AP0047 GW0350

k·e·i

RECEIVED

APR 0 9 1999

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

STAGE I ABATEMENT PLAN

MONITORING WELLS MW-3 THROUGH MW-12

TEXACO PIPELINE INC
UNITS O & P, SECTION 32, TOWNSHIP 25 SOUTH, RANGE 37 EAST
& UNIT B, SECTION 5, TOWNSHIP 26 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

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

STAGE I ABATEMENT PLAN
MONITORING WELLS MW-3 THROUGH MW-12

TEXACO PIPELINE INC
UNITS O & P, SECTION 32, TOWNSHIP 25 SOUTH, RANGE 37 EAST
& UNIT B, SECTION 5, TOWNSHIP 26 SOUTH, RANGE 37 EAST
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

T. Shawn White
Project Manager

Theresa Nix

Theresa Nix
Project Manager

Michael J. Lewis, P.E.

KEI Job No. 810006-1

April 8, 1999

TABLE OF CONTENTS

PURPOSE AND SCOPE

The Texaco Pipeline Inc (TPLI) diesel pipeline release at Jal Station was confirmed during a Phase II Limited Environmental Subsurface Investigation performed by StanTech Environmental Services in January of 1998. The purpose of the Stage I Abatement activities was to delineate the horizontal and vertical extent of hydrocarbon impact from the suspected source area. The scope consisted of installing 10 monitoring wells (designated MW-3 through MW-12) at selected locations. The release site is located in Units O & P, Section 32, Township 25 South, Range 37 East & Unit B, Section 5, Township 26 South, Range 37 East, Lea County, New Mexico. A site location map is provided as FIG. 1. A public notice declaring initiation of Stage I Abatement activities was issued and displayed at the Oil Conservation Division District Office, 1000 West Broadway, Hobbs, New Mexico and at the Oil Conservation Division Office, 2040 South Pacheco, Santa Fe, New Mexico. A copy is attached as APPENDIX E.

SITE BACKGROUND

Prior to Stage I Abatement activities, 2 monitoring wells (designated MW-1 and MW-2) and 3 borings (designated B-1 through B-3) were installed during the Phase II investigation performed in January 1998. Light non-aqueous phase liquid (LNAPL) was observed in MW-2 with an approximate thickness of 3 feet. A water sample was obtained from the on-site water well utilized as a non-potable water source for the facility. This sample had non-detectable results for TPH-DRO, TPH-ORO, and BTEX concentrations; however, a TPH-GRO concentration of 0.088 mg/L was observed. The laboratory results were included in the Phase II report dated March 4, 1998. The site has numerous above and below ground pipelines, a large brick building, and ten 5,000 barrel above ground storage tanks. A site detail map is presented as FIG. 2.

STAGE 1 ABATEMENT ACTIVITIES

As a result of the Phase II investigation, the following Stage I Abatement activities were conducted.

- confirmed property line location in the field and with records
- conducted a records search of the area to determine site geology and hydrogeology
- conducted a registered water well search within a 1 mile radius of the site
- installed 3 tiers of monitoring wells (a total of 10 additional wells) to delineate the extent of the hydrocarbon plume around MW-2 based on field observations
- collected soil samples for field screening and/or laboratory analysis from each boring to determine the vertical extent and magnitude of hydrocarbon impact
- collected 2 samples for sieve analysis to estimate a range of subsurface hydraulic conductivities based on grain size and soil type
- classified the subsurface soil profile in general accordance with the Unified Soil Classification System by visually observing the soil samples obtained during the assessment

- collected ground water samples for laboratory analysis from each monitoring well to determine the magnitude of hydrocarbon impact to ground water
- collected a ground water sample for laboratory analysis from the on-site water well
- obtained depth to ground water measurements to determine the ground water elevations, gradient, and flow direction
- all well locations were surveyed by a Professional Land Surveyor registered in the State of New Mexico
- installed fluid recovery pumps in MW-2, MW-3, MW-6, and MW-9

SOIL INVESTIGATION

During the subsurface investigation, 10 monitoring wells were installed utilizing air rotary drilling techniques. Soil samples were collected at selected intervals from the ground surface to the bottom of each boring. The soils were classified in the field, soil samples were field screened, and selected samples were prepared and shipped to the laboratory for analysis.

Upon advancement to total depth and collection of soil samples, a 2-inch or 4-inch diameter monitoring well consisting of 0.010-inch slotted PVC screen and blank riser was placed in the open hole of each boring. The wells were completed with an annular sand pack, bentonite plug seal and a concrete surface pad with steel stick-up covers. The monitoring well and the recovery well locations were surveyed by a Professional Land Surveyor registered in the State of New Mexico and are presented as 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, 2 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 brown to red sand encountered in all monitoring well locations. The sand was fine to coarse grained, well graded, loose, sparse gravels, and varied from dry to saturated. The observed thickness of this soil type varied from approximately 7 to 68 feet. Head-space readings from samples of this soil type ranged from below instrument detection limits (ND) to 327 ppm.

Soil Type II
This soil type consisted of tan to brown sand, and was encountered in all monitoring well locations. The sand was fine to medium grained, partially lithified, very calcareous with caliche nodules, medium to very dense, and varied from dry to moist. The observed thickness of this soil type varied from approximately 3 to 24 feet. Head-space readings from samples of this soil type ranged from ND to 80 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 as FIGs. 3 through 12.

SOIL SAMPLING AND ANALYTICAL RESULTS

Samples were selected from each soil boring based on the following criteria:

- the sample with the highest PID reading
- two samples directly above and/or near the groundwater level observed at the time of drilling
- the sample at 50 feet below ground surface (bgs)

Soil samples selected for analytical testing consisted of the following:

- forty-six soil samples from the monitoring wells were tested for benzene, toluene, ethylbenzene, xylenes (BTEX), and total petroleum hydrocarbons diesel range organics (TPH-DRO)
- one soil sample from MW-3 and 1 sample from MW-9 exhibiting the highest concentrations of TPH were tested for SPLP volatile organic compounds (VOC), SPLP semi-volatile organic compounds (SVOC), and SPLP TPH
- one soil sample from MW-9 and 1 sample from MW-12 were submitted for polycyclic aromatic hydrocarbons (PAH) analysis
- one soil sample from MW-3 was submitted for sieve analysis, fraction organic carbon (foc), and water content
- laboratory results for the selected samples indicated the following concentration ranges:

CONSTITUENT	CONCENTRATION RANGE
BENZENE	ND to 0.46 mg/kg
BTEX	ND to 47.100 mg/kg
TPH	ND to 11,500 mg/kg
PAH	ND to 1.13 mg/kg
SPLP VOC	0.135 to 0.728 mg/l
SPLP SVOC	0.542 to 0.810 mg/l
SPLP TPH	2.0 to 2.6 ppm
FOC	1.0 to 1.2 %
WATER CONTENT (oven dried mass)	10.7 to 17.7%

Soil laboratory results are summarized in TABLES I through III. Soil analytical laboratory reports and chain-of-custody documentation are presented in APPENDIX A. QA/QC procedures are presented as APPENDIX C.

GROUND WATER SAMPLING AND ANALYTICAL RESULTS

Upon completion of drilling, each well was gauged to determine the depth to ground water and checked for the presence of LNAPL. The depth to ground water measured in the monitoring wells on February 22, 1999, ranged from 84.13 to 92.57 feet below ground surface. Ground water contours indicate approximate elevations and gradient of 0.003 towards the northwest. Ground water gradient and direction of flow are presented on FIG. 13. LNAPL was observed on ground water in MW-2, MW-3, MW-6, MW-8, and MW-9 with

a thickness ranging from 0.02 to 8.28 feet. LNAPL thickness is graphically presented on FIG. 14 for February 22, 1999, and on FIG. 15 for March 11, 1999. Ground water measurements are summarized in TABLE IV.

All monitoring wells were gauged and checked for the presence of LNAPL. On February 22-23, 1999, the wells designated to be sampled were purged of approximately 3 well volumes of water or until the wells were dry using a PVC bailer. Ground water was allowed to recharge and samples were obtained using disposable Teflon samplers. Monitoring wells with a measurable presence of LNAPL were not sampled. Water samples were stored in clean, glass containers provided by the laboratory and placed on ice in the field. Purged water collected during the event was stored on site, in steel drums, pending disposal.

Ground water samples were tested for BTEX, PAH, TPH-DRO, TPH-GRO, ICP total metals, total mercury, cations (bicarbonates, carbonates), anions (chlorides, sulfates), and total dissolved solids (TDS). Laboratory results indicated the following concentration ranges:

CONSTITUENT	CONCENTRATION RANGE (mg/L)
BENZENE	ND
BTEX	ND to 0.005
PAH	ND to 0.011
METALS (calcium)	ND to 1,650
BICARBONATE	256 to 402
CHLORIDE	8 to 767
SULFATE	31 to 1,960
LNAPL fingerprint	Pending
TDS	600 to 2,670

Ground water laboratory results are summarized in TABLES V and VI. BTEX results are graphically presented on FIG. 16. Water analytical laboratory reports and chain-of-custody documentation are presented in APPENDIX B. QA/QC procedures are presented as APPENDIX C.

Four (MW-2, MW-3, MW-6, and MW-9) wells are scheduled to be utilized for the removal of diesel fuel from the ground water surface. The diesel will be pumped into a 5,000 gallon above ground storage (AST) tank. MW-6 and MW-3 will each have a Hammerhead® pump at the diesel and ground water interface. MW-2 and MW-9 will have a Ferret® pump installed at the same zone. The pump in MW-6 is already in place and is pending startup procedures. The Hammerhead® pumps are designed for 4-inch wells and are capable of removing 1/4 gallon per minute of LNAPL continuously, with weekly to bimonthly operation and maintenance (O&M) visits. The Ferret® pumps are smaller and suited for 2-inch wells. These pumps have a lower recovery rate of approximately 1/10 gallon per minute of LNAPL. The Ferret® pumps will have the same O & M schedule. These 4 wells were chosen in order to facilitate rapid removal of LNAPL and to control the extent of the LNAPL plume.

REGIONAL GEOLOGY AND HYDROGEOLOGY

The surficial geology at the site and surrounding area consists of the Tertiary Ogallala Formation overlain by Quaternary Alluvium. The Ogallala Formation overlies older Triassic rocks and is comprised of calcareous sands, as well as gravel, clay, and silt. In this area, the thickness ranges from 0 to 300 feet. Zones cemented with calcium carbonate, which have a greater resistance to weathering, form ledges in the Ogallala Formation outcrops. The Ogallala cap rock (caliche) is the most distinctive of these ledges and marks the top of the formation. The cap rock may be as thick as 60 feet.

Deposition of the Ogallala Formation occurred during rapidly changing conditions which resulted in lenses, pinch-out beds, interbedding, and gradational sedimentation. The sudden changes in lithology found throughout this formation are the result of variations in the depositional processes.

The Quaternary Alluvium overlies the Ogallala Formation in the site vicinity with a thickness of up to 100 feet. These alluvial sediments are comprised of calcareous silt with interbedded layers of sand and clay. Gastropod fossils further identify this formation and their presence indicates a shallow marine depositional environment.

The Ogallala Formation and Quaternary Alluvium are units of the Permian Basin, a subsurface geologic structure that encompasses a portion of southeast New Mexico and west Texas, as well as the back-reef portion of the Delaware Basin.

The Ogallala Formation is the principal geologic unit in the High Plains aquifer system, which consists of one or more hydraulically connected geologic units of late Tertiary to Quaternary age. Water pumped from the High Plains aquifer system is used for industrial, agricultural, and domestic needs. Recharge of the aquifer occurs in this area through precipitation which results in an increase of water reserves at an approximate rate of ½ inch per year. Removal of the water occurs primarily through pumping. The regional ground water generally flows in a southeasterly direction from the Ogallala Formation of the High Plains to the permeable Quaternary deposits of Laguna Valley and continues into Texas; however, at Jal Station, the ground water flows west to northwest. This change in flow may be a localized condition induced by nearby surface topographic.

Based on the sieve analysis performed on a soil sample from MW-3, the predominant soil type was determined to be silty sand. Based on information presented in the following references, the general soil type and grain size distribution, the ground water zone at the site was estimated to have an approximate hydraulic conductivity varying from 1×10^{-2} to 1×10^{-4} cm/s.

REFERENCES

The information presented above was obtained from the 1961 publication of the U.S. Geological Survey Ground-Water Report 6, Geology and Ground-Water Conditions in Southern Lea County, New Mexico, by Alexander Nicholson, Jr. and Alfred Clebsch, Jr., Groundwater Hydrology, 2ed, by David K. Todd, 1980 & Groundwater, R. Alan Freeze and John A. Cherry, Prentice Hall, 1979.

WATER WELL SEARCH

A water well search was conducted within a 1-mile radius of the site by Banks Information Solutions, Inc. No registered water wells were identified in the search results; however, 1 known water well is located on site on FIG. 2. The well was sampled for TPH-DRO, TPH-GRO and PAH on March 31, 1999. The results were all ND and the report is in APPENDIX A. A copy of the water well search is presented as APPENDIX D.

CLOSURE STANDARDS

SOIL

The New Mexico OCD Guidelines for Remediation of Leaks, Spills, and Releases contains the standard criteria for remediation activities. A ranking analysis for the site was performed to determine appropriate soil remediation levels. The ranking analysis is as follows:

Depth to Ground Water	Between 50 and 99 Feet	10 Points
Well Head Protection	Less Than 1000 Feet to Water Source or Less Than 200 Feet to Private Water Source	20 Points
Surface Water Body	Greater Than 1000 Feet	0 Points
	Total Ranking Score	**30 Points**

Based on the total ranking score, the closure objectives for this site for concentrations of benzene, BTEX, and TPH in soil are summarized as follows:

CONSTITUENT	CLOSURE CONCENTRATION (mg/kg)
BENZENE	10
BTEX	50
TPH	100 + Background

GROUND WATER

The OCD requires remediation of impacted ground water to within the New Mexico Water Quality Control Commission (WQCC) Ground Water Standards for natural background water quality. This site exceeds the WQCC standards for several metals as well as chloride, sulfate, and TDS as listed below:

CONSTITUENT	CONCENTRATION RANGE (mg/L)	CLOSURE CONCENTRATION (mg/L)
BENZENE	ND	0.01
TOLUENE	ND	0.75
ETHYLBENZENE	ND	0.75
TOTAL XYLENES	ND to 0.005	0.62

CONSTITUENT	CONCENTRATION RANGE (mg/L)	CLOSURE CONCENTRATION (mg/L)
TDS	600 to 2670	1,000
CHROMIUM	ND to 0.13	0.05
CHLORIDE	8 to 767	250
SELENIUM	ND to 0.13	0.05
IRON	ND to 8.72	1.0
MANGANESE	ND to 0.85	0.2
SULFATE	31 to 1960	600
BORON	ND to 1.78	0.75

SUMMARY

Data obtained during the investigation can be summarized by the following observations:

- hydrocarbon impact to soils exceeding OCD closure concentrations was encountered above or near the water table elevations in MW-3, MW-4, MW-6, MW-7, MW-8, and MW-9
- apparent hydrocarbon impact to soils was delineated to the west, south, northeast, and southeast of the source area
- LNAPL was encountered in ground water in MW-2, MW-3, MW-6, MW-8, and MW-9
- ground water samples obtained from monitoring wells outside the LNAPL plume were not impacted above OCD closure concentrations for constituents of concern

