         0.132         0.261         0.421         126 (52.6*)           MW-18         12/16/97         20 - 21.5         ND         ND <t< td=""><td>B-9</td><td>01/06/98</td><td>40 - 42</td><td>0.69</td><td>0.79</td><td></td><td>29.43</td><td>50.41</td><td>1,350</td></t<>	B-9	01/06/98	40 - 42	0.69	0.79		29.43	50.41	1,350
MW-17         12/16/97         49 - 51         0.238         5.800         9.600         15.360         30.998         954 (251*)           MW-17         12/16/97         51 - 53         0.028         ND         0.132         0.261         0.421         126 (52.6*)           MW-18         12/16/97         20 - 21.5         ND         ND         ND         ND         ND         ND         A8.8           MW-18         12/16/97         52 - 54         ND         ND         ND         ND         ND         ND         ND         26.5           MW-19         12/17/97         10 - 12         ND         ND         ND         ND         ND         ND         36.7           MW-19         12/17/97         52 - 54         ND         ND         ND         ND         ND         36.7           MW-19         12/17/97         30 - 32         ND         ND         ND         ND         ND         ND         46.2           MW-20         12/17/97         30 - 32         ND         ND         ND         ND         ND         ND         ND         ND         27.7           MW-21         12/18/97         52 - 54         ND         ND <td>B-9</td> <td>01/06/98</td> <td>52 - 54</td> <td>4.11</td> <td>0.88</td> <td>39.70</td> <td>58.60</td> <td>103.29</td> <td>3,030</td>	B-9	01/06/98	52 - 54	4.11	0.88	39.70	58.60	103.29	3,030
MW-17         12/16/97         49 - 51         0.238         5.800         9.600         15.360         30.998         954 (251*)           MW-17         12/16/97         51 - 53         0.028         ND         0.132         0.261         0.421         126 (52.6*)           MW-18         12/16/97         20 - 21.5         ND         ND         ND         ND         ND         ND         A8.8           MW-18         12/16/97         52 - 54         ND         ND         ND         ND         ND         ND         ND         26.5           MW-19         12/17/97         10 - 12         ND         ND         ND         ND         ND         ND         36.7           MW-19         12/17/97         52 - 54         ND         ND         ND         ND         ND         36.7           MW-19         12/17/97         30 - 32         ND         ND         ND         ND         ND         ND         46.2           MW-20         12/17/97         30 - 32         ND         ND         ND         ND         ND         ND         ND         ND         27.7           MW-21         12/18/97         52 - 54         ND         ND <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
MW-17         12/16/97         51 - 53         0.028         ND         0.132         0.261         0.421         126 (52.6°)           MW-18         12/16/97         20 - 21.5         ND         ND         ND         ND         ND         ND         48.8           MW-18         12/16/97         52 - 54         ND         ND         ND         ND         ND         ND         ND         26.5           MW-19         12/17/97         10 - 12         ND         ND         ND         ND         ND         ND         36.7           MW-19         12/17/97         52 - 54         ND         ND         ND         ND         ND         ND         36.7           MW-20         12/17/97         30 - 32         ND         ND         ND         ND         ND         ND         ND         42.4           MW-20         12/17/97         52 - 54         ND         ND         ND         ND         ND         ND         ND         27.7           MW-21         12/18/97         52 - 53         ND         ND         ND         ND         ND         ND         ND         ND         34.3           MW-22         12/18/97	MW-17	12/16/97	35 - 37		0.778	4.720	8.500	14.027	810 (165*)
MW-18         12/16/97         20 - 21.5         ND         ND         ND         ND         ND         ND         A8.8           MW-18         12/16/97         52 - 54         ND         ND         ND         ND         ND         ND         ND         ND         26.5           MW-19         12/17/97         10 - 12         ND         ND         ND         ND         ND         ND         36.7           MW-19         12/17/97         52 - 54         ND         ND         ND         ND         ND         ND         36.7           MW-20         12/17/97         30 - 32         ND         ND         ND         ND         ND         ND         ND         A42.4           MW-20         12/17/97         52 - 54         ND         ND         ND         ND         ND         ND         ND         29.1           MW-21         12/18/97         52 - 53         ND         ND         ND         ND         ND         ND         ND         34.3           MW-22         12/18/97         52 - 54         ND         N	MW-17	12/16/97		0.238			15.360	30.998	954 (251*)
MW-18         12/16/97         52 - 54         ND         ND         ND         ND         ND         26.5           MW-19         12/17/97         10 - 12         ND         ND         ND         ND         ND         ND         36.7           MW-19         12/17/97         52 - 54         ND         ND <td< td=""><td>MW-17</td><td>12/16/97</td><td>51 - 53</td><td>0.028</td><td>ND</td><td>0.132</td><td>0.261</td><td>0.421</td><td>126 (52.6*)</td></td<>	MW-17	12/16/97	51 - 53	0.028	ND	0.132	0.261	0.421	126 (52.6*)
MW-18         12/16/97         52 - 54         ND         ND         ND         ND         ND         26.5           MW-19         12/17/97         10 - 12         ND         ND         ND         ND         ND         ND         36.7           MW-19         12/17/97         52 - 54         ND         ND <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>									
MW-19         12/17/97         10 - 12         ND         ND         ND         ND         ND         36.7           MW-19         12/17/97         52 - 54         ND         ND         ND         0.026         0.128         0.154         46.2           MW-20         12/17/97         30 - 32         ND	MW-18	12/16/97	20 - 21.5		ND	ND	ND		
MW-19         12/17/97         52 - 54         ND         ND         0.026         0.128         0.154         46.2           MW-20         12/17/97         30 - 32         ND         ND         ND         ND         ND         42.4           MW-20         12/17/97         52 - 54         ND         ND         ND         ND         ND         ND         27.7           MW-21         12/18/97         52 - 53         ND         ND         ND         ND         ND         ND         29.1           MW-22         12/18/97         5 - 7         ND         ND         ND         ND         ND         ND         34.3           MW-22         12/18/97         52 - 54         ND         ND         ND         ND         ND         ND         ND         31.9           MW-23         12/19/97         20 - 22         ND         ND         ND         ND         ND         ND         ND         ND         36.6           MW-23         12/19/97         52 - 54         ND         ND         ND         ND         ND         ND         33.4           MW-24         12/19/97         40 - 42         1.10         18.00         <	MW-18	12/16/97	52 - 54	ND	ND	ND	ND	NĐ	26.5
MW-19         12/17/97         52 - 54         ND         ND         0.026         0.128         0.154         46.2           MW-20         12/17/97         30 - 32         ND         ND         ND         ND         ND         42.4           MW-20         12/17/97         52 - 54         ND         ND         ND         ND         ND         ND         27.7           MW-21         12/18/97         52 - 53         ND         ND         ND         ND         ND         ND         29.1           MW-22         12/18/97         5 - 7         ND         ND         ND         ND         ND         ND         34.3           MW-22         12/18/97         52 - 54         ND         ND         ND         ND         ND         ND         ND         31.9           MW-23         12/19/97         20 - 22         ND         ND         ND         ND         ND         ND         ND         ND         36.6           MW-23         12/19/97         52 - 54         ND         ND         ND         ND         ND         ND         33.4           MW-24         12/19/97         40 - 42         1.10         18.00         <									
MW-20         12/17/97         30 - 32         ND         ND         ND         ND         ND         A42.4           MW-20         12/17/97         52 - 54         ND         ND         ND         ND         ND         ND         27.7           MW-21         12/18/97         52 - 53         ND         ND         ND         ND         ND         ND         29.1           MW-22         12/18/97         5 - 7         ND         ND         ND         ND         ND         ND         34.3           MW-22         12/18/97         52 - 54         ND         ND         ND         ND         ND         ND         31.9           MW-23         12/19/97         20 - 22         ND         ND         ND         ND         ND         ND         ND         ND         36.6           MW-23         12/19/97         52 - 54         ND         ND         ND         ND         ND         ND         ND         21.6           MW-24         12/19/97         40 - 42         1.10         18.00         31.60         48.00         98.70         2,030           MW-24         12/19/97         52 - 54         ND         ND									
MW-20         12/17/97         52 - 54         ND         ND         ND         ND         ND         27.7           MW-21         12/18/97         52 - 53         ND         ND         ND         ND         ND         ND         29.1           MW-22         12/18/97         5 - 7         ND         ND         ND         ND         ND         ND         ND         34.3           MW-22         12/18/97         52 - 54         ND         ND         ND         ND         ND         ND         31.9           MW-23         12/19/97         20 - 22         ND         ND         ND         ND         ND         ND         ND         36.6           MW-23         12/19/97         52 - 54         ND         ND         ND         ND         ND         ND         ND         ND         33.4           MW-24         12/19/97         40 - 42         1.10         18.00         31.60         48.00         98.70         2,030           MW-24         12/19/97         52 - 54         ND         ND         ND         ND         ND         ND         ND         71.5           MW-25         12/22/97         30 - 32	MW-19	12/17/97	52 - 54	ND	ND	0.026	0.128	0.154	46.2
MW-20         12/17/97         52 - 54         ND         ND         ND         ND         ND         27.7           MW-21         12/18/97         52 - 53         ND         ND         ND         ND         ND         ND         29.1           MW-22         12/18/97         5 - 7         ND         ND         ND         ND         ND         ND         ND         34.3           MW-22         12/18/97         52 - 54         ND         ND         ND         ND         ND         ND         31.9           MW-23         12/19/97         20 - 22         ND         ND         ND         ND         ND         ND         ND         36.6           MW-23         12/19/97         52 - 54         ND         ND         ND         ND         ND         ND         ND         ND         33.4           MW-24         12/19/97         40 - 42         1.10         18.00         31.60         48.00         98.70         2,030           MW-24         12/19/97         52 - 54         ND         ND         ND         ND         ND         ND         ND         71.5           MW-25         12/22/97         30 - 32									
MW-21         12/18/97         52 - 53         ND         ND         ND         ND         ND         29.1           MW-22         12/18/97         5 - 7         ND         ND         ND         ND         ND         ND         34.3           MW-22         12/18/97         52 - 54         ND         ND         ND         ND         ND         ND         ND         31.9           MW-23         12/19/97         20 - 22         ND         ND         ND         ND         ND         ND         ND         36.6           MW-23         12/19/97         52 - 54         ND         ND         ND         ND         ND         ND         ND         21.6           MW-24         12/19/97         10 - 12         ND         ND         ND         ND         ND         ND         98.70         2,030           MW-24         12/19/97         52 - 54         ND         ND         ND         ND         ND         ND         ND         71.5           MW-25         12/22/97         30 - 32         ND         ND         ND         ND         ND         ND         46.4									
MW-22         12/18/97         5 - 7         ND         ND         ND         ND         ND         34.3           MW-22         12/18/97         52 - 54         ND         ND         ND         ND         ND         ND         31.9           MW-23         12/19/97         20 - 22         ND         ND         ND         ND         ND         ND         ND         36.6           MW-23         12/19/97         52 - 54         ND         ND         ND         ND         ND         ND         ND         ND         21.6           MW-24         12/19/97         10 - 12         ND         ND         ND         ND         ND         ND         33.4           MW-24         12/19/97         40 - 42         1.10         18.00         31.60         48.00         98.70         2,030           MW-24         12/19/97         52 - 54         ND         ND         ND         ND         ND         ND         ND         ND         71.5           MW-25         12/22/97         30 - 32         ND         ND         ND         ND         ND         ND         ND         46.4	MW-20	12/17/97	52 - 54	ND	ND	ND	ND	ND	27.7
MW-22         12/18/97         5 - 7         ND         ND         ND         ND         ND         34.3           MW-22         12/18/97         52 - 54         ND         ND         ND         ND         ND         ND         31.9           MW-23         12/19/97         20 - 22         ND         ND         ND         ND         ND         ND         ND         36.6           MW-23         12/19/97         52 - 54         ND         ND         ND         ND         ND         ND         ND         ND         21.6           MW-24         12/19/97         10 - 12         ND         ND         ND         ND         ND         ND         33.4           MW-24         12/19/97         40 - 42         1.10         18.00         31.60         48.00         98.70         2,030           MW-24         12/19/97         52 - 54         ND         ND         ND         ND         ND         ND         ND         ND         71.5           MW-25         12/22/97         30 - 32         ND         ND         ND         ND         ND         ND         ND         46.4	<u> </u>								
MW-22         12/18/97         52 - 54         ND         ND         ND         ND         ND         ND         31.9           MW-23         12/19/97         20 - 22         ND	MW-21	12/18/97	52 - 53	ND	ND	ND	ND	ND	29.1
MW-22         12/18/97         52 - 54         ND         ND         ND         ND         ND         ND         31.9           MW-23         12/19/97         20 - 22         ND	ļ					····			
MW-23         12/19/97         20 - 22         ND         ND         ND         ND         ND         36.6           MW-23         12/19/97         52 - 54         ND         ND         ND         ND         ND         ND         ND         21.6           MW-24         12/19/97         10 - 12         ND         ND         ND         ND         ND         ND         33.4           MW-24         12/19/97         40 - 42         1.10         18.00         31.60         48.00         98.70         2,030           MW-24         12/19/97         52 - 54         ND         ND         ND         ND         ND         ND         71.5           MW-25         12/22/97         30 - 32         ND         ND         ND         ND         ND         ND         46.4	· · · · · · · · · · · · · · · · · · ·								
MW-23         12/19/97         52 - 54         ND         ND         ND         ND         ND         ND         21.6           MW-24         12/19/97         10 - 12         ND         ND         ND         ND         ND         ND         33.4           MW-24         12/19/97         40 - 42         1.10         18.00         31.60         48.00         98.70         2,030           MW-24         12/19/97         52 - 54         ND         ND         ND         ND         ND         ND         71.5           MW-25         12/22/97         30 - 32         ND         ND         ND         ND         ND         ND         46.4	MW-22	12/18/97	52 - 54	ND	ND	טא	ND	ND	31.9
MW-23         12/19/97         52 - 54         ND         ND         ND         ND         ND         ND         21.6           MW-24         12/19/97         10 - 12         ND         ND         ND         ND         ND         ND         33.4           MW-24         12/19/97         40 - 42         1.10         18.00         31.60         48.00         98.70         2,030           MW-24         12/19/97         52 - 54         ND         ND         ND         ND         ND         ND         71.5           MW-25         12/22/97         30 - 32         ND         ND         ND         ND         ND         ND         46.4	1001.00	40/40/07	00 00	- 15	ND	ND	ND	ND	20.0
MW-24     12/19/97     10 - 12     ND     ND     ND     ND     ND     ND     33.4       MW-24     12/19/97     40 - 42     1.10     18.00     31.60     48.00     98.70     2,030       MW-24     12/19/97     52 - 54     ND     ND     ND     ND     ND     ND     71.5       MW-25     12/22/97     30 - 32     ND     ND     ND     ND     ND     ND     46.4									
MW-24         12/19/97         40 - 42         1.10         18.00         31.60         48.00         98.70         2,030           MW-24         12/19/97         52 - 54         ND         ND         ND         ND         ND         ND         71.5           MW-25         12/22/97         30 - 32         ND         ND         ND         ND         ND         ND         46.4	MVV-23	12/19/97	52 - 54		ND	ND	ND	ND	21.6
MW-24         12/19/97         40 - 42         1.10         18.00         31.60         48.00         98.70         2,030           MW-24         12/19/97         52 - 54         ND         ND         ND         ND         ND         ND         71.5           MW-25         12/22/97         30 - 32         ND         ND         ND         ND         ND         ND         46.4	100/04	40/40/07	40 40	ND	NC.	ND	NE	NO	20.4
MW-24 12/19/97 52 - 54 ND ND ND ND ND 71.5  MW-25 12/22/97 30 - 32 ND ND ND ND ND ND 46.4	11-								
MW-25 12/22/97 30 - 32 ND ND ND ND ND ND 46.4	1)			-					<del></del>
	IVIVV-24	12/19/97	52 <b>-</b> 54	טא	מא	טא	ND	ND	/1.5
	NAV 25	12/22/07	20 22	NO	ND	ND	NID	ND	46.4
MIVV-20   12/22/91   02 - 04   NU   NU   NU   NU   NU   NU   33.8	1								
	IVIVV-25	12/22/97	5∠ - 54	טא	שוי	טאו	טאו	עא	33.8

<sup>\*</sup>Indicates that the TPH results in parenthesis is TPH Gasoline Range Organics (GRO).

### **TABLE II**

## SUMMARY OF SOIL LABORATORY RESULTS - SPLP VOC, SVOC, AND TPH TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11 LEA COUNTY, NEW MEXICO

CONSTITUENT	LABORATORY	RESULT (mg/kg)
Well or Boring ID	MW-24	B-9
Sample Date	12/19/97	12/19/97
Sample Depth (feet)	40-42	52-54
SPLP VOC		
Ethylbenzene	0.610	0.741
Isopropylbenzene	0.068	0.066
Naphthalene	0.073	0.055
Toluene	0.226	ND
1, 2, 4 Trimethylbenzene	0.235	0.131
1, 3, 5 Trimethylbenzene	0.055	0.050
m,p Xylenes	0.615	0.557
n Propylbenzene	0.111	0.090
o Xylene	0.281	0.296
Trichlorofluoromethane	ND	0.864*
SPLP SVOC		
2 Methylnaphthalene	0.024	0.044
Naphthalene	0.019	0.048
bis [2-Ethylhexyl] phthalate	ND	0.028
SPLP TPH	34.3	20.60

<sup>\*</sup> Result is beyond calibration limits.

## SUMMARY OF GROUND WATER LABORATORY RESULTS - BTEX TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11 LEA COUNTY, NEW MEXICO

MONITORING	SAMPLE	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES	BTEX
WELL	DATE	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)
MW-9	04/10/92	5.270	4.650	1.380	1.660	12.960
MW-9	10/15/96	4.224	0.056	1.252	0.865	6.397
MW-9	05/01/97	6.180	0.019	2.056	1.383	9.638
MW-9	08/28/97	2.930	ND	0.930	0.360	4.220
MW-9	11/17/97	2.5	0.2	0.7	0.5	3.9
MW-9	01/22/98	1.692	0.015	0.836	0.523	3.066
MW-10	05/01/97	0.184	0.292	0.124	0.180	0.776
MW-10	08/28/97	0.123	0.146	0.162	0.158	0.589
MW-10	11/17/97	0.143	0.203	0.165	0.153	0.664
MW-11	05/01/97	1.177	ND	0.011	0.027	1.215
MW-11	08/28/97	2.74	ND	0.11	0.04	2.89
MW-11	11/17/97	3.32	ND	ND	ND	3.32
MW-11	01/21/98	2.116	ND	0.004	ND	2.120
MW-12	05/01/97	ND	0.003	0.001	0.027	0.031
MW-12	08/28/97	0.099	0.032	0.030	0.043	0.204
MW-12	11/17/97	0.237	0.088	0.047	0.106	0.478
MW-12	01/22/98	0.173	ND	0.035	0.021	0.229
MW-13	05/01/97	ND	ND	ND	ND	ND
MW-13	08/28/97	ND	ND	ND	ND	ND
MW-13	11/17/97	ND	ND	ND	ND	ND
MW-13	01/22/98	ND	ND	ND	ND	ND
MW-14	05/01/97	9.639	2.414	2.626	2.769	17.448
MW-14	08/28/97	8.62	2.04	1.91	2.04	14.61
MVV-14	11/17/97	7.76	2.36	ND	1.67	11.79
MW-14	01/22/98	11.2	1.5	2.4	1.6	16.7
	L					
MW-15	05/01/97	0.004	0.002	0.002	0.003	0.011
MW-15	08/28/97	0.441	ND	ND	ND	0.441
MW-15	11/17/97	0.063	ND	ND	ND	0.063
MW-15	01/22/98	0.237	ND	ND	ND	0.237
MW-16	05/01/97	0.101	0.090	0.015	0.012	0.218
MW-16	08/28/97	0.112	0.119	0.060	0.036	0.327
MW-16	11/17/97	0.053	0.061	0.021	0.035	0.170
MW-16	01/22/98	ND	ND	ND	ND	ND

## SUMMARY OF GROUND WATER LABORATORY RESULTS - BTEX TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11 LEA COUNTY, NEW MEXICO

MONITORING WELL	SAMPLE DATE	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES	BTEX
VVELL	DATE	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)
MW-17	01/21/98	0.158	0.156	0.026	0.040	0.380
MW-18	01/21/98	ND	ND	ND	ND	ND
MW-19	01/21/98	ND	ND	ND	ND	ND
MW-20	01/22/98	ND	ND	ND	ND	ND
MW-21	01/22/98	0.932	ND	ND	ND	0.932
10100-21	01/22/00	0.002	110	110		0.002
MW-22	01/22/98	ND	ND	ND	ND	ND
10100-22	01/22/30	ND	140	110		110
MW-23	01/22/98	ND	ND	ND	ND	ND
10100-25	01/22/90	ND	ND	ND	מאו	שוו
MW-24	01/22/98	1.40	0.23	0.15	0.11	1.890
10100-24	01/22/90	1.40	0.23	0.13	0.11	1.090
NAVA 25	01/22/98	ND	ND	ND	ND	ND
MW-25	01/22/98	אט	טאו	טא	טא	טא
B)A(4	40/45/00	0.007	ND	ND	ND	0.007
PW-1	10/15/96	0.007	ND	ND	ND	0.007
PW-2	05/07/92	0.048	0.054	0.022	0.024	0.148
PW-2	10/15/96	ND	0.001	0.001	0.013	0.015

### **TABLE IV**

# MONITORING WELL MW-1 SUMMARY OF GROUND WATER MONITORING TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11 LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION Actual Corrected		PSH THICKNESS (feet)
05/06/92	3847.61	55.37	3792.24		
07/13/92	3847.61	55.93	3791.68		
05/01/97	3859.20	55.20	3804.00		
08/27/97	3859.20	55.28	3803.92	****	
10/16/97	3859.20	56.55	3802.65		
10/17/97	3859.20	56.64	3802.56		
10/18/97	3859.20	56.72	3802.48		
10/19/97	3859.20	56.79	3802.41		
10/20/97	3859.20	56.87	3802.33		
10/22/97	3859.20	57.00	3802.20		
10/29/97	3859.20	57.11	3802.09		***
11/05/97	3859.20	56.77	3802.43		
11/12/97	3859.20	57.00	3802.20		
11/17/97	3859.20	57.33	3801.87		
11/19/97	3859.20	57.34	3801.86		
12/08/97	3859.20	57.59	3801.61		
01/07/98	3859.20	56.81	3802.39		
01/21/98	3859.08	57.69	3801.39		

# MONITORING WELL MW-2 SUMMARY OF GROUND WATER MONITORING TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11 LEA COUNTY, NEW MEXICO

DATE	PVC ELEVATION	DEPTH TO WATER	GROUND WATER ELEVATION		PSH THICKNESS
MEASURED	(feet)	(feet)	Actual	Corrected	(feet)
05/06/92	3848.68	56.06	3792.62		
07/13/92	3848.68	56.43	3792.25		
05/01/97	3860.90	55.85	3805.05		
08/27/97	3860.90	56.22	3804.68		
10/16/97	3860.90	56.80	3804.10		
10/17/97	3860.90	56.86	3804.04		
10/18/97	3860.90	56.93	3803.97		
10/19/97	3860.90	56.98	3803.92		
10/20/97	3860.90	57.04	3803.86		
10/22/97	3860.90	57.11	3803.79		
10/29/97	3860.90	57.21	3803.69		
11/05/97	3860.90	57.01	3803.89		
11/12/97	3860.90	57.16	3803.74		
11/17/97	3860.90	57.64	3803.26		
11/19/97	3860.90	57.66	3803.24		
12/08/97	3860.90	57.69	3803.21		
01/07/98	3860.90	57.36	3803.54		
01/21/98	3860.76	57.84	3802.92		

# MONITORING WELL MW-3 SUMMARY OF GROUND WATER MONITORING TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11 LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION Actual Corrected		PSH THICKNESS (feet)
05/06/92	3849.23	56.48	3792.75		
07/13/92	3849.23	56.86	3792.37		
05/01/97	3861.30	56.28	3805.02		
08/27/97	3861.30	56.57	3804.73		
10/16/97	3861.30	57.30	3804.00		
10/17/97	3861.30	57.36	3803.94		
10/18/97	3861.30	57.42	3803.88		
10/19/97	3861.30	57.48	3803.82		
10/20/97	3861.30	57.53	3803.77		
10/22/97	3861.30	57.63	3803.67		
10/29/97	3861.30	57.72	3803.58		
11/05/97	3861.30	57.48	3803.82		
11/12/97	3861.30	57.64	3803.66		
11/17/97	3861.30	58.07	3803.23		
11/19/97	3861.30	58.07	3803.23		
12/08/97	3861.30	58.25	3803.05		
01/07/98	3861.30	57.79	3803.51		
01/21/98	3861.15	58.34	3802.81		

# MONITORING WELL MW-4 SUMMARY OF GROUND WATER MONITORING TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11 LEA COUNTY, NEW MEXICO

DATE	PVC ELEVATION	DEPTH TO WATER	GROUND WATER ELEVATION		PSH THICKNESS
MEASURED	(feet)	(feet)	Actual	Corrected	(feet)
05/06/92	3847.58	55.36	3792.22	****	
07/13/92	3847.58	55.83	3791.75		
05/01/97	3859.40	55.27	3804.13		
08/27/97	3859.40	55.44	3803.96		
10/16/97	3859.40	57.44	3801.96		
10/17/97	3859.40	57.54	3801.86		
10/18/97	3859.40	57.59	3801.81		
10/19/97	3859.40	57.69	3801.71		
10/20/97	3859.40	57.75	3801.65		
10/22/97	3859.40	57.86	3801.54		
10/29/97	3859.40	57.93	3801.47		*****
11/05/97	3859.40	57.28	3802.12		
11/12/97	3859.40	57.72	3801.68		
11/17/97	3859.40	58.05	3801.35		
11/19/97	3859.40	58.06	3801.34		
12/08/97	3859.40	58.22	3801.18		
01/07/98	3859.40	57.15	3802.25		***
01/21/98	3859.62	56.38	3803.24		

# MONITORING WELL MW-5 SUMMARY OF GROUND WATER MONITORING TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11 LEA COUNTY, NEW MEXICO

DATE	PVC ELEVATION	DEPTH TO WATER	GROUND WATER ELEVATION		PSH THICKNESS
MEASURED	(feet)	(feet)	Actual	Corrected	(feet)
07/13/92	Unknown	26.48	NA		

# MONITORING WELL MW-6 SUMMARY OF GROUND WATER MONITORING TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11

DATE	PVC ELEVATION	DEPTH TO WATER	l.	WATER ATION	PSH THICKNESS
MEASURED	(feet)	(feet)	Actual	Corrected	(feet)
05/06/92	3850.28	55.78	3794.50		
07/13/92	3850.28	56.23	3794.05		
05/01/97	3862.70	55.73	3806.97		
08/27/97	3862.70	55.84	3806.86		
10/16/97	3862.70	56.36	3806.34		•••
10/17/97	3862.70	56.43	3806.27	***	
10/18/97	3862.70	56.48	3806.22		
10/19/97	3862.70	56.56	3806.14		-
10/20/97	3862.70	56.61	3806.09		
10/22/97	3862.70	56.69	3806.01		
10/29/97	3862.70	56.84	3805.86		
11/05/97	3862.70	56.80	3805.90		
11/12/97	3862.70	56.87	3805.83		
11/17/97	3862.70	57.02	3805.68		
11/19/97	3862.70	57.05	3805.65		
12/08/97	3862.70	57.25	3805.45		
01/07/98	3862.70	57.23	3805.47	***	
01/22/98	3862.47	57.55	3804.92		

# MONITORING WELL MW-7 SUMMARY OF GROUND WATER MONITORING TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11 LEA COUNTY, NEW MEXICO

	PVC	DEPTH	GROUNI	WATER	PSH
DATE	ELEVATION	TO WATER	ELEV	ATION	THICKNESS
MEASURED	(feet)	(feet)	Actual	Corrected	(feet)
05/06/92	3847.13	55.65	3791.48		
07/13/92	3847.13	56.15	3790.98		
05/01/97	3859.40	55.45	3803.95		***
08/27/97	3859.40	55,55	3803.85		
10/16/97	3859.40	56.69	3802.71		
10/17/97	3859.40	56.78	3802.62		
10/18/97	3859.40	56.84	3802.56		
10/19/97	3859.40	56.91	3802.49		
10/20/97	3859.40	57.00	3802.40		
10/22/97	3859.40	57.10	3802.30		
10/29/97	3859.40	57.21	3802.19		<del></del>
11/05/97	3859.40	56.86	3802.54		
11/12/97	3859.40	57.06	3802.34		
11/17/97	3859.40	57.40	3802.00		
11/19/97	3859.40	57.42	3801.98		
12/08/97	3859.40	57.61	3801.79		
01/07/98	3859.40	57.12	3802.28		
01/21/98	3859.31	57.79	3801.52		

# MONITORING WELL MW-9 SUMMARY OF GROUND WATER MONITORING TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11 LEA COUNTY, NEW MEXICO

DATE	PVC   ELEVATION	DEPTH TO WATER		O WATER ATION	PSH THICKNESS
MEASURED	(feet)	(feet)	Actual	Corrected	(feet)
05/06/92	3856.60	54.69	3801.91		
07/13/92	3856.60	55.18	3801.42		
05/01/97	3862.10	54.74	3807.36		
08/27/97	3862.10	54.78	3807.32		
10/16/97	3862.10	56.70	3805.40		
10/17/97	3862.10	56.84	3805.26		
10/18/97	3862.10	56.96	3805.14		
10/19/97	3862.10	57.08	3805.02		
10/20/97	3862.10	57.13	3804.97		
10/22/97	3862.10	57.30	3804.80		
10/29/97	3862.10	57.40	3804.70		
11/05/97	3862.10	56.62	3805.48		
11/12/97	3862.10	57.18	3804.92		
11/17/97	3862.10	57.54	3804.56		***
11/19/97	3862.10	57.58	3804.52		
12/08/97	3862.10	57.70	3804.40		
01/07/98	3862.10	56.60	3805.50		
01/22/98	3861.88	57.88	3804.00		

# MONITORING WELL MW-10 SUMMARY OF GROUND WATER MONITORING TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11 LEA COUNTY, NEW MEXICO

	PVC	DEPTH	GROUNI	WATER	PSH
DATE	ELEVATION	TO WATER	ELEV.	ATION	THICKNESS
MEASURED	(feet)	(feet)	Actual	Corrected	(feet)
05/01/97	3860.60	56.96	3803.64		
08/27/97	3860.60	57.04	3803.56		
10/16/97	3860.60	57.61	3802.99		
10/17/97	3860.60	57.67	3802.93		
10/18/97	3860.60	57.73	3802.87		
10/19/97	3860.60	57.79	3802.81		
10/20/97	3860.60	57.86	3802.74		
10/22/97	3860.60	57.94	3802.66		
10/29/97	3860.60	58.04	3802.56		
11/05/97	3860.60	57.97	3802.63		
11/12/97	3860.60	58.04	3802.56		
11/17/97	3860.60	58.17	3802.43		
11/19/97	3860.60	58.42	3802.18		
12/08/97	3860.60	58.41	3802.19		
01/07/98	3860.60	58.43	3802.17		
01/21/98	3860.58	DRY			

### MONITORING WELL MW-11 SUMMARY OF GROUND WATER MONITORING TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11

DATE	PVC ELEVATION	DEPTH TO WATER	ELEV	O WATER ATION	PSH THICKNESS
MEASURED	(feet)	(feet)	Actual	Corrected	(feet)
05/01/97	3860.10	56.43	3803.67		
08/27/97	3860.10	56.49	3803.61		
10/16/97	3860.10	57.24	3802.86		
10/17/97	3860.10	57.38	3802.72		
10/18/97	3860.10	57.36	3802.74		
10/19/97	3860.10	57.42	3802.68	<b></b>	
10/20/97	3860.10	57.46	3802.64	****	
10/22/97	3860.10	57.56	3802.54		
11/05/97	3860.10	57.49	3802.61		
11/12/97	3860.10	57.62	3802.48		
11/17/97	3860.10	57.74	3802.36		
11/19/97	3860.10	57.91	3802.19		
12/08/97	3860.10	57.95	3802.15		
01/07/98	3860.10	57.86	3802.24		
01/21/98	3860.00	58.25	3801.75		

## MONITORING WELL MW-12 SUMMARY OF GROUND WATER MONITORING TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11 LEA COUNTY, NEW MEXICO

DATE	PVC ELEVATION	DEPTH TO WATER		O WATER ATION	PSH THICKNESS
MEASURED	(feet)	(feet)	Actual	Corrected	(feet)
05/01/97	3863.20	56.91	3806.29		
08/27/97	3863.20	56.98	3806.22		
10/16/97	3863.20	57.42	3805.78		
10/17/97	3863.20	57.48	3805.72		
10/18/97	3863.20	57.54	3805.66		
10/19/97	3863.20	57.59	3805.61		
10/20/97	3863.20	57.60	3805.60		
10/22/97	3863.20	57.65	3805.55		•••
10/29/97	3863.20	57.74	3805.46		
11/05/97	3863.20	57.75	3805.45		
11/12/97	3863.20	57.82	3805.38		
11/17/97	3863.20	57.89	3805.31		
11/19/97	3863.20	58.24	3804.96		
12/08/97	3863.20	58.14	3805.06		
01/07/98	3863.20	58.20	3805.00		
01/21/98	3863.10	58.44	3804.66		

# MONITORING WELL MW-13 SUMMARY OF GROUND WATER MONITORING TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11

	PVC	DEPTH	GROUNI	WATER	PSH
DATE	ELEVATION	TO WATER	ELEVATION		THICKNESS
MEASURED	(feet)	(feet)	Actual	Corrected	(feet)
05/01/97	3862.60	55.23	3807.37		
08/27/97	3862.60	55.32	3807.28		
10/16/97	3862.60	55.75	3806.85		
10/17/97	3862.60	55.82	3806.78		
10/18/97	3862.60	55.88	3806.72		
10/19/97	3862.60	55.96	3806.64		
10/20/97	3862.60	55.96	3806.64		
10/22/97	3862.60	56.03	3806.57		
10/29/97	3862.60	56.10	3806.50		
11/05/97	3862.60	56.11	3806.49		
11/12/97	3862.60	56.17	3806.43		
11/17/97	3862.60	56.22	3806.38		
11/19/97	3862.60	56.38	3806.22		
12/08/97	3862.60	56.55	3806.05		
01/07/98	3862.60	56.56	3806.04		
01/22/98	3862.44	56.82	3805.62		

### MONITORING WELL MW-14 SUMMARY OF GROUND WATER MONITORING TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11

	PVC	DEPTH	GROUNI	WATER	PSH
DATE	ELEVATION	TO WATER	ELEV	ATION	THICKNESS
MEASURED	(feet)	(feet)	Actual	Corrected	(feet)
				·	
05/01/97	3863.10	56.40	3806.70		
08/27/97	3863.10	56.50	3806.60		
10/16/97	3863.10	57.34	3805.76		
10/17/97	3863.10	57.39	3805.71		
10/18/97	3863.10	57.48	3805.62		
10/19/97	3863.10	57.56	3805.54		
10/20/97	3863.10	57.56	3805.54		
10/22/97	3863.10	57.63	3805.47		
10/29/97	3863.10	57.71	3805.39		
01/05/97	3863.10	57.42	3805.68		
11/12/97	3863.10	57.73	3805.37		
11/17/97	3863.10	57.83	3805.27		
12/08/97	3863.10	58.12	3804.98		
01/07/98	3863.10	57.73	3805.37		
01/22/98	3862.95	58.32	3804.63		

# MONITORING WELL MW-15 SUMMARY OF GROUND WATER MONITORING TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11

	PVC	DEPTH	GROUNI	PSH	
DATE	ELEVATION	TO WATER	ELEV.	ATION	THICKNESS
MEASURED	(feet)	(feet)	Actual	Corrected	(feet)
05/01/97	3861.90	55.57	3806.33		
08/27/97	3861.90	55.64	3806.26		
10/16/97	3861.90	56.04	3805.86		
10/17/97	3861.90	56.08	3805.82		
10/18/97	3861.90	56.13	3805.77		
10/19/97	3861.90	56.18	3805.72		
10/20/97	3861.90	56,15	3805.75		
10/22/97	3861.90	56.20	3805.70		
10/29/97	3861.90	56.26	3805.64		
11/05/97	3861.90	56.23	3805.67		
11/12/97	3861.90	56.32	3805.58		
11/17/97	3861.90	56.36	3805.54		
11/19/97	3861.90	56.66	3805.24		
12/05/97	3861.90	56.74	3805.16		
01/07/98	3861.90	56.69	3805.21		
01/22/98	3861.70	57.05	3804.65		

# MONITORING WELL MW-16 SUMMARY OF GROUND WATER MONITORING TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11 LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)		O WATER ATION Corrected	PSH THICKNESS (feet)
WEASONED	(reet)	(icci)	Aotuai	Corrected	(icci)
05/01/97	3863.40	55.30	3808.10		
08/27/97	3863.40	55.33	3808.07		
10/16/97	3863.40	55.91	3807.49		
10/17/97	3863.40	55.98	3807.42		
10/18/97	3863.40	56.06	3807.34		
10/19/97	3863.40	56.12	3807.28		
10/20/97	3863.40	56.14	3807.26		
10/22/97	3863.40	56.21	3807.19		
10/29/97	3863.40	56.29	3807.11		
11/05/97	3863.40	56.18	3807.22		
11/12/97	3863.40	56.30	3807.10		
11/17/97	3863.40	56.39	3807.01		
11/19/97	3863.40	56.65	3806.75		
12/08/97	3863.40	56.84	3806.56		
01/07/98	3863.40	56.61	3806.79		*****
01/22/98	3863.15	56.91	3806.24		

### MONITORING WELL MW-17 SUMMARY OF GROUND WATER MONITORING TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION Actual   Corrected		PSH THICKNESS (feet)
01/21/98	3859.17	58.43	3800.74		
0 1/2 1/90	3039.17	30.40	3000.74		

# MONITORING WELL MW-18 SUMMARY OF GROUND WATER MONITORING TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11 LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION Actual   Corrected		PSH THICKNESS (feet)
01/21/98	3859.98	58.19	3801.79		

# MONITORING WELL MW-19 SUMMARY OF GROUND WATER MONITORING TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11 LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)		D WATER ATION Corrected	PSH THICKNESS (feet)
01/22/98	3862.30	59.66	3802.64		
0,122,00					

## MONITORING WELL MW-20 SUMMARY OF GROUND WATER MONITORING TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11 LEA COUNTY, NEW MEXICO

DATE	PVC ELEVATION	DEPTH TO WATER		D WATER ATION	PSH THICKNESS
MEASURED	(feet)	(feet)	Actual	Corrected	(feet)
01/22/98	3861.30	58.73	3802.57		No. dan Mile

# MONITORING WELL MW-21 SUMMARY OF GROUND WATER MONITORING TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11 LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)		D WATER ATION Corrected	PSH THICKNESS (feet)
01/22/98	3862.30	59.05	3803.25		***

### MONITORING WELL MW-22 SUMMARY OF GROUND WATER MONITORING TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11 LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)		D WATER ATION Corrected	PSH THICKNESS (feet)
01/22/98	3864.01	57.32	3806.69		

# MONITORING WELL MW-23 SUMMARY OF GROUND WATER MONITORING TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)		D WATER ATION Corrected	PSH THICKNESS (feet)
01/22/98	3862.44	55.91	3806.53		

# MONITORING WELL MW-24 SUMMARY OF GROUND WATER MONITORING TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11 LEA COUNTY, NEW MEXICO

	PVC	DEPTH	GROUNI	WATER	PSH
DATE	ELEVATION	TO WATER	ELEV	ATION	THICKNESS
MEASURED	(feet)	(feet)	Actual	Corrected	(feet)
1					
01/22/98	3864.36	56.74	3807.62		

# MONITORING WELL MW-25 SUMMARY OF GROUND WATER MONITORING TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11 LEA COUNTY, NEW MEXICO

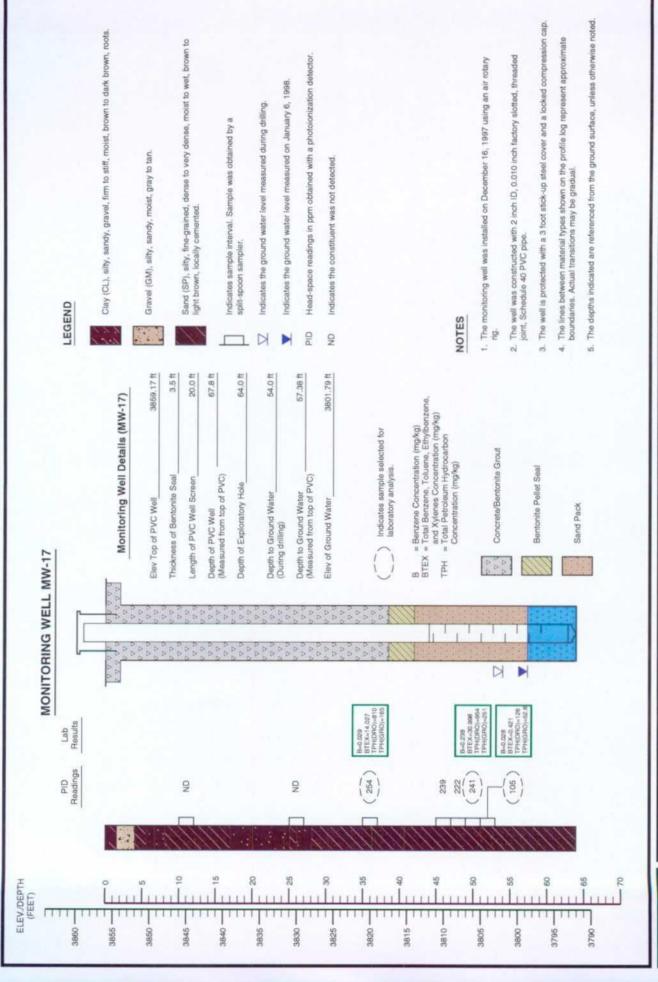
DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)		D WATER ATION Corrected	PSH THICKNESS (feet)
01/22/98	3864.16	55.33	3808.83		

# PUMPING WELL PW-1 SUMMARY OF GROUND WATER MONITORING TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11 LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)		D WATER ATION Corrected	PSH THICKNESS (feet)
05/06/92	3849.08	54.28	3794.80		
07/13/92	3849.08	54.46	3794.62		

# PUMPING WELL PW-1 SUMMARY OF GROUND WATER MONITORING TEXAS - NEW MEXICO PIPE LINE COMPANY SPS-11 LEA COUNTY, NEW MEXICO

DATE	PVC ELEVATION	DEPTH TO WATER		D WATER ATION	PSH THICKNESS
MEASURED	(feet)	(feet)_	Actual	Corrected	(feet)
05/06/92	3847.23	55.27	3791.96		
07/13/92	3847.23	55.76	3791.47		



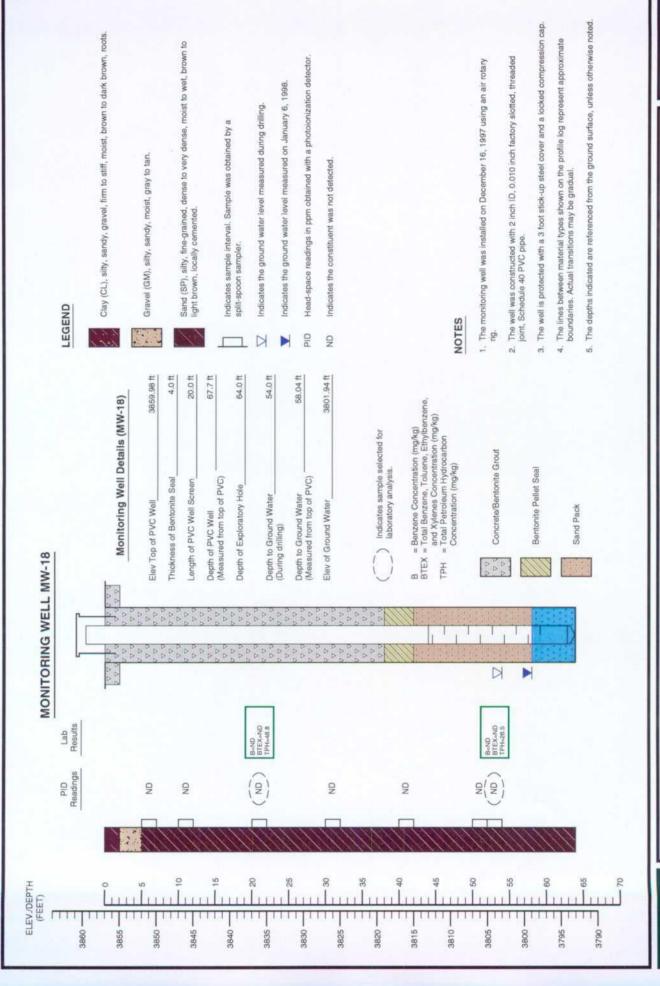
TNMPL

SPS-11

LEA COUNTY, NEW MEXICO

APPENDIX A

610099



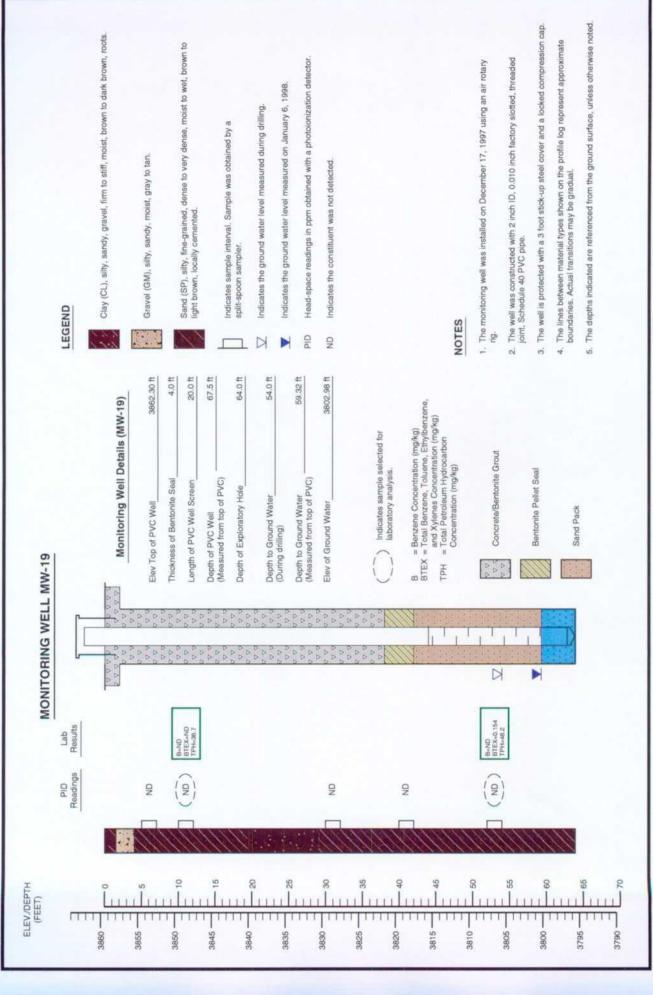
TNMPL

SPS-11

LEA COUNTY, NEW MEXICO

610099

APPENDIX A

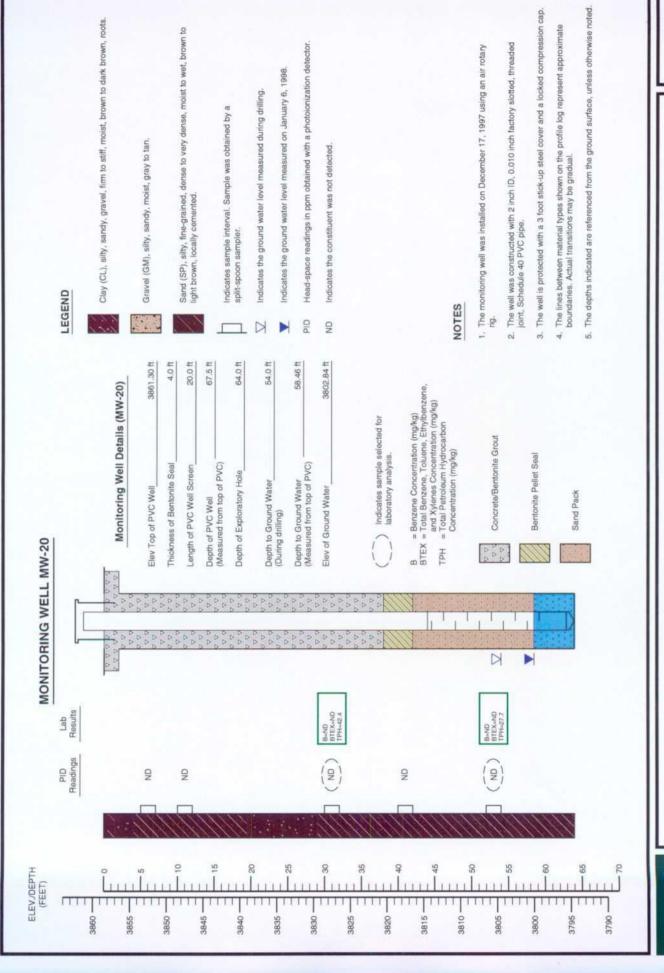


LEA COUNTY, NEW MEXICO

**SPS-11** 

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610099



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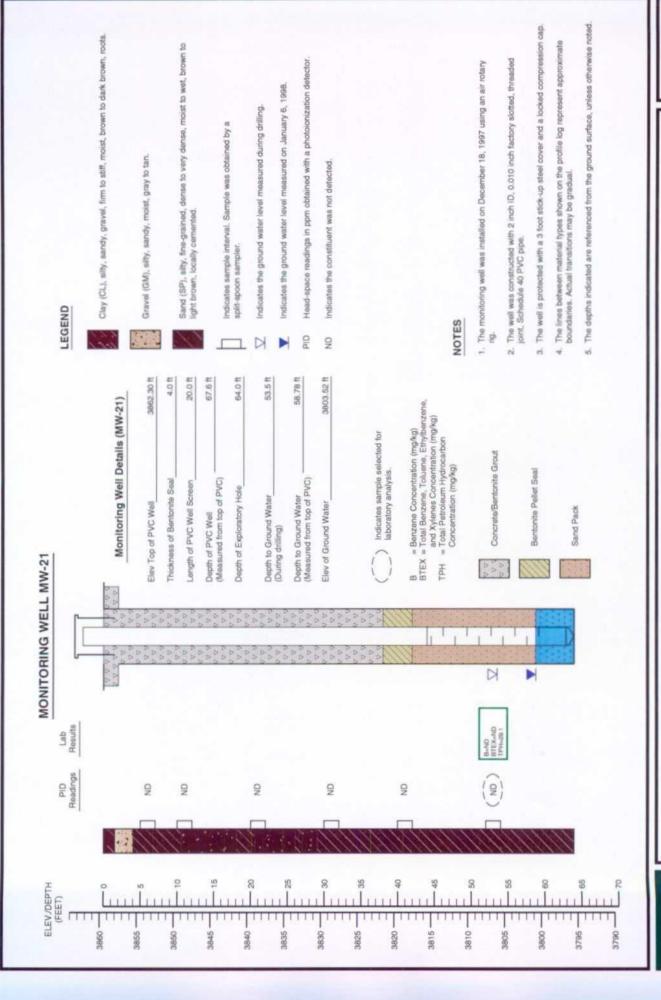
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LEA COUNTY, NEW MEXICO

APPENDIX A

610099



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**SPS-11** 

LEA COUNTY, NEW MEXICO

610099

APPENDIX A

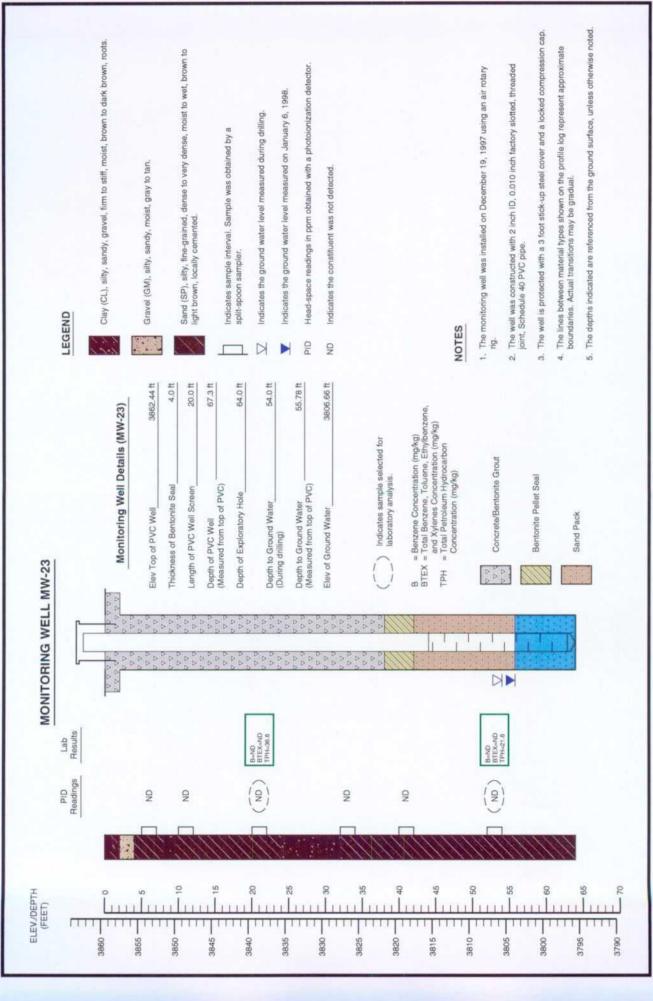
5. The depths indicated are referenced from the ground surface, unless otherwise noted, 3. The well is protected with a 3 foot stick-up steel cover and a locked compression cap. Clay (CL), silty, sandy, gravel, firm to stiff, moist, brown to dark brown, roots. 4. The lines between material types shown on the profile log represent approximate Sand (SP), silty, fine-grained, dense to very dense, moist to wet, brown to light brown, locally cemented. The well was constructed with 2 inch ID, 0.010 inch factory slotted, threaded joint, Schedule 40 PVC pipe. Head-space readings in ppm obtained with a photoionization detector. 1. The monitoring well was installed on December 18, 1997 using an air rotary Indicates the ground water level measured on January 6, 1998. Indicates the ground water level measured during drilling. Indicates sample interval. Sample was obtained by a Gravel (GM), silty, sandy, moist, gray to tan. Indicates the constituent was not detected. boundaries. Actual transitions may be gradual. split-spoon sampler. LEGEND NOTES 임 P 4.0 ft 20.0 ft 67.3 # 64.0 ft 54.0 ft 57.08 ft 3806.93 ft 3864.01 ft Monitoring Well Details (MW-22) B = Benzene Concentration (mg/kg) BTEX = Total Benzene, Cloluene, Ethylbenzene, and Xylenes Concentration (mg/kg) TPH = Total Petroleum Hydrocarbon Indicates sample selected for laboratory analysis. Concrete/Bentonite Grout Concentration (mg/kg) Bentonite Pellet Seal Thickness of Bentonite Seal Depth of PVC Well (Measured from top of PVC) (Measured from top of PVC) Length of PVC Well Screen Depth of Exploratory Hole Depth to Ground Water Depth to Ground Water Elev Top of PVC Well Elev of Ground Water Sand Pack (During drilling) **MONITORING WELL MW-22** D Lab Results B=ND BTEX=ND TPH=34.3 B-ND BTEX=ND TPH-31.9 PID Readings ON. (2) 2 9 9 9 ELEV./DEPTH 3850 3795 3860 3835 -3800 -3845 -3840 -3830 -3810 -3805 -3790 -3820 -3825

LOG AND DETAILS OF MONITORING WELL MW-22

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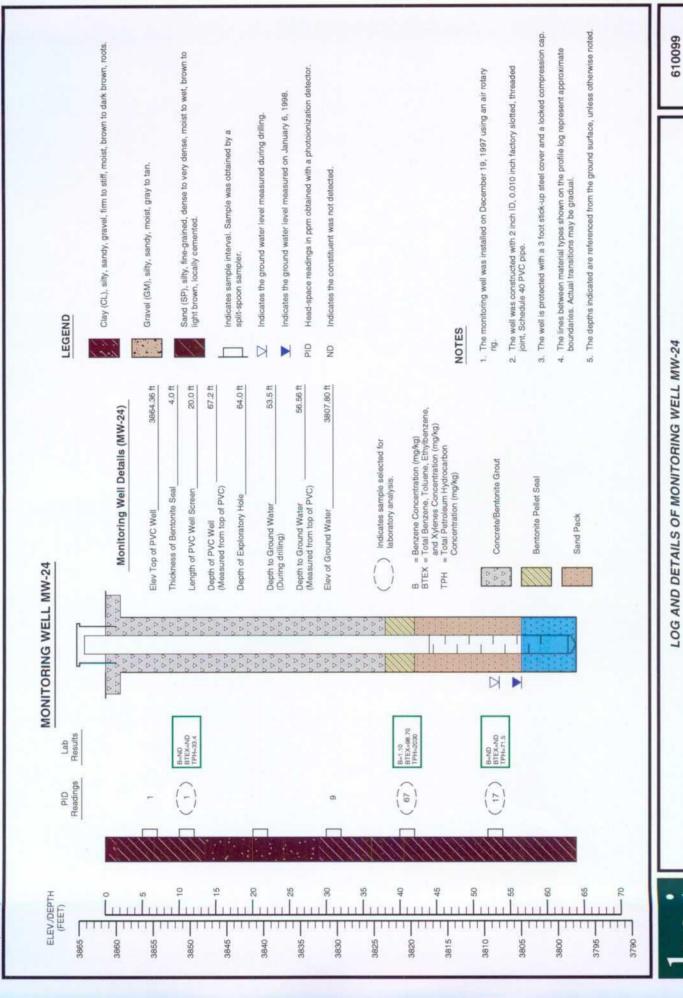
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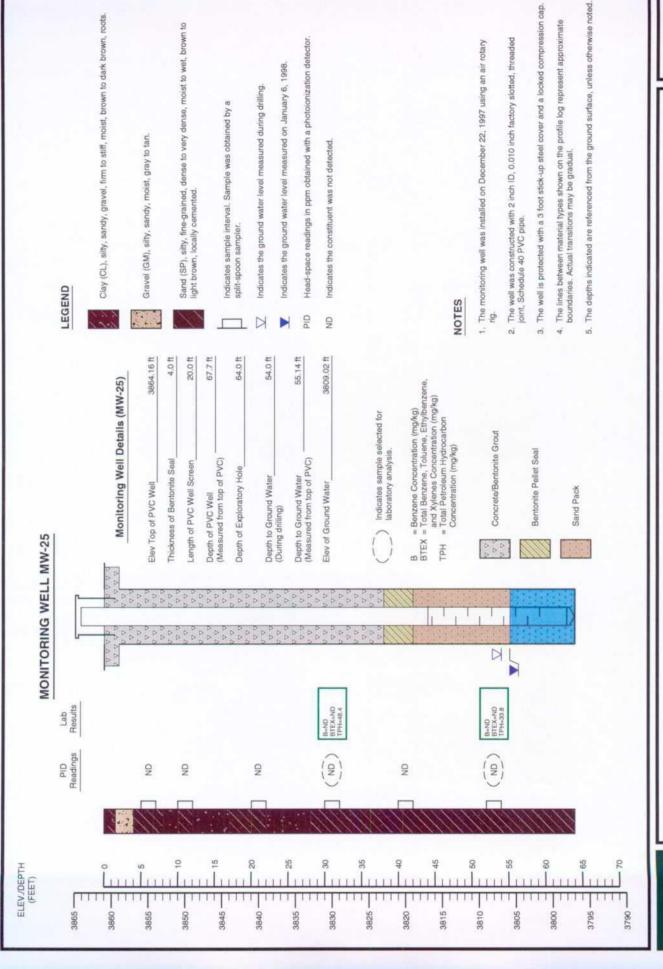
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LEA COUNTY, NEW MEXICO

610099 APPENDIX A

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# **ANALYTICAL REPORT 1-73428**

for

K.E.I. Consultants, Inc.

**Project Manager: Theresa Nix** 

**Project Name: TNMPL** 

**Project Id: 610099** 

January 9, 1998



HOUSTON - DALLAS - SAN ANTONIO



11381 Meadowgien Suite L Houston, Texas 77082-2647 (281) 589-0692 Fax: (281) 589-0695

Houston - Dallas - San Antonio

January 9, 1998

Project Manager: Theresa Nix K.E.I. Consultants, Inc. 5309 Wurzbach Rd. Suite 100 San Antonio, TX 78238

Reference:

XENCO Report No.: 1-73428

Project Name: TNMPL
Project ID: 610099
Project Address: SPS-11

Dear Theresa Nix:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with XENCO Chain of Custody Number 1-73428. All results being reported to you apply only to the samples analyzed, properly identified with a Laboratory ID number. This letter documents the official transmission of the contents of the report and validates the information contained within.

All the results for the quality control samples passed thorough examination. Also, all parameters for data reduction and validation checked satisfactorily. In view of this, we are able to release the analytical data for this report within acceptance criteria for accuracy, precision, and completeness.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 3 years in our archives and after that time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in COC No. 1-73428 will be filed for 60 days, and after that time they will be properly disposed of without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

XENCO Laboratories is accredited by the American Association for Laboratory Accreditation (A2LA) for technical competence in the field of Environmental Testing (Certificate No. 0343-01). In accordance with A2LA's guidelines, XENCO operates a Quality System that meets ISO/IEC Guide 25 requirements and is strictly implemented and enforced through our standard QA/QC procedures.

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

Sincerely,

Eddie Yonemoto, Ph.D. QA/QC Manager

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

Certified in California, Oklahoma, Kansas, Arkansas, and approved by numerous other States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY!

# OF ANALYSIS SUMMARY 1-73428 CERTIFICATE

Project ID: 610099

Project Manager: Theresa Nix Project Location: SPS-11

K.E.I. Consultants, Inc. Project Name: TNMPL

Date Received in Lab: Dec 23, 1997 15:45

XENCO contact: Carlos Castro/Edward Yonemoto Date Report Faxed: Jan 9, 1998

	lah ID:	173428 001	473430 000	,	200 001021					T
		100 024011	70 07450 1	<u>.</u>	173428 003	~	173428 004	173428 005	173428 006	_
	rieid ID:	/L-MW	MW-17		MW-17		MW-18	MW-18	WW-19	
Analysis Reguested	Depth:	35.0-37.0	49.0-51.0	_	51.0-53.0	-	20.0-21.5	52.0-54.0	10.0-12.0	_
naisanhau cic (iniii)	Matrix:	Solid	Solid	-	Solid		Solid	Solid	Solid	
	Sampled:	12/16/97	12/16/97	_	12/16/97		12/16/97	12/16/97	12/17/97	
TPH-DRO (Diesel)	Analyzed: 12/26/97	12/26/97	12/26/97	-	12/26/97	i	12/26/97	12/26/97	12/26/97	Τ
EPA 8015 M	Units:	Units: mg/kg	. mg/kg		mg/kg	Ä.	mg/kg K.L.	mg/kg R.L.		 
Total Petroleum Hydrocarbons		810 (10.0)	0) 954	(10.0)	126	(10.0)	48.8 (10.0)	0) 26.5 (10.0)	36.7 (10.0)	6
TPH-GRO (Gasoline)	Analyzed: 12/26/97	12/26/97	12/26/97	0	12/26/97	-				Τ
	Units:	Units: mg/kg	. mg/kg		mg/kg	٦. ٢				
Total Petroleum Hydrocarbons		165 (1.0)	0) 251	(1.0)	52.6	(1.0)				
втех	Analyzed: 12/26/97		12/26/97	-	12/26/97	1	12/26/97	12/26/97	12/26/97	Т
EPA 8020	Units: ppm	ppm h.L.	mdd .	٦. ۲.	mdd	i Y	Ppm R.L.	ppm	mdd	R.I.
Benzene		0.029 (0.020)		0.238 (0.020)	0.028 (0.020)	(0.020)	< 0.020 (0.020)	(0.020) < 0.020	< 0.020 (0.020)	100
Toluene		0.778 (0.020)		5.800 (0.020)	< 0.020 (0.020)	(0.020)	< 0.020 (0.020)	0) < 0.020 (0.020)		3
Ethylbenzene		4.720 (0.020)		9.600 (0.020)	0.132 (0.020)	(0.020)	< 0.020 (0.020)	(0.020 (0.020)		50
m.p-Xylenes		5.940 (0.040)		10.860 (0.040)	0.152 (0.040)	(0.040)	< 0.040 (0.040)			. 6
o-Xylene ·		2.560 (0.020)		4.500 (0.020)	0.109 (0.020)	(0.020)	< 0.020 (0.020)	(0.020) < 0.020		200
Total BTEX		14.027		30.998		0.421	O.N	O.N		O.N
										Τ

K.E.I. Consultants, Inc.. The interpretations and results expressed through this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories, however, assumes no responsibility and makes no warranty to the end use of the data hereby presented. This report summary, and the entire report it represents, has been made for the exclusive and confidential use of

Edward H Yonemoto, Ph.D. Technical Director

# OF ANALYSIS SUMMARY 1-73428 CERTIFICATE

Project Manager: Theresa Nix Project ID: 610099

Project Name: TNMPL

K.E.I. Consultants, Inc.

Date Received in Lab: Dec 23, 1997 15:45

XENCO contact · Carlos Castro/Edward V. Date Report Faxed: Jan 9, 1998

					Date Nepott La	Date report raxed: Jan 8, 1886	
Project Location: SPS-11					XENCO cont	XENCO contact: Carlos Castro/Edward Yonemoto	dward Yonemoto
Analysis Requested	Lab ID: Field ID: Depth: Matrix: Sampled:	173428 007 MW-19 52.0-54.0 Solid 12/17/97	173428 008 MW-20 30.0-32.0 Solid 12/17/97	173428 009 MW-20 52.0-54.0 Solid 12/17/97	173428 010 MW-21 52.0-53.0 Solid 12/18/97	173428 011 MW-22 5.0-7.0 Solid 12/18/97	173428 012 MW-22 52.0-54.0 Solid 12/18/97
TPH-DRO (Diesel) EPA 8015 M	Analyzed: 12/27/97 Units: mg/kg	R.L.	12/27/97 R.L. mg/kg	12/27/97 R.L. mg/kg	12/27/97 R.L. mg/kg	12/27/97 R.L. mg/kg	12/27/97 R.L.
Total Petroleum Hydrocarbons		46.2 (10.0)	42.4 (10.0)	27.7 (10.0)	29.1 (10.0)	34.3 (10.0)	31.9 (10.0)
BTEX EPA 8020	Analyzed: 12/26/97 Units: ppm	lyzed: 12/26/97 R.L. Units: ppm	12/26/97 R.L. ppm	12/26/97 R.L.	12/26/97 R.L. ppm	12/26/97 R.L.	12/26/97 R.L.
Benzene		< 0.020 (0.020)	< 0.020 (0.020)	< 0.020 (0.020)	< 0.020 (0.020)	< 0.020 (0.020)	< 0.020 (0.020)
Toluene		< 0.020 (0.020)	< 0.020 (0.020)	< 0.020 (0.020)	< 0.020 (0.020)	< 0.020 (0.020)	< 0.020 (0.020)
Ethylbenzene		0.026 (0.020)	< 0.020 (0.020)	< 0.020 (0.020)	< 0.020 (0.020)	< 0.020 (0.020)	< 0.020 (0.020)
m.p-Xylenes		0.128 (0.040)	< 0.040 (0.040)	< 0.040 (0.040)	< 0.040 (0.040)	< 0.040 (0.040)	< 0.040 (0.040)
o-Xylene		< 0.020 (0.020)	< 0.020 (0.020)	< 0.020 (0.020)	< 0.020 (0.020)	< 0.020 (0.020)	< 0.020 (0.020)
Total BTEX		0.154	.U.D.	N.D.	N.D.	N.D.	N.D.

dward H Yonemoto, Ph.D. Technical Director

K.E.I. Consultants, Inc..

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This report summary, and the entire report it represents, has been made for the exclusive and confidential use of



OF ANALYSIS SUMMARY 1-73428 CERTIFICATE

Project ID: 610099

Project Manager: Theresa Nix

Project Location: SPS-11

Project Name: TNMPL

K.E.I. Consultants, Inc.

Date Received in Lab: Dec 23, 1997 15:45

Date Report Faxed: Jan 9, 1998

Project Location: SPS-11					XENCO cont	XENCO contact: Carlos Castro/Edward Yonemoto	dward Yonemoto
Analysis Requested	Lab ID: Field ID: Depth: Matrix: Sampled:	173428 013 MW-23 20.0-22.0 Solid 12/19/97	173428 014 MW-23 52.0-54.0 Solid 12/19/97	173428 015 MW-24 10.0-12.0 Solid 12/19/97	173428 016 MW-24 40.0-42.0 Solid 12/19/97	173428 017 MW-24 52.0-54.0 Solid 12/19/97	173428 018 MW-25 30.0-32.0 Solid 12/22/97
TPH-DRO (Diesel) EPA 8015 M	Analyzed: 12/27/97 Units: mg/kg	R.L.	12/27/97 R.L. mg/kg				
Total Petroleum Hydrocarbons		36.6 (10.0)	21.6 (10.0)	33.4 (10.0)	2030 (20.0)	71.5 (10.0)	46.4 (10.0)
BTEX EPA 8020	Analyzed: Units:	12/26/97 R.L.	12/26/97 R.L.	12/26/97 R.L. ppm	12/26/97 R.L. ppm	12/26/97 R.L.	12/26/97 R.L.
Benzene		< 0.020 (0.020)	< 0.020 (0.020)	< 0.020 (0.020)	1.10 (0.10)	< 0.020 (0.020)	< 0.020 (0.020)
Toluene		< 0.020 (0.020)	< 0.020 (0.020)	< 0.020 (0.020)	18.00 (0.10)	< 0.020 (0.020)	< 0.020 (0.020)
Ethylbenzene		< 0.020 (0.020)	< 0.020 (0.020)	< 0.020 (0.020)	31.60 (0.10)	< 0.020 (0.020)	< 0.020 (0.020)
m,p-Xylenes		< 0.040 (0.040)	< 0.040 (0.040)	< 0.040 (0.040)	34.80 (0.20)	< 0.040 (0.040)	< 0.040 (0.040)
o-Xylene		< 0.020 (0.020)	< 0.020 (0.020)	< 0.020 (0.020)	13.20 (0.10)	< 0.020 (0.020)	
Total BTEX		N.D.	N.D.	N.D.	98.70	O.N.	N.D.
SPLP-Semivolatiles EPA1312/8270	Analyzed: Units:				01/02/98 R.L. mg/L		
Acenaphthene					< 0.010 (0.010)		
Acenaphthylene					< 0.010 (0.010)		
Anthracene					< 0.010 (0.010)		
Benzo(a)anthracene					< 0.010 (0.010)		
Benzo(a)pyrene					< 0.010 (0.010)		
Benzo(b)fluoranthene					< 0.010 (0.010)		
Benzo(g,h,i)perylene					< 0.010 (0.010)		
Benzo(k)fluoranthene					< 0.010 (0.010)		
4-Bromophenyl-phenylether					< 0.010 (0.010)		
Butyl benzyl phthalate					< 0.010 (0.010)		
Carbazole					< 0.010 (0.010)		
4-Chloro-3-Methylphenol					< 0.010 (0.010)		

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The interpretations and results expressed through this analytical report represent the best judgment of XENCO Laboratories.

XENCO Laboratories, however, assumes no responsibility and makes no warranty to the end use of the data hereby presented.





# CERTIFICATE OF ANALYSIS SUMMARY 1-73428

Project Manager: Theresa Nix Project Location: SPS-11

Project ID: 610099

K.E.I. Consultants, Inc. Project Name: TNMPL

Date Received in Lab: Dec 23, 1997 15:45

Date Report Faxed: Jan 9, 1998

Project Location: SPS-11					XENCO cont	XENCO contact: Carlos Castro/Edward Yonemoto	dward Yonemoto
	1 oh 10.	173478 042	470,000				
٠	Field ID:	173426 U13 MW-23	1/3428 014 MW-23	173428 015	173428 016	173428 017	173428 018
	Depth:	20.0-22.0	52 0-54 0	10.012.0	42-VVIV	MVV-24	MW-25
Analysis Requested	Matriv:	rico	0.10	0.0-12.0	40.0-42.0	52.0-54.0	30.0-32.0
	Sampled:	12/19/97	12/19/97	50lid 12/19/97	Solid	Solid 12/19/97	Solid 12/22/07
	Anotonod.						15,550
	Aliaiyzea.	-			01/02/98 P. I		
	Units:				mg/L N.E.		
4-Chloroaniline					< 0.010 (0.010)		
2-Chloronaphthalene					< 0.010 (0.010)		
2-Chlorophenol					< 0.010 (0.010)		
4-Chlorophenyl-phenyl ether					< 0.010 (0.010)		
Chrysene					< 0.010 (0.010)		
Di-n-butyl phthalate				1	< 0.010 (0.010)		
Di-n-octyl phthalate					< 0.010 (0.010)		
Dibenzo(a,h)anthracene					< 0.010 (0.010)		
Dibenzofuran					< 0.010 (0.010)		
1,2-Dichlorobenzene					< 0.010 (0.010)		
1,3-Dichlorobenzene					< 0.010 (0.010)		
1,4-Dichlorobenzene					< 0.010 (0.010)		
3,3'-Dichlorobenzidine							
2,4-Dichlorophenol					< 0.025 (0.025)		
Diethyl phthalate					< 0.010 (0.010)		
2,4-Dimethylphenol					< 0.010 (0.010)		
Dimethyl phthalate					< 0.010 (0.010)		
4,6-Dinitro-2-methylphenol					< 0.025 (0.025)		
2,4-Dinitrophenol					< 0.010 (0.010)		
2,4-Dinitrotoluene					< 0.010 (0.010)		
2,6-Dinitrotoluene					< 0.010 (0.010)		
Fluoranthene					< 0.010 (0.010)		
Fluorene					< 0.010 (0.010)		
Hexachlorobenzene					< 0.010 (0.010)		

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Edward H. Konemoto, Ph.D. Technical Director



### OF ANALYSIS SUMMARY 1-73428 CERTIFICATE

K.E.I. Consultants, Inc.

Project Name: TNMPL

Project Manager: Theresa Nix Project Location: SPS-11

Project ID: 610099

Date Received in Lab: Dec 23, 1997 15:45

Date Report Faxed: Jan 9, 1998

XENCO contact: Carlos Castro/Edward Yonemoto

	-						
	Lab ID:	173428 013	173428 014	173428 015	173428 016	173428 017	173428 018
	. ield IS.	100 0 00	MVV-Z3	MW-24	MW-24	MW-24	MW-25
Analysis Requested	Depin:	20.0-22.0	52.0-54.0	10.0-12.0	40.0-42.0	52.0-54.0	30.0-32.0
	Mathx:	Solid	Solid	Solid	Solid	Solid	Solid
	Sampled:	12/19/97	12/19/97	12/19/97	12/19/97	12/19/97	12/22/97
	Analyzed:				01/02/98		
	Units:	-			mg/L R.L.		
Hexachlorobutadiene					< 0.010 (0.010)		
Hexachlorocyclopentadiene					< 0.010 (0.010)		
Hexachloroethane					< 0.010 (0.010)		
Indeno(1,2,3-cd)pyrene							
Isophorone					< 0.010 (0.010)		
2-Methylnaphthalene				2	0.024 (0.010)		
2-Methylphenol					< 0.010 (0.010)		
4-Methylphenol					< 0.010 (0.010)		
N-Nitroso-di-n-propylamine					< 0.010 (0.010)		
N-Nitrosodiphenylamine					< 0.010 (0.010)		
Naphthalene					0.019 (0.010)		
2-Nitroaniline							
3-Nitroaniline					< 0.025 (0.025)		
4-Nitroaniline					< 0.025 (0.025)		
Nitrobenzene					< 0.010 (0.010)		
2-Nitrophenol					< 0.010 (0.010)		
4-Nitrophenol					< 0.010 (0.010)		
Pentachlorophenol					< 0.025 (0.025)		
Phenanthrene					< 0.010 (0.010)		
Phenol					< 0.010 (0.010)		
Pyrene					< 0.010 (0.010)		
1,2,4-Trichlorobenzene					< 0.010 (0.010)		
2,4,5-Trichlorophenol					< 0.025 (0.025)		
2,4,6-Trichlorophenol					< 0.010 (0.010)		

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The interpretations and results expressed through this analytical report represent the best judgment of XENCO Laboratories.





### OF ANALYSIS SUMMARY 1-73428 CERTIFICATE

K.E.I. Consultants, Inc.

Project Name: TNMPL

Project Manager: Theresa Nix Project Location: SPS-11

Project ID: 610099

Date Received in Lab: Dec 23, 1997 15:45

Date Report Faxed: Jan 9, 1998

XENCO contact: Carlos Castro/Edward Yonemoto

						Control Carlos Cast Or Laward 10116111010	ward Tolleringio
-	Lab ID:	173428 013	173428 014	173428 015	173428 016	173428 017	173428 018
	rield ID:	MW-23	MW-23	MW-24	MW-24	MW-24	MW-25
Analysis Requested	Depth:	20.0-22.0	52.0-54.0	10.0-12.0	40.0-42.0	52.0-54.0	30.0-32.0
	S	30lid 12/19/97	Solid 12/19/97	Solid 12/19/97	Solid 12/19/97	Solid 12/19/97	Solid 12/22/97
	Analyzed: Units:				01/02/98 R.L.		
bis [2-Chloroethoxy] methane					< 0.010 (0.010)		
bis [2-Chloroethyl] ether							
bis [2-Chloroisopropyl] ether					< 0.010 (0.010)		
bis [2-Ethylhexyl] phthalate					< 0.010 (0.010)		
SPLP Volatiles	Analyzed:			1	01/06/98		
EPA 8260	Units:				mg/L R.L.		
Benzene					< 0.025 (0.025)		
Bromobenzene					< 0.025 (0.025)		
Bromochloromethane					< 0.025 (0.025)		
Bromedichloromethane							
Bromoform					< 0.025 (0.025)		
Bromomethane					< 0.025 (0.025)		
Carbon Tetrachloride					< 0.025 (0.025)		
Chlorobenzene							
Chloroethane					< 0.050 (0.050)		
Chloroform					< 0.025 (0.025)		
Chloromethane					< 0.050 (0.050)		
2-Chlorotoluene					< 0.025 (0.025)		
4-Chlorotoluene					< 0.025 (0.025)		
1,2-Dibromo-3-chloropropane					< 0.025 (0.025)		
Dibromochloromethane					< 0.025 (0.025)		
1,2-Dibromoethane					< 0.025 (0.025)		
Dibromomethane					< 0.025 (0.025)		

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The interpretations and results expressed through this analytical report represent the best judgment of XENCO Laboratories.





### OF ANALYSIS SUMMARY 1-73428 CERTIFICATE

K.E.I. Consultants, Inc.