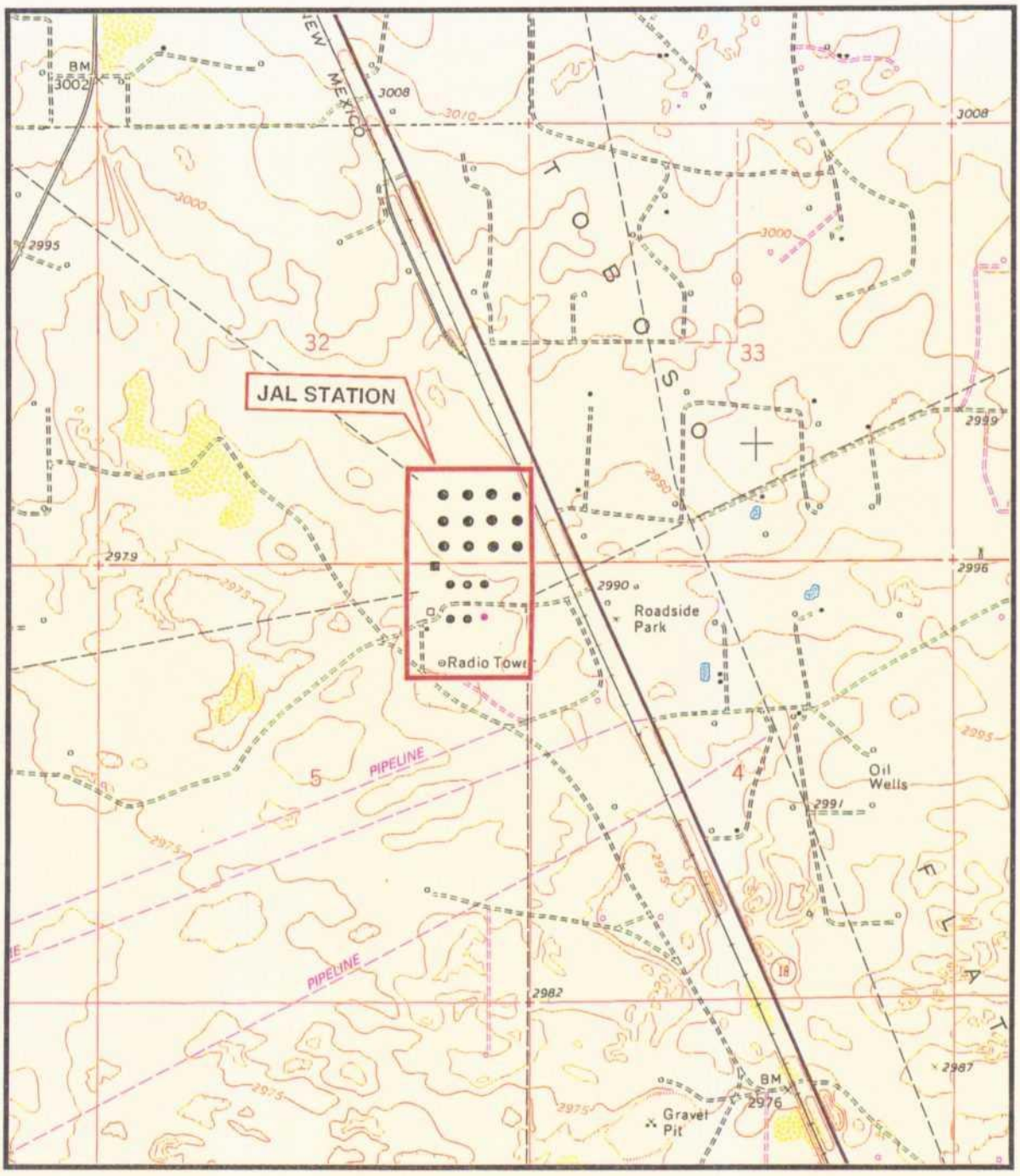
RECOMMENDED STAGE 2 ABATEMENT ACTIVITIES

- Install 2 monitoring wells northwest and southwest of the source area to horizontally delineate the contaminant plume.
- Perform monthly gauging of all monitoring wells.
- Perform quarterly ground water sampling for determination of TPH-DRO and BTEX concentrations.
- Continue operation of fluid recovery pumps in MW-2, MW-3, MW-6, and MW-9.
- Continue weekly system O&M.
- Submit summary progress reports every quarter.

JAL QUADRANGLE

NEW MEXICO - TEXAS

PRINTED 1979



SCALE 1:24000

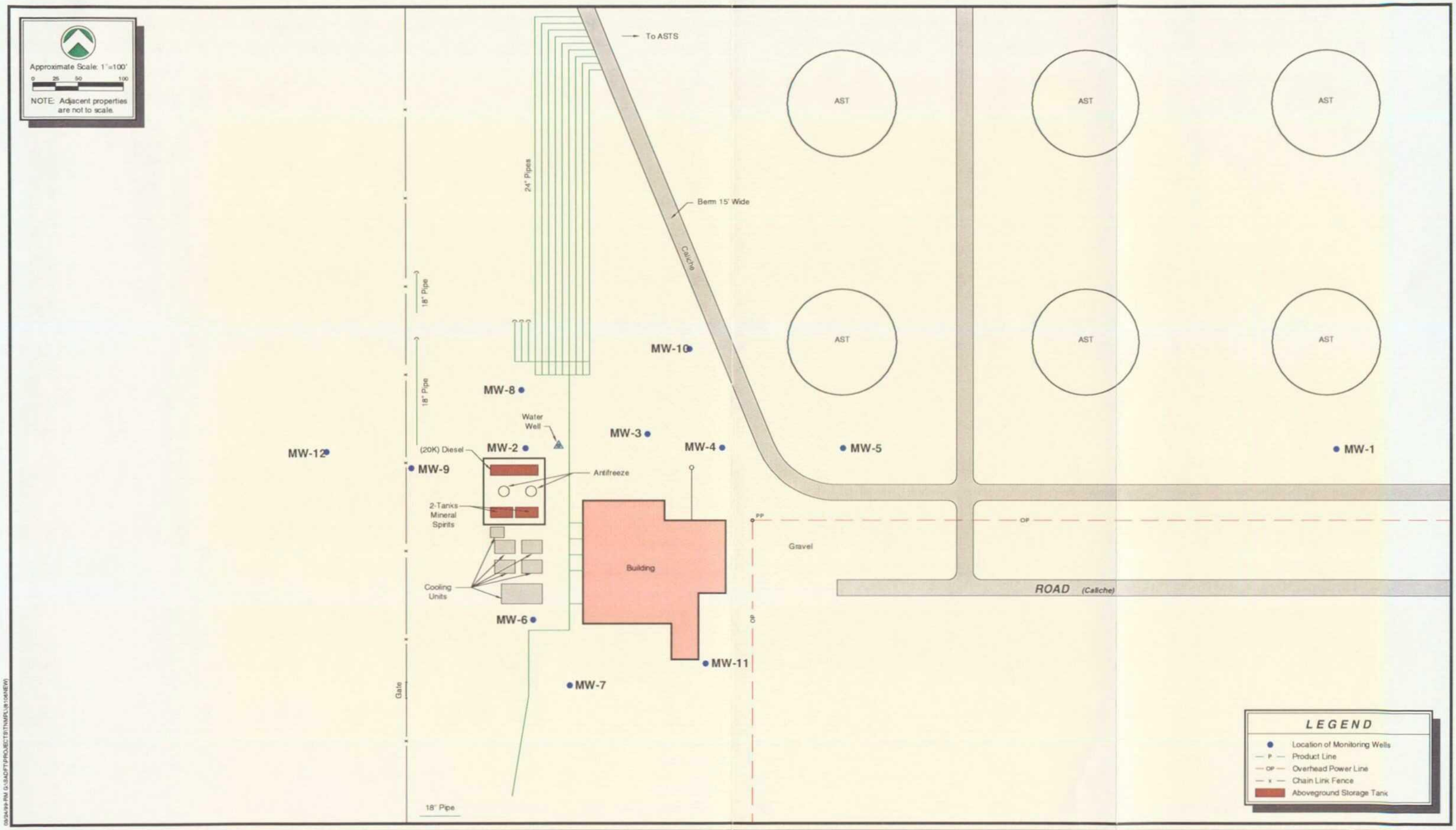
1 1/2 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 5 FEET

k·e·i	*SITE LOCATION MAP*	810006-1-0
	TPLI JAL STATION LEA COUNTY, NEW MEXICO	FIG 1

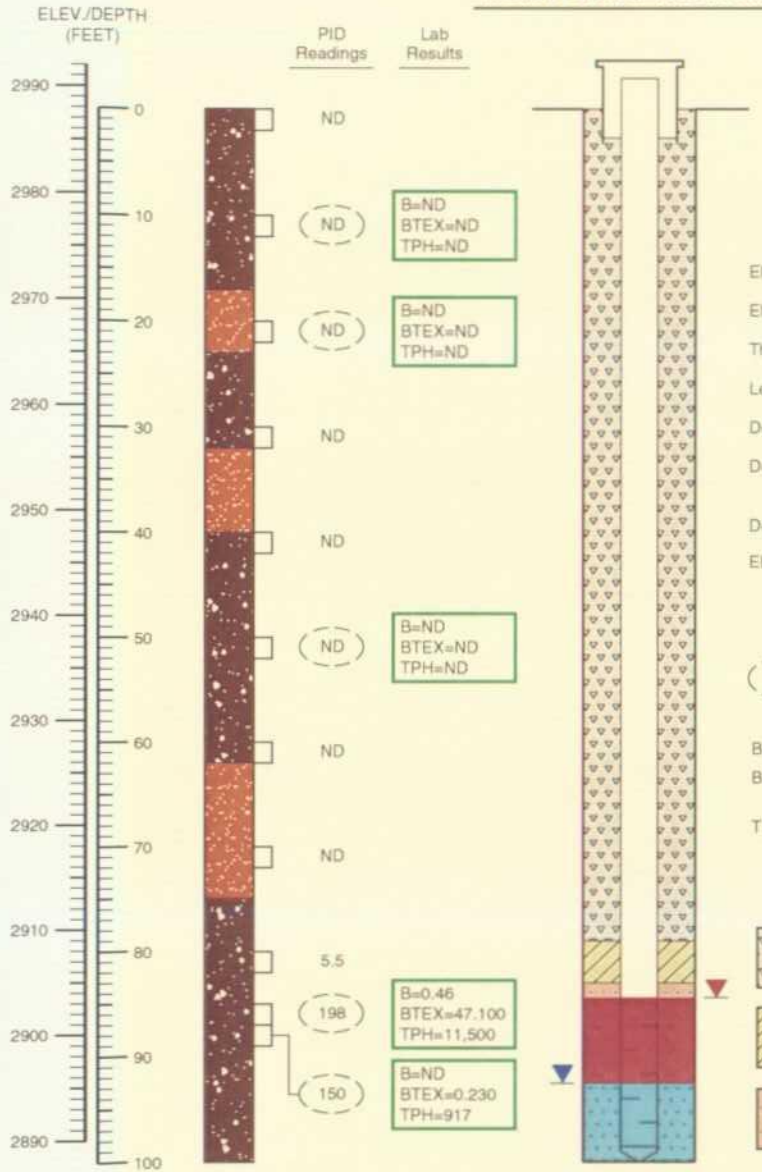


05/24/99 RM G:\AD\PTP\PROJECTS\TNMPL\810\04NEW)

k·e·i

SITE DETAIL MAP	810006-1-0
TPLI JAL STATION LEA COUNTY, NEW MEXICO	FIG 2

MONITORING WELL MW-3



Monitoring Well Details (MW-3)

Elev of Ground Surface	2987.91 ft
Elev Top of PVC Well	2990.81 ft
Thickness of Bentonite Seal	4.00 ft
Length of PVC Well Screen	15.00 ft
Depth of PVC Well	100.00 ft
Depth of Exploratory Hole	100.00 ft
Depth to Ground Water	92.55 ft
Elev of Ground Water	2902.34 ft

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)

Concrete Surface Seal

Bentonite Pellet Seal

Sand Pack

LEGEND

Sand (SW/SM), fine to coarse grained, loose, sparse gravel, red to brown, dry to saturated.

Sand (SM), fine to medium grained, medium to very dense, calcareous, tan to brown, dry to moist.

Indicates the depth from which a soil sample was selected and prepared for field head space and/or laboratory analysis.

Indicates the LNAPL level measured on February 4, 1999.

Indicates the ground water level measured on February 4, 1999.

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

ND Indicates the constituent was not detected.

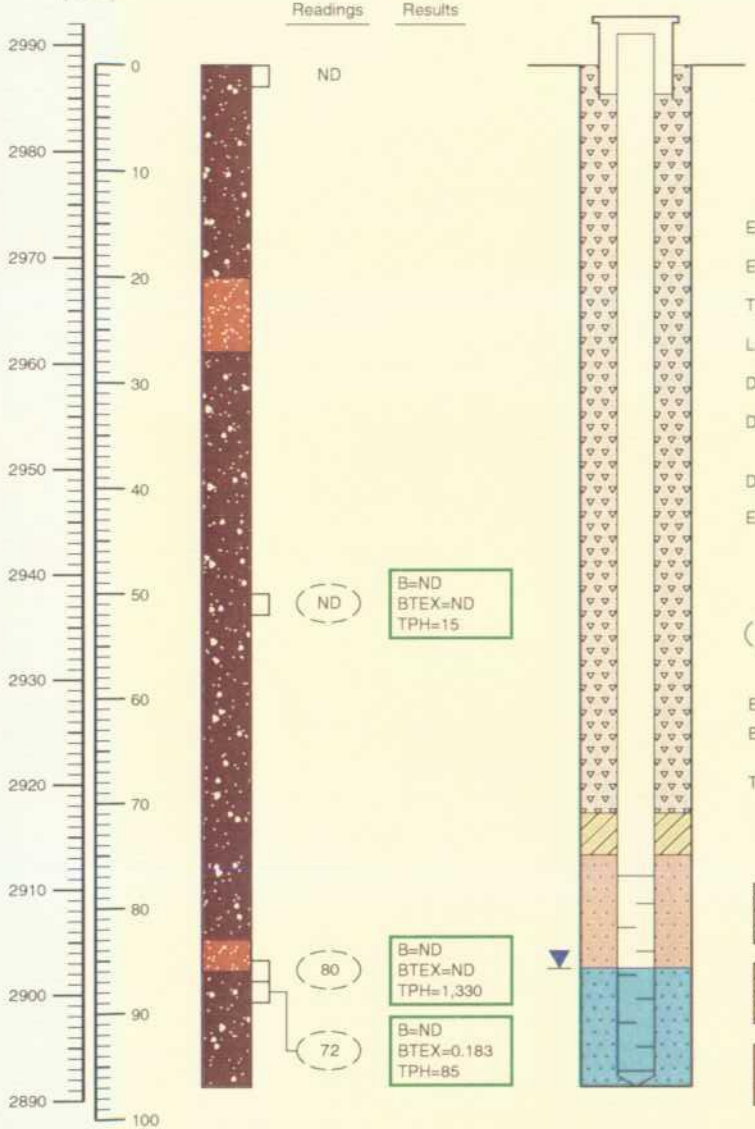
NOTES

1. The monitoring well was installed on January 25, 1999 using air rotary drilling techniques.
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 stick up steel cover and a locked compression cap.
4. 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.
6. Ground water elevation corrected for LNAPL thickness.

k·e·i

LOG AND DETAILS OF MONITORING WELL MW-3	810006-1-0
TPLI JAL STATION LEA COUNTY, NEW MEXICO	FIG 3

MONITORING WELL MW-4



Monitoring Well Details (MW-4)

Elev of Ground Surface	2988.22 ft
Elev Top of PVC Well	2991.16 ft
Thickness of Bentonite Seal	4.00 ft
Length of PVC Well Screen	20.00 ft
Depth of PVC Well	97.00 ft
Depth of Exploratory Hole	97.00 ft
Depth to Ground Water	85.83 ft
Elev of Ground Water	2902.39 ft

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)

Concrete Surface Seal

Bentonite Pellet Seal

Sand Pack

LEGEND

Sand (SW/SM), fine to coarse grained, loose, sparse gravel, red to brown, dry to saturated.

Sand (SM), fine to medium grained, medium to very dense, calcareous, tan to brown, dry to moist.

Indicates the depth from which a soil sample was selected and prepared for field head space and/or laboratory analysis.

Indicates the ground water level measured on February 4, 1999.

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

ND Indicates the constituent was not detected.

NOTES

1. The monitoring well was installed on January 25 and 26, 1999 using air rotary drilling techniques.
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 stick up steel cover and a locked compression cap.
4. 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.

k·e·i

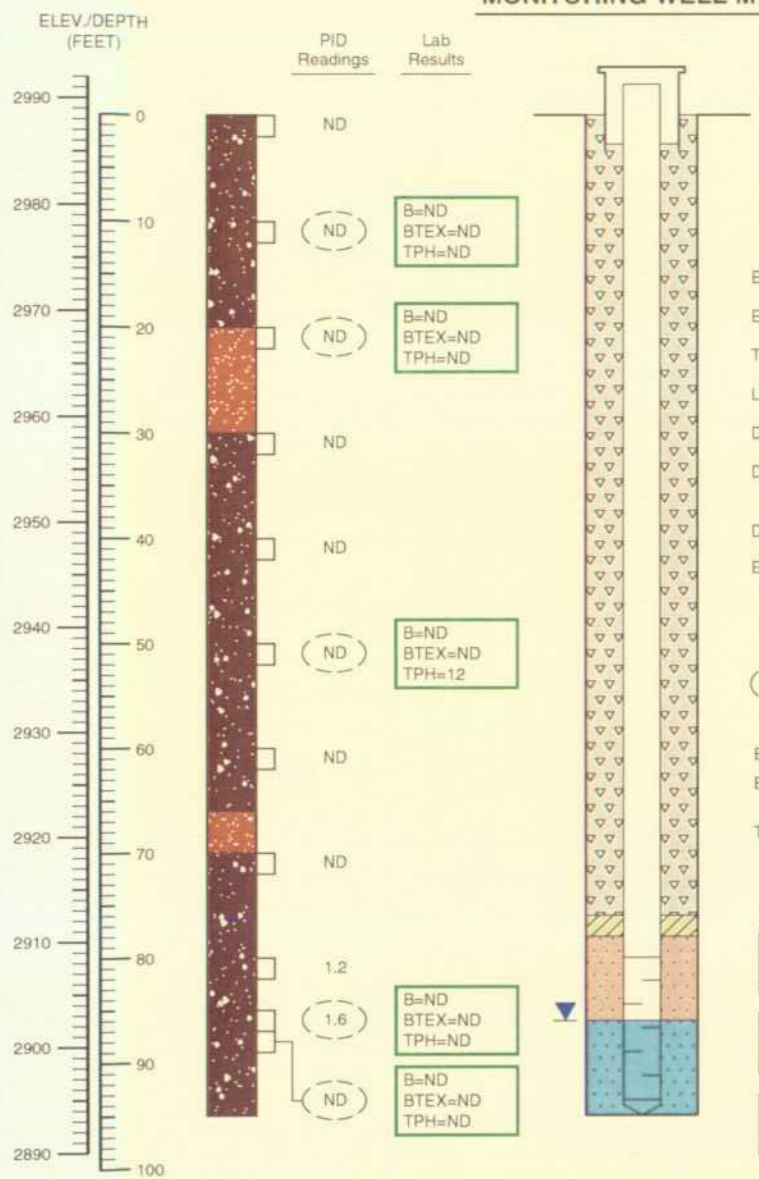
LOG AND DETAILS OF MONITORING WELL MW-4

TPLI JAL STATION LEA COUNTY, NEW MEXICO

810006-1-0

FIG 4

MONITORING WELL MW-5



Monitoring Well Details (MW-5)

Elev of Ground Surface	2988.47 ft
Elev Top of PVC Well	2991.38 ft
Thickness of Bentonite Seal	2.00 ft
Length of PVC Well Screen	15.00 ft
Depth of PVC Well	95.00 ft
Depth of Exploratory Hole	95.00 ft
Depth to Ground Water	86.03 ft
Elev of Ground Water	2902.44 ft

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)

Concrete Surface Seal

Bentonite Pellet Seal

Sand Pack

LEGEND

Sand (SW/SM), fine to coarse grained, loose, sparse gravel, red to brown, dry to saturated.

Sand (SM), fine to medium grained, medium to very dense, calcareous, tan to brown, dry to moist.

Indicates the depth from which a soil sample was selected and prepared for field head space and/or laboratory analysis.

Indicates the ground water level measured on February 4, 1999.

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

ND Indicates the constituent was not detected.

NOTES

1. The monitoring well was installed on January 26, 1999 using air rotary drilling techniques.
2. The well was constructed with 2 inch ID, 0.010 inch factory slotted, threaded joint, Schedule 40 PVC pipe.
3. The well is protected with a stick up steel cover and a locked compression cap.
4. 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.

k·e·i

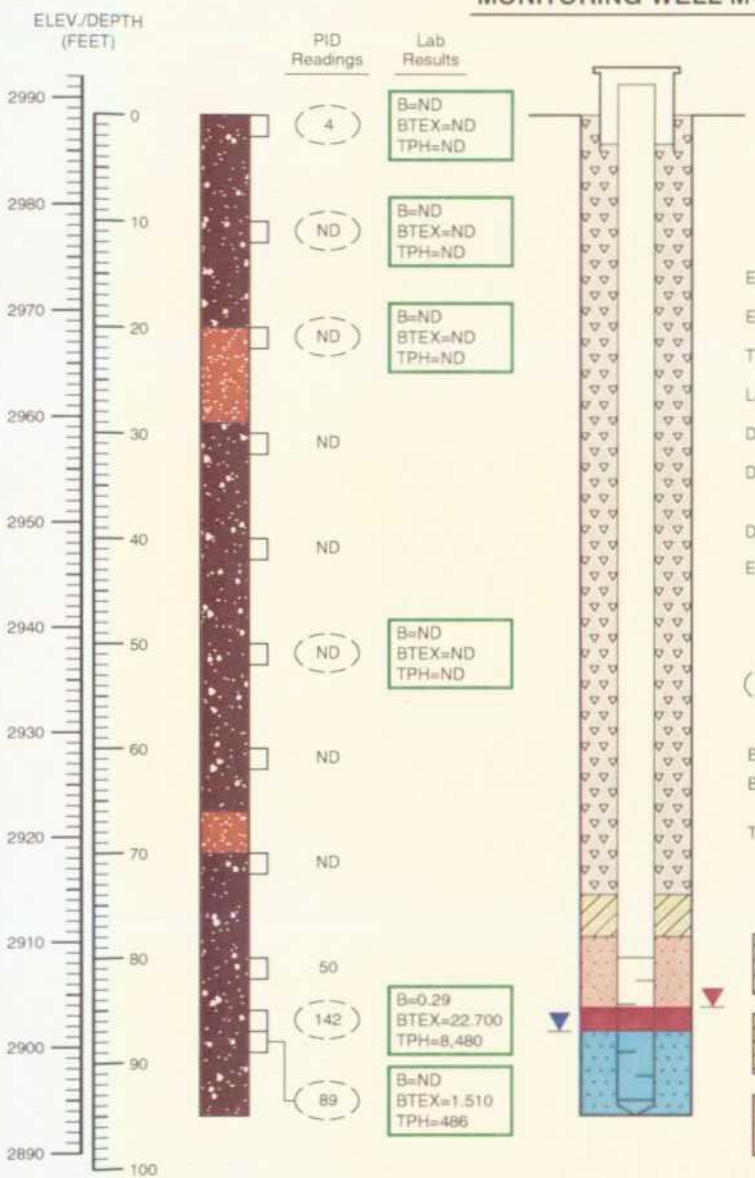
LOG AND DETAILS OF MONITORING WELL MW-5

TPLI JAL STATION LEA COUNTY, NEW MEXICO

810006-1-0

FIG 5

MONITORING WELL MW-6



Monitoring Well Details (MW-6)

Elev of Ground Surface	2987.40 ft
Elev Top of PVC Well	2990.17 ft
Thickness of Bentonite Seal	4.00 ft
Length of PVC Well Screen	15.00 ft
Depth of PVC Well	95.00 ft
Depth of Exploratory Hole	95.00 ft
Depth to Ground Water	87.01 ft
Elev of Ground Water	2902.36 ft

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)

Concrete Surface Seal

Bentonite Pellet Seal

Sand Pack

LEGEND

Sand (SP), fine to coarse grained, gravel, red to brown, dry to saturated.

Sand (SM), very fine to medium grained, sparsely calcareous, tan to brown, dry to moist.

Indicates the depth from which a soil sample was selected and prepared for field head space and/or laboratory analysis.

Indicates the PSH level measured on February 4, 1999.

Indicates the ground water level measured on February 4, 1999.

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

ND Indicates the constituent was not detected.

NOTES

1. The monitoring well was installed on January 27, 1999 using air rotary drilling techniques.
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 stick up steel cover and a locked compression cap.
4. 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.

k·e·i

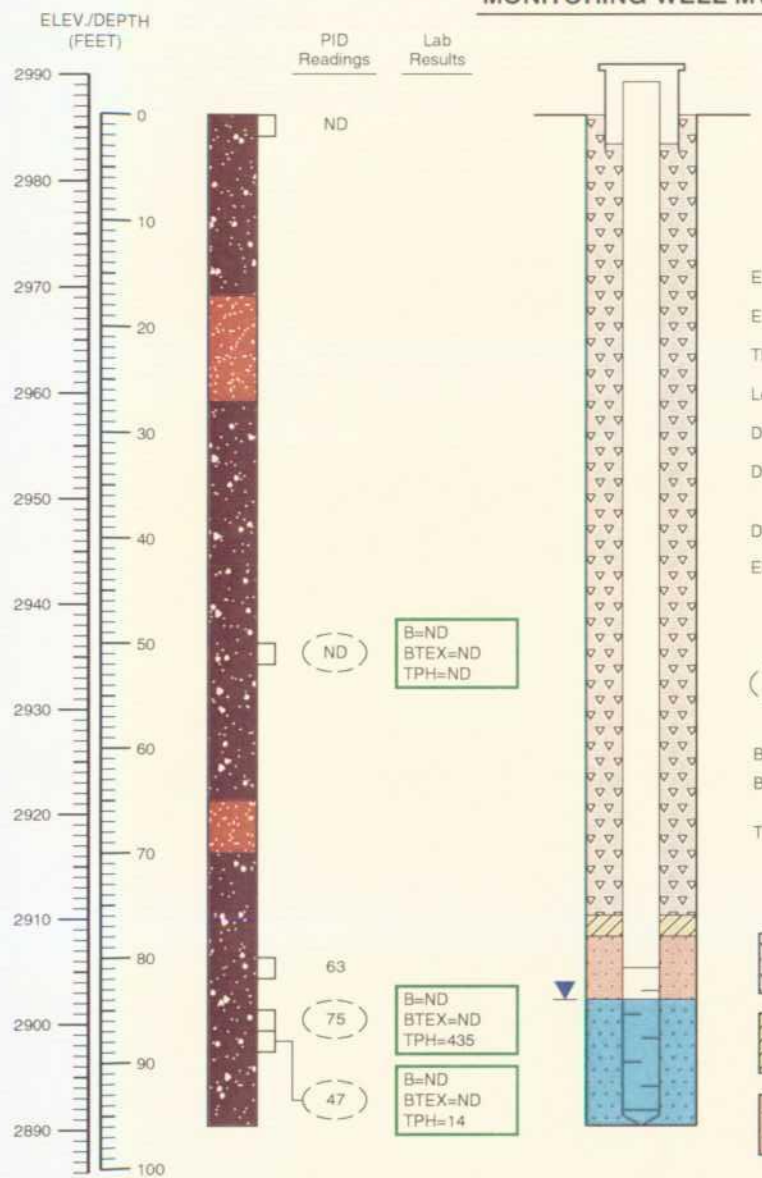
LOG AND DETAILS OF MONITORING WELL MW-6

TPLI JAL STATION LEA COUNTY, NEW MEXICO

810006-1-0

FIG 6

MONITORING WELL MW-7



Monitoring Well Details (MW-7)

Elev of Ground Surface	2986.31 ft
Elev Top of PVC Well	2989.47 ft
Thickness of Bentonite Seal	2.00 ft
Length of PVC Well Screen	15.00 ft
Depth of PVC Well	95.00 ft
Depth of Exploratory Hole	95.00 ft
Depth to Ground Water	84.03 ft
Elev of Ground Water	2902.28 ft

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)

Concrete Surface Seal

Bentonite Pellet Seal

Sand Pack

LEGEND

Sand (SW/SM), fine to coarse grained, loose, sparse gravel, red to brown, dry to saturated.

Sand (SM), fine to medium grained, medium to very dense, calcareous, tan to brown, dry to moist.

Indicates the depth from which a soil sample was selected and prepared for field head space and/or laboratory analysis.

Indicates the ground water level measured on February 4, 1999.

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

ND Indicates the constituent was not detected.

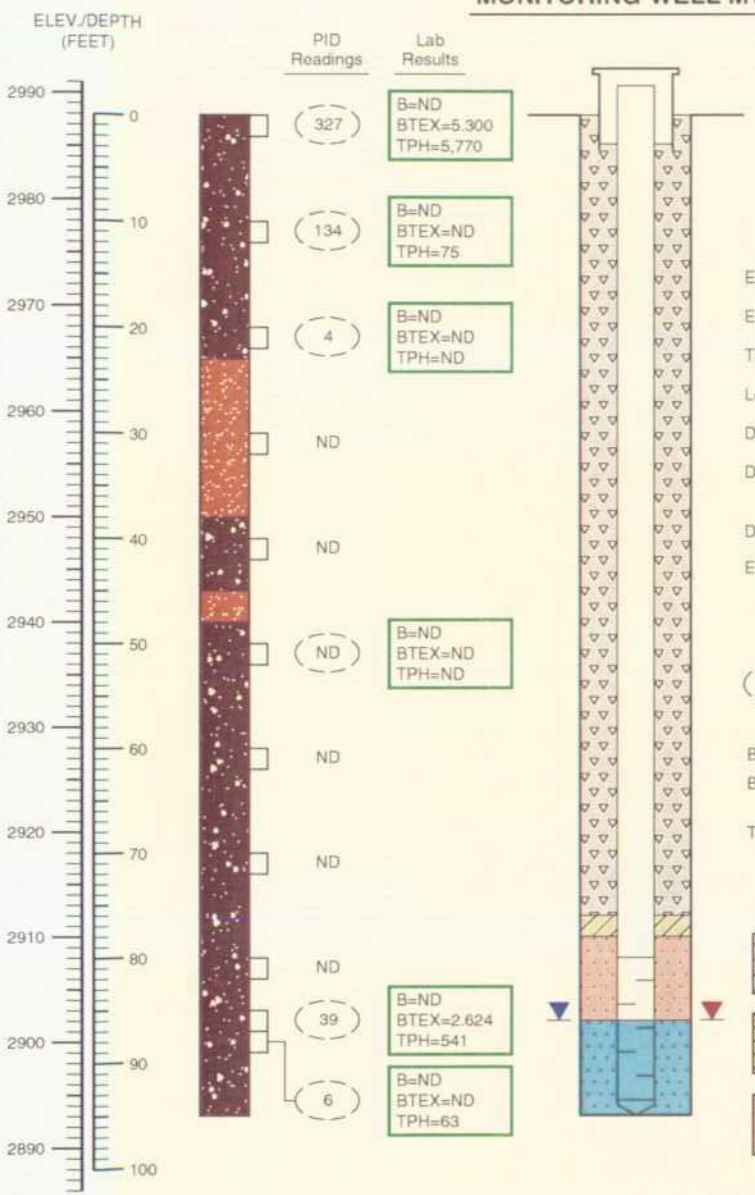
NOTES

1. The monitoring well was installed on January 27 and 28, 1999 using air rotary drilling techniques.
2. The well was constructed with 2 inch ID, 0.010 inch factory slotted, threaded joint, Schedule 40 PVC pipe.
3. The well is protected with a stick up steel cover and a locked compression cap.
4. 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.

k·e·i

LOG AND DETAILS OF MONITORING WELL MW-7	810006-1-0
TPLI JAL STATION LEA COUNTY, NEW MEXICO	FIG 7

MONITORING WELL MW-8



Monitoring Well Details (MW-8)

Elev of Ground Surface	2987.97 ft
Elev Top of PVC Well	2990.73 ft
Thickness of Bentonite Seal	2.00 ft
Length of PVC Well Screen	15.00 ft
Depth of PVC Well	95.00 ft
Depth of Exploratory Hole	95.00 ft
Depth to Ground Water	86.00 ft
Elev of Ground Water	2901.98 ft

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)

Concrete Surface Seal

Bentonite Pellet Seal

Sand Pack

LEGEND

Sand (SW/SM), fine to coarse grained, loose, sparse gravel, red to brown, dry to saturated.

Sand (SM), fine to medium grained, medium to very dense, calcareous, tan to brown, dry to moist.

Indicates the depth from which a soil sample was selected and prepared for field head space and/or laboratory analysis.

Indicates the PSH level measured on February 4, 1999.

Indicates the ground water level measured on February 4, 1999.

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

ND Indicates the constituent was not detected.

NOTES

1. The monitoring well was installed on January 28, 1999 using air rotary drilling techniques.
2. The well was constructed with 2 inch ID, 0.010 inch factory slotted, threaded joint, Schedule 40 PVC pipe.
3. The well is protected with a stick up steel cover and a locked compression cap.
4. 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.
6. Ground water elevation corrected for LNAPL thickness.

k·e·i

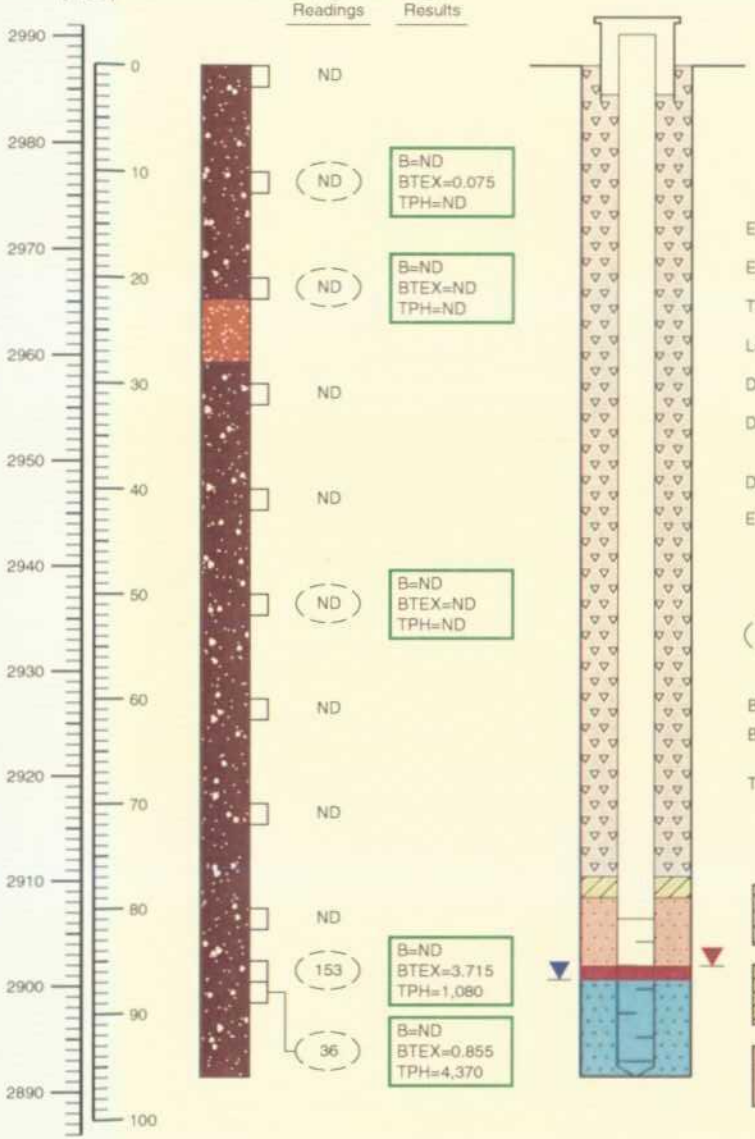
LOG AND DETAILS OF MONITORING WELL MW-8

TPLI JAL STATION LEA COUNTY, NEW MEXICO

810006-1-0

FIG 8

MONITORING WELL MW-9



Monitoring Well Details (MW-9)

Elev of Ground Surface	2987.39 ft
Elev Top of PVC Well	2990.31 ft
Thickness of Bentonite Seal	2.00 ft
Length of PVC Well Screen	15.00 ft
Depth of PVC Well	96.00 ft
Depth of Exploratory Hole	96.00 ft
Depth to Ground Water	86.06 ft
Elev of Ground Water	2901.83 ft

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)

Concrete Surface Seal

Bentonite Pellet Seal

Sand Pack

LEGEND

Sand (SW/SM), fine to coarse grained, loose, sparse gravel, red to brown, dry to saturated.