Project Name: TNMPL

Theresa Nix

Project Manager:

Project ID: 610099

Date Received in Lab: Dec 23, 1997 15:45

Date Report Faxed: Jan 9, 1998

XENCO contact: Carlos Castro/Edward Yonemoto SPS-11 Project Location:

	Lab ID:	173428 013	173428 014	173428 015	173428 016	173428 017	173428 049
	Field ID:	MW-23	MW-23	MW-24	MW-24	MW-24	MW-25
Analysis Reguested	Depth:	20.0-22.0	52.0-54.0	10.0-12.0	40.0-42.0	52.0-54.0	30.0-32.0
navea have and finance	Matrix:	Solid	Solid	Solid	Solid	Solid	Solid
	Sampled:	12/19/97	12/19/97	12/19/97	12/19/97	12/19/97	12/22/97
	Analyzed: Units:				01/06/98 R.L.		
1,2-Dichlorobenzene							
1 3-Dichlombenzene					(070.0) 070.0 \		
4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0					< 0.025 (0.025)		
I,4-Ulchlorobenzene					< 0.025 (0.025)		
Dichlorodifluoromethane					< 0.025 (0.025)		
1,1-Dichloroethane					< 0.025 (0.025)		
1,2-Dichloroethane				1	< 0.025 (0.025)		
1,1-Dichloroethene					< 0.025 (0.025)		
1,2-Dichloropropane					< 0.025 (0.025)		
1,3-Dichloropropane					< 0.025 (0.025)		
2,2-Dichloropropane					< 0.025 (0.025)		
1,1-Dichloropropene					(0.023) (0.023)		
Ethylhenzene					(620.0) 620.0 >		
Luiyibalizaila					0.610 (0.025)		
Hexachiorobutadiene					< 0.025 (0.025)		
Isopropylbenzene					0.068 (0.025)		
MTBE					< 0.050 (0.050)		
Methylene chloride					< 0.050 (0.050)		
Naphthalene					0.073 (0.025)		
Styrene					< 0.025 (0.025)		
1,1,1,2-Tetrachloroethane					< 0.025 (0.025)		
1,1,2,2-Tetrachloroethane					< 0.025 (0.025)		
Tetrachloroethene					< 0.025 (0.025)		
Toluene					0.226 (0.025)		
1,2,3-Trichlorobenzene					< 0.025 (0.025)		
1,2,4-Trichlorobenzene					< 0.025 (0.025)		

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K.E.I. Consultants, Inc.

Project Name: TNMPL

Project ID: 610099 Project Manager: Theresa Nix

Project Location: SPS-11

Date Received in Lab: Dec 23, 1997 15:45

MPL Date Received III Lan

Date Report Faxed: Jan 9, 1998

XENCO contact: Carlos Castro/Edward Yonemoto

	Lab ID:	173428 013	173428 014	173428 015	173428 016	173428 017	173428 018
•	Field ID:	MW-23	MW-23	MW-24	MW-24	MW-24	MW-25
Analysis Reguested	Depth:	20.0-22.0	52.0-54.0	10.0-12.0	40.0-45.0	52.0-54.0	30,0-32.0
	Matrix:	Solid	Solid	Solid	Solid	Solid	Solid
	Sampled:	12/19/97	12/19/97	12/19/97	12/19/97	12/19/97	12/22/97
	Analyzed: Units:				01/06/98 R.L. mg/L		
1,1,1-Trichloroethane					< 0.025 (0.025)		
1,1,2-Trichloroethane					< 0.025 (0.025)		
Trichloroethene					< 0.025 (0.025)		
Trichlorofluoromethane					< 0.025 (0.025)		
1,2,3-Trichloropropane					< 0.025 (0.025)		
1,2,4-Trimethylbenzene				•	0.235 (0.025)		
1,3,5-Trimethylbenzene					0.055 (0.025)		
Vinyl chloride					< 0.025 (0.025)		
cis-1,2-Dichloroethene					< 0.025 (0.025)		
cis-1,3-Dichloropropene					< 0.025 (0.025)		
m,p-Xylenes					0.615 (0.025)		
n-Butylbenzene					< 0.025 (0.025)		
n-Propylbenzene					0.111 (0.025)		
o-Xylene					0.281 (0.025)		
p-Isopropyltoluene					< 0.025 (0.025)		
sec-Butylbenzene					< 0.025 (0.025)		
tert-Butylbenzene					< 0.025 (0.025)		
trans-1,2-Dichloroethene					< 0.025 (0.025)		
trans-1,3-Dichloropropene					< 0.025 (0.025)		
SPLP TPH	Analyzed:				12/31/97 P. I		
1312/418.1	Units:				ppm mdd		
Total Petroleum Hydrocarbons					34.3 (5.0)		
				!			

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The interpretations and results expressed through this analytical report represent the best judgment of XENCO Laboratories.





Project ID: 610099

Project Manager: Theresa Nix Project Location: SPS-11

K.E.I. Consultants, Inc. Project Name: TNMPL

Date Received in Lab: Dec 23, 1997 15:45

Date Report Faxed: Jan 9, 1998

Project Location: SPS-11			XENCO contact: Carlos Castro/Edward Yonemoto	
Analysis Requested	Lab ID: Field ID: Depth: Matrix	173428 019 MW-25 52.0-54.0		
	Sampled:	12/22/97		
TPH-DRO (Diesel)	Analyzed: 12/27/97			Τ
EPA 8015 M	Units:	Units: mg/kg K.L.		
Total Petroleum Hydrocarbons		33.8 (10.0)		T
ВТЕХ	Analyzed: 12/26/97			Τ
EPA 8020	Units: ppm	ppm . R.L.		
Benzene		< 0.020 (0.020)		
Toluene		< 0.020 (0.020)		Τ
Ethylbenzene		< 0.020 (0.020)		Τ
m,p-Xylenes		< 0.040 (0.040)		T
o-Xylene		< 0.020 (0.020)		
Total BTEX		J.D.		T

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### SW- 846 8015 M. TPH- GRO (Gasoline)

Date Validated: Dec 29, 1997 16:30

Analyst: HL

Date Analyzed: Dec 26, 1997 13:01

Matrix: Solid

QA/QC Manager: Edward H. Yonemoto, Ph.D.

			BLANK SPI	CE ANALYS	SIS		
	[A]	[B]	[C]	[D]	[E]	(F)	[G]
	Blank	Blank Spike	Blank	Method	QC	LIMITS	
Parameter	Result	Result	Spike Amount	Detection Limit	Blank Spike Recovery	Recovery Range	Qualifier
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	
Total Petroleum Hydrocarbons	< 0.050	2.546	2.000	0.050	127.3	65-135	

ank Spike Recovery [E] = 100\*(B-A)/(C)

N.C. = Not calculated, data below detection limit

D. = Below detection limit

results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.



### SW- 846 8015 M. TPH- GRO (Gasoline)

Date Validated: Dec 29, 1997 16:30

Analyst: HL

Date Analyzed: Dec 26, 1997 14:36

Matrix: Solid

QA/QC Manager: Edward H. Yonemoto, Ph.D.

		MATRIX	DUPLICATI	E ANALYS	IS	
Q.C. Sample ID	[A]	[B]	[c]	[D]	[E]	[F]
173428- 001	Sample	Duplicate	Method	QC	LIMITS	1
173428- 001	Result	Result	Detection	Relative	Relative	Qualifier
Danamatan			Limit	Difference	Difference	
Parameter	mg/kg	mg/kg	mg/kg	%	%	
Total Petroleum Hydrocarbons	165	170	1.00	3.0	30.0	

Relative Difference [D] = 200\*(B-A)/(B+A)N.C. = Not calculated, data below detection limit

N.D. = Below detection limit

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

Edward H. Yonemoto, Ph.D. Chnical Director



### SW- 846 8015 M TPH- DRO (Diesel)

Date Validated: Dec 29, 1997 13:45

Analyst: MM

Date Analyzed: Dec 26, 1997 19:57

Matrix: Solid

QA/QC Manager: Edward H. Yonemoto, Ph.D.

			BLANK SPIR	KE ANALYS	sis		
	[A]	[B]	[C]	[D]	(E)	[F]	[G]
	Blank	Blank Spike	Blank	Method	QC	LIMITS	
Parameter	Result	Result	Spike Amount	Detection Limit	Blank Spike Recovery	Recovery Range	Qualifier
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	
Total Petroleum Hydrocarbons	< 10.00	155	155	10.00	100.2	65-135	

ank Spike Recovery [E] = 100\*(B-A)/(C)

N.C. = Not calculated, data below detection limit

D. = Below detection limit

results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.

Technical Director



### TPH DRO (Diesel) SW- 846 8015 M

Date Validated: Dec 29, 1997 13:45

Date Analyzed: Dec 27, 1997 05:05

QA/QC Manager: Edward H. Yonemoto, Ph.D.

Matrix: Solid Analyst: MM

:			MATE	RIX SPIKE /	MATRIXS	PIKE DUPI	MATRIX SPIKE / MATRIX SPIKE DUPLICATE AND RECOVERY	ECOVERY			
O C. Samnle ID	E.	[8]	5	<u>6</u>	<u>a</u>	Matrix	<b>E</b>	[6]	Ξ	Ξ	1
	Sample	Matrix Spike	Matrix Spike	Matrix	Method	Limit	၁၀	တ္ပ	gc	Matrix Spike	
610 -82501	Result	Result	Duplicate	Spike	Detection	Relative	Spike Relative Matrix Spike	Matrix Spike	M.S.D.	Recovery	ã
6			Result	Amount	Limit	Difference	Difference	Recovery	Recovery	Range	
Parameter	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	%	
Total Petroleum Hydrocarbons	33.83	188	184	200	10.00	30.0	2.2	77.1	75.1	65-135	

Qualifier

Ξ

Spike Relative Difference [F] =  $200^{\circ}(B-C)/(B+C)$ Matrix Spike Recovery [G] =  $100^{\circ}(B-A)/[D]$ 

M.S.D. Recovery [H] = 100\*(C-A)/[D] M.S.D. = Matrix Spike Duplicate

All results are based on MDL and validated for QC purposes N.D. = Below detection limit or not detected

Houston Dallas - San Antonio

Page



### SW- 846 5030/8020 BTEX

**Date Validated:** Dec 29, 1997 16:00

Analyst: HL

Date Analyzed: Dec 26, 1997 13:01

Matrix: Solid

QA/QC Manager: Edward H. Yonemoto, Ph.D.

			BLANK SPI	KE ANALYS	SIS		
	[A]	[B]	[C]	[D]	[E]	(F)	[G]
	Blank	Blank Spike	Blank	Method	QC	LIMITS	
Parameter	Result	Result	Spike	Detection	Blank Spike	Recovery	Qualifier
			Amount	Limit	Recovery	Range	
	ppm	ppm	ppm	ppm	%	%	
Benzene	< 0.0010	0.0991	0.1000	0.0010	99.1	65-135	
Toluene	< 0.0010	0.0983	0.1000	0.0010	98.3	65-135	
Ethylbenzene	< 0.0010	0.1050	0.1000	0.0010	105.0	65-135	
m,p-Xylenes	< 0.0020	0.2780	0.2000	0.0020	109.0	65-135	
o-Xylene	< 0.0010	0.1040	0.1000	0.0010	104.0	65-135	

ank Spike Recovery [E] = 100\*(B-A)/(C)

N.C. = Not calculated, data below detection limit

D. = Below detection limit

I results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D. Technical Director



### BTEX SW- 846 5030/8020

Date Validated: Dec 29, 1997 16:00

Date Analyzed: Dec 26, 1997 18:25

QA/QC Manager: Edward H. Yonemoto, Ph.D.

Matrix: Solid Analyst: HL

			MATE	NX SPIKE /	MATRIX S	PIKE DUPL	MATRIX SPIKE / MATRIX SPIKE DUPLICATE AND RECOVERY	ECOVERY			
	[A]	[8]	5	[0]	[E]	Matrix	E	[6]	Ξ	Ξ	Ξ
	Sample	Matrix Spike	Matrix Spike	Matrix	Method	Limit	ac	ос	သွ	Matrix Spike	
173428- 010	Result	Result	Duplicate	Spike	Detection	Relative	Spike Relative	Matrix Spike	M.S.D.	Recovery	Qualifier
			Result	Amount	Limit	Difference	Difference	Recovery	Recovery	Range	
Parameter	mdd	mdd	mdd	mdd	mdd	%	%	%	%	%	
Benzene	< 0.020	2.060	2.100	2.000	0.020	25.0	1.9	103.0	105.0	65-135	
Toluene	< 0.020	2.060	2.060	2.000	0.020	25.0	0.0	103.0	103.0	65-135	
Ethylbenzene	< 0.020	2.120	2.160	2.000	0.020	25.0	1.9	106.0	108.0	65-135	
m.p-Xylenes	< 0.040	4.560	4.680	4.000	0.040	25.0	5.6	114.0	117.0	65-135	
o-Xylene	< 0.020	2.100	2.180	2.000	0.020	25.0	3.7	105.0	109.0	65-135	

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

M.S.D. = Matrix Spike Duplicate

M S.D. Recovery [H] = 100\*(C-A)/[D]

All results are based on MDL and validated for QC purposes N.D. = Below detection limit or not detected

Edward H. Yonemoto, Z. Technical Director

Page

Houston - Dollas San Antonio



### EPA 1311/8260 **TCLP** Volatiles

Date Validated: Jan 8, 1998 16:45

Analyst: CE

Date Analyzed: Jan 6, 1998 11:37

Matrix: Solid

QA/QC Manager: Edward H. Yonemoto, Ph.D.

		1	BLANK SPI	KE ANALY	SIS		
Parameter	[A] Blank Result	[B] Blank Spike Result	[C] Blank Spike Amount	[D] Method Detection Limit	[E] QC Blank Spike Recovery	(F) LIMITS Recovery Range	[G] Qualifier
	mg/L	mg/L	mg/L	mg/L	%	%	
Benzene	< 0.005	0.050	0.050	0.005	100.0	76-127	
Chlorobenzene	< 0.005	0.048	0.050	0.005	96.0	75-130	
1.1-Dichloroethene	< 0.005	Q.050	0.050	0.005	100.0	61-145	<del> </del>
Toluene	< 0.005	0.047	0.050	0.005	94.0	76-125	
Trichloroethene	< 0.005	0.054	0.050	0.005	108.0	71-120	

Blank Spike Recovery [E] = 100\*(B-A)/(C)

N.C. = Not calculated, data below detection limit

N.D. = Below detection limit

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

Edward M. Yonemoto, Ph.D. Technical Director



## EPA 1311/8260 TCLP Volatiles

Date Validated: Jan 8, 1998 16:45

Date Analyzed: Jan 6, 1998 17:00

QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: CE

Matrix: Solid

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE AND RECOVERY

	[A]	[8]	[0]	(D)	(E)	Matrix	E	[9]	E	Ξ	5
	Sample	Matrix Spike	Matrix Spike	Matrix	Method	Limit	ac	OC	ОС	Matrix Spike	
17:3420- 016	Result	Result	Duplicate	Spike	Detection	Relative	Spike Relative	Matrix Spike	M.S.D.	Recovery	Qualifier
			Result	Amount	Limit	Difference	Difference	Recovery	Recovery	Range	
Farameter	mg/L	mg/L	mg/L	mg/L	mg/L	%	%	%	%	%	
Benzene	0.013	0.063	0.061	0.050	0.002	20.0	3.2	100.0	96.0	76-127	
Chlorobenzene	< 0.005	0.048	0.048	0.050	0.005	20.0	0.0	0.96	0.96	75-130	
1,1-Dichloroethene	< 0.005	0.049	0.048	0.050	0.005	20.0	2.1	0.86	96.0	61-145	
Toluene	0.041	0.088	0.088	0.050	0.005	20.0	0.0	94.0	94.0	76-125	
Trichloroethene	< 0.005	0.049	0.048	0.050	0.005	20.0	2.1	98.0	0.96	71-120	

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

M.S.D. = Matrix Spike Duplicate

M.S.D. Recovery [H] = 100\*(C-A)/[D]

N.D. = Below detection limit or not detected All results are based on MDL and validated for QC purposes

Edward H. Confemoto, Ph.D. Pechnical Director



### SPLP. Semivolatiles, Target Com SW846- 1312/8270M0B

Date Validated: Jan 6, 1998 10:50

Date Analyzed: Jan 2, 1998. 17:57

QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: LC

Matrix: Solid

	, ,					346					
				AK SPIKE /	BLANK SF	IKE DUPL	BLANK SPIKE / BLANK SPIKE DUPLICATE AND RECOVERY	ECOVERY	•		* 1/2 * 1/2
	<u>E</u>	[8]	[5]	[0]	[E]	Blank	E	[9]	Ξ	Ξ.	5
	Blank	Blank Spike	Blank Spike	Blank	Method	Limit	OC	oc	၁ဗ	Blank Spike	:
ralameter	Kesuit	Result	Duplicate	Spike	Detection	Relative	Spike Relative	Blank Spike	BSD		
			Result	Amount	Limit	Difference	Difference	Recovery	Recovery		duamer
	mg/L	mg/L	mg/L	mg/L	mg/L	%	%	, %	70	200	
Acenaphthene	< 0.0025	0.0234	0.0227	0.0250	0.0025	19.0	200		?	•/	
4-Chloro-3-Methylphenol	< 0.0038	0.0240	70000	01000			o.c	93.6	8.06	31-137	
		6+70.0	0.0237	0.0250	0.0038	33.0	4.9	9.66	94.8	26-103	
z-Ciliorophenol	< 0.0050	0.0236	0.0234	0.0250	0.0050	28.7	6.0	7 70	9 80	26 400	
1,4-Dichlorobenzene	< 0.0042	0.025	0.0030	0.000	0,000			4.40	93.0	701-67	
2 4-Dinitrotoluene	000		0.70.0	0.0250	0.0042	32.1	2.2	0.06	92.0	28-104	
z, +-Dininglonerie	< 0.0050	0.0206	0.0206	0.0250	0.0050	21.8	0.0	A C8	A C8	00 00	T
N-Nitroso-di-n-propylamine	< 0.0040	0.0319	0.0300	0.0050	0,000	100		4:30	4.20	69-97	
4-Nitrophenol	00000	0.000		0.0200	0.00.0	33.4	6.1	127.6	120.0	41-126	A
	0.0040	0.0072	1010.0	0.0250	0.0040	47.2	33.5	28.8	40.4	11-114	
Pentachlorophenol	< 0.0086	0.0181	0.0193	0.0250	0.0086	48.9	6.4	107	0.44	1400	
Phenol	< 0.0037	0.0196	0.0180	0.0250	0.0037	22.6		1.7	7.11	- 103	
Pyrene	00000	0,000				44.0	6.0	78.4	72.0	26-90	
	אינים אינים	0.0246	0.0243	0.0250	0.0020	25.2	1.2	98.4	97.2	35-142	
1,2,4-I richlorobenzene	< 0.0054	0.0217	0.0237	0.0250	0.0054	23.0	8.8	88.8		1 00	
								 		001-00	

(A) Continuous Calibration Verification within acceptance limits

Spike Relative Difference [F] = 200\*(B-C)/(B+C) Blank Spike Recovery [G] = 100\*(B-A)/[D]

B.S.D. = Blank Spike Duplicate
B.S.D. Recovery [H] = 100 (C-A)/[D]
N.D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes

Edward # Tonemoto, Ph.D. Technical Director Page



### Hall d'Ids EPA 1312/418.1

Date Validated: Dec 31, 1997 16:15

Date Analyzed: Dec 31, 1997 13:50

QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: JM

Matrix: Solid

			BIAN	וא פסואב ו	RI ANIK CD	ו ופויט שאוי	BI ANK SBIKE / BI ANK SBIKE DIIBI ICATE AND BECOVEDY	VGB/VO3:			
					בייוור טר		CALE AND A	COVEN			
	Æ	[8]	5	<u>[</u>	<u>E</u>	Blank	E	[5]	E	Ξ	5
	Blank	Blank Spike	Blank Spike	Blank	Method	Limit	ос	ခွ	တွင	Blank Spike	
Parameter	Result	Result	Duplicate	Spike	Detection	Relative	Spike Relative Blank Spike	Blank Spike	B.S.D.		Qualifier
			Result	Amount	Limit	Difference	Difference	Recovery	Recovery	Range	
	ррт	mdd	mdd	mdd	mdd	%	%	%	%	%	
otal Petroleum Hydrocarbons	< 0.50	3.61	3.57	4.22	0:20	20.0	1.1	85.5	84.6	65-135	

Edward H. Yonemold, Ph.D. Technical Director

All results are based on MDL and validated for QC purposes

B.S.D. Recovery [H] = 100\*(C-A)/[D] N.D. = Below detection limit or not detected

Spike Relative Difference [F] = 200\*(B-C)/(B+C)

Blank Spike Recovery [G] = 100\*(B-A)/[D]

B.S.D. = Blank Spike Duplicate

Houston - Dallas San Antonio

Page

### ANALYTICAL CHAIN OF CUSTODY REPORT CHRONOLOGY OF SAMPLES

K.E.I. Consultants, Inc.

Project Name: TNMPL

Project Manager: Theresa Nix Project ID: 610099

Project Location: SPS-11

XENCO COC#: 1-73428

Date Received in Lab: Dec 23, 1997 15:45 by HL

XENCO contact: Carlos Castro/Edward Yonemoto

								,		
L								Date	Date and Time	
	Field ID	Lab, ID	Method	Method	Units	Turn	Sample	Addition		
			Name	QI	2	Around	Collected	Requested	Extraction	Analysis
E N	MW-17 (35.0-37.0)	173428-001 BTEX	втех	SW-846	mdd	3 days	Dec 16, 1997		Dec 26, 1997 by HL	Dec 26, 1997 14:36 by HL
7			TPH8015M-D	SW-846 8015 M	mg/kg	Standard	Dec 16, 1997		Dec 26, 1997 by MM	Dec 26, 1997 20:48 by MM
<u>ع</u>			TPH8015M-G	SW-846 8015 M.	mg/kg	3 days	Dec 16, 1997		Dec 26, 1997 by HL	Dec 26, 1997 14:36 by HL
4 MM	MW-17 (49.0-51.0)	173428-002	втех	SW-846	ppm	3 days	Dec 16, 1997		Dec 26, 1997 by HL	Dec 26, 1997 15:14 by HL
22			TPH8015M-D	SW-846 8015 M	mg/kg	Standard	Dec 16, 1997		Dec 26, 1997 by MM	Dec 26, 1997 21:56 by MM
9			TPH8015M-G	SW-846 8015 M.	mg/kg	3 days	Dec 16, 1997		Dec 26, 1997 by HL	Dec 26, 1997 15:14 by HL
	MW-17 (51.0-53.0)	173428-003	втех	SW-846	mdd	3 days	Dec 16, 1997		Dec 26, 1997 by HL	Dec 26, 1997 15:33 by HL
80			TPH8015M-D	SW-846 8015 M	mg/kg	Standard	Dec 16, 1997		Dec 26, 1997 by MM	Dec 26, 1997 22:18 by MM
			TPH8015M-G	SW-846 8015 M.	mg/kg	3 days	Dec 16, 1997		Dec 26, 1997 by HL	Dec 26, 1997 15:33 by HL
	MW-18 (20.0-21.5)	173428-004	втех	SW-846	тдд	3 days	Dec 16, 1997		Dec 26, 1997 by HL	Dec 26, 1997 15:52 by HL
			TPH8015M-D	SW-846 8015 M	mg/kg	Standard	Dec 16, 1997		Dec 26, 1997 by MM	Dec 26, 1997 22:49 by MM
	MW-18 (52.0-54.0)	173428-005	втех	SW-846	ppm	3 days	Dec 16, 1997		Dec 26, 1997 by HL	Dec 26, 1997 16:11 by HL
13			TPH8015M-D	SW-846 8015 M	mg/kg	Standard	Dec 16, 1997		Dec 26, 1997 by MM	Dec 26, 1997 23:14 by MM
	MW-19 (10.0-12.0)	173428-006	втех	SW-846	mdd	3 days	isec 17, 1997		Dec 26, 1997 by HL	Dec 26, 1997 16:31 by HL
15			TPH8015M-D	SW-846 8015 M	mg/kg	Standard	Dec 17, 1997		Dec 26, 1997 by MM	Dec 26, 1997 23:39 by MM
9		173428-007 BTEX	втех	SW-846	mdd	3 days	Dec 17, 1997		Dec 26, 1997 by HL	Dec 26, 1997 16:50 by HL
			TPH8015M-D	SW-846 8015 M	mg/kg	Standard	Dec 17, 1997		Dec 26, 1997 by MM	Dec 27, 1997 00:04 by MM
	MW-20 (30.0-32.0)	173428-008	втех	SW-846	ррт	3 days	Dec 17, 1997		Dec 26, 1997 by HL	Dec 26, 1997 17:09 by HL
			TPH8015M-D	SW-846 8015 M	mg/kg	Standard	Dec 17, 1997		Dec 26, 1997 by MM	Dec 27, 1997 00:29 by MM
	MW-20 (52.0-54.0)	173428-009		SW-846	mdd	3 days	Dec 17, 1997		Dec 26, 1997 by HL	Dec 26, 1997 17:28 by HL
			TPH8015M-D	SW-846 8015 M	mg/kg	Standard	Dec 17, 1997		Dec 26, 1997 by MM	Dec 27, 1997 00:54 by MM
_	MW-21 (52.0-53.0)	173428-010 BTEX	втех	SW-846	mdd	3 days	Dec 18, 1997		Dec 26, 1997 by HL	Dec 26, 1997 18:25 by HL
			TPH8015M-D	SW-846 8015 M	mg/kg	Standard	Dec 18, 1997		Dec 26, 1997 by MM	Dec 27, 1997 01:19 by MM
24 MW	MW-22 (5.0-7.0)	173428-011	втех	SW-846	mdd	3 days	Dec 18, 1997		Dec 26, 1997 by HL	Dec 26, 1997 17:47 by HL
25			TPH8015M-D	SW-846 8015 M	mg/kg	Standard	Dec 18, 1997		Dec 26, 1997 by MM	Dec 27, 1997 01:44 by MM
	MW-22 (52.0-54.0)	173428-012	втех	SW-846	mdd	3 days	Dec 18, 1997		Dec 26, 1997 by HL	Dec 26, 1997 19:21 by HL
			TPH8015M-D	SW-846 8015 M	mg/kg	Standard	Dec 18, 1997		Dec 26, 1997 by MM	Dec 27, 1997 02:09 by MM
28 MW	28 MW-23 (20.0-22.0)	173428-013	втех	SW-846	mdd	3 days	Dec 19, 1997		Dec 26, 1997 by HL	Dec 26, 1997 19:40 by HL

2



### ANALYTICAL CHAIN OF CUSTODY REPORT CHRONOLOGY OF SAMPLES

K.E.I. Consultants, Inc.

Project Name: TNMPL

Project Manager: Theresa Nix

Project ID: 610099

XENCO COC#: 1-73428

XENCO contact: Carlos Castro/Edward Yonemoto Date Received in Lab: Dec 23, 1997 15:45 by HL

	Project Location: SPS-11								NCO contact : Can	ACNCO CONTACT: Carlos Castro/Edward Tonemoto	
								Date	Date and Time		
	Field ID	Oi de l	Method	Method	llnite	Turn	Sample	Addition			Γ
			Name	<u>Q</u>	S	Around	Collected	Requested	Extraction	Analysis	
53			TPH8015M-D	SW-846 8015 M	mg/kg	Standard	Dec 19, 1997		Dec 26, 1997 by MM	Dec 27, 1997 02:35 by MM	Γ-
8	MW-23 (52.0-54.0)	173428-014	втех	SW-846	ppm	3 days	Dec 19, 1997		Dec 26, 1997 by HL	Dec 26, 1997 19:59 by HL	
3			TPH8015M-D	SW-846 8015 M	mg/kg	Standard	Dec 19, 1997		Dec 26, 1997 by MM	Dec 27, 1997 03:00 by MM	
32	32 MW-24 (10.0-12.0)	173428-015 BTEX	втех	SW-846	ppm	3 days	Dec 19, 1997		Dec 26, 1997 by HL	Dec 26, 1997 20:18 by HL	
33			TPH8015M-D	SW-846 8015 M	mg/kg	Standard	Dec 19, 1997		Dec 26, 1997 by MM	Dec 27, 1997 03:25 by MM	
34	34 MW-24 (40.0-42.0)	173428-016 BTEX	втех	SW-846	wdd	3 days	Dec 19, 1997		Dec 26, 1997 by HL	Dec 26, 1997 22:11 by HL	
35			TPH8015M-D	SW-846 8015 M	By/Bw	Standard	Dec 19, 1997		Dec 26, 1997 by MM	Dec 27, 1997 03:50 by MM	<u> </u>
36			SPLР ТРН	EPA	wdd	7 days	Dec 19, 1997	Dec29,1997 15:50	Dec 31, 1997 by JM	Dec 31, 1997 15:55 by JM	
37			SPLP-VOA	EPA1312/8260	mg/kg	7 days	Dec 19, 1997	Dec29,1997 15:50	Jan 6, 1997 by CE	Jan 6, 1998 18:47 by CE	
38			SPLP-SV(TCL)	SW846-1312/82	ng/L	7 days	Dec 19, 1997	Dec29,1997 15:50	Dec 31, 1997 by RR	Jan 2, 1998 21:08 by LC	
39	MW-24 (52.0-54.0)	173428-017 BTEX	втех	SW-846	mdd	3 days	Dec 19, 1997		Dec 26, 1997 by HL	Dec 26, 1997 21:52 by HL	
9			TPH8015M-D	SW-846 8015 M	mg/kg	Standard	Dec 19, 1997		Dec 26, 1997 by MM	Dec 27, 1997 04:15 by MM	
41	41 MW-25 (30.0-32.0)	173428-018	втех	SW-846	mdd	3 days	Dec 22, 1997		Dec 26, 1997 by HL	Dec 26, 1997 21:15 by HL	
42			TPH8015M-D	SW-846 8015 M	mg/kg	Standard	Dec 22, 1997		Dec 26, 1997 by MM	Dec 27, 1997 04:40 by MM	
43	43 MW-25 (52.0-54.0)	173428-019 BTEX	втех	SW-846	шдд	3 days	Dec 22, 1997		Dec 26, 1997 by HL	Dec 26, 1997 21:33 by HL	
44			TPH8015M-D	SW-846 8015 M	mg/kg	Standard	Dec 22, 1997		Dec 26, 1997 by MM	Dec 27, 1997 05:05 by MM	
											ľ

XENCO

11381 Meadowylen Suite L Houston, Texas 77082 (713) 589-0692 Fax (713) 589-0695

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Page | of 2 Lab. Batch # 173428

Contractor							
KET Con	Consultants	ts	Phone ( 210	10 1680-3767	No. coolers this shipment	Contractor COC #	
Address					Carrier	Quoto #:	
5309 WU	Wurzbach	Surte 100	San Antonia	17x 78238	of Airbill No.	PO No:	
Project Name			Project Director	Mike Ha.	<u> </u>		þ=
Project Location $>$ $>$	SP5-11	////	Project Manager	1 1	51/51/60/	C   Turn-around	] <b>∢</b> ⊈
Sempler Signature			Project No.	610099	08 5/E/ 5/E/	/28/	SEX
SAM	the CHARLA	SAMPLE CHARACTERIZATEON	Preservative	ive Uni Dies Ker Unknown	10/20/20/20/20/20/20/20/20/20/20/20/20/20	E	£
$\overline{}$		00	Container	Watte Oil	ハ/リク/日/タ/	24 8	<b>*</b>
Field ID Da	Date Time	D ≥ d C ⊢ W ≪ D – J	Size Type ks Other P. G	PIT No: Tank No: Sample Description	1765 1765 1761 1761 1811 1811	Standard Standard Remarks	
MW-17 12-16-47	Ch.a		902 (5: )				-
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mw-17 12-16-77	Ce.,	51.0			-		၉
(11-71-21 BI-MW	Ch-s	20.0- 24.5					4
(h-71-21 A1-MW)	Up 3	54.6					ro O
78-11-21 P1-MM	18-47	10.0-					9
10-11-21 151-MW	1.47	1 / 0.48					~
MW-20 12-17-97	·a7	32.0			-		8
74-11-51 02-MM	1-6.1	54.0					0
MW-21 12-18	65	22.0-	/ <u>A</u> A			THIS SAMPLE TO	2 2
Relinquished by	Significant	DATE	TIME Received by:	d by: (Signature)	DATE TIME Remarks	-	
		12-22-47	1430		30	<b>~</b>	7
11/1/1						Sprp	
Delivered via UPS	ig UP	19/23/97	Received For	y abytetypy for.	5h:51 16/82/11	Splp svoc	
Prok (Contractor) Yellow & White (Lab)	Yelow & Wi	Tite (Lab)	<b>S</b>				1

Precision Analytical Services

11381 Meadowgen Suite L. Houston, Texas 77082 (713) 589-0695 Fax (713) 589-0695

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Page 2 of 2 Lab. Batch # 173428

Contractor		Cox Hat			Į t	Phone (		•		No coolers t	No coolers this shipment:	O	Contractor COC #	* Q	
Address	1	5,00,0							2	Carrier			Quote *:		
6	Worzbach		Suite	100		San	$\mathcal{X}$	Antonio TX 78238		Airbill No.			P.O. No:		
Project Nema					Æ	Project Director	_	Mixe Hustburg	002						Ä
Project Location SPS - (	SPS-11	1	1		Ę.	Project Managai	[\$	Thorse Nix	<b>5 Fr ≪</b>	200	515 515 525	_	<u></u>	Turn-around	∢M
Sampler Signeture					Æ	Project No.		610099	Z	) ) (3)	3	<u></u>	\ \ \	ASAP P	Ø. K≺
	SAMPLE	SAMPLE CHARACTERIZATION	NOLL			Pres	Preservative	Unl Dies Ker Unknown	T	000	10	<u> </u>	PIQ		
Field ID	Date	Time F	%	0 0 ≤ v	Container Size Type P. G.	8	Other	Waste Oil PIT No: Tank No: Sample Description	Total	a) Xara	, os		H espend	Standard	**
MW-2[	12-18-97	520- 53.5		,	25				-						F
	15-31-21	5,0-													N
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m. 25	12-11-11	0'FS /			<b>A</b>	Ž									Çt.
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			12-77-97		1430						2 5	'n	SPLP TPH		
													Spup voc		
Delivered via	-ed vic	a UPS. 12/23/97	12/23	16/		2 × ×	To Fall	Received For Laboratory by	14	24:51 cp/22/11	54.3	4,	Sprp Svoc		
	- X .	l -													

Prik (Contractor), Yellow & White (Lab).

\* Pre-scheduling is recommended

Precision Analytical Services

### **ANALYTICAL REPORT 1-80098**

for

K.E.I. Consultants, Inc.

**Project Manager: Theresa Nix** 

**Project Name: TNMPL** 

**Project Id: 610099** 

January 28, 1998



11381 Meadowglen Lane Suite L \* Houston, Texas 77082-2647 Phone (281) 589-0692 Fax (281) 589-0695

The same of the sa



11381 Meadowglen Suite L Houston, Texas 77082-2647 (281) 589-0692 Fax: (281) 589-0695

Houston - Dallas - San Antonio

January 28, 1998

Project Manager: Theresa Nix K.E.I. Consultants, Inc. 5309 Wurzbach Rd. Suite 100 San Antonio, TX 78238

Reference: XENCO Report No.: 1-80098

Project Name: TNNIPL
Project ID: 610099
Project Address: SPS-11

### Dear Theresa Nix:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with XENCO Chain of Custody Number 1-80098. All results being reported to you apply only to the samples analyzed, properly identified with a Laboratory ID number. This letter documents the official transmission of the contents of the report and validates the information contained within.

All the results for the quality control samples passed thorough examination. Also, all parameters for data reduction and validation checked satisfactorily. In view of this, we are able to release the analytical data for this report within acceptance criteria for accuracy, precision, and completeness.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 3 years in our archives and after that time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in COC No. 1-80098 will be filed for 60 days, and after that time they will be properly disposed of without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

XENCO Laboratories is accredited by the American Association for Laboratory Accreditation (A2LA) for technical competence in the field of Environmental Testing (Certificate No. 0343-01). In accordance with A2LA's guidelines, XENCO operates a Quality System that meets ISO/IEC Guide 25 requirements and is strictly implemented and enforced through our standard QA/QC procedures.

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

Sincerely,

Eddie Fonstrioto, Ph.D. Q. G. Manager

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

Certified in California, Oklahoma, Kansas, Arkansas, and approved by numerous other States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY!

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CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Page of

Lab. Batch # 180098-54

										)
KET	Consultants		Phone ( 210	1 680-3763	No cook	No coolers this shipment:		Contractor COC #	* Q	
Address					Carrier			Quote #:		
5309 1	5309 Workall Sun	Suite 100	SA, 1x	× 78238	of Airbill No.	ٷ		PO No:		
Project Name			Project Director	MIKO Haw Thomas	<del></del>					þ
Project Location SPS-1	11.11	_	Project Menager			\ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	/ / /	<u></u>	Turn-around	] <b>{</b> #
Sempler Signeture			Project Na.	610099	OZOQ		<u></u>	<i></i>	- ASAP	S X
SAMINE	SAMIN'E CHARACTERIZATION		Preservative	Unl Dies Ker Unknown		H4/	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	PK	£ :	
Field ID Date	Time P O A W	M A Stree Type	Par Office Control of the Control of	Weste Oil PIT No: Tank No: Sample Description	W X QUB			TH espend	Standard Standard Remarks	*
B-7 16-48					1					-
B-7 1-6-98	52.0.7 S\.0									N
B-B 1-6-98					1					е
13-8 1-6-98					-					4
8-6 16-98					-					w
B-9 1-6-98	20.17				-					ø
8-9 1-1.48										^
B-9-1 6-8	51.0-				-					ω
B-7 1-6-98	40.0-				1//1	///				a
										Q
Relinquished by. King	Eligophysis DATE	TE TIME	Received by	9c Signature)	DATE	TIME R	Remarks	1 \	-	
	95-21-1	1610					DRO ON		nguest Splp TPH	
			Received For Laboratogy by	Cloth Lab	1-13-98	00:60	(vis ups)		VOC	
Pink (Contractor), Yellow & White (Lab).	w & White (Lab).			* Pre-scheduling is recommended	is recomm	nended	•	Pa	Precision Analytical Services	Services



Project Manager: Theresa Nix

Project ID: 610099

K.E.I. Consultants, Inc. Project Name: TNMPL

Date Received in Lab: Jan 13, 1998 09:00

Date Report Faxed: Jan 28, 1998

YENCO contact . Carlos Castro

Droioct Location					Date Nepoll ra	Date heport raked: Jan 26, 1998	
i oject Location. SPS-11		·			XENCO cont	XENCO contact: Carlos Castro/Edward Yonemoto	dward Yonemoto
Analysis Requested	Lab ID: Field ID: Depth: Matrix: Sampled:	180098 001 B-7 30-30.5 Solid 01/06/98	180098 002 B-7 52.0-54.0 Solid 01/06/98	180098 003 B-8 20.0-21.5 Solid 01/06/98	180098 004 B-8 40.0-42.0 Solid 01/03/98	180098 005 B-8 52.0-54.0 Solid 01/06/98	180098 006 B-9 20.0-21.0 Solid
TPH-DRO (Diesel) EPA 8015 M	Analyzed: 01/15/98 Units: mg/kg	alyzed: 01/15/98 R.L. Units: mg/kg	01/16/98 R.L. mg/kg	01/16/98 R.L. mg/kg	01/16/98 R.L.	01/16/98 R.L.	01/16/98 R.L.
Total Petroleum Hydrocarbons		< 10.0 (10.0)	< 10.0 (10.0)	< 10.0 (10.0)	276 (10.0)	22.3 (10.0)	< 10.0 (10.0)
BTEX EPA 8020	Analyzed: 01/13/98 Units: ppm	01/13/98 R.L. ppm	01/13/98 R.L. ppm	01/13/98 R.L. ppm	01/13/98 R.L.	01/13/98 R.L.	1
Benzene		< 0.020 (0.020)	< 0.020 (0.020)	< 0.020 (0.020)	< 0.10 (0.10)	< 0.10 (0.10)	< 0.020 (0.020)
loluene		< 0.020 (0.020)		< 0.020 (0.020)	0.17 (0.10)	< 0.10 (0.10)	
Emylbenzene		< 0.020 (0.020)	*	< 0.020 (0.020)	0.66 (0.10)	< 0.10 (0.10)	< 0.020 (0.020)
m,p-Xylenes		< 0.040 (0.040)		< 0.040 (0.040)	0.99 (0.20)	< 0.20 (0.20)	
0-Aylene		< 0.020 (0.020)	< 0.020 (0.020)	< 0.020 (0.020)	0.88 (0.10)	< 0.10 (0.10)	< 0.020 (0.020)
iotal BIEX		N.D.	0.081	N.D.	2.70	N.D.	ND

Edward H. Yonemate, Ph.D. Jeethical Director

K.E.I. Consultants, Inc..

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Project ID: 610099

Project Manager: Theresa Nix

Project Location: SPS-11

K.E.I. Consultants, Prog. Project Name: TNMPL

Date Received in Lab: Jan 13, 1998 09:00

XENCO contact: Carlos Castro/Edward Yonemoto Date Report Faxed: Jan 28, 1998

Analysis Requested String TPH-DRO (Diesel) EPA 8015 M	Lab ID: Field ID: Depth:	180098 007 B-9		180098 008 B-9	180098 009	
s Requested	Depth:			0-0	B-7	
	маглх:	40.0-42.0 Solid		52.0-54.0 Solid	40.0-42.0 Solid	
	Sampled:	01/06/98		01/06/98	01/06/98	
	Analyzed: 01/16/98 Units: mg/kg		R.L. mg	01/16/98 R.L. mg/kg	01/16/98 R.L. mg/kg	
Total Petroleum Hydrocarbons		1350 (	(100)	3030 (100)	16.7 (10.0)	
BTEX EPA 8020	Analyzed: 01/13/98 Units: ppm		R.L.	01/13/98 R.L. ppm	01/13/98 R.L.	
Benzene		0.69	(0.10)	4.11 (0.10)	< 0.020 (0.020)	
Toluene		0.79	(0.10)	0.88 (0.10)	< 0.020	
Ethylbenzene		19.50 ((	(0.10)	39.70 (0.10)	< 0.020 (0.020)	
m,p-Xylenes		22.20 ((	(0.20)	42.30 (0.20)	< 0.040 (0.040)	
o-Xylene		7.23 ((	(0.10)	16.30 (0.10)		
Total BTEX		90	50.41	103.29	O.N.	
SPLP-Semivolatiles, Target Com	Analyzed:		-	01/22/98		
EPA1312/8270	Units:		=	mg/L K.L.		
Acenaphthene			$\vdash$	< 0.010 (0.010)		
Acenaphthylene				< 0.010 (0.010)		
Anthracene				< 0.010 (0.010)		
Benzo(a)anthracene			-	< 0.010 (0.010)		
Benzo(a)pyrene				< 0.010 (0.010)		
Benzo(b)fluoranthene				< 0.010 (0.010)		
Benzo(g,h,i)perylene				< 0.010 (0.010)		
Benzo(k)fluoranthene				< 0.010 (0.010)		
4-Bromophenyl-phenylether				< 0.010 (0.010)		
Butyl benzyl phthalate				< 0.010 (0.010)		
Carbazole				< 0.010 (0.010)		
4-Chloro-3-Methylphenol				< 0.010 (0.010)		

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Edward H. Yonemote, Ph.D.

**Jechnical Director** 



K.E.I. Consultants, Inc.

Project Name: TNMPL

Project Manager: Theresa Nix Project Location: SPS-11

Project ID: 610099

Date Received in Lab: Jan 13, 1998 09:00

XENCO contact: Carlos Castro/Edward Yonemoto Date Report Faxed: Jan 28, 1998

	6,45					
	Field ID:	180098 007 B-9	180098 008 B-9	180098 009 B-7		
Analysis Requested	Depth: Matrix:	40.0-42.0 Solid	52.0-54.0	40.0-42.0		
	Sampled:	01/06/98	SOIID 01/06/98	Solid 01/06/98		
	Analyzed: Units:		01/22/98 R.L. mg/L			
4-Chloroaniline			< 0.010 (0.010)			
2-Chloronaphthalene			< 0.010 (0.010)			
2-Chlorophenol			< 0.010 (0.010)			
4-Chlorophenyl-phenyl ether			< 0.010 (0.010)			
Chrysene			< 0.010 (0.010)		0	
Di-n-butyl phthalate			< 0.010 (0.010)			
Di-n-octyl phthalate			< 0.010 (0.010)			
Dibenzo(a,h)anthracene			< 0.010 (0.010)			
Dibenzofuran			< 0.010 (0.010)			
1,2-Dichlorobenzene			< 0.010 (0.010)			
1,3-Dichlorobenzene			< 0.010 (0.010)			
1,4-Dichlorobenzene			< 0.010 (0.010)			
3,3'-Dichlorobenzidine			< 0.010 (0.010)			
2,4-Dichlorophenol			< 0.010 (0.010)			
Diethyl phthalate			< 0.010 (0.010)			
2,4-Dimethylphenol			< 0.010 (0.010)			
Dimethyl phthalate			< 0.010 (0.010)			
4,6-Dinitro-2-methylphenol			< 0.025 (0.025)			
2,4-Dinitrophenol			< 0.025 (0.025)			
2,4-Dinitrotoluene			< 0.010 (0.010)			
2,6-Dinitrotoluene			< 0.010 (0.010)			
Fluoranthene			< 0.010 (0.010)			
Fluorene			< 0.010 (0.010)			
Hexachlorobenzene			< 0.010 (0.010)			
					,	

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**Fechnical Director** 



K.E.I. Consultants, Inc.

Project Name: TNMPL

Project Manager: Theresa Nix Project Location: SPS-11

Project ID: 610099

Date Received in Lab: Jan 13, 1998 09:00

Date Report Faxed: Jan 28, 1998

Project Location: SPS-11					XENCO contact:	XENCO contact: Carlos Castro/Edward Yonemoto
	Lab ID: Field ID:	180098 007 B-9	180098 008 B-9	180098 009 B-7		
Analysis Requested	Depth: Matrix:	40.0-42.0 Solid	52.0-54.0 Solid	40.0-42.0 Solid		
	Sampled:	01/06/98	01/06/98	01/06/98		
	Analyzed: Units:		01/22/98 R.L.			
Hexachlorobutadiene			< 0.010 (0.010)			
Hexachlorocyclopentadiene			< 0.010 (0.010)			
Hexachloroethane			< 0.010 (0.010)			
Indeno(1,2,3-cd)pyrene			< 0.010 (0.010)			
Isophorone			< 0.010 (0.010)			
2-Methylnaphthalene			0.044 (0.010)			
2-Methylphenol			< 0.010 (0.010)			
4-Methylphenol			< 0.010 (0.010)			
N-Nitroso-di-n-propylamine			< 0.010 (0.010)			
N-Nitrosodiphenylamine			< 0.010 (0.010)			
Naphthalene			0.048 (0.010)			
2-Nitroaniline			< 0.025 (0.025)			
3-Nitroaniline			< 0.025 (0.025)			
4-Nitroaniline			< 0.025 (0.025)			
Nitrobenzene			< 0.010 (0.010)			
2-Nitrophenol			< 0.010 (0.010)			
4-Nitrophenol			< 0.010 (0.010)			
Pentachlorophenol			< 0.025 (0.025)			
Phenanthrene			< 0.010 (0.010)			
Phenol			< 0.010 (0.010)			
Pyrene			< 0.010 (0.010)			
1,2,4-Trichlorobenzene			< 0.010 (0.010)			
2,4,5-Trichlorophenol			< 0.025 (0.025)			
2,4,6-Trichlorophenol			< 0.010 (0.010)			

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(Edward H. Yonerhoto, Ph.D. Technical Director



K.E.I. Consultants, Inc.

Project Manager: Theresa Nix Project ID: 610099

Project Location: SPS-11

Project Name: TNMPL

Date Received in Lab: Jan 13, 1998 09:00

Date Report Faxed: Jan 28, 1998

Project Location: SPS-11					XENCO contact: Carlos Castro/Edward Yonemoto	arios Castro/Ed	ward Yonemoto
	Cab ID:	180098 007	180098 008	180098 009			
	Field ID:	B-9	B-9	B-7			
Analysis Requested	Depth: Matrix:	40.0-42.0 Solid	52.0-54.0 Solid	40.0-42.0			
	Sampled:	01/06/98	01/06/98	50lld 01/06/98			
	Analyzed:		01/22/98 B I				
	Units:		mg/L N.E.		<del></del>	<del></del>	
bis [2-Chloroethoxy] methane			< 0.010 (0.010)				
bis [2-Chloroethyl] ether			< 0.010 (0.010)				
bis [2-Chloroisopropyl] ether			< 0.010 (0.010)				
bis [2-Ethylhexyl] phthalate			0.028 (0.010)				
SPLP Volatiles	Analyzed:		01/26/98				
EPA 8260	Units:		mg/L R.L.				
Benzene			< 0.025 (0.025)				
Bromobenzene			< 0.025 (0.025)				
Bromochloromethane			< 0.025 (0.025)				
Bromodichloromethane			< 0.025 (0.025)				
Bromoform			< 0.025 (0.025)				
Bromomethane			< 0.025 (0.025)				
Carbon Tetrachloride			< 0.025 (0.025)				
Chlorobenzene			< 0.025 (0.025)				
Chloroethane			< 0.050 (0.050)				
Chloroform			< 0.025 (0.025)				
Chloromethane			< 0.050 (0.050)				
2-Chlorotoluene			< 0.025 (0.025)				
4-Chlorotoluene			< 0.025 (0.025)				
1,2-Dibromo-3-chloropropane			< 0.025 (0.025)				
Dibromochloromethane			< 0.025 (0.025)				
1,2-Dibromoethane			< 0.025 (0.025)				
Dibromomethane			< 0.025 (0.025)				

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Édward H. Yonemato, Ph.D.

2 Technical Director



### **SUMMARY 1-80098** OF ANALYSIS CERTIFICATE

K.E.I. Consultants, Inc.

Project Name: TNMPL

Project Manager: Theresa Nix Project ID: 610099

Project Location: SPS-11

Date Received in Lab: Jan 13, 1998 09:00

XENCO contact: Carlos Castro/Edward Yonemoto Date Report Faxed: Jan 28, 1998

	Lab ID: Field ID:	180098 007 B-9	180098 008 B-9	180098 009 B-7		
Analysis Requested	Depth: Matrix:	40.0-42.0 Solid	52.0-54.0 Solid	40.0-42.0 Solid	***************************************	
	Sampled:	01/06/98	01/06/98	01/06/98		
	Analyzed: Units:		01/26/98 R.L. mg/L			
1,2-Dichlorobenzene			< 0.025 (0.025)			
1,3-Dichlorobenzene			< 0.025 (0.025)			
1,4-Dichlorobenzene			< 0.025 (0.025)			
Dichlorodifluoromethane			< 0.025 (0.025)			
1,1-Dichloroethane			< 0.025 (0.025)			
1,2-Dichloroethane			< 0.025 (0.025)			
1,1-Dichloroethene			< 0.025 (0.025)			
1,2-Dichloropropane			< 0.025 (0.025)			
1,3-Dichloropropane			< 0.025 (0.025)			
2,2-Dichloropropane			< 0.025 (0.025)			
1,1-Dichloropropene			< 0.025 (0.025)			
Ethylbenzene			0.741 (0.025)			
Hexachlorobutadiene			< 0.025 (0.025)			
Isopropylbenzene			0.066 (0.025)			
MTBE			< 0.050 (0.050)			
Methylene chloride			< 0.050 (0.050)			
Naphthalene			0.055 (0.025)			
Styrene			< 0.025 (0.025)			
1,1,1,2-Tetrachloroethane			< 0.025 (0.025)			
1,1,2,2-Tetrachloroethane			< 0.025 (0.025)			
Tetrachloroethene			< 0.025 (0.025)			
Toluene			< 0.025 (0.025)			
1,2,3-Trichlorobenzene			< 0.025 (0.025)			
1,2,4-Trichlorobenzene			< 0.025 (0.025)			
					0	000

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Edward H. Yonemoto, Ph.D.

Zechnical Director



K.E.I. Consultants, Inc.

Project Name: TNMPL

Project Manager: Theresa Nix Project ID: 610099

Date Received in Lab: Jan 13, 1998 09:00

Date Report Faxed: Jan 28, 1998

XENCO contact: Carlos Castro/Edward Yonemoto

Project Location: SPS-11					XENCO contact: Carlos Castro/Edward Yonemoto	astro/Edward Yonemoto
Analysis Requested	Lab ID: Field ID: Depth: Matrix:	180098 007 B-9 40.0-42.0 Solid	180098 008 B-9 52.0-54.0 Solid	180098 009 B-7 40.0-42.0 Solid		
	Analyzed: Units:		01/26/98 R.L.			
1,1,1-Trichloroethane			< 0.025 (0.025)			
1,1,2-Trichloroethane			< 0.025 (0.025)			
Trichloroethene			< 0.025 (0.025)			
Trichlorofluoromethane			** 0.864 (0.025)			
1,2,3-Trichloropropane			< 0.025 (0.025)			
1,2,4-Trimethylbenzene		-	0.131 (0.025)			
1,3,5-Trimethylbenzene			0.050 (0.025)			
Vinyl chloride			< 0.025 (0.025)			
cis-1,2-Dichloroethene			< 0.025 (0.025)			
cis-1,3-Dichloropropene			< 0.025 (0.025)			
m,p-Xylenes			0.557 (0.025)			
n-Butylbenzene			< 0.025 (0.025)			
n-Propylbenzene			0.090 (0.025)			
o-Xylene			0.296 (0.025)			
p-Isopropyltoluene			< 0.025 (0.025)			
sec-Butylbenzene			< 0.025 (0.025)			
tert-Butylbenzene			< 0.025 (0.025)			
trans-1,2-Dichloroethene			< 0.025 (0.025)			
trans-1,3-Dichloropropene			< 0.025 (0.025)			
** Result beyond calibration limits						
SPLP TPH 1312/418.1	Analyzed: Units:		01/22/98 R.L.			
Total Petroleum Hydrocarbons			20.6 (1.1)			
					7	,

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Edward H. Yohemoto, Ph.D.

Feethnical Director



### SW- 846 5030/8020 BTEX

Date Validated: Jan 14, 1998 09:00

Analyst: HL

Date Analyzed: Jan 13, 1998 13:29

Matrix: Solid

QA/QC Manager: Edward H. Yonemoto, Ph.D.

			BLANK SPI		SIS		
	[A] Blank	[B] Blank Spike	[C] Blank	[D] Method	QC E	[F]	[G]
Parameter	Result	Result	Spike Amount	Detection Limit	Blank Spike Recovery	Recovery Range	Qualifier
	ppm	ppm	ppm	ppm	%	%	
Benzene .	< 0.0010	0.1060	0.1000	0.0010	106.0	65-135	
Toluene	< 0.0010	0.1060	0.1000	0.0010	106.ა	65-135	
Ethylbenzene	< 0.0010	0.1110	0.1000	0.0010	111.0	65-135	
m,p-Xylenes	< 0.0020	0.2340	0.2000	0.0020	117.0	65-135	
o-Xylene	< 0.0010	0.1100	0.1000	0.0010	110.0	65-135	·

ank Spike Recovery [E] = 100\*(B-A)/(C)

N.C. = Not calculated, data below detection limit

N.D. = Below detection limit

results are based on MDL and validated for QC purposes only

Edward H Yonemoto, Ph.D. Fechnical Director



### RTEX SW- 846 5030/8020

Date Validated: Jan 14, 1998 09:00

Date Analyzed: Jan 13, 1998 14:26

QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: HL

Matrix: Solid

			MATR	IX SPIKE /	MATRIX S	PIKE DUPL	MATRIX SPIKE / MATRIX SPIKE DUPLICATE AND RECOVERY	ECOVERY			
al clames 10	[A]	[8]	[0]	<u>6</u>	<u> </u>	Matrix	E	[0]	Ξ	Œ	5
	Sample	Matrix Spike	Matrix Spike	Matrix	Method	Limit	ОС	၁ဗ	gc	Matrix Spike	<del></del>
200 -860081	Result	Result	Duplicate	Spike	Detection	Relative	Spike Relative	Matrix Spike	M.S.D.	Recovery	Qualifier
			Result	Amount	Limit	Difference	Difference	Recovery	Recovery	Range	
Parameter	mdd	mdd	ррт	mdd	mdd	%	%	%	%	%	
Benzene	< 0.020	1.790	1.906	2.000	0.020	25.0	6.3	89.5	95.3	65-135	
Toluene	< 0.020	1.788	1.848	2.000	0.020	25.0	3.3	89.4	92.4	65-135	
Ethylbenzene	< 0.020	1.830	1.950	2.000	0.020	25.0	6.3	91.5	97.5	65-135	
m.p-Xylenes	080.0	3.960	4.220	4.000	0.040	25.0	6.4	0.76	103.5	65-135	
o-Xylene	< 0.020	1.842	1.966	2.000	0.020	25.0	6.5	92.1	98.3	65-135	



Page

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

M.S.D. Recovery [H] = 100\*(C-A)/[D] M.S.D. = Matrix Spike Duplicate

N.D. = Below detection limit or not detected All results are based on MDL and validated for QC purposes



### SW- 846 8015 M TPH- DRO (Diesel)

Date Validated: Jan 16, 1998 14:20

Analyst: MM

Date Analyzed: Jan 15, 1998 22:30

Matrix: Solid

QA/QC Manager: Edward H. Yonemoto, Ph.D.

			BLANK SPI	KE ANALYS	SIS		
	[A]	[B]	[C]	[D]	[E]	(F)	[G]
	Blank	Blank Spike	Biank	Method	QC	LIMITS	
Parameter	Result	Resuit	Spike	Detection	Blank Spike	Recovery	Qualifier
			Amount	Limit	Recovery	Range	1
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	
Total Petroleum Hydrocarbons	< 10.00	254	300	10.00	84.7	65-135	

Sank Spike Recovery [E] = 100\*(B-A)/(C)
N.C. = Not calculated, data below detection limit

D. = Below detection limit

results are based on MDL and validated for QC purposes only





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### TPII. DRO (Diesel) SW- 846 8015 M

Date Validated: Jan 16, 1998 14:20

Date Analyzed: Jan 15, 1998 23:28

QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: MM

Matrix: Solid

			MATE	RIX SPIKE /	MATRIXS	PIKE DUPI	MATRIX SPIKE / MATRIX SPIKE DUPLICATE AND RECOVERY	RECOVERY			
O C Samula II	[4]	[8]	[0]	[0]	9	Matrix	臣	[6]	Ξ	Ξ	Ξ
	Sample	Matrix Spike	Matrix Spike	Matrix	Method	Limit	ည္မွ	သူ	oc	Matrix Spike	
100-96091	Result	Result	Duplicate	Spike	Detection	Relative	Spike Relative	Matrix Spike	M.S.D.	Recovery	Qualifie
			Result	Amount	Limit	Difference	Difference	Recovery	Recovery	Range	
Farameter	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	%	
Total Petroleum Hydrocarbons	< 10.00	258	272	300	10.00	30.0	5.3	86.0	90.7	65-135	

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Page



## SW846-8270 PAHs by SW-846-8270B

Date Validated: Jan 22, 1998 18:10

Date Analyzed: Jan 22, 1998 03:03

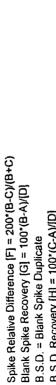
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: LC

Matrix: Solid

BLANK SPIKE / BLANK SPIKE DUPLICATE AND RECOVERY

										J. W.	
	[v]	[8]	[2]	(a)	[3]	Blank		[9]	E	LIJ .	[7]
	Blank	Blank Spike	Blank Spike	Blank	Method	Limit	၁ဇ	သွ	ac	Blank Spike	
Parameter	Result	Result	Duplicate	Spike	Detection	Relative	Spike Relative	Blank Spike	B.S.D.	Recovery	Qualifier
			Result	Amount	Limit	Difference	Difference	Recovery	Recovery	Range	
	mg/L	mg/L	mg/L	mg/L	mg/L	*	%	%:	%	*	
Acenaphthene	< 0.0040	0.0724	0.0724	0.1000	0.0040	19.0	0.0	72.4	72.4	31-137	
4-Chloro-3-Methylphenol	< 0.0020	0.0760	0.0714	0.1000	0.0020	33.0	6.2	76.0	71.4	26-103	
2-Chlorophenol	< 0.0020	0.0750	0.0712	0.1000	0.0020	28.7	5.2	75.0	71.2	25-102	
1,4-Dichlorobenzene	< 0.0084	0.0774	0.0734	0.1000	0.0084	32.1	5.3	4.77	73.4	28-104	
2,4-Dinitrotoluene	< 0.0020	0.0766	0.0732	0.1000	0.0020	21.8	4.5	76.6	73.2	28-89	
N-Nitroso-di-n-propylamine	< 0.0080	0.0822	0.0760	0.1000	0.0080	55.4	7.8	82.2	76.0	41-126	
4-Nitrophenol	< 0.0080	0.0294	0.0230	0.1000	0.0080	47.2	24.4	29.4	23.0	11-114	
Pentachlorophenol	< 0.0040	0.0770	0.0766	0.1000	0.0040	48.9	0.5	77.0	76.6	17-109	
Phenol	< 0.0020	0.0372	0.0342	0.1000	0.0020	22.6	84	37.2	34.2	26-90	
Pyrene	< 0.0032	0.0862	0.0810	0.1000	0.0032	25.2	6.2	86.2	81.0	35-142	
1,2,4-Trichlorobenzene	< 0.0108	0.0776	0.0766	0.1000	0.0108	23.0	1.3	77.6	76.6	38-107	



B.S.D. Recovery [H] = 100\*(C-A)/[D]
N.D. = Below detection limit or not detected

N.D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes

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### SPLP Volatiles EPA1312/8260

Date Validated: Jan 27, 1998 16:30

Date Analyzed: Jan 26, 1998 19:19

QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: CE

Matrix: Solid

MATRIX SPIKE / MATRIX SPIKE DUPLICATE AND RECOVERY

		i								-	.;
al clambs 20	[4]	[8]	[5]	<u>[</u>	9	Matrix	Œ	[0]	Ξ	ε	2
	Sample	Matrix Spike	Matrix Spike	Matrix	Method	Limit	oc	gc	သွင	Matrix Spike	<u> </u>
130052- ddg	Result	Result	Duplicate	Spike	Detection	Relative	Spike Retative	Matrix Spike	M.S.D.	Recovery	Qualifier
Domonto			Result	Amount	Limit	Difference	Difference	Recovery	Recovery	Range	
rarameter	mg/L	mg/L	mg/L	mg/L	mg/L	%	%	%	%	%	
Benzene	0.0115	0.2455	0.2545	0.2500	0:0020	20.0	3.6	93.6	97.2	66-142	
Chlorobenzene	< 0.0050	0.2285	0.2390	0.2500	0.0050	20:0	4.5	91.4	95.6	60-133	
1,1-Dichloroethene	< 0.0200	0.2360	0.2535	0.2500	0.0200	25.0	7.2	94.4	101.4	59-172	
Toluene	0900'0	0.2355	0.2475	0.2500	0.0050	20.0	5.0	91.8	96.6	59-139	
Trichloroethene	< 0.0150	0.2355	0.2485	0.2500	0.0150	20.0	5.4	94.2	99.4	62-137	

Edward H. Yonemoto, Ph.D. Zechnical Director

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

M.S.D. Recovery [H] = 100\*(C-A)/[D] M.S.D. = Matrix Spike Duplicate

N.D. = Below detection limit or not detected All results are based on MDL and validated for QC purposes

Houston - Dallas - San Antonio



### EPA 1312/418.1 SPLP TPH

Date Validated: Jan 22, 1998 12:45

Date Analyzed: Jan 22, 1998 10:04

QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: 06

Matrix: Solid

			BLAN	JK SPIKE /	BLANK SP	IKE DUPLI	BLANK SPIKE / BLANK SPIKE DUPLICATE AND RECOVERY	<b>ECOVERY</b>			
	[4]	[8]	[0]	[0]	(E)	Blank	Œ	[6]	Ξ	Ξ	5
	Blank	Blank Spike	Blank Spike	Blank	Method	Limit	OC	ОС	သွ	Blank Spike	
Parameter	Result	Result	Duplicate	Spike	Detection	Relative	Spike Relative Blank Spike	Blank Spike	B.S.D.	Recovery Qualifier	Qualifier
			Result	Amount	Limit	Difference	Difference	Recovery	Recovery	Range	
	ppm	mdd	шдд	mdd	ррт	%	%	%	%	%	
Total Petroleum Hydrocarbons	< 0.50	4.00	4.03	4.23	05.0	20.0	2.0	94.6	95.3	65-135	



Spike Relative Difference [F] = 200\*(B-C)/(B+C) Blank Spike Recovery [G] = 100\*(B-A)/[D] B.S.D. = Blank Spike Duplicate

(B.S.D. Recovery [H] = 100°(C-A)/[D]

(A)/N.D. = Below detection limit or not detected

All results are based on MDL and validated for QC purposes

Houston Dallas San Antonio

### **ANALYTICAL REPORT 1-80255**

for

K.E.I. Consultants, Inc.

Project Manager: Theresa Nix

Project Name: SPS-11

Project Id: 610099

January 27, 1998



HOUSTON - DALLAS - SAN ANTONIO

11381 Meadowglen Lane Suite L \* Houston, Texas 77082-2647 Phone (281) 589-0692 Fax (281) 589-0695



11381 Meadowglen Suite L Houston, Texas 77082-2647 (281) 589-0692 Fax: (281) 589-0695

Houston - Dallas - San Antonio

January 27, 1998

Project Manager: Theresa Nix K.E.I. Consultants, Inc. 5309 Wurzbach Rd. Suite 100 San Antonio, TX 78238

Reference: XENCO Report No.: 1-80255

Project Name: SPS-11 Project ID: 610099 Project Address: SPS-11

### Dear Theresa Nix:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with XENCO Chain of Custody Number 1-80255. All results being reported to you apply only to the samples analyzed, properly identified with a Laboratory ID number. This letter documents the official transmission of the contents of the report and validates the information contained within.

All the results for the quality control samples passed thorough examination. Also, all parameters for data reduction and validation checked satisfactorily. In view of this, we are able to release the analytical data for this report within acceptance criteria for accuracy, precision, and completeness.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 3 years in our archives and after that time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in COC No. 1-80255 will be filed for 60 days, and after that time they will be properly disposed of without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

XENCO Laboratories is accredited by the American Association for Laboratory Accreditation (A2LA) for technical competence in the field of Environmental Testing (Certificate No. 0343-01). In accordance with A2LA's guidelines, XENCO operates a Quality System that meets ISO/IEC Guide 25 requirements and is strictly implemented and enforced through our standard QA/QC procedures.

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

Sincerely,

Eddie Yosemoto, Ph.D. QAQC Manager

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

Certified in California, Oklahoma, Kansas, Arkansas, and approved by numerous other States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY!

## ANALYTICAL CHAIN OF CUSTODY REPORT CHRONOLOGY OF SAMPLES

K.E.I. Consultants, Inc.

Project Name: SPS-11

Project ID: 610099

Project Manager: Theresa Nix

Project Location: SPS-11

XENCO COC#: 1-80255

Date Received in Lab: Jan 23, 1998 09:20 by LY

XENCO contact: Carlos Castro/Edward Yonemoto

							Date	Date and Time		
Field ID	Lab. ID	Method	Method	Inite	Turn	Sample	Addition			
		Name	<b>a</b>	2	Around	Collected	Requested	Extraction	Analysis	
MW-1	180255-001 BTEX	втех	SW-846	mdd	5 davs	Jan 21 1998 14:05		1 20 4000 111		
2 MW-2	180255-002 BTEX	втех	SW-846	mdd		Jan 21, 1998, 14:23		Jan 25, 1998 by HL	Jan 25, 1998 11:57 by HL	
3 MW-3	180255-003 BTEX	втех	SW-846	П		Jan 21, 1998 14:58		Jan 25, 1996 by HL	Jan 25, 1998 11:00 by HL	
4 MW-4	180255-004 BTEX	втех	SW-846		T	Jan 21, 1998 13;49		Jan 25, 1936 by rd.	Jan 25, 1998 12.16 by HL	
5 MW-6	180255-005 BTEX	втех	SW-846	Г	Γ	Jan 22, 1998 10:50		lan 25, 1930 by nL.	Jan 25, 1998 12:35 by HL	
6 MW-7	180255-006 BTEX	втех	SW-846			Jan 21, 1998 13:39		Jan 25, 1936 by DL	Jan 25, 1998 12:53 by HL	
7 MW-9	180255-007 BTEX	втех	SW-846	mdd		Jan 22, 1998 11:18		lan 25, 1930 by DL	Jail 25, 1998 13:12 by HL	
8 MW-11	180255-008 BTEX	втех	SW-846	Γ	Γ	Jan 21 1998 13-58		Jan 25, 1930 by DL	Jan 25, 1998 13:31 by HL	
9 MW-12	180255-009 BTEX	втех	SW-846		T	lan 22 1998 10:43		Jan 25, 1998 by HL	Jan 25, 1998 13:50 by HL	
10 MW-13	180255-010 BTEX	втех	SW-846	T	T	20 22 4000 44.00		Jan 25, 1998 by HL	Jan 25, 1998 14:09 by HL	
11 MW-14	180255-011 BTEX	втех	SIM BAE	Т	7	Jan 22, 1338 11:00		Jan 25, 1998 by HL	Jan 25, 1998 14:28 by HL	
12 MW-15	180255-012 BTFX	ятех	CIAL 846	Т	T	Jan 22, 1998 11:58		Jan 25, 1998 by HL	Jan 25, 1998 18:17 by HL	
13 MW-16	180255-011 BYEX	BYEY	200-04G			Jan 22, 1998 12:06		Jan 25, 1998 by HL	Jan 25, 1998 15:25 by HL	
14 MW-17	180265 044 BTEX	DIEA DYCV	2W-846	T		Jan 22, 1998 11:25		Jan 25, 1998 by HL	Jan 25, 1998 15:44 by HL	
15 MW.18	180255-014 BIEA	מופא	SW-846	T		Jan 21, 1998 13:10		Jan 25, 1998 by HL	Jan 25, 1998 16:03 by HL	
16 MAY 19	010-007001	N I I	SW-846	mdd		Jan 21, 1998 13:21		Jan 25, 1998 by HL	Jan 25, 1998 16:22 by HL	_
TANK OF TANK	160255-016 BIEA	BIEA	SW-846	mdd		Jan 21, 1998 13:28		Jan 25, 1998 by HL	Jan 25, 1998 16:41 by HL	
0.2-0.01	180255-017 BTEX	BIEX	SW-846	mdd	5 days	Jan 22, 1998 10:16		Jan 25, 1998 by HL	Jan 25, 1998 17:01 by HL	
18 MW-21	180255-018 BTEX	втех	SW-846	mdd	5 days	Jan 22, 1998 10:30		Jan 25, 1998 by HL	Jan 25, 1998 17:20 by HL	
19 MW-22	180255-019 BTEX	втех	SW-846	ppm	5 days	Jan 22, 1998 11:11		Jan 25, 1998 by HL	Jan 25, 1998 17:39 bv HI	
20 MW-23	180255-020 BTEX	втех	SW-846	mdd	5 days	Jan 22, 1998 11:58		Jan 25, 1998 by HL	Jan 25, 1998 17:58 by HL	
21 MW-24	180255-021 BTEX	втех	SW-846	mdd	5 days	Jan 22, 1998 11:32		Jan 26, 1998 by HL	Jan 26, 1998, 07:58 hv HI	
22 MW-25	180255-022 BTEX	втех	SW-846	mdd	5 days	Jan 22, 1998 11:41		Jan 25, 1998 by HL	Jan 26, 1998, 00:27 by HI	
									THE CONTRACTOR OF THE CONTRACTOR	



Project ID: 610099

Project Manager: Theresa Nix

K.E.I. Consultants, Inc.

Project Name: SPS-11

Date Received in Lab: Jan 23, 1998 09:20

Date Report Faxed: Jan 27, 1998

					Date Report Fa	Date Report Faxed: Jan 27, 1998	
rioject Location: SPS-11					XENCOcont	XENCO contact: Carlos Castro/Edward Vocembe	otomogo V premp
	I ah ID.	180255 001	40000			act: canco casuo/E	awaid loiigiliolo
	Field ID: Depth:	MW-1	180255 002 MW-2	180255 003 MW-3	180255 004 MW-4	180255 005 MW-6	180255 006 MW-7
Allalysis Requested	Matrix: Sampled:	Liquid 01/21/98 14:05	Liquid 01/21/98 14:23	Liquid 01/21/98 14:58	Liquid 01/21/98 13:49	Liquid	Liquid
BTEY					21:00	01,22,30 10.30	65:51 96/17/10
EPA 8020	Analyzed: 01/25/98 Units: pem	01/25/98 R.L.	01/25/98 R.L.	5/98 R.L.	01/25/98 R 1	01/25/98 P.1	01/25/98
000000			ppiii	mdd	mdd	mdd mdd	ppm R.L.
penzene		7.54 (0.02)	< 0.001 (0.001)	< 0.004 (0.004)	V 00 00 400 00 5	70000	
Toluene		1.11 (0.02)			(100.0) 100.0	0.004 (0.004)	0.154 (0.004)
Ethylbenzene		1 76 (0 0)			< 0.004 (0.004)	< 0.004 (0.004)	0.013 (0.004)
M. D. Villando		(20.02)	(100.0) 100.0 >	< 0.004 (0.004)	< 0.004 (0.004)	< 0.004 (0.004)	0.045 (0.004)
III, p-Ayleries		1.13 (0.04)	< 0.002 (0.002)	< 0.008 (0.008)	< 0.008 (0.008)	(800 0)	(1000)
o-Xylene		0.46 (0.02)			(000.0) 000.0	0.000 (0.000)	0.009 (0.008)
Total BTEX		0004			< 0.004 (0.004)	< 0.004 (0.004)	0.005 (0.004)
		12.00	N.D.	N.D.	Q.N	O'N	0.226



K.E.I. Consultants, Inc.. This report summary, and the entire report it represents, has been made for the exclusive and confidential use of K.E.I. Co. The interpretations and results expressed through this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories, thowever, assumes no responsibility and makes no warranty to the end use of the data hereby presented.

Project ID: 610099

Project Manager: Theresa Nix

Project Location: SPS-11

K.E.I. Consultants, Inc.

Project Name: SPS-11

Date Received in Lab: Jan 23, 1998 09:20

Date Report Faxed: Jan 27, 1998

XENCO contact: Carlos Castro/Edward Yo

					TION COLLEGE	Active contact: Carlos Castro/Edward Yonemoto	dward Yonemoto
o de de la contra del la contra de la contra del la contra de la contra de la contra de la contra de la contra del la contra de la contra del la contra de la contra de la contra de la contra del la contra de la contra de la contra de la contra del la contra de la contra de la contra del la contra de	Lab ID: Field ID: Depth:	180255 007 MW-9	180255 008 MW-11	180255 009 MW-12	180255 010 MW-13	180255 011 MW-14	180255 012 MW-15
Allalysis Requested	Matrix: Sampled:	Liquid 01/22/98 11:18	Liquid 01/21/98 13:58	Liquid 01/22/98 10:43	Liquid 01/22/98 11:00	Liquid 01/22/98 11:58	Liquid 01/22/98 12-06
втех	Analyzed:	Analyzed: 01/25/98	01/25/98	01/25/08	04705700	001-0110	00:31
EPA 8020	Únits: ppm	ppm R.L.	R.L.	R.L.	UNZO/36 R.L.	01/25/98 R.L.	01/25/98 R.L.
Doniono				_1	hhii		udd l
חפוולפוופ		1.692 (0.004)	2.116 (0.004)	0.173 (0.004)	< 0.004 (0.004)	11.2 (0.1)	0 237 (0 004)
Toluene		0.015 (0.004)	< 0.004 (0.004)	< 0.004 (0.004)	> 0.004 (0.004)	1 2 7	
Ethylbenzene		0 036 (0 004)			(100.0)	(1.0) 6.1	< 0.004 (0.004)
		0.000 (0.004)	0.004 (0.004)	0.035 (0.004)	< 0.004 (0.004)	2.4 (0.1)	< 0.004 (0.004)
m,p-Xylenes		0.385 (0.008)	< 0.008 (0.008)	0.015 (0.008)	< 0.008 (0.008)	10 (02)	
o-Xylene		0.138 (0.004)	< 0.004 (0.004)	0.006 (0.004)	< 0.004 (0.004)		
Total BTEX		3.066			(100.0)	- [	× 0.004 (c
					S	/gL	0.237

dward-H. Yonemoto, Ph. D Technical Director

K.E.I. Consultants, Inc..

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Project ID: 610099

Project Manager: Theresa Nix

Project Location: SPS-11

K.E.I. Consultants, Inc.

Project Name: SPS-11

Date Received in Lab: Jan 23, 1998 09:20

Date Report Faxed: Jan 27, 1998

Project Location: SPS-11					XENCO cont	XENCO contact: Carlos Castro/Edward Vonemoto	dward Vonemoto
	Lab ID: Field ID: Death:	180255 013 MW-16	180255 014 MW-17	180255 015 MW-18	180255 016 MW-19	180255 017 MW-20	180255 018 MW-21
Analysis Requested	Matrix: Sampled:	Liquid 01/22/98 11:25	Liquìd 01/21/98 13:10	Liquid 01/21/98 13:21	Liquid 01/21/98 13:28	Liquid 01/22/98 10·16	Liquid 01/22/08 10:30
втех	Analyzed- 01125/08	01705/08	0472500				00000
EPA 8020	Units: ppm	ppm R.L.	01/23/38 R.L.	01/25/98 R.L.	01/25/98 R.L.	01/25/98 R.L.	01/25/98 R.L.
Renzene				-	Ppm		nidd.
Delizelle		< 0.004 (0.004)	0.158 (0.004)	< 0.004 (0.004)	< 0.004 (0.004)	< 0.004 (0.004)	0 932 (0 004)
Toluene		< 0.004 (0.004)	0.156 (0.004)	< 0.004 (0.004)	ľ		(10.00 0) 200.0
Ethylbenzene		< 0.004 (0.004)					< 0.004 (0.004)
No. 12.00		(100:0)		< 0.004 (0.004)	< 0.004 (0.004)	< 0.004 (0.004)	< 0.004 (0.004)
ın,p-Aylenes		< 0.008 (0.008)	0.027 (0.008)	< 0.008 (0.008)	(800.0) 800.0 >	(800 0) 800 0 >	) O O O O S
o-Xylene	-	< 0.004 (0.004)	0.013 (0.004)				
Total BTEX		2	0 380		(topin) topin	(100.0)	< 0.004 (0.004)
		7.5		N.D.	O.N	O.N.	0.932
						Y	



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Project Manager: Theresa Nix Project ID: 610099

Project Name: SPS-11

K.E.I. Consultants, Inc.

Date Received in Lab: Jan 23, 1998 09:20

. XENCO contact: Carlos Castro/Edward Yonemoto

Date Report Faxed: Jan 27, 1998

Project Location: SPS-11					XENCO contact: Carlos Castro/Edward Yonemoto	Yonemoto
	Lab ID: Field ID:	180255 019 MW-22	180255 020 MW-23	180255 021 MW-24	180255 022 MW-25	
Analysis Requested	Depth: Matrix: Sampled:	Liquid 01/22/98 11:11	Liquid 01/22/98 11:58	Liquid 01/22/98 11:32	Liquid 01/22/98 11:41	
BTEX EPA 8020	Analyzed: Units:	Analyzed: 01/25/98 R.L. Units: ppm	01/25/98 R.L. ppm	01/26/98 R.L. ppm	01/26/98 R.L.	
Benzene		< 0.004 (0.004)	< 0.004 (0.004)	1.40 (0.02)	< 0.001 (0.001)	
Toluene		< 0.004 (0.004)	< 0.004 (0.004)	0.23 (0.02)	< 0.001 (0.001)	
Ethylbenzene		< 0.004 (0.004)	< 0.004 (0.004)	0.15 (0.02)	< 0.001 (0.001)	
m,p-Xylenes		< 0.008 (0.008)	< 0.008 (0.008)	0.07 (0.04)	< 0.002 (0.002)	
o-Xylene		< 0.004 (0.004)	< 0.004 (0.004)	0.04 (0.02)	< 0.001 (0.001)	
Total BTEX		N.D.	N.D.	1.89	N.D.	

Temoto, Ph.D. echnical Director

The interpretations and results expressed through this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories, however, assumes no responsibility and makes no warranty to the end use of the data hereby presented.

K.E.I. Consultants, Inc..