Sand (SM), fine to medium grained, medium to very dense, calcareous, tan to brown, dry to moist.

Indicates the depth from which a soil sample was selected and prepared for field head space and/or laboratory analysis.

Indicates the PSH level measured on February 4, 1999.

Indicates the ground water level measured on February 4, 1999.

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

ND Indicates the constituent was not detected.

NOTES

1. The monitoring well was installed on January 29, 1999 using air rotary drilling techniques.
2. The well was constructed with 2 inch ID, 0.010 inch factory slotted, threaded joint, Schedule 40 PVC pipe.
3. The well is protected with a stick up steel cover and a locked compression cap.
4. 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.
6. Ground water elevation corrected for LNAPL thickness.

k·e·i

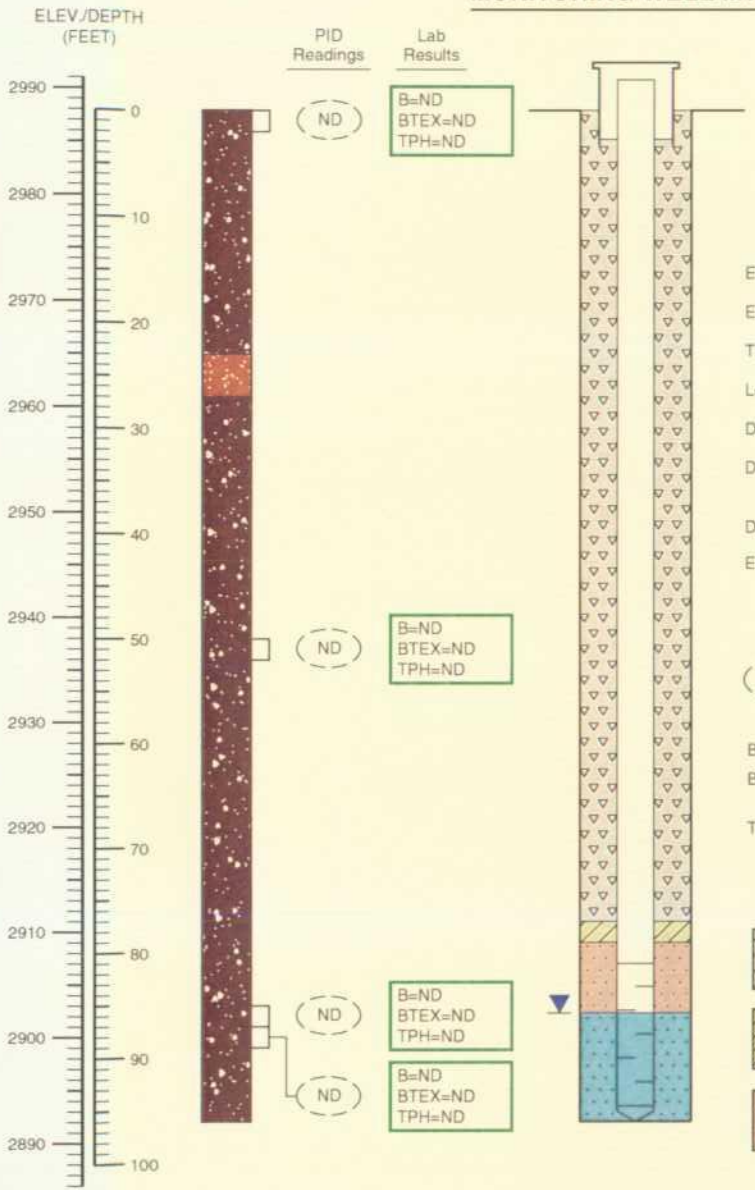
LOG AND DETAILS OF MONITORING WELL MW-9

TPLI JAL STATION LEA COUNTY, NEW MEXICO

810006-1-0

FIG 9

MONITORING WELL MW-10



Monitoring Well Details (MW-10)

Elev of Ground Surface	2987.96 ft
Elev Top of PVC Well	2990.84 ft
Thickness of Bentonite Seal	2.00 ft
Length of PVC Well Screen	15.00 ft
Depth of PVC Well	96.00 ft
Depth of Exploratory Hole	96.00 ft
Depth to Ground Water	85.73 ft
Elev of Ground Water	2902.23 ft

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)

Concrete Surface Seal

Bentonite Pellet Seal

Sand Pack

LEGEND

Sand (SW/SM), fine to coarse grained, loose, sparse gravel, red to brown, dry to saturated.

Sand (SM), fine to medium grained, medium to very dense, calcareous, tan to brown, dry to moist.

Indicates the depth from which a soil sample was selected and prepared for field head space and/or laboratory analysis.

Indicates the ground water level measured on February 4, 1999.

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

ND Indicates the constituent was not detected.

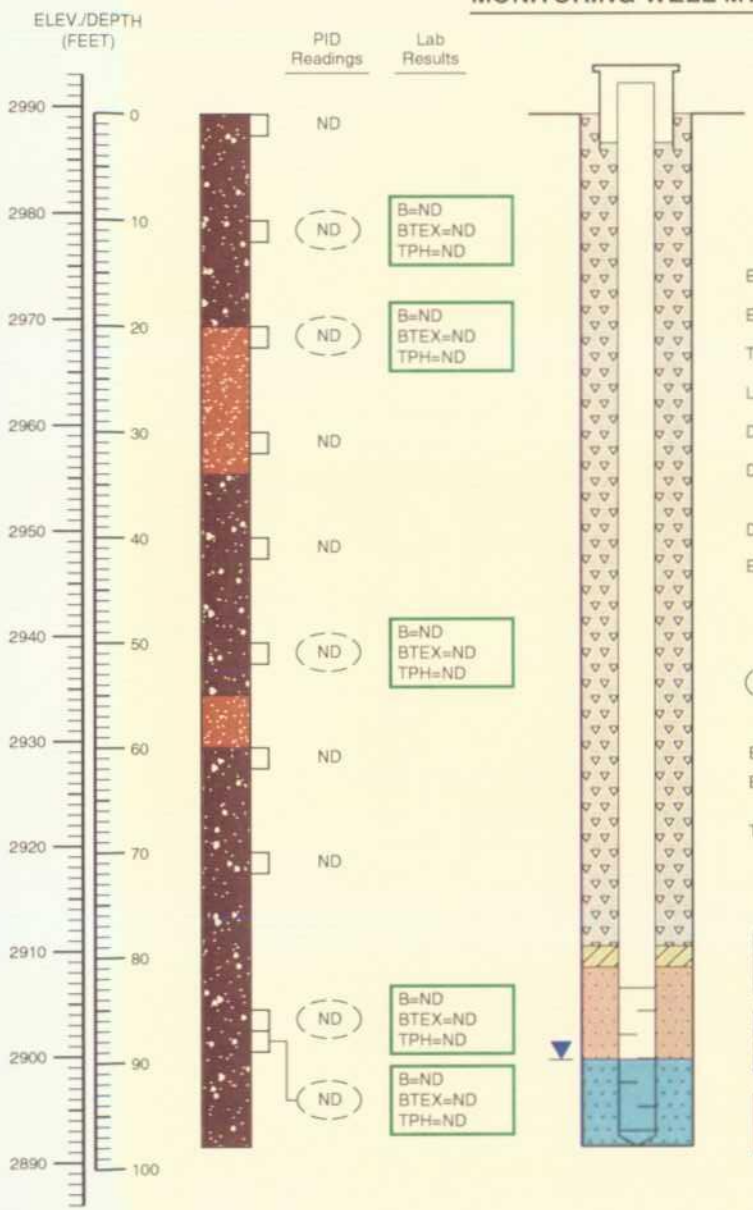
NOTES

1. The monitoring well was installed on February 3, 1999 using air rotary drilling techniques.
2. The well was constructed with 2 inch ID, 0.010 inch factory slotted, threaded joint, Schedule 40 PVC pipe.
3. The well is protected with a stick up steel cover and a locked compression cap.
4. 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.

k·e·i

LOG AND DETAILS OF MONITORING WELL MW-10	810006-1-0
TPLI JAL STATION LEA COUNTY, NEW MEXICO	FIG 10

MONITORING WELL MW-11



Monitoring Well Details (MW-11)

Elev of Ground Surface	2989.37 ft
Elev Top of PVC Well	2992.30 ft
Thickness of Bentonite Seal	2.00 ft
Length of PVC Well Screen	15.00 ft
Depth of PVC Well	98.00 ft
Depth of Exploratory Hole	98.00 ft
Depth to Ground Water	86.95 ft
Elev of Ground Water	2902.42 ft

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)

Concrete Surface Seal

Bentonite Pellet Seal

Sand Pack

LEGEND

Sand (SW/SM), fine to coarse grained, loose, sparse gravel, red to brown, dry to saturated.

Sand (SM), fine to medium grained, medium to very dense, calcareous, tan to brown, dry to moist.

Indicates the depth from which a soil sample was selected and prepared for field head space and/or laboratory analysis.

Indicates the ground water level measured on February 4, 1999.

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

ND Indicates the constituent was not detected.

NOTES

1. The monitoring well was installed on February 3 and 4, 1999 using air rotary drilling techniques.
2. The well was constructed with 2 inch ID, 0.010 inch factory slotted, threaded joint, Schedule 40 PVC pipe.
3. The well is protected with a stick up steel cover and a locked compression cap.
4. 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.

k·e·i

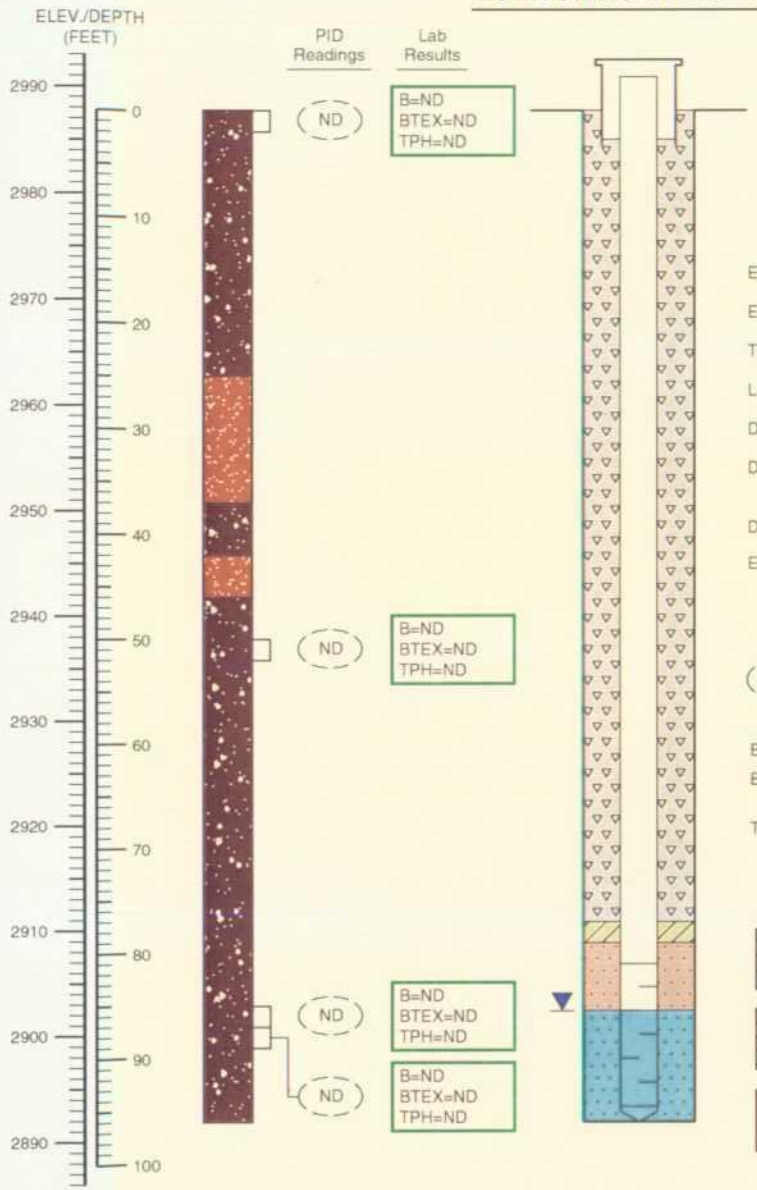
LOG AND DETAILS OF MONITORING WELL MW-11

TPLI JAL STATION LEA COUNTY, NEW MEXICO

810006-1-0

FIG 11

MONITORING WELL MW-12



Monitoring Well Details (MW-12)

Elev of Ground Surface	2987.79 ft
Elev Top of PVC Well	2990.99 ft
Thickness of Bentonite Seal	2.00 ft
Length of PVC Well Screen	15.00 ft
Depth of PVC Well	96.00 ft
Depth of Exploratory Hole	96.00 ft
Depth to Ground Water	86.52 ft
Elev of Ground Water	2901.27 ft

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)

Concrete Surface Seal

Bentonite Pellet Seal

Sand Pack

LEGEND

Sand (SW/SM), fine to coarse grained, loose, sparse gravel, red to brown, dry to saturated.

Sand (SM), fine to medium grained, medium to very dense, calcareous, tan to brown, dry to moist.

Indicates the depth from which a soil sample was selected and prepared for field head space and/or laboratory analysis.

Indicates the ground water level measured on February 4, 1999.

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

ND Indicates the constituent was not detected.

NOTES

1. The monitoring well was installed on February 4, 1999 using air rotary drilling techniques.
2. The well was constructed with 2 inch ID, 0.010 inch factory slotted, threaded joint, Schedule 40 PVC pipe.
3. The well is protected with a stick up steel cover and a locked compression cap.
4. 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.

k·e·i

LOG AND DETAILS OF MONITORING WELL MW-12	810006-1-0
TPLI JAL STATION LEA COUNTY, NEW MEXICO	FIG 12

Approximate Scale: 1"=100'

0 25 50 100

Apparent direction of ground water flow.

To ASTS

AST

AST

AST

AST

AST

AST

24" Pipes

Berm 15' Wide

Caliche

18" Pipe

18" Pipe

EL=2902.20
MW-10

MW-8
EL=2901.93

Water Well

EL=2901.98
MW-2

MW-3
EL=2902.24

EL=2902.32
MW-4

EL=2902.40
MW-5

MW-1
EL=2902.11

MW-12
EL=2901.53

(20K) Diesel

MW-9
EL=2902.34

Antifreeze

2-Tanks Mineral Spirits

Cooling Units

Building

MW-6
EL=2902.20

EL=2902.46
MW-11

EL=2902.18
MW-7

Gate

2902.4

2902.2

2902.0

2901.8

2901.6

18" Pipe

PP

OP

Gravel

ROAD (Caliche)

LEGEND

- Location of Monitoring Wells
- P — Product Line
- OP — Overhead Power Line
- x — Chain Link Fence
- Contour Interval = 0.20 feet
- EL = Elevation of ground water (ft) measured on February 22, 1999.
- ND = Not Detected
- Aboveground Storage Tank

NOTE:
Ground water elevations corrected for LNAPL thickness.

03/09/99 RM G:\ADPT\PROJECTS\TNAPL\8 (1).dgn

k·e·i

GROUND WATER CONTOUR MAP

TPLI JAL STATION LEA COUNTY, NEW MEXICO

810006-1-0

FIG 13

Approximate Scale: 1"=100'

0 25 50 100

NOTE: Adjacent properties are not to scale.

To ASTS

AST

AST

AST

AST

AST

AST

24" Pipes

Berm 15' Wide

Caliche

18" Pipe

18" Pipe

LNAPL=ND
MW-10

LNAPL=0.02
MW-8

Water Well

LNAPL=8.28
MW-2

8.0

MW-3
LNAPL=8.04

MW-12
LNAPL=ND

(20K) Diesel

MW-9
LNAPL=4.14

MW-4
LNAPL=ND

MW-5
LNAPL=ND

MW-1
LNAPL=ND

2-Tanks Mineral Spirits

Building

6.0

Cooling Units

MW-6
LNAPL=4.14

4.0

2.0

ND

MW-7
LNAPL=ND

MW-11
LNAPL=ND

Gate

18" Pipe

PP

OP

OP

ROAD (Gravel)

LEGEND

- Location of Monitoring Wells
- P — Product Line
- OP — Overhead Power Line
- x — Chain Link Fence
- Contour Interval = 2.0 feet
- LNAPL= Light Non-aqueous Phase Liquid (feet), measured on February 22, 1999.
- ND = Not Detected
- Aboveground Storage Tank

03/30/99-RM G:\BADFT\PROJECTS\TNAPL\810PSH

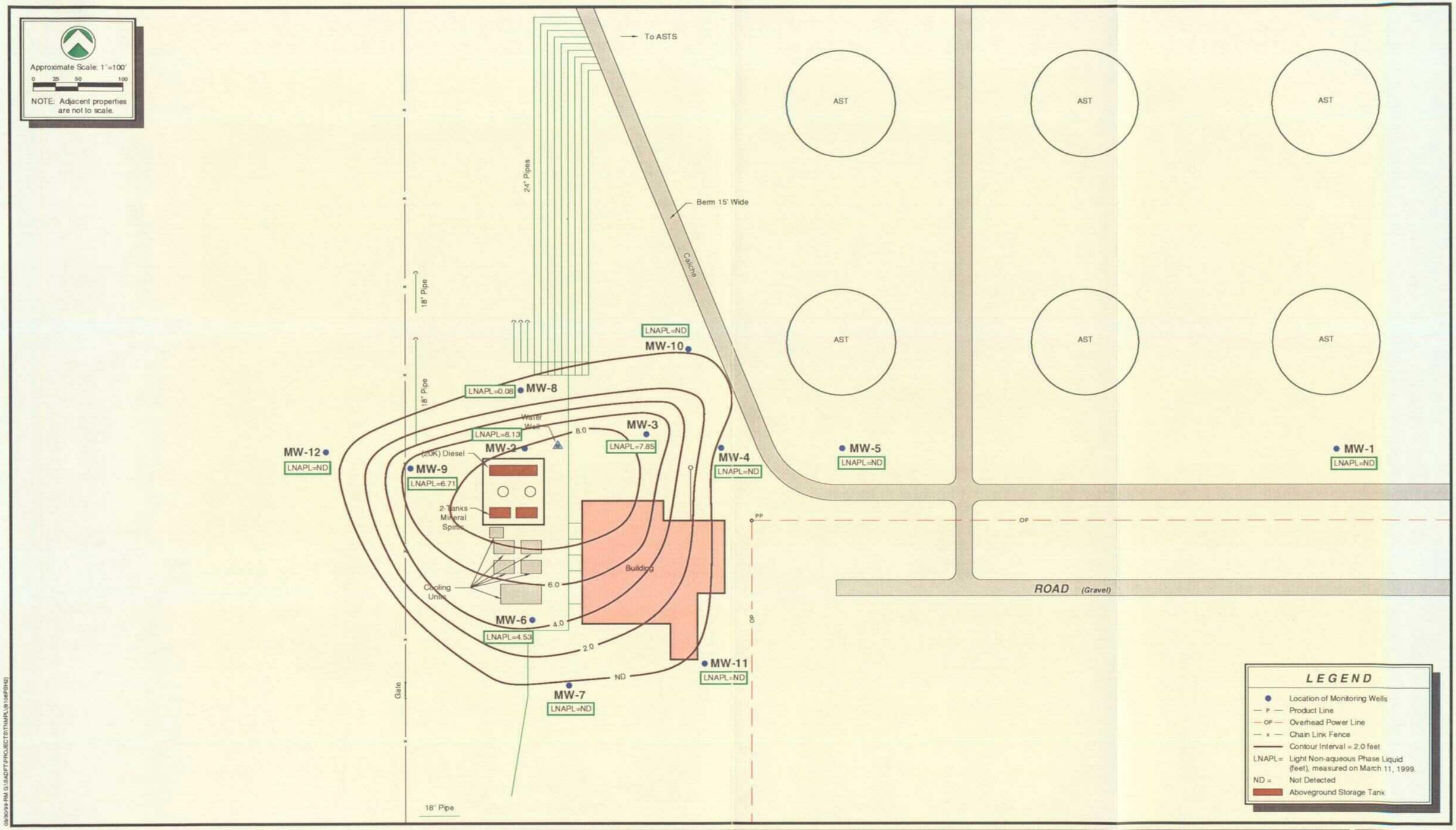
k·e·i

LNAPL THICKNESS MAP (FEBRUARY 22, 1999)

TPLI JAL STATION LEA COUNTY, NEW MEXICO

810006-1-0

FIG 14



03/30/99-RM G:\BADIT\PROJECTS\TNMR\JB1\MF8942

k·e·i

LNAPL THICKNESS MAP (MARCH 11, 1999)

TPLI JAL STATION LEA COUNTY, NEW MEXICO

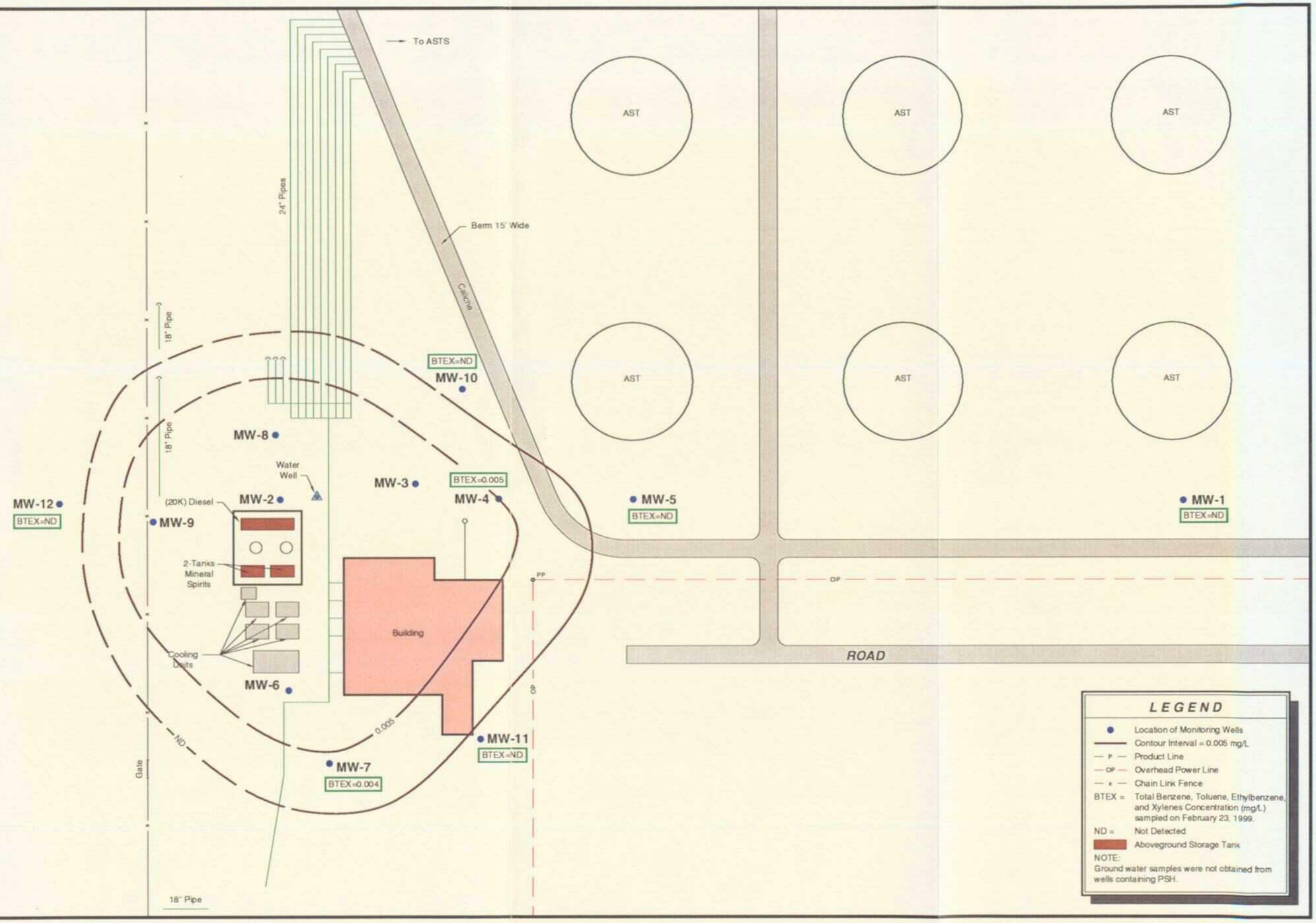
810006-1-0

FIG 15

Approximate Scale: 1"=100'

0 25 50 100

NOTE: Adjacent properties are not to scale.



LEGEND

- Location of Monitoring Wells
- Contour Interval = 0.005 mg/L
- P — Product Line
- OP — Overhead Power Line
- x — Chain Link Fence
- BTEX = Total Benzene, Toluene, Ethylbenzene, and Xylenes Concentration (mg/L) sampled on February 23, 1999.
- ND = Not Detected
- Aboveground Storage Tank

NOTE:
Ground water samples were not obtained from wells containing PSH.

03/24/99-RM G:\SAD\TPROJECTS\TNMPLI\810ABT2D

k·e·i

GROUND WATER BTEX CONCENTRATION MAP	810006-1-0
TPLI JAL STATION LEA COUNTY, NEW MEXICO	FIG 16

GENERAL NOTES

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

--- - Indicates LNAPL was not detected (TABLE III).

Depth to water is referenced from ground surface unless otherwise indicated.

Method detection or reporting limits:

Soil:	BTEX	- 0.020 to 0.10 mg/kg
	TPH-DRO	- 10.0 to 500 ppm
	SPLP SVOC	- 0.005 to 0.084 mg/L
	SPLP VOC	- 0.025 to 0.050 mg/L
	SPLP TPH	- 0.7 to 1.4 ppm
	PAH	- 0.07 mg/kg
Water:	BTEX	- 0.001 to 0.002 mg/L
	Metals	- 0.006 to 5.556 mg/L
	PAH	- 0.002 mg/L
	Cations	- 4.0 mg/L
	Anions	- 2 to 10.0 mg/L
	TDS	- 5.0 mg/L

Laboratory test methods:

BTEX	- EPA Method SW846-8021B
TPH	- Modified EPA Method 8015 M Diesel Range Organics
SPLP VOC	- EPA Method 1312/8260
SPLP SVOC	- EPA Method 1312/8270
SPLP TPH	- EPA Method 1312/418.1
Metals	- EPA ICP Method 6010
Mercury	- EPA Method 7470
PAH	- EPA Method 8270
Cations	- SM4500CO2D
Anions	- EPA Method 300.0
TDS	- EPA Method 160.1
Particle Size Analysis	- ASTM D422
Organic Content	- ASTM D2974
Water Content	- ASTM D2974

TABLE I

SUMMARY OF SOIL RESULTS - BTEX AND TPH
JAL STATION
TEXACO PIPELINE INC
LEA COUNTY, NEW MEXICO

SAMPLE LOCATION	DATE SAMPLED	SAMPLE DEPTH (feet)	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	XYLENES (mg/kg)	BTEX (mg/kg)	TPH (mg/kg)
MW-3	01/25/99	10 - 12	ND	ND	ND	ND	ND	ND
MW-3	01/25/99	20 - 22	ND	ND	ND	ND	ND	ND
MW-3	01/25/99	50 - 52	ND	ND	ND	ND	ND	ND
MW-3	01/25/99	85 - 87	0.46	6.64	15.80	24.20	47.100	11,500
MW-3	01/25/99	87 - 89	ND	ND	0.109	0.121	0.230	917
MW-4	01/25/99	50 - 52	ND	ND	ND	ND	ND	15
MW-4	01/25/99	85 - 87	ND	ND	ND	ND	ND	1,330
MW-4	01/25/99	87 - 89	ND	ND	ND	0.183	0.183	85
MW-5	01/26/99	10 - 12	ND	ND	ND	ND	ND	ND
MW-5	01/26/99	20 - 22	ND	ND	ND	ND	ND	ND
MW-5	01/26/99	50 - 52	ND	ND	ND	ND	ND	12
MW-5	01/26/99	85 - 87	ND	ND	ND	ND	ND	ND
MW-5	01/26/99	87 - 89	ND	ND	ND	ND	ND	ND
MW-6	01/27/99	0 - 2	ND	ND	ND	ND	ND	ND
MW-6	01/27/99	10 - 12	ND	ND	ND	ND	ND	ND
MW-6	01/27/99	20 - 22	ND	ND	ND	ND	ND	ND
MW-6	01/27/99	50 - 52	ND	ND	ND	ND	ND	ND
MW-6	01/27/99	85 - 87	0.29	2.34	4.86	15.21	22.700	8,480
MW-6	01/27/99	87 - 89	ND	0.112	0.246	1.152	1.510	486
MW-7	01/27/99	50 - 52	ND	ND	ND	ND	ND	ND
MW-7	01/27/99	85 - 87	ND	ND	ND	ND	ND	435
MW-7	01/27/99	87 - 89	ND	ND	ND	ND	ND	14
MW-8	01/28/99	0 - 2	ND	ND	0.82	4.48	5.300	5,770
MW-8	01/28/99	10 - 12	ND	ND	ND	ND	ND	75
MW-8	01/28/99	20 - 22	ND	ND	ND	ND	ND	ND
MW-8	01/28/99	50 - 52	ND	ND	ND	ND	ND	ND
MW-8	01/28/99	85 - 87	ND	0.078	0.231	2.315	2.624	541
MW-8	01/28/99	87 - 89	ND	ND	ND	ND	ND	63
MW-9	01/29/99	10 - 12	ND	ND	0.075	ND	0.075	ND

TABLE I

SUMMARY OF SOIL RESULTS - BTEX AND TPH
JAL STATION
TEXACO PIPELINE INC
LEA COUNTY, NEW MEXICO

SAMPLE LOCATION	DATE SAMPLED	SAMPLE DEPTH (feet)	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	XYLENES (mg/kg)	BTEX (mg/kg)	TPH (mg/kg)
MW-9	01/29/99	20 - 22	ND	ND	ND	ND	ND	ND
MW-9	01/29/99	50 - 55	ND	ND	ND	ND	ND	ND
MW-9	01/29/99	85 - 87	ND	0.140	1.328	2.247	3.715	1,080
MW-9	01/29/99	87 - 89	ND	ND	0.272	0.583	0.855	4,370
MW-10	02/03/99	0 - 2	ND	ND	ND	ND	ND	ND
MW-10	02/03/99	50 - 55	ND	ND	ND	ND	ND	ND
MW-10	02/03/99	85 - 87	ND	ND	ND	ND	ND	ND
MW-10	02/03/99	87 - 89	ND	ND	ND	ND	ND	ND
MW-11	02/03/99	10 - 12	ND	ND	ND	ND	ND	ND
MW-11	02/03/99	20 - 22	ND	ND	ND	ND	ND	ND
MW-11	02/03/99	50 - 52	ND	ND	ND	ND	ND	ND
MW-11	02/03/99	85 - 87	ND	ND	ND	ND	ND	ND
MW-11	02/03/99	87 - 89	ND	ND	ND	ND	ND	ND
MW-12	02/04/99	0 - 2	ND	ND	ND	ND	ND	ND
MW-12	02/04/99	50 - 52	ND	ND	ND	ND	ND	ND
MW-12	02/04/99	85 - 87	ND	ND	ND	ND	ND	ND
MW-12	02/04/99	87 - 89	ND	ND	ND	ND	ND	ND

TABLE II

SUMMARY OF SOIL RESULTS - PAH AND MISCELLANEOUS
JAL STATION
TEXACO PIPELINE INC
LEA COUNTY, NEW MEXICO

SAMPLE ID	MW-9	MW-12
DATE SAMPLED	01/29/99	02/04/99
DEPTH (feet)	87 - 89	87 - 89
PARAMETER	CONCENTRATION (mg/kg)	
Acenaphthene	0.14	ND
Fluorene	0.24	ND
Naphthalene	0.41	ND
Phenanthrene	0.34	ND
TOTAL	1.13	ND

PARAMETER	SAMPLE LOCATION	SAMPLE DATE	DEPTH (feet)	RESULT A	RESULT B
Fraction Organic Carbon (%)	MW-3	03/25/99	22	1.2	1.0
Water Content (%), dry mass	MW-3	03/25/99	22	10.7	17.7

NOTE:
All Constituents not listed above were ND.