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# Certificate Of Quality Control for Batch: 18A25A24

ATTACA STORM OF THE STORM STOR

### ISTEX SW- 846 5030/8020

Date Validated: Jan 26, 1998 14:00

Date Analyzed: Jan 25, 1998 11:19

QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: HL

Matrix: Liquid

	· .		MATR	IIX SPIKE /	MATRIXSI	PIKE DUPL	MATRIX SPIKE / MATRIX SPIKE DUPLICATE AND RECOVERY	ECOVERY		-	
T dument	[A]	[8]	<u>5</u>	<u> </u>	[3]	Matrix	E	[9]	E	Ξ	5
	Sample	Matrix Spike	Matrix Spike	Matrix	Method	Limit	၁၀	OC	gc	Matrix Spike	
700 -cc7091	Result	Result	Duplicate	Spike	Detection	Relative	Spike Relative	Matrix Spike	M.S.D.	Recovery	Qualifier
			Result	Amount	Limit	Difference	Difference	Recovery	Recovery	Range	,1
Farameter	mdd	ррт	mdd	mdd	mdd	%	%	%	%	%	
Benzene	< 0.0010	0.0956	0.0975	0.1000	0.0010	20.0	2.0	95.6	97.5	65-135	
Toluene	< 0.0010	0.0964	0.0980	0.1000	0.0010	20.0	1.6	96.4	98.0	65-135	
Ethyibenzene	< 0.0010	0.0995	0.1010	0.1000	0.0010	20.0	1.5	9.66	101.0	65-135	
m.p-Xylenes	< 0.0020	0.2150	0.2190	0.2000	0.0020	20.0	1.8	107.5	109.5	65-135	
o-Xylene	< 0.0010	2660'0	0.1020	0.1000	0.0010	20.0	2.3	7.66	102.0	65-135	



Spike Relative Difference [F] = 200\*(B-C)/(B+C) Matrix Spike Recovery [G] = 100\*(B-A)/[D] M.S.D. = Matrix Spike Duplicate

M.S.D. Recovery [H] = 100\*(C-A)/[D]

All results are based on MDL and validated for QC purposes N.D. = Below detection limit or not detected

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# Certificate Of Quality Control for Batch: 18A25A24

### RTEX SW- 846 5030/8020

Date Validated: Jan 26, 1998 14:00

Date Analyzed: Jan 25, 1998 10:04

Matrix: Liquid Analyst: HL

QA/QC Manager: Edward H. Yonemoto, Ph.D.

			BLAN	IK SPIKE I	BLANK SP	IKE DUPLI	BLANK SPIKE / BLANK SPIKE DUPLICATE AND RECOVERY	SCOVERY			
	[A]	[8]	<u></u>	<u>[0</u>	<u>E</u>	Blank	Œ	[6]	Ξ	Ξ	[2]
	Blank	Blank Spike	Blank Spike	Blank	Method	Limit	ac	ac	တ္ထ	Blank Spike	
Parameter	Result	Result	Duplicate	Spike	Detection	Relative	Spike Relative	Blank Spike	B.S.D.	Recovery	Qualifier
			Result	Amount	Limit	Difference	Difference	Recovery	Recovery	Range	
	ррт	mdd	ppm	шдд	mdd	%	%	%	%	%	
Benzene	< 0.0010	0.1050	0.0942	0.1000	0.0010	20.0	10.8	104.9	94.2	65-135	
Toluene	< 0.0010	0.1030	0.0946	0.1000	0.0010	20.0	8.5	102.9	94.6	65-135	
Ethylbenzene	< 0.0010	0.1080	0.0981	0.1000	0.0010	20.0	9.6	107.9	98.1	65-135	
n,p-Xylenes	< 0.0020	0.2330	0.2100	0.2000	0.0020	20.0	10.4	116.4	104.9	65-135	
o-Xylene	< 0.0010	0.1070	0.0961	0.1000	0.0010	20.0	10.7	106.9	96.1	65-135	
							·····				

Edward F. Yonemoto, Ph.D. **Technical Director**  Ĺ

All results are based on MDL and validated for QC purposes

N.D. = Below detection limit or not detected

B.S.D. Recovery [H] = 100\*(C-A)/[D] B.S.D. = Blank Spike Duplicate

Spike Relative Difference [F] = 200\*(B-C)/(B+C)

Blank Spike Recovery [G] = 100\*(B-A)/[D]



# Certificate Of Quality Control for Batch: 18A25A25

teltransonatus ilienalikienainis esekinin parakan parakan parakan karakan kanan parahan baran anda andan param

## SW- 846 5030/8020 BTEX

Date Validated: Jan 26, 1998 15:00

Date Analyzed: Jan 25, 1998 22:14

QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: HL Matrix: Liquid

			BLAN	IK SPIKE I	BLANK SP	IKE DUPLI	BLANK SPIKE / BLANK SPIKE DUPLICATE AND RECOVERY	COVERY			
	[A]	[8]	[0]	[0]	(E)	Bíank	E	[9]	Ξ	E	2
	Blank	Blank Spike	Blank Spike	Blank	Method	Limit	ďС	သွ	ည္ပ	Blank Spike	
Parameter	Result	Result	Duplicate	Spike	Detection	Relative	Spike Relative	Blank Spike	B.S.D.	Recovery	Qualifier
			Result	Amount	Limit	Difference	Difference	Recovery	Recovery	Range	
	шдд	mdd	mdd	mdd	mdd	%	%	%	%	%	
Benzene	< 0.0010	0.1110	0.1070	0.1000	0.0010	20.0	3.7	110.3	106.3	65-135	
Toluene	< 0.0010	0.1070	0.1030	0.1000	0.0010	20.0	3.8	106.9	102.9	65-135	
Ethylbenzene	< 0.0010	0.1120	0.1080	0.1000	0.0010	20.0	3.6	111.9	107.9	65-135	
m.p-Xylenes	< 0.0020	0.2410	0.2300	0.2000	0.0020	20.0	4.7	120.4	114.9	65-135	
o-Xylene	< 0.0010	0.1110	0.1060	0.1000	0.0010	20.0	4.6	110.9	105.9	65-135	
	The state of the s										



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Spike Relative Difference [F] = 200\*(B-C)/(B+C) Blank Spike Recovery [G] = 100\*(B-A)/[D]

B.S.D. = Blank Spike Duplicate B.S.D. Recovery [H] = 100\*(C-A)/[D]

N.D. = Below detection limit or not detected

All results are based on MDL and validated for QC purposes

Houston - Dallas - San Antonio

XCNCO Laboratorina

11381 Meadowgen Suite L. Houston, Texas 77082 (713) 589-0692 Fax (713) 589-0695

CHAIN OF CUSTODY RECORD
AND ANALYSIS REQUEST FORM

Page / of S

Lab. Batch # 180255-978

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Pink (Contractor), Yellow & White (Lab).

+ Pre-scheduling is recommended

Precision Analytical Services

11381 Meadowglen Suite L. Houston, Texas 77082 (713) 589-0692 Fax (713) 589-0695

CHAIN OF CUSTODY RECORD
AND ANALYSIS REQUEST FORM

Lab. Batch # | 86255-5A

Page 2 of 3

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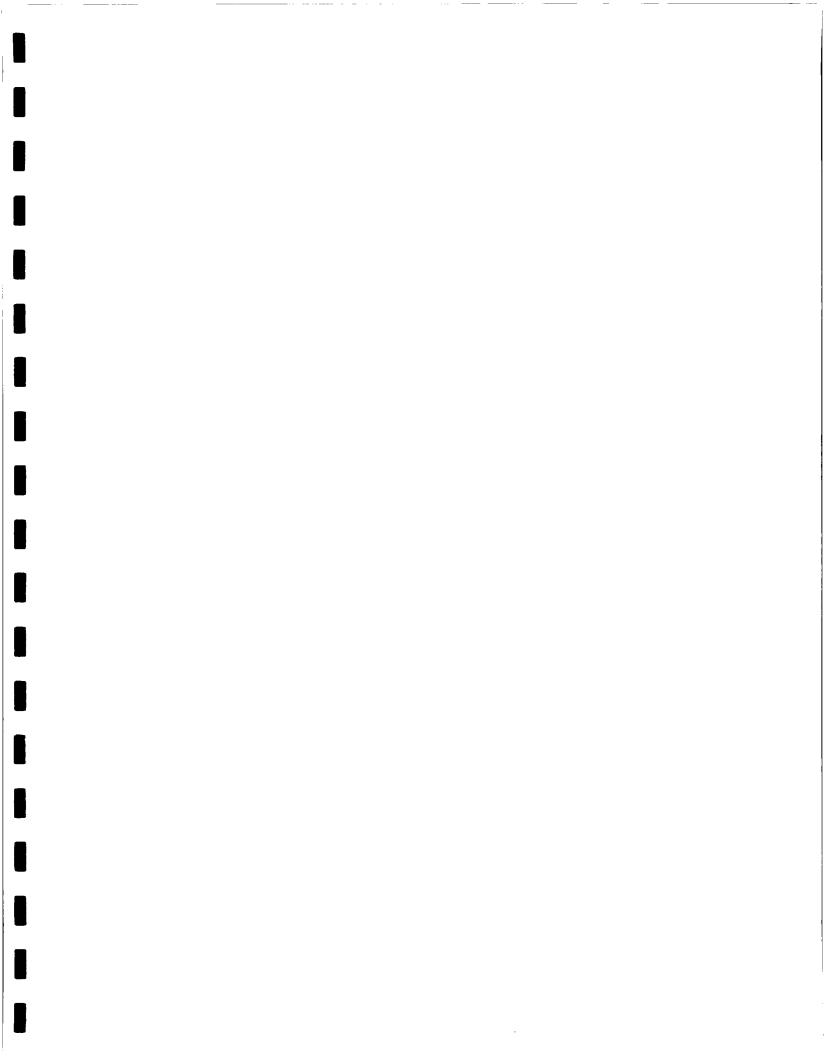
11381 Meadowylen Suite L Houston, Texas 77082 (713) 589-0692 Fax (713) 589-0695

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Page 3 of 3

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5309 Wurzbach, Suite 100 San Antonio, Texas 78238 (210) 680-3767 (210) 680-3763 FAX

GW-140

October 23, 1996

Eddie Gripp **TEXAS - NEW MEXICO PIPE LINE CO.** 3330 Executive Drive P.O. Box 60028 San Angelo, Texas 76906

RECEIVED

OCT 2 8 1996

Environmental Bureau Oil Conservation Division

RE: TNMPL SPS-11 Site

Dear Mr. Gripp:

The information herein is provided in response to the OCD letters of March 5, 1993, and October 2, 1996 (copies in Appendix A). The information is organized chronologically by OCD letter date, and identified by the specific item number provided in each OCD letter. A Site Location map is provided as FIG. 1.

### MARCH 5, 1993 LETTER

Well logs for monitoring wells MW-1, MW-2, MW-3, and MW-4 are presented as Item 1: FIG. 3 through FIG. 6.

Item 2: The analytical results of the May 6 and May 7, 1992 influent and effluent samples collected during the pump tests were included in the January 25, 1993 report. However, the sample descriptions were not listed in the report. The analytical results are presented below.

	Date	В	T	E	Х
Sample ID	Sampled	(mg/L)	(mg/L)	(mg/L)	(mg/L)
PW1-1 (Sparge Tank Influent)	05/06/92	<0.004	0.005	<0.004	<0.004
PW1-2 (Effluent)	05/06/92	<0.004	<0.004	<0.004	<0.004
PW1-3 (Influent)	05/07/92	<0.004	<0.004	<0.004	<0.004
PW1-4 (Effluent)	05/07/92	<0.004	<0.004	<0.004	<0.004

Item 3: As you pointed out in your letter, the estimated capture zone shown on Figure 11 of Appendix E in the site investigation report dated January 25, 1993, is oriented incorrectly.

Item 4: TNMPL will comply with the line pressure testing requirement. Currently the system is not operating. An initial pressure test will be performed to at least 3 psi above the anticipated operating pressure before the treatment system is started up,

Subsequent tests to the same standard will be performed annually. The results of the pressure test(s) will be submitted to OCD.

- Item 5: TNMPL proposes to install additional soil borings and monitoring wells to further define the boundaries of impacted soil and ground water. The approximate proposed locations of these borings and wells are presented on FIG. 2. Actual locations of these points may vary depending upon field conditions encountered during installation. Soil and ground water samples will be collected from each of these borings and wells. Installation will proceed upon receipt of approval from OCD.
- Item 6: The highest priority at the time of system installation was ground water treatment. Consequently, the ground water treatment system was designed to contain the spread of dissolved hydrocarbons. We agree with OCD that the soils at the site should be characterized further. The results of the soil and ground water sample analyses from the new soil borings and monitoring wells will be utilized to define the impact to soils at the site. If this analysis indicates the need for soil remediation, an appropriate system design will be submitted to OCD for approval. In the interim, TNMPL proposes to proceed with the startup of the ground water treatment system following receipt of OCD and NMED approval to do so.
- Appendix B is a proposed sampling plan which has been prepared in accordance with NMED regulations and project specific directives. We request that OCD defer regulation of drinking water sampling and approvals to NMED, as appropriate. The proposed sampling plan will be submitted to NMED for review and approval prior to system startup.
- Item 8: TNMPL herein requests a modification to the reporting schedule to eliminate quarterly reports and replace them with one annual report. This annual report will summarize project monitoring data for the previous year, and will be provided by February 15 of each year following the reporting year. Site monitoring will be conducted on a quarterly basis, at a minimum.
- <u>Item 9</u>: TNMPL wishes to update the sampling plan, as follows:

The pumping wells and treatment system will be monitored for a broad range of organic and inorganic constituents as noted in the proposed sampling plan in Appendix B. The monitor wells at the site will be gauged and sampled on a quarterly basis. TNMPL proposes to conduct quarterly sampling from the monitoring wells for BTEX and TPH. In addition, an initial sample for PAH's will be obtained for ground water from each monitoring well. Should the PAH results be at or below acceptable ground water standards, no further PAH sampling will be performed.

The initial non-VOC treatment system samples at the site (as identified in the proposed sampling plan) are to be obtained from each pumping well prior to the treatment system. Therefore, the broad range of organic and inorganic samples identified in the proposed sampling plan should adequately represent site conditions without the need for extensive sampling of each monitoring well.

Item 10: TNMPL will not terminate remediation prior to OCD approval. When TNMPL believes remediation is no longer necessary, a site closure request will be submitted to OCD for approval.

### OCTOBER 2, 1996 LETTER

- Item 1: The January 25, 1993 report summarized site activities prior to the date of the report. Subsequently, the system was installed and briefly operated. A summary description of site activities subsequent to the January 25, 1993 report is provided as Appendix C.
- Item 2: FIG. 2 is a site map which also includes the remediation system and the "Buffalo Wallow" adjacent to the site. Apparently, the Hobbs OCD office provided verbal approval for the discharge of the produced aquifer test water into Buffalo Wallow. In addition, during initial system testing prior to discharging into the SPS-11 water system, treated ground water was discharged into Buffalo Wallow. During the brief periods of system operation, treated water was discharged into the SPS-11 water system connection at SPS-11. We know of no subsurface discharges.
- <u>Item 3</u>: Appendix D summarizes existing information concerning the duration and volume of all discharges from the system to date.
- Item 4: The January 25, 1993 report contained site analytical data obtained prior to the report. Appendix E contains a table summarizing subsequent analytical data for ground water and discharge water quality.
- <u>Item 5</u>: A response to the OCD letter of March 5, 1993 is provided in the first section of this letter.

If you have any questions or need additional information, please contact me at (210) 680-3767.

Respectfully,

رَحُور J. Michael Hawthome, P.G., REM

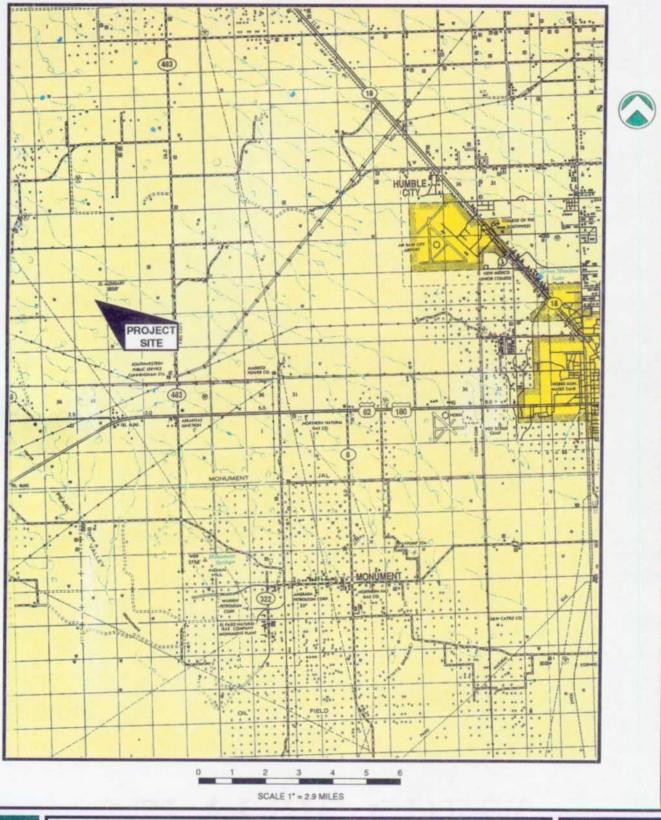
Senior Geologist

cc: Mr. J.A. Savoie, TNMPL, P.O. Box 1030, Jal, NM 88252 Mr. Marc Oler, TTTI, 1670 Broadway, Denver, CO 80202-4899

jmh-p:\tnmp\610099\cocdresp.doc

### THE ROADS OF NEW MEXICO MAP NEW MEXICO-LEA CO.

PRINTED 1993





SITE LOCATION MAP

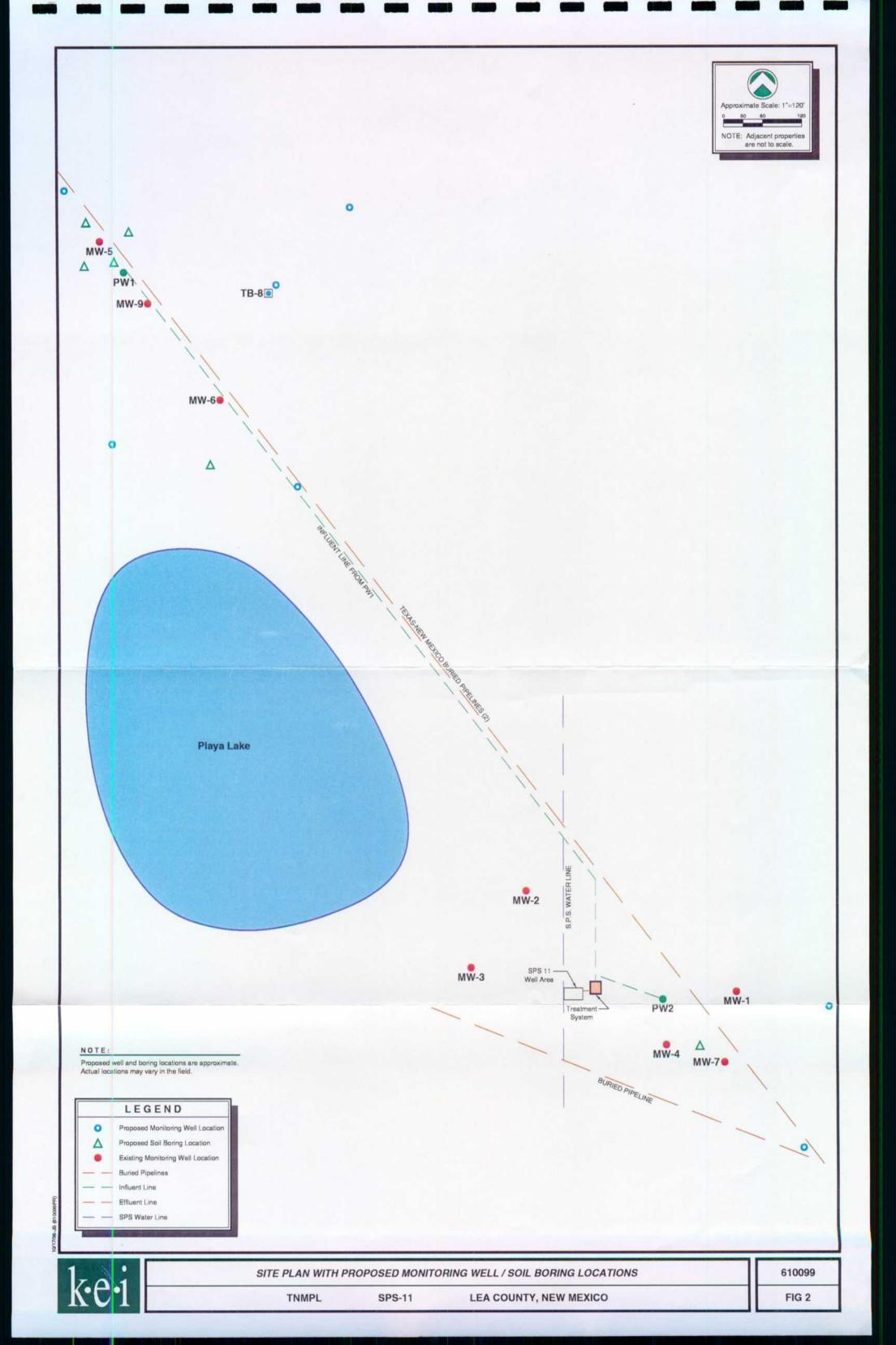
TNMPL

**SPS-11** 

LEA COUNTY, NEW MEXICO

610099

FIG 1



(FEET) 3775 3850 3815 3810 3805 3800 3790 -3785 3780 -3820 3845 3835 3830 3795

MONITORING WELL MW-1

LEGEND 3791.68# 73.0 ft 55.93 ft 5.25 ft 20.0 ft 70.0 ft 60.67 ft 3847,61 ft Monitoring Well Details (MW-1) Elev Top of Protective Cover Thickness of Bentonite Seal Length of PVC Well Screen Depth of Exploratory Hole Elev of Ground Surface Depth to Ground Water Depth to Ground Water Elev Top of PVC Well Elev of Ground Water Depth of PVC Well (During drilling)

Rock, sand, caliche

Sand

Rock

Topsoil

Indicates the ground water level measured on July 13, 1992. Indicates the ground water level measured during drilling.

### NOTES

Congrete Surface Seal

Bentonite Pellet Seal

Sand Pack

N

M

- The monitoring well was installed on August 19, 1991 using approximately 8 inch diameter air rotary cone augers.
- The well was constructed with 4 inch ID, 0.010 inch factory slotted, threaded joint, Schedule 40 PVC pipe.
- The well is protected with a monument type steel cover.
- Drilling activities were not conducted by KEI. Soil classifications and monitoring well details were obtained from contractor's field notes.
- 5. The depths indicated are referenced from the ground surface.



LOG AND DETAILS OF MONITORING WELL MW-1

**SPS-11** 

610099

FIG 3

TNMPL

ELEV/DEPTH (FEET)

3850

3845 -

3840

3835

3830

3825

MONITORING WELL MW-2

Monitoring Well Details (MW-2)

3848.68 # Elev Top of Protective Cover Elev of Ground Surface

Caliche

Topsoil

LEGEND

5.0 ft Thickness of Bentonite Seal Elev Top of PVC Well

70.0 ft Depth of Exploratory Hole

20.0 ft

Length of PVC Well Screen

Depth of PVC Well

73.0 ft

Rock

Sand and Rock Layers





56.43 ft

Depth to Ground Water

Depth to Ground Water

3815

3810 -

3805

3800 -

3795 -

3820

Elev of Ground Water

3792.25 #

Indicates the ground water level measured during drilling.



Concrete Surface Seal

Indicates the ground water level measured on July 13, 1992.

Bentonite Pellet Seal

Sand Pack

N

4

3790

3785 -

3775

M

NOTES

- The monitoring well was installed on August 19, 1991 using approximately 8 inch diameter air rotary cone augers.
- The well was constructed with 4 inch ID, 0.010 inch factory slotted, threaded joint, Schedule 40 PVC pipe.
- 3. The well is protected with a monument type steel cover.
- Drilling activities were not conducted by KEI. Soil classifications and monitoring well details were obtained from contractor's field notes.
- 5. The depths indicated are referenced from the ground surface.



LOG AND DETAILS OF MONITORING WELL MW-2

TNMPL

**SPS-11** 

LEA COUNTY, NEW MEXICO

610099

FIG 4

ELEV/DEPTH (FEET)

3850

3835

3830

3825

3820

MONITORING WELL MW-3

Monitoring Well Details (MW-3)

Topsoil

LEGEND

3849.23 ft Elev Top of Protective Cover Elev of Ground Surface

Sand

5.0 # 20.0 ft Thickness of Bentonite Seal Length of PVC Well Screen Elev Top of PVC Well

Caliche

70.0 ft 73.0 ft Depth of Exploratory Hole Depth of PVC Well

Sand and Caliche

56.86 # Depth to Ground Water Depth to Ground Water

3792.37 ft Elev of Ground Water

11/3

3810

3805

3815 -

Concrete Surface Seal Bentonite Pellet Seal

Rock

Sand and Rock Layers

Indicates the ground water level measured during drilling.

Sand and Clay

Indicates the ground water level measured on July 13, 1992.

### NOTES

Sand Pack

N

3790 -

3785 -

1 88

3800

3795

- The monitoring well was installed on August 19, 1991 using approximately 8 inch diameter air rotary cone augers.
- The well was constructed with 4 inch ID, 0.010 inch factory slotted, threaded joint, Schedule 40 PVC pipe.
- 3. The well is protected with a monument type steel cover.
- Drilling activities were not conducted by KEI. Soil classifications and monitoring well details were obtained from contractor's field notes.
- 5. The depths indicated are referenced from the ground surface.



3775

3780 -

LOG AND DETAILS OF MONITORING WELL MW-3

TNMPL

SPS-11

LEA COUNTY, NEW MEXICO

610099

ELEV/DEPTH (FEET) 3850 3775 -3845 3840 3835 3830 3820 -3810 -3805 3800 3795 3790 3785 3780 3825

### MONITORING WELL MW-4

5.25 # 20.0 # 70.0 ft 73.0 ft 3847.58 ft 55.83 ft 3791,75 ft Monitoring Well Details (MW-4) Eley Top of Protective Cover Thickness of Bentonite Seal Length of PVC Well Screen Depth of Exploratory Hole Elev of Ground Surface Depth to Ground Water Depth to Ground Water Elev Top of PVC Well Elev of Ground Water Depth of PVC Well (During drilling)

47.58 ft Topsoil # Topsoil # Topsoil # Topsoil # Topsoil # Topsoil # Too.0 ft # Too.0 ft

LEGEND

### NOTES

Bentonite Pellet Seal

Sand Pack

N

Concrete Surface Seal

Indicates the ground water level measured during drilling.
Indicates the ground water level measured on July 13, 1992.

- The monitoring well was installed on August 19, 1991 using approximately 8 inch diameter air rotary cone augers.
- 2. The well was constructed with 4 inch ID, 0.010 inch factory slotted, threaded joint, Schedule 40 PVC pipe.
- 3. The well is protected with a monument steel cover.
- Drilling activities were not conducted by KEI. Soil classifications and monitoring well details were obtained from contractor's field notes.
- 5. The depths indicated are referenced from the ground surface.



LOG AND DETAILS OF MONITORING WELL MW-4

SPS-11

TNMPL

5-11

LEA COUNTY, NEW MEXICO

610099

FIG 6

TITI SOUTHERN REGION 2:42PM CCT. 2.1996

NO. 175 P.2/6



### STATE OF NEW MEXICO

TO

### ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION LIVISION 2040 5. PADH200 BANTA RETURN MENCO 67302 BOB 227-7131 

October 2, 1996

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CERTIFIED MAIL RETURN RECEIPT NO. P-269-269-208

Mr. Ed Murray 2: President Texas-New Mexico Pipe Line Co. P.O. Box 4454 77210-4464 Houston, Texas

GROUND WATER REKEDIATION : REE SPS WATER WELL #11 LEA COURTY, NEW MEXICO

Dear Mr. Murray:

The New Merico oil Conservation Division (OCD) has recently learned that the Texas-New Mexico Pipe Line Company (TMMPLC) has been discharging treated effluent in violation of state regulations. The effluent is the result of treatment of petroleum commaninated ground water from TMMPLC's SPS-11 ground water remediation project which was discharged into a public water supply system. It is also och a understanding that treated affluent was discharges on the surface into an adjacent buffalo wallow. The remediation project is the result of a spill of crude oil from a TAMPIC pipeling which contaminated Southwestern Public Service Company's (SPS) Witer Well SPS-11 Incated in the NW/4, NW/4, SE/4, Section 18, Township 18 South, Range 36 East, NMFM, Lea County, New Mexico.

A review of the OCD's file on this case shows that pursuant to New Mexico Water quality control Commission (WQCC) regulations, the Director of the OCD required a discharge plan for this activity on August 21, 1992. In compliance with this requirement, TMMPLC submitted a site investigation and remediation plan to the OCD on February 10, 1993. On March 5, 1993, the OCD requested additional information and commitments from TAMPLC regarding the site investigation and remediation plant which needed to be supplied to the OCD prior to issuing discharge plan approva. This correspondence was received by TMMPLC on March 9, 1993. To date TMMPLC has not responded to this document. By discharging treated effluent to the SPS water supply system without a plan approved by the OCD, TMMPLC violated state regulations.

: 11

TO

NO. 75 P.3/6

Mr. Ed Murray October 2, 1996 Page Z

The OCD's correspondence clearly stated that WQCC regulations require a discharge plan be approved prior to commencement of the remodial activities. In order to resolve the permitting and compliance issues in this matter, the OCD requires that TMMPLC guident the following information to the OCD by October 16, 1996:

- A detailed description of all ground water remediation, treatment, discharge and menitoring activities communical to
- A map showing the location of the remediation facilities and 2. the location of all discharges to the surface, subsurface and public water supply system.
- The duration and volume of all discharges from the rejectation 3. system to date. A Same
- The laboratory analytical results of all ground tater and discharge water quality monitoring conducted to data.
- A response to the OCD's March 5, 1993 correspondence 5. (enclosed) requesting additional information and commitments regarding the investigation and remediation activities.

The New Mexico Environment Department recently required SPS to disconnect the discharge line from the public water supply system. TMMPIC will not conduct any further unsuthorized discharges at the site until an approved WQCC discharge plan has been approved.

If you have any questions, please contact Bill clean of my staff at (505) 827-7154.

Sincerely.

Roger C. Anderson

Environmental Bureau Chief

Jerry Soxton, OCD Hobbs District Supervisor Wayne Price, OCD Hobbs District Office Robert Gallegos, NMED Drinking Water and Community Services XC:

**美国东西** 

14.14 . . . . .

Bureau Robert Garrett, NMED Hobbs ...

Dwain Glidewell, New Mexico State Land Office

P.4/6 NO. 7 7

TITI SOUTHERN REGION: ... OCT. 8,1996 2:42PM

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESGURCES DEPARTMENT

DILCONSERVATION DIVISION



BRUCE KING

March 5, 1993

STATE LAND OFFICE BUILDING SANTA NE NEW MEXICO 87904 ISDEI 827-6900

ANITA LECKWOOD

CERTIFIED WAIL PETTEN RECEIPT NO. P-667-242-329

Mr. Douglas D. Beu Texas-New Mexico Pipe Line Co. P.O. BOX 2528 98241-7528 Hobbs, New Mexico

RE: SPS WATER WELL #11 REMEDIATION LEA COUNTY, NEW MEXICO

Dear Mr. Beu:

The New Mexico Oil Conservation Division (OCD) is in the process of reviewing the Texas-New Mexico Pips Line Company's (TMMPLC) discharge plan application contained in TMMPLC's Jankry 25, 1993 "SPS SITE INVESTIGATION AND REMEDIAL ACTION PLAN " HOBBS, NEW MEXICO" and February 10, 1993 correspondence. Public notice of the discharge plan application was issued on March 2, 1981.

The OCD has the following comments and requests for additional information and/or commitments; regarding the above referenced application: in which had been

- Appendix A did not contain the well logs for menitor wells MW-1 through MW-4. Please provide OCD with the streel logs.
- Appendix 8 did not contain the laboratory enalytical results of the May 6 and May 7, 1892 influent and efficient samples from the air sparge white please provide OCD with those analyses.
- As a point of clarification, the capture zone depicted in Figure 11 of Appendix F is not oriented correctly. The stagnation point should be located 240 feet loweraction instead of 240 feet upgradient and the open end of the capture zone parabola should be facing upgradient instead of بهائي المائية downgradient.

DCT. 8.1996 2:43PM TTTI SOUTHERN REGION

TO

NO. 7 P.5/6

14:52

Mr. Douglas D. Beu March 5, 1993 Page 2:

The OCD requires that underground waste water lines be pressure tested to 3 pri above operating pressure to present to person and annually thereafter. Please provide a commitment to perform these tests and submit the results to 4. OCD.

The part of the co

- The ground water investigation work to date is satisfactory. 5. However, the investigation has not defined the full extent of contamination at the File. Please provide a countitment and time schedule for submission of a work plan to complete the definition of the extent of contamination.
- The remediation proposal more address the remediation of 6. contaminated soils identified during the investigation. Complete remediation of ground water will be difficult if contaminated soils remain as a source of future leaching of contaminants. Please provide a commitment and till achedule for submission of either a work plan to address remidiation of these source ereas or intisk analysis demonstrating that such remediation is not necessary.
- Prior to discharging treated ground water into the SPS 7. distribution system, the och requires a one time sample be taken of the effluent and analyzed for all New Wirios Water quality Commission drinking water constituents. The results of this sample will be submitted to OCD for approval. Please supply a commitment to comply with this requirement.
- 8. The OCD requires that signanterly report be submitted to OCD containing the results of all water quality sampling which has occurred during the respective quarter. Reports fill be due on January 1, April 1, July 1 and October 1 of the calendar year. Please supply a commitment to provide these reports.
- The proposed sampling plan for the monitor wells is acceptable 9. at this time. Please he aware that OCD may require modification of the sampling plan based upon the results of future investigation of the complete extent of contamination.
- Section 4.1, page 9 sets out proposed criteria for termination 10. of remedial actions. The och defers approval of criteria for termination of remediation until OCD reviews the results of additional investigations into the complete extent of ountamination.

OCT. 8.1996 2:43PM TITI SOUTHERN REGION

NO.7 E . P.6/6

Mr. Douglas D. Bau March 5, 1993 Fage 3

į,

4.

The above information and commitments to meet discharge plan requirements must be received before the OCD can complete a review of your discharge plan application.

If you have any questions, please contact me at (505) 887-5885.

sincerely,

William C. Olson Nydrogeplogist Environmental Bureau

xc: Jerry Sexton, OCD Hobbs District Supervisor Myra Myers, NATO Hobbs William Weber, NAMED ROSWell.

TO

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To lead to the lead of the lea
"T speriesed Delivery
9-667 242-323
Service Type
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<u>:</u> :

### **WORK PLAN - SPS-11**

### COMPLIANCE SAMPLING - NMED DRINKING WATER REGULATIONS Texas - New Mexico Pipe Line Co. Water Supply Wells PW1 and PW2

### Objective and Background

The objective of this Work Plan is to define the sampling constituents and schedule to be implemented at the Texas - New Mexico Pipe Line Co. (T-NMPL) Project SPS-11. This project consists of the operation of an existing groundwater remediation system consisting of two pumping wells (PW1 and PW2) followed by packed tower aeration with an activated carbon polish. The treated effluent from this system will be introduced into the SPS water supply system in place of the water previously provided to the plant by SPS-11. NMED has exercised jurisdiction over this system to the extent of monitoring and approving the water quality for use as planned. The sampling constituents and schedule proposed in this Work Plan are proposed in accordance with those stipulated by NMED representatives and in accordance otherwise with NMED drinking water regulations in 20 NMAC 7.1.

### **Sampling Constituents**

The potential contaminants to be analyzed for in the groundwater produced from the two water supply wells (PW1 and PW2) have been specified in correspondence dated September 5, 1996 from Mr. Robert Garrett of NMED to Mr. W.T. Miller of SPS. In a subsequent phone conversation Mr. Garret indicated that NMED would agree to waive analysis for Synthetic Organic Compounds. He also indicated Fluoride would be required, though it had not been specified in his original letter. The following analyses will be performed:

- Nitrate
- Nitrite
- Asbestos (waiver requested)
- Heavy Metals
- Fluoride
- Cyanide
- Sulfate (unregulated)
- Radiological Contaminants
- Volatile Organic Compounds

As noted above, T-NMPL does not believe that the wells, treatment or conveyance system are vulnerable to asbestos contamination. Previous sampling of SPS-11 has not indicated an asbestos concern with the source water, and none of the materials utilized in the wells, treatment system, or conveyance piping represent a source of potential asbestos contamination. Therefore, T-NMPL herein requests a waiver of compliance sampling for asbestos. In accordance with this request, asbestos sampling is not included herein.

This Work Plan assumes that the list specified in Mr. Garrett's correspondence and subsequently modified represents the total list of analytes to be required by NMED for approval of the introduction of the treated groundwater into the SPS drinking water system, as planned.

Table 1 (attached) details the specific potential contaminants to be analyzed for within the foregoing general list.

In addition to the sampling specified herein, T-NMPL may conduct additional sampling from time to time as it may be required to perform by outside agencies with jurisdiction, or which T-NMPL may feel are appropriate for system monitoring. Such sample results are outside of the drinking water compliance sampling requirements and will not automatically be provided to NMED, but will be provided upon request.

### Sampling Schedule

20 NMAC 7.1 specifies various sampling frequencies and durations for the list of analytes of concern for this project. Table 2 (attached) indicates the analyte sampling schedule proposed for this project. This schedule is derived from 20 NMAC 7.1 and from written and phone correspondence with Mr. Garrett and Mr. Mason of the NMED.

The schedule recognizes that VOC's are the primary potential contaminant of concern based upon known data for the groundwater to be produced. Therefore, initially VOC's will be sampled daily, subsequently stairstepping down in frequency as a baseline for the system is established.

### **Sampling Points**

During the first six months of sampling, all compliance samples except VOC's will be obtained from each well prior to commingling with groundwater produced from the other well. However, in accordance with 20 NMAC 7.1.304.A.4, after six months of sampling has been completed, composite samples of the produced groundwater will be obtained after it has been commingled from the two wells in the treatment system.

In the case of VOC's, the purpose of the treatment system is to reduce or remove those VOC's which may be present. Groundwater produced from the two wells is commingled and treated in one treatment system. Therefore, all VOC compliance samples for the duration of the project (startup to finish) will be composite samples obtained following treatment, rather than samples from each well. In accordance with 20 NMAC 7.1.304.3, T-NMPL will attempt to obtain samples representative of groundwater produced from both wells and commingled in the treatment system.

Table 1

### COMPLIANCE SAMPLING - POTENTIAL CONTAMINANTS Texas - New Mexico Pipe Line Co. SPS-11 Project

Analyte	Analyte	MCL (mg/l)
Category		
Inorganics	Nitrate (as N)	10
	Nitrite (as N)	1
	Asbestos	7E6 fibers/l
	Antimony	0.006
	Arsenic	0.05
	Barium	2
	Beryllium	0.004
	Cadmium	0.005
	Chromium	0.1
	Mercury	0.002
	Nickel	0.1
	Selenium	0.05
	Thallium	0.002
	Cyanide	0.2
	Fluoride	4.0
	Sulfate	unreg
Radiological Contaminants	Radium-226/ Radium-228	5 pCi/l
	Gross alpha particle activity (excluding radon and uranium)	15 pCi/l
Volatile Organic	Benzene	0.005
Compounds (I&II)	Bromobenzene	
o simpountae (isin)	Bromochloromethane	
	Bromodichloromethane	0.080
	Bromoform	0.080
	Bromomethane	0.000
	2-Butanone (MEK)	
	n-Butylbenzene	
	sec-Butylbenzene	
	tert-Butylbenzene	
	tert-Butyl methyl ether (MTBE)	
	Carbon tetrachloride	0.005
	Chlorobenzene (monochlorobenzene)	0.100
	Chloroethane	
	Chloroform	0.080
	Chloromethane	7.300
	2-Chlorotoluene	
	4-Chlorotoluene	
<u> </u>	T-OHIOTOGUIGENE	1

	/te							
							mg/l)	

l Comment	1	
Category	4.2 Dibrama 2 ablasansanaa (DBCD)	0.0002
Volatile Organic	1,2-Dibromo-3-chloropropane (DBCP)	
Compounds (I&II)	Dibromochloromethane	0.080
(continued)	1,2-Dibromoethane (ethylene dibromide (EDB))	0.00005
	Dibromomethane	0.000
	1,2-Dichlorobenzene (o-Dichlorobenzene)	0.600
	1,3-Dichlorobenzene (m-Dichlorobenzene)	0.600
	1,4-Dichlorobenzene (p-Dichlorobenzene)	0.075
	Dichlorodifluoromethane	
	1,1-Dichloroethane	
	1,2-Dichloroethane	0.005
	1,1-Dichloroethene	0.007
	cis-1,2-Dichloroethene	0.070
	trans-1,2-Dichloroethene	0.100
	1,2-Dichloropropane	0.005
	1,3-Dichloropropane	
	2,2-Dichloropropane	
	1,1-Dichloropropene	
	cis-1,3-Dichloropropene	
	trans-1,3-Dichloropropene	
	Ethylbenzene	0.700
	Hexachlorobutadiene	
	Isopropylbenzene	
	4-Isopropyltoluene	
	Methylene chloride (Dichloromethane)	0.005
	Naphthalene	
	Propylbenzene	
	Styrene	0.100
	1,1,1,2-Tetrachloroethane	
	1,1,2,2-Tetrachloroethane	
	Tetrachloroethene	0.005
	Tetrahydrofuran (THF)	
	Toluene	1.000
	1,2,3-Trichlorobenzene	
	1,2,4-Trichlorbenzene	0.070
	1,1,1-Trichloroethane	0.200
	1,1,2-Trichloroethane	0.005
	Trichloroethene	0.005
	Trichlorofluoromethane	0.000
	1,2,3-Trichloropropane	
	1,2,4-Trimethylbenzene	
	1,3,5-Trimethylbenzene	
	Vinyl chloride	0.002
	0-Xylene	0.002
	p- & m-Xylene	
	Total of Xylenes avobe	10.000
	Total of Trihalomethanes above	0.100
	Total of Tillaloffictuaties above	0.100

COMPLIANCE SAMPLING - SAMPLING FREQUENCY & DURATION Texas - New Mexico Pipe Line Co.

Table 2

SPS-11 Project

Potential Contaminant	Frequency	Duration
VOC's	Daily	14 days (Weeks 1-2)
VOC's	Weekly	28 days (Weeks 3-6)
VOC's	Monthly	6 months following Week 6
VOC's	Quarterly	Project Duration
Nitrate	Annually	Project Duration
Nitrite	Initial	One Time Only (20 NMAC
		7.1.304.E.2)
Asbestos	waiver requested	Project Duration (20 NMAC
		7.1.304.B.2)
Heavy Metals	Once every 3 years	Project Duration
Fluoride	Once every 3 years	Project Duration
Cyanide	Once every 3 years	Project Duration
Sulfate	Initial	One Time Only (20 NMAC
		7.1.701.L.2-3)
Radiological Contaminants	Quarterly	First Year
Radiological Contaminants	Annually	Project Duration after Year 1

### APPENDIX C

Ground Water Remediation, Treatment, Discharge, and Monitoring Activities

Site activities prior to the January 25, 1993 report are summarized in that report. This includes assessment, monitoring, aquifer characterization, and system design activities. We have attempted to reconstruct site activities subsequent to that report. As best we can determine, activities subsequent to those described in the report are as follows:

February 1993	Remediation system installed
August 8-9, 1994	Remediation system test for 31 hours. Water treated and discharged to Buffalo Wallow
August 15-22, 1995	Remediation system startup test. Treated water discharged into Buffalo Wallow.
August 22, 1995	Discharge of treated groundwater into SPS-11 initiated on a continuous basis. After approximately October of 1995 the system operated intermittently due to mechanical problems.
February 27, 1996	Remediation system shut down due to discoloration of packing.  Packing and carbon samples obtained. System has not been operated since this time.
September 6, 1996	NMED, OCD, TNMPL, SPS meeting to discuss project held at NMED office in Hobbs, NM.
October 15,1996	Ground water from pumping and monitoring wells sampled to establish current conditions.

In addition to these physical activities, several items of correspondence variously between NMED, OCD, SPS, and TNMPL concerning this project exist throughout this time period.

### APPENDIX D

### Treatment System Discharges - Duration and Volume

Prior to installation of the treatment system, ground water was produced from the two pumping wells (PW1 and PW2) during the aquifer pump test which was summarized in the January 25, 1993 report previously submitted to OCD. Subsequent to that report, the treatment system was installed in February of 1993. The attached table briefly summarizes system operational parameters since that time.

### TREATMENT SYSTEM VOLOMETRIC FLOW ANALYSIS TNMPL SPS-11 LEA COUNTY, NEW MEXICO

	FLOWMETER READING					FLOW RATES		
	PW	-1	PW	PW-2		(gal. p	er min.)	
DATE	METER	TOTAL	METER	TOTAL	TOTAL	PW-1	PW-2	
8/8/94	126700		126700					
8/9/94	184300	57600	211500	84800	142400	40	45	
	SYSTE	EM SHUT D	OWN FROM 8	/10/94 THR	OUGH 8/15	/95		
8/15/95	184300		211500					
8/22/95	992300	808000	1119800	908300	1716300	40	45	
8/23/95	1045500	53200	1180100	60300	113500	41	47	
8/24/95	1095400	49900	1237000	56900	106800	42	46	
8/25/95	1165600	70200	1316100	79100	149300	40	46	
8/26/95	1206500	40900	1361800	45700	86600	40	46	
8/27/95	1219700	13200	1377000	15200	28400	41	46	
8/28/95	1241800	22100	1401000	24000	46100	41	46	
8/29/95	1245300	3500	1405400	4400	7900			
9/6/95	1294000	48700	1461700	56300	105000	40	40	
9/7/95	1345600	51600	1511700	50000	101600	40	40	
9/8/95	1404700	59100	1568400	56700	115800	40	40	
9/9/95	1474800	70100	1634400	66000	136100	40	40	
9/10/95	1547700	72900	1703700	69300	142200	42	40	
9/11/95	1590000	42300	1744600	40900	83200	40	39	
9/12/95	1668600	78600	1820000	75400	154000	40	, 40	
9/18/95	1793000	124400	1938700	118700	243100	41	40	
9/29/95	2134100	341100	2269700	331000	672100	41	40	
10/4/95	2414800	280700	2533400	263700	544400	41	40	
1/18/96	2921500	506700	3069000	535600	1042300	41	40	
2/27/96	4994200	2072700	4826500	1757500	3830200			

### APPENDIX E

## Site Analytical Data

The January 25, 1993 report previously provided to OCD summarized data prior to that report. Subsequent to that report, data has been obtained from the treatment system discharge for water quality analysis, from the air stripping tower packing, from the carbon in the carbon polish unit, and from ground water from the wells at the site.

The water quality analytical data is relatively voluminous, and is currently being tabulated into an easily reviewed format. We will provide this summary in a future transmittal. However, a brief review of the results for the VOC analyses conducted indicate non-detectable concentrations for all constituents analyzed. The laboratory analytical reports are attached.

The air stripping tower packing was analyzed to determine the cause of the discoloration it was experiencing. As anticipated, the results indicated routine inorganics precipitation, principally iron.

The carbon from the polish unit was analyzed for BTEX and TCLP metals. The results for both BTEX and all TCLP metals indicated non-detectable concentrations. A copy of the laboratory analytical report is attached.

On October 15, 1996, ground water samples from all wells at the site were obtained and analyzed for BTEX and TPH concentrations. The results are summarized in the attached table. The laboratory analytical report is also attached.

# GROUND WATER ANALYTICAL DATA OCTOBER 15, 1996 TNMPL SPS-11 LEA COUNTY, NEW MEXICO

FIELD CODE	BENZENE (mg/l)	TOLUENE (mg/l)	ETHYL- BENZENE (mg/l)	m,p-XYLENE (mg/l)	o-XYLENE (mg/l)	TOTAL BTEX	TPH (mg/l)
MW-1	6.445	1.132	1.184	0.630	0.283	9.674	4
MW-2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<1
MW-3	0.003	<0.001	<0.001	<0.001	<0.001	0.003	<1
MW-4	0.005	<0.001	<0.001	<0.001	<0.001	0.005	<1
MW-6	0.210	0.002	0.021	0.006	<0.001	.0239	<1
MW-7	0.211	0.016	0.095	0.047	0.019	0.388	2
MW-9	4.224	0.056	1.252	0.763	0.102	6.397	17
RW-1	0.007	<0.001	<0.001	<0.001	<0.001	0.007	<1
RW-2	<0.001	0.001	0.001	0.009	0.004	0.015	<1



"Don't Treat Your Soil Like Dirt!"

KEI CONSULTANTS, INC. ATTN: MR. PAUL HARTNETT 5309 WURZBACH STE 100 SAN ANTONIO, TEXAS 78238 FAX: 210-680-3763

Receiving Date: 10/15/96 Sample Type: WATER Project: SPS-11

Project #: 610099

Project Location: Lea County, New Mexico

Analysis Date: 10/16/96 Sampling Date: 10/15/96 Sample Condition: Intact/Iced

ELT#	FIELD CODE	BENZENE (mg/l)	TOLUENE (mg/l)	ETHYLBENZENE (mg/l)	m,p-XYLENE (mg/l)	o-XYLENE (mg/l)	TPH (mg/l)
9239	MW-1	6.445	1.132	1.184	0.630	0.283	4
9240	MW-2	< 0.001	<0.001	<0.001	<0.001	<0.001	<1
9241	MW-3	0.003	< 0.001	<0.001	<0.001	<0.001	<1
9242	MW-4	0.005	<0.001	<0.001	<0.001	<0.001	<1
9243	MW-6	0,210	0.002	0.021	0.006	<0.001	<1
9244	MW-7	0.211	0.016	0.095	0.047	0.019	2
9245	MW-9	4,224	0.056	1.252	0.763	0.102	17
9246	RW-1	0.007	<0.001	<0.001	< 0.001	<0.001	<1
9247	RW-2	<0,001	0.001	0.001	0.009	0.004	<1
%	IA	116	104	99	95	95	94
	EA	121	104	99	95	95	***
	ANK	<0.001	<0.001	<0.001	<0.001	<0.001	<1

METHODS: SW 846-8020,5030; EPA 418.1

Michael R. Fowler

Date



703 West Industrial P.O. Box 2150 \* Midland, Texas 79701 \* 915/683-3349 FAX 915/686-0492

Client Eddic Gripp

Texas New Mexico Pipe Line Co

P.O. Box 60028

San Angelo, TX 76906

Client No. 6839100 Report No. M5-10-028 Report Date 10/27/95 23:33

Project SPS-11, Carbon Unit

Phone: 915-949-7019 Fax: 915-944-2721

Date Sampled 10/05/95

Sample Type <u>Solids</u>

P.O. # \_\_\_\_\_

Sampled By Client

Transported by frnest Richarte

Date Received 10/06/95

cc:

Ernest Richarte Texas NM. Pipe Line P.O. Box 1027 Lovington, NM. 88260

Lab No. M5-10-028-01 Sample Identification

SPS-11, Carpon Unit

Our letters and reports are for the exclusive use of the client to whom they are addressed and shall not be reproduced except in full without the approval of the testing laboratory. The use of our name must receive our prior written approval.

Reviewed By

ALLAN B. JOHNSTON

Page 2 of 4

Order # M5-10-028

10/27/95 23:33

TEST RESULTS BY SAMPLE

Client: Texas New Mexico Pipe Line Co

Sample: DIA SPS-11, Carbon Unit Collected: 10/05/95 15:00 Category: S

				Detectio	n <u>Date</u>	
<u>Test_Name</u>	Method	Result	<u>Units</u>	<u>Limit</u>	Started	Analyst
HYDRIDE DIGESTION	5W-846, 7061	10/12/95	DATE		10/12/95	WCR
MERCURY DIGESTION	SW-846. 7470	10/13/95	DATE		10/13/95	WCR
TCLP PREPARATION - SOLIDS	SW-846, 1311	10/09/95	DATE		10/09/95	<b>YCR</b>

Order # M5-10-028

10/27/95 23:33

TEST RESULTS BY SAMPLE

Client: Texas New Mexico Pipe Line Co

Sample Description: SPS-11, Carbon Unit

Lab No: 01A

Test Description; BTEX - SOIL SAMPLE

Method: SW-846, 8020 Test Code: BTEX\_S

Collected: 10/05/95 15:00

Category: S

Date Extracted 10/10/95 Analyst

Date Started

10/10/95

Uni ts

<u>ABJ</u> <u>mg/kg</u> Detection Limit \_\_0.2

Mcthod <u>SU-846, 8020</u>

Compound

Results

BENZENE

< 0.2

TOLUENE

< 0.2

ETHYLBENZENE

< 0.2

XYLENE

< 0.2

Page 3 of 4

Page 4 of 4

Order # M5-10-028

10/27/95 23:33

TEST RESULTS BY SAMPLE

Client: Texas New Mexico Pipe Line Co

Sample Description: SPS-11, Carbon Unit

Test Description: TCLP METALS

Lab No: 01A

Method: SW-846 Test Code: TCLP\_M

Collected: 10/05/95 15:00

Category: S

Element	<u>Result</u>	Regulatory <u>Limit</u>	<u>Units</u>	Date Started	Analyst	Method
TCLP M	ETALS					
ARSENIC	< 0.1	5.0	mg/L	10/24/95	MLC	SU-846, 7061
BARIUM	< 5.0	100	mg/L	10/21/95	MLC	SH-846, 7080
CADHIUM	< 0.1	1.0	mg/L	10/21/95	MLC	SU-846, 7130
CHROMIUM	< 0,2	5.0	mg/L	10/21/95	MLC	SW-846, 7190
LEAD	< 0.5	5.0	mg/L	10/21/95	MLC	Su-846, 7420
MERCURY	< 0.01	0.2	mg/L	10/24/95	MLC	su-846, 7470
SELENIUM	. < 0.1	1.0	mg/L	10/27/95	MLC	SH-846, 7741
SILVER	< 0.2	5.0	mg/L	10/21/95	MLC	<u>su-846, 7760</u>



# SOUTHWESTERN LABORATORIES

1703 West Industrial Avenue \* P.O. Box 2150, Midland, Texas 79702 \* 915/683-3349

Client Texas New Mexico Pipe Line Co

P.O. Box 60028

San Angelo, Texas 76906 915/949-7019 FAX 915/944-2721

Attn: J.T. Janica

Project Project SPS11

Date Sampled 04/21/94 04/22/94

Sample Type Water

P.O. # \_\_\_

cc: Dwayne Conrad

Texaco Inc.

P.O. Box 1608

Port Arthur, Tx. 77640

Client No. 26839100 Report No. M4-04-178

Report Date 04/25/94 07:26

	SAN AN	SAN ANGELO OFFICE		
	API	2619	994	
Sampled By <u>Client</u>	im) in	6/2	Note	7/4
Transported by <u>J.T. Janica</u>	EHG I	1900 1800	772	
Date Received <u>04/22/94</u>	80H	173 1744 1889		$\exists$
	214	DEK		

Lab No.

M4-04-178-01

M4-04-178-02

M4-04-178-03

M4-04-178-04

M4-04-178-05

M4-04-178-06

M4-04-178-07

M4-04-178-08

Sample Identification

Tower Influent

Carbon Effluent

Tower Influent

Carbon Effluent

Tower Inluent

Carbon Effluent

Tower Influent

Carbon Effluent

SOUTHWESTERN LABORATORIES

ALLAN B. JOHNSTON

Order # M4-04-178

04/25/94 07:26

TEST RESULTS BY SAMPLE

Client: Texas New Mexico Pipe Line Co

Sample Description: Tower Influent

Lab No: 01A

Test Description: BTEX - WATER SAMPLE

Method: SW-846, 8020 Test Code: BTEX\_W

Collected: 04/22/94 08:40

Date Started

04/22/94

Analyst

Units

RBB mg/L

Detection Limit 0.004 Method

SW-846, 8020

Results

BENZENE

Compound

0.064

TOLUENE

0.011

ETHYLBENZENE

0.013

XYLENES

0.007

Sample Description: Carbon Effluent

Test Description: BTEX - WATER SAMPLE

Lab No: 02A

Method: SW-846, 8020 Test Code: BTEX\_W

Collected: 04/22/94 08:40

Date Started

04/22/94

Analyst Units

RBB mg/L

Detection Limit <u>0.004</u>

Method SW-846, 8020

Compound

Results

BENZENE

< 0.004

TOLUENE

< 0.004

ETHYLBENZENE

< 0.004

**XYLENES** 

Order # M4-04-178 04/25/94 07:26

TEST RESULTS BY SAMPLE

Client: Texas New Mexico Pipe Line Co

Sample Description: Tower Influent

Lab No: 03A

Test Description: BTEX - WATER SAMPLE

Method: SW-846, 8020 Test Code: BTEX\_W

Collected: 04/22/94 10:50

Date Started Detection Limit 0.004

04/22/94

Analyst Units

<u>R88</u> mg/L

Method

SW-846, 8020

Compound

Results

BENZENE

0.018

TOLUENE

0.006

ETHYLBENZENE

< 0.004

XYLENES

< 0.004

Sample Description: Carbon Effluent

Lab No: 04A

Test Description: BTEX - WATER SAMPLE

Method: SW-846, 8020 Test Code: BTEX\_W

Collected: 04/22/94 10:50

Date Started

04/22/94

Analyst Units

RBB mg/L

Detection Limit 0.004

SW-846, 8020 Method

Compound

Results

BENZENE

< 0.004

TOLUENE

< 0.004

ETHYLBENZENE

< 0.004

XYLENES

Order # M4-04-178

04/25/94 07:26

TEST RESULTS BY SAMPLE

Client: Texas New Mexico Pipe Line Co

Sample Description: Tower Inluent

Test Description: BTEX - WATER SAMPLE

Collected: 04/22/94 12:20

Lab No: 05A

Method: SW-846, 8020 Test Code: BTEX\_W

Date Started

04/22/94

Analyst Units

<u>RBB</u> mg/L

Detection Limit 0.004 Method

SW-846, 8020

Compound

**Results** 

BENZENE

0.020

TOLUENE

0.006

ETHYLBENZENE

0.004

XYLENES

< 0.004

Sample Description: Carbon Effluent

Test Description: BTEX - WATER SAMPLE

Collected: 04/22/94 12:20

Lab No: 06A

Method: SW-846, 8020 Test Code: BTEX\_W

Date Started Detection Limit 0.004

04/22/94

Analyst Units

<u>R88</u> mg/L

Method

SW-846, 8020

**Results** 

BENZENE

Compound

< 0.004

TOLUENE

< 0.004

ETHYLBENZENE

< 0.004

XYLENES

Order # M4-04-178

04/25/94 07:26

TEST RESULTS BY SAMPLE

Client: Texas New Mexico Pipe Line Co

Sample Description: Tower Influent

Lab No: 07A

Test Description: BTEX - WATER SAMPLE

Method: SW-846, 8020 Test Code: BTEX\_W

Collected: 04/21/94 18:45

Date Started

04/22/94

Analyst Units

RBB mg/L

Detection Limit 0.004 Method

SW-846, 8020

Compound

**Results** 

BENZENE

< 0.004

TOLUENE

< 0.004

ETHYLBENZENE

< 0.004

XYLENES

< 0.004

Sample Description: Carbon Effluent

Test Description: BTEX - WATER SAMPLE

Lab No: 08A

Method: SW-846, 8020 Test Code: BTEX\_W

Collected: 04/22/94 18:45

Date Started Detection Limit 0.004

04/22/94

Analyst Units

<u>RB8</u> mg/L

Method

SW-846, 8020

Compound

**Results** 

BENZENE -

< 0.004

TOLUENE

< 0.004

ETHYLBENZENE

< 0.004

**XYLENES** 

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Page\_

# **SOUTHWESTERN LABORATORIES**

LAB I.D. NO. Analysis Request and Chain of Custody Record COC Seal No. Sample Date Ŕ Date: ANALYSIS REQUESTED > = > > > Z > × Received by: (Signature) Ġ 1703 West Industrial • P.O. Box 2150, Midland, Texas 79702 • 915/683-3349 Materials, environmental and geotechnical engineering, nondestructive, metallurgical and analytical services acid Preser-vative S > 7 = > S ¥ > Pipeline Date: Type (Liquid Sludge, Etc.) safer = ¥ Z ¥ = >  $\geq$ = Mexico Sample Container (Size/Mat'l) YOA > 7 " = > = 7 > Client/Project Relinquished by: (Signature) Carpon Effluent 1230V Texas Tower Effluent 1220 Tower Influent 1220 \* Carbon Effluent 0840 Tower Extluent 0840 Tower Influent 0840 \* Carbon Effect 1050 lower Effluent 1050 Tower Influent 1050 Sample No./ Identification Samplers: (Print) Project no.

\*

\*

Daile: OFESER Intact.

Received by Kat (Signatury) Data Results To:

Date: 4/22/94 Time: /52/

Relinquished by:
(Signature) Dayne Connad

Need benzene defection limit

below 0,005 mg/L.

Rush Charges Authorized

g

Yes

Received by: (Signature)

Date: Time:

Relinquished by: (Signature)

Affiliation

EIR

TNMP100

Results by.

Time:

Time: Date: Æime: Time: /5,2,

Janica

1. Texas New Mexico Ppeline Dwayne Conrab.

2. Texaco



# SOUTHWESTERN LABORATORIES

1703 West Industrial Avenue \* P.O. Box 2150, Midland, Texas 79702 \* 915/683-3349

Client Texas New Mexico Pipe Line Co

P.O. Box 60028

San Angelo, Texas 76906 915/949-7019 FAX 915/944-2721

Attn: J.T. Janica

Client No. 26839100 Report No. M4-04-178 Report Date 04/25/94 07:26

Project Project SPS11

Date	Sampled	04/21/94	04/22/94

Sample Type Water

P.O. #

Sampled By Client

Transported by J.T. Janica

Date Received 04/22/94

cc: Dwayne Conrad Texaco Inc.

<u>Lab No.</u>

P.O. Box 1608

Port Arthur, Tx. 77640

## Sample Identification

Tower Influent M4-04-178-01

Carbon Effluent M4-04-178-02 Tower Influent M4-04-178-03

Carbon Effluent M4-04-178-04

M4-04-178-05 Tower Inluent

Carbon Effluent M4-04-178-06

Tower Influent M4-04-178-07

Carbon Effluent M4-04-178-08

SOUTHWESTERN LABORATORIES

ALLAN B. JOHNSTON

Order # M4-04-178

04/25/94 07:26

TEST RESULTS BY SAMPLE

Client: Texas New Mexico Pipe Line Co

Sample Description: Tower Influent

Lab No: 01A

Test Description: BTEX - WATER SAMPLE

Method: SW-846, 8020 Test Code: BTEX\_W

Collected: 04/22/94 08:40

Date Started

04/22/94

Analyst

Units

<u>R88</u>

Detection Limit 0.004 Method

SW-846, 8020

mg/L

Compound

<u>Results</u>

BENZENE

0.064

TOLUENE

0.011

ETHYLBENZENE

0.013

XYLENES

0.007

Sample Description: Carbon Effluent

Test Description: BTEX - WATER SAMPLE

Collected: 04/22/94 08:40

Lab No: 02A

Method: SW-846, 8020 Test Code: BTEX\_W

Date Started

04/22/94

Analyst Units

RBB mg/L

Detection Limit 0.004

Method SW-846, 8020

Compound

<u>Results</u>

BENZENE

< 0.004

TOLUENE

< 0.004

ETHYLBENZENE

< 0.004

XYLENES

Order # N4-04-178

04/25/94 07:26

TEST RESULTS BY SAMPLE

Client: Texas New Mexico Pipe Line Co

Sample Description: Tower Influent

Lab No: 03A

Test Description: BTEX - WATER SAMPLE

Method: SW-846, 8020 Test Code: BTEX\_W

Collected: 04/22/94 10:50

Date Started

04/22/94

Analyst Units

<u>RBB</u> mg/L

Detection Limit 0.004 Method

SW-846, 8020

Compound

**Results** 

BENZENE

0.018

TOLUENE

0.006

ETHYLBENZENE

< 0.004

XYLENES

< 0.004

Sample Description: Carbon Effluent

Lab No: 04A

Test Description: BTEX - WATER SAMPLE

Method: SW-846, 8020 Test Code: BTEX\_W

Collected: 04/22/94 10:50

Date Started

04/22/94

Analyst Units

R88 mg/L

Detection Limit 0.004 Method

SW-846, 8020

Compound

**Results** 

BENZENE

< 0.004

TOLUENE

< 0.004

ETHYLBENZENE

< 0.004

XYLENES

Order # M4-04-178

04/25/94 07:26

TEST RESULTS BY SAMPLE

Client: Texas New Mexico Pipe Line Co

Sample Description: Tower Inluent

Test Description: BTEX - WATER SAMPLE

Collected: 04/22/94 12:20

Lab No: 05A

Method: SW-846, 8020 Test Code: BTEX\_W

Date Started

04/22/94

Analyst Units

RBB mg/L

Detection Limit 0.004 Method

SW-846, 8020

Compound

**Results** 

BENZENE

0.020

TOLUENE

0.006

ETHYLBENZENE

0.004

XYLENES

< 0.004

Sample Description: Carbon Effluent

Test Description: BTEX - WATER SAMPLE Collected: 04/22/94 12:20

Lab No: C6A

Method: SW-846, 8020 Test Code: BTEX\_W

Date Started

04/22/94

Detection Limit 0.004

Analyst Units

RBB

mg/L

Method

SW-846, 8020

Compound

<u>Results</u>

BENZENE

< 0.004

TOLUENE

< 0.004

ETHYLBENZENE

< 0.004

XYLENES

Order # M4-04-178 04/25/94 07:26

TEST RESULTS BY SAMPLE

Client: Texas New Mexico Pipe Line Co

Sample Description: Tower Influent

Test Description: BTEX - WATER SAMPLE

Collected: 04/21/94 18:45

Lab No: 07A

Method: SW-846, 8020 Test Code: BTEX\_W

Date Started

04/22/94

Analyst Units R88

Detection Limit 0.004
Method SW-846

SW-846, 8020

mg/L

Compound

**Results** 

BENZENE

< 0.004

TOLUENE

< 0.004

ETHYLBENZENE

< 0.004

XYLENES

< 0.004

Sample Description: Carbon Effluent

Test Description: BTEX - WATER SAMPLE

Collected: 04/22/94 18:45

Lab No: 08A

Method: SW-846, 8020 Test Code: BTEX\_W

Date Started

ted <u>04/22/94</u>

Detection Limit 0.004

Analyst Units RBB mg/L

Method

SW-846, 8020

Compound Results

BENZENE

< 0.004

TOLUENE

< 0.004

ETHYLBENZENE

< 0.004

XYLENES

SAN ANGELO OFFICE FILE

# SOUTHWESTERN LABORATORIES MAY

1703 West Industrial Avenue \* P.O. Box 2150, Midland, Texas 79702

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3	79702	*	915/68	3-3349			
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				!_	<del> </del>	<u>.</u>	<del>}</del>
C1	ient	No. 268	39100		<u> </u>	<u> </u>	<u></u>

Client Texas New Mexico Pipe Line Co

P.O. Box 60028

San Angelo, Texas 76906 915/949-7019 FAX 915/944-2721

Attn: J.T. Janica

Report No. M4-04-179 Report Date 05/02/94 14:30

Project SPS11

Date	Sampled	04/21/94	04/22/94
<i></i>	Jump I Cu	U7/ C1/ J7	V7/ CE/ V7

Sample Type Water

Sampled By Client

Transported by J.T. Janica

Date Received 04/22/94

cc: Dwayne Conrad

Texaco

P.O. Box 1608

Port Arthur, Texas 77641

Sample Identification

Tower Effluent

Tower Effluent

Tower Effluent

Tower Effluent

Lab No.

M4-04-179-01

M4-04-179-02

M4-04-179-03

M4-04-179-04

SOUTHWESTERN LABORATORIES

ALLAN B. JOHNSTON

Order # M4-04-179

05/02/94 14:30

TEST RESULTS BY SAMPLE

Client: Texas New Mexico Pipe Line Co

Sample Description: Tower Effluent

Lab No: 01A

Test Description: BTEX - WATER SAMPLE

Method: SW-846, 8020 Test Code: BTEX\_W

Collected: 04/22/94 08:40

Date Started Detection Limit 0.004

04/23/94

Analyst Units

RBB mg/L

Method

SW-846, 8020

Compound

Resu'ts

BENZENE

< 0.004

TOLUENE

< 0.004

ETHYLBENZENE

< 0.004

XYLENES

< 0.004

Sample Description: Tower Effluent

Test Description: BTEX - WATER SAMPLE

Collected: 04/22/94 10:50

Lab No: 02A

Method: SW-846, 8020 Test Code: BTEX\_W

Date Started

04/23/94

Analyst Units

<u>R88</u> mg/L

Detection Limit 0.004 Method

SW-846, 8020

Compound

**Results** 

BENZENE

< 0.004

TOLUENE

< 0.004

ETHYLBENZENE

< 0.004

**XYLENES** 

Order # M4-04-179

05/02/94 14:30

TEST RESULTS BY SAMPLE

Client: Texas New Mexico Pipe Line Co

Sample Description: Tower Effluent

Lab No: 03A

Test Description: BTEX - WATER SAMPLE

Method: SW-846, 8020 Test Code: BTEX\_W

Collected: 04/22/94 12:20

Date Started

Detection Limit 0.004

04/23/94

Analyst Units

RBB mg/L

Method

SW-846, 8020

Compound

Resu<sup>1</sup> ts

BENZENE

< 0.004

TOLUENE

< 0.004

ETHYLBENZENE

< 0.004

**XYLENES** 

< 0.004

Sample Description: Tower Effluent

Lab No: 04A

Test Description: BTEX - WATER SAMPLE

Method: SW-846, 8020 Test Code: BTEX\_W

Collected: 04/21/94 18:45

Date Started

04/23/94

Analyst Units

<u>RBB</u> mg/L

Detection Limit 0.004 Method

SW-846, 8020

Results Compound

BENZENE

0.008

TOLUENE

< 0.004

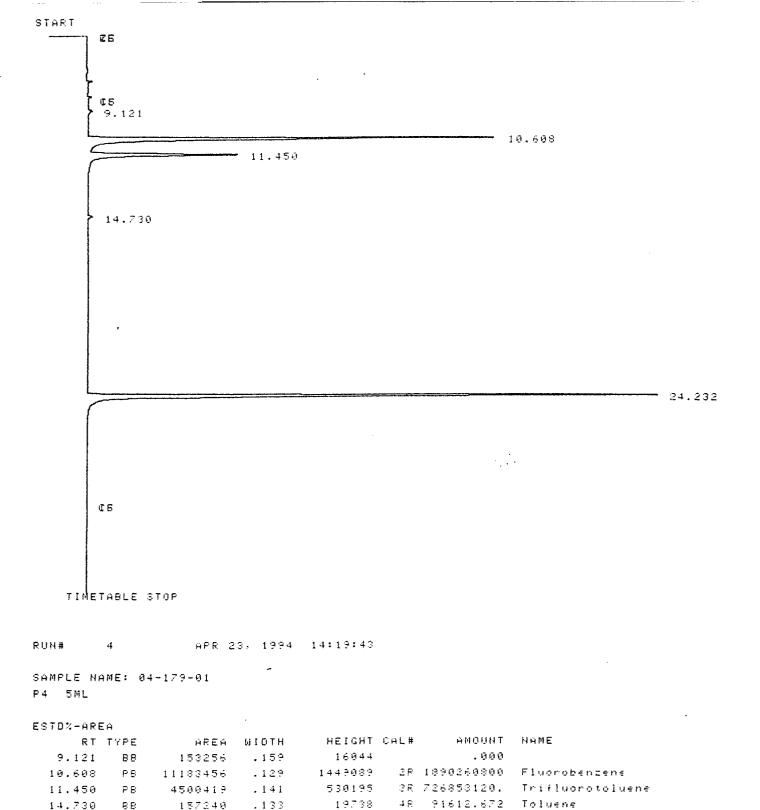
ETHYLBENZENE

< 0.004

**XYLENES** 

< 0.004

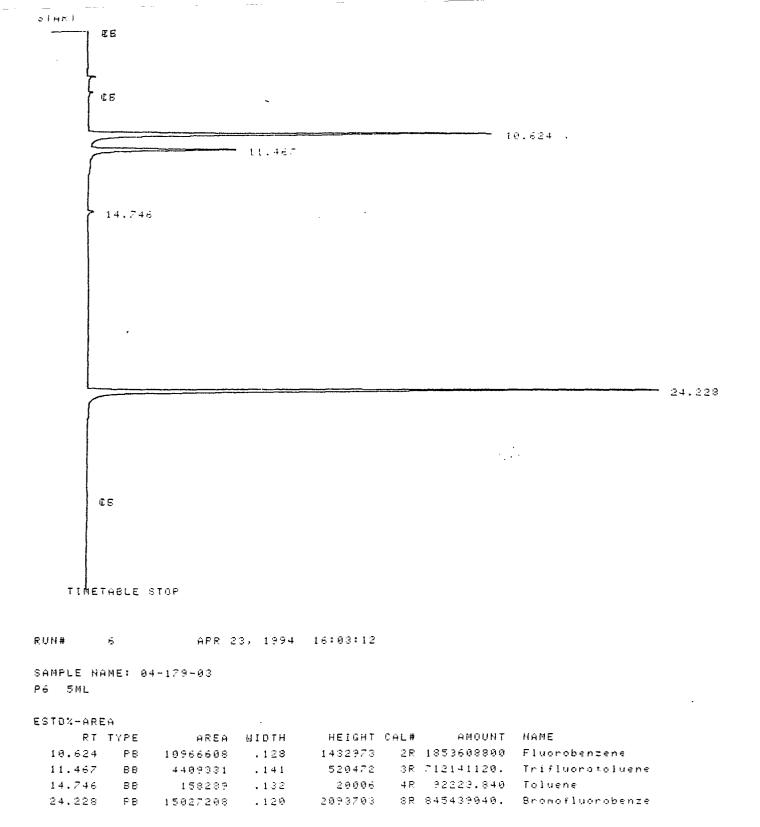
Page 3



24.232 PB 15201992 .120 2114522 8F 855272320. Browofluorobenze

TOTAL AREA=3.1196E+07 MUL FACTOR=1.0000E+00 SAMPLE AMT=8.2900E-01

```
* RUN # 5 APR 23, 1994 15:11:28
START
       1 26
         Œ S
                                                       10.639
                          - 11.483
        14.766
                                                                               <del>--</del> 24.268
                                                            ŒΒ
   TIMETABLE STOP
RUN# 5 APR 23, 1994 15:11:28
SAMPLE NAME: 04-179-02
P 5
ESTD%-AREA
 RT TYPE AREA WIDTH HEIGHT CAL# AMOUNT NAME
10.639 PB 10919440 .128 1423366 2R 1845636000 Fluorobenzene
 11.483 BB 4392253 .141 518473 3R 709383360. Trifluorotoluene
14.766 BB 211755 .130 27165 4R 123374.760 Toluene
 14.766 88
                 211785 .130
  24,268 PB 14758728 .120 2047809 8R 830334080. Brownfluorobenze
TOTAL AREA=3.02828+07
MUL FACTOR=1.0000E+00
SAMPLE ANT=8.29006-01
```



TOTAL AREA=3.0561E+07
MUL FACTOR=1.0000E+00
SAMPLE AMT=8.2900E-01

```
* RUN # 7 APR 23, 1994 16:55:10
START
        1 26
         Œ E
                                                             10.649
                          11.493
         14.780
         19:315
                                                                                          7 24,283
                                                                Œ5
   TIMETABLE STOP
RUN# 7 APR 23, 1994 16:55:10
SAMPLE NAME: 04-179-04
P7 5ML .
ESTD%-AREA
 RT TYPE AREA WIDTH HEIGHT CAL# AMOUNT NAME

10.275 PP 1014159 .118 143069 1R 636143.040 Benzene

10.649 PB 10788325 .127 1418862 2R 1823476000 Fluorobenzene

11.493 BB 4384838 .141 519581 3R 708185920. Trifluorotolue
                                        519581 3R 708185920. Trifluorotoluens
                  220138 .130
                                         28144 4R 128258.888 Toluene
22171 5P 102647.000 Ethylbenzene
  14.780 PB
 19.815 BV
                    158168 .119
  24.283 PB 15008800 .119 2099523 8R 844403200. Bromofluorobenze
```

TOTAL AREA=3.1574E+07 MUL FACTOR=1.0000E+00 SAMPLE AMT=8.2900E-01



# SOUTHWESTERN LABORATORIES

1703 West Industrial Avenue \* P.O. Box 2150, Midland, Texas 79702 \* 915/683-3349

Client Texas New Mexico Pipe Line Co

P.O. Box 60028

San Angelo, Texas 76906 915/949-7019 FAX 915/944-2721

Attn: J.T. Janica

Client No. 26839100 Report No. M4-04-179 Report Date 05/02/94 14:30

Project SPS11

Date	Sampled	04/21/94	04/22/94

Sample Type Water

Sampled By Client

Transported by J.T. Janica

Date Received 04/22/94

cc: Dwayne Conrad

Texaco

P.O. Box 1608

Port Arthur, Texas 77641

Lab No.