TABLE III

SUMMARY OF SOIL RESULTS - SPLP
JAL STATION
TEXACO PIPELINE INC
LEA COUNTY, NEW MEXICO

SAMPLE ID	MW-3	MW-9
DATE SAMPLED	01/25/99	01/29/99
DEPTH (feet)	85 - 87	87 - 89
PARAMETER	CONCENTRATION (mg/L)	
VOC		
Ethylbenzene	0.087	ND
Isopropylbenzene (Cumene)	0.029	ND
Naphthalene	0.295	0.096
n-Propylbenzene	0.031	ND
Toluene	0.062	ND
1,2,4-Trimethylbenzene	0.082	0.039
o-Xylene	0.052	ND
m,p-Xylenes	0.090	ND
TOTAL	0.728	0.135
SVOC		
Acenaphthene	ND	0.025
bis [2-Ethylhexyl) phthalate	ND	0.039
Dibenzofuran	ND	0.046
Fluorene	ND	0.035
2-Methylnaphthalene	0.565	0.269
Naphthalene	0.134	0.079
Phenanthrene	0.087	0.049
Pyrene	0.024	ND
TOTAL	0.810	0.542
TPH	2.6 ppm	2.0 ppm

NOTE:
All Constituents not listed above were ND.

TABLE IV

SUMMARY OF GROUND WATER MEASUREMENTS
JAL STATION
TEXACO PIPELINE INC
LEA COUNTY, NEW MEXICO

WELL NO.	DATE MEASURED	GROUND SURFACE (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		DEPTH TO LNAPL (feet)	LNAPL ELEVATION (feet)	LNAPL THICKNESS (feet)
				Actual	Corrected			
MW-1	02/04/99	2,992.30	90.27	2,902.03	---		---	---
	02/22/99		90.19	2,902.11	---		---	---
	03/11/99		90.31	2,901.99	---		---	---
MW-2	02/04/99	2,987.02	92.17	2,894.85	2,902.03	83.80	2,903.22	8.37
	02/22/99		92.15	2,894.87	2,901.98	83.87	2,903.15	8.28
	03/11/99		92.14	2,894.88	2,901.86	84.01	2,903.01	8.13
MW-3	02/04/99	2,987.91	92.55	2,895.36	2,902.34	84.42	2,903.49	8.13
	02/22/99		92.57	2,895.34	2,902.24	84.53	2,903.38	8.04
	03/11/99		92.49	2,895.42	2,902.16	84.64	2,903.27	7.85
MW-4	02/04/99	2,988.22	85.83	2,902.39	---		---	---
	02/22/99		85.90	2,902.32	---		---	---
	03/11/99		85.94	2,902.28	---		---	---
MW-5	02/04/99	2,988.47	86.03	2,902.44	---		---	---
	02/22/99		86.07	2,902.40	---		---	---
	03/11/99		86.21	2,902.26	---		---	---
MW-6	02/04/99	2,987.40	87.01	2,900.39	2,902.36	84.72	2,905.45	2.29
	02/22/99		88.75	2,898.65	2,902.20	84.61	2,905.56	4.14
	03/11/99		89.16	2,898.24	2,902.13	84.63	2,905.54	4.53
MW-7	02/04/99	2,986.31	84.03	2,902.28	---		---	---
	02/22/99		84.13	2,902.18	---		---	---
	03/11/99		84.26	2,902.05	---		---	---
MW-8	02/04/99	2,987.97	86.00	2,901.97	2,901.98	85.99	2,901.98	0.01
	02/22/99		86.06	2,901.91	2,901.93	86.04	2,901.93	0.02
	03/11/99		86.18	2,901.79	2,901.86	86.10	2,901.87	0.08
MW-9	02/04/99	2,987.39	86.06	2,901.33	2,901.83	85.48	2,901.91	0.58
	02/22/99		88.60	2,898.79	2,902.34	84.46	2,902.93	4.14
	03/11/99		91.48	2,895.91	2,901.67	84.77	2,902.62	6.71

TABLE IV

SUMMARY OF GROUND WATER MEASUREMENTS
JAL STATION
TEXACO PIPELINE INC
LEA COUNTY, NEW MEXICO

WELL NO.	DATE MEASURED	GROUND SURFACE (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		DEPTH TO LNAPL (feet)	LNAPL ELEVATION (feet)	LNAPL THICKNESS (feet)
				Actual	Corrected			
MW-10	02/04/99	2,987.96	85.73	2,902.23	---		---	---
	02/22/99		85.76	2,902.20	---		---	---
	03/11/99		85.87	2,902.09	---		---	---
MW-11	02/04/99	2,989.37	86.95	2,902.42	---		---	---
	02/22/99		86.91	2,902.46	---		---	---
	03/11/99		87.01	2,902.36	---		---	---
MW-12	02/04/99	2,987.79	86.52	2,901.27	---		---	---
	02/22/99		86.26	2,901.53	---		---	---
	03/11/99		86.38	2,901.41	---		---	---

TABLE V

SUMMARY OF GROUND WATER RESULTS - BTEX
JAL STATION
TEXACO PIPELINE INC
LEA COUNTY, NEW MEXICO

MONITORING WELL	DATE SAMPLED	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	XYLENES (mg/L)	BTEX (mg/L)
MW-1	02/23/99	ND	ND	ND	ND	ND
MW-4	02/23/99	ND	ND	ND	0.005	0.005
MW-5	02/23/99	ND	ND	ND	ND	ND
MW-7	02/23/99	ND	ND	ND	0.004	0.004
MW-10	02/23/99	ND	ND	ND	ND	ND
MW-11	02/23/99	ND	ND	ND	ND	ND
MW-12	02/23/99	ND	ND	ND	ND	ND

TABLE VI

SUMMARY OF GROUND WATER RESULTS - MISCELLANEOUS
TEXACO PIPELINE INC
JAL STATION
LEA COUNTY, NEW MEXICO

SAMPLE LOCATION	MW-1	MW-4	MW-5	MW-7	MW-10	MW-11	MW-12
SAMPLE DATE	02/23/99	02/23/99	02/23/99	02/23/99	02/23/99	02/23/99	02/23/99
CONSTITUENT	CONCENTRATION (mg/L)						
PAH							
Acenaphthene	ND	ND	ND	0.003	ND	ND	ND
Fluorene	ND	ND	ND	0.005	ND	ND	ND
Naphthalene	ND	0.005	ND	ND	ND	ND	ND
Phenanthrene	ND	ND	ND	0.003	ND	ND	ND
TOTAL	ND	0.005	ND	0.011	ND	ND	ND
Metals							
Aluminum	ND	ND	ND	4.93	ND	ND	5.78
Barium	ND	ND	0.65	ND	ND	ND	0.59
Boron	ND	1.78	ND	ND	ND	ND	ND
Calcium	587	447	1650	737	949	387	524
Chromium	0.13	ND	ND	ND	ND	ND	ND
Copper	ND	ND	ND	0.034	0.068	ND	0.04
Iron	8.72	1.44	1.28	3.11	ND	2.56	3.33
Lead	0.021	0.019	ND	0.030	ND	0.019	0.031
Magnesium	202	49.3	49.8	78.5	55.9	49.6	48.1
Manganese	0.31	ND	0.85	0.42	0.32	0.23	0.28
Potassium	14.56	9.17	8.39	12.11	9.44	9.389	9.67
Selenium	0.13	ND	ND	ND	ND	ND	ND
Silicon	62.28	60.06	54.67	60.44	44.11	61.56	64.33
Sodium	167	92.44	66.89	231	43.83	227	97.22
Strontium	11.59	2.89	4.61	4.74	3.89	2.909	2.85

TABLE VI

SUMMARY OF GROUND WATER RESULTS - MISCELLANEOUS
TEXACO PIPELINE INC
JAL STATION
LEA COUNTY, NEW MEXICO

SAMPLE LOCATION	MW-1	MW-4	MW-5	MW-7	MW-10	MW-11	MW-12
SAMPLE DATE	02/23/99	02/23/99	02/23/99	02/23/99	02/23/99	02/23/99	02/23/99
CONSTITUENT	CONCENTRATION (mg/L)						
Cations/Anions							
Bicarbonate	362	377	280	402	256	272	382
Chloride	767	34	15	58.6	54	89	8
Sulfate	1,960	55	40	980	38	389	31
TDS	2,670	730	640	1,330	610	2,060	600

NOTE:
All constituents not listed above were ND.

ANALYTICAL REPORT -90465

for

KEI Consultants, Inc.

Project Manager: Theresa Nix

Project Name: Jal Station

Project Id: 810006-1-0

February 18, 1999

HOUSTON - DALLAS - SAN ANTONIO

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

XENCO Laboratories

11381 Meadowglen Suite L
Houston, Texas 77082-2647
(281) 589-0692 Fax: (281) 589-0695
Houston - Dallas - San Antonio - Latin America

February 18, 1999

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

Reference: **XENCO Report No.: -90465**
Project Name: Jal Station
Project ID: 810006-1-0
Project Address: Jal, NM

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 -90465.N 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, completeness or properly flagged.

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. -90465N 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 operates under the A2LA guidelines. Our Quality System meets ISO/IEC Guide 25 requirements which 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 L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY -90465

KEI Consultants, Inc.

Project Name: Jal Station

Project ID: 810006-1-0
Project Manager: Theresa Nix
Project Location: Jal, NM

Date Received in Lab : Feb 5, 1999 10:15
Date Report Faxed: Feb 18, 1999
XENCO contact : Carlos Castro/Karen Olson

Analysis Requested	*Lab ID:*	90465 001	90465 002	90465 003	90465 004
	Field ID:	MW-12	MW-12	MW-12	MW-12
	Depth:	0-2	50-52	85-87	87-89
	Matrix:	Solid	Solid	Solid	Solid
	Sampled:	02/04/99 12:10	02/04/99 12:50	02/04/99 13:30	02/04/99 13:57
TPH-DRO (Diesel), Rerun	*Analyzed:*	02/10/99	02/09/99	02/09/99	02/09/99
EPA 8015 M	*Units:*	mg/kg R.L.	mg/kg R.L.	mg/kg R.L.	mg/kg R.L.
Total Petroleum Hydrocarbons		< 10 (10)	< 10 (10)	< 10 (10)	< 10 (10)
BTEX	*Analyzed:*	02/10/99	02/09/99	02/09/99	02/10/99
EPA 8021B	*Units:*	ppm R.L.	ppm R.L.	ppm R.L.	ppm R.L.
Benzene		< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)
Toluene		< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)
Ethylbenzene		< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)
m,p-Xylene		< 0.100 (0.100)	< 0.100 (0.100)	< 0.100 (0.100)	< 0.100 (0.100)
o-Xylene		< 0.050 (0.050)	< 0.500 (0.500)	< 0.050 (0.050)	< 0.050 (0.050)
Total BTEX		N.D.	N.D.	N.D.	N.D.
PAHs by GC-MS	*Analyzed:*				02/10/99
EPA 8270	*Units:*				mg/kg R.L.
Acenaphthene					< 0.07 (0.07)
Acenaphthylene					< 0.07 (0.07)
Anthracene					< 0.07 (0.07)
Benz(a)anthracene					< 0.07 (0.07)
Benzo(a)pyrene					< 0.07 (0.07)
Benzo(b)fluoranthene					< 0.07 (0.07)
Benzo(g,h,i)perylene					< 0.07 (0.07)
Benzo(k)fluoranthene					< 0.07 (0.07)
Chrysene					< 0.07 (0.07)
Dibenz(a,h)anthracene					< 0.07 (0.07)
Fluoranthene					< 0.07 (0.07)
Fluorene					< 0.07 (0.07)
Indeno(1,2,3-cd)pyrene					< 0.07 (0.07)
Naphthalene					< 0.07 (0.07)
Phenanthrene					< 0.07 (0.07)
Pyrene					< 0.07 (0.07)

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A02A29

SW- 846 8015 M TPH- DRO (Diesel), Rerun

Date Validated: Feb 11, 1999 11:00
Date Analyzed: Feb 9, 1999 19:19

Analyst: MM
Matrix: Solid

	BLANK SPIKE ANALYSIS						
	[A]	[B]	[C]	[D]	[E]	[F]	[G]
					QC	LIMITS	
Parameter	Blank Result	Blank Spike Result	Blank Spike Amount	Detection Limit	Blank Spike Recovery	Recovery Range	Qualifier
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	
Total Petroleum Hydrocarbons	< 10	114	100	10	114.0	65-135	

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

for Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A02A29

SW- 846 8015 M TPH- DRO (Diesel), Rerun

Date Validated: Feb 11, 1999 11:00
Date Analyzed: Feb 9, 1999 20:48

Analyst: MM
Matrix: Solid

	MATRIX SPIKE / MATRIX SPIKE DUPLICATE AND RECOVERY										
Q.C. Sample ID 90465- 002	[A] Sample Result	[B] Matrix Spike Result	[C] Matrix Spike Duplicate Result	[D] Matrix Spike Amount	[E] Detection Limit	Matrix Limit Relative Difference	[F] QC Spike Relative Difference	[G] QC Matrix Spike Recovery	[H] QC M.S.D. Recovery	[I] Matrix Spike Recovery Range	[J] Qualifier
Parameter	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	%	
Total Petroleum Hydrocarbons	< 10	100	108	100	10	30.0	7.7	100.0	108.0	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]
N.D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A25A74

SW- 846 5030/8021B BTEX

Date Validated: Feb 10, 1999 16:00
Date Analyzed: Feb 8, 1999 13:47

Analyst: HL
Matrix: Solid

	BLANK SPIKE / BLANK SPIKE DUPLICATE AND RECOVERY										
Parameter	[A] Blank Result ppm	[B] Blank Spike Result ppm	[C] Blank Spike Duplicate Result ppm	[D] Blank Spike Amount ppm	[E] Detection Limit ppm	Blank Limit Relative Difference %	[F] QC Spike Relative Difference %	[G] QC Blank Spike Recovery %	[H] QC B.S.D. Recovery %	[I] Blank Spike Recovery Range %	[J] Qualifier
Benzene	< 0.0010	0.1040	0.0956	0.1000	0.0010	25.0	8.4	103.9	95.6	65-135	
Toluene	< 0.0010	0.1050	0.0947	0.1000	0.0010	25.0	10.3	104.9	94.7	65-135	
Ethylbenzene	< 0.0010	0.1030	0.0941	0.1000	0.0010	25.0	9.0	102.9	94.1	65-135	
m,p-Xylene	< 0.0020	0.2110	0.1910	0.2000	0.0020	25.0	10.0	105.5	95.5	65-135	
o-Xylene	< 0.0010	0.1080	0.0978	0.1000	0.0010	25.0	9.9	107.9	97.8	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]
N.D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A25A71

SW- 846 5030/8021B BTEX

Date Validated: Feb 10, 1999 12:30
Date Analyzed: Feb 10, 1999 09:54

Analyst: HL
Matrix: Solid

	BLANK SPIKE / BLANK SPIKE DUPLICATE AND RECOVERY										
Parameter	[A] Blank Result ppm	[B] Blank Spike Result ppm	[C] Blank Spike Duplicate Result ppm	[D] Blank Spike Amount ppm	[E] Detection Limit ppm	Blank Limit Relative Difference %	[F] QC Spike Relative Difference %	[G] QC Blank Spike Recovery %	[H] QC B.S.D. Recovery %	[I] Blank Spike Recovery Range %	[J] Qualifier
Benzene	< 0.0010	0.8590	0.1000	0.1000	0.0010	25.0	158.3	858.9	100.0	65-135	A
Toluene	< 0.0010	0.0912	0.1020	0.1000	0.0010	25.0	11.2	91.2	102.0	65-135	
Ethylbenzene	< 0.0010	0.0905	0.1010	0.1000	0.0010	25.0	11.0	90.5	101.0	65-135	
m,p-Xylene	< 0.0020	0.1850	0.2060	0.2000	0.0020	25.0	10.7	92.5	103.0	65-135	
o-Xylene	< 0.0010	0.0893	0.1010	0.1000	0.0010	25.0	12.3	89.3	101.0	65-135	

(A) LCS/RPD recovery exceeded lab control limtis
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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A34A65