M4-04-179-01

M4-04-179-02

M4-04-179-03

M4-04-179-04

Sample Identification

Tower Effluent

Tower Effluent

Tower Effluent

Tower Effluent

SOUTHWESTERN LABORATORIES

ALLAN B. JOHNSTON

Order # M4-04-179

05/02/94 14:30

TEST RESULTS BY SAMPLE

Client: Texas New Mexico Pipe Line Co

Sample Description: Tower Effluent

Test Description: BTEX - WATER SAMPLE

Collected: 04/22/94 08:40

Lab No: 01A

Method: SW-846, 8020 Test Code: BTEX\_W

Date Started

04/23/94

Analyst Units

<u>R88</u> mg/L

Detection Limit 0.004 Method

SW-846, 8020

Compound

<u>Results</u>

BENZENE

< 0.004

TOLUENE

< 0.004

ETHYLBENZENE

< 0.004

XYLENES

< 0.004

Sample Description: Tower Effluent

Test Description: BTEX - WATER SAMPLE

Collected: 04/22/94 10:50

Lab No: 02A

Method: SW-846, 8020 Test Code: BTEX\_W

Date Started

04/23/94

Analyst Units

<u>R88</u> mg/L

Detection Limit 0.004

SW-846, 8020

Method

**Results** 

BENZENE

Compound

< 0.004

TOLUENE

< 0.004

ETHYLBENZENE

< 0.004

XYLENES

Order # M4-04-179

05/02/94 14:30

TEST RESULTS BY SAMPLE

Client: Texas New Mexico Pipe Line Co

Sample Description: Tower Effluent

Lab No: 03A

Test Description: BTEX - WATER SAMPLE

Method: SW-846, 8020 Test Code: BTEX\_W

Collected: 04/22/94 12:20

Date Started Detection Limit 0.004

04/23/94

Analyst Units

RB8 mg/L

Method

SW-846, 8020

Compound

**Results** 

BENZENE

< 0.004

TOLUENE

< 0.004

**ETHYLBENZENE** 

< 0.004

XYLENES

< 0.004

Sample Description: Tower Effluent

Lab No: 04A

Test Description: BTEX - WATER SAMPLE

Method: SW-846, 8020 Test Code: BTEX\_W

Collected: 04/21/94 18:45

Date Started Detection Limit 0.004

04/23/94

Analyst Units

<u>RBB</u> mg/L

Method

SW-846, 8020

**Results** 

BENZENE

Compound

0.008

TOLUENE

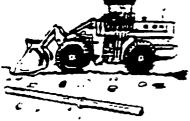
< 0.004

ETHYLBENZENE

< 0.004

XYLENES





Date 7-31-95

Number of pages including cover sheet

3

efore Excavating Or In An Emarg	gency Please Call Collect 1-800-515-
Jay Janica	From:  TEXAS NEW MEXICO PIPELINE COMPANY  Ernest J. Richarte
Pnone Fax phone CC	Phone 505 390-334!  Fax phone 505 390-2754
REMARKS: Urgent For your re	eview



CITY OF HOBBS 300 N. Turner Hobbs, NM 88240 Lab # 9411

# MICROBIOLOGICAL WATER REPORT

Time Test Began	13:45	Date _ ?-25-95
Time Test Ended	12:32	Data 2-26-45

PHONE .. 505 - 376- 3341

Fax 505- 396-3754

Date Received 2-3 = 95
Time Received 10 14
AD

Time Test Ended 12:32 Date 1-147			Received by				
	•	•					
SAMPLE IDENTIFICATION			TESTING REQUIRED				
Quality Control No. 95 0 5/ County			[ MF.Total	Coliform	[ ] MMO MUG-Total Coliform		
BW-/ Lea			LABORATORY TEST RESULTS				
Water Supply System Name WSS Code No.							
			Total Coliforn	ns / 100 ml	Total Coliforms / 100 ml		
,		Absent	[ ] Present	[ ] Absent [ ] Present			
COLLECTION INFORMATION			Fecal Coliforn	ns / 100 ml	'E. coli / 100 ml		
Date Collected Time Collected Collected By Mo. Day Yr. 0850		Collected By	( Absent	[ ] Present	[] Absent [] Present		
07-25-95				INVALID	SAMPLE		
1	LEYU, NE by Collectic SEC. 18, 7185; R3 N.M. approx. 15 Hobbs and 14 miles	n Point SE YY	16 6 6				
	N.M. approx. 15	miles west of	If one of the ic	ollowing is check			
		south of Lovington	[ ] TNTC Nor	n-Coliforms	[ ] Confluent Growth		
	TYPE OF SYSTEM				<del></del>		
Check One			REJECTED SAMPLE				
Public Non-Com	nmunity [ ] S	wimming Pool		llowing is check	ed, resample.		
[ ] Public Commun	ity []P	rivate Well	[ ] Sample too old. [ ] Temperature violation. (above 10° C)				
Disinfected [ ] Yes [ ] No			( ) Form incomplete. See circled item.				
•			[ ] Date discrepancy. [ ] Leaking Sample.				
Residual:	mg / 1 (re	quired for fecal test)					
			[ ] Quantity insufficient for testing.				
RE	ASON FOR SAMPLI	VG.		o great to perm	it agitation.		
Check One			[ ] Turbid sam	-			
	. /		( ) Other	· · · · · · · · · · · · · · · · · · ·			
[ ] Routine Sample	( ) S <sub>F</sub>	ecial Sample	CON WEEDING	TET A WON OF	PROTE SCALL STEEL		
[ ] Check Sample	[ ] M	onitor Sample	FOR INTERPRETATION OF RESULTS CALL THE NEW MEXICO ENVIRONMENT DEPARTMENT AT 393-4302.				
AME <u>Ernpst</u> OMPANY <i>Telais-N</i> DDRESS <i>P.O.</i>	BILL TO THE FOLLOW  J. Richarte  Sew Michies Pip  BOX 1217	e Gne Co.	EACH TEST		IS CHARGED FOR		
				OFFICE USE ONLY			

ACCT.

# CITY OF HOBBS 00 N. Turner lobbs, NM 88240 ab / 9411

MICROBIOLOGICAL WATER REPORT

1 of HOD	C
Sistanda	30
2.0	H
1200	La
MED	

Time	Test	Began	13:45	Date	7-25-95
_	_		1713-	_	7-24-50

Date Received Z	-25-95-
Time Received	1014
	AA

Time Test Ended 12:32 Date 1-2-73	Received by			
•				
SAMPLE IDENTIFICATION	TESTING REQUIRED			
Quality Control No. 95 066 County Lea	[ ] MMO MUG-Total Coliform			
PWZ	LABORATORY TEST RESULTS			
Water Supply System Name WSS Code No.	Total Coliforms / 100 ml  [ Absent [ ] Present [ ] Absent [ ] Present			
COLLECTION INFORMATION	Fecal Obliforms / 100 ml E. coli / 100 ml			
Date Collected Time Collected Collected By Mo. Day Yr. 0846 C. J. Richard				
01-35-95	INVALID SAMPLE			
NEW, NEW Collection Point SEY4  Sec. 18, 785, 136 E, Leach of Los  Of Holy, 14 miles South of Los  TYPE OF SYSTEM	If one of the following is checked, resample.  [ ] TNTC Non-Coliforms [ ] Confluent Growth			
Check One	REJECTED SAMPLE			
[ Public Non-Community [ ] Swimming Pool [ ] Public Community [ ] Private Well	If one of the following is checked, resample.  [ ] Sample too old.  [ ] Temperature violation. (above 10° C)  [ ] Form incomplete. See circled item.  [ ] Date discrepancy.  [ ] Leaking Sample.  [ ] Quantity insufficient for testing.			
Disinfected [ ] Yes [ ] No				
Residual: mg/l (required for fecal tes				
REASON FOR SAMPLING	Quantity too great to permit agitation.  [ ] Turbid sample.			
Check One  [ ] Routine Sample [ Special Sample	[ ] Other			
[ ] Check Sample [ ] Monitor Sample	FOR INTERPRETATION OF RESULTS CALL THE NEW MEXICO ENVIRONMENT DEPARTMENT AT 393-4302.			
END REPORT AND BILL TO THE FOLLOWING:	Bacteriologist Bacteriologist			

SEAD REPORT AND BIBE TO THE TOBEOWER.
NAME Ernest J. Richarte
COMPANY TEXAS- New Mexico Pipe Line Co
ADDRESS P.O. BOX 1027
Louinston, M.M. 88260
PHONE 505-396-334/ Fax 505-396-2754
Fax 505- 376-2734

O. A FEE OF \$10.00 PLUS TAX IS CHARGED FOR EACH TEST.

OFFICE USE ONLY	
ACCT.	





Date: <u>7-31-95</u>

Number of pages including cover sheet

3

Before Excavating Or In An Emergency Please Cail Collect 1-800-515-3341

Jay Janica	T T	EXAS NEW MEXICO PELINE COMPANY
		J. Richarte
Pnone	Pnone 50	2 380-334 :
Fax phone: CC	has phone 50:	5 396-2754

REMARKS:	Urgeni	For your review	Reply ASAP	Ξ	Pie	ease	comn	nent	
				SA	N AN	IGEI FIL	LO O	FFIC	Έ
					JU	L 3	17 19	995	
					Note	2/4		ficte	17
				EHG			TWL		ĺ
				DDB			MUD		Ì
				SOH			:13		
				CEK			J. 13		
				AER			2.5.27	!	
				· • • • •		, ,			ŧ -



# CITY OF HOBBS 300 N. Turner Hobbs, NM 88240 Lab # 9411

# MICROBIOLOGICAL WATER REPORT

4 1 HOP
CAMPA
\Z.\Z.\Z.\Z.\Z.\Z.\Z.\Z.\Z.\Z.\Z.\Z.\Z.\
MEX

Time Test Began	13:45	Date	7-25-95
Time Test Ended			

Date Received 7-25-95 Time Received \_\_\_\_ Received by \_\_\_\_

SAMPLE IDENTIFICATION			TESTING REQUIRED				
Quality Control No. 95 066 County Lea		[ ] MMO MUG-Total Coliform					
	PWZ		LABORATORY TEST RESULTS				
Water Supply Syste		WSS Code No.	Total Coliforms / 100 ml [   Absent [ ] Present	Total Coliforms / 100 ml			
	LECTION INFORMA		Fecal Obliforms / 100 ml	E. ∞li / 100 ml			
Date Collected Mo. Day Yr.	Time Collected 0846	Collected By J, Ri Charte	[ ] Absent [ ] Present	[] Absent [] Present			
07-25-95			INVALID	SAMPLE			
NEVY, IVE MCollection Point SE 14 Sec. 18, 785, 136E, Leaco, N.M. approx. 15 miles wast of Holds, 14 miles South of Loving			If one of the following is checked, resample.  [ ] TNTC Non-Coliforms [ ] Confluent Growth				
	TYPE OF SYSTEM		DP In comm	D GAMPI D			
Check One			REJECTE	D SAMPLE			
[ Public Non-Com	munity [ ] S	wimming Pool	If one of the following is checked, resample.  [ ] Sample too old.				
[ ] Public Communi	ty [] Pi	rivate Well	( ) Sample too old.  ( ] Temperature violation. (above 10°C)				
Disinfected [	Yes [] No		[ ] Form incomplete. See circled item.				
Residual:	mg/1 (red	quired for fecal test)	[ ] Date discrepancy. [ ] Leaking Sample. [ ] Quantity insufficient for testing. [ ] Quantity too great to permit agitation.				
REASON FOR SAMPLING		[ ] Turbid sample.					
Check One			[ ] Other				
[ ] Routine Sample	[ # Sp	ecial Sample					
[ ] Check Sample	[ ] M	onicor Sample	FOR INTERPRETATION OF RESULTS CALL THE NEW MEXICO ENVIRONMENT DEPARTMENT AT 393-4502.				

SEND REPORT AND BILL TO THE FOLLOWING:
NAME Ernest J. Richarte
COMPANY TEXAS- New Mexico Pipe Line Co
ADDRESS P.D. BOX 1027
Louinston, n.m. 88260
PHONE 505-396-334/
Exix 505- 576-2754

A FEE OF \$10.00 PLUS TAX IS CHARGED FOR EACH TEST.

Bacteriologist

OFFICE USE ONLY	
ACCT. /	

96e4

This sample was analyzed for the following compounds

	using EPA Method 502.2			
CAS NO.	COMPOUND	CONC.		POL
71-43-2	Benzene		U	0.5
108-86-1	Bromobenzene		U	0.5
74-97-5	Bromochloromethane		U	0.5
75-27-4	Bromodichloromethane		U	0.5
75-25-2	Bromoform		U	0.5
24-83-9	Bromomethane		U	0.5_
78-93-3	2-Butanone (MEK)		U	5.0
104-51-8	n-Butylbenzene		U	0.5
135-98-8	sec-Butylbenzene		U	0.5
98-06-6	tert-Butylbenzene		U	0.5
1634-04-4	tert-Butyl methyl ether (MTBR)		U	5.0
56-23-5	Carbon tetrachloride		U	0.5
108-90-7	Chlorobenzene		U	0.5
75-00-3	Chloroethane		U	2.5
67-66-3	Chloroform		U	0.5
74-87-3	Chloromethane		U	0.5
95-49-8	2-Chlorotoluene		U	0.5
106-43-4	4-Chlorotoluene		U	0.5
96-12-8	1,2-Dibromo-3-chloropropane		U	0.5
124-48-1	Dibromochloromethane		U	0.5
106-93-4	1,2-Dibromoethane		_U	0.5
74-95-3	Dibromomethane		U	0.5
95-50-1	1,2-Dichlorobenzene		_U	0.5
541-73-1	1,3-Dichlorobenzene		Ū	0.5
106-46-7	1,4-Dichlorobenzene		U	0.5
75-71-8	Dichlorodifluoromethane		U	0.5
75-34-3	1,1-Dichloroethane		_U	0.5
107-06-2	1.2-Dichloroethane		ַ ט	0.5
75-35-4	1,1-Dichloroethene		U	0.5
156-59-4	cis-1,2-Dichloroethene		Ū	0.5
156-60-5	trans-1,2-Dichloroethene		U	0.5
78-87-5	1,2-Dichloropropane		บ	0.5_
142-28-9	1.3-Dichloropropane		ט	0.5
590-20-7	2,2-Dichloropropane		U	0.5
563-58-6	1.1-Dichloropropene		Ü	0.5
1006-01-5	cis-1,3-Dichloropropene		U	0.5
1006-02-6	trans-1,3-Dichloropropene		U	0.5
100-41-4	Ethylbenzene		U	0.5

(Continued on page 3.)

# ANALYTICAL REPORT SLD Accession No. OR-94-2635 Continuation, Page 3 of 4

		ı	1	
87-68-3	Hexachlorobutadiene		U	0.5
98-82-8	Isopropylbenzene		U_U	0.5
99-87-6	4-Isopropyltoluene		U	0.5
75-09-2	Methylene chloride		U	0.5
91-20-3	Naphthalene		U	0.5
103-65-1	Propylbenzene		U	0.5
100-42-5	Styrene		U	0.5
630-20-6	1.1.1.2-Tetrachloroethane		U	0.5
79-34-5	1,1,2,2-Tetrachloroethane		U	0.5
127-18-4	Tetrachloroethene		U	0.5
109-99-9	Tetrahydrofuran (THF)		Ū	5.0
108-88-3	Toluene		Ŭ	0.5
87-61-5	1,2,3-Trichlorobenzene		บ	0.5
120-82-1	1,2,4-Trichlorobenzene		U	0.5
71-55-6	1,1,1-Trichloroethane		U_	0.5
79-00-5	1,1,2-Trichloroethane		U	0.5
79-01-6	Trichloroethene		Ŭ	0.5
75-69-4	Trichlorofluoromethane		บ	0.5
96-18-4	1,2,3-Trichloropropane		Ū	0.5
95-63-6	1,2,4-Trimethylbenzene		Ü	0.5
108-67-8	1,3,5-Trimethylbenzene		Ü	0.5
75-01-4	Vinyl chloride		Ū	2.0
95-47-6	o-Xylene		Ü	0.5
N/A	p- & m-Xylene		U	0.5
N/A	Total Xylenes		Ū	1.0

\* Q = Qualifier Definitions:

CONC = CONCENTRATION DETERMINED

PQL = Practical Quantitation Limit (Approximately 5 times MDL)

- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the PQL listed.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

(Continued on page 4.)

ANALYTICAL REPORT SLD Accession No. OR-94-2635 Continuation, Page 4 of 4

#### OUALITY CONTROL SUMMARY FOR VOLATILES SCREEN

A laboratory method blank was analyzed along with this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED No Compounds Detected

CONCENTRATION (PPB)

SURROGATE RECOVERIES:

CONCENTRATION % RECOVERY SURROGATE 96.3 10.0 Bromofluorobenzene (PID Surr) ppb 95.2 Bromofluorobenzene (HALL Surr) 10.0 ppb

SPIKE RECOVERY: The % recoveries for compounds in the batch spike were from 80% to 120% with the exception of the compounds listed below:

COMPOUND

CONCENTRATION

% RECOVERY

No exceptions

dqq

Analyst:

Nancy DeWitt

Reviewed By:

Richard F. Meyerhein 08/16/94

Analyst, Organic Chemistry Supervisor, Organic Chemistry Section

	174
ORGANIC CHEMISTRY ANALYTICAL REC	DUEST FORM
SCIENTIFIC LABORATORY DIVISION	OR94 2635 B
700 CAMINO DE SALUD N.E., ALBUQUERQUE, I	NM 87108 Date R41-2570 Request LLUI III III Received:
Organic Chemistry Section - Telephone: (505) 8	Priority 7
Code #: ID	No.: Code #: Code #:
5 Facility Name: < P < - //	72 77
3/3//	Lea Louington Ling
Sample Location: 5,P,S, Well,	1, Treating Stide
10 Calected	2 12 or 97 108 109 41 17 18 10 lm
By:	One Ory MM/OO) Time So in 1900 in
11 Codes:	12 Lettrude (DOMMASS)
	Organization Longitude (DODMASS) Process
Submitter WSS #	Phone 4*
To: Douglas U. Ben	915-941-9003 15 Sempling information:
ICAAS NEW MEXICO Pipe	CITIC COISample Purpose: (1) Consonite
P.O. BOX 60028	Compliance
San Angelo, Texas	76906 C-Special C-Chain of Custody
IC FOO	ce/cm @ Temperature: C, Residuet: mg/l, Ploat
17 Sample Source:	18 Field Remarks: Sampled from 14" Hose Bib
Stream —Entry Point to Distribution —Lake —Well; Depth:	P 1 1 1 1 1 1 Ciltar Mescal
☐-Orain ☐-Spring	discharge
Distribution	alschaft.
19 Sample Type: (X- Water 78 - F) - Unchloringt	ed 20 Preservation:
☐-Wastewater ☐-Chlorinated ☐-Sol. ☐-Food, ☐-Cther	17- P-los Sample stored in an ice beth (Not Frozen)
This form accompanies a single sample consisting of	P-TS Sample Preserved with Sodium Thiosulfate to remove chlorine residual P-HO Sample Preserved with Hydrochloric Acid (2 drops/40 mg)
2 - septum viai(s) (volume = 40 mi es.)	- P-PGC Sample Preserved with 20 mg/I Mercuric Chiorios
(volume =	
21 Analyses Requested: Please check the approp	riste box(es) below to indicate the type of analytical screen(s) sible, list specific compounds suspected or required and note
below whenever highly c	ortaminated samples are suspected
Volatile Screens:	Semivolatile Screens:
	601/2) - (755) Base/Neutral Ediractables (EPA 625) - (756) Base/Neutral/Acid Extractables (EPA 8270)
(27) Mass Spectrometer Purgeables (EPA 624)	
- (766) SDWA Total Trihalomethanes (EPA 501.1)	(758) Herbicides, Chlorophenoxy Acid (EPA 515.1)
(774) SOWA VOC'S I (21 REGULATED +) (EPA 5 (C) - (775) SOWA VOC'S II (EDB & DBCP) (ÉPA 504)	502.2) - (759) Herbicides, Triazine (EPA 507) - (751) Hydrocarbon Fuel Screen (EPA M-8015)
- (790) Composite Sample for Analysis No.	(760) Organochlorine Pesticides (EPA 505)
Other Specific Compounds or Cla	(761) Organophosphate Pesticides (EPA 507)
	SS85. (767) Polychlorinated Biphenyls (PC8's) in Ol (762) SDWA Synthetic Org. Cmpds. (SLD 758/760)
□-(-)	- (782) Total Petroleum Hydrocarbons (EPA 418.1)
Pemarks:	The control of the co
Gred Oxility 605 291	- 27 4 /
	( 23347
Hease send duplicate o	f results to me at
lexas- New Mexico Pipe Line	Co.
7.0. Box 1027 Th	ovington, M.M. 88260

P.O. Box 4700 Albuquerque. NM 87196-4700

[505]-841-2500 ORGANIC CHEMISTRY SECTION [505]-841-2570

SAN ANCELO OFFICE 700 Camino de Salud, NE FILE

AUG 22 1994

August 17, 1994

Requested Priority 2 ID No. 090041

# ANALYTICAL REPORT SLD Accession No. OR-94-2636

o a na a mai na mai na ana 26 in ana na a

Dustribution Hute 11/1 FHG () User O.V (olf (X) OUE Submitter 68 ECH (N ST PRICE CSK HWL ALF 74:7 COK jii .

To: Douglas D. Beu

Texas-New Mexico Pipeline Co.

P.O. Box 60028

San Angelo, Texas 76906

From:

Organic Chemistry Section

Scientific Laboratory Div.

700 Camino de Salud, N.E. P.O. Box 4700

SPS Well/II) Treating Skid

Albuquerque, NM 87196-4700

Re: A water, Extractable sample submitted to this laboratory on August 11, 1994

DEMOGRAPHIC DATA

COLLECTION

By: Ric . . .

LOCATION

On: 9-Aug-94 At: 17:30 hrs.

In/Near: Lovington

ANALYTICAL RESULTS: SDWA VOC-II [EPA-504] Screen {775}

<u>Parameter</u>	Value	Note	POL	Units
1,2-Dibromoethane (EDB)	0.00	N	0.02	dag
1,2-Dibromo-3-chloropropane	0.00	N	0.02	ppb
See Inhometoms Demontor for		T &		~ -

See Laboratory Remarks for Additional Information

Notations & Comments:

PQL = Practical Quantitation Level.

A = Approximate Value; N = None Detected above Detection Limit; P = Compound Present, but not quantified; T = Trace (< Detection Limit); U = Compound Identity Not Confirmed.

Evidentiary Seals: Not Scaled . Intact: No . Yes . & Broken By:

Date:

Laboratory Remarks:

#### SAFE DRINKING WATER ACT VOLATILES-II

Lab Name: NM SCIENTIFIC LABORATORY DIVISION Contract: /A

Lab Code: N/A Case No.: N/A

Matrix: (soil/water) <u>Water</u>

Sample wt/vol: 35.0 (g/mL) <u>m</u>1

Level: (low/med) Low

% Moisture: not dec. N/A dec. N/A

Extraction: (SepF/Cont/Sonc) Micro

GPC Cleanup: (Y/N) No

SAS No.: N/A

SDG No.: N/A Lab Sample ID: OR-94-2636

SLD Batch No: 367 Date Received: 08/11/94

Date Extracted:\_ 08/11/94

Date Analyzed: 08/14/94

Dilution Factor: 1 CONCENTRATION UNITS:

(ug/L or ug/Kg):\_\_\_\_ uq/L

Method 504 was used to analyze for the following compounds COMPOUND

D. Conrad, J. Holly

(Continued on page 2.)

BDC EJR

ANALYTICAL REPORT SLD Accession No. OR-94-2636 Continuation, Page 2 of 2

106-93-4	1,2-Dibromoethane (EDB)	U   0.02
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	U 0.02

- \* CONC = CONCENTRATION DETERMINED
  - PQL = Practical Quantitation Limit ( Approximately 10 times MDL)
- \* Q = Qualifier Definitions:
- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the quantitation limit.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

Analyst:

Arnold F. Bentz

Analyst, Organic Chemistry

Reviewed By:

Richard F. Meyerhein Supervisor, Organic Chemistry Section

RGANIC CHEMISTRY ANALYTI L REQUE	ST FORM . TO SLD No. OR94 2636 B
COENTRIC LABORATORY DIVISION	000 T
700 CAMINO DE SALUD N.E., ALBUQUERQUE, NM Organic Chemistry Section - Telephone: (505) 841-	6/100 E   11/194 00 E
Meque	Code #: Comercial
D No.	8 County 7 City: 8 State
Facility Name: <p5- <="" th=""><th>Lea Louington 72.7m</th></p5->	Lea Louington 72.7m
3/ 3/ //	T I Chid
Location: 5, P.S. Well!	Treating Skind
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	harte on 94 08 09 At 1 4 30 hra.
By:	Data: (17/mm/UU) 200 pm - 1507 mt.
11 Codes	12
0.0.0	Organization Longitude (DODMMSS)
Submitter WSS #	hone #: 915-947-9003
To: Douglas U. Deu	1 101 bet Code
TOTAL TITLE TO THE TOTAL	Cine Co. Sample Purpose: - Composition fine Purca
P.O. BOX 60028	NMED Monitoring - Equal Aliquot Confirmation - Sample Split w/Permittee
San Angelo, Texas	76,906 Special Chain of Custody Chlorine
6 Field Data: pH: < 2 , Conductivity: umhos/c	om @ Temperature: C. Residual: mg/L, How:
17 Sample Source:	18 Field Sampled from 14" Hose Bib
Stream — Entry Point to Distribution	from activated charcoal filter vessel
□-Drain □-Spring	discharge
7-200 Obstribution Skid	4/36/12/
Olsamole Type: Water Same F Unchlorinated	20 Preservation:  No Preservation; Sample stored at room temperature
- Sol, - Food, - Other	P-los Sample stored in an ice bath (Not Frozen):
This form eccompanies a single sample consisting of.	Sample Preserved with Hydrochloric Acid (2 grops/40 ms/
- glass jug(s) (volume = 40 ml ea.)	P-HgO <sub>2</sub> Sample Preserved with 20 mg/l Mercuric Chloride
The second secon	
the second and the second and the second second second and the second second and the second s	te box(es) below to indicate the type of analytical screen(s). le, list specific compounds suspected or required, and note
below whenever highly con	Muluated Saubles or a sosbecreat
Volatile Screens:	Semivolatile Screens:
- (753) Alphatic Headspace (Qualitative Screen)	(755) Base/Neutral Extractables (EPA 625) (1/2) (756) Base/Neutral/Acid Extractables (EPA 8270)
- (754) Aromatic & Halogenated Purgeables (EPA 624)	(772) Carbamate Pesticides (EPA 531.1)
- (766) SDWATotal Trihalomethanes (EPA 501.1)	- (758) Herbicides, Chlorophenoxy Acid (EPA 515.1)
1074 - (774) SDWA VOC'S I [21 REGULATED +] (EPA 50	2.2) (759) Herbicides, Triazine (EPA 507) (751) Hydrocarbon Fuel Screen (EPA M-8015)
- (775) SDWA VOC's II (EDB & DBCP) (EPA 504)	(FPA 505)
- (790) Composite Sample for Analysis No.	- (761) Organophosphate Pasticides (EPA 507)
Other Specific Compounds or Clas	ses (PCB's) IT (767) Polychiorinated Biphenyls (PCB's) IT (1977)
	7- (762) SDWA Synthetic Org. Crapas. (SLD 758/701)
	- (782) Total Petroleum Hydrocarbons (EPA 418.1)
Pemarke:	
Lived Uschart - 505 - 396	- 33 4 /
Please sand duplicate at	results to me at
Texas New Mexico Pire Line	Co.
	dington, 77.77. 88260
SLD 8912-OF _ Revised 2/93	Please RETAIN A COPY of your completed form
8 9669	•

P.O. Box 4700 Albuquerque, NM 87196-4700 700 Camino de Salud, NE [505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

August 24, 1995

Requested Priority 1 ID No. 090042

# ANALYTICAL REPORT SLD Accession No. OR-95-3807

Distribution () User 64000

() Submitter 68

(X Client

(x) SLD Files

To: Jay Janica

Texas-New Mexico Pipe Line Co.

- PO Box 60028

San Angelo, Texas 76906

From:

Organic Chemistry Section Scientific Laboratory Div.

700 Camino de Salud, N.E.

P.O. Box 4700

Albuquerque, NM 87196-4700

Re: A water, Purgeable sample submitted to this laboratory on August 23, 1995

User: SLD Fee For Service - MISC 700 Camino de Salud, NE P.O. Box 4700 Albuquerque, NM 87196-4700

Submitter: SAN ANGELO OFFICE Mxra Meyers FD Field Office, Hobbs AUG 2 9 1995 Suite 165 726 E. Michigan Avenue

Hobbs, NM 88240

Mote 1/n Note 174 EHG TVVL MOST 208 852

FILE

#### DEMOGRAPHIC DATA

COLLECTION On: 22-Aug-95 By: Ric . . .

LOCATION SPS Well 11 Treating Skid

10001

At: 14:00 hrs. *In/Near:* Lovington

ANALYTICAL RESULTS: SDWA VOC-I [EPA-502.2] Screen {774}

Parameter Oual POL Value Units\_ 0.00 SDWA VOC's-I U dqq

See Laboratory Remarks for Additional Information

Notations & Comments:

Evidentiary Seals: Not Sealed ; Intact: No , Yes & Broken By: \_\_\_\_\_\_ Date:

 $(uq/L \text{ or } uq/Kq): uq/L_{\_}$ 

#### Laboratory Remarks:

#### SAFE DRINKING WATER ACT VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY DIVISION Contract: N/A Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: N/A Matrix: (soil/water) Water

Sample wt/vol: 5.0 (g/mL) mL

Level: (low/med) Low

Moisture: not dec. N/A dec. N/A

Extraction: (SepF/Cont/Sonc) N/A

GPC Cleanup: (Y/N) No pH: 1

DATE NO.: N/A

Lab Sample ID: OR-95-3807

SLD Batch No: 436

Date Received: 8/23/95

Date Extracted: N/A

Date Analyzed: 8/23/95

Dilution Factor: 1 CONCENTRATION UNITS:

This sample was analyzed for the following compounds

	usinq	EPA Method	502.2				
_CAS NO.	COMPOUND			CONC.	0	POL	į
71-43-2	Benzene				IJ	0.5	ĺ

## ANALYTICAL REPORT SLD Accession No. OR-95-3807 Continuation, Page 2 of 4

1_108-86-1	Bromobenzene	U	10.5
74-97-5	Bromochloromethane	U	0.5
75-27-4	Bromodichloromethane	U	0.5
75-25-2	Bromoform	U	0.5
24-83-9	Bromomethane	U	0.5
78-93-3	2-Butanone (MEK)	Ū	5.0
104-51-8	n-Butylbenzene	U	0.5
135-98-8	sec-Butylbenzene	U	0.5
98-06-6	tert-Butylbenzene	Ū	0.5
1634-04-4	tert-Butvl methyl ether (MTBE)	Ū	5.0
56-23-5	Carbon tetrachloride	Ū	0.5
108-90-7	Chlorobenzene	U	0.5
75-00-3	Chloroethane	U	0.5
67-66-3	Chloroform	U	0.5
74-87-3	Chloromethane	U	0.5
95-49-8	2-Chlorotoluene	U	0.5
106-43-4	4-Chlorotoluene	U	0.5
96-12-8	1,2-Dibromo-3-chloropropane	U	0.5
124-48-1	Dibromochloromethane	U	0.5
106-93-4	1,2-Dibromoethane	Ŭ	0.5
74-95-3	Dibromomethane	U	0.5
95-50-1	1,2-Dichlorobenzene	Ŭ	0.5
541-73-1	1,3-Dichlorobenzene	 U	0.5
106-46-7	1,4-Dichlorobenzene	Ü	0.5
75-71-8	Dichlorodifluoromethane	U	0.5_
75-34-3	1,1-Dichloroethane	 U	0.5
107-06-2	1,2-Dichloroethane	U	0.5
75-35-4	1,1-Dichloroethene	U	0.5
156-59-4	cis-1,2-Dichloroethene	U	0.5
156-60-5	trans-1,2-Dichloroethene	U	0.5
78-87-5	1,2-Dichloropropane	 U	0.5_
142-28-9	1,3-Dichloropropane	 U	0.5
590-20-7	2,2-Dichloropropane	 U	0.5_
563-58-6	1,1-Dichloropropene	 U	0.5
1006-01-5	cis-1,3-Dichloropropene	 U	0.5
1006-02-6	trans-1,3-Dichloropropene	U	0.5
100-41-4	Ethylbenzene	U	0.5
87-68-3	Hexachlorobutadiene	U	0.5
98-82-8	Isopropylbenzene	U	0.5
99-87-6	4-Isopropyltoluene	U	0.5
75-09-2	Methylene chloride	U	0.5
91-20-3	Naphthalene	 U	0.5

103-65-1	Propylbenzene	U	0.5
100-42-5	Styrene	U	0.5
630-20-6	1,1,1,2-Tetrachloroethane	U	0.5
79-34-5	1,1,2,2-Tetrachloroethane	 U	0.5
127-18-4	Tetrachloroethene	U	0.5
109-99-9	Tetrahydrofuran (THF)	U	5.0
108-88-3	Toluene	U	0.5
87-61-5	1,2,3-Trichlorobenzene	U	0.5
120-82-1	1,2,4-Trichlorobenzene	U	0.5
71-55-6	1,1,1-Trichloroethane	U	0.5
79-00-5	1,1,2-Trichloroethane	 U	0.5
79-01-6	Trichloroethene	Ū	0.5
75-69-4	Trichlorofluoromethane	 U	0.5
96-18-4	1,2,3-Trichloropropane	 U	0.5
95-63-6	1,2,4-Trimethylbenzene	U	0.5
108-67-8	1,3,5-Trimethylbenzene	Ū	0.5
75-01-4	Vinvl chloride	Ū	0.5
95-47-6	o-Xvlene	U	0.5
N/A	p- & m-Xylene	Ū	0.5
N/A	Total Xylenes	U	1.0

- \* Q = Qualifier Definitions:
- CONC = CONCENTRATION DETERMINED
- PQL = Practical Quantitation Limit (Approximately 5 times MDL). Equivalent to the "minimum detection limit" defined for regulated VOC-1 compounds in 40 CFR 141.25(c).
- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the PQL listed.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

OUALITY CONTROL SUMMARY FOR VOLATILES SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with

ANALYTICAL REPORT
SLD Accession No. OR-95-3807
Continuation, Page 4 of 4

this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED

CONCENTRATION (PPB)

No Compounds Detected

SURROGATE RECOVERIES:

SURROGATE CONCENTRATION % RECOVERY Bromofluorobenzene (PID Surr) 10.0 ppb 97.

Bromofluorobenzene (HALL Surr) 10.0 ppb 93.

SPIKE RECOVERY: The % recoveries for compounds in the batch spike were from 80% to 120% with the exception of the compounds listed below:

COMPOUND

CONCENTRATION

% RECOVERY

No exceptions

nnh

ppb

Analyst:

Nancy DeWitt

Analyst, Organic Chemistry

Reviewed By:

Richard F. Meyerhein 08/24/95

Supervisor, Organic Chemistry Section

O' Z A BIW ' F ' O	IEMISTRY ANALYTICAL	DECHIECT FO	RM	
_			,,,,,,,	8LD No. 0R95 3807 C
	DENTIFIC LABORATORY DIVIS DE SALUD N.E., ALBUQUERO			Date AUG 2 3 1995
	emistry Section - Telephone: (5		Request	Received: AUG 2 3 1993
User Code #:	6,4,000	3 Request	ID No. 090042-A	
Facility	delc le P P J	10 110.	8 County:	7 City: 8 State
Name:	595-11		[Lea.	Lovinston n.m.
Sample		, , 7	, .	- 4
Location: பூ	1 P.5 Welly	1/1/1/	rie, a, tiin	191 SKI 1 d. 1
O Collected E	rhest	. Richart	e_On: <u>95/</u> 0	08/22 Atl 1141010 hrs.
1	Teleit		Deta: (YY	/MM/DO) Time: 34 hr. dook
1 Codes:		<b>A</b> (1	2 2 / // 12	Latitude (DOMMSS)
CO, 618 Submitte	1 (0000000)	On	0,2,/,4, ganization	2 Digit ID
3 Report Name		14 Phone #:	47-9008 4	
To: Ja			7 15	
/ex		Pipe Line		mple Purpose: Composite Composite
y, <del>240</del> 29	0. Box 60028		———— J	NMED Monitoring Equal Aliquot Confirmation Sample Split w/Permittee
	in Angelo, lexa	-5 169		- Special Chain of Custody
6 Field Data: PH:	Conductivity:		Temperature:	Chlorine mg/l, Flow:
7 Sample Source	<b>9:</b>	18 Field Rema	um: Sampled	from Y4" Hose Bib
Stream Lake	Entry Point to Distribut	from	activated Ch	parcoal filter vessel
□-Drain	□-Spring	disch	arre	
■ D-20cl D-WWTP	☐-Distribution		<del></del>	
	M-Uther /caxing_3	10		1
Sample Type	S-Other: Ireating Sk	xinated 20 Presi	ervation;	ample stand at more temperature
Sample Type	☑ Water Unchic	vrinated 20 Presi	los Sample stored in a	ample stored at room temperature n loe bath (Not Frozen)
Sample Type:  ]- Soil, []- Food This form accomp		vinated 20 Press	Hoe Sample stored in a  TS Sample Preserved  HCI Sample Preserved	n les bath (Not Frozen) with Sodium Thiosulfate to remove chiorine residual with Hydrochioric Acid (2 drops/40 ml)
Sample Type:  - Scal, - Food This form accomp	☐ Water ☐ Unchion ☐ Unchion ☐ Wastewater ☐ Chioris ☐ Ch	vinated 20 Press nated No. P ting of: P.P. es.)	Hose Sample stored in a -TS Sample Preserved HCI Sample Preserved HgCI Sample Preserved	n ice bath (Not Frozen) with Sodium Thiosulfate to remove chlorine residual
Sample Type:  - Scil. []- Food This form accomp	☐ Water ☐ Unchic ☐ Wastewater ☐ Chloric , ☐ Other  baries a single sample consis si(s) (volume = 40 miles (volume = 40 miles (volume = 40 miles)	vinated 20 Press nated N Press ting of:	-loe Sample stored in a -TS Sample Preserved -HCI Sample Preserved -HgCI <sub>2</sub> Sample Preserved ther	n ice bath (Not Frozen) with Sodium Thiosulfate to remove chlorine residual with Hydrochloric Acid (2 drope/40 ml) with 20 mg/l Mercurio Chloride
Sample Type:  - Scil. []- Food This form accomp	☐ Water ☐ Unchic ☐ Wastewater ☐ Chioric , ☐ Other  baries a single sample consist si(s) (volume = 40 miles	ting of:	-loe Sample stored in a -TS Sample Preserved -HCI Sample Preserved -HgCI Sample Preserved ther	n ice bath (Not Frozen) with Sodium Thiosulfate to remove chlorine residual with Hydrochloric Acid (2 drope/40 ml) with 20 mg/l Mercurio Chloride  e type of analytical screen(s)
Sample Type  - Soil, []- Food This form accomp - septum vis - glass jug (s	Water	ting of:  popropriate box(es	loe Sample stored in a TS Sample Preserved HCI Sample Preserved HgCI Sample Preserved ther below to indicate the scritc compounds six samples are suspect	n ice bath (Not Frozen) with Sodium Thiosulfate to remove chlorine residual with Hydrochloric Acid (2 drope/40 mt) with 20 mg/l Mercuric Chloride  e type of analytical screen(s) spected or required, and note ted.
Sample Type:  - Soil, []- Food This form accomp - septum via - glass jug (s	Water	ting of:  popropriate box(es	loe Sample stored in a -TS Sample Preserved HCI Sample Preserved HgCI <sub>2</sub> Sample Preserved ther  ) below to indicate the scritc compounds six t samples are suspect Semivols	n ice bath (Not Frozen) with Sodium Thiosulfate to remove chlorine residual with Hydrochloric Acid (2 drope/40 ml) with 20 mg/l Mercuric Chloride  e type of analytical screen(s) spected or required, and note ted.
Sample Type:  - Scal,	Water   Unchic   Unchic   Wastewater   U-Chloris     Other   Unchic   Unchic     Other   Unchic     Other   Unchic   Unchic     Other   Un	prinated 20 Pressonated St. Pressonated St. Pressonate St. Pressonate Presson	los Sample stored in a -TS Sample Preserved HCI Sample Preserved HgCI Sample Preserved ther  below to indicate the script compounds six amples are suspect Semivols  -(755) Base	n ice bath (Not Frozen) with Sodium Thiosulfate to remove chlorine residual with Hydrochloric Acid (2 drope/40 mt) with 20 mg/l Mercuric Chloride  e type of analytical screen(s) spected or required, and note ted.  All Screens.  (Neutral Extractables (EPA 525)
Sample Type:  - Scal.	Water Unchic  - Wastewater - Chloric  - Other  - Chloric  - Chlori	prinated 20 Pressinated St. P. P. St. P.	los Sample stored in a -73 Sample Preserved HCI Sample Preserved HgCI Sample Preserved ther  below to indicate the crific compounds six i samples are suspect Semivols  [] - (755) Base [] - (756) Base	n ice bath (Not Frozen) with Sodium Thiosulfate to remove chlorine residual with Hydrochloric Acid (2 drope/40 mt) with 20 mg/l Mercuric Chloride  e type of analytical screen(s) spected or required, and note ted.  **Theorem (S) **Theorem (S
J Sample Type:  - Scil.	Water   Unchic   Unchic   Wastewater   U-Chloris     Other   Unchic   Unchic     Other   Unchic     Other   Unchic   Unchic     Other   Un	prinated 20 Press nated	-toe Sample stored in a -T3 Sample Preserved -HG Sample Preserved -HgC <sub>2</sub> Sample Preserved ther  ) below to indicate the ecffic compounds size if samples are suspect  Semivols  [ - (755) Base	n ice bath (Not Frozen) with Sodium Thioeutlate to remove chlorine residual with Hydrochloric Acid (2 drope/40 ml) with 20 mg/l Mercurio Chloride  e type of analytical screen(s) spected or required, and note sted.  /Neutral Extractables (EPA 625) /Neutral/Acid Extractables (EPA 8270) smate Pesticides (EPA 531:1) cides, Chlorophenoxy Acid (EPA 515.1)
Sample Type:  - Scal,	Water Unchic Wastewater U-Chloric Wastewater U-Chloric Chloric Panies a single sample consists (s) (volume = 40 miles (volume = 40 miles) (volume	prinated 20 Pressinated Str. P. Str. P	be Sample stored in a -13 Sample Preserved HCI Sample Preserved HgCI <sub>2</sub> Sample Preserved ther  below to indicate the edific compounds size i samples are suspect Semivols  - (755) Base - (756) Base - (772) Carbot - (759) Herbi	n ice bath (Not Frozen) with Sodium Thioeuttate to remove chlorine residual with Hydrochloric Acid (2 drope/40 mt) with 20 mg/l Mercurio Chloride  e type of analytical screen(s) spected or required, and note sted.  /Neutral Edractables (EPA 525) /Neutral/Acid Extractables (EPA 8270) smate Pesticides (EPA 531:1) cides, Chlorophenoxy Acid (EPA 515:1) cides, Triazine (EPA 507)
Sample Type:  - Soil,	Water Unchic Wastewater U-Chloric Wastewater U-Chloric Chloric Chloric Wastewater U-Chloric Chloric Wastewater U-Chloric Wastewater U-Chloric Wastewater Unchic Service Wastewater Wastewat	prinated 20 Pressinated Str. P. Str. P	be Sample stored in a Sample Preserved HC Sample Preserved HgC <sub>2</sub> Sample Preserved ther below to indicate the cffic compounds size is samples are suspected in a sample in a s	n ice bath (Not Frozen) with Sodium Thiosulfate to remove chlorine residual with Hydrochloric Acid (2 drope/40 mt) with 20 mg/l Mercuric Chloride  e type of analytical screen(s) spected or required, and note ted.  All Screens.  (Neutral Extractables (EPA 525)  (Neutral/Acid Extractables (EPA 8270) amate Pesticides (EPA 531.1) cides, Chlorophenoxy Acid (EPA 515.1) cides, Triazine (EPA 507) exarbon Fuel Screen (EPA M-8015)
J-Scal Food This form accomp - septum vis - glass jug (s  Volatile S - (753) Alipha - (754) Aroma - (765) Mass S - (766) SDW/A - (775) SDW/A - (775) SDW/A - (790) Compo	Water Unchic Wastewater U-Chloric Wastewater U-Chloric Chloric Panies a single sample consist (s) (volume = 40 miles) (volume = (volume = (volume = below whenever high creens:  tic Headspace (Qualitative Scritic & Halogenated Purgeables (EPA 5 VOC's I [21 REGULATED +] (VOC's I [EDB & DBCP] (EPA posite Sample for Analysis No.	prinated 20 Presented Street S	Sample stored in a -173 Sample Preserved HG Sample Preserved HgC <sub>2</sub> Sample Preserved ther	n ice bath (Not Frozen) with Sodium Thioeutlate to remove chlorine residual with Hydrochloric Acid (2 drope/40 ml) with 20 mg/l Mercuric Chloride  e type of analytical screen(s) spected or required, and note ded.  (Neutral Extractables (EPA 625) (Neutral/Acid Extractables (EPA 8270) amate Pesticides (EPA 531.1) cides, Chlorophenoxy Acid (EPA 515.1) cides, Triazine (EPA 507) ocarbon Fuel Screen (EPA M-8015) nochlorine Pesticides (EPA 505) nophosphate Pesticides (EPA 507)
J-Scal Food This form accomp - septum vis - glass jug (s  Volatile S - (753) Alipha - (754) Aroma - (765) Mass S - (766) SDW/A - (775) SDW/A - (775) SDW/A - (790) Compo	Water Unchic Wastewater U-Chloric Wastewater U-Chloric Chloric Chloric Wastewater U-Chloric Chloric Wastewater U-Chloric Wastewater U-Chloric Wastewater Unchic Service Wastewater Wastewat	prinated 20 Presented Street S	be Sample stored in a 173 Sample Preserved HG Sample Preserved HgC <sub>2</sub> Sample Preserved ther  below to indicate the effic compounds surjective samples are suspected in a 1756) Base	with Sodium Thioeuttate to remove chlorine residual with Hydrochloric Acid (2 drope/40 ml) with 20 mg/l Mercuric Chloride  e type of analytical screen(s) spected or required, and note sted.  All Screens.  /Neutral Extractables (EPA 625)  /Neutral/Acid Extractables (EPA 8270) smate Pesticides (EPA 531:1) cides, Chlorophenoxy Acid (EPA 515.1) cides, Triazine (EPA 507) scarbon Fuel Screen (EPA M-8015) nochlorine Pesticides (EPA 505)  hophosphate Pesticides (EPA 507) hiorinated Biphenyls (PCB's) in Oil
J-Scal Food This form accomp - septum vis - glass jug (s  Volatile S - (753) Alipha - (754) Aroma - (765) Mass S - (766) SDW/A - (775) SDW/A - (775) SDW/A - (790) Compo	Water Unchic Wastewater U-Chloric Wastewater U-Chloric Chloric Panies a single sample consist (s) (volume = 40 miles) (volume = (volume = (volume = below whenever high creens:  tic Headspace (Qualitative Scritic & Halogenated Purgeables (EPA 5 VOC's I [21 REGULATED +] (VOC's I [EDB & DBCP] (EPA posite Sample for Analysis No.	prinated 20 Presented Street S	Sample stored in a -T3 Sample Preserved HG Sample Preserved HgC <sub>2</sub> Sample Preserved ther  ) below to indicate the seffic compounds size if samples are suspect  Semivols  [ - (755) Base,	with Sodium Thioeuttate to remove chlorine residual with Hydrochloric Acid (2 drope/40 mt) with 20 mg/l Mercuric Chloride  e type of analytical screen(s) repected or required, and note acid.  All tile Screens.  /Neutral Extractables (EPA 525)  /Neutral/Acid Extractables (EPA 525)  /Neutral/Acid Extractables (EPA 531.1)  cides, Chlorophenoxy Acid (EPA 515.1)  cides, Triazine (EPA 507)  coarbon Fuel Screen (EPA M-8015)  nochlorine Pesticides (EPA 505)  nophosphate Pesticides (EPA 507)  hiorinated Biphenyls (PCB's) in Oil  A Synthetic Org. Cmpds. (SLD 758/760)
Sample Type:  - Scal,	Water Unchic Wastewater U-Chloric Wastewater U-Chloric Chloric Panies a single sample consist (s) (volume = 40 miles) (volume = (volume = (volume = below whenever high creens:  tic Headspace (Qualitative Scritic & Halogenated Purgeables (EPA 5 VOC's I [21 REGULATED +] (VOC's I [EDB & DBCP] (EPA posite Sample for Analysis No.	prinated 20 Presented Street S	Sample stored in a -T3 Sample Preserved HG Sample Preserved HgC <sub>2</sub> Sample Preserved ther  ) below to indicate the seffic compounds size if samples are suspect  Semivols  [ - (755) Base,	with Sodium Thioeuttate to remove chlorine residual with Hydrochloric Acid (2 drope/40 ml) with 20 mg/l Mercuric Chloride  e type of analytical screen(s) spected or required, and note sted.  All Screens.  /Neutral Extractables (EPA 625)  /Neutral/Acid Extractables (EPA 8270) smate Pesticides (EPA 531:1) cides, Chlorophenoxy Acid (EPA 515.1) cides, Triazine (EPA 507) scarbon Fuel Screen (EPA M-8015) nochlorine Pesticides (EPA 505)  hophosphate Pesticides (EPA 507) hiorinated Biphenyls (PCB's) in Oil
Sample Type:  - Soil,	Water Unchic Wastewater U-Chloric Wastewater U-Chloric Chloric Panies a single sample consist (s) (volume = 40 miles) (volume = (volume = (volume = below whenever high creens:  tic Headspace (Qualitative Scritic & Halogenated Purgeables (EPA 5 VOC's I [21 REGULATED +] (VOC's I [EDB & DBCP] (EPA posite Sample for Analysis No.	prinated 20 Presented Street S	Sample stored in a -T3 Sample Preserved HG Sample Preserved HgC <sub>2</sub> Sample Preserved ther  ) below to indicate the seffic compounds size if samples are suspect  Semivols  [ - (755) Base,	with Sodium Thioeuttate to remove chlorine residual with Hydrochloric Acid (2 drope/40 mt) with 20 mg/l Mercuric Chloride  e type of analytical screen(s) spected or required, and note sed.  Alia Screens.  /Neutral Extractables (EPA 525) /Neutral/Acid Extractables (EPA 525) /Neutral/Acid Extractables (EPA 531.1) cides, Chlorophenoxy Acid (EPA 515.1) cides, Triazine (EPA 507) coarbon Fuel Screen (EPA M-8015) nochlorine Pesticides (EPA 505) nophosphate Pesticides (EPA 507) hiorinated Biphenyls (PCB's) in Oil A Synthetic Org. Cmpds. (SLD 758/760) Petroleum Hydrocarbons (EPA 418.1)
Sample Type:  - Scal,	Water Unchic Wastewater U-Chloric Wastewater U-Chloric Chloric Panies a single sample consist (s) (volume = 40 miles) (volume = (volume = (volume = below whenever high creens:  tic Headspace (Qualitative Scritic & Halogenated Purgeables (EPA 5 VOC's I [21 REGULATED +] (VOC's I [EDB & DBCP] (EPA posite Sample for Analysis No.	prinated 20 Presented Street S	Sample stored in a -T3 Sample Preserved HG Sample Preserved HgC <sub>2</sub> Sample Preserved ther  ) below to indicate the seffic compounds size if samples are suspect  Semivols  [ - (755) Base,	with Sodium Thioeuttate to remove chlorine residual with Hydrochloric Acid (2 drope/40 mt) with 20 mg/l Mercuric Chloride  e type of analytical screen(s) repected or required, and note acid.  All tile Screens.  /Neutral Extractables (EPA 525)  /Neutral/Acid Extractables (EPA 525)  /Neutral/Acid Extractables (EPA 531.1)  cides, Chlorophenoxy Acid (EPA 515.1)  cides, Triazine (EPA 507)  coarbon Fuel Screen (EPA M-8015)  nochlorine Pesticides (EPA 505)  nophosphate Pesticides (EPA 507)  hiorinated Biphenyls (PCB's) in Oil  A Synthetic Org. Cmpds. (SLD 758/760)
Sample Type:  - Soil,	Water Unchic  - Wastewater - Chloric  - Wastewater - Chloric  - Other  - Danies a single sample consisted; (volume = Formal et al.) (volume et al.) (volu	prinated 20 Presented Street S	Sample stored in a -T3 Sample Preserved HG Sample Preserved HgC <sub>2</sub> Sample Preserved ther  ) below to indicate the seffic compounds size if samples are suspect  Semivols  [ - (755) Base,	with Sodium Thioeuttate to remove chlorine residual with Hydrochloric Acid (2 drope/40 mt) with 20 mg/l Mercuric Chloride  e type of analytical screen(s) spected or required, and note sed.  Alia Screens.  /Neutral Extractables (EPA 525) /Neutral/Acid Extractables (EPA 525) /Neutral/Acid Extractables (EPA 531.1) cides, Chlorophenoxy Acid (EPA 515.1) cides, Triazine (EPA 507) coarbon Fuel Screen (EPA M-8015) nochlorine Pesticides (EPA 505) nophosphate Pesticides (EPA 507) hiorinated Biphenyls (PCB's) in Oil A Synthetic Org. Cmpds. (SLD 758/760) Petroleum Hydrocarbons (EPA 418.1)
Sample Type:  - Soil,	Water Unchic  - Wastewater - Chloric  - Wastewater - Chloric  - Other  - Danies a single sample consisted; (volume = Formal et al.) (volume et al.) (volu	prinated 20 Presented Street S	Sample stored in a -T3 Sample Preserved HG Sample Preserved HgC <sub>2</sub> Sample Preserved ther  ) below to indicate the seffic compounds size if samples are suspect  Semivols  [ - (755) Base,	with Sodium Thioeuttate to remove chlorine residual with Hydrochloric Acid (2 drope/40 mt) with 20 mg/l Mercuric Chloride  e type of analytical screen(s) spected or required, and note sed.  Alia Screens.  /Neutral Extractables (EPA 525) /Neutral/Acid Extractables (EPA 525) /Neutral/Acid Extractables (EPA 531.1) cides, Chlorophenoxy Acid (EPA 515.1) cides, Triazine (EPA 507) coarbon Fuel Screen (EPA M-8015) nochlorine Pesticides (EPA 505) nophosphate Pesticides (EPA 507) hiorinated Biphenyls (PCB's) in Oil A Synthetic Org. Cmpds. (SLD 758/760) Petroleum Hydrocarbons (EPA 418.1)

P.O. Box 4700

700 Camino de Salud, NE

Albuquerque, NM 87196-4700

[505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

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er 223 en eus 324 au 2002 en 2002 da 223 au 20 2240 a

August 25, 1995

Requested Priority I ID No. 090043

# ANALYTICAL REPORT SLD Accession No. OR-95-3808

Distribution

User 0

Submitter 68

SLD Files

To: Jay Janica

Texas-New Mexico Pipeline Co.

PO BOX 60028

San Angelo, TX 76906

From:

Organic Chemistry Section

Scientific Laboratory Div. 700 Camino de Salud, N.E.

P.O. Box 4700

Albuquerque, NM 87196-4700

Re: A water, Extractable sample submitted to this laboratory on August 23, 1995

### DEMOGRAPHIC DATA

COLLECTION
On: 22-Aug-95
By: Ric . . SPS Well 11 Treating Skid
At: 14:00 hrs. In/Near: Lovington

ANALYTICAL RESULTS: SDWA VOC-II [EPA-504] Screen {775}

<u>Parameter</u>	Value	<u>Oual</u>	POL	<u>Units</u>
1,2-Dibromoethane (EDB)	0.00	U	0.02	ppb
1,2-Dibromo-3-chloropropane	0.00	Ŭ	0.02	ppb
See Laboratory Remarks for	Additional	Informa	ation	<del>-</del> -
Notations & Comments				

Notations & Comments:

Evidentiary Scals: Not Scaled : Intact: No . Yes . & Broken By:

Date:

#### Laboratory Remarks:

#### SAFE DRINKING WATER ACT VOLATILES-II

Lab Name: NM SCIENTIFIC LABORATORY DI Lab Code: N/A Case No.: N/A	
Matrix: (soil/water) Water	
Sample wt/vol: 35.0 (g/mL) ml	
Level: (low/med) Low	Date Received: 8/23/95
% Moisture: not dec. N/A dec. N/A	Date Extracted: 8/23/95
Extraction: (SepF/Cont/Sonc) Micro	Date Analyzed: 8/25/95
GPC Cleanup: (Y/N) NC pH: N/A	Dilution Factor: 1
	CONCENTRATION UNITS:
	(ug/L or ug/Kg): ug/L

EPA Method 5	04 was used to analyze for the following com	pounds
CAS NO.	COMPOUND CONC.	O   MDL
106-93-4	1,2-Dibromoethane (EDB)	U 0.02
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	U 0.02

#### ANALYTICAL REPORT SLD Accession No. OR-95-3808 Continuation, Page 2 of 3

\* CONC = CONCENTRATION DETERMINED MDL= The Method Detection Level (Limit) is the minimum concentration of a compound that can be measured and reported with 99% confidence that the analyte concentration is greater than zero (FR 23703, June 1986). If a sample is diluted (usually due to high levels of

contaminants) during analysis, the actual "sample detection limit" can be obtained by multiplying the MDL by the dilution factor reported above.

POL= Practical Quantitation Limit (Approximately 5-10 times MDL) is the concentration of the lowest standard routinely analyzed. Concentrations determined between the MDL and the PQL will be qualified with a "J" indicating an approximate concentration.

\* Q = Qualifier Definitions:

- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the quantitation limit.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

#### QUALITY CONTROL SUMMARY FOR VOLATILES II SCREEN

MBTHOD BLANK: A laboratory method blank was analyzed along with this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED No Compounds Detected

CONCENTRATION (ug/L)

SURROGATE RECOVERIES SURROGATE

CONCENTRATION %RECOVERY

ANALYTICAL REPORT SLD Accession No. OR-95-3808 Continuation, Page 3 of 3

1,1,2,2,-TTCE

0.570 ug/L

84 %

SPIKE RECOVERY:

The % recoveries for compounds in the batch spike were from 70% to 130% with the exception of the compounds

listed below:

COMPOUND No exceptions CONCENTRATION

% RECOVERY

ug/L

Analyst:

Nancy DeWitt

Analyst, Organic Chemistry

Reviewed By:

Richard F. Meyerhein 08/25/95 Supervisor, Organic Chemistry Section

P.O. Box 4700 Albuquerque, NM 87196-4700 700 Camino de Salud, NE [505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

September 22, 1995

Request ID No. 090045

# ANALYTICAL REPORT SLD Accession No. OR-95-3866

<u>Distribution</u>
SAN AN (3) User 64000 A Submitter 995
Submitter 995
(x) SLD Files
SEP 27 1995

To: Jay Janica

Texas-New Mexico Pipeline Co.

PO Box 60028

San Angelo, Texas 76906

From:

Organic Chemistry Section Scientific Laboratory Div. 700 Camino de Satind, N.E.

P.O. Box 4700 | Carl

Albuquerque, NM 87196-4700

Re: A water, Extractable sample submitted to this laboratory on August 24, 1995

COLLECTION

DEMOGRAPHIC DATA

LOCATION

On: 23-Aug-95

*By:* Ric . . .

SPS Well 11 Treating Skid

At: 10:45 hrs. In/Near: Lovington

ANALYTICAL RESULTS: SDWA VOC-II [EPA-504] Screen {775}

Parameter	Value	Qual	PQL	Units
1,2-Dibromoethane (EDB)	0.00	U	0.02	ppb
1,2-Dibromo-3-chloropropane	0.00	U	0.02	ppb
See Laboratory Remarks fo	r Additional	Inform	ation	
Notations & Comments: /				
Evidentiary Seals: Not Sealed [ ; Intact: No [ ], Yes	Broken By:			Date:

#### **Laboratory Remarks:**

#### SAFE DRINKING WATER ACT VOLATILES-II

Lab Name: NM SCIENTIFIC LABORATORY D	IVISION Contract:/A
Lab Code: N/A Case No.: N/A	SAS No.: N/A SDG No.: N/A
Matrix: (soil/water) <u>Water</u>	
Sample wt/vol: $35.0$ (g/mL) ml	SLD Batch No: 456
Level: (low/med) Low	Date Received: 08/24/95
% Moisture: not dec. N/A dec. N/A	Date Extracted: 08/31/95
<pre>Extraction: (SepF/Cont/Sonc) Micro</pre>	Date Analyzed: 09/02/95
GPC Cleanup: (Y/N) No pH: N/A	Dilution Factor: 1
	CONCENTRATION UNITS:
	(ug/L or ug/Kg): ug/L

EPA Method 504 was used to analyze for the following compounds

CAS NO.	COMPOUND	CONC.	0	MDL
106-93-4	1,2-Dibromoethane (EDB)		U	0.02
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)		Ū	0.02

- \* CONC = CONCENTRATION DETERMINED
  - MDL= The Method Detection Level (Limit) is the minimum concentration of a compound that can be measured and reported with 99% confidence that the analyte concentration is greater than zero (FR 23703, June 1986). If a sample is diluted (usually due to high levels of contaminants) during analysis, the actual "sample detection limit" can be obtained by multiplying the MDL by the dilution factor reported above.
  - PQL= Practical Quantitation Limit (Approximately 5-10 times MDL) is the concentration of the lowest standard routinely analyzed. Concentrations determined between the MDL and the PQL will be qualified with a "J" indicating an approximate concentration.
- \* Q = Qualifier Definitions:
- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the quantitation limit.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

#### QUALITY CONTROL SUMMARY FOR VOLATILES II SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED No Compounds Detected

CONCENTRATION (ug/L)

SURROGATE RECOVERIES
SURROGATE

CONCENTRATION

%RECOVERY

ANALYTICAL REPORT SLD Accession No. OR-95-3866 Continuation, Page 3 of 3

1,1,2,2,-TTCE

50. ug/L

121.0응

The % recoveries for compounds in the batch SPIKE RECOVERY: spike were from 70% to 130% with the exception of the compounds listed below:

COMPOUND

CONCENTRATION

% RECOVERY

No exceptions

. ug/L

Analyst:

Nancy DeWitt

Analyst, Organic Chemistry

Reviewed By:

Richard F. Meyerhein

09/22/95

Supervisor, Organic Chemistry Section

ORGÁNIC CHEMISTRY ANALYTICAL R	EQUEST FORM	4 .		LORG	
SCIENTIFIC LABORATORY DIVISI				8LD No.	
700 CAMINO DE SALUD N.E., ALBUQUERQU Organic Chemistry Section - Telephone: (50				Date 8	-24-95
2 User	Request	Request     ID No. 090		4 Priority	7
Code d: 5 Facility	ID No.:	6 County	<del></del>	Code #:	8 Star
Name: SPS -11		Lea	•	Lovington	<b></b>
9 Sample	·	1		1	
Location: SIPISI I WIE IT IT	1111 LTIRI	FIAITII	INIGLI	SIKILIDI	1_1_1_1_
By: Thest If I for	harte	On: 9	12812	3 ALI /10	14151 hn
First [Lisisit		Deta	(YY/MM/DO)	Tiernec: 200	pre = 1800 hrs.
11)Codes:		2.1.4.	12 Lath	DOMMSS)	•
Submitter WSS #	Organi	zation	Longitude	(DOOMMSS)	2 Digit 10
13 Report Nome To: Jay Janica	14 Phone #:	-9008			
Texas-New Mexico Pinelin			15 Sample Purpo	Sampling Info	fmation: Composite
PO Box 60028			C- Complian	NOS TI- Flow Pro	portioned Perfor
San Angelo, Texas 76906			Confirmation - Special		t w/Permittee
18 Field	mhos/am @ Temp	erature:	Ottoday		······································
17 Sample Source:	18 Field		C. Residue	E	
StreamEntry Point to Distribution	f				
☐-Lake ☐-Well; Depth:				Rib from	
☐-Pool ☐-Distribution ☐-WWTP ☐-Other: _Treating S		ed charc	coal filt	er vessel (	discharge
19 Sample Type: \ \ \Bar \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	nated 20 Preservat	ion:	· ····································		
- Wastewater 1 - Chlorinat	(80       - Ne* 	NO PTESSIVEDO	n; Sample store in an ice bath (A	d at room temperature vot Frozen)	•
This form accompanies a single sample consisting	g at D-P-TS			n Thiosulfate to remove hioric Acid (2 drops/4)	
- glass jug(s) (volume = 40 ml ea.)	788 CL PJ46C	Sample Preser		1 Mércurio Chloride	·
(volume =					
21 Analyses Requested: Please check the appropried. Whenever p	ossible. Ilst specific	compounds	suspected or		
below whenever highly	y contaminated sam	ibles are sns	pected.		
Volatile Screens:		2000 CO	olatile Scre		~~
- (753) Aliphatic Headspace (Qualitative Screen - (754) Aromatic & Halogenated Purgeables (E		∐ - (756) Be	ise/Neutral/A	xtractables (EPA 6 void Extractables (	EPA 8270)
- (765) Mass Spectrometer Purgeables (EPA 6	24)	[] - (772) Ce	ubemate Pes	ticides (EPA 531.1	)***
- (766) SDWA Total Trihalomethanes (EPA 501 (774) SDWA VOC's I [21 REGULATED +] (EP				orophenoxy Acid ( zine (EPA 507)	(EPA 515.1)
		- (751) H	drocarbon Fi	uel Screen (EPA M	(-8015)
- (790) Composite Sample for Analysis No.		760) Or	ganochiorine	Pesticides (EPA 5	705)
Other Specific Compounds or C	lacces.	- (761) Or	ganophosphe	ate Pesticides (EP. Biphenyls (PCB's	A 507)
Date obscilic composition of	NG30034			Org. Cmpds. (SL	
□- <b>\</b> □ <b>)</b>				Hydrocarbons (E	
Remarks:	Commission of the Commission o	uu uuri oo raamii ree — Tadhabadhii	and the control of th		
Please Fax Results To Me	AT (505) 396	-2754			
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P.O. Box 4700 Albuquerque, NM 87196-4700

[505]-841-2500 ORGANIC CHEMISTRY SECTION [505]-841-2570

700 Camino de Salud, ANGELO OFFICE FILE

September 6, 1995

Request ID No. 090044

**ANALYTICAL REPORT** SLD Accession No. OR-95-3867

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SEP 18 1995 **Distribution** 1 Hote 1 %, (x) User 0:35000 (x) Submitter 6B (A Client (x) SLD Files

To: Jay Janica

Texas New Mexico Pipeline Co.

PO Box 60028

San Angelo, Texas 76906

From:

Organic Chemistry Section Scientific Laboratory Division

700 Camino de Salud, NE

P.O. Box 4700

Albuquerque, NM 87196-4700

A water, Purgeable sample submitted to this laboratory on August 24, 1995

User:

On: 23-Aug-95

Richard Asbury

Drinking Water Bureau NM-ED Dist. #3 Office 1001 N. Solano Drive

Las Cruces, NM 88001

Submitter:

ED Field Office, Hobbs

Suite 165

726 E. Michigan Avenue Hobbs, NM 88240

LOCATION

#### DEMOGRAPHIC DATA

COLLECTION

By: Ric . . .

SPS Wel 11 Treating Skid

At: 10:45 hrs. *In/Near:* Lovington

ANALYTICAL RESULTS: SDWA VOC-I [EPA-502.2] Screen {774}

Parameter Value Oual POL Units SDWA VOC's-I U 0.00 0.50 ppb

See Laboratory Remarks for Additional Information

Notations & Comments:

Evidentiary Seals: Not Sealed | V | ; Intact: No | | , Yes | | & Broken By: \_\_\_\_\_ Date:

**Laboratory Remarks:** 

#### SAFE DRINKING WATER ACT VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY DIVISION Contract:N/A Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) Water Lab Sample ID: OR-95-3867

Sample wt/vol: 5.0 (g/mL) mL SLD Batch No: 451

Level: (low/med) Low Date Received: 8/24/95

% Moisture: not dec. N/A dec. N/A Date Extracted: N/A

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 8/28/95

SEP 20 '95 10: 20AM TX STATE OF NEW MEXICO	. N.M. PIPELINE 315 344 2721	DEPARTMENT OF HEA	LTH
· •	CIE. TIFIC LABORATORY		
]	P.O. Box 4700 que, NM 87196-4700 ORGANIC CHEMISTRY SECTION	700 Camino de Salud ANGELO OFFICE [505]-841-2500 FILE	
September 6, 1995	ANALYTICAL REP	SEP 18 1995  Distribution  ORT  SEP 18 1995  Distribution  SEP 18 1995	7AID
Request ID No. 090044	SLD Accession No. OR	R-95-3867 O GENERAL (N.SLD Files	$\exists$
To: Jay Janica Texas New Mexico Pipe PO Box 60028 San Angelo, Texas 7690		Organic Chemistry Section Scientific Laboratory Division 700 Camino de Salud, NE P.O. Box 4700 Albuquerque, NM 87196-4700	
, ,	ple submitted to this laboratory o	-	
User:		Submitter:	<del></del>
Richard Asbury Drinking Water Bureau NM-ED Dist. #3 Office 1001 N. Solano Drive Las Cruces, NM 8800	1	ED Field Office, Hobbs Suite 165 726 E. Michigan Avenue Hobbs, NM 88240	
	DEMOGRAPHIC DA	ΓA	
COLLECTION		LOCATION	
On: 23-Aug-95 At: 10:45 hrs.  In/Near: Lc		Wel 11 Treating Skid	
ANALYTICAL R	ESULTS: SDWA_VOC-I [EPA-	502.2] Screen {774}	
Parameter  SDWA VOC's-I  See Laboratory R  Notations & Comments:	<u>Value</u> 0.00 emarks for Additional I	- · <b>FF</b> -	
	act: No 🔲 , Yes 🔲 & Broken By:	Date:	
Laboratory Remarks:			
	EAFE DRINKING WATER ACT LE ORGANICS ANALYSIS DAT	ra shbet	
Lab Name: NM SCIENT	TETC LABORATORY DIVISIO	ON Contract:N/A	

IVISION Contract: N/A
SAS No.: N/A SDG No.: N/A
Lab Sample ID: OR-95-3867
SLD Batch No: 451
Date Received: 8/24/95
Date Extracted: N/A
Date Analyzed: 8/28/95

## ANALYTICAL REPORT SLD Accession No. OR-95-3867 Continuation, Page 2 of 4

GPC Cleanup:	(Y/N) <u>No</u>	pH:1	Dilution Factor:	1
		•	CONCENTRATION UNITS:	
			(ug/L or ug/Kg):	ug/L

This sample was analyzed for the following compounds

	using EPA Method 502.2			
CAS NO.	COMPOUND	CONC.	10	POL
71-43-2	Benzene	1	U	0.5
108-86-1	Bromobenzene		U	0.5
74-97-5	Bromochloromethane		U	0.5
75-27-4	Bromodichloromethane		U	0.5
75-25-2	Bromoform		U	0.5
24-83-9	Bromcmethane		U	0.5
78-93-3	2-Butanone (MEK)		U	5.0
104-51-8	n-Butylbenzene		U	0.5
135-98-8	sec-Butylbenzene		U	0.5
98-06-6	tert-Butylbenzene		Ü	0.5
1634-04-4	tert-Butyl methyl ether (MTBE)		Ü	5.0
56-23-5	Carbon tetrachloride		U	0.5
108-90-7	Chlorobenzene		Ų	0.5
75-00-3	Chlorcethane		U	0.5
67-66-3	Chloroform		U	0.5
74-87-3	Chloromethane		U	0.5
95-49-8	2-Chlorotoluene		Ų į	0.5
106-43-4	4-Chlorotoluene		U	0.5
96-12-8	1,2-Dibromo-3-chloropropane		Ū	0.5
124-48-1	Dibromochloromethane		ਧ	0.5_
106-93-4	1,2-Dibromoethane		U	0.5
74-95-3	Dibromomethane		U	0.5
95-50-1	1,2-Dichlorobenzene		U	0.5
541-73-1	1,3-Dichlorobenzene		Ū	0.5
106-46-7	1,4-Dichlorobenzene		U	0.5
75-71-8	Dichlorodifluoromethane		U	0.5
75-34-3	1,1-Dichloroethane		U	0.5_
107-06-2	1,2-Dichloroethane		U	0.5
75-35-4	1,1-Dichloroethene		U	0.5
156-59-4	cis-1,2-Dichloroethene		U	0.5
156-60-5	trans-1,2-Dichloroethene		U	0.5
78-87-5	1,2-Dichloropropane		ប	0.5
142-28-9	1,3-Dichloropropane		U	0.5
590-20-7	2,2-Dichloropropane		U	0.5
563-58-6	1,1-Dichloropropene		U	0.5

# ANALYTICAL REPORT SLD Accession No. OR-95-3867 Continuation, Page 3 of 4

1006-01-5	cis-1,3-Dichloropropene	1	ΙŪ	0.5
1006-02-6	trans-1,3-Dichloropropene		U	0.5
100-41-4	Ethylbenzene		U	0.5
87-68-3	Hexachlorobutadiene		Ū	0.5
98-82-8	Isopropylbenzene		U	0.5
99-87-6	4-Isopropyltoluene		U	0.5
75-09-2	Methylene chloride		Ų	0.5
91-20-3	Naphthalene		Ū	0.5
103-65-1	Propylbenzene		Ū	0.5
100-42-5	Styrene		Ţ	0.5
630-20-6	1,1,1,2-Tetrachloroethane		U	0.5
79-34-5	1,1,2,2-Tetrachloroethane		U	0.5
127-18-4	Tetrachloroethene		U	0.5
109-99-9	Tetrahydrofuran (THF)		U	5.0
108-88-3	Toluene		U	0.5
87-61-5	1,2,3-Trichlorobenzene		Ū	0.5
120-82-1	1,2,4-Trichlorobenzene		U	0.5
71-55-6	1,1,1-Trichloroethane		U	0.5
79-00-5	1,1,2-Trichloroethane		U	0.5
79-01-6	Trichloroethene		U	0.5
75-69-4	Trichlorofluoromethane		U	0.5
96-18-4	1,2,3-Trichloropropane		ַ	0 .5
95-63-6	1,2,4-Trimethylbenzene		U	0.5
108-67-8	1,3,5-Trimethylbenzene		U	0.5
75-01-4	Vinyl chloride		U	0.5
95-47-6	o-Xylene		U	0.5
N/A	p- & m-Xylene		U	0.5
N/A	Total Xylenes		Ū	7.0

- \* Q = Qualifier Definitions: CONC = CONCENTRATION DETERMINED
- PQL = Practical Quantitation Limit (Approximately 5 times MDL).
  - Equivalent to the "minimum detection limit" defined for regulated VOC-1 compounds in 40 CFR 141.25(c).
- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the PQL listed.

ANALYTICAL REPORT SLD Accession No. OR-95-3867 Continuation, Page 4 of 4

N - Indicates that more than one peak was used for quantitation.

U - Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

#### QUALITY CONTROL SUMMARY FOR VOLATILES SCREEN

A laboratory method blank was analyzed along with METHOD BLANK: this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED No Compounds Detected

CONCENTRATION (PPB)

SURROGATE RECOVERIES:

CONCENTRATION % RECOVERY SURROGATE Bromofluorobenzene (PID Surr) 10.0 ppb 98. 10.0 ppb 95. Bromofluorobenzene (HALL Surr)

SPIKE RECOVERY: The % recoveries for compounds in the batch spike were from 80% to 120% with the exception of the compounds listed below:

COMPOUND

CONCENTRATION

% RECOVERY

No exceptions . ppb

Analyst: <u>S</u>

S. Azhar Mustafa Analyst, Organic Chemistry \_ Reviewed By:

Richard F. Meyerhein 09/06/95 Supervisor, Organic Chemistry Section

P.O. Box 4700 Albuquerque, NM 87196-4700 700 Camino de Salud, NE [505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

September 22, 1995

Request ID No. 090046

ANALYTICAL REPORT SLD Accession No. OR-95-3878 SAN ANGEDISTRIBUTION ( ) User 64000 X Submitter 68 (x) SLD Files

To: Jay Janica

Texas-New Mexico Pipeline Co.

PO Box 60028

San Angelo, Texas 76906

From:

Organic Chemistry Section-

Scientific Laboratory-Div --

700 Camino del Sălud. N.E.

P.O. Box 4700

Albuquerque, NM: 87196-4700

A water, Extractable sample submitted to this laboratory on August 25, 1995 Re:

DEMOGRAPHIC DATA

COLLECTION

By: Ric . . .

LOCATION SPS Well 11 Treating Skid

On: 24-Aug-95 At: 10:55 hrs.

In/Near: Lovington

ANALYTICAL RESULTS: SDWA VOC-II [EPA-504] Screen {775}

<u>Parameter</u>	<u>Value</u>	Qual	POL	<u>Units</u>	
1,2-Dibromoethane (EDB)	0.00	Ŭ	0.02	dqq	
1,2-Dibromo-3-chloropropane	0.00	U	0.02	ppb	
See Laboratory Ŗemarks f	for Additional	Inform	mation		
Notations & Comments:					
Evidentiary Seals: Not Sealed ; Intact: No ], Y	Yes 🔲 & Broken By:			Date:	

Laboratory Remarks:

#### SAFE DRINKING WATER ACT VOLATILES-II

Lab Name: NM SCIENTIFIC LABORATORY DI	VISION Contract:/A
Lab Code: N/A Case No.: N/A	SAS No.: N/A SDG No.: N/A
Matrix: (soil/water) <u>Water</u>	Lab Sample ID: <u>OR-95-3878</u>
Sample wt/vol: 35.0 (g/mL) ml	
Level: (low/med) Low	Date Received: <u>8/25/95</u>
% Moisture: not dec. <u>N/A</u> dec. <u>N/A</u>	Date Extracted: 08/31/95
<pre>Extraction: (SepF/Cont/Sonc)_Micro</pre>	Date Analyzed: 9/02/95
GPC Cleanup: (Y/N) No pH: N/A	Dilution Factor: 1
	CONCENTRATION UNITS:
	$(ug/L or ug/Kg): \underline{ug/L}$

EPA Method 504 was used to analyze for the following compounds

CAS NO.	COMPOUND	CONC.	0	MDL
106-93-4	1,2-Dibromoethane (EDB)	0.00	U.	0.02
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	0.00	U.	0.02

- \* CONC = CONCENTRATION DETERMINED
  - MDL= The Method Detection Level (Limit) is the minimum concentration of a compound that can be measured and reported with 99% confidence that the analyte concentration is greater than zero (FR 23703, June 1986). If a sample is diluted (usually due to high levels of contaminants) during analysis, the actual "sample detection limit" can be obtained by multiplying the MDL by the dilution factor reported above.
  - PQL= Practical Quantitation Limit (Approximately 5-10 times MDL) is the concentration of the lowest standard routinely analyzed. .Concentrations determined between the MDL and the PQL will be qualified with a "J" indicating an approximate concentration.
- \* Q = Qualifier Definitions:
- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the quantitation limit.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

#### QUALITY CONTROL SUMMARY FOR VOLATILES II SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED No Compounds Detected

CONCENTRATION (ug/L)

SURROGATE RECOVERIES
SURROGATE

CONCENTRATION

%RECOVERY

ANALYTICAL REPORT SLD Accession No. OR-95-3878 Continuation, Page 3 of 3

1,1,2,2,-TTCE

50. ug/L

120.0%

The % recoveries for compounds in the batch SPIKE RECOVERY: spike were from 70% to 130% with the exception of the compounds listed below:

COMPOUND

CONCENTRATION

% RECOVERY

No exceptions

. ug/L

Analyst:

Nancy DeWitt

Analyst, Organic Chemistry

Reviewed By:

Richard F. Meyerhein 09/19/95

Supervisor, Organic Chemistry Section

SCIENTIFIC LABORATORY DIVISION 700 CAMINO DE SALUD N.E., ALBUQUERQUE, NM 87108			•	7	
			SLD No.	OR95 3	878
Organic Chemistry Section - Telephone: (505) 841-2570	Request	11 111 11 -	Received:	(/2	>/9
2 User 3 Request ID No.:	ID No. 090	046-A	4 Priority Code #	. (3.	# T .
5 Facility	6 County:		7 City:		8 5
Name: SPS -11	Lea		Loving	ton	N.
9 Sample					
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3 Report Name 14 Phone #:		1 1	• · · · · · · · · · · · · · · · · · · ·	1 11	
To: Jay Janica (915) 94		5	-	information	:
Texas-New Mexico Pipeline Co PO Box 60028		ample Purpos	]- Compo	eite v Proportions	Compo Ime h
y, Sate 29		NMED Mon	horing 🗀 Equ	al Aliquot Split w/Perri	_
San Angelo, Texas 76906		Special	D-Chein o	Custody	
Data: pre , Condicavity: umnos/on @ Tec	npersture:	Chlorine C. Residuati	mg/	l, Rosc	
Sample Source: 18 Field Streem —-Entry Point to Distribution Remark	£				
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∐-Drain ∐-Spring	ted charco				a ra
☐-Pool ☐-Distribution ☐ active ☐-WWTP ☐-Other:		<u> </u>	· YESSE		10:0
Soil, []-Food, []-Other	Remnie Pressure	s with Socium T	hiceuifate to rea		mesici.
- glass jug(s) (volume = mi es.)					
- septum vial(s) (volume = mi ea.) - glass jug(s) (volume = mi ea.) - (volume = (volume =)  Analyses Requested: Please check the appropriate box(es) by required. Whenever possible, list specified	elow to indicate the	with 20 mg/l A	Nerourio Chlorid	n(s)	
- septum vial(s) (volume = mi ea.) - glass jug(s) (volume = mi ea.) (volume = (volume =)  Analyses Requested: Please check the appropriate box(es) below whenever highly contaminated so	elow to indicate the compounds su	with 20 mg/l k he type of an spected or n	ercuric Chlorid alytical acree equired, and	n(s)	
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- eaptum viai(s) (volume =d nil ea.) - glass jug(s) (volume =nil ea.) - volume = nil ea.) - (volume =	elow to indicate the compounds are suspended in the compounds are suspended in the compounds are suspended in the compound in	he type of anspected or rected.  Neutral Edit /Neutral /Actionate Pestic	elytical scree equired, and ISS.: ractables (EP d Extractables ides (EPA 53	n(a) note (i.e.) (i.e.) (i.e.) (i.e.) (i.e.) (i.e.) (i.e.)	70)
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- septum viai(s) (volume =d \( \) mi ea.) - glass jug(s) (volume =mi ea.) - (volume =	elow to indicate the compounds authories are suspended in 1755) Base	he type of anspected or rected.  The type of anspected or rected or rected.  The type of anspected or rected or	alytical scree equired, and ractables (EPA 53 ophenoxy Acree (EPA 507) Screen (EP/esticides (EPA 50) Pesticides (EPA 50) Ophenyls (PC) Org. Cmpds.	in(s) note: 14.625) is (EPA 51 id (EPA 51 A M-8015) iA 505) EPA 507) B's) in Oil (SLD 758/	79) 5.1) 760)
- septum viai(s) (volume =	elow to indicate the compounds are suspended are suspended in a compound of the compounds are suspended in a compound of the c	he type of anspected or rected.  The type of anspected or rected or rected.  The type of anspected or rected or	alytical scree equired, and ractables (EPA 53 ophenoxy Acree (EPA 507) Screen (EP/esticides (EPA 50) Pesticides (EPA 50) Ophenyls (PC) Org. Cmpds.	in(s) note: 14.625) is (EPA 51 id (EPA 51 A M-8015) iA 505) EPA 507) B's) in Oil (SLD 758/	79) 5.1)
- eaptum viai(s) (volume =	elow to indicate the compounds authories are suspended in 1755) Base	he type of anspected or rected.  The type of anspected or rected or rected.  The type of anspected or rected or	alytical scree equired, and ractables (EPA 53 ophenoxy Acree (EPA 507) Screen (EP/esticides (EPA 50) Pesticides (EPA 50) Ophenyls (PC) Org. Cmpds.	in(s) note: 14.625) is (EPA 51 id (EPA 51 A M-8015) iA 505) EPA 507) B's) in Oil (SLD 758/	79) 5.1)
- septum viai(s) (volume =	elow to indicate the compounds at amples are suspended.  Semiyoli  - (755) Base - (756) Base - (759) Herb - (759) Herb - (751) Hydr - (760) Orga - (761) Orga - (762) SDW	he type of anspected or rected.  The type of anspected or rected or rected.  The type of anspected or rected or	alytical scree equired, and ractables (EPA 53 ophenoxy Acree (EPA 507) Screen (EP/esticides (EPA 50) Pesticides (EPA 50) Ophenyls (PC) Org. Cmpds.	in(s) note: 14.625) is (EPA 51 id (EPA 51 A M-8015) iA 505) EPA 507) B's) in Oil (SLD 758/	79) 5.1) 760)

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P.O. Box 4700 Albuquerque, NM 87196-4700 700 Camino de Salud, NE [505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

September 22, 1995

Request ID No. 090047

## ANALYTICAL REPORT SLD Accession No. OR-95-3879

Distribution () User 64000 (X Submitter 68 (x) SLD Files

SAN ANGELO OFFICE FILE

To: Jay Janica

Re:

Texas New Mexico Pipeline Co.