SW846-8270 PAHs by GC-MS

Date Validated: Feb 10, 1999 15:55
Date Analyzed: Feb 10, 1999 13:14

Analyst: LC
Matrix: Solid

MATRIX SPIKE / MATRIX SPIKE DUPLICATE AND RECOVERY

Q.C. Sample ID 90466-005 / Parameter	[A] Sample Result mg/kg	[B] Matrix Spike Result mg/kg	[C] Matrix Spike Duplicate Result mg/kg	[D] Matrix Spike Amount mg/kg	[E] Detection Limit mg/kg	Matrix Limit Relative Difference %	[F] QC Spike Relative Difference %	[G] QC Matrix Spike Recovery %	[H] QC M.S.D. Recovery %	[I] Matrix Spike Recovery Range %	[J] Qualifier
Acenaphthene	0.133	1.722	1.472	1.665	0.067	19.0	15.7	95.4	80.4	31-137	
4-Chloro-3-methylphenol	< 0.126	1.182	1.186	1.665	0.126	33.0	0.3	71.0	71.2	26-103	
2-Chlorophenol	< 0.166	1.099	1.079	1.665	0.166	28.7	1.8	66.0	64.8	25-102	
1,4-Dichlorobenzene	< 0.140	1.069	1.056	1.665	0.140	32.1	1.2	64.2	63.4	28-104	
2,4-Dinitrotoluene	< 0.166	1.349	1.265	1.665	0.166	21.8	6.4	81.0	76.0	28-89	
N-Nitrosodi-n-propylamine	< 0.133	1.255	1.116	1.665	0.133	55.4	11.7	75.4	67.0	41-126	
4-Nitrophenol	< 0.133	1.022	1.269	1.665	0.133	47.2	21.6	61.4	76.2	11-114	
Pentachlorophenol	< 0.286	1.352	1.292	1.665	0.286	48.9	4.5	81.2	77.6	17-109	
Phenol	< 0.123	1.069	1.072	1.665	0.123	22.6	0.3	64.2	64.4	26-90	
Pyrene	< 0.067	1.505	1.319	1.665	0.067	25.2	13.2	90.4	79.2	35-142	
1,2,4-Trichlorobenzene	< 0.180	1.119	1.116	1.665	0.180	23.0	0.3	67.2	67.0	38-107	

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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch - 19A34A65

SW846-8270 PAHs by GC-MS

Date Validated: Feb 10, 1999 15:55
Date Analyzed: Feb 10, 1999 10:48

Analyst: LC
Matrix: Solid

	BLANK SPIKE ANALYSIS						
	[A]	[B]	[C]	[D]	[E]	[F]	[G]
					QC	LIMITS	
Parameter	Blank Result	Blank Spike Result	Blank Spike Amount	Detection Limit	Blank Spike Recovery	Recovery Range	Qualifier
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	
Acenaphthene	< 0.067	1.242	1.665	0.067	74.6	31-137	
4-Chloro-3-methylphenol	< 0.126	1.122	1.665	0.126	67.4	26-103	
2-Chlorophenol	< 0.166	1.146	1.665	0.166	68.8	25-102	
1,4-Dichlorobenzene	< 0.140	1.159	1.665	0.140	69.6	28-104	
2,4-Dinitrotoluene	< 0.166	1.136	1.665	0.166	68.2	28-89	
N-Nitrosodi-n-propylamine	< 0.133	1.239	1.665	0.133	74.4	41-126	
4-Nitrophenol	< 0.133	0.932	1.665	0.133	56.0	11-114	
Pentachlorophenol	< 0.286	1.122	1.665	0.286	67.4	17-109	
Phenol	< 0.123	1.152	1.665	0.123	69.2	26-90	
Pyrene	< 0.067	1.392	1.665	0.067	83.6	35-142	
1,2,4-Trichlorobenzene	< 0.180	1.119	1.665	0.180	67.2	38-107	

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

for Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

ANALYTICAL CHAIN OF CUSTODY REPORT
CHRONOLOGY OF SAMPLES

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Manager: Theresa Nix
Project Location: Jal, NM

Project Name: Jal Station

XENCO COC#: -90465
Date Received in Lab: Feb 5, 1999 10:15 by SE
XENCO contact : Carlos Castro/Karen Olson

	Field ID	Lab. ID	Method Name	Method ID	Units	Turn Around	Date and Time: Sample Collected	Date and Time: Addition Requested	Date and Time: Extraction	Date and Time: Analysis
1	MW-12	90465-001	BTEX	SW-846	ppm	10 days	Feb 4, 1999 12:10		Feb 10, 1999 by HL	Feb 10, 1999 11:32 by HL
2			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Feb 4, 1999 12:10		Feb 9, 1999 by ROK	Feb 10, 1999 21:49 by MM
3		90465-002	BTEX	SW-846	ppm	10 days	Feb 4, 1999 12:50		Feb 8, 1999 by HL	Feb 9, 1999 00:24 by HL
4			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Feb 4, 1999 12:50		Feb 9, 1999 by ROK	Feb 9, 1999 20:48 by MM
5		90465-003	BTEX	SW-846	ppm	10 days	Feb 4, 1999 13:30		Feb 8, 1999 by HL	Feb 9, 1999 00:42 by HL
6			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Feb 4, 1999 13:30		Feb 9, 1999 by ROK	Feb 9, 1999 23:04 by MM
7		90465-004	BTEX	SW-846	ppm	10 days	Feb 4, 1999 13:57		Feb 10, 1999 by HL	Feb 10, 1999 11:48 by HL
8			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Feb 4, 1999 13:57		Feb 9, 1999 by ROK	Feb 9, 1999 23:49 by MM
9			PAHs	SW846-8270	mg/kg	10 days	Feb 4, 1999 13:57		Feb 9, 1999 by ROK	Feb 10, 1999 12:25 by LC

XENCO Laboratories

☐ 11381 Meadowglen, Suite L, Houston TX 77082 281-589-0692
☑ 5309 Wurzbach Road, Suite 104, San Antonio, TX 78238 210-509-3334
☐ 11078 Morrison Road, Suite D, Dallas, TX 75229 972-481-9999

ANALYSIS REQUEST & CHAIN OF CUSTODY RECORD

On-LINE Help & Technical Services at XENCO.com

17559

Company COC No: Work Order No: Page / of /

Company K.E.I. Consultants	**Phone** 210-680-3767
Project Name Jal Station ☑ Previously done at XENCO	**Project ID** 810006-1-0
Location Jal, NM	
Project Manager (PM) Theresa Nix	**Project Director (PD)** Mike Hawthorne
Fax Results to ☑ PM and / or	**Fax** 512-364-3556

Invoice to ☑ Accounting ☐ Include Invoice with Final Report Attn PM ☐ Invoice must have a P.O Bill to: 810006-1-0

Quote No. **P.O No** ☐ Call for a P.O.

Special DLs (RR I RR II DW QAPP See Lab PM Call Proj. PM)

Specifications

Sampler Name Steve Gruver Signature Stanley Sherer

Lab Only: 90465 - SA

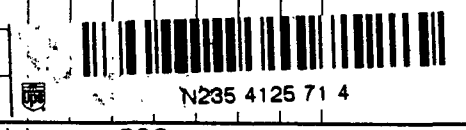
Lab Only Additions

TAT: 5h 12h 20h 24h 48h 3d 5d 7d 14d 21d Standard TAT is 10 Working Days unless otherwise agreed in writing. But often reported in 5-7 Working Days

Remarks

Hold Analysis: Run SVOC's SPLP, SPLP VOC, SPLP TPH on Sample w/ Highest TPH Concentration. Call Theresa Nix on any questions 512-364-3440.

	Sample ID	Sampling Date	Time	Depth ft' In" m	Matrix A P S W	Composite	Grab	# Containers	Container Size	Type	Preservatives	BTEX by (8020) 8021 8260 602 624 Other	BTEX-MTBE by 8020 8021 8260 602 624 Other	TPH by TX1005 418.1 8015GRO (8015DRO) 8015JetF	PAHs by (8270) 8100 8310	METALS by 6010 8RCRA Tot Pb TCLP8 13PP 23TAL See List	VOAs by 8260 624 BTEX MTBE PPs TCL See List Call PM	SVOAs by 8270 625 PAHs BN&A TCL PPs See List Call PM	TAT 5h 12h 20h 24h 48h 3d 5d 7d (10d) 14d 21d	Addn: PAH above mg/L W. mg/Kg S Highest Hit
1	MW-12	2/4/99	12:10	0-2			/	2	4	GA	C4	/		/						
2	MW-12		12:50	50-52		/		2	4	GA										
3	MW-12		13:30	85-87		/		2	4	GA										
4	MW-12		13:57	87-89		/		3	(4) (32)	GA GC					/					
5																				
6																				
7																				
8																				
9																				
10																				



Relinquished by (Initials and Signature)	Relinquished to (Initials and Signature)	Date & Time	
1 Stanley Sherer		2/4/99 16:30	Total Containers per COC:
2			**Rush TATs Fax Due:** Final Fax Due:
3	**Lab:** Stacy Gmyrek	2/5/99 10:15	Final Report Data Package Due Date:
			Rush Charges are Pre-Approved upon Requesting them. All Terms Apply

Preservatives - Various (**V**), HCl pH<2 (**H**), H2SO4 pH<2 (**S**), HNO4 pH<2 (**N**), NaOH+Asbc Acid (**NAA**), ZnAc+NaOH (**ZA**), (Cool,<4C) (**C4**), None (**N**), See Label (**SL**), Other (**O**) _____

SIZE: 4oz (**4**), 8oz (**8**), 32oz (**32**), 40ml VOA (**V**), 1L (**1**), 500ml (**.5**), Tedlar Bag (**B**), Wipe (**W**), Other _____ **TYPE** Glass Amb (**GA**), Glass Clear (**GC**), Plastic (**P**), Other (**O**) _____

ANALYTICAL REPORT -90363

for

KEI Consultants, Inc.

Project Manager: Theresa Nix

Project Name: Jal Station

Project Id: 810006-1-0

February 19, 1999

XENCO Laboratories

HOUSTON - DALLAS - SAN ANTONIO

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

XENCO Laboratories

11381 Meadowglen Suite L
Houston, Texas 77082-2647
(281) 589-0692 Fax: (281) 589-0695
Houston - Dallas - San Antonio - Latin America

February 19, 1999

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

Reference: **XENCO Report No.: -90363**
Project Name: Jal Station
Project ID: 810006-1-0
Project Address: Jal, NM

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 -90363.N 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, completeness or properly flagged.

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. -90363N 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 operates under the A2LA guidelines. Our Quality System meets ISO/IEC Guide 25 requirements which 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 L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY -90363

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Manager: Theresa Nix
Project Location: Jal, NM

Project Name: Jal Station

Date Received in Lab : Jan 29, 1999 10:00
Date Report Faxed: Feb 19, 1999
XENCO contact : Carlos Castro/Karen Olson

Analysis Requested	Lab ID: / Field ID: / Depth: / Matrix: / Sampled:	90363 001 MW-3 10-12 Solid 01/25/99 08:58	90363 002 MW-3 20-22 Solid 01/25/99 09:06	90363 003 MW-3 50-52 Solid 01/25/99 09:45	90363 004 MW-3 85-87 Solid 01/25/99 11:20	90363 005 MW-3 87-89 Solid 01/25/99 11:40	90363 006 MW-4 50-52 Solid 01/25/99 15:18
TPH-DRO (Diesel) EPA 8015 M	Analyzed: / Units:	02/01/99 mg/kg R.L.	02/01/99 mg/kg R.L.	02/01/99 mg/kg R.L.	02/03/99 mg/kg R.L.	02/02/99 mg/kg R.L.	02/02/99 mg/kg R.L.
Total Petroleum Hydrocarbons		< 10 (10)	< 10 (10)	< 10 (10)	11500 (500)	917 (10)	15 (10)
BTEX EPA 8021B	Analyzed: / Units:	02/02/99 ppm R.L.	02/02/99 ppm R.L.	02/02/99 ppm R.L.	02/02/99 ppm R.L.	02/02/99 ppm R.L.	02/02/99 ppm R.L.
Benzene		< 0.050 (0.050)	< 0.020 (0.020)	< 0.050 (0.050)	0.46 (0.10)	< 0.050 (0.050)	< 0.050 (0.050)
Toluene		< 0.050 (0.050)	< 0.020 (0.020)	< 0.050 (0.050)	6.64 (0.10)	< 0.050 (0.050)	< 0.050 (0.050)
Ethylbenzene		< 0.050 (0.050)	< 0.020 (0.020)	< 0.050 (0.050)	15.80 (0.10)	0.109 (0.050)	< 0.050 (0.050)
m,p-Xylene		< 0.100 (0.100)	< 0.040 (0.040)	< 0.100 (0.100)	16.50 (0.20)	0.121 (0.100)	< 0.100 (0.100)
o-Xylene		< 0.050 (0.050)	< 0.020 (0.020)	< 0.050 (0.050)	7.70 (0.10)	< 0.050 (0.050)	< 0.050 (0.050)
Total BTEX		N.D.	N.D.	N.D.	47.100	0.230	N.D.
SPLP-Semivolatiles EPA1312/8270	Analyzed: / Units:				02/11/99 mg/L R.L.		
Acenaphthene					< 0.008 (0.008)		
Acenaphthylene					< 0.008 (0.008)		
Anthracene					< 0.008 (0.008)		
Benz(a)anthracene					< 0.008 (0.008)		
Benzo(a)pyrene					< 0.008 (0.008)		
Benzo(b)fluoranthene					< 0.008 (0.008)		
Benzo(g,h,i)perylene					< 0.008 (0.008)		
Benzo(k)fluoranthene					< 0.008 (0.008)		
4-Bromophenyl-phenylether					< 0.008 (0.008)		
Butyl benzyl phthalate					< 0.008 (0.008)		
Carbazole					< 0.008 (0.008)		
4-Chloro-3-methylphenol					< 0.008 (0.008)		

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY -90363

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Name: *Jal Station*
Project Manager: Theresa Nix
Project Location: Jal, NM

Date Received in Lab : Jan 29, 1999 10:00
Date Report Faxed: Feb 19, 1999
XENCO contact : Carlos Castro/Karen Olson

Analysis Requested	Lab ID: / Field ID: / Depth: / Matrix: / Sampled:	90363 001 MW-3 10-12 Solid 01/25/99 08:58	90363 002 MW-3 20-22 Solid 01/25/99 09:06	90363 003 MW-3 50-52 Solid 01/25/99 09:45	90363 004 MW-3 85-87 Solid 01/25/99 11:20	90363 005 MW-3 87-89 Solid 01/25/99 11:40	90363 006 MW-4 50-52 Solid 01/25/99 15:18
SPLP-Semivolatiles EPA1312/8270	Analyzed: / Units:				02/11/99 mg/L R.L.		
4-Chloroaniline					< 0.008 (0.008)		
2-Chloronaphthalene					< 0.008 (0.008)		
2-Chlorophenol					< 0.008 (0.008)		
4-Chlorophenyl-phenyl ether					< 0.008 (0.008)		
Chrysene					< 0.008 (0.008)		
Di-n-butyl phthalate					< 0.008 (0.008)		
Di-n-octylphthalate					< 0.008 (0.008)		
Dibenz(a,h)anthracene					< 0.008 (0.008)		
Dibenzofuran					< 0.008 (0.008)		
1,2-Dichlorobenzene					< 0.008 (0.008)		
1,3-Dichlorobenzene					< 0.008 (0.008)		
1,4-Dichlorobenzene					< 0.008 (0.008)		
3,3'-Dichlorobenzidine					< 0.008 (0.008)		
2,4-Dichlorophenol					< 0.008 (0.008)		
Diethyl phthalate					< 0.008 (0.008)		
2,4-Dimethylphenol					< 0.008 (0.008)		
Dimethyl phthalate					< 0.008 (0.008)		
4,6-Dinitro-2-methylphenol					< 0.021 (0.021)		
2,4-Dinitrophenol					< 0.021 (0.021)		
2,4-Dinitrotoluene					< 0.008 (0.008)		
2,6-Dinitrotoluene					< 0.008 (0.008)		
Fluoranthene					< 0.008 (0.008)		
Fluorene					< 0.008 (0.008)		
Hexachlorobenzene					< 0.008 (0.008)		

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY -90363

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Name: Jal Station
Project Manager: Theresa Nix
Project Location: Jal, NM

Date Received in Lab : Jan 29, 1999 10:00
Date Report Faxed: Feb 19, 1999
XENCO contact : Carlos Castro/Karen Olson