P.O. Box 60028

San Angelo, Texas 76906

Organic Chemismy Section 2 7 1995 From:

LOCATION -

Scientific Laboratory Div.

700 Camino de Salud N. E./-P.O. Box 4700 [EHG] Albuquerque, NMP0587196-47000

A water, Purgeable sample submitted to this laboratory on August 25, 1995 CBK

AER CON Ηi

DEMOGRAPHIC DATA COLLECTION

SPS Well 11 Treating Skid

On: 24-Aug-95 By: Ric . . . At: 10:55 hrs. In/Near: Lovington

ANALYTICAL RESULTS: SDWA VOC-I [EPA-502.2] Screen {774}

Parameter	Value	Qual	POL	<u>Units</u>
SDWA VOC's-I	0.00	U	0.50	ppb
See Laboratory Remarks for	r Additional	Inform	mation	
Notations & Comments:				
Evidentiary Seals: Not Sealed [ ; Intact: No [ ], Yes	& Broken By:			Date:

**Laboratory Remarks:** 

#### SAFE DRINKING WATER ACT VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY DI Lab Code: N/A Case No.: N/A	
Matrix: (soil/water) Water	
Sample wt/vol: 5.0 (g/mL) mL	SLD Batch No: 462
Level: (low/med) Low	
% Moisture: not dec. N/A dec. N/A	Date Extracted: N/A
Extraction: (SepF/Cont/Sonc) N/A	Date Analyzed: 9/7/95
GPC Cleanup: (Y/N) No pH: 1	Dilution Factor: 1
<u> </u>	CONCENTRATION UNITS:
	(ug/L or ug/Kg): ug/L

This sample was analyzed for the following compounds using EPA Method 502.2

CAS NO.	COMPOUND	CONC.	0	POL
71-43-2	Benzene		Ü	0.5

# ANALYTICAL REPORT SLD Accession No. OR-95-3879 Continuation, Page 2 of 4

108-86-1	Bromobenzene		U	0.5
74-97-5	Bromochloromethane		U	0.5
75-27-4	Bromodichloromethane		Ū	0.5
75-25-2	Bromoform		Ū	0.5
24-83-9	Bromomethane		U	0.5
78-93-3	2-Butanone (MEK)		U	5.0
104-51-8	n-Butvlbenzene		U	0.5
135-98-8	sec-Butvlbenzene		Ŭ	0.5
98-06-6	tert-Butylbenzene		U	0.5
1634-04-4	tert-Butyl methyl ether (MTBE)		Ŭ	5.0
56-23-5	Carbon tetrachloride		U	0.5
108-90-7	Chlorobenzene		Ŭ	0.5
75-00-3	Chloroethane		U	0.5
67-66-3	Chloroform		U	0.5
74-87-3	Chloromethane		U	0.5
95-49-8	2-Chlorotoluene		Ŭ	0.5
106-43-4	4-Chlorotoluene		U	0.5
96-12-8	1,2-Dibromo-3-chloropropane		Ŭ	0.5
124-48-1	Dibromochloromethane		Ü	0.5
106-93-4	1,2-Dibromoethane		Ü	0.5
74-95-3	Dibromomethane		C	0.5
95-50-1	1,2-Dichlorobenzene		U	0.5
541-73-1	1,3-Dichlorobenzene		U	0.5
_106-46-7	1,4-Dichlorobenzene		U	0.5
75-71-8	Dichlorodifluoromethane		Ū	0.5
75-34-3	1,1-Dichloroethane		U	0.5
107-06-2	1,2-Dichloroethane		U	0.5
75-35-4	1,1-Dichloroethene		U	0.5
156-59-4	cis-1,2-Dichloroethene		U	0.5
156-60-5	trans-1,2-Dichloroethene		U	0.5
78-87-5	1,2-Dichloropropane		U	0.5
142-28-9	1,3-Dichloropropane		U	0.5
590-20-7	2,2-Dichloropropane		U	0.5
563-58-6	1,1-Dichloropropene		U	0.5
1006-01-5	cis-1,3-Dichloropropene		U	0.5
1006-02-6	trans-1,3-Dichloropropene		U	0.5
100-41-4	Ethylbenzene		U	0.5
87-68-3	Hexachlorobutadiene		U	0.5
98-82-8	Isopropylbenzene		U	0.5
99-87-6	4-Isopropyltoluene		U	0.5
75-09-2	Methylene chloride		U	0.5
91-20-3	Naphthalene		U	0.5

103-65-1	Propvlbenzene	U	0.5
100-42-5	Styrene	U	0.5
630-20-6	1,1,1,2-Tetrachloroethane	U	0.5
79-34-5	1,1,2,2-Tetrachloroethane	U	0.5
127-18-4	Tetrachloroethene	U	0.5
109-99-9	Tetrahydrofuran (THF)	Ū	5.0
108-88-3	Toluene	U	0.5
87-61-5	1,2,3-Trichlorobenzene	ַ ע	0.5
120-82-1	1,2,4-Trichlorobenzene	U	0.5
71-55-6	1,1,1-Trichloroethane	Ŭ	0.5
79-00-5	1,1,2-Trichloroethane	U	0.5
79-01-6	Trichloroethene	U	0.5
75-69-4	Trichlorofluoromethane	U	0.5
96-18-4	1,2,3-Trichloropropane	Ŭ	0.5
95-63-6	1,2,4-Trimethylbenzene	Ŭ	0.5
108-67-8	1,3,5-Trimethylbenzene	ַ ט	0.5
75-01-4	Vinyl chloride	Ŭ	0.5
95-47-6	o-Xvlene	Ū	0.5
N/A	p- & m-Xvlene	Ū	0.5
N/A	Total Xylenes	U	1.0

\* Q = Qualifier Definitions:

CONC = CONCENTRATION DETERMINED

PQL = Practical Quantitation Limit (Approximately 5 times MDL). Equivalent to the "minimum detection limit" defined for regulated VOC-1 compounds in 40 CFR 141.25(c).

B - Indicates compound was detected in the Lab Blank as well as in the sample.

- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the PQL listed.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

QUALITY CONTROL SUMMARY FOR VOLATILES SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with

ANALYTICAL REPORT SLD Accession No. OR-95-3879 Continuation, Page 4 of 4

this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED

CONCENTRATION (PPB)

No Compounds Detected

SURROGATE RECOVERIES: SURROGATE

CONCENTRATION

% RECOVERY

Bromofluorobenzene (PID Surr)

10.0 ppb

98.

Bromofluorobenzene (HALL Surr)

10.0 - ppb

89.

The % recoveries for compounds in the batch SPIKE RECOVERY: spike were from 80% to 120% with the exception of the compounds listed below:

COMPOUND

CONCENTRATION

% RECOVERY

No exceptions

ppb

Analyst:

S. Azhar Mustafa

Analyst, Organic Chemistry

Reviewed By:

Richard F. Meyerhein

Supervisor, Organic Chemistry Section

RGANIC CI	HEMISTRY ANALYTIC	AL REQUEST FOR	iM .		٦	
	CIENTIFIC LABORATORY				8LD No. 101	<sup>R95</sup> 3879 <b>c</b>
	O DE SALUD N.E., ALBUQU hemistry Section - Telephor				Date	X/25/95
User	Secretary of the secret	3 Request	Request    ID No. 090	<b></b> 0047-A	Received:	13
Code #:		ID No.:	6 County	· .	Code #:	8 State
Facility Name: Sp	S-11			•	· ·	
Sample	3-11		l Lea		Lovingt	on F
Location: LS	PISI WELLIL	<u> </u>	rerartii	r brār 12	<u>lkiid</u>	
Collected By:	Érréests -: F. 13	Charte	On: 95	108/34	ALI VIZ	IS IS I hra
	First	Lon	Date	: (CC/MM/DD)	* Ine	
Codec				12 Latitu	de pommess	•
Submitte	WSS #		nization	Longkude	(DOOMMSS)	Energia E
Report No.	<b></b>	14 Phone #:	0000		, ,	• <u></u>
Side of the latest the	y Janica Kas New Mexico Pir		- 4000	8ample Purpo	gemoling m	<b>4</b>
<u> </u>	Box 60028			□-Comotiano		TODOCTIONAL Period
y, Sale Zip Co. n	Angolo Mouse 76	206		Confirmati		at w/Permittee
_IFIGO	Angelo, Texas 76	·		ممامات		
Data: PH:	, Conductivity:	18 Feld	perature:	C. Residuel	mq/L	riour,
Stream	□-Entry Point to Distri	bution Remarks		1 / 4 !! II a a a	Dib from	<del></del>
∏-Lake □-Drain	☐-Well; Depth: ☐-Spring			<del></del>	Bib from	<del></del>
Pool wwtP	☐-Distribution ☑-Other:			coal file	ter vessel	
	☐- Water Conf Unx	Horinated 20 Preservi	etion:			
)- Sol, []- Food	- Wastewater 1 - Ch	<u> </u>	Sample stored	in an ice bath (N		
	panies a single sample cor si(s) (volume = 20		Sample Preser	ved with Hydroch	viorio Acid 12 drops/	we chlorine residual 40 mil)
glass jug(s	;) (volume =n	i sal)	Cl <sub>a</sub> Sample Preser	ved with 20 mg/t	Mercuric Chloride	
Annheas Ross	(volume =	appropriate box(es) box	olaw to Indicate	a the type of a	nahitical acraani	
Analyses Requ	required. When	ver possible, list specifi	ic compounds	suspected or	required, and no	<b>7</b>
Volatile S	The Control of the Co	highly contaminated sa	and the state of t	olatile Scre	ens:	C**2*
	tic Headspace (Qualitative S	ScreerJ	(765) <b>2</b> 4	ce/Nextre! Ex	tractables (EPA	es)
☐- (754) Aroma	tic & Halogenated Purgeabl	es (EPA 601/2)	☐- (756) Be	ise/Neutral/A	old Extractables	(EPA 8270)
	Spectrometer Purgeables (E Total Trihalomethanes (EP)	The Control of the Co			icides (EPA 531. rophenoxy Acid	
3- (774) SDWA	VOC's I [21 REGULATED +	] (EPA 502.2) "	759) He	viblicides, Triaz	ine (EPA 507)	
	VOC's II [EDB & DBCP] (EF site Sample for Analysis No		☐ - (751) H) ☐ - (760) Or	rarocarbon ru canochlorine i	el Screen (EPA) Pesticides (EPA	M-8015) 505)
			- (761) Or	ganophospha	te Pesticides (El	PA 507)
Omer Omer	Specific Compounds	Of Classes:	[]-(767) Po []-(762) SD	rychionnated i WA Synthetic	Biphenyls (PC8° Org. Cmpds. (S	<b>S) IN ON (1997)</b> LLD 758/760)
<b>□-</b> }					Hydrocarbons (	
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in solutions	VO. 15 1-5/16 / O // CO		- Co	at 4 Sus	Part	

P.O. Box 4700 Albuquerque, NM 87196-4700 700 Camino de Salud, NE [505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

September 22, 1995

Request ID No. 090048

# ANALYTICAL REPORT SLD Accession No. OR-95-3896

<u>Distribution</u>
() User 64000
SAN AN ASUbmittee 68 (x) SLD Files
SEP 2 7 1995

To: Jay Janica

On: 25-Aug-95

Texas New Mexico Pipeline Co.

P.O. Box 60028

San Angelo, Texas 76906

From:

Organic Chemistry Section

Scientific Laboratory Div. 700 Camino de Salud, N.E.

P.O. Box 4700 Solution Albuquerque, NMC 87196-4700

LOCATION

Re: A water, Purgeable sample submitted to this laboratory on August 29, 1995

•			· · · · · · · · · · · · · · · · · · ·	1
	ASA		EFW	
Ì	JH i		35%	
1				
ł		!		

COLLECTION

*B*ν: Ric . . .

SPS Well 11 Treating Skid

At: 16:00 hrs. In/Near: Lovington

ANALYTICAL RESULTS: SDWA VOC-I [EPA-502.2] Screen {774}

 Parameter
 Value
 Qual
 PQL
 Units

 SDWA VOC's-I
 0.00 U 0.50 ppb

 See Laboratory Remarks for Additional Information

 Notations & Comments:

 Evidentiary Seals: Not Sealed ♥; Intact: No □, Yes □ & Broken By:
 Date:

DEMOGRAPHIC DATA

Laboratory Remarks:

#### SAFE DRINKING WATER ACT VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY DIVISION Contract:<u>N/A</u> Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: N/A Matrix: (soil/water) <u>Water</u> Lab Sample ID: OR-95-3896 SLD Batch No: 462
Date Received: 8/29/95 Sample wt/vol: 5.0 (g/mL) mL Level: (low/med) Low % Moisture: not dec. N/A dec. N/A Date Extracted: N/A Date Analyzed: 9/2/95 Extraction: (SepF/Cont/Sonc) N/A GPC Cleanup: (Y/N) No pH: 1 Dilution Factor:\_\_ CONCENTRATION UNITS: (ug/L or ug/Kg): ug/L

This sample was analyzed for the following compounds using EPA Method 502.2

CAS NO.	COMPOUND	CONC.	0	POL
71-43-2	Benzene		U	0.5

### ANALYTICAL REPORT SLD Accession No. OR-95-3896 Continuation, Page 2 of 4

108-86-1	Bromobenzene	U	0.5
74-97-5	Bromochloromethane	 Ū	0.5
75-27-4	Bromodichloromethane	 Ū	0.5
75-25-2	Bromoform	 Ū	0.5
24-83-9	Bromomethane	 Ü	0.5
78-93-3	2-Butanone (MEK)	Ū	5.0
104-51-8	n-Butvlbenzene	Ū	0.5
135-98-8	sec-Butylbenzene	 Ū	0.5
98-06-6	tert-Butvlbenzene	Ū	0.5
1634-04-4	tert-Butyl methyl ether (MTBE)	ט	5.0
56-23-5	Carbon tetrachloride	U	0.5
108-90-7	Chlorobenzene	Ū	0.5
75-00-3	Chloroethane	Ū	0.5
67-66-3	Chloroform	Ū	0.5
74-87-3	Chloromethane	U	0.5
95-49-8	2-Chlorotoluene	Ŭ	0.5
_106-43-4	4-Chlorotoluene	Ŭ	0.5
96-12-8	1,2-Dibromo-3-chloropropane	 U	0.5
124-48-1	Dibromochloromethane	U	0.5
106-93-4	1,2-Dibromoethane	U	0.5
74-95-3	Dibromomethane	Ü	0.5
95-50-1	1,2-Dichlorobenzene	U	0.5
541-73-1	1,3-Dichlorobenzene	U	0.5
106-46-7	1,4-Dichlorobenzene	 Ų	0.5
75-71-8	Dichlorodifluoromethane	 U	0.5
75-34-3	1,1-Dichloroethane	U	0.5
107-06-2	1,2-Dichloroethane	U	0.5
75-35-4	1,1-Dichloroethene	U	0.5
_156-59-4	cis-1,2-Dichloroethene	Ü	0.5
156-60-5	trans-1,2-Dichloroethene	U	0.5
78-87-5	1,2-Dichloropropane	U	0.5
142-28-9	1,3-Dichloropropane	U	0.5
590-20-7	2,2-Dichloropropane	U	0.5
563-58-6	1,1-Dichloropropene	U	0.5
1006-01-5	cis-1,3-Dichloropropene	Ü	0.5
1006-02-6	trans-1,3-Dichloropropene	U	0.5
100-41-4	Ethylbenzene	U	0.5
87-68-3	Hexachlorobutadiene	 U	0.5
98-82-8	Isopropylbenzene	U	0.5
99-87-6	4-Isopropyltoluene	 U	0.5
75-09-2	Methylene chloride	 <u>U  </u>	0.5
91-20-3	Naphthalene	 U	0.5

# ANALYTICAL REPORT SLD Accession No. OR-95-3896 Continuation, Page 3 of 4

103-65-1	Propylbenzene		U	0.5
100-42-5	Styrene		U	0.5
630-20-6	1,1,1,2-Tetrachloroethane		U	0.5
79-34-5	1,1,2,2-Tetrachloroethane		U	0.5
127-18-4	Tetrachloroethene	<u> </u>	U	0.5
109-99-9	Tetrahydrofuran (THF)		U	5.0
108-88-3	Toluene		U	0.5
87-61-5	1,2,3-Trichlorobenzene		U	0.5
120-82-1	1,2,4-Trichlorobenzene		Ū	0.5
71-55-6	1,1,1-Trichloroethane		U	0.5
79-00-5	1,1,2-Trichloroethane		Ŭ	0.5
79-01-6	Trichloroethene		Ū	0.5
75-69-4	Trichlorofluoromethane		U	0.5
96-18-4	1,2,3-Trichloropropane		Ŭ	0.5
95-63-6	1,2,4-Trimethylbenzene		U	0.5
108-67-8	1,3,5-Trimethvlbenzene		Ū	0.5
75-01-4	Vinvl chloride		U	0.5
95-47-6	o-Xylene		U	0.5
N/A	p- & m-Xvlene		U	0.5
N/A	Total Xylenes		Ū	1.0

\* Q = Qualifier Definitions:

CONC = CONCENTRATION DETERMINED

- PQL = Practical Quantitation Limit (Approximately 5 times MDL). Equivalent to the "minimum detection limit" defined for regulated VOC-1 compounds in 40 CFR 141.25(c).
- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the PQL listed.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

#### QUALITY CONTROL SUMMARY FOR VOLATILES SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with

ANALYTICAL REPORT SLD Accession No. OR-95-3896 Continuation, Page 4 of 4

this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED

CONCENTRATION (PPB)

No Compounds Detected

SURROGATE RECOVERIES:

SURROGATE

CONCENTRATION

% RECOVERY

Bromofluorobenzene (PID Surr) Bromofluorobenzene (HALL Surr) 10.0 ppb 10.0 dqq

99.

89.

The % recoveries for compounds in the batch SPIKE RECOVERY: spike were from 80% to 120% with the exception of the compounds listed below:

COMPOUND

CONCENTRATION

% RECOVERY

No exceptions

dqq

Analyst: SAM S. Azhar Mustafa

Analyst, Organic Chemistry

Reviewed By:

Richard F. Meyerhein

09/11/95 Supervisor, Organic Chemistry Section

	C CHEMISTRY ANALYTICAL REQU SCIENTIFIC LABORATORY DIVISION MINO DE SALUD N.E., ALBUQUERQUE, NI	M 87106			SLD No. (	AUG 2 5	
Juser	nic Chemistry Section - Telephone: (505) 84	Uest halia	Request   ID No. 0		Received:	1 3	P E
Facility	: IDN	HOLI MANAGE	6 County		Code of 7 City:	یت :	8 Stat
Name:	SPS-11		Lea		Lovi	naton	NI
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By: **	Envert Millian		Dess	MY/MM/DO	Tim		
Codes		Washington Contraction	**************************************	12 Lath			D NAC.
e or		م م م	211 141				2 Digit ID
	mitter WSS #	Organia	zation	Longitude	DOOMINSS		# needed
ijRepcit To:		<b>hone #:</b> 15) 947-9	008	<u> </u>	نيسليل	السلسا	
Street	Texas New Mexico Pipeline (		<u> </u>	15	Carab	g Information	_
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y, \$240 20	10 000 00020			CKNMED M	onitioning []- 5	de Sollt w/Perr	nitiee
- 10-16-16-1	San Angelo, Texas 76906	<del></del>		☐- Special	🖸 - Chain	of Custody	
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7 Sample S		18 Field Remarks:					
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☐-Drain	☐-Well; Depth:			<del></del>		<del></del>	
_ Pool	□-Distribution	ted char	coal fil	ter ves	<u> </u>		
O-WWTP	X-Other Treating Skid	dischar					
Sample T	ype: ☐- Water ☐- Unchlorinated ☐- Chlorinated ☐	T-NP	ion: No Preservatio	n; Sample store	d at room temp	orature	
]-Sol, []-1	Food. 7-Other	P-los	Sample stored Sample Preser			remove chicala	a raeidusei
	companies a single sample consisting of m vial(s) (volume = 20 m ea.)	ิ ดี ผนต	Samole Preser	and with Hydroc	hioric Acid (2 dr	ocs/40 m0	19500E
	Jug(s) (volume = mi ea.)	☐-PHgQ <sub>a</sub>	Sample Preser	red with 20 mg/	1 Mercurio Chio	ride	
• ***	(volume =						
1 Analyses	Requested: Please check the appropriat	te box(es) belo	ow to indicate	the type of a	nalytical scr	een(s)	
	required. Whenever possible below whenever highly continued to the continue of	aminated sam	compounds	sected	18(18.00, 2	Const.	
Volati	lie Screens:			viatile Scre	80S: %	100	
∏- (753) A	liphatic Headspace (Qualitative Screen)		∏ - (755) Ba	se/Neutral E	xtractables (	EPA 625) 💒	
	romatic & Halogenated Purgeables (EPA 60	1/2)	756) Ba	se/Neutral/A	Void Extracta	bles (EPA 8	270)
	lass Spectrometer Purgeables (EPA 624)	•		rbemete Pes			
766) SI	DWA Total Trihalomethanes (EPA 501.1)				orophenoxy		15.1/
☐- (766) SI ☑- (774) SI	DWA VOC's I [21 REGULATED +] (EPA 502	.2) "		rbicides, Tria	zine (EPA 50	7)	
☐- (766) SI ☐- (774) SI ☐- (775) SI	DWA VOC's I [21 REGULATED +] (EPA 502 DWA VOC's II [EDB & DBCP] (EPA 504)	.2) "	- (759) He - (751) Hy	rbicides, Tria drocarbon Fi	zine (EPA 50 uel Screen (E	7) :PA M-8015)	
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☐ - (766) SI ☐ - (774) SI ☐ - (775) SI ☐ - (790) C	DWA VOC's I [21 REGULATED +] (EPA 502. DWA VOC's II [EDB & DBCP] (EPA 504) omposite Sample for Analysis No		☐ - (759) He ☐ - (751) Hy ☐ - (760) On ☐ - (761) On ☐ - (767) Po ☐ - (762) SD	rbicides, Tria drocarbon Fi ganochlorine ganophosphi ychlorinated WA Synthetik	zine (EPA 50 uel Screen (E Pesticides (I ita Pesticide Biphenyls (P : Org. Cmpd	7] :PAM-8015] :PA 505) : (EPA 507) :C8's) in Oil : (SLD 758,	/760)
☐ - (766) SI ☐ - (774) SI ☐ - (775) SI ☐ - (790) C	DWA VOC's I [21 REGULATED +] (EPA 502. DWA VOC's II [EDB & DBCP] (EPA 504) omposite Sample for Analysis No		☐ - (759) He ☐ - (751) Hy ☐ - (760) On ☐ - (761) On ☐ - (767) Po ☐ - (762) SD	rbicides, Tria drocarbon Fi ganochlorine ganophosphi ychlorinated	zine (EPA 50 uel Screen (E Pesticides (I ita Pesticide Biphenyls (P : Org. Cmpd	7] :PAM-8015] :PA 505) : (EPA 507) :C8's) in Oil : (SLD 758,	/7 <b>60)</b>
- (766) SI - (774) SI - (775) SI - (790) C	DWA VOC's I [21 REGULATED +] (EPA 502. DWA VOC's II [EDB & DBCP] (EPA 504) omposite Sample for Analysis No		☐ - (759) He ☐ - (751) Hy ☐ - (760) On ☐ - (761) On ☐ - (767) Po ☐ - (762) SD	rbicides, Tria drocarbon Fi ganochlorine ganophosphi ychlorinated WA Synthetik	zine (EPA 50 uel Screen (E Pesticides (I ita Pesticide Biphenyls (P : Org. Cmpd	7] :PAM-8015] :PA 505) : (EPA 507) :C8's) in Oil : (SLD 758,	/7 <b>60)</b>
☐ - (766) SI ☐ - (774) SI ☐ - (775) SI ☐ - (790) C	DWA VOC's I [21 REGULATED +] (EPA 502. DWA VOC's II [EDB & DBCP] (EPA 504) omposite Sample for Analysis No	<b>83:</b>	☐ - (759) He ☐ - (751) Hy ☐ - (760) On ☐ - (761) On ☐ - (767) Po ☐ - (762) SD	rbicides, Tria drocarbon Fi ganochlorine ganophosphi ychlorinated WA Synthetik	zine (EPA 50 uel Screen (E Pesticides (I ita Pesticide Biphenyls (P : Org. Cmpd	7] :PAM-8015] :PA 505) : (EPA 507) :C8's) in Oil : (SLD 758,	/760)

P.O. Box 4700 Albuquerque, NM 87196-4700 700 Camino de Salud, NE [505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

September 22, 1995

Request ID No. 090049

ANALYTICAL REPORT SLD Accession No. OR-95-3897

Distribution ( -) User -64000 (X Submitter 68 -(x) SLD Files

To: Jay Janica

Texas-New Mexico Pipeline Co.

PO Box 60028

San Angelo, Texas 76906

From:

Organic Chemistry\_Section Scientific Laboratory Div.

700 Camino de Salud, N.E.

LOCATION

P.O. Box 4700 --

Albuquerque, NM---87196-4700 ---

A water, Purgeable sample submitted to this laboratory on August 29, 1995-Re:

DEMOGRAPHIC DATA

COLLECTION

By: Ric . . .

SPS Well 11 Treating Skid

On: 25-Aug-95 At: 16:00 hrs.

*In/Near:* Lovington

ANALYTICAL RESULTS: SDWA VOC-II [EPA-504] Screen {775}

Parameter Parameter	Value	Qual	POL	<u>Units</u>
1,2-Dibromoethane (EDB)	0.00	Ŭ	0.02	ppb
1,2-Dibromo-3-chloropropane	0.00	U	0.02	ppb
See Laboratory Remarks	for Additional	Infor	mation	

Notations & Comments:

Evidentiary Seals: Not Sealed , Intact: No , Yes & Broken By: . Date:

#### <u>Laboratory</u> Remarks:

#### SAFE DRINKING WATER ACT VOLATILES-II

Lab Name: NM SCIENTIFIC LABORATORY DIVISION Contract: /A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) <u>Water</u>
Sample wt/vol: <u>35.0</u> (g/mL) <u>ml</u>

Sample wt/vol: 35.0 (g/mL) ml SLD Batch No: 456

Level: (low/med) Low Date Received: 08/29/95

% Moisture: not dec. N/A dec. N/A Date Extracted: 08/31/95

Extraction: (SepF/Cont/Sonc) Micro

GPC Cleanup: (Y/N) No pH: N/A

Lab Sample ID: <u>OR-95-3897</u>

Date Analyzed: 09/02/95
Dilution Factor: 1

CONCENTRATION UNITS: (ug/L or ug/Kq): ug/L

EPA Method 504 was used to analyze for the following compounds

CAS NO.	COMPOUND	CONC.	0	MDL
_106-93-4	1,2-Dibromoethane (EDB)		כל	0.02
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)		U	0.02

\* CONC = CONCENTRATION DETERMINED

MDL= The Method Detection Level (Limit) is the minimum concentration of a compound that can be measured and reported with 99% confidence that the analyte concentration is greater than zero (FR 23703, June 1986). If a sample is diluted (usually due to high levels of contaminants) during analysis, the actual "sample detection limit" can be obtained by multiplying the MDL by the dilution factor reported above.

- PQL= Practical Quantitation Limit (Approximately 5-10 times MDL) is the concentration of the lowest standard routinely analyzed.

  Concentrations determined between the MDL and the PQL will be qualified with a "J" indicating an approximate concentration.
- \* Q = Qualifier Definitions:
- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the quantitation limit.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

## QUALITY CONTROL SUMMARY FOR VOLATILES II SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED No Compounds Detected

CONCENTRATION (uq/L)

SURROGATE RECOVERIES
SURROGATE

CONCENTRATION

%RECOVERY

ANALYTICAL REPORT
SLD Accession No. OR-95-3897
Continuation, Page 3 of 3

1,1,2,2,-TTCE

50. ug/L

84.0%

SPIKE RECOVERY: The % recoveries for compounds in the batch spike were from 70% to 130% with the exception of the compounds listed below:

listed below:

COMPOUND

CONCENTRATION

% RECOVERY

No exceptions

. ug/L

Analyst:

Nancy DeWitt

Analyst, Organic Chemistry

Reviewed By:

Richard F. Meyerhein (

09/22/95

Supervisor, Organic Chemistry Section

■ DRGANIC CHEMISTRY ANALYTICAL REQUES	T-FURM .		C OR9	5 305/ -
SCIENTIFIC LABORATORY DIVISION  700 CAMINO DE SALUD N.E., ALBUQUERQUE, NIM 85	7106	_	LD No.	C O 9 100E
Organic Chemistry Section - Telephone: (505) 841-25	//cquest	[	Priority	G 2 9 1995
Code #: ID No.:	****		Code #:	3
5 Facility Name: SPS -11	6 County Lea	: 17	<b>JCky:</b> Lovington	8 State
9 Sample		<u></u>	20 v Ing con	LN IN
	TTIR TELA ITI	INIGLIS	IKIT IDI I	400000000000000000000000000000000000000
By: ** Littlest in his his contact	Or:	120125	At [/]G]	( hrs.
L s s)1		12 Latitude	DOMMSS)	- 1600 bis.
	Organization			2 Digit ID
13 Report Name 14 Phon	e #:	Longitude (	DODMINSS	# (Freedock)
Address	) 947-9008	15	Bampling Inform	_
Texas-New Mexico Pipeline Co. PO Box 60028		Sample Purpose:	Composite  - Flow Prop  xing - Equal Aliq	Composite Orboned Periodi
San Angelo, Texas 76906		Confirmation - Special		r/Permittee
16 Field Date: pit, Conductivity:umhos/cm (	Temperature:	Chlorine C. Residual:	mg/l, Flo	
17 Sample Source: 18	Field Remarks:			
-Streeth	ampled from 1	/4" Hose R	ih from	
	ctivated chard	oal filter	yessel d	ischarge
D-WWTP N-Other: Treating Skid  19 Sample Type: N-Water - Unchlorinated 20	reservation:	<del></del>	· 	
☐-Wastewater 1☐-Chlorinated	☐- NP No Preservatio    No Preservatio	n; Sample stored at in an ice bath (Not F	rozen)	
This form accompanies a single sample consisting of	T-P-TS Sample Preser XI-P-HCI Sample Preser	ved with Sodium Thi ved with Hydrochlori	ic Acid (2 drops/40)	
ada a time to Karlama	- P-HgCl, Sample Preser	ved with 20 mg/l He	rcurio (chiorida	
21 Analyses Requested: Please check the appropriate bo	x(es) below to indicate	the type of anal	ytical screen(s)	
required. Whenever possible, its below whenever highly contamir			pulred, and note	
Volatile Screens:		olatile Screen	A CONTRACTOR OF THE PARTY OF TH	
- (753) Aliphatic Headspace (Qualitative Screen) - (754) Aromatic & Halogenated Purgeables (EPA 601/2)		se/Neutral Extra se/Neutral/Acid		
- (765) Mass Spectrometer Purgeables (EPA 624)	: Ca	rbemate Pesticion rbicides, Chloro	ies (EPA 531.1)	
- (766) SDWA Total Trihalomethanes (EPA 501.1) - (774) SDWA VOC's I [21 REGULATED +] (EPA 502.2)	🔹 🛴 - (759) He	rbicides, Triazino	(EPA 507)	
		drocarbon Fuel ( panochlorine Pe		
Other Specific Compounds or Classes:	☐- (761) On	anophosphate lychiorinated Bip	Pesticides (EPA	507)
Q-( )		WA Synthetic Or	g. Cmpds. (SLD	758/760)
U·()	(782) To	al Petroleum Hy	drocarbons (EP/	A 418.1)
semarks:				
Please Fax Results To Me AT (50)	5) 396-2754	15 -	-000	1 6
		(Invet	Truck	int_

P.O. Box 4700 Albuquerque, NM 87196-4700 700 Camino de Salud, NE [505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

September 22, 1995

Request ID No. 090050

## ANALYTICAL REPORT SLD Accession No. OR-95-3898

SAN ANG Distribution 7(!) User 64000 (X Submitter 68) SEP (3) SLD Files

To: Jay Janica

On: 26-Aug-95

Texas New Mexico Pipeline Co.

P.O. Box 60028

San Angelo, Texas 76906

From:

Organic Chemistry Section

Scientific Laboratory Div.

700 Camino de Salud; N.E. P.O. Box 4700 A54

Albuquerque, NM: 87196-4700:

Re:

A water, Purgeable sample submitted to this laboratory on August 29, 1995

DEMOGRAPHIC DATA

COLLECTION

By: Ric . . .

LOCATION SPS Well 11 Treating Skid

At: 10:00 hrs. In/Near: Lovington

ANALYTICAL RESULTS: SDWA VOC-I [EPA-502.2] Screen {774}

Qual POL Parameter Value Units\_ SDWA VOC's-I 0.00 U 0.50 ppb

See Laboratory Remarks for Additional Information

Notations & Comments:

Evidentiary Seals: Not Sealed | Intact: No | , Yes | & Broken By: \_\_\_\_\_\_ Date:

#### Laboratory Remarks:

SAFE DRINKING WATER ACT VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY DIVISION Contract:N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: N/A Matrix: (soil/water)\_ Water\_\_

Sample wt/vol: 5.0 (g/mL) mL

Level: (low/med) Low

% Moisture: not dec.<u>N/A</u> dec.<u>N/A</u> Extraction: (SepF/Cont/Sonc) N/A

GPC Cleanup: (Y/N) No pH: 1

Lab Sample ID: OR-95-3898

SLD Batch No: 462

Date Received: 8/29/95

Date Extracted: N/A

Date Analyzed: 9/2/95 Dilution Factor:\_\_\_\_

CONCENTRATION UNITS:

(ug/L or ug/Kg):\_\_\_ ug/L

This sample was analyzed for the following compounds

	using EPA Mechod 302.	
CAS NO.	COMPOUND	CONC. O POL
71-43-2	Benzene	U 0.5

## ANALYTICAL REPORT SLD Accession No. OR-95-3898 Continuation, Page 2 of 4

108-86-1	Bromobenzene	1	Ιυ	1 0.5
74-97-5	Bromochloromethane		Ü	0.5
75-27-4	Bromodichloromethane		Ū	0.5
75-25-2	Bromoform		Ū	0.5
24-83-9	Bromomethane		Ū	0.5
78-93-3	2-Butanone (MEK)		Ū	5.0
104-51-8	n-Butvlbenzene		U	0.5
135-98-8	sec-Butylbenzene		Ū	0.5
98-06-6	tert-Butylbenzene		U	0.5
1634-04-4	tert-Butyl methyl ether (MTBE)		U	5.0
56-23-5	Carbon tetrachloride		U	0.5
108-90-7	Chlorobenzene		U	0.5
75-00-3	Chloroethane		U	0.5
67-66-3	Chloroform		Ŭ	0.5
74-87-3	Chloromethane		Ŭ	0.5
95-49-8	2-Chlorotoluene		U	0.5
106-43-4	4-Chlorotoluene		U	0.5
96-12-8	1,2-Dibromo-3-chloropropane		Ū	0.5
124-48-1	Dibromochloromethane		U	0.5
106-93-4	1,2-Dibromoethane		Ū	0.5
74-95-3	Dibromomethane		Ū	0.5
95-50-1	1,2-Dichlorobenzene		U	0.5
541-73-1	1,3-Dichlorobenzene		<u> </u>	0.5
106-46-7	1,4-Dichlorobenzene		U	0.5
75-71-8	Dichlorodifluoromethane		U	0.5
75-34-3	1,1-Dichloroethane		U	0.5
<u> 107-06-2</u>	1,2-Dichloroethane		U	0.5
75-35-4	1,1-Dichloroethene		U	0.5
156-59-4	cis-1,2-Dichloroethene		U	0.5
156-60-5	trans-1,2-Dichloroethene		U	0.5
78-87-5	1,2-Dichloropropane		U	0.5
142-28-9	1,3-Dichloropropane		U	0.5
590-20-7	2,2-Dichloropropane		U	0.5
563-58-6	1,1-Dichloropropene		U	0.5
1006-01-5	cis-1,3-Dichloropropene		U	0.5
1006-02-6	trans-1,3-Dichloropropene		U	0.5
100-41-4	Ethylbenzene		U	0.5
87-68-3	Hexachlorobutadiene		U	0.5
98-82-8	Isopropylbenzene		U	0.5
99-87-6	4-Isopropyltoluene		U	0.5
75-09-2	Methylene chloride		U	0.5
91-20-3	Naphthalene		U	0.5

103-65-1	Propvlbenzene	JU	10.5
100-42-5	Styrene	U	0.5
630-20-6	1,1,1,2-Tetrachloroethane	U	0.5
79-34-5	1,1,2,2-Tetrachloroethane	U	0.5
127-18-4	Tetrachloroethene	U	0.5
109-99-9	Tetrahydrofuran (THF)	U	5.0
108-88-3	Toluene	U	0.5
87-61-5	1,2,3-Trichlorobenzene	U	0.5
120-82-1	1,2,4-Trichlorobenzene	U	0.5
71-55-6	1,1,1-Trichloroethane	U	0.5
79-00-5	1,1,2-Trichloroethane	Ū	0.5
79-01-6	Trichloroethene	Ū	0.5
75-69-4	Trichlorofluoromethane	Ū	0.5
96-18-4	1,2,3-Trichloropropane	Ū	0.5
<u>9</u> 5-63-6	1,2,4-Trimethylbenzene	Ū	0.5
108-67-8	1,3,5-Trimethylbenzene	ט	0.5
75-01-4	Vinyl chloride	ם	0.5_
95-47-6	o-Xvlene	บ	0.5
N/A	p- & m-Xylene	Ū	0.5
N/A	Total Xylenes	Ū	1.0

\* Q = Qualifier Definitions:

CONC = CONCENTRATION DETERMINED

PQL = Practical Quantitation Limit (Approximately 5 times MDL). Equivalent to the "minimum detection limit" defined for regulated VOC-1 compounds in 40 CFR 141.25(c).

- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the PQL listed.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

#### QUALITY CONTROL SUMMARY FOR VOLATILES SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with

ANALYTICAL REPORT SLD Accession No. OR-95-3898 Continuation, Page 4 of 4

this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED

CONCENTRATION (PPB)

No Compounds Detected

SURROGATE RECOVERIES:

SURROGATE CONCENTRATION % RECOVERY

Bromofluorobenzene (PID Surr) 10.0 ppb 98. Bromofluorobenzene (HALL Surr) 10.0 ppb 90.

SPIKE RECOVERY: The % recoveries for compounds in the batch spike were from 80% to 120% with the exception of the compounds

listed below:

COMPOUND CONCENTRATION

% RECOVERY

No exceptions

. ppb

Analyst: \_\_S

S. Azhar Mustafa

Analyst, Organic Chemistry

Reviewed By:

Richard F. Meyerhein \ 09/11/95 Supervisor, Organic Chemistry Section

700 CAMINO Organic Ch User Code #: Facility Name: SPS	HEMISTRY ANALYTIC CIENTIFIC LABORATORY DE SALUD N.E., ALBUO Ternistry Section - Telepho	DIVISION UERQUE, NM 87108	Request	90050-A	SLD No.  Date Received:  4 Priority Code 4 7 City:	8 Stat
Codes: Submitted Report Nay Tex PO		Organ   14  Phone #:   (915) 947-   peline Co	Date  2 1 4 4 1  Ization	(Y/MM/DD)  12 Lettitu  Longitude  15 Sample Purpe  Complian  Confirmat  Confirmat  Special	Bamplin  Bamplin  George Grown  Bamplin  Grown  George Grown  Gro	200 pan + 1900 hrs.  200 pan + 1900 hrs.  2 Digit ED Financian
Data: pit   Sample Source   Stream   Lake   Drain   Pool   WWTP   Sample Type:   Soil, Food, is form accompa	☐-Entry Point to Dist ☐-Weil; Depth: ☐-Spring ☐-Distribution ☑-Other:	ng Skid dischanchlorinated D-P-TS  maisting of: 18 Field Remarks: Sampl  activa dischanchlorinated 20 Preserva (P-P-De P-TS)  Type P-P-TS  Type P-P-TS	ed from inted char arge ation: No Preservation Sample stored Sample Preservation	coal fil	e Bib fr	erature remove chlorine residual
- (754) Aromat - (765) Mass S - (766) SDWA - (774) SDWA - (775) SDWA - (790) Compo	required. When below whenever	bles (EPA 601/2) (EPA 624) PA 501.1) +) (EPA 502.2) EPA 504) to	Compounds Inples are susy Semilys - (755) Ba - (756) Ba - (758) He - (759) He - (751) Hy - (761) On - (761) On - (762) SD	suspected or pected. Screen platile Screen se/Neutral // se/Neutral // se/Neutral // spannate Pestrolicides, Chi- rolicides, Trial drocarbon Fi ganophospha lychlorinated WA Synthetik	required, ar stractables ( add Extracta dicides (EPA prophenoxy zine (EPA 50 sel Screen (E Pesticides ( ata Pesticide Biphenyls (F c Org. Cmpd	EPA 625) # 531.1) Acid (EPA 515.1) 67) EPA M-8015) EPA 505) S (EPA 507)
Ple	ase Fax Results	To Me at (505)	396-2754	Ting	t Ahr	ilato

P.O. Box 4700 Albuquerque, NM 87196-4700 700 Camino de Salud, NE [505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

September 22, 1995

Request ID No. 090051

ANALYTICAL REPORT
SLD Accession No. OR-95-3899

SAN ANCE Distribution

(X Submitter 68

To: Jay Janica

Texas-New Mexico Pipeline Co.

PO Box 60028

San Angelo, Texas 76906

From:

Organic Chemistry Section

Scientific Laboratory Div. 700 Camino de Salud, N.E.

LOCATION

P.O. Box 4700-

Albuquerque, <u>NM</u> 87196-4700

Re: A water, Purgeable sample submitted to this laboratory on August 29, 1995

DEMOGRAPHIC DATA

COLLECTION
On: 26-Aug-95
By: I

*By:* Ric . . .

SPS Well 11 Treatment Skid

At: 10:00 hrs. In/Near: Lovington

ANALYTICAL RESULTS: SDWA VOC-II [EPA-504] Screen {775}

Parameter Parameter	Value	Qual	POL	<u>Units</u>
1,2-Dibromoethane (EDB)	0.00	U	0.02	ppb
1,2-Dibromo-3-chloropropane	0.00	U	0.02	ppb
See Laboratory Remarks fo	or Additional	Inform	mation	
Notations & Comments:				
Evidentiary Seals: Not Sealed T Intact: No. 1 Ye	s   & Broken By			Date:

Laboratory Remarks:

#### SAFE DRINKING WATER ACT VOLATILES-II

Lab Name: NM SCIENTIFIC LABORATORY DI	VISION Contract:/A
Lab Code: N/A Case No.: N/A	SAS No.: N/A SDG No.: N/A
Matrix: (soil/water) <u>Water</u>	Lab Sample ID: <u>OR-95-3899</u>
Sample wt/vol: $35.0$ (g/mL) ml	SLD Batch No: 456
Level: (low/med) Low	Date Received: 08/29/95
% Moisture: not dec. $N/A$ dec. $N/A$	Date Extracted: 08/31/95
<pre>Extraction: (SepF/Cont/Sonc) Micro</pre>	Date Analyzed: 09/02/95
GPC Cleanup: (Y/N) No pH: N/A	
	CONCENTRATION UNITS:
	(ug/L or ug/Kg): ug/L

 \* CONC = CONCENTRATION DETERMINED

MDL= The Method Detection Level (Limit) is the minimum concentration of a compound that can be measured and reported with 99% confidence that the analyte concentration is greater than zero (FR 23703, June 1986). If a sample is diluted (usually due to high levels of contaminants) during analysis, the actual "sample detection limit" can be obtained by multiplying the MDL by the dilution factor reported above.

PQL= Practical Quantitation Limit (Approximately 5-10 times MDL) is the concentration of the lowest standard routinely analyzed. Concentrations determined between the MDL and the PQL will be qualified with a "J" indicating an approximate concentration.

- \* Q = Qualifier Definitions:
- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the quantitation limit.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

#### QUALITY CONTROL SUMMARY FOR VOLATILES II SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED No Compounds Detected

CONCENTRATION (ug/L)

SURROGATE RECOVERIES
SURROGATE

CONCENTRATION

%RECOVERY

ANALYTICAL REPORT SLD Accession No. OR-95-3899 Continuation, Page 3 of 3

1,1,2,2,-TTCE

50. ug/L

102.0%

SPIKE RECOVERY: The % recoveries for compounds in the batch spike were from 70% to 130% with the exception of the compounds listed below:

COMPOUND

CONCENTRATION

% RECOVERY

No exceptions

. ug/L

Analyst:

Nancy DeWitt

Analyst, Organic Chemistry

Reviewed By:

Richard F. Meyerhein

Supervisor, Organic Chemistry Section

B) RGANIC CHEMISTRY ANALYTICAL REC	UEST FORM	OR95 3899 C
SCIENTIFIC LABORATORY DIVISION 700 CAMINO DE SALUD N.E., ALBUQUERQUE, I	NM 87108	8LD No.
Organic Chemistry Section - Telephone: (505) 8		Received: AUG 2 9 1995
Uter 3 Re Code #:	ID No. 090051-A	Priority 3 Code #:
Facility Name: SPS -11	6 County:	7 Cky: 8 State Lovington N M
3 Sample		Bovington Nim
Location: SIPISI IWIEITIIII		SIKITIVI
First # 11 of the fall	Ore 72/68/2 Deta: (YY/MM/DD)	. ve
1)Codec	12 Lati	
Submitter W\$S #	Organization Longitud	DOOMMSS) 2 Digit to
To: Jay Janica	(915) 947-9008	Sampling information:
Texas-New Mexico Pipeline ( PO Box 60028	☐- Complia	Composite Composite
San Angelo, Texas 76906	☐- Confirme ☐- Special	fion Sample Split w/Permittee Chain of Custody
6 Field Date: PH: Conductivity: umhos	o/om @ Temperature:C; Residus	
7 Sample Source:	18 Field Remarks:	
☐-Stream ☐-Entry Point to Distribution ☐-Lake ☐-Well; Depth:		DAN COL
□-Drain □-Spring	Sampled from 1/4" Hose	
☐-Pool ☐-Distribution ☐-WWTP ☐-Other: _Treating Skice	activated charcoal file	ter vessel discharge
3 Sample Type: (X)- Water		
☐- Wastewater 1☐- Chlorinated	☐-NP No Preservation; Sample store ☐-P-loe Sample stored in an ice bath (	
- Soil, - Food, - Other - Consisting of	P-TS Sample Preserved with Sodium	n Thiosulfate to remove chlorine residual
7 - septum viai(s) (volume = 20 mi ea.)		
- glass jug(s) (volume = mi ea.)	Other	
(volume =)  1 Analyses Requested: Please check the appropria	te box(es) below to indicate the type of a	mehtical accounted as the second
required. Whenever possit	ole. Ilst specific compounds suspected of	required, and note ?;
Volatile Screens:	terninated samples are suspected.	ene-
	(755) Base/Neutral E	
- (753) Aliphatic Headspace (Qualitative Screen) - (754) Aromatic & Halogenated Purgeables (EPA6)		add Extractables (EPA 8270)
- (765) Mass Spectrometer Purpeables (EPA 624)	(772) Carbamate Pes	
- (766) SDWA Total Trihalomethanes (EPA 501.1)		prophenoxy Acid (EPA 515.1)
- (774) SDWA VOC's   [21 REGULATED +] (EPA 50)		
	2.2) 🗀 🔻 🔲 - (759) Herbicides, Tria	zine (EPA 507)
(775) SDWA VOC's II (EDB & DBCP) (EPA 504)	2.2) 7. (759) Herbickles, Tria	zine (EPA 507) Jel Screen (EPA M-8015)
	2.2) (759) Herbicides, Tria (751) Hydrocarbon Fi (760) Organochlorine	zine (EPA 507) uel Screen (EPA M-8015) Pesticides (EPA 505)
(775) SDWA VOC's II [EDB & DBCP] (EPA 504)	2.2)	zine (EPA 507) jel Screen (EPA M-8015) Pesticides (EPA 505) ste Pesticides (EPA 507)
(775) SDWA VOC's II (EDB & DBCP) (EPA 504)	2.2)	zine (EPA 507) uel Screen (EPA M-8015) Pesticides (EPA 505)
(775) SDWA VOC's II [EDB & DBCP] (EPA 504)	2.2)	zine (EPA 507) Jel Screen (EPA M-8015) Pesticides (EPA 505) Ite Pesticides (EPA 507) Biphenyls (PC8's) In Oil
(775) SDWA VOC's II [EDB & DBCP] (EPA 504) (790) Composite Sample for Analysis No	2.2)	zine (EPA 507)  Jel Screen (EPA M-8015)  Pesticides (EPA 505)  Itel Pesticides (EPA 507)  Biphenyls (PC8's) in Oil  Org. Crupds. (SLD 758/760)
☐ - (775) SDWA VOC's II [EDB & DBCP] (EPA 504) ☐ - (790) Composite Sample for Analysis No. ☐ Other Specific Compounds or Class ☐ - (	2.2)	zine (EPA 507)  Jel Screen (EPA M-8015)  Pesticides (EPA 505)  Itel Pesticides (EPA 507)  Biphenyls (PC8's) in Oil  Org. Crupds. (SLD 758/760)
	2.2)	zine (EPA 507)  Jel Screen (EPA M-8015)  Pesticides (EPA 505)  Itel Pesticides (EPA 507)  Biphenyls (PC8's) in Oil  Org. Crupds. (SLD 758/760)

frat Bukarto

P.O. Box 4700 Albuquerque, NM 87196-4700 700 Camino de Salud, NE [505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

September 22, 1995 SAN ANGELO DEFIGEDOD ANALYTICAL REPORT FIL ( Submitter 58 Request SEP 2 SLAFiles SLD Accession No. OR-95-3900 ID No. 090052 To: Jay Janica From: Organic Chemistry Section Texas New Mexico Pipeline Co. Scientific Laboratory Div. 700 Camino de Salud N.E. P.O. Box 60028 P.O. Box 4700= San Angelo, Texas 76906 Albuquerque, NM 87196-4700 A water, Purgeable sample submitted to this laboratory on August 29, 1995 Re: DEMOGRAPHIC DATA COLLECTION LOCATION On: 27-Aug-95 *By:* Ric . . . SPS Well 11 Treating Skid At: 9:00 hrs. In/Near: Lovington ANALYTICAL RESULTS: SDWA VOC-I [EPA-502.2] Screen {774} Parameter POL Oual Units SDWA VOC's-I 0.00 U ppb See Laboratory Remarks for Additional Information Notations & Comments: Evidentiary Seals: Not Sealed | Intact: No | Yes | & Broken By: Laboratory Remarks:

## SAFE DRINKING WATER ACT VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY DI	
Lab Code: N/A Case No.: N/A Matrix: (soil/water) Water	
Sample wt/vol: 5.0 (g/mL) mL	
Level: (low/med) Low	
% Moisture: not dec. N/A dec. N/A	Date Extracted: N/A
Extraction: (SepF/Cont/Sonc) N/A	
GPC Cleanup: (Y/N) No pH: 2	
	CONCENTRATION UNITS:
	(ug/L or ug/Kg): ug/L ug/L

This sample was analyzed for the following compounds

	using EPA Method 302.2			
CAS NO.	COMPOUND	CONC.	Q	POL
71-43-2	Benzene		Ü	0.5

## ANALYTICAL REPORT SLD Accession No. OR-95-3900 Continuation, Page 2 of 4

108-86-1	Bromobenzene	U	0.5
74-97-5	Bromochloromethane	 Ū	0.5
75-27-4	Bromodichloromethane	Ü	0.5
75-25-2	Bromoform	U	0.5
24-83-9	Bromomethane	U	0.5
78-93-3	2-Butanone (MEK)	Ü	5.0
104-51-8	n-Butvlbenzene	 Ŭ	0.5
135-98-8	sec-Butylbenzene	U	0.5
98-06-6	tert-Butvlbenzene	Ū	0.5
1634-04-4	tert-Butyl methyl ether (MTBE)	Ü	5.0
56-23-5	Carbon tetrachloride	U	0.5
108-90-7	Chlorobenzene	U	0.5
75-00-3	Chloroethane	U	0.5
67-66-3	Chloroform	U	0.5
74-87-3	Chloromethane	Ū	0.5
95-49-8	2-Chlorotoluene	U	0.5
106-43-4	4-Chlorotoluene	U	0.5
96-12-8	1,2-Dibromo-3-chloropropane	U	0.5
124-48-1	Dibromochloromethane	Ü	0.5
106-93-4	1,2-Dibromoethane	U	0.5
74-95-3	Dibromomethane	U	0.5
95-50-1	1,2-Dichlorobenzene	U	0.5_
541-73-1	1,3-Dichlorobenzene	Ū	0.5
106-46-7	1,4-Dichlorobenzene	Ū	0.5
75-71-8	Dichlorodifluoromethane	Ū	0.5
75-34-3	1,1-Dichloroethane	 U	0.5
107-06-2	1,2-Dichloroethane	U	0.5
75-35-4	1,1-Dichloroethene	U	0.5
156-59-4	cis-1,2-Dichloroethene	U	0.5
156-60-5	trans-1,2-Dichloroethene	 U	0.5
78-87-5	1,2-Dichloropropane	U	0.5
142-28-9	1,3-Dichloropropane	 U	0.5
590-20-7	2,2-Dichloropropane	 U	0.5
563-58-6	1,1-Dichloropropene	U	0.5
1006-01-5	cis-1,3-Dichloropropene	 U	0.5
1006-02-6	trans-1,3-Dichloropropene	 U	0.5
100-41-4	Ethylbenzene	U	0.5
87-68-3	Hexachlorobutadiene	 U	0.5
98-82-8	Isopropylbenzene	U	0.5
99-87-6	4-Isopropyltoluene	U	0.5
75-09-2	Methylene chloride	U	0.5
91-20-3	Naphthalene	 U	0.5

# ANALYTICAL REPORT SLD Accession No. OR-95-3900 Continuation, Page 3 of 4

103-65-1	Propylbenzene	1	U	0.5
100-42-5	Styrene		U	0.5
630-20-6	1,1,1,2-Tetrachloroethane		U	0.5
79-34-5	1,1,2,2-Tetrachloroethane		U	0.5
127-18-4	Tetrachloroethene		Ū	0.5
109-99-9	Tetrahydrofuran (THF)		U	5.0
108-88-3	Toluene		U	0.5
87-61-5	1,2,3-Trichlorobenzene		U	0.5
120-82-1	1,2,4-Trichlorobenzene		U	0.5
71-55-6	1,1,1-Trichloroethane		Ū	0.5
79-00-5	1,1,2-Trichloroethane		Ū	0.5
79-01-6	Trichloroethene		כל	0.5
75-69-4	Trichlorofluoromethane		U	0.5
96-18-4	1,2,3-Trichloropropane		U	0.5
95-63-6	1,2,4-Trimethylbenzene		Ŭ	0.5
108-67-8	1,3,5-Trimethvlbenzene		Ū	0.5
75-01-4	Vinvl chloride		U	0.5
95-47-6	o-Xvlene		U	0.5
N/A	p- & m-Xvlene		Ū	0.5
N/A	Total Xylenes		U	1.0

\* Q = Qualifier Definitions:

CONC = CONCENTRATION DETERMINED

PQL = Practical Quantitation Limit (Approximately 5 times MDL). Equivalent to the "minimum detection limit" defined for regulated VOC-1 compounds in 40 CFR 141.25(c).

- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the PQL listed.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

#### QUALITY CONTROL SUMMARY FOR VOLATILES SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with

ANALYTICAL REPORT SLD Accession No. OR-95-3900 Continuation, Page 4 of 4

this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED

CONCENTRATION (PPB)

No Compounds Detected

SURROGATE RECOVERIES:

SURROGATE

CONCENTRATION

% RECOVERY

Bromofluorobenzene (PID Surr)

10.0 ppb 99.

Bromofluorobenzene (HALL Surr)

10.0 ppb 90.

The % recoveries for compounds in the batch SPIKE RECOVERY: spike were from 80% to 120% with the exception of the compounds listed below:

COMPOUND

CONCENTRATION

% RECOVERY

No exceptions

ppb

Analyst:

Reviewed By:

09/11/95 Richard F. Meyerhein

S. Azhar Mustafa

Analyst, Organic Chemistry

Supervisor, Organic Chemistry Section

			- 0000 0
RGANIC CHEMISTRY ANALYTICAL REC	NUEST FORM	, 0	R95 3900 C -
		SLD No.	
SCIENTIFIC LABORATORY DIVISION			
700 CAMINO DE SALUD N.E., ALBUQUERQUE, I		Date	AUG 2 9 1995
Organic Chemistry Section - Telephone: (505) 8	<b>41-2570</b> Request	Received:	AUG Z 7 1773
User 3 Re Code #: ID		052-A Priority	3 4000
Facility	6 County		8 State
Name: SPS-11	Lea	Loving	Tton N. M
Sample			
Location: S. PIS I WIE LILI II	<u>li iTirielaitii</u>	ıngı ısıklid	1_1_1_1_1_
Collected	/dc On: 25	108127 ALIS	9101011
First [L]s s t,	Des	: (YY/MM/DD)	34 hr. shell 2:00 pm = 18:00 her.
Codes		12 Latitude (DOMMSS	
- 17. 64.8	1010 101211 141		· · · · · · · · · · · · · · · · · · ·
Submitter WSS #	Organization	Longitude (DOOMMSS)	2 Digit ID
	Phone #:		•
	915) 947-9008	de la Remolina	information:
Texas New Mexico Pipeline	0.0	Grab	
		Sample Purpose:	Omposite Ins Period
PO Box 60028		KKNMED Monitoring   Equ	r Proportioned Pro
f. State 20		- Confirmation - Sample	Split w/Permittee
San Angelo, Texas 76906		Special - Chain o	Custody
Data: pht, Conductivity:umhor	s/om @ Temperature:	C; Reciduet:mg/	l, Flow
/ Sample Source:	18 Field		<u> </u>
☐-Stream ☐-Entry Point to Distribution	Remarks:		·
Lake	Sampled from	1/4" Hose Bib fro	ım
□-Drain □-Spring	~		
☐-Pool ☐-Distribution	activated char	coal filter vess	<u> </u>
O-WWTP W-Other Treating Skin	discharge		
Sample Type:			
- Wastewater 1 - Chlorinated	∦ [	on; Sample stored at room temper I in an ice beth (Not Frozen)	ature
- Soil Food, - Other - Societing of		rved with Sodium Thiosulfate to re	move chlorine residual
his form accompanies a single sample consisting of 2 - septum vial(s) (volume =mi ea.)	17-P-HCI Sample Prese	rved with Hydrochloric Acid (2 dro	pe/40 ml)
- glass jug(s) (volume = mi ea.)		rved with 20 mg/l Mercurio Chlork	<b>5</b>
(volume =	D-Other		
	/ <u> </u>		
J Analyses Requested: Please check the appropri	ate box(es) below to indicat ble list specific compounds	e the type of analytical acre suspected or required, and	note
below whenever highly co	ntaminated samples are sus	pected.	No. of London
Volatile Screens:	*- Semiv	olatile Screens: ***	
		The second secon	DA COS
- (753) Aliphatic Headspace (Qualitative Screen)	Control of the Contro	ree/Neutral Extractables (E	
- (754) Aromatic & Halogenated Purgeables (EPA 6		ise/Neutral/Acid Extractab	
- (765) Mass Spectrometer Purgeables (EPA 624)		urbamate Pesticides (EPA 5	
- (766) SDWA Total Trihalomethanes (EPA 501.1)	9.00 (2000) (0.0	erbicides, Chlorophenoxy A	
X - (774) SDWA VOC's I [21 REGULATED +] (EPA 50		erbicides, Triazine (EPA 507	
- (775) SDWA VOC's II [EDB & DBCP] (EPA 504)		rdrocarbon Fuel Screen (EF	
- (790) Composite Sample for Analysis No.	<u> </u>	ganochlorine Pesticides (El	PA 505)
	- (761) Or	ganophosphata Pesticides	(EPA 507)
Other Specific Compounds or Clas	ร <b>อร:</b> - 17- การก่า Pc	tychlorinated Biphenyls (PC	28's) in Oil
		XVA Synthetic Org. Cmpds.	
<b>1.</b> }		tal Petroleum Hydrocarbon	
		and the second second	
marios: / O			
	/ · · - · - · · · · · · · ·		
Please Fax Results To Me a	t (505) 396-2754	<u></u>	
		Junest & The low	te

P.O. Box 4700 Albuquerque, NM 87196-4700 700 Camino de Salud, NE [505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

September 22, 1995

Request ID No. 090053

ANALYTICAL REPORT
SLD Accession No. OR-95-3901

Distribution

SAN ANGEL USE 64000

= (X-Submitter 68

(X) SLD Files

SEP 2 7 1395

To: Jay Janica

Texas-New Mexico Pipeline Co.

PO Box 60028

San Angelo, Texas 76906

From:

Organic Chemistry-Section ----

Scientific Laboratory Div.—
700 Camino de Salud, N.E.

LOCATION

P.O. Box 4700

Albuquerque, NM 87196-4700

Re: A water, Purgeable sample submitted to this laboratory on August 29, 1995

DEMOGRAPHIC DATA

COLLECTION

By: Ric . . .

SPS Well 11 Treating Skid

On: 27-Aug-95
At: 7:00 hrs.

Dy: K

*In/Near:* Lovington

ANALYTICAL RESULTS: SDWA VOC-II [EPA-504] Screen {775}

Parameter	Value	Qual	<u>PQL</u>	<u>Units</u>	
1,2-Dibromoethane (EDB)	0.00	Ŭ	0.02	ppb	
1,2-Dibromo-3-chloropropane	0.00	Ŭ	0.02	ppb	
See Laboratory Remarks	for Additional	Inform	mation		
Notations & Comments:					
Evidentiary Seals: Not Sealed ; Intact: No ],	Yes  & Broken By:			Date:	

**Laboratory Remarks:** 

## SAFE DRINKING WATER ACT VOLATILES-II

Lab Name: NM SCIENTIFIC LABORATORY DIVISION Contract: /A Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: N/A Matrix: (soil/water) Water Lab Sample ID: OR-95-3901 Sample wt/vol: 35.0 (g/mL)\_ SLD Batch No:\_\_ 456 (low/med) Low Level: Date Received: 08/29/95 Date Extracted:\_\_\_ 08/31/95 % Moisture: not dec. N/A dec. N/A Date Analyzed: 09/02/95 Extraction: (SepF/Cont/Sonc) Micro GPC Cleanup: (Y/N) No pH: N/A Dilution Factor: 1 CONCENTRATION UNITS:

(ug/L or ug/Kg): ug/L

EPA Method 504 was used to analyze for the following compounds

CAS NO. | COMPOUND | CONC. | Q | MDL. | 106-93-4 | 1-2 Dibromosthano (EDB)

 CAS NO.
 COMPOUND
 CONC.
 O MDL

 106-93-4
 1,2-Dibromoethane (EDB)
 U 0.02

 96-12-8
 1,2-Dibromo-3-chloropropane (DBCP)
 U 0.02

ANALYTICAL REPORT SLD Accession No. OR-95-3901 Continuation, Page 2 of 3

- \* CONC = CONCENTRATION DETERMINED
  - MDL= The Method Detection Level (Limit) is the minimum concentration of a compound that can be measured and reported with 99% confidence that the analyte concentration is greater than zero (FR 23703, June 1986). If a sample is diluted (usually due to high levels of contaminants) during analysis, the actual "sample detection limit" can be obtained by multiplying the MDL by the dilution factor reported above.
  - PQL= Practical Quantitation Limit (Approximately 5-10 times MDL) is the concentration of the lowest standard routinely analyzed.

    Concentrations determined between the MDL and the PQL will be qualified with a "J" indicating an approximate concentration.
- \* Q = Qualifier Definitions:
- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the quantitation limit.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

#### QUALITY CONTROL SUMMARY FOR VOLATILES II SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED No Compounds Detected

CONCENTRATION (ug/L)

SURROGATE RECOVERIES SURROGATE

CONCENTRATION

%RECOVERY

ANALYTICAL REPORT SLD Accession No. OR-95-3901 Continuation, Page 3 of 3

1,1,2,2,-TTCE

50. ug/L

109.0%

SPIKE RECOVERY: The % recoveries for compounds in the batch spike were from 70% to 130% with the exception of the compounds

listed below:

COMPOUND

CONCENTRATION

% RECOVERY

No exceptions

. ug/L

Analyst:

Nancy DeWitt

Analyst, Organic Chemistry

Reviewed By:

Richard F. Meyerhein 09/22/95

Supervisor, Organic Chemistry Section

700 CAMINO DI	MISTRY ANALYTICA ENTIFIC LABORATORY DR E SALUD N.E., ALBUQUEI histry Section - Telephone:	VISION RQUE, NM 87106	Request	11 1111 11 1	SLD No. 0 Date Received:	R95 3901 C
2 User Code #:		3 Request	ID No. 0900	053-A	4 Priority	3 40
5 Facility Name: SPS	-11 '		6 County		7 Cay: Loving	8 \$1
Sample Location: LS . P	'ISI IWIEILII	111111715	? 1 E 1 A 1 T 1 T		_	
10 Collected By:	ement in Association	Tharte :	Or: 9	7-28/2 : (Y/MM/00)	AE &	19 6 Je h
Codes:	WSS #		anization	12 Latitu	ide (DOMMS)	
3 Report Remo		14 Phone #:		<u></u>	DOOMHSS	# Presded
Texas- PO Box	New Mexico Pipel			8ample Purpo	cee: - Grab	w Procorponed
y, San An San An	gelo, Texas 7690	6	<del></del>	Confirmed Special	ton []-Sample	Split w/Permittee
6 Field Date: plt 7 Sample Source:	, Conductivity:	umhos/am @ Te	Imperature:	Chlorine C. Residue	ric/	A, Flow:
- Soll, []- Food, [] his form accompanie	es a <u>single sample</u> consi (volume = <u>an</u> mile olume = mile	I Skid  Iorinated 20 Preser inated	vation: No Preservation: Semple stored Semple Preser CI Sample Preser gCl <sub>2</sub> Sample Preser er	n; Sample stored in an los bath (h ved with Sodium ved with Hydrod ved with 20 mg/l	d at room temper tot Prozen) I Thiosulfate to re hiorio Acid (2 dro I Mercurio Chloric	move chlorine residu ps/40 ml) te
j Aneryses Request	required. Whenever					V-00 (0.00)
- (754) Aromatic 8 - (765) Mass Spec - (766) SDWA Tota - (774) SDWA VOX - (775) SDWA VOX - (790) Composite	11 Acres 12 (1. Acres 12 Acres	ghly contaminated a rean) — (EPA 601/2) A 624) — (01.1) (EPA 502.2) — 504)	#ic compounds amples are sus;  Semive   - (755) Ba   - (756) Ba   - (758) He   - (759) He   - (761) On   - (761) On   - (762) SD	suspected or pected.  platile Scre  se/Neutral Exernite Pest  rbicides, Chic  rbicides, Trial  drocarbon Furanochlorine  ganophospha  lychlorinated	dractables (El cid Extractable icides (EPA 5: prophenoxy A zine (EPA 507) sel Screen (EP Pesticides (El da Pesticides Biphenyis (PO Org. Cmpds.	PA 625) (es (EPA 8270) 31.1) (cd (EPA 515.1) (A M-8015) (EPA 507) (EPA 507) (EPA 507) (SLD 758/760)

P.O. Box 4700 Albuquerque, NM 87196-4700 700 Camino de Salud, NE [505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

September 22, 1995 Request ID No. 090054	ANALYTICAL REPORT SLD Accession No. OR-95-39	Distribution  User 64000  SAN ANGEL SED Files  SEP 2 7 1995
To: Jay Janica Texas New Mexico Pipe P.O. Box 60028 San Angelo, Texas 7690	line Co. Scientif 700 Ca 6 P.O. Bo Albuque	c Chemistry Section ic Laboratory Div mino de Salud, N.E. ox 4700 erque, NM 87196-4700
Re: A water, Purgeable sam	ple submitted to this laboratory on August  DEMOGRAPHIC DATA	t 29, 1995
	DEMOGRAPHIC DATA	
COLLECTION           On: 28-Aug-95         By: R           At: 10:00 hrs.         In/Near: L	ic SPS Well 11 7 ovington	LOCATION Treating Skid
ANALYTICAL R	ESULTS: SDWA VOC-I [EPA-502.2] So	creen {774}
Parameter		
SDWA VOC's-I See Laboratory F	0.00 U Remarks for Additional Informa	0.50 ppb
Notations & Comments:	tact: No [], Yes [] & Broken By:	Date:
· · · · · · · · · · · · · · · · · · ·	Lact. No [ ], Tes [ ] & Bloken by.	Date.
Laboratory Remarks:		
	SAFE DRINKING WATER ACT LE ORGANICS ANALYSIS DATA SHE	ET
Lab Code: N/A Cas	TIFIC LABORATORY DIVISION Co	N/A SDG No.: N/A
Matrix: (soil/wate	r) <u>Water</u> Lab Sa	ample ID: <u>OR-95-3902</u>
Sample wt/vol: 5.	U (g/mi) mi SiD Bai	tch No: 462 Received: 8/29/95
Level: (low/med)_ % Moisture: not de		
Extraction: (SepF/	Cont/Song) N/A Date A	Extracted: N/A Analyzed: 9/4/95
GPC Cleanup: (Y/N)	No pH: 1 Diluti	ion Factor: 1
G16 G16d11dp. (1/11/		TRATION UNITS:
		or ug/Kg): ug/L
	was analyzed for the following using EPA Method 502.2	g compounds
	COMPOUND	CONC. O POL
71-43-2 Ber	ızene	<u>U 0.5</u>

## ANALYTICAL REPORT SLD Accession No. OR-95-3902 Continuation, Page 2 of 4

1		1		1
108-86-1	Bromobenzene	<del> </del>	U .	0.5
74-97-5	Bromochloromethane	ļ — — — — — — — — — — — — — — — — — — —	U	0.5
75-27-4	Bromodich promethane		U	0.5
75-25-2	Bromoform		U	0.5
24-83-9	Bromomethane		U	0.5
78-93-3	2-Butanone (MEK)		U	5.0
104-51-8	n-Butylbenzene	ļ	U	0.5
135-98-8	sec-Butylbenzene	ļ	U	0.5
98-06-6	tert-Butylbenzene		U	0.5
1634-04-4	tert-Butyl methyl ether (MTBE)		U	5.0
56-23-5	Carbon tetrachloride		U	0.5
108-90-7	Chlorobenzene	<u></u>	U	0.5
75-00-3	Chloroethane		U	0.5
67-66-3	Chloroform		U	0.5
74-87-3	Chloromethane		Ū	0.5
95-49-8	2-Chlorotoluene		Ū	0.5
106-43-4	4-Chlorotoluene		U	0.5
96-12-8	1,2-Dibromo-3-chloropropane		U	0.5
124-48-1	Dibromochloromethane		U	0.5
106-93-4	1,2-Dibromoethane		U	0.5
74-95-3	Dibromomethane		U	0.5
95-50-1	1,2-Dichlorobenzene		U	0.5
541-73-1	1,3-Dichlorobenzene		U	0.5
106-46-7	1,4-Dichlorobenzene		Ü	0.5
75-71-8	Dichlorodifluoromethane		U	0.5
75-34-3	1,1-Dichloroethane		ַ ט	0.5
107-06-2	1,2-Dichloroethane		U	0.5
75-35-4	1,1-Dichloroethene		Ū	0.5
156-59-4	cis-1,2-Dichloroethene		Ū	0.5
156-60-5	trans-1,2-Dichloroethene		_U_	0.5
78-87-5	1,2-Dichloropropane		U	0.5
142-28-9	1,3-Dichloropropane		_U_	0.5
590-20-7	2,2-Dichloropropane		U	0.5
563-58-6	1,1-Dichloropropene		U	0.5
1006-01-5	cis-1,3-Dichloropropene		U	0.5
1006-02-6	trans-1,3-Dichloropropene		Ū	0.5
100-41-4	Ethylbenzene		Ū	0.5
87-68-3	Hexachlorobutadiene		Ū	0.5
98-82-8	Isopropylbenzene		Ū	0.5
99-87-6	4-Isopropyltoluene		U	0.5
75-09-2	· · · · · · · · · · · · · · · · · · ·		U	0.5
	Methylene chloride		<u> </u>	<u> </u>

103-65-1	Propylbenzene		U	0.5
100-42-5	Styrene		U	0.5
630-20-6	1,1,1,2-Tetrachloroethane		U	0.5
79-34-5	1,1,2,2-Tetrachloroethane		U	0.5
127-18-4	Tetrachloroethene		U	0.5
109-99-9	Tetrahydrofuran (THF)		U	5.0
108-88-3	Toluene		U	0.5
87-61-5	1,2,3-Trichlorobenzene		U	0.5
120-82-1	1,2,4-Trichlorobenzene	1	U	0.5
71-55-6	1,1,1-Trichloroethane		U	0.5
79-00-5	1,1,2-Trichloroethane		Ū	0.5
79-01-6	Trichloroethene		U	0.5
75-69-4	Trichlorofluoromethane		U	0.5
96-18-4	1,2,3-Trichloropropane		U	0.5
_95-63-6	1,2,4-Trimethylbenzene		Ū	0.5
108-67-8	1,3,5-Trimethylbenzene		Ū	0.5
75-01-4	Vinvl chloride		U	0.5
95-47-6	o-Xvlene		U	0.5
N/A	p- & m-Xvlene		Ū	0.5
N/A	Total Xylenes		Ü	1.0

- \* Q = Qualifier Definitions:
- CONC = CONCENTRATION DETERMINED
- PQL = Practical Quantitation Limit (Approximately 5 times MDL). Equivalent to the "minimum detection limit" defined for regulated VOC-1 compounds in 40 CFR 141.25(c).
- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the PQL listed.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

QUALITY CONTROL SUMMARY FOR VOLATILES SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with

ANALYTICAL REPORT SLD Accession No. OR-95-3902 Continuation, Page 4 of 4

this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED

CONCENTRATION (PPB)

No Compounds Detected

SURROGATE RECOVERIES:

CONCENTRATION SURROGATE

% RECOVERY

Bromofluorobenzene (PID Surr)

10.0 ppb

100.

Bromofluorobenzene (HALL Surr)

10.0 ppb 90.

SPIKE RECOVERY: The % recoveries for compounds in the batch spike were from 80% to 120% with the exception of the compounds listed below:

COMPOUND

CONCENTRATION

% RECOVERY

No exceptions

ppb

Analyst:

Reviewed By:

Richard F. Meyerhein

09/11/95

S. Azhar Mustafa Analyst, Organic Chemistry

Supervisor, Organic Chemistry Section

GANIC CHEMISTRY ANALYTICAL REQU	IEST SCOM	OR95 3902 C
<del></del>	JEST FURM	BLD No. [
SCIENTIFIC LABORATORY DIVISION 700 CAMINO DE SALUD N.E., ALBUQUERQUE, NI	14 67106	
Organic Chemistry Section - Telephone: (505) 84	4 0730	Dete AUG 2 9 1995
User 3 Req	Uset Back ID No. 09005	
Code #: ID N	la: 😤	Code #: La Orestran
Facility	6 County:	7 City: 8 Stat
Name: SPS-11	Lea	Lovington N.
Sample		
Location: S. P.S. WIE L.L. 111	<u>ı ıTırıelaltıiln</u>	Lar 18 1 ki id 1 1 1 1 1
	16 - On 25/=	28 28 ALI 27 21010 m
Ford JUlabit		MM/DO) Times and it does
Codes:	12	Latitude (DOMMSS)
Submitter	المرميمينية	L_1_1_1_ 2 Dight ID
	Organization Li	ongitude (DOOMMSS)
	15) 947-9008	Sampling Information:
Texas New Mexico Pipeline C	15 Sem	ple Purpose: Composite Composite
PO Box 60028	lo	Compliance Proportioned The Panod
Sub 29	1 17-	NMED Monitoring
San Angelo, Texas 76906		Special - Chain of Custody Chlorine
Data: PH: Conductivity: umhos/o		Residuat: mg/L, Flour:
Sample Source:  ]-Stream  []-Entry Point to Distribution	18 Field Remarks:	
D-Lake G-Welt; Depth;	Sampled from 1/4'	' Hose Bib from
D-Drain D-Spring	activated charcoa	1 filtor
]-Pool []-Distribution []-WWTP [X]-Other: Treating Skid	discharge	I I I I I I I V B C C I I I I I I I I I I I I I I I I I
Sample Type: 23- Water 200 gr - Unchlorinated	20 Preservation:	
Soll - Food Other	☐- NP No Preservation; San ☑- P-los Sample stored in an i	nple stored at room temperature os bath (Not Frozen)
e form accompanies a gindle sample consisting of:	P-TS Sample Preserved wi	th Sodium Thioeutfate to remove chlorine residual
- septum vtal(s) (volume = 40 ml es.)	P-HgCL Sample Preserved with	th Hydrochloric Acid (2 drops/40 ml) th 20 mg/i Mercuric Chloride
- glass jug(s) (volume = mi ea.)	Other •	
	e box(es) below to indicate the	vpe of analytical screen(s)
required. Whenever possible	e, ilst specific compounds susp	ected or required, and note
Volatile Screens:	aminated samples are suspecte Semivolati	
] - (753) Aliphatic Headspace (Qualitative Screen)		eutral Ediractables (EPA 625) *** eutral /Acid Ediractables (EPA 8270)
- (765) Mass Spectrometer Purgeables (EPA 624)		ate Pesticides (EPA 531.1)
- (766) SDWA Total Trihalomethanes (EPA 501.1)		les, Chlorophenoxy Acid (EPA 515.1)
]- (774) SDWA VOC's   [21 REGULATED +] (EPA 502)		les, Triazine (EPA 507)
]- (775) SDWA VOC's II [EDB & DBCP] (EPA 504) ]- (790) Composite Sample for Analysis No		arbon Fuel Screen (EPA M-8015) chlorine Pesticides (EPA 505)
1 (1-0) controve on the Market Lor	— (761) Organo	phosphate Pesticides (EPA 507)
Other Specific Compounds or Classe	83: 767) Polychk	orinated Biphenyls (PCB's) in Oil
- (##_)	☐- (762) SDWAS	ynthetic Org. Cmpds. (SLD 758/760)
		and a second and a second and a second
1-(a)		troleum Hydrocarbons (EPA 418.1)
erics: //	(782) Tobel Pe	troleum Hydrocarbons (EPA 418.1)
		troleum Hydrocarbons (EPA 418.1)
Please Fax Results To Me at		troleum Hydrocarbons (EPA 418.1)

front of Kriticuto

P.O. Box 4700 Albuquerque, NM 87196-4700 700 Camino de Salud, NE [505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

September 22, 1995

Request ID No. 090055

ANALYTICAL REPORT SLD Accession No. OR-95-3903

Distribution
() User 64000
SAN ANGEL (X Subhitter 68
FILE(X) SLD Files

SEP 27 1995

To: Jay Janica

On: 28-Aug-95

Texas-New Mexico Pipeline Co.

PO Box 60028

San Angelo, Texas 76906

From: Organic Chemistry Section

Scientific Laboratory Div.

700 Camino de Salud, N.E. P.O. Box 4700

LOCATION

Albuquerque NM 87196-4700

Re: A water, Purgeable sample submitted to this laboratory on August 29, 1995

DEMOGRAPHIC DATA

COLLECTION

*B*y: Ric . . .

SPS Well 11 Treating Skid

At: 10:00 hrs. In/Near: Lovington

ANALYTICAL RESULTS: SDWA VOC-II [EPA-504] Screen {775}

Parameter	<u>value</u>	Qual POL	<u>Units</u>
1,2-Dibromoethane (EDB)	0.00	U 0.02	ppb
1,2-Dibromo-3-chloropropane	0.00	U 0.02	ppb
See Laboratory Remarks	for Additional	Information	
Notations & Comments:			
Evidentiary Seals: Not Sealed : Intact: No	Yes   & Broken By:		Date:

Laboratory Remarks:

#### SAFE DRINKING WATER ACT VOLATILES-II

Lab Name: NM SCIENTIFIC LABORATORY DI	
Lab Code: N/A Case No.: N/A	
Matrix: (soil/water) <u>Water</u>	Lab Sample ID: <u>OR-95-3903</u>
Sample wt/vol: $35.0$ (g/mL) ml	SLD Batch No: 456
Level: (low/med) Low	
% Moisture: not dec. $N/A$ dec. $N/A$	Date Extracted: 08/31/95
<pre>Extraction: (SepF/Cont/Sonc) Micro</pre>	Date Analyzed: 09/02/95
GPC Cleanup: (Y/N) No pH: N/A	Dilution Factor: 1
-	CONCENTRATION UNITS:
	(ug/L or ug/Kg): ug/L

EPA Method 504 was used to analyze for the following compounds

CAS NO.	COMPOUND	CONC.	Q	MDL
106-93-4	1,2-Dibromoethane (EDB)		U	0.02
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)		U	0.02

# ANALYTICAL REPORT SLD Accession No. OR-95-3903 Continuation, Page 2 of 3

- \* CONC = CONCENTRATION DETERMINED
  - MDL= The Method Detection Level (Limit) is the minimum concentration of a compound that can be measured and reported with 99% confidence that the analyte concentration is greater than zero (FR 23703, June 1986). If a sample is diluted (usually due to high levels of contaminants) during analysis, the actual "sample detection limit" can be obtained by multiplying the MDL by the dilution factor reported above.
  - PQL= Practical Quantitation Limit (Approximately 5-10 times MDL) is the concentration of the lowest standard routinely analyzed. Concentrations determined between the MDL and the PQL will be qualified with a "J" indicating an approximate concentration.
- \* Q = Qualifier Definitions:
- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the quantitation limit.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

#### QUALITY CONTROL SUMMARY FOR VOLATILES II SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED No Compounds Detected

CONCENTRATION (ug/L)

SURROGATE RECOVERIES
SURROGATE

CONCENTRATION

%RECOVERY

ANALYTICAL REPORT
SLD Accession No. OR-95-3903
Continuation, Page 3 of 3

1,1,2,2,-TTCE

50. ug/L

79.0%

SPIKE RECOVERY: The % recoveries for compounds in the batch spike were from 70% to 130% with the exception of the compounds listed below:

COMPOUND

CONCENTRATION

% RECOVERY

No exceptions

. ug/L

\* KECOVE

Analyst:

Nancy DeWitt

Analyst, Organic Chemistry

Reviewed By:

Richard F. Meyerhein 09/22/95

Supervisor, Organic Chemistry Section

DRGANIC	CHEMISTRY ANALYTICA	AL REQUEST FOR	M		0.00	3903 C
<b>3</b> 200 000 0	SCIENTIFIC LABORATORY D				SLD No. Uni	33 33 3
	INO DE SALUD N.E., ALBUQUI Chemistry Section - Telephon	•			Date Received:	AUG 2 9 1995
		3 Request	Request   ID No. 09		4 Priority	~ ITET
Code #:		ID No.:			Code #:	3 64804
5 Facility			8 County	• • •	7 Cty:	8 Sta
Name:	SPS -11		Lea		Lovingt	on N M
9 Sample						
10 Collected	S.P.S. WIEILIL	LILLI TIR	FIAITII	INTCI	RIKITIDI	
By:	Ermster	charte	Ort 4.5	10815	28 AE 1 71	010101m
	First war allia fail			(COLYMALAL)		94 hr. elect.
11 Codes				12 Latt		•
200	tter WSS #	سيوس س	12 11 14 I	السال.		L 2 Digit 10
13 Report	tter WSS #	14 Phone #:	HZHUON	roughtud	DOOMINSS	# Provided)
To: Ja	y Janica	(915) 947	-9008	<del> </del>	Sampling in	l l l
Address T.e	exas-New Mexico Pine	line Co		8ample Purp	Contract Contract	La Composite
	Box 60028			Compliar	noe T-Row	Proportioned harod
Chy, State Zip				Confirma	onnoring D-Bouse Son D-Sample S	Aliquot plit w/Permittee
16 <b>Field</b>	n Angelo, Texas 769	06		Chlorine	☐- Chain of (	Custody
Date: pHt_	, Conductivity:		persture:	C. Residus	tme/L	Flow:
17 Sample So		18 Field Remarks				
☐-Streem	☐-Entry Point to Distrit ☐-Well; Depth:	ALL CONTRACTOR OF THE PARTY OF		/ 4 11 - 17	D. L. C	
☐-Drain	□-Spring				Rib from	
☐-Yod ☐-WWIP	□-Distribution ☑-Other <u>Treatin</u>		ted charc	oal fili	ter vessel	discharge
	e: Water Und		tion:			·
	☐-Wastewater 1☐-Chk	orinated :	No Preservation		d at room temperate	ure
]-Sol, []-Fo	mpanies a single sample con	Sisting of: □-P-T8	Sample Preser		men of etailueoidT n	ove chlorine residuel
- 7 - eeptum	visi(s) (volume =	A A PHO	Sampis Presen L Sampis Presen	ved with Hydroc ved with 20 ma/	hiorio Acid (2 drops 1 Mercurio Chioride	/40 ml)
- Graes In	g(s) (volume = (volume =	ee.] D-Other				*
1 Analyses Re		appropriate box(es) be	iou to indicate	the time of	neh élnel erroon	(a) a librar a marri
	required. Whenev	ver possible, list specific	compounds	suspected or	required, and n	ote :
Malatia		righly contaminated sar	er Tarakina Nama			
<u></u>	Screens:			platile Scre		*** <b>*</b> ***
	hatic Headspace (Qualitative Sc	• Control of the cont			xtractables (EP/	100
	matic & Halogenated Purgeables is Spectrometer Purgeables (EF				void Extractables Hoodes (EPA 531	
	VA Total Trihalomethanes (EPA				prophenoxy Ack	
	VA VOC's   [21 REGULATED +]	(EPA 502.2)			zine (EPA 507)	
	VA VOC's II [EDB & DBCP] (EP)	A 504)			iel Screen (EPA	
☐- (390) Cou	nposite Sample for Analysis No.				Pesticides (EPA	
૽ૼ૽૽ૺ૽ૼ૽૽ૺઌt <del>t</del>	ner Specific Compounds (	or Classes:			rte Pesticides (E Biphenyls (PCB	
<b>□</b> -(♣)**			- (762) SD	WA Synthetic	Org. Cmpds. (S	SLD 758/760)
□-( ) <u></u>	- 199 <i>/</i> )	4	- (782) Tot	al Petroleum	Hydrocarbons (	EPA 418.1)
emarka:		and the second section of the second of the second second	na nami media edi manggalak	THE STATE OF THE S	meet should be seen and the should be a	
		4				
Ple	ase Fax Results To M	(e AT (505) 396	5-2754	<del></del>	~.	
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			7		, ,	

P.O. Box 4700 Albuquerque, NM 87196-4700 700 Camino de Salud, NE [505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

October 31, 1995

Request ID No. 090056

# ANALYTICAL REPORT SLD Accession No. OR-95-3967

Distribution

() User 64000

(X Submitter 68

(x) SLD Files

Jay Janica

Texas New Mexico Pipeline Co.

PO BOX 60028

San Angelo, TX 76906

From:

Organic Chemistry Section

Scientific Laboratory Div.

700 Camino de Salud, N.E.

P.O. Box 4700

Albuquerque, NM 87196-4700

Re: A water, Purgeable sample submitted to this laboratory on September 7, 1995

DEM	(OG)	RAP	HIC	DAT	Ά

COLLECTION LOCATION On: 6-Sep-95 *By:* Ric . . . SPS Well 11 Treating Skid At: 10:20 hrs. In/Near: Lovington

ANALYTICAL RESULTS: SDWA VOC-I [EPA-502.2] Screen {774}

Qual Value\_\_ Parameter \_\_\_\_\_ POL Units 0.00 U SDWA VOC's-I ppb See Laboratory Remarks for Additional Information Notations & Comments: Evidentiary Seals: Not Sealed , Intact: No , Yes , & Broken By: \_\_\_\_\_\_ Date:

**Laboratory Remarks:** 

SAFE DRINKING WATER ACT VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY DIVISION Contract:N/A. Matrix: (soil/water) Water Lab Sample ID: OR-95-3967 Sample wt/vol: 5.0 (g/mL) mL SLD Batch No: 475 Level: (low/med) Low Date Received: 9/7/95 % Moisture: not dec. N/A dec. N/A Date Extracted: N/A Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 9/14/95 GPC Cleanup: (Y/N) No pH: 3 Dilution Factor: 1 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: N/A

(ug/L or ug/Kg): ug/L

This sample was analyzed for the following compounds using EPA Method 502.2

		doing him memor sor	<del></del>		
1	CAS NO.	COMPOUND	CONC.	0	POL
	71-43-2	Benzene		U	0.5
1	108-86-1	Bromobenzene		U	0.5
١	74-97-5	Bromochloromethane		U	0.5

## ANALYTICAL REPORT SLD Accession No. OR-95-3967 Continuation, Page 2 of 4

75-27-4	Bromodichloromethane	1	ן ט	0.5_
75-25-2	Bromoform		U	0.5
24-83-9	Bromomethane		Ū	0.5
78-93-3	2-Butanone (MEK)		Ū	5.0_
104-51-8	n-Butylbenzene	1	U	0.5
135-98-8	sec-Butylbenzene		Ū	0.5
98-06-6	tert-Butylbenzene		Ū	0.5
1634-04-4	tert-Butyl methyl ether (MTBE)		U	5.0
56-23-5	Carbon tetrachloride		U	0.5
108-90-7	Chlorobenzene (mono-)		U	0.5
75-00-3	Chloroethane		U	0.5
67-66-3	Chloroform		Ū	0.5
74-87-3	Chloromethane		Ū	0.5
95-49-8	2-Chlorotoluene		ַ	0.5
106-43-4	4-Chlorotoluene		U	0.5
96-12-8	1,2-Dibromo-3-chloropropane		IJ	0.5
124-48-1	Dibromochloromethane		Ŭ	0.5
106-93-4	1,2-Dibromoethane		U	0.5
74-95-3	Dibromomethane		Ū	0.5
95-50-1	1,2-Dichlorobenzene (ortho-)		Ū	0.5
541-73-1	1,3-Dichlorobenzene (meta-)		Ū	0.5
106-46-7	1,4-Dichlorobenzene (para-)		Ū	0.5
75-71-8	Dichlorodifluoromethane		ប	0.5
75-34-3	1,1-Dichloroethane		Ū	0.5
107-06-2	1,2-Dichloroethane	<u> </u>	U	0.5
75-35-4	1,1-Dichloroethene		U	0.5
156-59-4	cis-1,2-Dichloroethene		U	0.5
156-60-5	trans-1,2-Dichloroethene		U	0.5
78-87-5	1,2-Dichloropropane		U	0.5
142-28-9	1,3-Dichloropropane		U	0.5
590-20-7	2,2-Dichloropropane		U	0.5
563-58-6	1,1-Dichloropropene		U	0.5
1006-01-5	cis-1,3-Dichloropropene		U.	0.5
1006-02-6	trans-1,3-Dichloropropene		U	0.5
100-41-4	Ethylbenzene		U	0.5
87-68-3	<u>Hexachlorobutadiene</u>		U	0.5
98-82-8	Isopropylbenzene		U	0.5
99-87-6	4-Isopropyltoluene		Ū	0.5
75-09-2	Methylene chloride (Dichloromethane)		U	0.5
91-20-3	Naphthalene		Ŭ	0.5
103-65-1	Propylbenzene		Ŭ	0.5
100-42-5	Styrene		U	0.5

#### ANALYTICAL REPORT SLD Accession No. OR-95-3967 Continuation, Page 3 of 4

630-20-6	1,1,1,2-Tetrachloroethane	U	0.5
79-34-5	1,1,2,2-Tetrachloroethane	Ū	0.5
127-18-4	Tetrachloroethene	Ū	0.5
109-99-9	Tetrahydrofuran (THF)	U	5.0
108-88-3	Toluene	U	0.5_
87-61-5	1,2,3-Trichlorobenzene	Ū	0.5
120-82-1	1,2,4-Trichlorobenzene	U	0.5
71-55-6	1,1,1-Trichloroethane	U	0.5
79-00 <b>-</b> 5	1,1,2-Trichloroethane	U	0.5
79-01-6	Trichloroethene	Ū	0.5
75-69-4	Trichlorofluoromethane	U	0.5
96-18-4	1,2,3-Trichloropropane	U	0.5_
95-63-6	1,2,4-Trimethylbenzene	U	0.5_
108-67-8	1,3,5-Trimethylbenzene	U	0.5_
75-01-4	Vinyl chloride	U	0.5
95-47-6	o-Xylene	Ü	0.5
N/A	p- & m-Xylene	Ū	0.5
N/A	Total Xylenes	U	1.0_

\* Q = Qualifier Definitions:

CONC = CONCENTRATION DETERMINED

PQL = Practical Quantitation Limit (Approximately 5 times MDL). Equivalent to the "minimum detection limit" defined for regulated VOC-1 compounds in 40 CFR 141.25(c).

- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the PQL listed.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

#### OUALITY CONTROL SUMMARY FOR VOLATILES SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory

#### ANALYTICAL REPORT SLD Accession No. OR-95-3967 Continuation, Page 4 of 4

environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED Methylene chloride Acetone Naphthalene	CONC	ENTRATION (PPB) 0.52 1.25 1.16	
SURROGATE RECOVERIES: SURROGATE Bromofluorobenzene (PID Sur Bromofluorobenzene (HALL Su		% RECOVERY 104. 101.	
SPIKE RECOVERY: The % recove spike were from 80% to 120% listed below:  COMPOUND			
1,1,2,2-Tetrachloroethane Acetone THF	10.0 ppb 10.0 ppb 40.0 ppb	128. 140. 130.	
nalyst:	Reviewed By:	2 Shend	

An

Nancy DeWitt

Analyst, Organic Chemistry

10/02/95 Richard F. Meyerhein Supervisor, Organic Chemistry Section

700 CAMI Organic	SCIENTIFIC LA INO DE SALUD I Chemistry Sect	ANALYTICAL RI BORATORY DIVISIONE, ALBUQUERQU Ion - Telephone: (50)	ON E, NM 87108 5) 841-2570 [Request:	Request		OR95 BLD No. Dete SE Received: SE	3967 C P 7 1995
5 Facility	SPS-11		ID No.:	6 County:	•	Code #: 7 Cay: Lovingt	8 State
Location: OCollected By:	First (	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1010101	Ort: 25	109/06	1 Times	12101 hrs
Pay, Sate 29	Number Power of the New Mercon   Pexas New Mercon   Power of the New M	exico Pipelir B Texas 76906	Organi 14 Phone #: (915) 947-9 ne Co	008	Longitude  15 Sample Purpoe Compliance CKNMED Moni Confirmatio Special Chlorine	Sempling into Grab Composite Composite Composite Semple Spi I - Sample Spi Chain of Composite Co	composite period grant the period grant the period grant the period grant the grant th
]-Soil, []-Fo This form acco	☐-Entry ☐-Weil; ☐-Sprin ☐-Distrii ☐-Other ☐- Water ☐- Wastew Dod, ☐- Other ☐- mpanies a singli I vial(s) (volume a Ig(s) (volume a	Point to Distribution Depth:  Treating Si  Unchlorin ster — Chlorinate sample consisting miles.	18 Field Remarks: Sample activa cid discharated 20 Preservate TY-Pice TY-Pice TY-Pice	ed char on: No Preservatio Sample Preser Sample Preser	in an ice bath (Not red with Sodium T	er vessel  t room temperatur ( Frozen) hiosulfate to remo	re chlorine residual
- (753) Alip   - (754) Aro   - (765) Mas   - (766) SDN   - (774) SDN   - (775) SDN   - (790) Con	equested: Pfe rec bel SCTBBIS: phatic Headspace matic & Halogen as Spectrometer WA Total Trihalon WA VOC's I [21 R WA VOC's II [EDE mposite Sample fe	ese check the appropried. Whenever power of wired. Whenever power highly a (Cualitative Screen ated Purgeables (EPA 62) nethanes (EPA 501). EGULATED + J (EPA 504) or Analysis No	ppriete box(es) bekossible, list specific consuminated sur-	compounds    - (765) Ba   - (756) Ba   - (756) Ba   - (758) He   - (759) He   - (751) Hy   - (761) On   - (762) SD	suspected or moderal.  Sected.  Sected.	nguired, and no ns.: ractables (EPA d Extractables tdes (EPA 531; ophenoxy Acid	625) 25 (EPA 8270) () (EPA 515.1) A-8015) 505) PA 507) e) In Oil LD 758/760)
F	Please Fax J	Results To Me	at (505) 3	96-2754	<b>.</b>		·

funt & Biharto

P.O. Box 4700 Albuquerque, NM 87196-4700 700 Camino de Salud, NE [505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

October 18, 1995

Request ID No. 090057

ANALYTICAL REPORT
SLD Accession No. OR-95-3968

Distribution

Submitter 68

Carrier

Ca

To: Jay Janica

Texas New Mexico Pipeline Co.

PO Box 60028

San Angelo, Texas 76906

From:

Organic Chemistry Section Scientific Laboratory Division 700 Camino de Salud, NE

P.O. Box 4700

Albuquerque, NM 87196-4700

Re: A water, Extractable sample submitted to this laboratory on September 7, 1995

User: /

SLD Fee For Service - MISC 700 Camino de Salud, NE

P.O. Box 4700

Albuquerque, NM 87196-4700

Submitter:

Myra Meyers

ED Field Office, Hobbs

Suite 165

726 E. Michigan Avenue Hobbs, NM 88240

#### DEMOGRAPHIC DATA

COLLECTION

LOCATION

On: 6-Sep-95

By: Ric . . .

SPS Well 11 Treating Skid

At: 10:20 hrs.

In/Near: Lovington

ANALYTICAL RESULTS: SDWA VOC-II [EPA-504] Screen {775}

Parameter	<u>Value</u>	Qual	POL	<u>Units</u>
1,2-Dibromoethane (EDB)	0.00	U	0.02	ppb
,2-Dibromo-3-chloropropane	0.00	U	0.02	ppb
See Laboratory Remarks	for Additional	Inform	mation	
Totations & Comments:				
videntiary Seals: Not Sealed , Intact: No ,	Yes   & Broken By:			Date: _

#### **Laboratory Remarks:**

#### SAFE DRINKING WATER ACT VOLATILES-II

Lab Name: NM SCIENTIFIC LABORATORY DI	VISION Contract: /A
Lab Code: N/A Case No.: N/A	SAS No.: N/A SDG No.: N/A
Matrix: (soil/water) Water	
Sample wt/vol: $35.0$ (g/mL) ml	
Level: (low/med) Low	Date Received: 9/7/95
% Moisture: not dec. N/A dec. N/A	Date Extracted: 09/18/95
Extraction: (SepF/Cont/Sonc) Micro	Date Analyzed: 9/19/95
GPC Cleanup: (Y/N) No pH: N/A	Dilution Factor: 1

ANALYTICAL REPORT SLD Accession No. OR-95-3968 Continuation, Page 2 of 3

CONCEN	TR.	NOITA	UNI	TS:
(ug/L	or	ug/Kg	):_	uq/L

	EPA Method	504 was used to analyze for the follow	wing co	mpoun	ds
	CAS NO.	COMPOUND	CONC.	101	MDL
ı	106-93-4	1,2-Dibromoethane (EDB)		U	0.02
-	96-12-8	1.2-Dibromo-3-chloropropane (DBCP)		T []	0 02

- \* CONC = CONCENTRATION DETERMINED
- MDL= The Method Detection Level (Limit) is the minimum concentration of a compound that can be measured and reported with 99% confidence that the analyte concentration is greater than zero (FR 23703, June 1986). If a sample is diluted (usually due to high levels of contaminants) during analysis, the actual "sample detection limit" can be obtained by multiplying the MDL by the dilution factor reported above.
  - PQL= Practical Quantitation Limit (Approximately 5-10 times MDL) is the concentration of the lowest standard routinely analyzed. Concentrations determined between the MDL and the PQL will be qualified with a "J" indicating an approximate concentration.
- \* Q = Qualifier Definitions:
- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the quantitation limit.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

#### QUALITY CONTROL SUMMARY FOR VOLATILES II SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory

ANALYTICAL REPORT SLD Accession No. OR-95-3968 Continuation, Page 3 of 3

environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED

CONCENTRATION (ug/L)

No Compounds Detected

SURROGATE RECOVERIES SURROGATE

CONCENTRATION

%RECOVERY

1,1,2,2,-TTCE

50. ug/L

104.

SPIKE RECOVERY: The % recoveries for compounds in the batch spike were from 70% to 130% with the exception of the compounds listed below:

COMPOUND

CONCENTRATION

% RECOVERY

No exceptions

. ug/L

Analyst:

Nancy DeWitt

Analyst, Organic Chemistry

Reviewed By:

Richard F. Meyerhein

10/04/95

ORGANIC CHEMISTRY ANALYTICAL	L REQUEST FOR	IM ·		OR05	2000 -
SCIENTIFIC LABORATORY DIV			8	BLD No. 1	3968 <b>c</b>
700 CAMINO DE SALUD N.E., ALBUQUEF Organic Chemistry Section - Telephone:	ARMEN BALL MESTE	Damunet 1111		Dete SEF	7 1995
2 User Code #:	TATA .	Request       D No. 09005	1111 11 1	4 Priority Code #:	3
5 Facility	1 15 1103	8 County:		7 City:	8 State
Name: SPS -11		Lea		Lovington	NM
Sample Location: LS PISI IWIEILILL	_11111 1TIR	1 F 1 A 1 T 1 T	INIGIIS	IKIT IDI	1 1 1 1
<b>B</b> 0 Collected		· · · · · · · · · · · · · · · · · · ·		At 1710	
By:  Fire - Lieleit.			(YY/MM/DO)	Time: 200	
11 Codes			12 Latitud	(DOMASS)	•
Submitter WSS ≠		nization	Longitude	(DOCHIMSS)	2 Digit ED
13 Report 4 To: Jay Janica	14 Phone #: (915) 94	7-9008	15	Sampling info	
Texas-New Mexico Pipel	ine Co		Sample Purpoe	Grab Composite	Composite
PO Box 60028		<del></del>	☐- Compliance ☐- NMED Moni	toring 📑 Equal As	<b>quot</b>
San Angelo, Texas 7690	6		Special Chloring	Chain of Cu	tody
Data: pre, Conductivity:	umhos/am @ Ter	nperature:	C. Pseidust	mg/l, F	OWK
<b>27</b> Sample Source: ☐-Stream ☐-Entry Point to Distribu		<u> </u>	···		
☐-Lake ☐-Well; Depth: ☐-Drain ☐-Spring		ed from 1			
☐-Pool ☐-Distribution ☐-WWTP ☐-Other:		ted charc	oal filte	r vessel d	lischarge
9 Sample Type: (X)- Water : F Unch	iorinated 20 Presen	ration:	a. Campia stand	et room temperature	
☐-Wastewater ☐-Chlor ☐-Scil, ☐-Food, ☐-Other	Ø- P-lo	Sample stored	in an ice besh (No		
This form accompanies a single sample cons	(ea.)	3 Sample Present CL Sample Present	ved with Hydrochic red with 20 ma/1 k	orio Acid (2 drope/4) Aerourio Chloride	
- glass jug(s) (volume =mi	ea.) D-one				
Analyses Requested: Please check the s	ppropriate box(es) ber possible, list speci	elow to indicate	the type of an	alytical acreen(a	
below whenever h	ohly contaminated s	subjec sue anai	pected.		
Volatile Screens:	4-42		olatila Scree	ractables (EPA 6	251
- (753) Aliphatic Headspace (Qualitative Sc - (754) Aromatic & Halogenated Purgeable		7- (756) Ba	se/Neutral/Ac	id Extractables (	EPA 8270)
- (765) Mass Spectrometer Purgeables (EP (766) SDWA Total Trihalomethanes (EPA				des (EPA 531.1 ophenoxy Acid (	
- (774) SDWA VOC's I [21 REGULATED +]	(EPA 502.2)	7- (759) He	rbicides, Triazi	ne (EPA 507)	
	(504)		drocarbon Fue ganochlorine P	l Screen (EPA M esticides (EPA 5	-8015) 05)
Other Specific Compounds of	v Clocope*	761) On	ganophosphati	e Pesticides (EP. liphenyls (PC8's	A 507)
	A Cidases.	☐- (762) SD	WA Synthetic (	Org. Copods. (SL	D 758/760)
<b>D-(</b> )	? <i>U</i>	<u> </u>	al Petroleum H	lydrocarbons (E	PA 418.1)
Remarks:	<i></i>		. <del></del>		
Please Fax Results To M	e AT (505) 3	96-2754			
			1	281	
			anul	gregar	6

P.O. Box 4700 Albuquerque, NM 87196-4700 700 Camino de Salud, NE [505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

October 2, 1995

Request ID No. 090058

# ANALYTICAL REPORT SLD Accession No. OR-95-3986

Distribution

() User 64000

() Submitter 68

(X Client

(x) SLD Files

Jay Janica To:

Texas New Mexico Pipeline Co.

PO Box 60028

San Angelo, Texas 76906

From:

Organic Chemistry Section Scientific Laboratory Div.

700 Camino de Salud, N.E.

P.O. Box 4700

Albuquerque, NM 87196-4700

Re: A water, Purgeable sample submitted to this laboratory on September 8, 1995

User:

SLD Fee For Service - MISC

700 Camino de Salud, NE

P.O. Box 4700

Albuquerque, NM 87196-4700

Submitter: /

Myra Meyers

ED Field Office, Hobbs

Suite 165

726 E. Michigan Avenue Hobbs, NM 88240

#### DEMOGRAPHIC DATA

COLLECTION

*By:* Ric . . .

LOCATION

On: 7-Sep-95

SPS Well 11 Treating Skid

At: 7:10 hrs. In/Near: Lovington

ANALYTICAL RESULTS: SDWA VOC-I [EPA-502.2] Screen {774}

POL Value Oual Units Parameter SDWA VOC's-I 0.00 ppb

See Laboratory Remarks for Additional Information

Notations & Comments:

Evidentiary Seals: Not Sealed; Intact: No , Yes & Broken By: \_\_\_\_\_ Date:

#### **Laboratory Remarks:**

#### SAFE DRINKING WATER ACT VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY DIVISION Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: N/A

 Matrix:
 (soil/water)
 Water
 Lab Sample ID:
 OR-95-3986

 Sample wt/vol:
 5.0
 (g/mL)
 SLD Batch No:
 475

 Lavel
 1000 (g/mL)
 Date Received
 2/8/95

Level: (low/med) Low

Level: (low/med) Low

Date Received: 9/8/95

% Moisture: not dec. N/A dec. N/A

Extraction: (SepF/Cont/Sonc) N/A

GPC Cleanup: (Y/N) No pH: 3

Date Analyzed: 9/14/95

Dilution Factor: 1

CONCENTRATION UNITS:

(ug/L or ug/Kg): ug/L

This sample was analyzed for the following compounds using EPA Method 502.2

	USING HER MECHOU JUZ.Z			
CAS NO.	COMPOUND	CONC.	0	POL_
71-43-2	Benzene		Ŭ	0.5

# ANALYTICAL REPORT SLD Accession No. OR-95-3986 Continuation, Page 2 of 4

1_108-86-1	Bromobenzene	1	ן ע	0.5
74-97-5	Bromochloromethane		U	0.5
75-27-4	Bromodichloromethane		U	0.5
75-25-2	Bromoform		Ū	0.5
24-83-9	Bromomethane		U	0.5
78-93-3	2-Butanone (MEK)		U	5.0
104-51-8	n-Butylbenzene		U	0.5
135-98-8	sec-Butylbenzene		U	0.5
_98-06-6	tert-Butylbenzene		U	0.5
1634-04-4	tert-Butyl methyl ether (MTBE)		Ŭ	5.0
56-23-5	Carbon tetrachloride		Ū	0.5
108-90-7	Chlorobenzene (mono-)_		Ū	0.5
75-00-3	Chloroethane		U	0.5
67-66-3	Chloroform		U	0.5
74-87-3	Chloromethane		IJ	0.5
95-49-8	2-Chlorotoluene		U	0.5
106-43-4	4-Chlorotoluene		ַ	0.5
96-12-8	1,2-Dibromo-3-chloropropane		U	0.5
124-48-1	Dibromochloromethane		U	0.5
106-93-4	1,2-Dibromoethane		Ū	0.5
74-95-3	Dibromomethane		U	0.5
95-50-1	1,2-Dichlorobenzene (ortho-)		U	0.5
541-73-1	1,3-Dichlorobenzene (meta-)		ט	0.5
106-46-7	1,4-Dichlorobenzene (para-)		Ū	0.5
_75-71-8	Dichlorodifluoromethane		U	0.5
75-34-3	1,1-Dichloroethane		U	0.5
107-06-2	1,2-Dichloroethane		U	0.5
75-35-4	1,1-Dichloroethene		U	0.5
156-59-4	cis-1,2-Dichloroethene		U	0.5
156-60-5	trans-1,2-Dichloroethene		U	0.5
78-87-5	1,2-Dichloropropane		U	0.5
142-28-9	1,3-Dichloropropane		U	0.5
<u>590-20-7</u>	2,2-Dichloropropane		U	0.5
<u> 563-58-6</u>	1,1-Dichloropropene		U	0.5
1006-01-5	cis-1,3-Dichloropropene		Ŭ	0.5
1006-02-6	trans-1,3-Dichloropropene		U	0.5
100-41-4	Ethylbenzene		U	0.5
87-68-3	Hexachlorobutadiene		U	0.5
98-82-8	Isopropylbenzene		U	0.5
99-87-6	4-Isopropyltoluene		U	0.5
75-09-2	Methylene chloride (Dichloromethane)		Ū	0.5
91-20-3	Naphthalene		U	0.5

# ANALYTICAL REPORT SLD Accession No. OR-95-3986 Continuation, Page 3 of 4

103-65-1	Propylbenzene	U	0.5
100-42-5	Styrene	U	0.5
630-20-6	1,1,1,2-Tetrachloroethane	U	0.5
79-34-5	1,1,2,2-Tetrachloroethane	U	0.5
127-18-4	Tetrachloroethene	U	0.5
109-99-9	Tetrahydrofuran (THF)	U	5.0
108-88-3	Toluene	U	0.5
87-61-5	1,2,3-Trichlorobenzene	_U	0.5
120-82-1	1,2,4-Trichlorobenzene	U	0.5
71-55-6	1,1,1-Trichloroethane	U	0.5
79-00-5	1,1,2-Trichloroethane	U	0.5
79-01-6	Trichloroethene	U	0.5
75-69-4	Trichlorofluoromethane	Ū	0.5
96-18-4	1,2,3-Trichloropropane	U	0.5
95-63-6	1,2,4-Trimethylbenzene	Ü	0.5
108-67-8	1,3,5-Trimethylbenzene	Ŭ	0.5
75-01-4	Vinyl chloride	U	0.5_
95-47-6	o-Xylene	Ū	0.5
N/A	p- & m-Xylene	U	0.5
N/A	Total Xylenes	Ū	1.0

- \* Q = Qualifier Definitions:
- CONC = CONCENTRATION DETERMINED
- PQL = Practical Quantitation Limit (Approximately 5 times MDL). Equivalent to the "minimum detection limit" defined for regulated VOC-1 compounds in 40 CFR 141.25(c).
- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the PQL listed.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

#### QUALITY CONTROL SUMMARY FOR VOLATILES SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with

ANALYTICAL REPORT
SLD Accession No. OR-95-3986
Continuation, Page 4 of 4

this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED Methylene chloride Acetone Naphthalene	CONCENTRATION (PPB) 0.52 1.25 1.16
SURROGATE RECOVERIES: SURROGATE Bromofluorobenzene (PID Surr) Bromofluorobenzene (HALL Surr	
SPIKE RECOVERY: The % recovering spike were from 80% to 120% we listed below:	with the exception of the compounds
COMPOUND	CONCENTRATION % RECOVERY
1,1,2,2-Tetrachloroethane	10.0 ppb 128.
Acetone	10.0 ppb 140.
THF	40.0 ppb 130.
Analyst:  Nancy DeWitt  Analyst, Organic Chemistry	Reviewed By:  Richard F. Meyerhein 10/02/95  Supervisor, Organic Chemistry Section

		CAL REQUEST	FORM SE	P 8 1995	SLD J OR95	3986 C
700 CAMER	SCIENTIFIC LABORATORY NO DE SALUD N.E., ALBUC		<b>X</b> 5		<b>L</b>	· · · · · · · · · · · · · · · · · · ·
Organic	Chemistry Section - Teleph	one: (505) 841-257(	Request []]]		Dete Received: S	FD 9 1995
Code #:	6,4.00.0	3 Request	ID No. 0900		4 Priority Code #:	2 6 Bai
5 Facility Name: S	PS-11		6 Count	<b>y</b> :	7 Cky:	8 State
Semple		<del></del>			Loving	
0 Collected	S.P.S. WELL		<u>'ir relaiti</u>	and the second second	Siklidi	<u></u>
By:	Ernest A.	GGRAPTE	On: 7	2: (YY/MM/DD)	At: O Time:	hrs.
1 Codes:				12 Lath	de (DOMASS)	
Submit	ter Wss /		Organization	Longitude	(DODMMSS)	2 Digit D
3 Report 1	Numa ay Taniga	(915)	<b>5:</b> 947-9008		1 1 1 1 Earnpling in	LJ LL
	exas New Mexico Pi	peline Co		15] Sample Purpo	Grab Composit	Composite
P(	D Box 60028		·	CKNMED Mo	nitoring 🦳 Equal	700000000
R Field	an Angelo, Texas 7			Chlorine	Chain of (	Zuetody
Data: PHE 17 Sample Sou	, Conductivity:	umhos/am @	Temperature:	C. Residue	me/L	Flour
☐-Stream	☐-Entry Point to Dis	tribution Re	m <b>erks:</b> ampled from	1/4" Hose	Bib from	
□-Drain □-Pool	☐-Spring ☐-Distribution		tivated cha	<del></del>		
-WWTP	○ Treat:     □	ing Skid di	scharge			
	Water U- U	hiorinated - 🗀	- NP No Preservel	ion; Sample store id in an ice beth (h	i at room temperat	ure
]- Sol, []- Foo	npanies a sincie sample C	onsisting at:	- P-TS Sample Pres	erved with Sodium		ove chlorine residual /40 m0
	rial(s) (volume = 20		- P-HoCL Semole Pres	erved with 20 mg/	Mercuric Chloride	,
	(s) (volume =		- Other			
- glass jug	(s) (volume = (volume =		Otheres) below to indica	te the type of a	nalytical acreen	
- glass jug	(s) (volume = (volume = quested: Please check to required. Whe	he appropriate box( never possible, list s	es) below to indica pecific compound	s suspected of	nalytical screen required, and n	(e)
- glass jug	(s) (volume = (volume = quested: Please check to required. When below wheney	he appropriate box(	es) below to indica pecific compound ed samples are su	s suspected of	required, and n	(e) 000 100 100 100 100 100 100 100 100 10
glass jug  1 Analyses Rec  Volatile  - (753) Aliph	(s) (volume = (volume = quested: Please check to required. When below whenever Screens;	he appropriate box( never possible, list s er highly contaminal	es) below to indica pecific compound ed samples are su Semi	e suspected of spected.**** volatile Scre less/Neutral E	required, and n 2/12: dractables (EP)	cte 4 2 2 (625) 32 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
- glass jug - glass jug - glass jug - Volatile - (753) Aliph - (754) Arom - (765) Mass	(s) (volume = (volume = quested: Please check to required. When below whenever static Headspacs (Qualitative ratic & Halogenated Purges of Spectrometer Purgeables	he appropriate box( never possible, list ser highly contaminal Screen) ables (EPA 601/2) (EPA 624)	es) below to indica pecific compound ed samples are su Semi [- (755) 8 (772) 0	e suspected of spected.**** volatile Scre less/Neutral E less/Neutral/A arbemats Pest	required, and notices and notices and notices (EP) cid Extractables (EPA 531	Cts - 34 4 A 625) 3 (EPA 8270)
- glass jug - 'Joiatile - (753) Aliph - (754) Arom - (765) Mass - (766) SDW	(s) (volume = (volume = quested: Please check to required. When below whenever SCF (volume : ScF (vo	he appropriate box( never possible, list ser highly contaminal a Screen) ables (EPA 601/2) (EPA 624)	es) below to indical pecific compound and samples are su Semin [] - (755) 8 [] - (772) 0 [] - (758) 8	e suspected or spected. Protetile Scre Isse/Neutral/A Labernate Pest lerbicides, Chic	required, and notice of the control	Cts - 34 4 A 625) 3 (EPA 8270)
- glass jug  21 Analysee Rec  Volatile  - (753) Aliph  - (754) Arom  - (765) Mass  - (766) SDW  - (774) SDW  - (775) SDW	(volume = (volume = (volume = (volume = quested: Please check to required. Whe below whenever Science (Qualitative natic & Halogenated Purges Spectrometer Purgeables A Total Trihalomethanes (EA VOC's I [21 REGULATED A VOC's II [EDB & DBCP] (Volume = (volume = (volume = volume = (volume	he appropriate box( never possible, list of a highly contaminal a Screen) ables (EPA 601/2) (EPA 624) PA 501.1) + J (EPA 502.2) EPA 504)	es) below to indicate pecific compound and samples are sure in [- (765) 8 - (772) 0 - (758) 8 - (758) 9 - (758) 9 - (759) 9 - (751) 9 -	s suspected or spected	required, and no 2018. dractables (EPA cid Extractables icides (EPA 531 prophenoxy Acidine (EPA 507) sel Screen (EPA	(EPA 515.1) M-8015)
- glass jug  - glass jug  - glass jug  - (753) Aliph - (754) Arom - (765) Mass - (766) SDW - (774) SDW - (775) SDW - (790) Com	(volume = (volum	the appropriate box( never possible, list ser highly contaminate a Screen) ables (EPA 601/2) (EPA 624) PA 501.1) +) (EPA 502.2) EPA 504)	es) below to indical pecific compound are surples are	e suspected or spected.  Volatile Scre lase/Neutral/A larbamate Pest lerbicides, Chic lerbicides, Tria. lydrocarbon Fu organochlorine organophospha	required, and not a considered	(EPA 8270) (EPA 8270) (I) (EPA 515.1) (M-8015) (A 505) (PA 507)
- glass jug  - glass jug  - glass jug  - (753) Aliph - (754) Arom - (765) Mass - (766) SDW - (774) SDW - (775) SDW - (790) Com	(volume = (volume = (volume = (volume = quested: Please check to required. Whe below whenever Science (Qualitative natic & Halogenated Purges Spectrometer Purgeables A Total Trihalomethanes (EA VOC's I [21 REGULATED A VOC's II [EDB & DBCP] (Volume = (volume = (volume = volume = (volume	the appropriate box( never possible, list ser highly contaminate a Screen) ables (EPA 601/2) (EPA 624) PA 501.1) +) (EPA 502.2) EPA 504)	es) below to indical pecific compound are surples are	s suspected or spected.  Frolatile Scre- lase/Neutral/A- lase/Neutral/A- larbamate Pest lerbicides, Chic lerbicides, Tria. lydrocarbon Fu organochlorine organophospha olychlorinated	required, and not a constructed by the city of the cit	M-8015)  M-807)  M-807)  M-807)  M-807)  M-807)
- glass jug  - glass jug  - glass jug  - (753) Aliph - (754) Arom - (765) Mass - (766) SDW - (774) SDW - (775) SDW - (790) Com	(volume = (volum	the appropriate box( never possible, list ser highly contaminate a Screen) ables (EPA 601/2) (EPA 624) PA 501.1) +) (EPA 502.2) EPA 504)	es) below to indicate pecific compound and samples are sure in [- (765) 8 - (772) 0 - (758) 1 - (761) 0 - (761) 0 - (762) 5	s suspected or spected. ***  Volatile Scre  Jase/Neutral Elase/Neutral Pestierbicides, Chicierbicides, Triallydrocarbon Funganophosphalolychiorinated DWA Synthetic	required, and not a considered	A 625) **  * (EPA 8270)  * (EPA 515.1)  * M-8015)  * A 505)  *PA 507)  ** In Oil  SLD 758/760)
- glass jug  - glass jug  - glass jug  - (753) Aliph - (754) Arom - (765) Mass - (766) SDW - (774) SDW - (775) SDW - (790) Com	(volume = (volum	the appropriate box( never possible, list ser highly contaminate a Screen) ables (EPA 601/2) (EPA 624) PA 501.1) +) (EPA 502.2) EPA 504)	es) below to indicate pecific compound and samples are sure in [- (765) 8 - (772) 0 - (758) 1 - (761) 0 - (761) 0 - (762) 5	s suspected or spected. ***  Volatile Scre  Jase/Neutral Elase/Neutral Pestierbicides, Chicierbicides, Triallydrocarbon Funganophosphalolychiorinated DWA Synthetic	required, and no control of the cont	A 625) **  * (EPA 8270)  * (EPA 515.1)  * M-8015)  * A 505)  *PA 507)  ** In Oil  SLD 758/760)
- glass jug  - glass jug  - glass jug  - glass jug  - (753) Aliph - (753) Aliph - (754) Arom - (765) Mass - (766) SDW - (774) SDW - (775) SDW - (790) Comp - (790) Comp	(volume = (volum	he appropriate box( never possible, list ser highly contaminal a Screen) ables (EPA 601/2) (EPA 624) PA 501.1) +] (EPA 502.2) EPA 504) No	es) below to indicate pecific compound and samples are sure in [- (765) 8 - (772) 0 - (758) 1 - (761) 0 - (761) 0 - (762) 5	a suspected or spected.  Prolatile Scre  Isse/Neutral Elase/Neutral/A  Carbarnate Pestilerbicides, Chicarbarnate Pestilerbicides, Trial  Tydrocarbon Funganochlorine  Organochlorine  Organophospha  Olychlorinated  DWA Synthetic  Otal Petroleum	required, and no control of the cont	A 625) **  * (EPA 8270)  * (EPA 515.1)  * M-8015)  * A 505)  *PA 507)  ** In Oil  SLD 758/760)
- glass jug  - (753) Aliph - (753) Aliph - (754) Arom - (765) Mass - (766) SDW - (774) SDW - (775) SDW - (790) Comp	quested: Please check to required. Whe below wheneve self-bries: attic Headspacs (Qualitative ratic & Halogenated Purges & Spectrometer Purgeables & Total Trihalomethanes (EA VOC's I [21 REGULATED & VOC's II [EDB & DBCP] (posite Sample for Analysis II er Specific Compound	he appropriate box( never possible, list ser highly contaminal a Screen) ables (EPA 601/2) (EPA 624) PA 501.1) +] (EPA 502.2) EPA 504) No	es) below to indical pecific compound and samples are sured and an indical series are sured and series are sured an indical series are sured an indical series are sured and sured an indical series are sured	a suspected or spected.  Prolatile Scre  Isse/Neutral Elase/Neutral/A  Carbarnate Pestilerbicides, Chicarbarnate Pestilerbicides, Trial  Tydrocarbon Funganochlorine  Organochlorine  Organophospha  Olychlorinated  DWA Synthetic  Otal Petroleum	required, and no control of the cont	A 625) **  * (EPA 8270)  * (EPA 515.1)  * M-8015)  * A 505)  *PA 507)  ** In Oil  SLD 758/760)

P.O. Box 4700 Albuquerque, NM 87196-4700 700 Camino de Salud, NE [505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

October 18, 1995

Request ID No. 090059

ANALYTICAL REPORT
SLD Accession No. OR-95-3987

<u>Distribution</u>

(x) User 64000

(x) Submitter 68

(X Client

(x) SLD Files

To: Jay Janica

Texas New Mexico Pipeline Co.

PO Box 60028

San Angelo, Texas 76906

From:

Organic Chemistry Section Scientific Laboratory Division

700 Camino de Salud, NE

P.O. Box 4700

Albuquerque, NM 87196-4700

Re: A water, Extractable sample submitted to this laboratory on September 8, 1995

User:

SLD Fee For Service - MISC 700 Camino de Salud, NE

P.O. Box 4700

Albuquerque, NM 87196-4700

Submitter:

Myra Meyers

ED Field Office, Hobbs

Suite 165

726 E. Michigan Avenue Hobbs, NM 88240

#### DEMOGRAPHIC DATA

COLLECTION

LOCATION

On: 7-Sep-95

*B*y: Ric . . .

SPS Well 11 Treating Skid

At: 7:10 hrs. In/Near: Lovington

ANALYTICAL RESULTS: SDWA VOC-II [EPA-504] Screen {775}

ANALITICAL RESULTS: SD			<del>`</del>	<del></del>	
Parameter	Value	<u>Oual</u>	POL	<u>Units</u>	
1,2-Dibromoethane (EDB)	0.00	U	0.02	ppb	
1,2-Dibromo-3-chloropropane	0.00	U	0.02	ppb	
See Laboratory Remarks for	Additional	Inform	mation		
Notations & Comments:					
Evidentiary Seals: Not Sealed T: Intact: No T. Yesi	- & Broken By:			Date:	

#### **Laboratory Remarks:**

#### SAFE DRINKING WATER ACT VOLATILES-II

Lab Name: NM SCIENTIFIC LABORATORY D	[VISION Contract:/A
Lab Code: N/A Case No.: N/A	SAS No.: N/A SDG No.: N/A
Matrix: (soil/water) Water	Lab Sample ID: <u>OR-95-3987</u>
Sample wt/vol: 35.0 (g/mL) ml	SLD Batch No: 490
Level: (low/med) Low	Date Received: 9/8/95
% Moisture: not dec. N/A dec. N/A	Date Extracted: 09/18/95
Extraction: (SepF/Cont/Sonc) Micro	Date Analyzed: 9/19/95
GPC Cleanup: (Y/N) No pH: N/A	Dilution Factor: 1

#### ANALYTICAL REPORT SLD Accession No. OR-95-3987 Continuation, Page 2 of 3

CONCEN	VTR.	TION UNIT	'S :
(ug/L	or	ug/Kg):	ug/L

	EPA Method 5	04 was used to analyze for the follow	wing cor	npou	nds
-	CAS NO.	COMPOUND	CONC.	0	MDL
	106-93-4	1,2-Dibromoethane (EDB)		U	0.02
	96-12-8	1,2-Dibromo-3-chloropropane (DBCP)		Ü	0.02

- \* CONC = CONCENTRATION DETERMINED
- MDL= The Method Detection Level (Limit) is the minimum concentration of a compound that can be measured and reported with 99% confidence that the analyte concentration is greater than zero (FR 23703, June 1986). If a sample is diluted (usually due to high levels of contaminants) during analysis, the actual "sample detection limit" can be obtained by multiplying the MDL by the dilution factor reported above.
  - PQL= Practical Quantitation Limit (Approximately 5-10 times MDL) is the concentration of the lowest standard routinely analyzed. Concentrations determined between the MDL and the PQL will be qualified with a "J" indicating an approximate concentration.
- \* Q = Qualifier Definitions:
- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the quantitation limit.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

#### OUALITY CONTROL SUMMARY FOR VOLATILES II SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory

ANALYTICAL REPORT
SLD Accession No. OR-95-3987
Continuation, Page 3 of 3

environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED

CONCENTRATION (ug/L)

No Compounds Detected

SURROGATE RECOVERIES

SURROGATE

CONCENTRATION

%RECOVERY

1,1,2,2,-TTCE

50. ug/L

95.

SPIKE RECOVERY: The % recoveries for compounds in the batch spike were from 70% to 130% with the exception of the compounds

listed below:

COMPOUND

CONCENTRATION

% RECOVERY

No exceptions . ug/L

Analyst:

Nancy DeWitt

Analyst, Organic Chemistry

Reviewed By:

Richard F. Meyerhein

10/04/95

SCIENTIFIC LABORATORY DMISION 700 CAMINO DE SALUD N.E., ABBUCUERQUE N.M. 87/08 Organic Chemistry Section - Telephone: (0.05) 841-2570    2   Uses   Code	ORGANIC	CHEMISTRY ANALYT	ICAL REQUEST F	MŖO		0R95	3987 C
Corde #:		AINO DE SALUD N.E., ALBU	QUERQUE, NM 87108	SEP	8 1995	BLD No.	
Semple   Location:   S. P. S.   WIFFILE   Lovington   N. I.				Request	1111111111 -	Received: S	
Name   SPS -11   Lea   Lovington   Name   Nam	Code #:	64000	ID No.:	<u> </u>	٠,	Code #:	
Sample   S	5 Facility Name:	SDS 11 .	1	, ·			8 Start
Internation   Control		013 -11		Lea		Lovingto	n in in
Symple Source:   From Point to Distribution   Symple Source:   From Point to Distribution   Symple Source:   Sumple Source:   Symple Source:	Location:		<u> </u>	R I F IA IT I I	INIGLI	SIKILIDI	<del></del>
Codes   Code	and the second of the second		La harte	Or: 95	109109	7 4-1 21 2	17 101 hr
Submitter   WSS					and the second second	Time:	
Supple   S	Codes				12 Lathu	de bonnèza	•
Texas_New Mexico_Pipeline Co  Texas_New Mexico_Pipeline Co  PO_Box_60028  San Angelo, Texas_76906  San Angelo, Texas_7690		Hitter WSS (	0	rgenization	Longitude	(DOOMINSS)	2 Digit 20
Texas_New Mexico Pipeline Co PO Box 60028  San Angelo, Texas 76906  San		Nume av Janica				<u> </u>	<u>.</u>
PO Box 60028    Configuration   Four Proportioned   Pour Proportio	منتخذ			747-3000		M- Grab	
San Angelo, Texas 76906    Special   Contemporation   Septiment   Contemporation   Septiment   Contemporation   Septiment   Contemporation   C	i				☐- Compliant	Ch. Flow Pro	SCOTIONES.
Server   Chorine   Medicate   M	Chy, State Zhp	an Angelo Texas 7	6906		Confirmed	on 🔲 - Semple Spi	Rw/Pernyttee
Sample Source:   Stream   -Entry Point to Distribution   -Isake   -Wel; Depth:   Sampled from 1/4" Hose Bib from activated Charcoal filter vessel discharge   -Proof   -Proof   -Proof   -Preservation; Sample stored at room temperature   -Proof   -Preservation; Sample stored at room temperature   -Preservation; Sample stored in an los bath (los frozen)   -Preservation; Sample stor	18 Fleid			<b>*</b>	• Chlorine		
Stream  -Entry Point to Distribution  -Lake  -Wel; Depth:  -Sample of from 1/4" Hose Bib from  -Drain  -Spring  -Drain  -Spring  -Drain  -Spring  -WWTP  -Dother:  -Treating Skid  -Wel; Depth:  -Sample of from 1/4" Hose Bib from  -WWTP  -Dother:  -Treating Skid  -WWTP  -Dother:  -Treating Skid  -Wel; Depth:  -			18 Field		G Residuel:	mg/t, r	1044
Orain	☐-Streem	☐-Entry Point to Di		arks:	<del></del>		······································
Pool		U-Well; Depth:					<del></del>
9 Sample Type:		□-Distribution		vated charc	oal filt	er vessel	discharge
Soil   Food   Other   No Preservation; Sample atond at room temperature   Sample stored in an interest to be this Not Proxing   Price   Pric				ervation:			
This form accompanies a single sample consisting of:  2 - eaptum visi(s) (volume =		☐-Wastewater 1☐-	Chlorinated 🌣 🗀 - N	<b>IP</b> No Preservado			•
- glass [ug(s) (volume =	This form acco	ompanies a single sample o	consisting of:	-78 Sample Preser	red with Sodium	Thioeulfate to remov	
Analyses Requested: Please check the appropriate box(ss) below to indicate the type of analytical screen(s) required. Whenever possible, list specific compounds suspected or required, and note: below whenever highly contaminated samples are suspected.   Semivolatile Screens:   Semivolatile S	- glass ji	ug(s) (volume = 20004)		HoCL Sample Presen	red with 20 mg/l	Mercuric Chloride	
required. Whenever possible, list specific compounds suspected or required, and note below whenever highly contaminated samples are suspected.  Volatile Screens:  Semivolatile Screens	The State of the S	(volume =		·			
Volatile Screens:	1 Analyses R	equested: Please check	the appropriate box(8: enever possible. ilst sp	<ul> <li>below to indicate ecific compounds</li> </ul>	the type of a	relytical acreen(s required, and no	
- (753) Aliphatic Headspace (Qualitative Screen) - (754) Aromatic & Halogenated Purgeables (EPA 601/Z) - (755) Mass Spectrometer Purgeables (EPA 624) - (765) Mass Spectrometer Purgeables (EPA 624) - (766) SDWA Total Trihalomethanes (EPA 501.1) - (774) SDWA VOC's I [21 REGULATED +] (EPA 502.2) - (775) SDWA VOC's II [EDB & DBCP] (EPA 504) - (750) Composite Sample for Analysis No (750) Organochiorine Pesticides (EPA 507) - (761) Organophosphate Pesticides (EPA 507) - (762) SDWA Synthetic Org. Cmpds. (SLD 758/760) - (762) Total Petroleum Hydrocarbons (EPA 418.1)	12-1-41	below whenev	er highly contaminate	d samples are susp	pected.		
- (754) Aromatic & Halogenated Purgeables (EPA 601/2) - (765) Mass Spectrometer Purgeables (EPA 624) - (766) SDWA Total Trihalomethanes (EPA 501.1) - (766) SDWA VOC's I [21 REGULATED +] (EPA 502.2) - (775) SDWA VOC's II [EDB & DBCP] (EPA 504) - (790) Composite Sample for Analysis No (760) Organochiorine Pesticides (EPA 507) - (761) Organophosphate Pesticides (EPA 507) - (761) Organophosphate Pesticides (EPA 507) - (762) SDWA Synthetic Org. Cmpds. (SLD 758/760) - (782) Total Petroleum Hydrocarbons (EPA 418.1)					Salah Sa	A STATE OF THE STA	
- (765) Mass Spectrometer Purgeables (EPA 624)							
- (774) SDWA VOC's I [21 REGULATED +] (EPA 502.2)  - (775) SDWA VOC's II [EDB & DBCP] (EPA 504) - (790) Composite Sample for Analysis No (790) Composite Sample for Analysis No (761) Organophosphate Pesticides (EPA 507) - (761) Organophosphate Pesticides (EPA 507) - (787) Polychiorinated Biphenyls (PCB's) in Oil - (782) SDWA Synthetic Org. Cmpds. (SLD 758/760) - (782) Total Petroleum Hydrocarbons (EPA 418.1)				☐- (772) Ca	rbamate Pesti	cides (EPA 531.1	7
		• • • • • • • • • • • • • • • • • • • •					(EPA 515.1)
- (790) Composite Sample for Analysis No							L-2015)
Other Specific Compounds or Classes:  - (761) Organophosphate Pesticides (EPA 507) - (787) Polychiorinated Biphenyls (PCB's) in Oil - (762) SDWA Synthetic Org. Cmpds. (SLD 758/760) - (782) Total Petroleum Hydrocarbons (EPA 418.1)  - (782) Total Petroleum Hydrocarbons (EPA 418.1)			N CONTRACTOR OF THE STATE OF TH				
- (762) SDWA Synthetic Org. Cmpds. (SLD 758/760) - (782) Total Petroleum Hydrocarbons (EPA 418.1)  marks:				- (761) On	anophosphal	a Pasticides (EP	A 507)
- (782) Total Petroleum Hydrocarbons (EPA 418.1)	n, S	her Specific Compound	us of Classes.		ychiorinated E	Siphenyls (PC8's	D 758 (750)
omerice:	出:10十		// <b>/</b> // /				
	emerics:		//6-		mercina di iliya di inse	A Million with the same	
Please Fax Results To Me AT (505) 396-2754  finest fluctuate			<del>/-/</del>		<del></del>		
Jenest & Buhart	<u>P1</u> 6	ase Fax Results T	o Me' AT (505)	396-2754	<del></del>		
finest flywhart						1111	1 1
,					-//mi	et He sul	arto

P.O. Box 4700 Albuquerque, NM 87196-4700 700 Camino de Salud, NE [505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

October 18, 1995

Request ID No. 090062

# **ANALYTICAL REPORT** SLD Accession No. OR-95-4009

Distribution (x) User 64000 (x) Submitter 68 (X Client (x) SLD Files

To: Jay Janica

Texas New Mexico Pipeline Co.

PO Box 60028

San Angelo, Texas 76906

From:

Organic Chemistry Section Scientific Laboratory Division 700 Camino de Salud, NE

P.O. Box 4700

Albuquerque, NM 87196-4700

A water, Extractable sample submitted to this laboratory on September 12, 1995 Re:

User: /

On: 9-Sep-95

SLD Fee For Service - MISC 700 Camino de Salud, NE

P.O. Box 4700

Albuquerque, NM 87196-4700

Submitter:

Myra-Meyers

ED Field Office, Hobbs

**Suite** 165

726 E. Michigan Avenue Hobbs, NM 88240

LOCATION

#### DEMOGRAPHIC DATA

COLLECTION

By: Ric . . .

SPS Well 11 Treating Skid

At: 11:00 hrs. *In/Near:* Lovington

ANALYTICAL RESULTS: SDWA VOC-II [EPA-504] Screen {775}

Parameter	Value	Qual	PQL_	<u>Units</u>
1,2-Dibromoethane (EDB)	0.00	U	0.02	ppb
1,2-Dibromo-3-chloropropane	0.00	U	0.02	ppb
See Laboratory/Remarks for	or Additional	Inform	nation	
Notations & Comments:				
Evidentiary Seals: Not Sealed ; Intact: No ], Ye	es 🔲 & Broken By:			Date:

#### **Laboratory Remarks:**

#### SAFE DRINKING WATER ACT VOLATILES-II

Lab Name: NM SCIENTIFIC LABORATORY DI	
Lab Code: N/A Case No.: N/A	
Matrix: (soil/water) <u>Water</u>	Lab Sample ID: <u>OR-95-4009</u>
Sample wt/vol: 35.0 (g/mL)ml	
Level: (low/med) Low	Date Received: 9/12/95
% Moisture: not dec. N/A dec. N/A	Date Extracted: 09/18/95
Extraction: (SepF/Cont/Sonc) Micro	Date Analyzed: 9/19/95
GPC Cleanup: (Y/N) No pH: N/A	Dilution Factor: 1

#### ANALYTICAL REPORT SLD Accession No. OR-95-4009 Continuation, Page 2 of 3

CONCE	VTRA	NOITA	UNITS	:
(ug/L	or	uq/Ko	1):	ug/L

	EPA Method 5	04 was used to analyze for the follow	ving con	npour	nds
1	CAS NO.	COMPOUND	CONC.	0	MDL
	106-93-4	1,2-Dibromoethane (EDB)		U	0.02
	96-12-8	1,2-Dibromo-3-chloropropane (DBCP)		ם	0.02

- \* CONC = CONCENTRATION DETERMINED
- MDL= The Method Detection Level (Limit) is the minimum concentration of a compound that can be measured and reported with 99% confidence that the analyte concentration is greater than zero (FR 23703, June 1986). If a sample is diluted (usually due to high levels of contaminants) during analysis, the actual "sample detection limit" can be obtained by multiplying the MDL by the dilution factor reported above.
  - PQL= Practical Quantitation Limit (Approximately 5-10 times MDL) is the concentration of the lowest standard routinely analyzed. Concentrations determined between the MDL and the PQL will be qualified with a "J" indicating an approximate concentration.
- \* Q = Qualifier Definitions:
- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the quantitation limit.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

#### OUALITY CONTROL SUMMARY FOR VOLATILES II SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory

ANALYTICAL REPORT SLD Accession No. OR-95-4009 Continuation, Page 3 of 3

environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED

CONCENTRATION (ug/L)

No Compounds Detected

SURROGATE RECOVERIES

SURROGATE

CONCENTRATION

%RECOVERY

1,1,2,2,-TTCE

50. ug/L

133.

The % recoveries for compounds in the batch SPIKE RECOVERY: spike were from 70% to 130% with the exception of the compounds listed below:

COMPOUND

CONCENTRATION

. ug/L

% RECOVERY

No exceptions

Analyst:

Nancy DeWitt

Analyst, Organic Chemistry

Reviewed By:

Richard F. Meyerhein

	CAL REQUEST FORM		10	)R95 4009 C
SCIENTIFIC LABORATORY 700 CAMINO DE SALUD N.E., ALBUQ	UERQUE, NM 87106		SLD No.	SEP 1 2 1995
Organic Chemistry Section - Telepho 2 User Code #: User		o90062-A	Received: 4 Priority Code #	7 17.74
5 Facility Name: SPS -11		County:	7 Cay:	8 State
9 Sample			Loving	
7.200.00	is Lighter to the One	95/09/2	S WE L	7 0 10 hrs.
First Lile	oll	2 Let	Time:	200 per - 1900 kg.
Submitter WSS #	Organization		ie pocowassy	2 Dight ID
To: Jav Janica  Texas-New Mexico Pir	7(915) 947-900	15   Sample Pur	Grab	Information:
PO Box 60028		☐- Compile	Annitoring - Floreston - Semple	w Proportioned sel Aliquot Sollt w/Permittee
San Angelo, Texas 76  16 Field  Data: pht Conductivity:	umhos/am @ Temperature	☐- Special Chlori C. Residu	C-Chain o	Custody I, Flow
17 Sample Source:	18 Field			
	u location	om 1/4" Hos	e Rih from	
☐-Drain ☐-Spring ☐-Pool ☐-Distribution	1	charcoal fil	ter vesse	l discharge
[9] Sample Type: [X]-Water Treat		·	`	
	Thorinated ☐-NP No Pr	receivation; Semple storole storole storole in an ice bath	ed at room temper Not Frozen)	akuro
? - septum viai(s) (volume = 300	Onsisting of: P-78 Semp	de Preserved with Social de Preserved with Hydro	m Thiosulfate to re schioric Acid (2 dro)	ps/40 mil)
	- PHOC. Semo	vie Preserved with 20 mg	// Mercurio Chlorid	10
- glass jug(s) (volume = (volume = 21) Analyses Requested: Please check the required. When	he appropriate box(es) below to never possible, list specific comp	pounds suspected	or required, and	en(e)
- glass jug(s) (volume =(volume =	he appropriate box(es) below to never possible, list specific comp or highly contaminated samples	pounds suspected are suspected.	r required, and	en(e) note servitorit
- glass jug(s) (volume = (volume = 21] Analyses Requested: Please check the required. When	he appropriate box(es) below to never possible, list specific comp or highly contaminated samples	pounds suspected	or required, and the second BOOS:	note
- glass jug(s) (volume =	he appropriate box(es) below to never possible, list specific compar highly contaminated samples.  Screen)	pounds suspected in are suspected.**** Semivolatile Scr (755) Base/Neutral (756) Base/Neutral	or required, and 8908: Extractables (El 'Acid Extractab	nots Service 1 PA 625) es (EPA 8270)
- glass jug(s) (volume =	he appropriate box(es) below to never possible, list specific comper highly contaminated samples     Screen	pounds suspected in are suspected. Semivolatile Scr. (755) Base/Neutral (776) Base/Neutral (772) Carbamate Per (758) Herbicides, Cr.	or required, and <b>99/18</b> Extractables (El Acid Extractabl sticides (EPA 5: forophenoxy A	note: "
- glass jug(s) (volume =	he appropriate box(es) below to never possible, list specific comper highly contaminated samples of Screen)	pounds suspected in are suspected. Semivolatile Scr. 755) Base/Neutral 756) Base/Neutral 772) Carbamate Per 758) Herbicides, Cr. 759) Herbicides, Tr.	er required, and <b>890\$</b> ; Extractables (EI Acid Extractables (EPA 5: sticides (EPA 5: Norophenoxy A azine (EPA 507	note: Service (1) PA 625):: (es (EPA 8270) 31:1) Cd (EPA 515.1)
- glass jug(s) (volume =	he appropriate box(es) below to never possible. Ilst specific comport highly contaminated samples.  Screen)  (EPA 601/2)  (EPA 624)  (EPA 501.1)  +) (EPA 502.2)  EPA 504)	pounds suspected in are suspected. Semivolatile Scr. 755) Base/Neutral 756) Base/Neutral 756) Base/Neutral 7572) Carbamate Per 758) Herbicides, Cr. 759) Herbicides, Tr. 751) Hydrocarbon. 760) Organochlorin	er required, and Beins: Extractables (El Acid Extractabl sticides (EPA 5: Norophenoxy A azine (EPA 507) uel Screen (EP e Pesticides (EI	PA 625) 188 (EPA 8270) 131:1) 164 (EPA 515.1) 174 M-8015) 174 S05)
- glass jug(s) (volume =	he appropriate box(es) below to never possible, list specific comper highly contaminated samples of highly contaminated samp	pounds suspected in are suspected. Semivolatile Scr. (755) Base/Neutral (756) Base/Neutral (772) Carbamate Per (758) Herbicides, Cr. (759) Herbicides, Cr. (751) Hydrocarbon. (760) Organochiorinate (767) Polychlorinate	er required, and BOTA: Extractables (EI Acid Extractables sticides (EPA 50 iorophenoxy A azine (EPA 507 uel Screen (EI e Pesticides (EI nata Pesticides d Biphenyls (PC	PA 625)  (EPA 8270)  (31:1)  (34 (EPA 515.1)  (PA 505)  (EPA 507)  (EPA 507)
- glass jug(s) (volume =	he appropriate box(es) below to never possible, list specific comport highly contaminated asimples of bles (EPA 601/2) (EPA 624) (EPA 501.1) (EPA 502.2) (EPA 504) (FA 504) (F	pounds suspected in are suspected. Semivolatile Scr. (755) Base/Neutral (756) Base/Neutral (756) Base/Neutral (758) Herbicides, Cr. (759) Herbicides, Tr. (751) Hydrocarbon. (760) Organochloch (761) Organophospi	er required, and <b>BODS</b> . Extractables (EI Acid Extractables (EPA 5: Norophenoxy A azine (EPA 507 Fuel Screen (EP e Pesticides (EI nate Pesticides d Biphenyls (PC ic Org. Cmpds.	PA 625) ::  PA 625) ::  PB (EPA 8270)  31:1)  CH (EPA 515.1)  PA M-8015)  PA 505)  (EPA 507)  28's) in Oil  (SLD 758/760)
- glass jug(s) (volume =	he appropriate box(es) below to never possible, list specific comport highly contaminated asimples of bles (EPA 601/2) (EPA 624) (EPA 501.1) (EPA 502.2) (EPA 504) (FA 504) (F	pounds suspected in are suspected.  Semivolatile Scr. (755) Base/Neutral (756) Base/Neutral (758) Herbicides, Cr. (759) Herbicides, Cr. (759) Herbicides, Cr. (751) Hydrocarbon. (760) Organochlorin (761) Organophospic (767) Polychlorinate (762) SDWA Synthe	er required, and <b>BODS</b> . Extractables (EI Acid Extractables (EPA 5: Norophenoxy A azine (EPA 507 Fuel Screen (EP e Pesticides (EI nate Pesticides d Biphenyls (PC ic Org. Cmpds.	PA 625)
- glass jug(s) (volume =	he appropriate box(es) below to never possible. Ilst specific comport highly contaminated samples of highly contaminated samples.    Screen	pounds suspected in are suspected. Semivolatile Scr. 755) Base/Neutral 756) Base/Neutral 756) Base/Neutral 756) Base/Neutral 758) Herbicides, Cr. 759) Herbicides, Cr. 759) Herbicides, Cr. 751) Hydrocarbon. 760) Organochiorinate 761) Organophospi 767) Polychiorinate 762) SDWA Synthelia 762) Total Petroleur	er required, and <b>BODS</b> . Extractables (EI Acid Extractables (EPA 5: Norophenoxy A azine (EPA 507 Fuel Screen (EP e Pesticides (EI nate Pesticides d Biphenyls (PC ic Org. Cmpds.	PA 625) ::  PA 625) ::  PB (EPA 8270)  31:1)  CH (EPA 515.1)  PA M-8015)  PA 505)  (EPA 507)  28's) in Oil  (SLD 758/760)
- glass jug(s) (volume =	he appropriate box(es) below to never possible. Ilst specific comport highly contaminated samples of highly contaminated samples.    Screen	pounds suspected in are suspected. Semivolatile Scr. 755) Base/Neutral 756) Base/Neutral 756) Base/Neutral 756) Base/Neutral 758) Herbicides, Cr. 759) Herbicides, Cr. 759) Herbicides, Cr. 751) Hydrocarbon. 760) Organochiorinate 761) Organophospi 767) Polychiorinate 762) SDWA Synthelia 762) Total Petroleur	er required, and <b>BODS</b> . Extractables (EI Acid Extractables (EPA 5: Norophenoxy A azine (EPA 507 Fuel Screen (EP e Pesticides (EI nate Pesticides d Biphenyls (PC ic Org. Cmpds.	PA 625) ::  PA 625) ::  PB (EPA 8270)  31:1)  CH (EPA 515.1)  PA M-8015)  PA 505)  (EPA 507)  28's) in Oil  (SLD 758/760)

P.O. Box 4700 Albuquerque, NM 87196-4700 700 Camino de Salud, NE [505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

October 18, 1995

Request ID No. 090067

# ANALYTICAL REPORT SLD Accession No. OR-95-4012

Distribution
(x) User 64000
(x) Submitter 68
(X) Client

(x) SLD Files

To: Jay Janica

Texas New Mexico Pipeline Co.

PO Box 60028

San Angelo, Texas 76906

From:

Organic Chemistry Section Scientific Laboratory Division

700 Camino de Salud, NE

P.O. Box 4700

Albuquerque, NM 87196-4700

Re: A water, Extractable sample submitted to this laboratory on September 12, 1995

User: /

SLD Fee For Service - MISC 700 Camino de Salud, NE

P.O. Box 4700

Albuquerque, NM 87196-4700

Submitter:

Myra Meyers

ED Field Office, Hobbs

Suite 165

726 E. Michigan Avenue Hobbs, NM 88240

**DEMOGRAPHIC DATA** 

COLLECTION

**LOCATION** 

On: 11-Sep-95

*By:* Ric . . .

SPS Well 11 Treating Skid

At: 11:00 hrs. In/Near: Lovington

ANALYTICAL RESULTS: SDWA VOC-II [EPA-504] Screen {775}

Parameter	Value	Qual	POL	Units
1,2-Dibromoethane (EDB)	0.00	U	0.02	ppb
1,2-Dibromo-3-chloropropane	0.00	U	0.02	ppb
See Laboratory Remarks for	Additional	Inform	mation	
Notations & Comments:				
Evidentiary Seals: Not Sealed 📈; Intact: No 🔲, Yes 🗀	_  & Broken By:			Date:

#### **Laboratory Remarks:**

#### SAFE DRINKING WATER ACT VOLATILES-II

Lab Name: NM SCIENTIFIC LABORATORY DI	
Lab Code: N/A Case No.: N/A	SAS No.: N/A SDG No.: N/A
Matrix: (soil/water) <u>Water</u>	Lab Sample ID: <u>OR-95-4012</u>
Sample wt/vol: $35.0$ (g/mL) ml	
Level: (low/med) Low	Date Received: 9/12/95
% Moisture: not dec. N/A dec. N/A	Date Extracted: 09/18/95
Extraction: (SepF/Cont/Sonc) Micro	Date Analyzed: 9/19/95
GPC Cleanup: (Y/N) No pH: N/A	Dilution Factor: 1

#### ANALYTICAL REPORT SLD Accession No. OR-95-4012 Continuation, Page 2 of 3

CONCE	VTR	MOITA	UNI	TS:	
(ug/L	or	ug/Kg	J):_	ug/L	

	EPA Method	504 was used to analyze for the follow	wing con	npour	nds
	CAS NO.	COMPOUND	CONC.	Q	MDL
- 1	106-93-4	3-4 1,2-Dibromoethane (EDB)			0.02
	96-12-8		ט	0.02	

- \* CONC = CONCENTRATION DETERMINED
  - MDL= The Method Detection Level (Limit) is the minimum concentration of a compound that can be measured and reported with 99% confidence that the analyte concentration is greater than zero (FR 23703, June 1986). If a sample is diluted (usually due to high levels of contaminants) during analysis, the actual "sample detection limit" can be obtained by multiplying the MDL by the dilution factor reported above.
  - PQL= Practical Quantitation Limit (Approximately 5-10 times MDL) is the concentration of the lowest standard routinely analyzed. Concentrations determined between the MDL and the PQL will be qualified with a "J" indicating an approximate concentration.
- \* Q = Qualifier Definitions:
- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the quantitation limit.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

#### QUALITY CONTROL SUMMARY FOR VOLATILES II SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory

#### ANALYTICAL REPORT SLD Accession No. OR-95-4012 Continuation, Page 3 of 3

environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED

CONCENTRATION (ug/L)

No Compounds Detected

SURROGATE RECOVERIES

SURROGATE

CONCENTRATION

%RECOVERY

1,1,2,2,-TTCE

50. ug/L

96.

The % recoveries for compounds in the batch SPIKE RECOVERY: spike were from 70% to 130% with the exception of the compounds

listed below:

COMPOUND

CONCENTRATION

. ug/L

% RECOVERY

No exceptions

**Analyst:** 

Reviewed By:

10/04/95

Nancy DeWitt Richard F. Meyerhein Supervisor, Organic Chemistry Section Analyst, Organic Chemistry

700 CAM	SCIENTIFIC LABORATORY DIVIS	HON UE, NM 87106				OR95 4012 C
2 User Code #:	c Chemistry Section - Telephone: (5	06) 841-2570 IRequest	Request   ID No. 09		Received:  4 Priority Code #	7 ETC.
5 Facility Name:	SPS -11		6 County:	· ·	7 Cay:	8 Stat
9 Sample Location:	S.P.S. W.E.T. T.	1 . 1	E LA LEE LE	4N 4G 4 4		iton N.M.
O Collected By:		karte :	1. V. V.	/ 0 % / / / (YY/MM/DD)	At I	
	MSS #	Organia		12 Latitu	IDOOMINSS)	
13 Report To: J	Name ay Janica	14 Phone #: (915) \$47-	9008	<u></u>		
No de la constantina della con	exas-New Mexico Pipelir	<del></del>		15 Sample Purpo	ee: (1- Grab	information:  Composite
P(	0 Box 60028	<del></del>		☐- Compiler ⊠- MMED Mo ☐- Confirmed	ου Tri-Flo	w Proportioned the Period uel Afiquet a Spill w/Permittee
IR FIELD	an Angelo, Texas 76906			Chlorine	D-Chain	d Custody
Date: plt		mhos/om @ Temps	rature:	C. Residual	:me	A, Flow;
This form acco	- Wastewater 1 - Chlorina  cod, - Other companies a single sample consistir  vial(s) (volume =	activate  insted 20 Preservati  ted Preservati  The Preservati  Preservati  Preservati  Preservati  Preservati  Preservati  Preservati  Preservati  Preservati	ed charc on: No Preservation Sample stored Sample Preserv Sample Preserv	n; Sample stored in an loe bath (N red with Sodium red with Hydroch red with 20 mg/l	er vesse  introom tempe lot frozen) Thiosulfate to m bloric Acid (2 dro Mercurio Chlori	rature amove chlorine residual spe/40 mi) de
	required. Whenever p below whenever highle SCTEERS:  phatic Headspace (Qualitative Screen matic & Halogenated Purpeables (ESS Spectrometer Purpeables (EPA 60 WA Total Trihalomethanes (EPA 50); WA VOC's I [21 REGULATED +] (EPWA VOC's II [EDB & DBCP] (EPA 50 mposite Sample for Analysis No.  Ther Specific Compounds or	n) [PA 601/2] 24) (A 502.2) (A)	Compounds ples are suspending are su	suspected or sected. Scre- se/Neutral Ex- se/Neutral /A rbamate Pest rbicides, Chio rbicides, Triaz drocarbon Fu panochlorine panophospha ychlorinated i WA Synthetic	required, and BDB. dractables (E cid Extractable icides (EPA 5 prophenoxy A cine (EPA 507 el Screen (EP Pesticides (E) in Pesticides Biphenyls (PC Org. Cripds	I note PA 625) les (EPA 8270) 31.1) cki (EPA 515.1) ) PA M-8015) PA 505) (EPA 507)
		<u> </u>	······································	/100.9	The same	as F
·			<del></del>	CATILLY 1	To your	

P.O. Box 4700 Albuquerque, NM 87196-4700 700 Camino de Salud, NE [505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

October 18, 1995

Request ID No. 090061

# ANALYTICAL REPORT SLD Accession No. OR-95-4013

Distribution |

(x) User 64000

(x) Submitter 68

(X Client

(x) SLD Files

To: Jay Janica

Texas New Mexico Pipeline Co.

PO Box 60028

San Angelo, Texas 76906

From:

Organic Chemistry Section

Scientific Laboratory Division

700 Camino de Salud, NE

P.O. Box 4700

Albuquerque, NM 87196-4700

Re: A water, Extractable sample submitted to this laboratory on September 12, 1995

User:

On: 8-Sep-95

SLD Fee For Service - MISC 700 Camino de Salud, NE

P.O. Box 4700

Albuquerque, NM 87196-4700

Submitter:

Myra Meyers

ED Field Office, Hobbs

Suite 165

726 E. Michigan Avenue

Hobbs, NM 88240

#### **DEMOGRAPHIC DATA**

COLLECTION

By: Ric . . .

SPS Well 11 Treating Skid

At: 7:15 hrs. In/Near: Lovington

ANALYTICAL RESULTS: SDWA VOC-II [EPA-504] Screen {775}

Parameter	Value	Qual	PQL_	<u>Units</u>
1,2-Dibromoethane (EDB)	0.00	Ŭ	0.02	ppb
1,2-Dibromo-3-chloropropane	0.00	U	0.02	ppb
See Laboratory Remarks for	Additional	Inform	nation	
Notations & Comments:				
Evidentiary Seals: Not Sealed ; Intact: No ] , Yes	& Broken By:			Date:

#### **Laboratory Remarks:**

#### SAFE DRINKING WATER ACT VOLATILES-II

Lab Name: NM SCIENTIFIC LABORATORY DIVISION Contract: /ALab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: N/AMatrix: (soil/water) Water Lab Sample ID: OR-95-4013Sample wt/vol: 35.0 (g/mL) ml SLD Batch No: 490Level: (low/med) Low Date Received: 9/12/95% Moisture: not dec. N/A Date Extracted: 09/18/95Extraction: (SepF/Cont/Sonc) Micro Date Analyzed: 9/19/95GPC Cleanup: (Y/N) No PH: N/A Dilution Factor: 1

#### ANALYTICAL REPORT SLD Accession No. OR-95-4013 Continuation, Page 2 of 3

CONCENTRATION 1	UNITS:		
(ug/L or ug/Kg)	):	ug/L	

	EPA Method 5	04 was used to analyze for the	e following o	compour	nds
	CAS NO.	COMPOUND	CONC	1.10	MDL
	106-93-4	1,2-Dibromoethane (EDB)		U	0.02
ı	96-12-8	1,2-Dibromo-3-chloropropane	(DBCP)	U	0.02

- \* CONC = CONCENTRATION DETERMINED
- MDL= The Method Detection Level (Limit) is the minimum concentration of a compound that can be measured and reported with 99% confidence that the analyte concentration is greater than zero (FR 23703, June 1986). If a sample is diluted (usually due to high levels of contaminants) during analysis, the actual "sample detection limit" can be obtained by multiplying the MDL by the dilution factor reported above.
  - PQL= Practical Quantitation Limit (Approximately 5-10 times MDL) is the concentration of the lowest standard routinely analyzed. Concentrations determined between the MDL and the PQL will be qualified with a "J" indicating an approximate concentration.
- \* Q = Qualifier Definitions:
- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the quantitation limit.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

## QUALITY CONTROL SUMMARY FOR VOLATILES II SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory

ANALYTICAL REPORT SLD Accession No. OR-95-4013 Continuation, Page 3 of 3

environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED

CONCENTRATION (ug/L)

No Compounds Detected

SURROGATE RECOVERIES

SURROGATE CONCENTRATION

%RECOVERY

1,1,2,2,-TTCE

50. ug/L

101.

SPIKE RECOVERY: The % recoveries for compounds in the batch spike were from 70% to 130% with the exception of the compounds listed below:

COMPOUND

CONCENTRATION

% RECOVERY

No exceptions

. ug/L

Analyst:

Nancy DeWitt

Analyst, Organic Chemistry

Reviewed By:

Richard F. Meyerhein

10/04/95

ORGANIC	CHEMISTRY ANAL SCIENTIFIC LABORAT		UEST FORM	1		SLD No.	OR95 4	013 <b>c</b>
	AINO DE SALUD N.E., AL ic Chemistry Section - Te			•		Date	SEP 1	2 1995
	5 6.4.0.0.0		Quest	Request    ID No. 090	<b>-</b> 0061-A	Received:	<b>y</b> 3	W ED ALD
5 Facility	(VIETO IOIS	7 I ID.	No.:	6 County	<del></del>	Code 7 City:	<u>ت : •</u>	8 State
Name:	SPS -11	,		Lea		Lovin	gton	N M
9 Sample Location:	SIPISI IWIEI	T.T 1.1	I I LTIR I	F 43 + M + T			D	
10 Collected		2	18.49 S X Z	SAY - CONTRACTOR SAME	109108			
By:	First .	illobit	Half Lagran		(YY/MM/DD)	_ ^:_/	200 pm - 19	) hrs.
11 Codes:	50.00		· · · · · · · · · · · · · · · · · · ·		12 Lath	ide (DOMM		~~~
Subn		3 #	Organi	zation	Longitude	DOCHMSS		2 Digit ID
13 Report To: J	None av Janica	14	Phone <b>#:</b> 915) 947-	-9008	<u></u>			ليليا
Address	exas-New Mexico	Pipeline C			15 Sample Purpo	CO. Circle		Composite
P Cay, State 200	O Box 60028				☐- Complian  ☑- NMED Mo	<b>⇔</b>	low Proportion qual Afiquat ple Split w/Per	1 <b>903</b>
S	an Angelo, Texas	76906			- Confirmed - Special		ole Split w/Per of Custody	mittee
16 Field Data: pit	, Conductivity:	umhos	-	reture:	Chlorine C. Residua	<u></u> m	g/L, Flow:	
17 Sample So	ource:  -Entry Point to	Distribution	18 Field Remarks:	<del></del>			· · · · · · · · · · · · · · · · · · ·	
☐-Lake ☐-Drain	☐-Weil; Depth: ☐-Spring	<del></del>	Sampled	i from 1	/4" Hose	Rih fr	<u> </u>	
□-Pool	□-Distribution	eating Skid		ed charc	oal filt	er vess	el disc	harge
19 Sample Ty	pe: X-Water : [	Unchlorinated	20 Preservati	on:				
	ood, Other		☐- NP  X - P-loo   ☐- P-78	Sample stored	n; Sample stored in an ice bath (h ved with Sodium	iot Frozen)		
2 - septun	ompanies a single samp	_40 ml ea.) ÷	Ø-PHQ	Sample Presen	red with Hydroci red with 20 mg/	Noric Acid (2 d	rops/40 ml)	IN INSIDUM
- glass	ug(s) (volume = (volume	mi ea.)	D-Other					
21 Analyses R	lequested: Please che	ck the appropria	te box(es) belo	w to indicate	the type of a	nalytical act	99n(s)	
	below whe	Mhenever possib never highly con	tamineted sam	bles are snat	pected.		A THE A	
	s Screens:			W	datile Scre			
[]-(754) Arc	phatic Headspace (Qualit omatic & Halogenated Pu	ative Screen) 📆 rgeables (EPA 60			se/Neutral E se/Neutral/A			1270)
	ess Spectrometer Purgeal WA Total Trihalomethane			- (772) Ca	rbamate Pest rbicides, Chic	icides (EPA	531.1)	
(774) SD	WA VOC's I [21 REGULA	TED +] (EPA 502		(759) He	rbicides, Tria	dne (EPA 50	77	
	WA VOC's II [EDB & DBC mposite Sample for Analy				drocarbon Fu panochiorine			
Ot	her Specific Compo	unds or Class		]- (761) On	anophospha ychlorinated	te Pesticide	EPA 507	
<b>□</b> -(*)				]- (762) SD	WA Synthetic	Org. Cmpd	s. (SLD 758	/760)
□-(     ) <u> </u>		90		]- (782) Tot	al Petroleum	Hydrocarbo	ns (EPA 41	8.1)
Remarks:	10	<del>-</del>	<del></del>				<del></del>	
P16	ease Fax Results	To Me AT	(505) 396	-2754	·			
		·····	<del> </del>			47	1 4	
		<del> </del>			MATELY,	Thick	ace	

P.O. Box 4700 Albuquerque, NM 87196-4700 700 Camino de Salud, NE [505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

\_\_\_\_\_\_

September 29, 1995

Request ID No. 090068

# ANALYTICAL REPORT SLD Accession No. OR-95-4061

Distribution () User 64000 (X Submitter 68 (x) SLD Files

To: Jay Janica

Texas New Mexico Pipeline Co.

P.O. Box 60028

San Angelo TX 76905

From:

Organic Chemistry Section Scientific Laboratory Div. 700 Camino de Salud, N.E.

P.O. Box 4700

Albuquerque, NM 87196-4700

A water, Purgeable sample submitted to this laboratory on September 14, 1995 Re:

		ENTOGICITIES ENTITE
	COLLECTION	LOCATION
2-Sep-95		SPS Well 11 Treating Skid

On: 12

At: 19:30 hrs. *In/Near:* Lovington

ANALYTICAL RESULTS: SDWA VOC-I [EPA-502.2] Screen {774}

Qual Parameter Value Units SDWA VOC's-I 0.00 U 0.50 dag See Laboratory Remarks for Additional Information Notations & Comments: Evidentiary Seals: Not Sealed 7; Intact: No 7. Yes 8 Broken By: \_\_\_\_\_

DEMOGRAPHIC DATA

Laboratory Remarks:

### SAFE DRINKING WATER ACT VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY D	IVISION Contract: N/A
Lab Code: N/A Case No.: N/A	SAS No.: N/A SDG No.: N/A
Matrix: (soil/water) <u>Water</u>	Lab Sample ID: <u>OR-95-4061 ^[&amp;d@</u>
Sample wt/vol: 5.0 (g/mL) mL	
Level: (low/med) Low	Date Received: 9/14/95
% Moisture: not dec. N/A dec. N/A	Date Extracted: N/A
Extraction: (SepF/Cont/Sonc) N/A	Date Analyzed: 9/19/95 CS
GPC Cleanup: (Y/N) No pH:	Dilution Factor: 1
_	CONCENTRATION UNITS:

(ug/L or ug/Kg): uq/L

. This sample was analyzed for the following compounds using EPA Method 502 2

	USING EPA MECHOU JUZ.Z			
CAS NO.	COMPOUND	CONC.	0	POL
71-43-2	Benzene		Ū	0.5

# ANALYTICAL REPORT SLD Accession No. OR-95-4061 Continuation, Page 2 of 4

108-86-1	Bromobenzene	 U	0.5
74-97-5	Bromochloromethane	U	0.5
75-27-4	Bromodichloromethane	U	0.5
75-25-2	Bromoform	U	0.5
24-83-9	Bromomethane	 U	0.5
78-93-3	2-Butanone (MEK)	U	5.0
104-51-8	n-Butvlbenzene	Ū	0.5
135-98-8	sec-Butylbenzene	Ü	0.5
_98-06-6	tert-Butylbenzene	U	0.5
1634-04-4	tert-Butyl methyl ether (MTBE)	 U	5.0
56-23-5	Carbon tetrachloride	U	0.5
108-90-7	Chlorobenzene	U	0.5
_75-00-3	Chloroethane	U	0.5
_67-66-3	Chloroform	 U_	0.5
74-87-3	Chloromethane	U	0.5
_95-49-8	2-Chlorotoluene	U	0.5
_106-43-4	4-Chlorotoluene	 U	0.5
96-12-8	1,2-Dibromo-3-chloropropane	U	0.5
_124-48-1	Dibromochloromethane	Ü	0.5
106-93-4	1,2-Dibromoethane	U	0.5
74-95-3	Dibromomethane	U	0.5
95-50-1	1,2-Dichlorobenzene	U	0.5
<u>541-73-1</u>	1,3-Dichlorobenzene	 U	0.5
106-46-7	1,4-Dichlorobenzene	U	0.5
<u>75-71-8</u>	Dichlorodifluoromethane	 U	0.5
75-34-3	1,1-Dichloroethane	 U	0.5
107-06-2	1,2-Dichloroethane	 U	0.5
75-35-4	1,1-Dichloroethene	U	0.5
<u> 156-59-4</u>	cis-1,2-Dichloroethene	U	0.5
156-60-5	trans-1,2-Dichloroethene	U	0.5
78-87-5	1,2-Dichloropropane	U	0.5
142-28-9	1,3-Dichloropropane	 U	0.5
590-20-7	2,2-Dichloropropane	U	0.5
563-58-6	1,1-Dichloropropene	 U	0.5
1006-01-5	cis-1,3-Dichloropropene	U	0.5
1006-02-6	trans-1,3-Dichloropropene	 U	0.5
100-41-4	Ethylbenzene	U	0.5
87-68-3	Hexachlorobutadiene	Ü	0.5
98-82-8	Isopropylbenzene	U	0.5
99-87-6	4-Isopropyltoluene	U	0.5
75-09-2	Methylene chloride	U	0.5
91-20-3	Naphthalene	U	0.5

103-65-1	Propylbenzene	U	0.5
_100-42-5	Styrene	 U	0.5
630-20-6	1,1,1,2-Tetrachloroethane	U	0.5
79-34-5	1,1,2,2-Tetrachloroethane	U	0.5
127-18-4	Tetrachloroethene	U	0.5
109-99-9	Tetrahydrofuran (THF)	U	5.0
_108-88-3	Toluene	U	0.5
87-61-5	1,2,3-Trichlorobenzene	Ū	0.5
120-82-1	1,2,4-Trichlorobenzene	U	0.5
71-55-6	1,1,1-Trichloroethane	Ū	0.5
79-00-5	1,1,2-Trichloroethane	Ū	0.5
79-01-6	Trichloroethene	U	0.5
75-69-4	Trichlorofluoromethane	Ū	0.5_
96-18-4	1,2,3-Trichloropropane	U	0.5
95-63-6	1,2,4-Trimethylbenzene	U	0.5
108-67-8	1,3,5-Trimethylbenzene	U	0.5
75-01-4	Vinvl chloride	Q	0.5
95-47-6	o-Xylene	מ	0.5
N/A	p- & m-Xylene	Ū	0.5
N/A	Total Xylenes	U	1.0

\* Q = Qualifier Definitions:

CONC = CONCENTRATION DETERMINED

- PQL = Practical Quantitation Limit (Approximately 5 times MDL). Equivalent to the "minimum detection limit" defined for regulated VOC-1 compounds in 40 CFR 141.25(c).
- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the PQL listed.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

QUALITY CONTROL SUMMARY FOR VOLATILES SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with

ANALYTICAL REPORT SLD Accession No. OR-95-4061 Continuation, Page 4 of 4

this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED

CONCENTRATION (PPB)

No Compounds Detected

SURROGATE RECOVERIES:

CONCENTRATION % RECOVERY SURROGATE 10.0 ppb 102. Bromofluorobenzene (PID Surr)

10.0 Bromofluorobenzene (HALL Surr) ppb 105.

The % recoveries for compounds in the batch SPIKE RECOVERY: spike were from 80% to 120% with the exception of the compounds

listed below:

COMPOUND CONCENTRATION

% RECOVERY

No exceptions

. ppb

Analyst:

S. Azhar Mustafa

Analyst, Organic Chemistry

Reviewed By:

Richard F. Meyerhein

RGANIC CHEMISTRY ANALYTICAL REQUIREMENTS LABORATORY DIVISION TOO CAMINO DE SALUD N.E., ALBUQUERQUE, NM. Organic Chemistry Section - Telephone: (505) 841	87106 		No. OR95 4061 C
Code #: 6,4,0,0,0,0,0 ID No	ID No. 09	0068-A 7	Priority Code 4: 3 Bitate Lovington N. M.
Sample Location: (S   P S     W E   L L	Lea LITITIEIALLII F. Onc. 9		At 1 1 B D hrs.
Codes: Submitter WSS #	Organization	(YY/MM/DC)	Time: 200 pm - 1900 hr. (CCUMMASS)
Texas New Mexico Pipeline C PO Box 60028  San Angelo, Texas 76906	5) 947-9008 Co	Sample Purpose:	Sampling information:  - Grab - Composite - Composite - Flow Proportioned ng - Equal Aliquot - Sample Split w/Permittee - Chain of Custody
Field   Data: pit   Conductivity:   umhos/of	Sampled from activated char discharge 20 Preservation: D-NP No Preservation: D-NP Sample stores 3 - 2-13 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3	on; Sample stored at not lin an ice beth (Not Fringed with Sodium Thiched with Hydrochloric	porn temperature ozen) seufate to remove chlorine residual o Acid (2 drope/40 ml)
Analyses Requested: Please check the epproprial required: Whenever possible below whenever highly considerable Screens:  Volatile Screens:  (753) Aliphatic Headspace (Qualitative Screen)  (754) Aromatic & Halogerated Purgeables (EPA 60)  (765) Mass Spectrometer Purgeables (EPA 624)  (766) SDWA Total Trihalomethanes (EPA 501.1)  (774) SDWA VOC's I [21 REGULATED +] (EPA 502)  (775) SDWA VOC's II [EDB & DBCP] (EPA 504)  (790) Composite Sample for Analysis No.  Other Specific Compounds or Class	ta box(es) below to indicate le, list specific compounds terminated samples are sure [- (755) B. [- (755) B. [- (758) H. [- (759) H. [- (760) 0] - (761) 0. [- (767) P. [- (762) S. [- (76	pected.  polatile Screen:  ase/Neutral Extra  ase/Neutral/Acid  arbamate Pesticid  erbicides, Chiorop  erbicides, Triazine  ydrocarbon Fuel  roanochlorine Pesticid  roanochlorine Pesticid  roanochlorine Bip  bychlorinated Bip  DWA Synthetic Or	ctables (EPA 625) Extractables (EPA 8270) es (EPA 531.1) chenoxy Add (EPA 515.1)
Please Fax Results To Me a	t (505) 396-2754		

Annt A Behent

P.O. Box 4700 Albuquerque, NM 87196-4700 700 Camino de Salud, NE [505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

September 29, 1995

Request ID No. 090068

# **ANALYTICAL REPORT** SLD Accession No. OR-95-4061

**Distribution** () User 64000 (X Submitter 68 (x) SLD Files

To: Jav Janica

Texas New Mexico Pipeline Co.

P.O. Box 60028

San Angelo TX 76905

From:

Organic Chemistry Section Scientific Laboratory Div. 700 Camino de Salud, N.E.

P.O. Box 4700

Albuquerque, NM 87196-4700

A water, Purgeable sample submitted to this laboratory on September 14, 1995 Re:

DEM	OGRAF	'HIC I	DATA

COLLECTION LOCATION On: 12-Sep-95 By: Ric . . . SPS Well 11 Treating Skid At: 19:30 hrs. *In/Near:* Lovington ANALYTICAL RESULTS: SDWA VOC-I [EPA-502.2] Screen {774} Qual Parameter Value POL Units SDWA VOC's-I 0.50 0.00 IJ dag See Laboratory Remarks for Additional Information Notations & Comments: Evidentiary Seals: Not Sealed | Y | Intact: No | , Yes | & Broken By: \_\_\_\_\_ Date: **Laboratory Remarks:** 

#### SAFE DRINKING WATER ACT VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABO	RATORY DIVISION Contract:N/A
	SAS No.: N/A SDG No.: N/A
	Lab Sample ID: OR-95-4061 ^[&d@
Sample wt/vol: 5.0 (g/mL)	mL SLD Batch No: 487
Level: (low/med) Low	Date Received: 9/14/95
% Moisture: not dec. N/A d	ec. N/A Date Extracted: N/A
Extraction: (SepF/Cont/Sonc)	
GPC Cleanup: (Y/N) No	
<u> </u>	CONCENTRATION UNITS:
	$(ug/L \text{ or } ug/Kg): \underline{\qquad ug/L}$

This sample was analyzed for the following compounds using EPA Method 502.2

CAS NO.	COMPOUND	CONC.	0	POL
71-43-2	Benzene		Ū	0.5

## ANALYTICAL REPORT SLD Accession No. OR-95-4061 Continuation, Page 2 of 4

108-86-1	Bromobenzene	1	ΙŪ	1 0.5
74-97-5	Bromochloromethane		Ū	0.5
75-27-4	Bromodichloromethane		Ū	0.5
75-25-2	Bromoform		Ū	0.5
24-83-9	Bromomethane		U	0.5
78-93-3	2-Butanone (MEK)		U	5.0
104-51-8	n-Butylbenzene		U	0.5
135-98-8	sec-Butylbenzene		U	0.5
98-06-6	tert-Butylbenzene		Ū	0.5
1634-04-4	tert-Butyl methyl ether (MTBE)		U	5.0
56-23-5	Carbon tetrachloride		U	0.5
108-90-7	Chlorobenzene		U	0.5
75-00-3	Chloroethane		U	0.5
67-66-3	Chloroform		U	0.5
74-87-3	Chloromethane		U	0.5
95-49-8	2-Chlorotoluene		Ū	0.5
106-43-4	4-Chlorotoluene		IJ	0.5
96-12-8	1,2-Dibromo-3-chloropropane		IJ	0.5
124-48-1	Dibromochloromethane		U	0.5
106-93-4	1,2-Dibromoethane		Ū	0.5
74-95-3	Dibromomethane		U	0.5_
95-50-1	1,2-Dichlorobenzene		U	0.5
541-73-1	1,3-Dichlorobenzene		U	0.5
106-46-7	1,4-Dichlorobenzene		U	0.5
75-71-8	Dichlorodifluoromethane		U	0.5
75-34-3	1,1-Dichloroethane		U	0.5
107-06-2	1,2-Dichloroethane		U	0.5
75-35-4	1,1-Dichloroethene		U	0.5
156-59-4	cis-1,2-Dichloroethene		U	0.5
<u> 156-60-5</u>	trans-1,2-Dichloroethene		Ū	0.5
<u> 78-87-5</u>	1,2-Dichloropropane		U	0.5
142-28-9	1,3-Dichloropropane		U	0.5
590-20-7	2,2-Dichloropropane		U	0.5
<u> 563-58-6</u>	1,1-Dichloropropene		U	0.5
1006-01-5	cis-1,3-Dichloropropene		U	0.5
1006-02-6	trans-1,3-Dichloropropene		U	0.5
100-41-4	Ethylbenzene		U	0.5
87-68-3	Hexachlorobutadiene		U	0.5
98-82-8	Isopropylbenzene		U	0.5
99-87-6	4-Isopropyltoluene		U	0.5
75-09-2	Methylene chloride		U	0.5
91-20-3	Naphthalene		U	0.5

103-65-1	Propylbenzene	U	0.5
100-42-5	Styrene	U	0.5
630-20-6	1,1,1,2-Tetrachloroethane	U	0.5
79-34-5	1,1,2,2-Tetrachloroethane	U	0.5
127-18-4	Tetrachloroethene	U	0.5
109-99-9	Tetrahydrofuran (THF)	 Ŭ	5.0
108-88-3	Toluene	 U	0.5
87-61-5	1,2,3-Trichlorobenzene	 U	0.5
120-82-1	1,2,4-Trichlorobenzene	 U	0.5
71-55-6	1,1,1-Trichloroethane	 U	0.5
79-00-5	1,1,2-Trichloroethane	 U	0.5
79-01-6	Trichloroethene	U	0.5
75-69-4	Trichlorofluoromethane	 U	0.5
96-18-4	1,2,3-Trichloropropane	U	0.5
95-63-6	1,2,4-Trimethylbenzene	U	0.5
108-67-8	1,3,5-Trimethylbenzene	U	0.5
75-01-4	Vinyl chloride	U	0.5_
95-47-6	o-Xylene	U	0.5
N/A	p- & m-Xylene	U	0.5
N/A	Total Xylenes	 U	1.0

- \* Q = Qualifier Definitions: CONC = CONCENTRATION DETERMINED
- PQL = Practical Quantitation Limit (Approximately 5 times MDL). Equivalent to the "minimum detection limit" defined for regulated VOC-1 compounds in 40 CFR 141.25(c).
- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the PQL listed.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

QUALITY CONTROL SUMMARY FOR VOLATILES SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with

ANALYTICAL REPORT
SLD Accession No. OR-95-4061
Continuation, Page 4 of 4

this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED

CONCENTRATION (PPB)

No Compounds Detected

SURROGATE RECOVERIES:

SURROGATE CONCENTRATION % RECOVERY Bromofluorobenzene (PID Surr) 10.0 ppb 102. Bromofluorobenzene (HALL Surr) 10.0 ppb 105.

SPIKE RECOVERY: The % recoveries for compounds in the batch spike were from 80% to 120% with the exception of the compounds

listed below:

COMPOUND CONCENTRATION

% RECOVERY

No exceptions

Analyst:

Reviewed By:

. ppb

S. Azhar Mustafa

Analyst, Organic Chemistry

Richard F. Meyerhein 09/29

)RGANIC C	HEMISTRY ANA	LYTICAL REQU	JEST FORM	A		Ε	OR95 4061 C
	SCIENTIFIC LABORA					SLD No.	91100 4001 0
	O DE SALUD N.E., A Themistry Section - To			Doguest t		Date Received:	SEP 1 4 1995
	6.4.0.0			Request   ID No. 09		4 Priority	3
Facility		יוטו	<b>VOL:</b> ***	6 County	•	Code #:	8 State
Name: SF	PS-11			Lea		Loving	ton N.M
Sample Location: • S	S. P.S. IWIE	e T.e T. e . e 1 e 1		A121+11	1 nl mi	10 1 h1 i 12	
Collected		2	i de	**************************************	10911		CO POST IN
By:*:*	First	(Liajeit		On: /-> Date	: (YY/MM/DD)	AE Time:	Mile designation of the second
Codes:		_	_		12 Latt	ude roumss	ŧ
Submitt	er W	88	Organ	zation	Longitud	E DOOMMSS)	
	v Janica		<b>Phone #:</b> 15) 947-9	8008	1-1-1	Remotion	information:
Te	xas New Mexic	o Pipeline	Co		8ample Purp	coes: - Grab	Nie Composite
PO	Box 60028	<del> </del>		<del></del>	CKNMED M	lonitoring D. Equ	r Proportioned of Aliquot Split w/Permittee
Sa Field	n Angelo, Tex	as 76906	· · · · · · · · · · · · · · · · · · ·		Special Chlorin	☐- Chein o	Custody
Data: plt	, Conductivity:	umhoe,		erature:	C. Residu	et: mg/	, Plour_
Sample Sour		to Distribution	18 Field Remarks:				
-Lake -Drain	☐-Well; Depth ☐-Spring	·	Sample	ed from	1/4" Hos	e Bib fro	m
☐-Pool □-WWTP	□-Distribution				coal fi	lter vesse	1
Sample Type		eating Skid	20 Preserve	tion:			<del> </del>
Soll, []-Foo	d, D-Other	的人。 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	D-P-too	Sample stored	in an ice bath		
is form accom  - septum v	mas elonia a seinacy a emulov) (a) let	<b>Die consisting of:</b> on miles.)	ा चि-P-HC	Sample Prece	rved with Hydro	chloric Acid (2 dros	move chlorine residual pe/40 ml)
	= emulov) (a)	mi ea.)	- Other	Sample Press	Med with 20 mg	/1 Mercurio Chlorid	······································
Analyses Rec	rested: Please C	heck the eppropris	te box(es) be	ow to indicat	e the type of	analytical scree	en(s)
	required.	Whenever possit renever highly con	de, list specific	: compounds	suspected c	r required, and	ricte Park
Volatile S	Screens:	***		Semiy	olatile Scn	eens: 💉 🚁	
	atic Headspace (Qua		ne del			Extractables (El	
]- (765) Mass	atic & Halogenated F Spectrometer Purge	ables (EPA 624)	11/4	772) C	sbernetare sbemate Pe	'Acid Extractabl' sticides (EPA 5:	31.1)
]- (766) SDW/	A Total Trihalomethai	nes (EPA 501.1) 🎘		<b>□- (758)</b> H	erbicides, Ch	lorophenoxy A	old (EPA 515.1)
図- (774) SDW/	A VOC's I [21 REGUL	ATED +] (EPA 50	2.2)	759) H	erbicides, Tri	azine (EPA 507)	A M coses
	A VOC's II [EDB & DE posite Sample for Ans			☐ - (/a) / f)	yurocznoon.) roanochlorin	uel Screen (EP e Pesticides (EI	A 505)
				7- (761) O	ganophospi	rate Pesticides	(EPA 507)
Othe	er Specific Comp	ounds or Class	3 <b>83:</b>	767) Pc	riychlorinate	d Biphenyls (PC	28's) in Oi
<b>ქ:{</b> }—		//2				ic Org. Cmpds. n Hydrocarbon	
merics:		//		ut-marindi.			
P1	ease Fax Resu	lts To Me a	t (505)	396-2754			

Month of Behent

P.O. Box 4700 Albuquerque, NM 87196-4700 700 Camino de Salud. NE [505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

October 18, 1995

Request ID No. 090069

# ANALYTICAL REPORT SLD Accession No. OR-95-4062

**Distribution** (x) User 64000 (x) Submitter 68 (X Client (x) SLD Files

To: Jay Janica

Texas New Mexico Pipeline Co.

PO Box 60028

San Angelo, Texas 76906

From:

Organic Chemistry Section Scientific Laboratory Division

700 Camino de Salud, NE

P.O. Box 4700

Albuquerque, NM 87196-4700

A water, Purgeable sample submitted to this laboratory on September 14, 1995 Re:

User:

SLD Fee For Service - MISC 700 Camino de Salud, NE

P.O. Box 4700

Albuquerque, NM 87196-4700

Submitter.

Myra Meyers

ED Field Office, Hobbs

Suite 165

726 E. Michigan Avenue

Hobbs, NM 88240

#### DEMOGRAPHIC DATA

COLLECTION

LOCATION

On: 12-Sep-95

By: Ric . . .

SPS Well 11 Treating Skid

At: 19:30 hrs.

In/Near: Lovington

ANALYTICAL RESULTS: SDWA VOC-II [EPA-504] Screen {775}

Parameter	Value	Qual	POL	_Units
1,2-Dibromoethane (EDB)	0.00	U	0.02	ppb
1,2-Dibromo-3-chloroprøpane	0.00	U	0.02	ppb
See Laboratory Remarks for	Additional	Inform	nation	
Notations & Comments.				

Notations & Comments:

Evidentiary Seals: Not Sealed ; Intact: No , Yes & Broken By: \_\_\_\_\_\_ Date:

#### Laboratory Remarks:

#### SAFE DRINKING WATER ACT VOLATILES-II

Lab Name: NM SCIENTIFIC LABORATORY DIVISION Contract:/A Lab Code: N/A Case No.: N/A SDG No.: N/A SDG No.: N/A 

 Matrix:
 (soil/water)
 Water
 Lab Sample ID:
 OR-95-4062

 Sample wt/vol:
 35.0
 (g/mL)
 ml
 SLD Batch No:
 490

 Sample wt/vol: 35.0 (g/mL) ml
 SLD Batch No: 490

 Level: (low/med) Low
 Date Received: 9/14/95

 % Moisture: not dec. N/A dec. N/A Extraction: (SepF/Cont/Sonc) Micro GPC Cleanup: (Y/N) No pH: N/A
 Date Analyzed: 9/19/95

 Date Analyzed: 9/19/95
 Dilution Factor: 1

# ANALYTICAL REPORT SLD Accession No. OR-95-4062 Continuation, Page 2 of 3

CONCEN	TRA	NOITA	UN	ITS:		
(ug/L	or	ug/Ko	1):		ug/L	

	EPA Method	504 was used to analyze for the follow	ving cor	npour	nds
-	CAS NO.	COMPOUND	CONC.	0	MDL
	106-93-4	1,2-Dibromoethane (EDB)		U	0.02
i	96-12-8	1,2-Dibromo-3-chloropropane (DBCP)		Ū	0.02

- \* CONC = CONCENTRATION DETERMINED
  - MDL= The Method Detection Level (Limit) is the minimum concentration of a compound that can be measured and reported with 99% confidence that the analyte concentration is greater than zero (FR 23703, June 1986). If a sample is diluted (usually due to high levels of contaminants) during analysis, the actual "sample detection limit" can be obtained by multiplying the MDL by the dilution factor reported above.
    - PQL= Practical Quantitation Limit (Approximately 5-10 times MDL) is the concentration of the lowest standard routinely analyzed. Concentrations determined between the MDL and the PQL will be qualified with a "J" indicating an approximate concentration.
- \* O = Oualifier Definitions:
- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the quantitation limit.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

#### QUALITY CONTROL SUMMARY FOR VOLATILES II SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory

ANALYTICAL REPORT SLD Accession No. OR-95-4062 Continuation, Page 3 of 3

environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED

CONCENTRATION (ug/L)

No Compounds Detected

SURROGATE RECOVERIES

SURROGATE

CONCENTRATION

%RECOVERY

1,1,2,2,-TTCE

50. ug/L

91.

SPIKE RECOVERY: The % recoveries for compounds in the batch spike were from 70% to 130% with the exception of the compounds listed below:

COMPOUND

CONCENTRATION

% RECOVERY

No exceptions

. ug/L

nalvet: ( ) Raviewed l

Reviewed By:

Richard F. Meyerhein 10/04/95

Supervisor, Organic Chemistry Section

Analyst:

Nancy DeWitt

Analyst, Organic Chemistry

700 CAMIL Organic	CHEMISTRY ANALYT SCIENTIFIC LABORATOR NO DE SALUD N.E., ALBUK Chemistry Section - Teleph	Y DIVISION QUERQUE, NM 87108 none: (505) 841-2570	Request	Dete Received:	95 4062 C SEP 1 4 1995
	6,4:0,0,0	ID No.:	ID No. 090069-	Code #:	3
5 Facility Name:	SPS -11 ·	•	6 County:	7 Cay: Lovingto	8 State
Sample Location:	SIPISI I WIE II.	T. 1111 ITIR.	E 1A 1T 1 T IN 1	_	,,, <u>,,, ,,,</u>
DCollected By:	Marie Contract of the Contract	the the	Ort. 95/6	At Inne	Mile deed.
		Organ	2114	Latitude (DOMMSS)	2 Digit ID
13 Report To: Ja	Nume v Janica	14 Phone <b>#:</b> (915) 947	9008		<u> </u>
Side was	xas-New Mexico Pi		15	Sampling in G- Grab Die Purpose: G- Composite	1
PO	Box 60028 n Angelo, Texas 7			Compliance Flow P NMED Monitoring - Equal /	roportioned Vigual dt w/Permittee
16 Field Date: PH	. Conductivity:			Chlorine Residuetmq/L	
7 - eeptum		activation	ion: No Preceivation; Sam Sample stored in an k Sample Preceived with Sample Preceived with	Hose Rib from filter vessel  ple stored at room temperatus beth (Not Frozen) h Sodium Thiosutiste to remo h Hydrochloric Acid (2 drope) h 20 mg/l Mercuric Chloride	re ve chlorine residual
	required. Who below whenev Screens:	the appropriate box(es) be enever possible, list specific ver highly contaminated sam	compounds suspected pies are suspected Semivolatile	icted or required, and no	
- (754) Aron - (765) Mass - (766) SDV - (774) SDV	hatic Headspace (Qualitative matic & Halogenated Purge is Spectrometer Purgeables VA Total Trihalomethanes (IVA VOC's I [21 REGULATED VA VOC's II [EDB & DBCP]	ables (EPA 601/2) (EPA 624) EPA 501.1) D+] (EPA 502.2)	☐ - (756) Base/No ☐ - (772) Carbam ☐ - (758) Herbick ☐ - (759) Herbick	eutral/Acid Extractables ate Pesticides (EPA 531 es, Chlorophenoxy Acid es, Triazine (EPA 507) urbon Fuel Screen (EPA	(EPA 8270) 1) I (EPA 515.1)
☐- (790) Con	nposite Sample for Analysis ner Specific Compoun	No	☐ - (760) Organoc ☐ - (761) Organop ☐ - (767) Polychio ☐ - (762) SDWA S	chlorine Pesticides (EPA shosphate Pesticides (E rinated Biphenyls (PCB ynthetic Org. Cmpds. (S troleum Hydrocarbons (	.505) PA 507) s) in Oil sLD 758/760)
emarks:		10			
Ple	ase Fax Results T	o Me AT (505) 396	-2754		
				9 11111	,
			<i></i>	mont Horackant	,

P.O. Box 4700 Albuquerque, NM 87196-4700 700 Camino de Salud. NE [505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

October 30, 1995

Request ID No. 090070

# ANALYTICAL REPORT SLD Accession No. OR-95-4123

**Distribution** () User 64000 (X Submitter 68 (x) SLD Files

To: Jay Janica

Texas New Mexico Pipeline Co.

PO BOX 60028

San Angelo, TX 76906

From:

Organic Chemistry Section Scientific Laboratory Div. 700 Camino de Salud, N.E.

P.O. Box 4700

Albuquerque, NM 87196-4700

A water, Purgeable sample submitted to this laboratory on September 19, 1995 Re:

DEM	[OGRA	APHIC	DA	ΛTA

LOCATION COLLECTION On: 18-Sep-95 *By:* Ric . . . SPS Well 11 Treating Skid At: 10:50 hrs. *In/Near:* Lovington ANALYTICAL RESULTS: SDWA VOC-I [EPA-502.2] Screen {774} Parameter Value Qual PQL Units 0.00 0.50 SDWA VOC's-I Ū dqq See Laboratory Remarks for Additional Information Notations & Comments: Evidentiary Seals: Not Sealed 7; Intact: No 7, Yes 7 & Broken By: \_\_\_\_\_\_ Date: **Laboratory Remarks:** 

## SAFE DRINKING WATER ACT VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY DIVISION Contract: N/A Sample wt/vol: 5.0 (g/mL) mL Lab Sample ID: 0R-95-4123 Level: (low/med) Low Lab Code: N/A Case No.: N/A SDG No.: N/A SDG No.: N/A Matrix: (soil/water) Water Date Received: 9/19/95
% Moisture: not dec. N/A dec. N/A
Extraction: (SepF/Cont/Sonc) N/A
GPC Cleanup: (Y/N) No pH: 1 Dilution Factor: 1 (ug/L or ug/Kg): ug/L

This sample was analyzed for the following compounds using EPA Method 502.2

CAS NO. POL 71-43-2 Benzene

# ANALYTICAL REPORT SLD Accession No. OR-95-4123 Continuation, Page 2 of 4

108-86-1	Bromobenzene	1	U	0.5
74-97-5	Bromochloromethane		Ū	0.5
75-27-4	Bromodichloromethane		U	0.5
75-25-2	Bromoform		Ū	0.5
24-83-9	Bromomethane		U	0.5
78-93-3	2-Butanone (MEK)		Ū	5.0
104-51-8	n-Butylbenzene		U	0.5
135-98-8	sec-Butylbenzene		U	0.5
98-06-6	tert-Butylbenzene		U	0.5
1634-04-4			U	5.0
56-23-5	Carbon tetrachloride		U	0.5
108-90-7	Chlorobenzene (mono-)		Ū	0.5
75-00-3	Chloroethane		Ū	0.5
67-66-3	Chloroform		Ū	0.5
74-87-3	Chloromethane		U	0.5
95-49-8	2-Chlorotoluene		บ	0.5
106-43-4	4-Chlorotoluene		U	0.5
96-12-8	1,2-Dibromo-3-chloropropane		U	0.5
124-48-1	Dibromochloromethane		U	0.5
106-93-4	1,2-Dibromoethane		Ŭ	0.5
74-95-3	Dibromomethane		Ū	0.5
95-50-1	1,2-Dichlorobenzene (ortho-)		Ū	0.5
541-73-1	1,3-Dichlorobenzene (meta-)		Ū	0.5
106-46-7	1,4-Dichlorobenzene (para-)		Ū	0.5_
75-71-8	Dichlorodifluoromethane		Ū	0.5
75-34-3	1,1-Dichloroethane		Ū	0.5
107-06-2	1,2-Dichloroethane		Ū	0.5
75-35-4	1,1-Dichloroethene		U	0.5
156-59-4	cis-1,2-Dichloroethene		U	0.5
156-60-5	trans-1,2-Dichloroethene		U	0.5
<u>78-87-5</u>	1,2-Dichloropropane		U	0.5
142-28-9	1,3-Dichloropropane		Ū	0.5
<u>590-20-7</u>	2,2-Dichloropropane		U	0.5
563-58-6	1,1-Dichloropropene		ប	0.5
1006-01-5	cis-1,3-Dichloropropene		U	0.5
1006-02-6	trans-1,3-Dichloropropene		U	0.5
100-41-4	Ethylbenzene		U	0.5
87-68-3	Hexachlorobutadiene		U	0.5
98-82-8	Isopropylbenzene		U	0.5
99-87-6	4-Isopropyltoluene		U	0.5
75-09-2	Methylene chloride (Dichloromethane)		Ü	0.5
91-20-3	Naphthalene		U	0.5

## ANALYTICAL REPORT SLD Accession No. OR-95-4123 Continuation, Page 3 of 4

103-65-1	Propylbenzene	<u>  U</u>	0.5
100-42-5	Styrene	Ū	0.5
_630-20-6	1,1,1,2-Tetrachloroethane	U	0.5
79-34-5	1,1,2,2-Tetrachloroethane	U	0.5
127-18-4	Tetrachloroethene	U	0.5
109-99-9	Tetrahydrofuran (THF)	U	5.0
108-88-3	Toluene	U_	0.5
87-61-5	1,2,3-Trichlorobenzene	U	0.5
_120-82-1	1,2,4-Trichlorobenzene	Ū	0.5
71-55-6	1,1,1-Trichloroethane	Ŭ	0.5
<u>79 - 0,0 - 5</u>	1,1,2-Trichloroethane	U	0.5
79-01-6	Trichloroethene	Ū	0.5
75-69-4	Trichlorofluoromethane	Ū	0.5
96-18-4	1,2,3-Trichloropropane	Ū	0.5
_95-63-6	1,2,4-Trimethylbenzene	U	0.5
108-67-8	1,3,5-Trimethylbenzene	U	0.5
75-01-4	Vinyl chloride	Ū	0.5
95-47-6	o-Xylene	U	0.5
N/A	p- & m-Xylene	U	0.5
N/A	Total Xylenes	Ū	1.0

- \* Q = Qualifier Definitions:
- CONC = CONCENTRATION DETERMINED
- PQL = Practical Quantitation Limit (Approximately 5 times MDL). Equivalent to the "minimum detection limit" defined for regulated VOC-1 compounds in 40 CFR 141.25(c).
- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the PQL listed.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

#### QUALITY CONTROL SUMMARY FOR VOLATILES SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with

ANALYTICAL REPORT SLD Accession No. OR-95-4123 Continuation, Page 4 of 4

this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED

CONCENTRATION (PPB)

No Compounds Detected

SURROGATE RECOVERIES:

CONCENTRATION SURROGATE

% RECOVERY

Bromofluorobenzene (PID Surr)

10.0 ppb

101.

Bromofluorobenzene (HALL Surr)

10.0 ppb

100.

The % recoveries for compounds in the batch SPIKE RECOVERY: spike were from 80% to 120% with the exception of the compounds listed below:

COMPOUND

CONCENTRATION

% RECOVERY

1,1,2,2-Tetrachloroethane

10.0 ppb

126.0

Analyst: Samuelafor

S. Azhar Mustafa

Reviewed By:

Richard F. Meyerhein 10/13/95

Supervisor, Organic Chemistry Section

Analyst, Organic Chemistry

JHGAFIR	CHEMISTRY ANALYTIC	AL REQUEST F	ORM			-
<b>-</b>	SCIENTIFIC LABORATORY	NOISION			SLD No. 0	R95 4123 C
	MINO DE SALUD N.E., ALBUQU nic Chemistry Section - Telephon			ni II (	Date Received:	SEP 1 9 1995
	64000		Request	J-/ \	4 Pricity	3
Facility	Washington Co. Land Co.	D No.: *	6 County	essent to	Code #:	8 State
Neme:	SPS-11		Lea		Loving	ton N.M.
Sample						
E Collected		::	<u>r relaitii</u>	- William 13	*** **********************************	
By:	First . (Links)	Chartery		109/18 : (YY/MM/DD)		Mis. ded Mis. ded Mis. ded
LCodes;			STATE OF THE STATE	12 Letti		•
Supr	mitter WS8 #	من سر	ganization	Locativa	DOOMMSS)	2 Digit ID
Report	Name	14 Phone #				
To:	Jay Janica Texas New Mexico Pin		17-9008	15	Sampling in	
R	PO Box 60028			Sample Purpo	ce Composition - Flow controling - Flow	Proportioned
State Zip	San Angelo, Texas 76	sine.		Confirme	ton Sample S	plit w/Permittee
Field Date: pit			Temperature:	Chlorine C. Residue	) .	Flow:
Sample S	Source:	18 Feld				
-Stream -Lake	☐-Entry Point to Distri ☐-Well; Depth:	OULON	npled from	1/4" Hos	e Bib from	n
□-Drain	□-Spring					2
Pool	☐-Distribution	act	ivated char	coal fil	ter vesso	1
☐-Pool ☐-WWTP	☐-Distribution ☑-Other:	g Skid dis	charge	coal fil	ter vesse	1
☐-Pool ☐-WWTP Sample Ty	☐-Distribution ☐-Other:	g Skid dis	charge ervetion: P No Pressiveto	in; Sample store	d at room temperat	
-Pool -WWTP Sample Ty Soil,F le form acc	Distribution  Other: Treating  Ype: D-Water  - Wastewater D-Chi  Food, D-Other  companies a single sample cor	g Skid dis Norinated 20 Pres orinated G-1 Skid Skid	charge ervation: P No Preservation Lice Sample stored TS Sample Preservation	n; Sample store in an ice bath (i red with Sodium	d at room temperal lot Frozen) 1 Thiosulfate to rem	lure nove chlorine residual
Gample Ty Soil, Gample Ty Soil, Gample Ty le form acc - septur	☐-Distribution ☐-Other:Treatin  ype: ☐- Water	rg Skid dis	charge ervation: P No Preservation Ploe Sample stored PTS Sample Preser PHCI Sample Preser PHGCI, Sample Preser	in; Sample store In an ice bath (i ved with Sodium ved with Hydroc	d at room temperation frozen) in Thiosulfate to reminion Acid (2 drops	ture nove chlorine residual s/40 ml)
Sample Ty Soil, D-F le form acc - eeptur - glass	Distribution    Other: Treating   Treating   Other: Treating   Oth	g Skid dis	Charge  Servation:  No Preservation  No Preservation  Sample stored  Sample Preservation  Hold Sample Preservation  Hold Sample Preservation  Charge	in; Sample store I in an loe bath (I rved with Sodium ved with Hydroc ved with 20 mg/	d at room temperation frozen)  1 Thiosulfate to reminion Acid (2 drop)  1 Mercurio Chioride	ture nove chlorine residual s/40 ml)
Sample Ty Soil, D-F le form acc - eeptur - glass	Distribution  Other: Treatin  ype: D-Water  Wastewater  Wastewater  Chi Food, D-Other  companies a single sample cor  re vial(s) (volume = 100	skid dis	Charge  Servation:  No Preservation:  No Preservation:  Sample stored  HCI Sample Preser  HgCl <sub>s</sub> Sample Preser  Sher  Solver  Solver	in; Sample store I in an ice both (inved with Sodium ved with Hydroc ved with 20 mg/	d at room temperation frozen) in Thiosuffate to reminion Acid (2 drops it Mercurio Chloride	nove chlorine residual a/40 mi)
Gample Tyles form accurate glass	Distribution  Other: Treatin  ype: D-Water  Wastewater  Wastewater  Chi Food, D-Other  companies a single sample cor  re vial(s) (volume = 100	skid dis	charge servation: P No Preservation P No Preserv	in; Sample store I in an ice both (inved with Sodium ved with Hydroc ved with 20 mg/	d at room temperal lot Frozen) in Thiosulfate to rem hiorio Acid (2 drope i Mercurio Chloride unal/ytical scree required, and i	nove chlorine residual a/40 mi)
Pool	Distribution Other: Treation Other: Other Other:	skid dischlorinated 20 Presorinated C-1 Selecting of: C-1 Selectin	charge  ervation: P No Preservation: Sample Preservation: P No Preserv	in; Sample store in an ice both (inved with Sodium ved with Hydroc ved with 20 mg/ e the type of a suspected or pected. clatife Scre tse/Neutral E	d at room temperation frozen) in Thiosulfate to reminion Acid (2 drops il Mercurio Chloride inalytical screen required, and i	nove chlorine residual a/40 mi) note
PoolWWTP Sample Ty Soil, []-F le form acceeptusglass Analyses I(753) Al(754) Al	Distribution Other: Treating  ype: D-Water	skid dischlorinated 20 Presorinated C-1 Selecting of milea.) il ea.)	charge envation: P No Preservation P-los Sample stored P-TS Sample Preser P-TG Sample Preser P-TGC SAMPLE P-TGC	in; Sample store in an loe both (in an loe bot	d at room temperation frozen) in Thioeufate to reministrate Acid (2 drope in Mercurio Chloride required, and in the control of	nove chlorine residual e/40 ml) note:
Sample Tyles form accurate and	Distribution Other: Treation O	skid dischlorinated 20 Presorinated orinated ori	charge ervation: P No Preservation: P No Preservation: P-100 Sample stored P-13 Sample Preservation: P-101 Sample Preservation: P-102 Sample Preservation: P-103 Sample Preservation: P-105 Bit P-10	in; Sample store I in an loe beth (I red with Sodium ved with Hydroc ved with 20 mg/ e the type of a suspected or pected. olatile Scre use/Neutral E use/Neutral/ urbamate Pes erbicides, Chi	d at room temperation frozen) in Thioeufate to reministe Acid (2 drops) in Mercurio Chloride required, and in but a tables (EP Acid Extractable ticide (EPA 63 arophenoxy Ac	nove chlorine residual s/40 ml) n(s) note : A 625) :: se (EPA 8270) 1:1)
Pool	Distribution Other: Treating Other: Other Other: Other: Other Other: Other: Other Other: Other: Other: Other Other: Other: Other: Other Other: Oth	skid dischlorinated 20 Presorinated C-1 Sking of milea.)  appropriate box(energy possible, list spinlighly contaminate screen)  les (EPA 601/2)  PA 624)  1 (EPA 502.2)	charge ervation: P No Preservation P-los Sample stored P-13 Sample Preservation P-14Cl Sample Preservation P-15Cl Sample Preserva	on; Sample store in an loe both (Inved with Sodium ved with Hydroc ved with 20 mg/ a the type of a suspected or pected. platile Scre use/Neutral // urbarnate Pes proicides, Chi proicides, Tris ydrocarbon F	d at room temperal to Frozen) Thiosulfate to rem hioric Acid (2 drope Mercurio Chloride required, and i sure tables (EP Acid Extractable ficides (EPA 63 orophenoxy Ac zine (EPA 507) uel Screen (EP/	hure  nove chlorine residual a/40 mil)  n(s) note article (EPA 8270) 1:1) id (EPA 515.1)
☐-WWTP Sample Ty Soil, ☐-F Soil, ☐-	Distribution Other: Treation O	appropriate box(emportant) appropriate box(empor	charge envation: P No Preservation: P No Preservation: P No Preservation: P-108 Sample stored P-178 Sample Preservation: P-176 Sample Preservation: P-176 Beautiful Samples are sus P-176 Beau	in; Sample store in an loe both (I red with Sodiun ved with Hydroc ved with 20 mg/ e the type of a suspected or pected. Diatile Scre isse/Neutral E isse/Neutral Fes scrbicides, Chi orbicides, Tris rdrocarbon F rganochlorine	d at room temperation frozen) in Thioeutate to remember Acid (2 drope in Mercurio Chloride in the curio Caractable (EPA 63) or ophien coxy Acid in the curio (EPA 507) uel Screen (EPA 507). I Pesticides (EPA 507)	hure  nove chlorine residual a/40 ml)  n(s) note (EPA 8270) 1.1) id (EPA 515.1) A M-8015)
	Distribution  Other: Treating  Other: Other  Other: Other: Other  Other: Other: Other  Other: Other: Other: Other  Other:	skid dischlorinated 20 Presorinated orinated ori	charge  ervation:  P No Preservation: P No Preservation: P-108 Sample Preservation: P-178 Sample Preservation: P-178 Sample Preservation: P-1789 Barries are sus P-1789 Hotel	in; Sample store in an loe bath (in an loe bat	d at room temperation Frozen) Thiosufate to reministe Acid (2 drops) Mercurio Chloride required, and i straktables (EPA 53 orophenoxy Acid (EPA 53) uel Screen (EPA 507) uel Screen (EPA 51) i Pesticides (EPA 51)	hure  nove chlorine residual s/40 mt)  n(s) note  A 625) 3.  Se (EPA 8270) 1.1)  Id (EPA 515.1)  A M-8015) A 505) EPA 507) B's) in Oli
	Distribution Other: Treation Other: Other Other: Other Other: Other: Other Other: Other: Other Other: Other: Other Other: Other Other: Other Other: Other Other: Other Other: Other	skid dischlorinated 20 Presorinated orinated ori	charge  Providor: P No Preservation: P No Preservation: P-108 Sample stored: P-13 Sample Preservation: P-103 Sample Preservation: P-104 Sample Preservation: P-105 Sample Preservation:	in; Sample store in an ice bath (in an ice bat	d at room temperation frozen) in Thiosufate to reminion Acid (2 droped in Mercurio Chloride required, and in Maratables (EPA 53 orophenoxy Acid Extractable (EPA 507) uel Screen (EPA 507) in Pesticides (EPA 51) in Pesticides (EPA 51)	hure  nove chlorine residual s/40 mt)  n(s) note  A 6225) 3.2  Se (EPA 8270) 1.1)  kd (EPA 515.1)  A M-8015)  PA 505)  EPA 507)  B's) in Oil (SLD 758/760)
- (753) A   - (753) A   - (754) A   - (766) S   - (774) S   - (779) C	Distribution Other: Treation O	skid dischlorinated 20 Presorinated orinated ori	charge  Providor: P No Preservation: P No Preservation: P-108 Sample stored: P-13 Sample Preservation: P-103 Sample Preservation: P-104 Sample Preservation: P-105 Sample Preservation:	in; Sample store in an ice bath (in an ice bat	d at room temperal tot Frozen) in Thiosufate to rem hioric Acid (2 drope in Mercurio Chloride required, and i  stractables (EPA 53 orophenoxy Ac zine (EPA 507) uel Screen (EP) Pesticides (EP ate Pusticides (EP ate Corg. Cmpds.	hare  nove chlorine residual s/40 mt)  n(s) note  A 6225) 3.5 se (EPA 8270) 1.1) kd (EPA 515.1) A M-8015) PA 505) EPA 507) B's) in Off (SLD 758/760)
	Distribution Other: Treation Other: Other Other: Other: Other Other: Other: Other Other: Other: Other: Other Other: Other: Other: Other: Other Other: Other	skid dischlorinated 20 Presorinated C-1 Seisting of milea.)  appropriate box(energy possible, list sphighty contaminate screen)  (see (EPA 601/2) (PA 624) (PA 502.2) (PA 504) (PA 504) (PA 504)	charge ervation: P No Preservation: P No Preservation: P No Preservation: P-Ice Sample stored P-ICE Sample Preservation: P-ICE SAMPLE P-ICE S	in; Sample store in an loe bath (Inved with Sodium ved with Hydroc ved with 20 mg/ a the type of a suspected or pected.  Solatile Scre use/Neutral E use/Neutral // urbamate Pes erbicides, Chi erbicides, Chi erbicides, Chi erbicides, Tris ydrocarbon F rganochlorine ganophosph hychlorinated XVA Syntheti tal Petroleum	d at room temperal tot Frozen) in Thiosufate to rem hioric Acid (2 drope in Mercurio Chloride required, and i  stractables (EPA 53 orophenoxy Ac zine (EPA 507) uel Screen (EP) Pesticides (EP ate Pusticides (EP ate Corg. Cmpds.	hure  nove chlorine residual s/40 mt)  n(s) note  A 6225) 3.2  Se (EPA 8270) 1.1)  kd (EPA 515.1)  A M-8015)  PA 505)  EPA 507)  B's) in Oil (SLD 758/760)
- (753) A   - (753) A   - (754) A   - (766) S   - (774) S   - (779) C	Distribution Other: Treation O	skid dischlorinated 20 Presorinated C-1 Seisting of milea.)  appropriate box(energy possible, list sphighty contaminate screen)  (see (EPA 601/2) (PA 624) (PA 502.2) (PA 504) (PA 504) (PA 504)	charge ervation: P No Preservation: P No Preservation: P No Preservation: P-Ice Sample stored P-ICE Sample Preservation: P-ICE SAMPLE P-ICE S	in; Sample store in an loe bath (Inved with Sodium ved with Hydroc ved with 20 mg/ a the type of a suspected or pected.  Solatile Scre use/Neutral E use/Neutral // urbamate Pes erbicides, Chi erbicides, Chi erbicides, Chi erbicides, Tris ydrocarbon F rganochlorine ganophosph hychlorinated XVA Syntheti tal Petroleum	d at room temperal tot Frozen) in Thiosufate to rem hioric Acid (2 drope in Mercurio Chloride required, and i  stractables (EPA 53 orophenoxy Ac zine (EPA 507) uel Screen (EP) Pesticides (EP ate Pusticides (EP ate Corg. Cmpds.	hare  nove chlorine residual s/40 mt)  n(s) note  A 6225) 3.5 se (EPA 8270) 1.1) kd (EPA 515.1) A M-8015) PA 505) EPA 507) B's) in Off (SLD 758/760)
- (753) Al   - (754) Al   - (756) M   - (775) Si   - (790) Ca	Distribution Other: Treation Other: Other Other: Other: Other Other: Other: Other Other: Other: Other: Other Other: Other: Other: Other: Other Other: Other	skid dischlorinated 20 Presorinated C-1 Seisting of milea.)  appropriate box(energy possible, list sphighty contaminate screen)  (see (EPA 601/2) (PA 624) (PA 502.2) (PA 504) (PA 504) (PA 504)	charge ervation: P No Preservation: P No Preservation: P No Preservation: P-Ice Sample stored P-ICE Sample Preservation: P-ICE SAMPLE P-ICE S	in; Sample store in an loe bath (Inved with Sodium ved with Hydroc ved with 20 mg/ a the type of a suspected or pected.  Solatile Scre use/Neutral E use/Neutral // urbamate Pes erbicides, Chi erbicides, Chi erbicides, Chi erbicides, Tris ydrocarbon F rganochlorine ganophosph hychlorinated XVA Syntheti tal Petroleum	d at room temperal tot Frozen) in Thiosufate to rem hioric Acid (2 drope in Mercurio Chloride required, and i  stractables (EPA 53 orophenoxy Ac zine (EPA 507) uel Screen (EP) Pesticides (EP ate Pristicides (EP ate P	hure  nove chlorine residual s/40 mt)  n(s) note (EPA 8270) 1.1) kd (EPA 515.1) A M-8015) PA 505) EPA 507) B's) in Oil (SLD 758/760)

#### DEPARTMENT OF HEALTH

# SCIENTIFIC LABORATORY DIVISION

P.O. Box 4700

Albuquerque, NM 87196-4700

700 Camino de Salud, NE [505]-841-2500

6 1995 NOV

SAN ANGELO OFFICE

FILE

ORGANIC CHEMISTRY SECTION [505]-841-2570

*November 1, 1995* 

Request ID No. 090073

ANALYTICAL REPORT SLD Accession No. OR-95-4350 respresivent i sepud Skleit de pad Klissuca e i Š

	Dist	nb	ution	Note	1%
EHG	( ) U	lser	64000	,	
DDB	(XS	ubm	itter (	58	
BDH	(x) S				$\Gamma$
CEK			JWH		
AER			e£ ₩		
HL			DOK		
JH			שטע		

To: Jay Janica

Texas New Mexico Pipeline Co.

PO Box 60028

San Angelo, Texas 76906

From:

Organic Chemistry Section

Scientific Laboratory Div.

700 Camino de Salud, N.E.

P.O. Box 4700

Albuquerque, NM 87196-4700

A water, Extractable sample submitted to this laboratory on October 5, 1995 Re:

### **DEMOGRAPHIC DATA**

**COLLECTION LOCATION** On: 29-Sep-95 By: Ric . . . SPS Well 11 Treating Skid

At: 15:00 hrs. *In/Near:* Lovington

ANALYTICAL RESULTS: SDWA VOC-II [EPA-504] Screen {775}

Parameter Parameter	Value	Qual	POL	<u>Units</u>
1,2-Dibromoethane (EDB)	0.00	U	0.02	ppb
1,2-Dibromo-3-chloropropane	0.00	U	0.02	ppb
See Laboratory Remarks for	Additional	Infor	mation	
Notations & Comments:				

Evidentiary Seals: Not Sealed ; Intact: No , Yes & Broken By:

# **Laboratory Remarks:**

#### SAFE DRINKING WATER ACT VOLATILES-II

Lab Name: NM SCIENTIFIC LABORATORY DI	VISION Contract:/A
Lab Code: N/A Case No.: N/A	SAS No.: N/A SDG No.: N/A
Matrix: (soil/water) <u>Water</u>	Lab Sample ID: <u>OR-95-4350</u>
Sample wt/vol: $35.0$ (g/mL) ml	SLD Batch No: 548
Level: (low/med) Low	Date Received: 10/05/95
% Moisture: not dec. N/A dec. N/A	Date Extracted: 10/25/95
<pre>Extraction: (SepF/Cont/Sonc) Micro</pre>	Date Analyzed: 10/27/95
GPC Cleanup: (Y/N) No pH: N/A	Dilution Factor: 1
<u> </u>	CONCENTRATION UNITS:
	(ug/L or ug/Kg): ug/L

EPA Method 504 was used to analyze for the following compounds

CAS NO.	COMPOUND	CONC.	0_	MDL
106-93-4	1,2-Dibromoethane (EDB)		IJ	0.02
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)		IJ	0.02

- \* CONC = CONCENTRATION DETERMINED
  - MDL= The Method Detection Level (Limit) is the minimum concentration of a compound that can be measured and reported with 99% confidence that the analyte concentration is greater than zero (FR 23703, June 1986). If a sample is diluted (usually due to high levels of contaminants) during analysis, the actual "sample detection limit" can be obtained by multiplying the MDL by the dilution factor reported above.
  - PQL= Practical Quantitation Limit (Approximately 5-10 times MDL) is the concentration of the lowest standard routinely analyzed. Concentrations determined between the MDL and the PQL will be qualified with a "J" indicating an approximate concentration.
- \* Q = Qualifier Definitions:
- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the quantitation limit.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

#### QUALITY CONTROL SUMMARY FOR VOLATILES II SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED 1,2-Dibromoethane (EDB)

CONCENTRATION (ug/L) 0.05

SURROGATE RECOVERIES SURROGATE

CONCENTRATION

%RECOVERY

ANALYTICAL REPORT SLD Accession No. OR-95-4350 Continuation, Page 3 of 3

1,1,2,2,-TCEa

50. ug/L

116.0

SPIKE RECOVERY: The % recoveries for compounds in the batch spike were from 70% to 130% with the exception of the compounds listed below:

listed below:

COMPOUND

CONCENTRATION

% RECOVERY

No exceptions

. ug/L

Analyst:

Nancy DeWitt

Analyst, Organic Chemistry

Reviewed By:

Richard F. Meyerhein 11/01/95 Supervisor, Organic Chemistry Section

CRGANIC CHEMISTRY AND SCIENTIFIC LABOR 700 CAMINO DE SALUD N.E., Organic Chemistry Section Code 4: 0.0.0.	ATORY DIVISION ALBUQUERQUE, NM 87106 Telephone: (505) 841-2570	Real	Date Received: OCT	4350 c 0 5 1995 3
Fecsity	- in Hora	6 County:	Code #: ∟ 7 City:	8 State
Name: SPS -11	·	Lea	Lovington	N.M.
Sample Location: S.P.S. IWIE	4.T. 1.T. 1. 1.1.1.1.1.1.1.1.1.1.1.1.1.1.	RIEIAITITINI	SI ISIKITIDI I	1 1 1
O Collected By: Price 5	K.I.C. Thurful	On 9518	I DE KIEST	AlaiL
A Red		Dete: (YY/Mi	WOOD Tener and per	
1)Codec		12	Latitude (DOMASS)	•
Submitter 📏 Y	/\$\$ <b>≠</b> Org	panization Lor	okude (DDOMMSS)	2 Digit ID
3 Report None To: Jay Janica	14 Phone #: (915) 9	47-9008	Samples Inform	
Texas-New Mexico	n Pipeline Co		e Purpose: - Composite	Composite
PO Box 60028		Ø-N	ompliance — Flow Propo MED Monitoring — Equal Alique confirmation — Sample Soft w.	raonea ** st
San Angelo, Texa	as 76906	1 1-8	pecial Chain of Custoo	Y
Data: pre, conductivity:	umhos/am @ T		Chlorine Residuel:mg/l, Flow	
	to Distribution Remai	rise:		
☐-Lake ☐-Well; Depti ☐-Drain ☐-Spring		led from 1/4"		
☐-Pool ☐-Distribution ☐-WWTP ☐-Other: _T	reating Skid	ated charcoal	filter vessel di	scharge
	mi es.)	te Sample stored in an ice Sample Preserved with ICI Sample Preserved with InCL Sample Preserved with	Sodium Thiosulfate to remove ti	
required	heck the appropriate box(es). Whenever possible, list spectionever highly contaminated	alic compounds suspec	ted or required, and note:	
- (753) Aliphatic Headspace (Que - (754) Aromatic & Halogenated I - (765) Mass Spectrometer Purge - (766) SDWA Total Trihalometha - (774) SDWA VOC's I [21 REGUI - (775) SDWA VOC's II [EDB & DI	Purgeables (EPA 601/2) pables (EPA 624) nes (EPA 501.1) .ATED +] (EPA 502.2) BCP] (EPA 504)	- (755) Base/Net - (756) Base/Net - (772) Carbamat - (758) Herbicide - (759) Herbicide - (751) Hydrocart	utral Edractables (EPA 621 utral/Acid Edractables (EP to Pesticides (EPA 531:1) s, Chlorophenoxy Acid (EP «. Triazine (EPA 507) bon Fuel Screen (EPA M-8	A 8270) PA 515.1) 015)
Other Specific Comp		761) Organopt (767) Polychlori (762) SDWA Syr	viorine Pesticides (EPA 505) nosphate Pasticides (EPA 1) inated Biphenyls (PCB's) in nathetic Org. Cmpds. (SLD cleum Hydrocarbons (EPA	507) 1 Oil 758/760)
Please Fax Result	s To Me AT (505) 3	96-2754	1001	

P.O. Box 4700 Albuquerque, NM 87196-4700 700 Camino de Salud, NE [505] 841-2500

ORGANIC CHEMISTRY SECTION [505] 841-2570

		3	
WATER SUPPLY	Jay Janica	REQUEST ID No	p.: 90072
SYSTEM (was):	Texas New Mexico Pipeline	SLD No	o.: 9504348
0	P.O. Box 60028		
	San Angelo, TX 76906	RECEIVED AT SI	D: 10/5/95
		D SLD CO	PY
		- - F	
N.M.E.D. DRINKING	·	ED FIELD OFFICE:	ED Field Office, Hobbs
WATER BUREAU:			726 E. Michigan Ave
			Suite 165
			Hobb, NM 88240
,		[	
		-	·
•	SAMPLE COLLECTION DATE: 9/29/95	TIME: 1500	BY: Ric
S	SAMPLE LOCATION: SPS Well	11 Treating Skid	
wss ≢:	0	REPO	ORTING UNITS: ug/L
		:	ania Asida
Remarks:	Sample preser	ved with Hydrochl	oric Acia:

# EPA METHOD 502.2 SDWA VOLATILES BY GAS CHROMATOGRAHY (PID/ELCD)

ANALYSIS No.: OR- 9504348 N/A DATE EXTRACTED: 528A DATE ANALYZED: 10/12/95 13 Days: Within EPA Analysis Time SLD BATCH No.: **DILUTION FACTOR:** SAMPLE VOL (ml): 1.00 REQUEST ID No.: 90072 Being Analyzed by GC/MS

CAS#	ANALYTE NAME	CONC. (ug/L)	QUAL	SDL	MC
71-43-2	Benzene		U	0.50	5
108-86-1	Bromobenzene		U	0.50	
74-97-5	Bromochloromethane		U	0.50	
75-27-4	Bromodichloromethane*		U	0.50	8
75-25-2	Bromoform*		U	0.50	8
24-83-9	Bromomethane		U	0.50	
78-93-3	2-Butanone (MEK)		U	0.50	
104-51-8	n-Butylbenzene		U	0.50	
35-98-8	sec-Butylbenzene		U	0.50	
98-06-6	tert-Butylbenzene		U	0.50	
634-04-4	tert-Butyl methyl ether (MTBE)		U	0.50	
56-23-5	Carbon tetrachloride		U	0.50	5
08-90-7	Chiorobenzene (monochiorobenzene)		U	0.50	10
75-00-3	Chloroethane		U	0.50	1000
67 <del>-6</del> 6-3	Chloroform*		U	0.50	8
74-87-3	Chloromethane		U	0.50	
95-49-8	2-Chlorotoluene		υ	0.50	
06-43-4	4-Chlorotoluene		U	0.50	
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)		U	0.50	0.
24-48-1	Dibromochloromethane*		U	0.50	80
06-93-4	1,2-Dibromoethane (Ethylene dibromide (EDB))		U	0.50	0.0
74-95-3	Dibromomethane		U	0.50	- 4
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)		U	0.50	60
641-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)		U	0.50	60
06-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)		U	0.50	75
<b>'5-71-8</b>	Dichlorodifluoromethane		U	0.50	
75-34-3	1,1-Dichloroethane		U	0.50	
07-06-2	1,2-Dichloroethane		U	0.50	5
<b>'5-35-4</b>	1,1-Dichloroethene		U	0.50	7
56-59-4	cis-1,2-Dichloroethene		U	0.50	70
56-60-5	trans-1,2-Dichloroethene		u	0.50	10

78-87-5	1,2-Dichloropropane		U	0.50	5
142-28-9	1,3-Dichloropropane		U	0.50	
590-20-7	2,2-Dichloropropane		U	0.50	
563-58-6	1,1-Dichloropropene		U	0.50	
1006-01-5	cis-1,3-Dichloropropene		U	0.50	
1006-02-6	trans-1,3-Dichloropropene		U	0.50	
100-41-4	Ethylbenzene		U	0.50	700
87-68-3	Hexachlorobutadiene		U	0.50	10.83
98-82-8	Isopropylbenzene		U	0.50	A CONTRACT
99-87-6	4-Isopropyltoluene		U	0.50	
75-09-2	Methylene chloride (Dichloromethane)		U	0.50	5
91-20-3	Naphthalene		U	0.50	Name of the last o
103-65-1	Propylbenzene		U	0.50	
100-42-5	Styrene		U	0.50	100
630-20-6	1,1,1,2-Tetrachloroethane		U	0.50	
79-34-5	1,1,2,2-Tetrachloroethane		U	0.50	
127-18-4	Tetrachloroethene		U	0.50	5
109-99-9	Tetrahydrofuran (THF)		U	2.00	
108-88-3	Toluene		U	0.50	1000
87-61-5	1,2,3-Trichlorobenzene		U	0.50	1. 1.
120-82-1	1,2,4-Trichlorobenzene		U	0.50	70
71-55-6	1,1,1-Trichloroethane		U	0.50	200
79-00-5	1,1,2-Trichloroethane		U	0.50	5
79-01-6	Trichloroethene		U	0.50	5
75-69-4	Trichlorofluoromethane		U	0.50	
96-18-4	1,2,3-Trichloropropane		U	0.50	
95-63-6	1,2,4-Trimethylbenzene		U	0.50	
108-67-8	1,3,5-Trimethylbenzene		U	0.50	
75-01-4	Vinyl chloride		U	0.50	2
95-47-6	o-Xylene		U	0.50	10.00
N/A	p- & m-Xylene*		U	0.50	
N/A	"Total Xylenes"	0	U	0.50	10000
N/A	*Total Trihalomethanes*	0	u l	0.50	100

Laboratory Remarks: An unidentified compound was detected with the Photoionization Detector at about 8 ug/L.

The sample was analyzed by GC/MS and Trimethylsilanol was tentatively identified.

	LABORATORY BATCH QUAL	JTY CONTROL SUMMARY			
SURROGATE	SURROGATE COMPOUNDS	CONCE	NTRATION %	RECOV	ERY
RECOVERIES:	2-Bromochiorobenzene (PID Surr)	0		0.0%	Low
	2-Bramochlorobenzene (ELCD Surr)	0		0.0%	Low
LABORATORY FORTIFIED BLANK RECOVERIES	The % recoveries for compounds in the exception of the compounds liste COMPOUND 1,2-Dichloroethane			h the	
LABORATORY BLANKS	No target compounds were detected about the ecxeption of the compounds		limit in laborator	y blank	=
,	COMPOUND	CONCENTRAT	ION (mg/L)		
	1,2-Dichloroethane	3.	5		

ANALYST: Nancy DeWitt QC APPROVED BY: Ken Sherrell

#### **DEFINITIONS**

Concentration Exceeds EPA's allowable Maximum Contamination Level

CAS# Chemical Abstract Services Number - Unique number to help identify analytes listed by different names

CONC. Concentration (ug/L) of analyte actually detected in the sample

QUAL Qualifier of analytical results as follows:

- B Analyte was detected in laboratory blank
- J Analyte was detected at a level below which an accurate quanitation can be given (-5 \* SDL)
- U No analyte was detected above the Sample Detection Limit.

MCL Maximum Contamination Level Allowed by EPA for regulated analytes

SDL Sample Detection Limit - The lowest concentration which can be differentiated from Zero with

99% confidence taking sample size (compositing) into account.

ug/L Concentration Units - micrograms per liter which is approximately equivalent to Parts Per Billion (ppb)

SCIENTIFIC LABORATORY DIVISION 700 CAMINO DE SALUD N.E., ALBUQUERQUE, NI Organic Chemistry Section - Telephone: (505) 84  Liver Code 4: 3 Req ID N  5 Facility Name: SPS-11  9 Sample Location: LS PIS I WIE LILL 111	4 87108 1-2570 Request	72-A Code 7 City:	y Z Fret
By:  First    Confidence   Conf	Organization  hone #: 5) 947-9008	Longitude (DOMMSS  Longitude (DO	2 Digit to granded
Data: PF: Conductivity: umhos/s  17] Sample Source:  Stream Strea	Field Remarks: Sampled from activated char discharge 20 Preservation:	C. Residual: M  1/4" Hose Bib fi  coal filter ves  in; Sample stored at room temp In an ice bath (Not Frozen) ved with Sodium Thiosulfate to ved with Hydrochloric Acid (2 d ved with 20 mg/l Mercuric Chic	ce 1 perature remove chlorine residual lrope/40 ml)
Analyses Requested: Please check the appropriate required. Whenever possible below whenever highly control below whenever highly control	below to indicate   below to indicate	suspected or required, as	TEPA 625) **  (EPA 625) **  (bides (EPA 8270)  531.1)  Acid (EPA 515.1)  (EPA M-8015)  (EPA 505)  (EPA 507)  PCB's) in Oil  (s. (SLD 758/760)
Please Fax Results To Me at	(505) 396-2754		2

Must & Kulanto

P.O. Box 4700 Albuquerque, NM 87196-4700 700 Camino de Salud, NE [505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

November 1, 1995

Request ID No. 090075

# ANALYTICAL REPORT SLD Accession No. OR-95-4351

Distribution

() User 64000
() Submitter 68
(x) SLD Files

To: Jay Janica

Texas New Mexico Pipeline Co.

PO Box 60028

San Angelo, Texas 76906

From:

Organic Chemistry Section Scientific Laboratory Div.

700 Camino de Salud, N.E.

P.O. Box 4700

Albuquerque, NM 87196-4700

Re: A water, Extractable sample submitted to this laboratory on October 5, 1995

DEMOGRAPHIC DATA

COLLECTION
On: 4-Oct-95
By: Ric . . . SPS Well 11 Treating Skid

At: 10:10 hrs. In/Near: Lovington

ANALYTICAL RESULTS: SDWA VOC-II [EPA-504] Screen {775}

Parameter	Value	Qual	PQL	<u>Units</u>
1,2-Dibromoethane (EDB)	0.00	U	0.02	ppb
1,2-Dibromo-3-chloropropane	0.00	Ŭ	0.02	ppb
See Laboratory Remarks for	Additional	Inform	mation	
Notations & Comments:				
Evidentiary Seals: Not Sealed   Intact: No   Yes	& Broken By:			Date:

**Laboratory Remarks:** 

#### SAFE DRINKING WATER ACT VOLATILES-II

Lab Name: NM SCIENTIFIC LABORATORY DIVISION Contract: /A Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: N/A Lab Sample ID: OR-95-4351 SLD Batch No: 548
Date Received: 10/05/95 Sample wt/vol: 35.0 (g/mL)\_\_\_ (low/med) Low % Moisture: not dec. N/A dec.N/ADate Extracted: 10/25/95 Extraction: (SepF/Cont/Sonc) <u>Micro</u> Date Analyzed: 10/27/95 GPC Cleanup: (Y/N) No pH: <u>N/A</u> Dilution Factor: 1 CONCENTRATION UNITS: (ug/L or ug/Kg):\_\_\_\_ uq/L

EPA Method 504 was used to analyze for the following compounds

_CAS NO.	COMPOUND	CONC.	0	MDL
106-93-4	1,2-Dibromoethane (EDB)		ט	0.02
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)		Ū	0.02

- \* CONC = CONCENTRATION DETERMINED
  - MDL= The Method Detection Level (Limit) is the minimum concentration of a compound that can be measured and reported with 99% confidence that the analyte concentration is greater than zero (FR 23703, June 1986). If a sample is diluted (usually due to high levels of contaminants) during analysis, the actual "sample detection limit" can be obtained by multiplying the MDL by the dilution factor reported above.
  - PQL= Practical Quantitation Limit (Approximately 5-10 times MDL) is the concentration of the lowest standard routinely analyzed. Concentrations determined between the MDL and the PQL will be qualified with a "J" indicating an approximate concentration.
- \* Q = Qualifier Definitions:
- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the quantitation limit.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

#### QUALITY CONTROL SUMMARY FOR VOLATILES II SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED 1,2-Dibromoethane (EDB)

CONCENTRATION (ug/L) 0.05

SURROGATE RECOVERIES SURROGATE

CONCENTRATION

\*RECOVERY

ANALYTICAL REPORT SLD Accession No. OR-95-4351 Continuation, Page 3 of 3

1,1,2,2,-TCEa

50. ug/L

114.0%

The % recoveries for compounds in the batch SPIKE RECOVERY: spike were from 70% to 130% with the exception of the compounds

listed below:

COMPOUND

CONCENTRATION

% RECOVERY

ug/L

No exceptions

Analyst:

Nancy DeWitt

Analyst, Organic Chemistry

Reviewed By:

Richard F. Meyerhein 11/01/95

Supervisor, Organic Chemistry Section

ORGANIC CHEMISTRY ANALYTICAL REQU	EST FORM	SLD No.	OR95 4351 C
SCIENTIFIC LABORATORY DIVISION 700 CAMINO DE SALUD N.E., ALBUQUERQUE, NX Organic Chemistry Section - Telephone: (506) 841	4 4670	Dete	OCT 0 5 1995
2 User 3 Req	Veducar	)	y 7 Tor
Facility Name: SPS -11	6 County	Lovin	6 State
Sample Location: C. D. C.			
TiCollected	The state of the s	148104 VI	
First    Lisisit		E (YY/MM/OO) TIN	16: 2:00 par = 10:00 hrs.
	Organization	•	2 Diak #D
13 Report Ham 14 P	<b>Phone #:</b> 915) 947-9008		ng information:
Texas-New Mexico Pipeline Co PO Box 60028	2	Sample Purpose: Grat	1
San Angelo, Texas 76906		☐ NMED Monitoring ☐ [] Confirmation ☐ Sam	couel Aliquot ple Split w/Permittee n of Cuetody
18 Field Data: pHt, Conductivity: umhos/o	om @ Temperature:	Chindre	g/l, Flow:
Stream	activated char  20/ Preservation:	suspected or required, a	perature perature perature premove chlorine residual props/40 mil
- (753) Aliphatic Headspace (Qualitative Screen) - (754) Aromatic & Halogenated Purgeables (EPA 60 - (765) Mass Spectrometer Purgeables (EPA 624) - (766) SDWA Total Trihalomethanes (EPA 501.1) - (774) SDWA VOC's I [21 REGULATED +] (EPA 502 - (775) SDWA VOC's II [EDB & DBCP] (EPA 504) - (790) Composite Sample for Analysis No.  Otther Specific Compounds or Class - ( )	- (755) B   - (756) B   - (772) C   - (758) H   - (751) H   - (761) O   - (761) O   - (762) SC	sse/Neutral Edractables sse/Neutral/Acid Edracta arbamate Pesticides (EP/ erbicides, Chlorophenoxy erbicides, Triazine (EPA 5 ydrocarbon Fuel Screen ( rganochlorine Pesticides rganophosphate Pesticides rganophosphate Pesticid stychlorinated Biphenyls ( XWA Synthetic Org. Cmpo tal Petroleum Hydrocarb	ables (EPA 8270) 1531:1) Acid (EPA 515.1) 07] EPA M-8015) (EPA 505) 88 (EPA 507) PC8's) in Oli
Please Fax Results To Me AT (	505) 396-2754	//m 21 #4	Ruchart

STATE OF NE				PART	MENT OF	HEALTH
	SCIENTIFIC LABOR					
	P.O. Box 4700	700 C	amino de Sal	-	Ē	
	Albuquerque, NM 87196-4700		[505] 841-250	0		
	ORGANIC CHEMISTRY SI	CTION [505] 841-257	0			
WATER SUPPLY	Jav Janica	REQUEST ID N	lo.: 9007	74	7	
8	Texas New Mexico Pipeline	SLD N	o.: 95043	349	7	
3151EM (WSS).	PO Box 60028	J. J	0	J-10	ᆦ	
4		RECEIVED AT S	SLD: 10/5/95	7		
ł	San Angelo, TX 76906	HECEIVED AT S	<u> </u>	ال		
i		l a staco	PT			
			ED 5:046	\6C	11-66-	<del></del>
N.M.E.D. DRINKING	1	ED FIELD OFFICE:	ED Field C			. 100
WATER BUREAU:			726 E. Mic	nıgan	Ave,Suite	103
				<del></del> .		<del></del>
			Hobbs, N	M 882	240	
,						
			_			
I						
	SAMPLE COLLECTION DATE: 10/4/95	TIME:1010	BY:	Ric	_	
	SAMPLE LOCATION: SPS Well	11 Treating Skid				
Wss #	: 0	REI	PORTING UNITS:	ug/L		
					_	
Remarks:	Sample presen	ved with Hydroch	loric Acid:			
EPA ME	THOD 502.2 SDWA VOLATILES	BY GAS CHROMA	ATOGRAHY (P	ID/ELC	CD)	
			ANALYSIS N			
DATE EXTRA		:. <del></del>			<del></del>	
DATE ANA		rsis i ime	SLD BAT			
SAMPLE \	/OL (ml): 5		DILUTION FA			
0			REQUEST	ID 140.:	900	/4
	ATION: Sample Temperature when received:	7 Degrees C.; pH = 2			···	
71-43-2	ANALYTE NAME		CONC. (ug/L)	QUAL,	SDL	MCL
108-86-1	Benzene Bromobenzene			U	0.50	5
74-97-5	Bromochloromethane			Ü	0.50	100
75-27-4	Bromodichloromethane*			Ü	0.50	80
75-25-2	Bromoform*			ט	0.50	80
24-83-9	Bromomethane			IJ	0.50	
78-93-3	2-Butanone (MEK)			U	0.50	
104-51-8 135-98-8	n-Butylbenzene sec-Butylbenzene			U	0.50 0.50	7,777
98-06-6	tert-Butylbenzene			U	0.50	
1634-04-4	tert-Butyl methyl ether (MTBE)			Ü	0.50	12.2
56-23-5	Carbon tetrachloride			Ü	0.50	5
108-90-7	Chlorobenzene (monochlorobenzene)			U	0.50	100
75-00-3	Chloroethane			U	0.50	1000
67-66-3	Chloroform*			U	0.50	80
74-87-3 95-49-8	Chloromethane 2-Chlorotoluene			U.	0.50	
106-43-4	4-Chlorotoluene			U	0.50 0.50	
96-12-8	1,2-Dibromo-3-chloropropane (DBCF	·)	<del></del>	Ü	0.50	0.2
124-48-1	Dibromochloromethane*			Ü	0.50	80
106-93-4	1,2-Dibromoethane (Ethylene dibromid	e (EDB))		U	0.50	0.05
74-95-3	Dibromomethane			U	0.50	2000
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenze			U	0.50	600
541-73-1 106-46-7	1,3-Dichlorobenzene (m-Dichlorobenze			U	0.50	600
75-71-8	1,4-Dichlorobenzene (p-Dichlorobenzen Dichlorodifluoromethane	<i>101</i>		Ü	0.50	75
				•	0.50	
/5-34-3				1)	0.50	
75-34-3 107-06-2	1,1-Dichloroethane 1,2-Dichloroethane			U	0.50 0.50	5

156-59-4	cis-1,2-Dichloroethene		U	0.50	70
156-60-5	trans-1,2-Dichloroethene		U	0.50	100
78-87-5	1,2-Dichloropropane		U	0.50	5
142-28-9	1,3-Dichloropropane		U	0.50	7.38
590-20-7	2,2-Dichloropropane		U	0.50	
563-58-6	1.1-Dichloropropene		U	0.50	
1006-01-5	cis-1,3-Dichloropropene		U	0.50	
1006-02-6	trans-1,3-Dichloropropene		U	0.50	
100-41-4	Ethylbenzene		U	0.50	700
87-68-3	Hexachlorobutadiene		U	0.50	
98-82-8	Isopropylbenzene		U	0.50	
99-87-6	4-Isopropyltoluene		U	0.50	
75-09-2	Methylene chloride (Dichloromethane)		U	0.50	5
91-20-3	Naphthalene		U	0.50	480
103-65-1	Propylbenzene		U	0.50	1
100-42-5	Styrene		U	0.50	100
630-20-6	1,1,1,2-Tetrachloroethane		U	0.50	્રોહર
79-34-5	1,1,2,2-Tetrachloroethane		U	0.50	
127-18-4	Tetrachloroethene		U	0.50	5
109-99-9	Tetrahydrofuran (THF)		U	2.00	
108-88-3	Toluene		U	0.50	1000
87-61-5	1,2,3-Trichlorobenzene		U	0.50	
120-82-1	1,2,4-Trichlorobenzene		U	0.50	70
71-55-6	1,1,1-Trichloroethane		U	0.50	200
79-00-5	1,1,2-Trichloroethane		U	0.50	5
79-01-6	Trichloroethene		U	0.50	5
75-69-4	Trichlorofluoromethane		U	0.50	
96-18-4	1,2,3-Trichloropropane		U	0.50	
95-63-6	1,2,4-Trimethylbenzene		U	0.50	
108-67-8	1,3,5-Trimethylbenzene		U	0.50	
75-01-4	Vinyl chloride		U	0.50	2
95-47-6	o-Xylene'		Ü	0.50	
N/A	p- & m-Xylene*		U	0.50	
NA	"Total Xylenes"	0	U	0.50	10000
NA	*Total Trihalomethanes*	0	1 0	0.50	100

	LABORATORY BATCH QUAL	JTY CONTROL SUMMARY			
SURROGATE	SURROGATE COMPOUNDS CONC		CENTRATION	% RECOVERY	
RECOVERIES:	2-Bromochiorobenzene (PID Surr)	9.6		96.0%	
	2-Bromochlorobenzene (ELCD Surr)	8.6		86.0%	
LABORATORY FORTIFIED	The % recoveries for compounds in the exception of the compounds listed		80% to 120%	with the	
BLANK	COMPOUND CONCENTRATION (mg/L) % RECOVERY				
RECOVERIES	1,2-Dichloroethane	10	126		
LABORATORY BLANKS	No target compounds were detected abo with the ecception of the compour		n limit in labora	atory blank	
	COMPOUND	CONCENTRAT	TON (mg/L)		
1	1.2-Dichloroethane		3.5		

Ken Sherrell

<del></del>	
i	<u>DEFINITIONS</u>
••	Concentration Exceeds EPA's allowable Maximum Contamination Level
CAS#	Chemical Abstract Services Number - Unique number to help identify analytes listed by different names
CONC.	Concentration (ug/L) of analyte actually detected in the sample
QUAL	Qualifier of analytical results as follows:
ŀ	B Analyte was detected in laboratory blank
	J Analyte was detected at a level below which an accurate quanitation can be given ( ~5 * SDL)
	U No analyte was detected above the Sample Detection Limit.
MCL	Maximum Contamination Level Allowed by EPA for regulated analytes
SDL	Sample Detection Limit - The lowest concentration which can be differentiated from Zero with
·	99% confidence taking sample size (compositing) into account.
ug/L	Concentration Units - micrograms per liter which is approximately equivalent to Parts Per Billion (ppb)

ANALYST: Nancy DeWitt V QC APPROVED BY:

SCIENTIFIC LABORATORY DIVISION 700 CAMINO DE SALUD N.E., ALBUQUERQUE, N. Organic Chemistry Section - Telephone: (505) 84 2 User 3 Rec	M 87106 11-2570	Request		SLD No.  Dete Received:  4 Priority		
5 Facility Name: SPS-11  Sample	Va.:	6 County:		Code d		B State
Collected By: First  Licenses  Submitter  WSS  Texas New Mexico Pipeline  PO Box 60028	Organia Phone #: 15) 947-9	Dete:	30   0 4 (YY/MM/DD) =   12	Bampin Bampin	So Information	2 Digit ID Financial II
San Angelo, Texas 76906    Field   Data: plt   Conductivity: umhos/   7 Sample Source:   Entry Point to Distribution     - Lake   - Well; Depth:     - Prool   Distribution	18 Field Remarks: Sample	d from 1	Chlorine C. Residuat:  /4" Hose	Bib fr	A Rosc	nittee
Other: Treating Skid   Sample Type:   - Water   - Unchlorinated   - Wastewater   - Chlorinated   - Chlorinat	20 Preservati	On; No Preservator Sample stored Sample Preserv Sample Preserv	n; Sample stored in an ice bath (hic red with Sodium) red with Hydrochi red with 20 mg/li	xt Frozen) Thiosulfate to r lorio Acid (2 dro	emove chlorin ope/40 mil)	e residual
Analyses Requested: Please check the appropriate required. Whenever possible below whenever highly control of the series of the	ie, list specific taminated sam 01/2) 	Compour de suspies are suspies	ruspected of r	tractables (EPA 5 rophenoxy / Ins. Screen (EPA 50 sticides (EPA 50 sticide	I note PA 625) Ides (EPA 83 Ides (EPA 5 I) PA M-8015) PA 505) (EPA 507) CB's) in Oil (SLD 758)	776) 15.1) 7760)
Please Fax Results To Me at 79	t (505) 3	96-2754.	fin	ert YK	uhart	

P.O. Box 4700 Albuquerque, NM 87196-4700 700 Camino de Salud, NE [505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

October 4, 1995

Request ID No. 090063

# ANALYTICAL REPORT SLD Accession No. OR-95-4010

Distribution () User 64000 () Submitter 68 (X Client (x) SLD Files

To: Jay Janica

Texas New Mexico Pipeline Co.

PO Box 60028

San Angelo, Texas 76906

From:

Organic Chemistry Section Scientific Laboratory Div.

700 Camino de Salud, N.E.

P.O. Box 4700

Albuquerque, NM 87196-4700

Re: A water, Purgeable sample submitted to this laboratory on September 12, 1995

<u>User:</u>

SLD Fee For Service - MISC

700 Camino de Salud, NE P.O. Box 4700

Albuquerque, NM 87196-4700

COLLECTION

By: Ric . . .

In/Near: Lovington

Submitter:

Myra Meyers

ED Field Office, Hobbs

Suite 165

726 E. Michigan Avenue

Hobbs, NM 88240

SAN ANGELO OFFICE FILE LOCATION SPS Well 11 Treating Skid Kote 1% Units

ANALYTICAL RESULTS: SDWA VOC-I [EPA-502.2] Screen {774} POL Parameter Value

SDWA VOC's-I

On: 9-Sep-95

At: 0:00 hrs.

0.00

DEMOGRAPHIC DATA

Oual U

:ppb

See Laboratory Remarks for Additional Information

Notations & Comments:

Evidentiary Seals: Not Sealed V; Intact: No | , Yes | & Broken By:

**Laboratory Remarks:** 

## SAFE DRINKING WATER ACT VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY DIVISION Lab Code: N/A Case No.: N/A SDG No.: N/A SDG No.: N/A Matrix: (soil/water) <u>Water</u> Sample wt/vol: 5.0 (g/mL) mLLevel: (low/med) Low

Date Received: 9/12/95

Moisture: not dec. N/A dec. N/A

Extraction: (SepF/Cont/Sonc) N/A

GPC Cleanup: (Y/N) No 24. 2 GPC Cleanup: (Y/N) No pH: 2

Contract: N/A Lab Sample ID: OR-95-4010

0.50

SLD Batch No: 487

1

Dilution Factor:\_\_\_\_ CONCENTRATION UNITS:

(ug/L or ug/Kg): uq/L

This sample was analyzed for the following compounds

		using	<u> LPA</u>	Methoa	302.2				
1	CAS NO.	COMPOUND				CONC.	0	POL	
	71-43-2	Benzene					U	0.5_	ı

# ANALYTICAL REPORT SLD Accession No. OR-95-4010 Continuation, Page 2 of 4

108-86-1	Bromobenzene		ΙU	0.5
74-97-5	Bromochloromethane		U	0.5
75-27-4	Bromodichloromethane		U	0.5
75-25-2	Bromoform		U	0.5
24-83-9	Bromomethane		U	0.5
78-93-3	2-Butanone (MEK)	T	U	5.0
104-51-8	n-Butylbenzene		Ū	0.5
135-98-8	sec-Butylbenzene		Ū	0.5
98-06-6	tert-Butylbenzene		U	0.5
1634-04-4	· · · · · · · · · · · · · · · · · · ·		U	5.0
56-23-5	Carbon tetrachloride		U	0.5
108-90-7	Chlorobenzene (mono-)		U	0.5
75-00-3	Chloroethane		Ū	0.5
67-66-3	Chloroform		Ū	0.5
74-87-3	Chloromethane		Ū	0.5
95-49-8	2-Chlorotoluene		Ū	0.5
106-43-4	4-Chlorotoluene		U	0.5
96-12-8	1,2-Dibromo-3-chloropropane		U	0.5_
124-48-1	Dibromochloromethane		U	0.5
106-93-4	1,2-Dibromoethane		U	0.5_
74-95-3	Dibromomethane		U	0.5
95-50-1	1,2-Dichlorobenzene (ortho-)		Ŭ	0.5
541-73-1	1,3-Dichlorobenzene (meta-)		U	0.5
106-46-7	1,4-Dichlorobenzene (para-)		U	0.5
75-71-8	Dichlorodifluoromethane		U	0.5
75-34-3	1,1-Dichloroethane		U	0.5
107-06-2	1,2-Dichloroethane		Ū	0.5
75-35-4	1,1-Dichloroethene		U	0.5
156-59-4	cis-1,2-Dichloroethene		U	0.5
<u> 156-60-5</u>	trans-1,2-Dichloroethene		U	0.5
78-87-5	1,2-Dichloropropane		U	0.5
<u>142-28-9</u>	1,3-Dichloropropane		U	0.5
590-20-7	2,2-Dichloropropane		Ü	0.5
563-58-6	1,1-Dichloropropene		U	0.5
1006-01-5	cis-1,3-Dichloropropene		U	0.5
1006-02-6	trans-1,3-Dichloropropene		Ū	0.5
100-41-4	Ethylbenzene		U	0.5_
87-68-3	<u>Hexachlorobutadiene</u>		Ū	0.5_
98-82-8	Isopropylbenzene		U	0.5
99-87-6	4-Isopropyltoluene		U	0.5
75-09-2	Methylene chloride (Dichloromethane)		U	0.5
91-20-3	Naphthalene		U	<u> 0.5</u>

103-65-1	Propylbenzene	 U	0.5
100-42-5	Styrene	U	0.5
630-20-6	1,1,1,2-Tetrachloroethane	U	0.5
79-34-5	1,1,2,2-Tetrachloroethane	U	0.5
127-18-4	Tetrachloroethene	U	0.5
109-99-9	Tetrahydrofuran (THF)	U	5.0
108-88-3	Toluene	U	0.5
87-61-5	1,2,3-Trichlorobenzene	U	0.5
120-82-1	1,2,4-Trichlorobenzene	Ū	0.5
71-55-6	1,1,1-Trichloroethane	U	0.5
79-00-5	1,1,2-Trichloroethane	U	0.5
79-01-6	Trichloroethene	U	0.5
75-69-4	Trichlorofluoromethane	Ū	0.5
96-18-4	1,2,3-Trichloropropane	ט	0.5
95-63-6	1,2,4-Trimethylbenzene	U	0.5
108-67-8	1,3,5-Trimethylbenzene	U	0.5
75-01-4	Vinyl chloride	Ū	0.5_
95-47-6	o-Xylene	U	0.5
N/A	p- & m-Xylene	U	0.5
N/A	Total Xylenes	U	1.0

\* Q = Qualifier Definitions:

CONC = CONCENTRATION DETERMINED

- PQL = Practical Quantitation Limit (Approximately 5 times MDL). Equivalent to the "minimum detection limit" defined for regulated VOC-1 compounds in 40 CFR 141.25(c).
- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the PQL listed.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

QUALITY CONTROL SUMMARY FOR VOLATILES SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with

ANALYTICAL REPORT SLD Accession No. OR-95-4010 Continuation, Page 4 of 4

this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED

CONCENTRATION (PPB)

No Compounds Detected

SURROGATE RECOVERIES:

SURROGATE CONCENTRATION

% RECOVERY

Bromofluorobenzene (PID Surr)

10.0 ppb

100.

Bromofluorobenzene (HALL Surr)

10.0 ppb

113.

The % recoveries for compounds in the batch SPIKE RECOVERY: spike were from 80% to 120% with the exception of the compounds listed below:

COMPOUND

CONCENTRATION

% RECOVERY

THF

40.0 ppb

127.

Analyst: S\_AM

S. Azhar Mustafa

Analyst, Organic Chemistry

Reviewed By:

Richard F. Meyerhein

Supervisor, Organic Chemistry Section

SCIENTIFIC LABORATORY DIVISION 700 CAMINO DE SALUD N.E., ALBUQUERQUE, NM 87108 Organic Chemistry Section - Telephone: (505) 841-2570 Request	Date Received:  4 Priority	2 1707
5 Facility 6 County:	Code of 7 City:	8 State
Name: SPS-11 Lea  Sample Location: S PS   WELLIL   1   1   Treeation   15   15   15   15   15   15   15   1	Lovi	ngton INIM
D)Collected  By:  First  L[a]  Collection  Onc.	Im	hrs.
	DOOMMSS	L 2 Dick ID
To: Jay Janica (915) 947-9008  Texas New Mexico Pipeline Co PO Box 60028  V. Table 29  San Angelo, Texas 76906  [915] 947-9008  San Angelo, Texas 76906	ea:   Ginab ea:   Comy ea   F nitoring   F on   Samp	poetle Composte low Proportioned Interfered
Data: pH: Conductivity: umhos/om @ Temperature: C. Residual:	•	g/l, Flow:
	et room temp ot Frozen) Thiosulfate to lorio Acid (2 di Mercurio Chio	remove chlorine residual rope/40 mil)
Analyses Requested: Please check the appropriate box(es) below to indicate the type of as required. Whenever possible, list specific compounds suspected or below whenever highly contaminated samples are suspected.  Yolatile Screens: Samivolatile Screen  - (753) Aliphatic Headspace (Qualitative Screen) - (755) Base/Neutral Possible (EPA 601/Z) - (756) Base/Neutral Possible (EPA 601/Z) - (756) Base/Neutral Possible (EPA 601/Z) - (756) Base/Neutral Possible (EPA 601/Z) - (758) Herbicides, Chio (T74) SDWA VOC's I [21 REGULATED +] (EPA 502.2) - (759) Herbicides, Chio (T75) SDWA VOC's II [EDB & DBCP] (EPA 504) - (751) Hydrocarbon Further (T790) Composite Sample for Analysis No (760) Organochlorine II (760) Organochlorine II (760) Organochlorine II (760) Organophosphatic (T60) SDWA Synthetic (T60) SD	required, and required and rectables (EPA rophenoxy line (EPA 50 el Screen (EPA 50 e	Id note EPA 625) ** Ibles (EPA 8270) 531.1) Acid (EPA 515.1) IPA M-8015) EPA 505) IEPA 507) PC8's) in Oil Is. (SLD 758/760)
finest ?	Thak	art

P.O. Box 4700 Albuquerque, NM 87196-4700 700 Camino de Salud, NE [505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

October 4, 1995

Request ID No. 090066

# ANALYTICAL REPORT SLD Accession No. OR-95-4011

Distribution () User 64000 () Submitter 68 (X Client (x) SLD Files

To: Jay Janica

Texas New Mexico Pipeline Co.

PO Box 60028

San Angelo, Texas 76906

From:

Organic Chemistry Section Scientific Laboratory Div. 700 Camino de Salud, N.E.

P.O. Box 4700

Albuquerque, NM 87196-4700

A water, Purgeable sample submitted to this laboratory on September 12, 1995 Re:

User:

SLD Fee For Service - MISC 700 Camino de Salud, NE

P.O. Box 4700

Albuquerque, NM 87196-4700

Submitter:

Myra Meyers

ED Field Office, Hobbs

Suite 165

726 E. Michigan Avenue Hobbs, NM 88240

#### **DEMOGRAPHIC DATA**

COLLECTION

LOCATION

On: 11-Sep-95

At: 11:00 hrs.

By: Ric . . . In/Near: Lovington

SPS Well 11 Treating Skid

Parameter

Value

ANALYTICAL RESULTS: SDWA VOC-I [EPA-502.2] Screen {774}

Qual

POL

Units

SDWA VOC's-I

0.00

0.50

See Laboratory Remarks for Additional Information

Notations & Comments:

Evidentiary Seals: Not Sealed [7]; Intact: No [7], Yes [7] & Broken By: \_\_\_\_\_\_ Date:

### **Laboratory Remarks:**

#### SAFE DRINKING WATER ACT VOLATILE ORGANICS ANALYSIS DATA SHEET

Contract: N/A Lab Name: NM SCIENTIFIC LABORATORY DIVISION

Lab Code: N/A Case No.: N/A SDG No.: N/A SDG No.: N/A Matrix: (soil/water) Water Lab Sample ID: OR-95-4011 Sample wt/vol: 5.0 (g/mL) mL SLD Batch No: 487 Level: (low/med) Low Date Received: 9/12/95

Level: (low/med) Low

% Moisture: not dec. N/A dec. N/A Date Extracted: N/A Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 9/17/95

GPC Cleanup: (Y/N) No pH: 1

Date Received: 9/12/95 Date Analyzed: 9/17/95

Dilution Factor: 1 CONCENTRATION UNITS:

(ug/L or ug/Kg): \_\_\_\_ug/L\_\_

This sample was analyzed for the following compounds using EDA Method 502 2

	using bea meen	<u>04 J02.2</u>	
CAS NO.	COMPOUND	CONC. Q	POL
71-43-2	Benzene	U	0.5

# ANALYTICAL REPORT SLD Accession No. OR-95-4011 Continuation, Page 2 of 4

108-86-1	Bromobenzene	U	0.5
74-97-5	Bromochloromethane	U	0.5
75-27-4	Bromodichloromethane	Ū	0.5
75-25-2	Bromoform	Ū	0.5
24-83-9	Bromomethane	U	0.5
78-93-3	2-Butanone (MEK)	U	5.0
104-51-8	n-Butylbenzene	U	0.5
135-98-8	sec-Butylbenzene	U	0.5
98-06-6	tert-Butylbenzene	U	0.5
1634-04-4	tert-Butyl methyl ether (MTBE)	Ū	5.0
56-23-5	Carbon tetrachloride	ש	0.5
108-90-7	Chlorobenzene (mono-)	Ū	0.5
75-00-3	Chloroethane	U	0.5
67-66-3	Chloroform	U	0.5
74-87-3	Chloromethane	U	0.5
95-49-8	2-Chlorotoluene	U	0.5
106-43-4	4-Chlorotoluene	U	0.5
96-12-8	1,2-Dibromo-3-chloropropane	U	0.5
124-48-1	Dibromochloromethane	Ū	0.5
106-93-4	1,2-Dibromoethane	U	0.5
74-95-3	Dibromomethane	Ū	0.5
95-50-1	1,2-Dichlorobenzene (ortho-)	U	0.5
541-73-1	1,3-Dichlorobenzene (meta-)	U	0.5
106-46-7	1,4-Dichlorobenzene (para-)	U	0.5
75-71-8	Dichlorodifluoromethane	Ū	0.5
75-34-3	1,1-Dichloroethane	U	0.5
107-06-2	1,2-Dichloroethane	U	0.5
75-35-4	1,1-Dichloroethene	ַ	0.5
156-59-4	cis-1,2-Dichloroethene	U	0.5
156-60-5	trans-1,2-Dichloroethene	U	0.5
78-87-5	1,2-Dichloropropane	U	0.5
142-28-9	1,3-Dichloropropane	ับ	0.5
590-20-7	2,2-Dichloropropane	ָּט	0.5
563-58-6	1,1-Dichloropropene	U	0.5
1006-01-5	cis-1,3-Dichloropropene	U	0.5
1006-02-6	trans-1,3-Dichloropropene	U	0.5_
100-41-4	Ethylbenzene	U	0.5
87-68-3	Hexachlorobutadiene	U	0.5
98-82-8	Isopropylbenzene	U	0.5
99-87-6	4-Isopropyltoluene	U	0.5
75-09-2	Methylene chloride (Dichloromethane)	U	0.5
91-20-3	Naphthalene	U	0.5

# ANALYTICAL REPORT SLD Accession No. OR-95-4011 Continuation, Page 3 of 4

103-65-1	Propylbenzene	<u> </u>	0.5
100-42-5	Styrene	U	0.5
_630-20-6	1,1,1,2-Tetrachloroethane	U	0.5
79-34-5	1,1,2,2-Tetrachloroethane	U	0.5
127-18-4	Tetrachloroethene	U	0.5
109-99-9	Tetrahydrofuran (THF)	U	5.0
108-88-3	Toluene	U	0.5
87-61-5	1,2,3-Trichlorobenzene	ָט	0.5
_120-82-1	1,2,4-Trichlorobenzene	U	0.5
71-55-6	1,1,1-Trichloroethane	Ū	0.5
79-00-5	1,1,2-Trichloroethane	U	0.5
79-01-6	Trichloroethene	U	0.5
75-69-4	Trichlorofluoromethane	U	0.5
96-18-4	1,2,3-Trichloropropane	Ū	0.5
95-63-6	1,2,4-Trimethylbenzene	Ü	0.5
108-67-8	1,3,5-Trimethylbenzene	U	0.5
75-01-4	Vinyl chloride	U	0.5
95-47-6	o-Xylene	U	0.5
N/A	p- & m-Xylene	Ū	0.5
N/A	Total Xylenes	Ū	1.0

- \* Q = Qualifier Definitions:
- CONC = CONCENTRATION DETERMINED
- PQL = Practical Quantitation Limit (Approximately 5 times MDL). Equivalent to the "minimum detection limit" defined for regulated VOC-1 compounds in 40 CFR 141.25(c).
- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the PQL listed.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

#### QUALITY CONTROL SUMMARY FOR VOLATILES SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with

ANALYTICAL REPORT SLD Accession No. OR-95-4011 Continuation, Page 4 of 4

this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED

CONCENTRATION (PPB)

No Compounds Detected

SURROGATE RECOVERIES:

% RECOVERY CONCENTRATION SURROGATE 102. 10.0 ppb Bromofluorobenzene (PID Surr) Bromofluorobenzene (HALL Surr) 10.0 ppb 119.

The % recoveries for compounds in the batch SPIKE RECOVERY: spike were from 80% to 120% with the exception of the compounds listed below:

COMPOUND

CONCENTRATION

% RECOVERY 127.

THF

40.0 ppb

Analyst: S

S. Azhar Mustafa

Analyst, Organic Chemistry

Reviewed By:

Richard F. Meyerhein 10/04/95 Supervisor, Organic Chemistry Section

700 CAI	SCIENTIFIC LABORATORY I MINO DE SALUD N.E., ALBUQU nic Chemistry Section - Telephor	DIVISION RERQUE, NIM 87108 No: (505) 841-2570	Request	90066-A	8LD No.	2 4011 C EP 1 2 1995 3 2 5 5 6 6
Name:	SPS-11			1		
9 Sample Location	E S S P S S S W S E S L S L		l Lea elaltii	inigi i	L Lovingto	
10 Collected By:	· C. C. MieS.L. * 17. 1.	Gharte.	On: 95	/29/1/ (YYMM/DD)	At Time: see	[O]O] bro
11 Codes: Subi	mitter WSS #	Organ	211 4 zation	12 Latiti		2 Digit 10
To: Address City, State Zip	Jay Janica Texas New Mexico Pir PO Box 60028	T915) 947-9	8008	15 Sample Purpo 		Composite
16 Field Data: Pit	San Angelo, Texas 76	· · · · · · · · · · · · · · · · · · ·	erature:	Chlorine C. Residual	U-Chain of Cu	istody `
17 Sample S	Source:	18 Field				
☐-Stream	☐-Entry Point to Distri ☐-Well; Depth;		ed from 1	/4" Hose	Bib from	
□-Drain □-Pool	□-Spring			<del></del>	ter vessel	
-WWTP	☐-Distribution  ☑-Other: <u>Treati</u>			COAL	. VBGGOT	
- Soil, []-1 This form acc 2septu	ype: [2- Water   - Unk	lorinated	No Preservation Sample stored Sample Preservation Sample Preservation	in an ice bath (A ved with Sodium ved with Hydroci	d at room temperatur lot Frozen) in Thiosulfade to remov hiorio Acid (2 drops/d i Mercurio Chioride	re chlorine residual
Volati □ - (753) A □ - (754) A □ - (766) M □ - (766) SI □ - (774) SI □ - (775) SI □ - (790) C	Requested: Please check the required. When	les (EPA 601/2) PA 624) A 501.1) -) (EPA 502.2) PA 504)	Compounds rples are sus;  Semiw  - (755) Ba - (756) Ba - (758) He - (759) He - (751) Hy - (760) Org - (767) Pol - (762) SD	suspected or pected.  Selfie Screen  Selfie Screen	required, and no	625) 2. (EPA 8270) () (EPA 515.1) (A-8015) 505) (A 507) () In Oil
	Please Fax Results	To Me at (505)	396-2754.			
				Jinoù	A Buchan	ŧ

Albuquerque, NM 87196-4700 P.O. Box 4700

700 Camino de Salud, NE [505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

October 4, 1995

Request ID No. 090060

# ANALYTICAL REPORT SLD Accession No. OR-95-4014

Distribution () User 64000 () Submitter 68 (X Client (x) SLD Files

Jay Janica To:

Texas New Mexico Pipeline Co.

PO Box 60028

San Angelo, Texas 76906

From:

Organic Chemistry Section Scientific Laboratory Div. 700 Camino de Salud, N.E.

P.O. Box 4700

Albuquerque, NM 87196-4700

Re: A water, Purgeable sample submitted to this laboratory on September 12, 1995

SLD Fee For Service - MISC 700 Camino de Salud, NE

P.O. Box 4700

Albuquerque, NM 87196-4700

Submitter:

Myra Meyers

ED Field Office, Hobbs

Suite 165

726 E. Michigan Avenue Hobbs, NM 88240

# **DEMOGRAPHIC DATA**

LOCATION COLLECTION

On: 8-Sep-95

*By:* Ric . . .

SPS Well 11 Treating Skid

At: 7:15 hrs. In/Near: Lovington

ANALYTICAL RESULTS: SDWA VOC-I [EPA-502.2] Screen {774}

Parameter Value Oual POL Units SDWA VOC's-I 0.00 U 0.50 ppb

See Laboratory Remarks for Additional Information

Notations & Comments:

Evidentiary Seals: Not Sealed | | Intact: No | | , Yes | & Broken By: \_\_\_\_\_\_ Date:

#### **Laboratory Remarks:**

## SAFE DRINKING WATER ACT VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY DIVISION Contract:N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) Water Lab Sample ID: OR-95-4014

Sample wt/vol: 5.0 (g/mL) mL SLD Batch No: 487

Level: (low/med) Low Date Received: 9/12/95

% Moisture: not dec. N/A dec. N/A Date Extracted: N/A

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 9/17/95

GPC Cleanup: (Y/N) No pH: 2

GPC Cleanup: (Y/N) No pH: 2

Dilution Factor: 1 \_\_\_\_\_

CONCENTRATION UNITS:

(ug/L or ug/Kg): ug/L

This sample was analyzed for the following compounds using EPA Method 502.2

CAS NO.	COMPOUND	 CONC.	0	POL
71-43-2	Benzene		U	0.5

# ANALYTICAL REPORT SLD Accession No. OR-95-4014 Continuation, Page 2 of 4

108-86-1	Bromobenzene		υl	0.5
74-97-5	Bromochloromethane		U	0.5
75-27-4	Bromodichloromethane		U	0.5
75-25-2	Bromoform		U	0.5
24-83-9	Bromomethane		U	0.5
78-93-3	2-Butanone (MEK)	-	U	5.0
104-51-8	n-Butylbenzene		U	0.5
135-98-8	sec-Butylbenzene	7	Ū	0.5
98-06-6	tert-Butylbenzene		Ū	0.5
1634-04-4			U	5.0
56-23-5	Carbon tetrachloride		Ū	0.5
108-90-7	Chlorobenzene (mono-)		U	0.5
75-00-3	Chloroethane		Ū	0.5
67-66-3	Chloroform		Ū	0.5
74-87-3	Chloromethane		U	0.5
95-49-8	2-Chlorotoluene		Ū	0.5
106-43-4	4-Chlorotoluene		Ū	0.5
96-12-8	1,2-Dibromo-3-chloropropane		U	0.5
124-48-1	Dibromochloromethane		U	0.5
106-93-4	1,2-Dibromoethane		U	0.5
74-95-3	Dibromomethane		Ū	0.5
95-50-1	1,2-Dichlorobenzene (ortho-)		Ū	0.5
541-73-1	1,3-Dichlorobenzene (meta-)		Ū	0.5
106-46-7	1,4-Dichlorobenzene (para-)		U	0.5
75-71-8	Dichlorodifluoromethane		U	0.5
75-34-3	1,1-Dichloroethane		ם	0.5
107-06-2	1,2-Dichloroethane		U	0.5
75-35-4	1,1-Dichloroethene		Ū	0.5
156-59-4	cis-1,2-Dichloroethene		U	0.5_
156-60-5	trans-1,2-Dichloroethene		U	0.5_
78-87-5	1,2-Dichloropropane		บ	0.5
142-28-9	1,3-Dichloropropane		U	0.5
590-20-7	2,2-Dichloropropane		U	0.5
563-58-6	1,1-Dichloropropene		Ū	0.5
1006-01-5	cis-1,3-Dichloropropene		U	0.5
1006-02-6	trans-1,3-Dichloropropene		U	0.5
100-41-4	Ethylbenzene		Ū	0.5
87-68-3	Hexachlorobutadiene		U	0.5
98-82-8	Isopropylbenzene		U	0.5
99-87-6	4-Isopropyltoluene		U	0.5
75-09-2	Methylene chloride (Dichloromethane)		U	0.5
91-20-3	Naphthalene		U	0.5

103-65-1	Propylbenzene	ע	0.5
100-42-5	Styrene	U	0.5
630-20-6	1,1,1,2-Tetrachloroethane	U	0.5
79-34-5	1,1,2,2-Tetrachloroethane	U	0.5
127-18-4	Tetrachloroethene	U	0.5
109-99-9	Tetrahydrofuran (THF)	U	5.0
108-88-3	Toluene	U	0.5
87-61-5	1,2,3-Trichlorobenzene	U	0.5
120-82-1	1,2,4-Trichlorobenzene	Ŭ	0.5
71-55-6	1,1,1-Trichloroethane	U	0.5
79-00-5	1,1,2-Trichloroethane	Ū	0.5
79-Ó1-6	Trichloroethene	U	0.5
75-69-4	Trichlorofluoromethane	U	0.5
96-18-4	1,2,3-Trichloropropane	ַ ט	0.5
95-63-6	1,2,4-Trimethylbenzene	<u>ַ</u> <u></u>	0.5
108-67-8	1,3,5-Trimethylbenzene	ט	0.5
75-01-4	Vinyl chloride	Ū	0.5
95-47-6	o-Xylene	U	0.5
N/A	p- & m-Xylene	Ū	0.5
N/A	Total Xylenes	U	1.0

- \* Q = Qualifier Definitions:
- CONC = CONCENTRATION DETERMINED
- PQL = Practical Quantitation Limit (Approximately 5 times MDL). Equivalent to the "minimum detection limit" defined for regulated VOC-1 compounds in 40 CFR 141.25(c).
- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the PQL listed.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

QUALITY CONTROL SUMMARY FOR VOLATILES SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with

ANALYTICAL REPORT SLD Accession No. OR-95-4014 Continuation, Page 4 of 4

this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED

CONCENTRATION (PPB)

No Compounds Detected

SURROGATE RECOVERIES:

CONCENTRATION SURROGATE

% RECOVERY

Bromofluorobenzene (PID Surr)

10.0 ppb

103.

10.0 Bromofluorobenzene (HALL Surr) ppb 103.

The % recoveries for compounds in the batch SPIKE RECOVERY: spike were from 80% to 120% with the exception of the compounds listed below:

COMPOUND

CONCENTRATION

% RECOVERY

THF

40.0 ppb

127.

Analyst:

S. Azhar Mustafa

Reviewed By:

Richard F. Meyerhein

Analyst, Organic Chemistry

Supervisor, Organic Chemistry Section

ORGANK	C CHEMISTRY ANALY	TICAL REQUEST FOR	М		OR95	4014 C -
	SCIENTIFIC LABORATOR MINO DE SALUD N.E., ALBU	QUERQUE, NM 87108			Dete S	EP 1 2 1995
	nic Chemistry Section - Telep		Request    ID No. 090	1 [[ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [	Apriority Code #:	3
5 Facility Name:		101100	6 County	: 1	7 City:	8 State
Sample	SPS-11		l Lea		Lovingt	on INIM
O Collecte	LISIPISI IWIE IL	iti illi itir	on 9	10910K	ALI ET	
1 Codes:		ololt		12 Latitud	Ime:	SA hr. elect pen - 1900 hrs.
Sub	mitter WSS	Orgai	nization	Longitude	DOOMMSS)	2 Digit ID
3 Report 70:	Nam Jay Janica	14 Phone <b>#:</b> (915) 947-	9008	15	Sampling info	xmation:
	Texas New Mexico   PO Box 60028	Pipeline Co		Sample Purpose  Charles Purpose  KKNMED Monit	Composite	Composte oportioned herod
6 Fleid	San Angelo, Texas	•		Chlorine	- Sample Spl	R w/Permittee estady
Data: PH		umhos/om @ Terr	perature:	G Residual:	me/L	Rout
This form ac	☐-Well; Depth: _ ☐-Spring ☐-Distribution ☑-Other:	Sampl  activ  ting Skid disch  Unchlorinated 20 Preserv  Chlorinated D-NP  Consisting of: D-P-T8  TY-P-to- TY-P-T8	ated char arge ation: No Preservation Sample Preser Sample Preser C. Sample Preser	in; Sample stored at the an los both (Not rived with Sodium Till rived with Hydrochlo rived with 20 mg/l M	t room temperatur Frozen) Nosulfate to remo- ric Acid (2 drops/	re chiorine residual
☐- (753) A ☐- (754) A ☐- (765) N ☐- (766) S ☐- (774) S ☐- (775) S	Requested: Please check required. With below whener in the Screens:  Iliphatic Headspace (Qualitation of the Purples of the Spectrometer Purples of the Purp	sebles (EPA 601/2) s (EPA 624) EPA 501.1) D + J (EPA 502.2) (EPA 504) s No kds or Classes:	c compounds   mples are sus   Semily	suspected of re	guired, and no natables (EPA d Extractables des (EPA 531. ophenoxy Acid ne (EPA 507) Screen (EPA i scticides (EPA Pesticides (EPA Pesticides (EPA phenyls (PCB's	te (#25) 2 (EPA 8270) 1) (EPA 515.1) 4-8015) 505) PA 507) s) in Oil LD 758/760)
	Please Fax Results	s To Me at (505)	396-2754			
<del></del>				General G	Thekart	

### SCIENTIFIC LABORATORY DIVISION

P.O. Box 4700 Albuquerque, NM 87196-4700 700 Camino de Salud, NE [505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

October 4, 1995

Request ID No. 090064

# ANALYTICAL REPORT SLD Accession No. OR-95-4015

**Distribution** () User 64000

() Submitter 68 (X Client

(x) SLD Files

To: Jay Janica

Texas New Mexico Pipeline Co.

PO Box 60028

San Angelo, Texas 76906

From:

Organic Chemistry Section Scientific Laboratory Div.

700 Camino de Salud, N.E.

P.O. Box 4700

Albuquerque, NM 87196-4700

A water, Purgeable sample submitted to this laboratory on September 12, 1995 Re:

<u>User:</u>

SLD Fee For Service - MISC 700 Camino de Salud, NE

P.O. Box 4700

Albuquerque, NM 87196-4700

Submitter:

Myra Meyers

ED Field Office, Hobbs

Suite 165

726 E. Michigan Avenue Hobbs, NM 88240

#### **DEMOGRAPHIC DATA**

COLLECTION

By: Ric . . .

LOCATION

On: 10-Sep-95

At: 17:15 hrs. *In/Near:* Lovington SPS Well 11 Treating Skid

ANALYTICAL RESULTS: SDWA VOC-I [EPA-502.2] Screen {774}

Parameter

Value

Oual

POL

Units\_

SDWA VOC's-I

0.00

U

0.50

dqq

See Laboratory Remarks for Additional Information

Notations & Comments:

Evidentiary Seals: Not Sealed | Intact: No | Yes | & Broken By: \_\_\_\_\_ Date:

# **Laboratory Remarks:**

#### SAFE DRINKING WATER ACT VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: NM SCIENTIFIC LABORATORY DIVISION Contract:N/A

Lab Code: N/A Case No.: N/A SDG No.: N/A SDG No.: N/A

Matrix: (soil/water) <u>Water</u>

% Moisture: not dec. N/A dec. N/A

Extraction: (SepF/Cont/Sonc) N/A GPC Cleanup: (Y/N) No pH: 2

Sample wt/vol: 5.0 (g/mL) mL Level: (low/med) Low

Lab Sample ID: <u>OR-95-4015</u>

SLD Batch No: 487

Date Received: 9/12/95

Date Extracted: N/A

Date Analyzed: 9/17/95 Dilution Factor: 1

CONCENTRATION UNITS:

ug/L (ug/L or ug/Kg):\_\_\_\_\_

This sample was analyzed for the following compounds

		using	EPA_	Method	502.2			
١	CAS NO.	COMPOUND				CONC.	0	POL
1	71-43-2	Benzene					U	0.5

# ANALYTICAL REPORT SLD Accession No. OR-95-4015 Continuation, Page 2 of 4

108-86-1	Bromobenzene		U	1 0.5
74-97-5	Bromochloromethane		U	0.5
75-27-4	Bromodichloromethane		U	0.5
75-25-2	Bromoform	7	U	0.5
24-83-9	Bromomethane		U	0.5
78-93-3	2-Butanone (MEK)		Ū	5.0
104-51-8	n-Butylbenzene		U	0.5
135-98-8	sec-Butylbenzene		Ū	0.5
98-06-6	tert-Butylbenzene		U.	0.5
1634-04-4	tert-Butyl methyl ether (MTBE)		U	5.0
56-23-5	Carbon tetrachloride		U	0.5
108-90-7	Chlorobenzene (mono-)		U	0.5
75-00-3	Chloroethane		U	0.5
67-66-3	Chloroform	1	U	0.5
74-87-3	Chloromethane		U	0.5
95-49-8	2-Chlorotoluene		Ū	0.5
106-43-4	4-Chlorotoluene		U	0.5
96-12-8	1,2-Dibromo-3-chloropropane		U	0.5
124-48-1	Dibromochloromethane		U	0.5
106-93-4	1,2-Dibromoethane		U	0.5
74-95-3	Dibromomethane		U	0.5
95-50-1	1,2-Dichlorobenzene (ortho-)		U	0.5
541-73-1	1,3-Dichlorobenzene (meta-)		U	0.5
106-46-7	1,4-Dichlorobenzene (para-)		Ū	0.5
75-71-8	Dichlorodifluoromethane		Ū	0.5
75-34-3	1,1-Dichloroethane		U	0.5
107-06-2	1,2-Dichloroethane		U	0.5
75-35-4	1,1-Dichloroethene		U	0.5
156-59-4	cis-1,2-Dichloroethene		U	0.5
156-60-5	trans-1,2-Dichloroethene		U	0.5
78-87-5	1,2-Dichloropropane		U	0.5
142-28-9	1,3-Dichloropropane		ַ ט	0.5
590-20-7	2,2-Dichloropropane		U	0.5
_563-58-6	1,1-Dichloropropene		U	0.5
1006-01-5	cis-1,3-Dichloropropene		U	0.5
1006-02-6	trans-1,3-Dichloropropene		U	0.5
100-41-4	Ethylbenzene		U	0.5
87-68-3	<u> Hexachlorobutadiene</u>		U	0.5
98-82-8	Isopropylbenzene		U	0.5
99-87-6	4-Isopropyltoluene		U	0.5
75-09-2	Methylene chloride (Dichloromethane)		U	0.5
91-20-3	Naphthalene		U	0.5

(Continued on page 3.)

103-65-1	Propylbenzene	ט ו	0.5
100-42-5	Styrene	U	0.5
630-20-6	1,1,1,2-Tetrachloroethane	 Ū	0.5
79-34-5	1,1,2,2-Tetrachloroethane	Ū	0.5
127-18-4	Tetrachloroethene	Ū	0.5
109-99-9	Tetrahydrofuran (THF)	U	5.0
108-88-3	Toluene	U	0.5
87-61-5	1,2,3-Trichlorobenzene	U	0.5
120-82-1	1,2,4-Trichlorobenzene	U	0.5
71-55-6	1,1,1-Trichloroethane	 U	0.5
79-00-5	1,1,2-Trichloroethane	U	0.5
79-01-6	Trichloroethene	U	0.5
75-69-4	Trichlorofluoromethane	 U	0.5
96-18-4	1,2,3-Trichloropropane	Ū	0.5
95-63-6	1,2,4-Trimethylbenzene	 U	0.5
108-67-8	1,3,5-Trimethylbenzene	U	0.5
75-01-4	Vinyl chloride	U	0.5
95-47-6	o-Xylene	 U	0.5
N/A	p- & m-Xylene	U	0.5
N/A	Total Xylenes	U	1.0

\* Q = Qualifier Definitions:

CONC = CONCENTRATION DETERMINED

- PQL = Practical Quantitation Limit (Approximately 5 times MDL). Equivalent to the "minimum detection limit" defined for regulated VOC-1 compounds in 40 CFR 141.25(c).
- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the PQL listed.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

QUALITY CONTROL SUMMARY FOR VOLATILES SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with

(Continued on page 4.)

ANALYTICAL REPORT SLD Accession No. OR-95-4015 Continuation, Page 4 of 4

this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED

CONCENTRATION (PPB)

No Compounds Detected

SURROGATE RECOVERIES:

SURROGATE CONCENTRATION

% RECOVERY

Bromofluorobenzene (PID Surr)

10.0 ppb

102.

Bromofluorobenzene (HALL Surr) 10.0 ppb 101.

SPIKE RECOVERY: The % recoveries for compounds in the batch spike were from 80% to 120% with the exception of the compounds listed below:

COMPOUND

CONCENTRATION

% RECOVERY

THF

40.0 ppb

127.

Analyst:

S. Azhar Mustafa

Analyst, Organic Chemistry

Reviewed By:

Richard F. Meyerhein

Supervisor, Organic Chemistry Section

_9,,===::==	UEST FORM	OR95 4015 C -
SCIENTIFIC LABORATORY DIVISION		SLD No.
700 CAMINO DE SALUD N.E., ALBUQUERQUE, I		Date SEP 1 2 1995
Organic Chemistry Section - Telephone: (505) 8	Request []]]	Received:
	No.: 1D No. 090064	Code #: 2 amenu
5 Facility	6 County:	7 City: 8 State
Name: SPS-11	Lea	Lovington N.M.
9 Sample		
Location: S PIS I WIE LILI 11	<u>li iTir relattii</u>	nigi isiki idili ili
Byres Expest 18, 14 C. ho		12/11/2 At 1/1/1/5] Ins.
First ILlainit	with congress, a second significant from the con-	YY/MM/DD) Time: Soo per - 1900 les.
11]Codes:	f	12 Latitude (DDMMSS)
Submitter WSS #	Organization	Longitude (DDDMMSS) Freed
	Phone #:	
Address		Sampling information:
Texas New Mexico Pipeline	_Co	Bample Purpose: Grab Composite Composite Institute Purpose: Flow Proportioned
PO Box 60028		KNIMED Monitoring
San Angelo, Texas 76906		□- Special □- Chain of Custody
16 Field Date: pH:, Conductivity:umhor	s/om @ Temperature:	Chlorine C. Residual: mg/L Flour:
17 Sample Source:	18 Field Remarks:	
☐-Stream ☐-Entry Point to Distribution ☐-Lake ☐-Well; Depth:	<del></del>	/4" Hose Bib from
☐-Drain ☐-Spring	*	oal filter vessel
☐-Pool ☐-Distribution ☐-WWTP ☐-Other:Treating_Skid		Od Filter Vesal
19 Sample Type: 2- Water 200 g - Unchlorinate	d 20 Preservation:	
19 Sample Type: □ - Water □ - Unchlorinate □ - Wastewater □ - Chlorinated □ - Soll □ - Food □ - Other	NP No Preservation	Sample stored at room temperature n an ice bath (hiot Frozen)
☐-Wastewater 1☐-Chlorinated ☐-Soil, ☐-Food, ☐-Other This form accompanies a single sample consisting of	NP No Preservation N-P-loe Sample stored in N-P-TS Sample Preservation	n an los bath (Not Frozen) ad with Sodium Thiosulfate to remove chlorine residual
☐-Soil. ☐-Food, ☐-OtherChlorinated ☐-Soil. ☐-Food, ☐-OtherChlorinated ☐-Soil. ☐-Food, ☐-OtherChlorinated ☐-Soil. ☐-Chlorinated ☐-Wastewater 1. ☐-Chlorinated	NP No Preservation   NP P-los Sample stored     P-TS Sample Preservation   NP P-TS Sample Preservation	n an los beth (Not Frozen)
- Wastewater 1 - Chlorinated - Soil, - Food, - Other This form accompanies a single sample consisting of - eeptum vial(s) (volume = miles.) - glass jug(s) (volume = miles.) - (volume =	- NP   No Preservation     P-loe   Sample stored     P-P-TS   Sample Preserv   P-HigCl <sub>2</sub> Sample Preserv   - Other	n an lee bath (Not Frezen) and with Sodium Thiosuttate to remove chlorine residual ad with Hydrochloric Acid (2 drope/40 ml) ad with 20 mg/l Mercuric Chloride
- Wastewater 1 - Chlorinated - Soil, - Food, - Other - Chlorinated This form accompanies a single sample consisting of - eepturn vial(s) (volume =	P-los Sample stored in   P-reservation   P-r	n an lee bath (hiot Frozen) and with Sodium Thioeuttate to remove chlorine residual and with Hydrochloric Acid (2 drope/40 ml) and with 20 mg/l Mercuric Chloride  the type of analytical screen(s)
- Wastewater 1 - Chlorinated - Soil, - Food, - Other - This form accompanies a single sample consisting of - eeptum vial(s) (volume =	P-lice Sample stored in   P-P-Ice Sample stored in   P-P-TS Sample Preserve   P-P-HCI Sample Preserve   P-HcCI, Sample P	n an ice beth (Not Frozen) and with Sodium Thioeuttate to remove chlorine residual and with Hydrochloric Acid (2 drope/40 mt) and with 20 mg/s Mercuric Chloride  the type of analytical screen(s) uspected or required, and note sched.
- Wastewater 1 - Chlorinated - Soil, - Food, - Other - This form accompanies a single sample consisting of - eeptum vial(s) (volume =	AP No Preservation    P-loe Sample stored in     P-P-TS Sample Preservation     P-P-HCI Sample Preservation     P-HcCl Sampl	nan ice bath (Not Frozen) ad with Sodium Thiosuttate to remove chlorine residual ad with Hydrochloric Acid (2 drope/40 ml) ad with 20 mg/l Mercuric Chloride  the type of analytical screen(s) uspected or required, and note acted.  [atile Screens:
- Wastewater 1 - Chlorinated - Soil, - Food, - Other - Chlorinated - This form accompanies a single sample consisting of - septum vial(s) (volume = 21 miles) - glass jug(s) (volume = (volume = (volume = 21) Analyses Requested: Please check the appropriate of the septiment of th	P-los Sample stored	nan ice bath (Not Frozen) and with Sodium Thioeuttate to remove chlorine residual and with Hydrochloric Acid (2 drope/40 ml) and with 20 mg/l Mercuric Chloride  the type of analytical screen(s) uspected or required, and note acted.  [attle Screens:
- Wastewater 1 - Chlorinated - Soil.	P-ice Sample stored in P-ice Sample stored in P-ice Sample Preserve Sample Preserve Sample Preserve Sample Preserve P-ice Sample Preserve P-ice Sample Preserve P-ice Sample Preserve P-ice Sample S	nan ice bath (Not Frozen) and with Sodium Thiosuttate to remove chlorine residual and with Hydrochlorio Acid (2 drope/40 ml) and with 20 mg/l Mercurio Chloride  the type of analytical screen(s) uspected or required, and note screet.  atile Screens:  e/Neutral Edractables (EPA 825)  e/Neutral/Acid Extractables (EPA 8270)
- Wastewater 1 - Chlorinated - Soil, - Food, - Other - Chlorinated - This form accompanies a single sample consisting of - septum vial(s) (volume = 21 miles) - glass jug(s) (volume = (volume = (volume = 21) Analyses Requested: Please check the appropriate of the septiment of th	AP No Preservation  P-loe Sample stored in P-18 Sample Preservation P-P-HCI Sample Preservation P-P-HCI Sample Preservation P-H-HCI Sample Preservation Interpretation of P-H-HCI Sample Preservation Interpre	nan ice bath (Not Frozen) and with Sodium Thiosuttate to remove chlorine residual and with Hydrochloric Acid (2 drope/40 ml) and with 20 mg/l Mercuric Chloride  the type of analytical screen(s) uspected or required, and note: acted.  attile Screens: a/Neutral Edractables (EPA 625) a/Neutral/Acid Extractables (EPA 6270) carnate Pesticides (EPA 531:1) bicides, Chiorophenoxy Acid (EPA 515.1)
- Wastewater 1 - Chlorinated - Soil, - Food, - Other This form accompanies a single sample consisting of - septum vial(s) (volume =	AP No Preservation  P-loe Sample stored in P-18 Sample Preservation P-P-HCI Sample Preservation P-HgCI, Sample Preservation D-P-HgCI, Sample Preservation Interpretation of the preservation Interpretation Interpretation of the preservation of the preservation Interpretation of the preservation of the	nan ice bath (Not Frozen) and with Sodium Thiosuttate to remove chlorine residual and with Hydrochloric Acid (2 drope/40 ml) and with 20 mg/l Mercuric Chloride  the type of analytical screen(s) uspected or required, and note sected.  [atile Screens: a/Neutral Edractables (EPA 625) a/Neutral/Acid Edractables (EPA 8270) commate Pesticides (EPA 531:1) bicides, Chlorophenoxy Acid (EPA 515.1) bicides, Triazine (EPA 507)
- Wastewater 1 - Chlorinated - Soil, - Food, - Other - This form accompanies a single sample consisting of - septum vial(s) (volume = miles.) - glass jug(s) (volume = miles.) - (volume = miles.) - (volume = (volume = miles.) - (volume =	AP No Preservation   P-Ice   Sample stored     P-TS   Sample Preserve   P-HCI   Sample Preserve	nan ice bath (Not Frozen) and with Sodium Thioeuttate to remove chlorine residual and with Hydrochloric Acid (2 drope/40 ml) and with 20 mg/l Mercuric Chloride  the type of analytical screen(s) uspected or required, and note sected.  Satile Screens:  e/Neutral Edractables (EPA 625) e/Neutral/Acid Extractables (EPA 8270) barnate Pesticides (EPA 531:1) bicides, Chlorophenoxy Acid (EPA 515.1) bicides, Triazine (EPA 507) rocarbon Fuel Screen (EPA M-8015)
- Wastewater 1 - Chlorinated - Soil.	P-los Sample stored	nan ice bath (Not Frozen) and with Sodium Thiosutfate to remove chlorine residual and with Hydrochloric Acid (2 drope/40 ml) and with 20 mg/l Mercuric Chloride  the type of analytical screen(s) uspected or required, and note screet.  attile Screens:  a/Neutral Edractables (EPA 825) a/Neutral/Acid Edractables (EPA 8270) barnate Pesticides (EPA 531:1) bicides, Chiorophenoxy Acid (EPA 515.1) bicides, Triazine (EPA 507) rocarbon Fuel Screen (EPA M-8015) anochlorine Pesticides (EPA 505) anophosphate Pesticides (EPA 507)
- Wastewater 1 - Chlorinated - Soil, - Food, - Other - This form accompanies a single sample consisting of - septum vial(s) (volume =	P-los Sample stored     P-los Sample stored     P-18 Sample Preserve   P-HG Sample Preserve   P-HgCt, Sample Preserve	nan ice bath (Not Frozen) and with Sodium Thiosuttate to remove chlorine residual and with Hydrochloric Acid (2 drope/40 ml) and with 20 mg/l Mercuric Chloride  the type of analytical screen(e) uspected or required, and note: screen.  atile Screens: a/Neutral Ediractables (EPA 625) a/Neutral/Acid Extractables (EPA 625) be/Neutral/Acid Extractables (EPA 631:1) bicides, Chlorophenoxy Acid (EPA 515.1) bicides, Triazine (EPA 507) rocarbon Fuel Screen (EPA M-8015) anochlorine Pesticides (EPA 505) anophosphate Pesticides (EPA 507) chlorinated Biphenyls (PCB's) in Oil
- Wastewater 1 - Chlorinated - Soil - Food, - Other - This form accompanies a single sample consisting of - septum vial(s) (volume =	P-los Sample stored     P-los Sample stored     P-los Sample Preserve   P-HCI Sample Preserve   P-HC	nan ice bath (Not Frozen) and with Sodium Thiosuttate to remove chlorine residual and with Hydrochlorio Acid (2 drope/40 ml) and with 20 mg/l Mercurio Chloride  the type of analytical screen(s) uspected or required, and note sected.  [atile Screens:  e/Neutral Edractables (EPA 525) e/Neutral/Acid Edractables (EPA 5270) carnate Pesticides (EPA 531:1) clicides, Chlorophenoxy Acid (EPA 515.1) clicides, Triazine (EPA 507) rocarbon Fuel Screen (EPA M-8015) anochlorine Pesticides (EPA 505) anophosphate Pesticides (EPA 507) chlorinated Biphenyls (PCB's) in Oil VA Synthetic Org. Cmpds. (SLD 758/760)
- Wastewater \	P-los Sample stored     P-los Sample stored     P-los Sample Preserve   P-HCI Sample Preserve   P-HC	nan ice bath (Not Frozen) and with Sodium Thiosuttate to remove chlorine residual and with Hydrochloric Acid (2 drope/40 ml) and with 20 mg/l Mercuric Chloride  the type of analytical screen(s) uspected or required, and note: actid.  atile Screens: a/Neutral Extractables (EPA 625) a/Neutral/Acid Extractables (EPA 625) beindes, Chlorophenoxy Acid (EPA 515.1) bicides, Chlorophenoxy Acid (EPA 515.1) bicides, Triazine (EPA 507) rocarbon Fuel Screen (EPA M-8015) anochlorine Pesticides (EPA 505) anophosphate Pesticides (EPA 507) chlorinated Biphenyls (PCB's) in Oil
- Wastewater \	P-los Sample stored     P-los Sample stored     P-los Sample Preserve   P-HCI Sample Preserve   P-HC	nan ice bath (Not Frozen) and with Sodium Thioeuttate to remove chlorine residual and with Hydrochloric Acid (2 drope/40 ml) and with 20 mg/l Mercuric Chloride  the type of analytical screen(s) uspected or required, and note sected.  [atile Screens: atile Screens: a (Neutral Edractables (EPA 525) a (Neutral Acid Edractables (EPA 5270) barnate Pesticides (EPA 531:1) bicides, Chlorophenoxy Acid (EPA 515.1) bicides, Triazine (EPA 507) rocarbon Fuel Screen (EPA M-8015) anophosphate Pesticides (EPA 505) anophosphate Pesticides (EPA 507) chlorinated Biphenyls (PCB's) in Oil VA Synthetic Org. Cmpds. (SLD 758/760)
- Wastewater 1 - Chlorinated - Soil.	NP   No Preservation   No Price   Sample stored   No Price   Sample Preservation   Price   Price   Sample Preservation   Price   Price   Sample Preservation   Price   Price   Sample Preservation   Price	nan ice bath (Not Frozen) and with Sodium Thiosuttate to remove chlorine residual and with Hydrochlorio Acid (2 drope/40 ml) and with 20 mg/l Mercurio Chloride  the type of analytical screen(s) uspected or required, and note sected.  [atile Screens:  e/Neutral Edractables (EPA 525) e/Neutral/Acid Edractables (EPA 5270) carnate Pesticides (EPA 531:1) clicides, Chlorophenoxy Acid (EPA 515.1) clicides, Triazine (EPA 507) rocarbon Fuel Screen (EPA M-8015) anochlorine Pesticides (EPA 505) anophosphate Pesticides (EPA 507) chlorinated Biphenyls (PCB's) in Oil VA Synthetic Org. Cmpds. (SLD 758/760)
- Wastewater \	NP   No Preservation   No Price   Sample stored   No Price   Sample Preservation   Price   Price   Sample Preservation   Price   Price   Sample Preservation   Price   Price   Sample Preservation   Price	nan ice bath (Not Frozen) and with Sodium Thiosuttate to remove chlorine residual and with Hydrochlorio Acid (2 drope/40 ml) and with 20 mg/l Mercurio Chloride  the type of analytical screen(s) uspected or required, and note sected.  [atile Screens:  e/Neutral Edractables (EPA 525) e/Neutral/Acid Edractables (EPA 5270) carnate Pesticides (EPA 531:1) clicides, Chlorophenoxy Acid (EPA 515.1) clicides, Triazine (EPA 507) rocarbon Fuel Screen (EPA M-8015) anochlorine Pesticides (EPA 505) anophosphate Pesticides (EPA 507) chlorinated Biphenyls (PCB's) in Oil VA Synthetic Org. Cmpds. (SLD 758/760)

# SCIENTIFIC LABORATORY DIVISION

P.O. Box 4700 Albuquerque, NM 87196-4700 700 Camino de Salud, NE [505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

February 13, 1996

Request ID No. 090079

ANALYTICAL REPORT
SLD Accession No. OR-96-0437

<u>Distribution</u>
() User 64000
(★ Submitter 68

(x) SLD Files

To: Jay Janica

Texas-New Mexico Pipeline Co.

PO Box 60028

San Angelo, Texas 76906

From:

Organic Chemistry Section Scientific Laboratory Div. 700 Camino de Salud, N.E.

P.O. Box 4700

Albuquerque, NM 87196-4700

Re: A water, Extractable sample submitted to this laboratory on January 30, 1996

#### **DEMOGRAPHIC DATA**

COLLECTION

On: 24-Jan-96

At: 11:00 hrs.

In/Near: Lovington

LOCATION

SPS Well 11 Treating Skid

ANALYTICAL RESULTS: SDWA VOC-II [EPA-504] Screen {775}

Parameter Parameter	<u> </u>	<u>Qual</u> <u>PQL</u>	<u>Units</u>
1,2-Dibromoethane (EDB)	0.00	0.02	ppb
1,2-Dibromo-3-chloropropane	0.00	0.02	ppb
See Laboratory Remarks	for Additional	Information	
Notations & Comments:			
Evidentiary Seals: Not Sealed; Intact: No ],	Yes   & Broken By:		Date:

#### **Laboratory Remarks:**

#### SAFE DRINKING WATER ACT VOLATILES-II

Lab Name: NM SCIENTIFIC LABORATORY DI Lab Code: N/A Case No.: N/A Matrix: (soil/water) Water	SAS No.: N/A SDG No.: N/A  Lab Sample ID: OR-96-0437
Sample wt/vol: 35.0 (g/mL) ml	
Level: (low/med) <u>Low</u> 8 Moisture: not dec. <u>N/A</u> dec. <u>N/A</u>	Date Received: 1/30/96  Date Extracted: 2/6/96
Extraction: (SepF/Cont/Sonc) Micro	Date Analyzed: 2/7/96
GPC Cleanup: (Y/N) NO pH: N/A	Dilution Factor: 1 CONCENTRATION UNITS:
	(ug/L or ug/Kg): ug/L

EPA Method 504 was used to analyze for the following compounds

	302			
_CAS NO.	COMPOUND	CONC.	Q	MDL
106-93-4	1,2-Dibromoethane (EDB)		Ū	0.02
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)		Ū	0.02

<sup>\*</sup> CONC = CONCENTRATION DETERMINED

MDL= The Method Detection Level (Limit) is the minimum concentration

#### ANALYTICAL REPORT SLD Accession No. OR-96-0437 Continuation, Page 2 of 3

of a compound that can be measured and reported with 99% confidence that the analyte concentration is greater than zero (FR 23703, June 1986). If a sample is diluted (usually due to high levels of contaminants) during analysis, the actual "sample detection limit" can be obtained by multiplying the MDL by the dilution factor reported above.

- PQL= Practical Quantitation Limit (Approximately 5-10 times MDL) is the concentration of the lowest standard routinely analyzed. Concentrations determined between the MDL and the PQL will be qualified with a "J" indicating an approximate concentration.
- \* Q = Qualifier Definitions:
- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the quantitation limit.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

#### QUALITY CONTROL SUMMARY FOR VOLATILES II SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED No Compounds Detected

CONCENTRATION (ug/L)

SURROGATE RECOVERIES SURROGATE

CONCENTRATION

%RECOVERY

1,1,2,2,-TCEA

.57 ug/L

107

(Continued on page 3.)

ANALYTICAL REPORT SLD Accession No. OR-96-0437 Continuation, Page 3 of 3

SPIKE RECOVERY: The % recoveries for compounds in the batch spike were from 80% to 120% with the exception of the compounds

listed below: COMPOUND

CONCENTRATION

% RECOVERY

No Exceptions

Analyst:

Mary Lou LaCasse

Analyst, Organic Chemistry

Reviewed By:

Richard F. Meyerhein 02/12/96

Supervisor, Organic Chemistry Section

DRGANIC C	HEMISTRY ANALY	TICAL REQU	JEST FO	RM			OR96- 0	437-C
	SCIENTIFIC LABORATOR					SLD No.		Tank Line
700 CAMINO	O DE SALUD N.E., ALBU Themistry Section - Telep	JOUERQUE, N	M 87108	•		Date	JAN	3 0 1996
literes		1410-		Request		Received:		
Code #:	6.4:0.00	io i	lo.:	ID No. 09007	*	Code		0
5 Facility	(DC ) 1			6 County		7 City:	, -	8 State
Name:	JYS 11			Le	a	Lovin	iton	N.M.
Semple	: P < 1/10 /	, , ,	1 T.	4 :		S.t.i.	1	
Location:	11111111111	1/1-1/1/	1 1/1/	ea,ti	1719	71/11/	7111	بالبلي
By:	Lange to the	to cha	reto	On: 71	10112	AE!	1110	Olm
**************************************	Fire And Control of L		80. <b>3</b> 85. 74	Out	: (YY/MM/DD)	The same of the sa	6. 200 pm - 10	
Codec			47 62 6	2211	12 Latt	ide powie	<b>39</b>	
Submitte	wss wss			2, 1, 4, and an interest of the contraction of the	L.L.		لسلسا	2 Digit ED
Report N			hone #:		Longitudi	DOOMMSS	•	
To:	ly Janica				15	Semplin	g informatio	
	S New Mexico		ne Co	<del></del>	Sample Purp	oee: - Grab	coelte	Composite
P. C	0. Box 600.	28			Complex NMED M	oo [] A	ow Proportion	Yed
	an Angelo,	Texas	76900	, 0	Confirme Special	don 🗀 Samp	to Split w/Per of Custody	mittee
B Field Data: pH:	, Conductivity:	umhoe/		mperature:	Chilorina	)		
17 Sample Source		disco,	18 Fee	parame.	C. Residue	<u> </u>	2/4 Flow:	
Stream	☐-Entry Point to D	Distribution	Bemen			7.	<del>/ / /                                 </del>	
☐-Lake ☐-Drain	☐-Well; Depth: _			impled b	e tore	activa	ted Ch	arcial
☐-Pool	T-Distribution	المرام الم	filter		- · · - · - · - · - · · · · · · · · · ·			
D-WWTP		ting Skid		· · · · · · · · · · · · · · · · · · ·	<del> </del>			
Sample Type:	Ø- Water □ - []- Wastewater []-	Unchlorinated		No Preservation	n; Sample store	d at room tamp	erature	i
-Sol -Food	i, - Other	7 7 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	PATE PATE	<ul> <li>Sample stored</li> </ul>	in an ice both @ wed with Sodium	lot frozen)		ine maidual
2 - eeptum vis	si(s) (volume =	mi ea.)	<b>₹PH</b>	3 Sample Prese	ved with Hydroc	hloric Acid (2 di	rope/40 mB	
- glass jug(s	e) (volume =	mi ea.)	- Con-	Cl <sub>a</sub> Sample Preser	Aed mer 50 mg/	i Mercuno Chio		
	(volume »			alausa kadiasa				
Analyses Requ	required. Wi	k the appropriation	e, list spec	lic compounds	suspected of	reguired, an	d note	
Nalas C	below whene	ever highly cont	aminated a	subjes sue sna	pected.	er de marie		
Volatile S					olatile Scre		48,530	
[]- (753) Alipha	tic Headspace (Qualitati tic & Halogenated Purg	Me Screen)	4 201		se/Neutral E			
765) Mass S	Spectrometer Purpeable	s (EPA 624)	1/4		se/Neutral// urbemate Pes			270)
766) SDWA	Total Tribalomethanes	(EPA 501.1)		☐- (758) He	rbicides, Chi	prophenoxy	Acid (EPA !	515.1)
	VOC's   [21 REGULATE		2)		rbicides, Tria			
	VOC's II [EDB & DBCP] osite Sample for Analysis				drocarbon Fi ganochiorine			
		A Section		~ 🗍 - (761) Or	ganophosph	ite Pesticide	(EPA 507)	
Other	r Specific Compour	nds or Class	<b>83:</b>		tychlorinated	Biphenyls (F	CB's) in Ol	
H:}*	00.6				WA Synthetic tal Petroleum			
	88:51	T OS HIP S	97 /1 ·	(,04,10				
emarks:	net of Bulia	to - 1	lease	fax s	resulto	0-1	no a	<del>t</del>
(	/ /	10		1/505	) 396	5-27	54	
		<i>h</i>						
		1-1						

# SCIENTIFIC LABORATORY DIVISION

P.O. Box 4700 Albuquerque, NM 87196-4700 700 Camino de Salud, NE [505]-841-2500

ORGANIC CHEMISTRY SECTION [505]-841-2570

February 13, 1996

Request ID No. 090077

# ANALYTICAL REPORT SLD Accession No. OR-96-0438

Distribution

User 64000

Submitter 68

SLD Files

To: Jay Janica

Texas-New Mexico Pipeline Co.

PO Box 60028

San Angelo, Texas 76906

From:

Organic Chemistry Section Scientific Laboratory Div. 700 Camino de Salud, N.E.

P.O. Box 4700

Albuquerque, NM 87196-4700

Re: A water, Extractable sample submitted to this laboratory on January 30, 1996

# DEMOGRAPHIC DATA

COLLECTION

On: 24-Jan-96

At: 11:00 hrs.

In/Near: Lovington

LOCATION

SPS Well 11 Treating Skid

ANALYTICAL RESULTS: SDWA VOC-II [EPA-504] Screen {775}

<u>Parameter</u>	Value	<u>Qual</u>	PQL	<u>Units</u>	
1,2-Dibromo-3-chloropropane	0.00		0.02	ppb	
1,2-Dibromoethane (EDB)	0.00		0.02	ppb	
See Laboratory Remarks for	Additional	Inform	nation		
Notations & Comments:					
Evidentiary Seals: Not Sealed     Intact: No   Yes	_ & Broken By:			Date:	

#### **Laboratory Remarks:**

#### SAFE DRINKING WATER ACT VOLATILES-II

Lab Name: NM SCIENTIFIC LABORATORY DI Lab Code: N/A Case No.: N/A	
Matrix: (soil/water) Water	
Sample wt/vol: 35.0 (g/mL) ml	
Level: (low/med) Low	Date Received: 1/30/96
% Moisture: not dec. N/A dec. N/A	Date Extracted: 2/6/96
Extraction: (SepF/Cont/Sonc) Micro	Date Analyzed: 2/7/96
GPC Cleanup: (Y/N) No pH: N/A	Dilution Factor: 1
	CONCENTRATION UNITS:
	(ug/L or ug/Kg): ug/L

EPA Method 504 was used to analyze for the following compounds

CAS NO.	COMPOUND	CONC.	0	MDL
_106-93-4	1,2-Dibromoethane (EDB)		ט	0.02
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)		U	0.02

<sup>\*</sup> CONC = CONCENTRATION DETERMINED

MDL= The Method Detection Level (Limit) is the minimum concentration

of a compound that can be measured and reported with 99% confidence that the analyte concentration is greater than zero (FR 23703, June 1986). If a sample is diluted (usually due to high levels of contaminants) during analysis, the actual "sample detection limit" can be obtained by multiplying the MDL by the dilution factor reported above.

PQL= Practical Quantitation Limit (Approximately 5-10 times MDL) is the concentration of the lowest standard routinely analyzed. Concentrations determined between the MDL and the PQL will be qualified with a "J" indicating an approximate concentration.

- \* Q = Qualifier Definitions:
- B Indicates compound was detected in the Lab Blank as well as in the sample.
- D Indicates value taken from a secondary (diluted) sample analysis.
- E Indicates compound concentration exceeded the range of the standard curve.
- J Indicates an estimated value for tentatively identified compounds, or for compounds detected and identified but present at a concentration less than the quantitation limit.
- N Indicates that more than one peak was used for quantitation.
- U Indicates compound was analyzed for, but not detected at a concentration greater than the concentration listed.

#### QUALITY CONTROL SUMMARY FOR VOLATILES II SCREEN

METHOD BLANK: A laboratory method blank was analyzed along with this sample to assure the absence of interfering contaminants from lab reagents, instruments, or the general laboratory environment. Unless listed below, no contaminants were detected in this blank above the reported detection limit.

COMPOUND DETECTED No Compounds Detected

CONCENTRATION (ug/L)

SURROGATE RECOVERIES
SURROGATE

CONCENTRATION

\*RECOVERY

1,1,2,2,-TCEA

.57 ug/L

103.3

(Continued on page 3.)

ANALYTICAL REPORT SLD Accession No. OR-96-0438 Continuation, Page 3 of 3

SPIKE RECOVERY: The % recoveries for compounds in the batch spike were from 80% to 120% with the exception of the compounds

listed below:

COMPOUND

CONCENTRATION

% RECOVERY

No Exceptions

Analyst:

Mary Lou LaCasse

Analyst, Organic Chemistry

Reviewed By:

Richard F. Meyerhein 02/12/96 Supervisor, Organic Chemistry Section

GREANIC CHEMISTRY ANALYTICAL REQUEST FO	ORM	C OR96-	0438-C
SCIENTIFIC LABORATORY DIVISION 700 CAMINO DE SALUD N.E., ALBUQUERQUE, NM 87106	•	SLD No.	1301996
Organic Chemistry Section - Telephone: (505) 841-2570  2   User   3   Request   ID No.:	Request	Received: UAN  4 Priority Code #: 3	44-4
Facility Name: SPS -11	6 County:	7 City:	8 State
9 Sample	Lea	Lovington	IN IM
Location: SIPISI WIE IT		AL TAL	2 01 ha
Res Ulajelt	. Oute: (YY/MM/DO)		
	المنتين	ie (DOOMMSS)	2 Digit ID
13 Report         None         14 Phone ≠:           To:         Jav Janica         (915) 9	47-9008	Sampling Informs	J L
Texas-New Mexico Pipeline Co PO Box 60028	Sample Purp	noe C- Flow Proport	Composite Time Percell
San Angelo, Texas 76906	☐ NMED II ☐ Confirm ☐ Special		Permittee
18 Field Date: pit, Conductivity:umhos/cm @ 7	emperature: C, Residu		
Stream —Entry Point to Distribution ————————————————————————————————————	de: led from 1/4" Hos	e Rih from	
☐-Drain ☐-Spring active ☐-Cool ☐-Distribution ☐-WWTP ☐-WWTP ☐-WWTP ☐-Distribution ☐-WWTP ☐-Distribution ☐-Dist	vated charcoal fil	ter vessel di	scharge
- Grass Ind(s) (volume =	No Preceivation; Sample store Sample stored in an ice bath TS Sample Preceived with Sodiu HGCI, Sample Preceived with 19 mg ther	(hiot frozen) im Thioeuliste to remove ch ichlorio Acid (2 drope/40 mi g/l Mercurio Chloride	
Analyses Requested: Please check the appropriate box(es) required. Whenever possible, list spe below whenever highly contaminated	cific compounds suspected of samples are suspected.	x required, and note:	
Volatile Screens:  - (753) Aliphatic Headspace (Qualitative Screen) - (754) Aromatic & Halogenated Purgeables (EPA 601/2) - (765) Mass Spectrometer Purgeables (EPA 624) - (766) SDWA Total Trihalomethanes (EPA 501.1) - (774) SDWA VOC's I [21 REGULATED +] (EPA 502.2) - (775) SDWA VOC's II [EDB & DBCP] (EPA 504) - (790) Composite Sample for Analysis No  Other Specific Compounds or Classes: - ( )	- (760) Organochlorfa - (761) Organophospi - (767) Polychlorfnate - (762) SDWA Synthet	Edractables (EPA 625) Acid Extractables (EPA 531.1) Norophenoxy Acid (EPI 627) Sizine (EPA 507) Fuel Screen (EPA M-80) e Pesticides (EPA 505) hate Pesticides (EPA 5 6 d Biphenylis (PCB's) in it Org. Cmpds. (SLD 7	A 8270) A 515.1) 115) 07) Oll
remerke: TE:9 HA OF MAL 22	(782) Total Petroleur	70	
Please Fax Results To Me AT (505)		70	