Analysis Requested	Lab ID: / Field ID: / Depth: / Matrix: / Sampled:	90363 001 MW-3 10-12 Solid 01/25/99 08:58	90363 002 MW-3 20-22 Solid 01/25/99 09:06	90363 003 MW-3 50-52 Solid 01/25/99 09:45	90363 004 MW-3 85-87 Solid 01/25/99 11:20	90363 005 MW-3 87-89 Solid 01/25/99 11:40	90363 006 MW-4 50-52 Solid 01/25/99 15:18
SPLP-Semivolatiles EPA1312/8270	Analyzed: / Units:				02/11/99 mg/L R.L.		
Hexachlorobutadiene					< 0.008 (0.008)		
Hexachlorocyclopentadiene					< 0.008 (0.008)		
Hexachloroethane					< 0.008 (0.008)		
Indeno(1,2,3-cd)pyrene					< 0.008 (0.008)		
Isophorone					< 0.008 (0.008)		
2-Methylnaphthalene					0.565 (0.084)		
2-Methylphenol					< 0.008 (0.008)		
4-Methylphenol					< 0.008 (0.008)		
N-Nitrosodi-n-propylamine					< 0.008 (0.008)		
N-Nitrosodiphenylamine					< 0.008 (0.008)		
Naphthalene					0.134 (0.008)		
2-Nitroaniline					< 0.021 (0.021)		
3-Nitroaniline					< 0.021 (0.021)		
4-Nitroaniline					< 0.021 (0.021)		
Nitrobenzene					< 0.008 (0.008)		
2-Nitrophenol					< 0.008 (0.008)		
4-Nitrophenol					< 0.008 (0.008)		
Pentachlorophenol					< 0.021 (0.021)		
Phenanthrene					0.087 (0.008)		
Phenol					< 0.008 (0.008)		
Pyrene					0.024 (0.008)		
1,2,4-Trichlorobenzene					< 0.008 (0.008)		
2,4,5-Trichlorophenol					< 0.021 (0.021)		
2,4,6-Trichlorophenol					< 0.008 (0.008)		

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY -90363

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Name: Jal Station
Date Received In Lab : Jan 29, 1999 10:00
Project Manager: Theresa Nix
Date Report Faxed: Feb 19, 1999
Project Location: Jal, NM
XENCO contact : Carlos Castro/Karen Olson

Analysis Requested	*Lab ID:*	90363 001	90363 002	90363 003	90363 004	90363 005	90363 006
	Field ID:	MW-3	MW-3	MW-3	MW-3	MW-3	MW-4
	Depth:	10-12	20-22	50-52	85-87	87-89	50-52
	Matrix:	Solid	Solid	Solid	Solid	Solid	Solid
	Sampled:	01/25/99 08:58	01/25/99 09:06	01/25/99 09:45	01/25/99 11:20	01/25/99 11:40	01/25/99 15:18
SPLP-Semivolatiles EPA1312/8270	*Analyzed:*				02/11/99		
	Units:				mg/L R.L.		
bis(2-Chloroethoxy) methane					< 0.008 (0.008)		
bis(2-Chloroethyl) ether					< 0.008 (0.008)		
bis(2-Chloroisopropyl) ether					< 0.008 (0.008)		
bis(2-Ethylhexyl) phthalate					< 0.008 (0.008)		
SPLP Volatiles EPA 8260	*Analyzed:*				02/18/99		
	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)		
Chlorodibromomethane					< 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)		
1,2-Dibromoethane					< 0.025 (0.025)		

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY -90363

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Manager: Theresa Nix
Project Location: Jal, NM

Project Name: Jal Station

Date Received in Lab : Jan 29, 1999 10:00
Date Report Faxed: Feb 19, 1999
XENCO contact : Carlos Castro/Karen Olson

Analysis Requested	*Lab ID:*	90363 001	90363 002	90363 003	90363 004	90363 005	90363 006
	Field ID:	MW-3	MW-3	MW-3	MW-3	MW-3	MW-4
	Depth:	10-12	20-22	50-52	85-87	87-89	50-52
	Matrix:	Solid	Solid	Solid	Solid	Solid	Solid
	Sampled:	01/25/99 08:58	01/25/99 09:06	01/25/99 09:45	01/25/99 11:20	01/25/99 11:40	01/25/99 15:18
SPLP Volatiles EPA 8260	*Analyzed:*				02/18/99		
	Units:				mg/L R.L.		
Dibromomethane					< 0.025 (0.025)		
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					0.087 (0.025)		
Hexachlorobutadiene					< 0.025 (0.025)		
Isopropylbenzene (Cumene)					0.029 (0.025)		
MTBE					< 0.050 (0.050)		
Methylene chloride					< 0.050 (0.050)		
Naphthalene					0.295 (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					0.062 (0.025)		
1,2,3-Trichlorobenzene					< 0.025 (0.025)		

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY -90363

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Name: Jal Station
Project Manager: Theresa Nix
Project Location: Jal, NM

Date Received in Lab : Jan 29, 1999 10:00
Date Report Faxed: Feb 19, 1999
XENCO contact : Carlos Castro/Karen Olson

Analysis Requested	Lab ID: / Field ID: / Depth: / Matrix: / Sampled:	90363 001 MW-3 10-12 Solid 01/25/99 08:58	90363 002 MW-3 20-22 Solid 01/25/99 09:06	90363 003 MW-3 50-52 Solid 01/25/99 09:45	90363 004 MW-3 85-87 Solid 01/25/99 11:20	90363 005 MW-3 87-89 Solid 01/25/99 11:40	90363 006 MW-4 50-52 Solid 01/25/99 15:18
SPLP Volatiles EPA 8260	Analyzed: / Units:				02/18/99 mg/L R.L.		
1,2,4-Trichlorobenzene					< 0.025 (0.025)		
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					0.082 (0.025)		
1,3,5-Trimethylbenzene					< 0.025 (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-Xylene					0.090 (0.025)		
n-Butylbenzene					< 0.025 (0.025)		
n-Propylbenzene					0.031 (0.025)		
o-Xylene					0.052 (0.025)		
p-Isopropyltoluene (p-Cymene)					< 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 1312/418.1	Analyzed: / Units:				02/10/99 ppm R.L.		

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY -90363

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Name: *Jal Station*
Project Manager: Theresa Nix
Project Location: Jal, NM

Date Received in Lab : Jan 29, 1999 10:00
Date Report Faxed: Feb 19, 1999
XENCO contact : Carlos Castro/Karen Olson

Analysis Requested	Lab ID:	90363 001	90363 002	90363 003	90363 004	90363 005	90363 006
	Field ID:	MW-3	MW-3	MW-3	MW-3	MW-3	MW-4
	Depth:	10-12	20-22	50-52	85-87	87-89	50-52
	Matrix:	Solid	Solid	Solid	Solid	Solid	Solid
	Sampled:	01/25/99 08:58	01/25/99 09:06	01/25/99 09:45	01/25/99 11:20	01/25/99 11:40	01/25/99 15:18
SPLP TPH 1312/418.1	Analyzed:				02/10/99		
	Units:				ppm		
Total Petroleum Hydrocarbons					2.6 (1.4) R.L.		

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY -90363

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Manager: Theresa Nix
Project Location: Jal, NM

Project Name: Jal Station

Date Received in Lab : Jan 29, 1999 10:00
Date Report Faxed: Feb 19, 1999
XENCO contact : Carlos Castro/Karen Olson

Analysis Requested	*Lab ID:*	90363 007	90363 008	90363 009	90363 010	90363 011	90363 012
	Field ID:	MW-4	MW-4	MW-5	MW-5	MW-5	MW-5
	Depth:	85-87	87-89	10-12	20-22	50-52	85-87
	Matrix:	Solid	Solid	Solid	Solid	Solid	Solid
	Sampled:	01/25/99 16:03	01/25/99 16:21	01/26/99 12:10	01/26/99 12:16	01/26/99 12:47	01/26/99 14:23
TPH-DRO (Diesel)	*Analyzed:*	02/03/99	02/02/99	02/02/99	02/02/99	02/02/99	02/02/99
EPA 8015 M	*Units:*	mg/kg R.L.	mg/kg R.L.	mg/kg R.L.	mg/kg R.L.	mg/kg R.L.	mg/kg R.L.
Total Petroleum Hydrocarbons		1330 (500)	85 (10)	< 10 (10)	< 10 (10)	12 (10)	< 10 (10)
BTEX	*Analyzed:*	02/02/99	02/02/99	02/02/99	02/02/99	02/02/99	02/02/99
EPA 8021B	*Units:*	ppm R.L.	ppm R.L.	ppm R.L.	ppm R.L.	ppm R.L.	ppm R.L.
Benzene		< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)
Toluene		< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)
Ethylbenzene		< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)
m,p-Xylene		< 0.100 (0.100)	0.122 (0.100)	< 0.100 (0.100)	< 0.100 (0.100)	< 0.100 (0.100)	< 0.100 (0.100)
o-Xylene		< 0.050 (0.050)	0.061 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)
Total BTEX		N.D.	0.183	N.D.	N.D.	N.D.	N.D.

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY -90363

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Name: Jal Station
Project Manager: Theresa Nix
Project Location: Jal, NM
Date Received in Lab : Jan 29, 1999 10:00
Date Report Faxed: Feb 19, 1999
XENCO contact : Carlos Castro/Karen Olson

Analysis Requested		Lab ID:	90363 013		90363 014		90363 015		90363 016		90363 017		90363 018	
		Field ID:	MW-5		MW-6		MW-6		MW-6		MW-6		MW-6	
		Depth:	87-89		0-2		10-12		20-22		50-52		85-87	
		Matrix:	Solid		Solid		Solid		Solid		Solid		Solid	
		Sampled:	01/26/99 14:37		01/27/99 08:39		01/27/99 08:43		01/27/99 08:54		01/27/99 09:27		01/27/99 11:00	
TPH-DRO (Diesel)	Analyzed:	02/02/99	R.L.	02/02/99	R.L.	02/02/99	R.L.	02/02/99	R.L.	02/02/99	R.L.	02/03/99	R.L.
EPA 8015 M	Units:	mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
Total Petroleum Hydrocarbons		< 10	(10)	< 10	(10)	< 10	(10)	< 10	(10)	< 10	(10)	8480	(500)
BTEX	Analyzed:	02/02/99	R.L.	02/02/99	R.L.	02/02/99	R.L.	02/02/99	R.L.	02/02/99	R.L.	02/02/99	R.L.
EPA 8021B	Units:	ppm		ppm		ppm		ppm		ppm		ppm	
Benzene		< 0.050	(0.050)	< 0.050	(0.050)	< 0.050	(0.050)	< 0.050	(0.050)	< 0.050	(0.050)	0.29	(0.10)
Toluene		< 0.050	(0.050)	< 0.050	(0.050)	< 0.050	(0.050)	< 0.050	(0.050)	< 0.050	(0.050)	2.34	(0.10)
Ethylbenzene		< 0.050	(0.050)	< 0.050	(0.050)	< 0.050	(0.050)	< 0.050	(0.050)	< 0.050	(0.050)	4.86	(0.10)
m,p-Xylene		< 0.100	(0.100)	< 0.100	(0.100)	< 0.100	(0.100)	< 0.100	(0.100)	< 0.100	(0.100)	10.20	(0.20)
o-Xylene		< 0.050	(0.050)	< 0.050	(0.050)	< 0.050	(0.050)	< 0.050	(0.050)	< 0.050	(0.050)	5.01	(0.10)
Total BTEX		N.D.		N.D.		N.D.		N.D.		N.D.		22.700	

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY -90363

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Manager: Theresa Nix
Project Location: Jal, NM

Project Name: Jal Station

Date Received in Lab : Jan 29, 1999 10:00
Date Report Faxed: Feb 19, 1999
XENCO contact : Carlos Castro/Karen Olson

Analysis Requested	*Lab ID:*	90363 019	90363 020	90363 021	90363 022	90363 023	90363 024
	Field ID:	MW-6	MW-3	MW-7	MW-7	MW-7	MW-8
	Depth:	87-89	20-22	50-52	85-87	87-89	0-2
	Matrix:	Solid	Solid	Solid	Solid	Solid	Solid
	Sampled:	01/27/99 11:30	01/25/99 09:06	01/27/99 15:44	01/27/99 17:00	01/27/99 17:15	01/28/99 10:15
TPH-DRO (Diesel) **EPA 8015 M**	*Analyzed:*	02/02/99		02/02/99	02/02/99	02/02/99	02/02/99
	Units:	mg/kg R.L.		mg/kg R.L.	mg/kg R.L.	mg/kg R.L.	mg/kg R.L.
Total Petroleum Hydrocarbons		486 (10)		< 10 (10)	435 (10)	14 (10)	5770 (700)
BTEX **EPA 8021B**	*Analyzed:*	02/02/99		02/02/99	02/03/99	02/03/99	02/03/99
	Units:	ppm R.L.		ppm R.L.	ppm R.L.	ppm R.L.	ppm R.L.
Benzene		< 0.050 (0.050)		< 0.050 (0.050)	< 0.050 (0.050)	< 0.10 (0.10)	< 0.10 (0.10)
Toluene		0.112 (0.050)		< 0.050 (0.050)	< 0.050 (0.050)	< 0.10 (0.10)	< 0.10 (0.10)
Ethylbenzene		0.246 (0.050)		< 0.050 (0.050)	< 0.050 (0.050)	< 0.10 (0.10)	0.82 (0.10)
m,p-Xylene		0.720 (0.100)		< 0.100 (0.100)	< 0.100 (0.100)	< 0.20 (0.20)	1.75 (0.20)
o-Xylene		0.432 (0.050)		< 0.050 (0.050)	< 0.050 (0.050)	< 0.10 (0.10)	2.73 (0.10)
Total BTEX		1.510		N.D.	N.D.	N.D.	5.300

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY -90363

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Name: *Jal Station*
Project Manager: Theresa Nix
Project Location: Jal, NM

Date Received in Lab : Jan 29, 1999 10:00
Date Report Faxed: Feb 19, 1999
XENCO contact : Carlos Castro/Karen Olson

Analysis Requested	Lab ID: / Field ID: / Depth: / Matrix: / Sampled:	90363 025 MW-8 10-12 Solid 01/28/99 10:20	90363 026 MW-8 20-22 Solid 01/28/99 10:30	90363 027 MW-8 50-52 Solid 01/28/99 11:07	90363 028 MW-8 85-87 Solid 01/28/99 12:40	90363 029 MW-8 87-89 Solid 01/28/99 13:00	90363 030 MW-5 89-91 Solid 01/26/99 14:40
TPH-DRO (Diesel) EPA 8015 M	Analyzed: / Units:	02/02/99 mg/kg R.L.	02/02/99 mg/kg R.L.	02/02/99 mg/kg R.L.	02/02/99 mg/kg R.L.	02/03/99 mg/kg R.L.	
Total Petroleum Hydrocarbons		75 (10)	< 10 (10)	< 10 (10)	541 (10)	63 (10)	
BTEX EPA 8021B	Analyzed: / Units:	02/03/99 ppm R.L.	02/03/99 ppm R.L.	02/03/99 ppm R.L.	02/03/99 ppm R.L.	02/03/99 ppm R.L.	
Benzene		< 0.020 (0.020)	< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)	
Toluene		< 0.020 (0.020)	< 0.050 (0.050)	< 0.050 (0.050)	0.078 (0.050)	< 0.050 (0.050)	
Ethylbenzene		< 0.020 (0.020)	< 0.050 (0.050)	< 0.050 (0.050)	0.231 (0.050)	< 0.050 (0.050)	
m,p-Xylene		< 0.040 (0.040)	< 0.100 (0.100)	< 0.100 (0.100)	1.510 (0.100)	< 0.100 (0.100)	
o-Xylene		< 0.020 (0.020)	< 0.050 (0.050)	< 0.050 (0.050)	0.805 (0.050)	< 0.050 (0.050)	
Total BTEX		N.D.	N.D.	N.D.	2.624	N.D.	

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A25A56

SW- 846 5030/8021B BTEX

Date Validated: Feb 3, 1999 11:30
Date Analyzed: Feb 2, 1999 15:46

Analyst: HL
Matrix: Solid

	BLANK SPIKE ANALYSIS						
Parameter	[A] Blank Result ppm	[B] Blank Spike Result ppm	[C] Blank Spike Amount ppm	[D] Detection Limit ppm	[E] QC LIMITS Blank Spike Recovery %	[F] QC LIMITS Recovery Range %	[G] Qualifier
Benzene	< 0.0010	0.1080	0.1000	0.0010	108.0	65-135	
Toluene	< 0.0010	0.1080	0.1000	0.0010	108.0	65-135	
Ethylbenzene	< 0.0010	0.1060	0.1000	0.0010	106.0	65-135	
m,p-Xylene	< 0.0020	0.2160	0.2000	0.0020	108.0	65-135	
o-Xylene	< 0.0010	0.1090	0.1000	0.0010	109.0	65-135	

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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A25A56

SW- 846 5030/8021B BTEX

Date Validated: Feb 3, 1999 11:30
Date Analyzed: Feb 2, 1999 16:22

Analyst: HL
Matrix: Solid

	MATRIX SPIKE / MATRIX SPIKE DUPLICATE AND RECOVERY										
Q.C. Sample ID 90363- 002	[A] Sample Result	[B] Matrix Spike Result	[C] Matrix Spike Duplicate Result	[D] Matrix Spike Amount	[E] Detection Limit	Matrix Limit Relative Difference	[F] QC Spike Relative Difference	[G] QC Matrix Spike Recovery	[H] QC M.S.D. Recovery	[I] Matrix Spike Recovery Range	[J] Qualifier
Parameter	ppm	ppm	ppm	ppm	ppm	%	%	%	%	%	
Benzene	< 0.020	2.080	1.966	2.000	0.020	25.0	5.6	104.0	98.3	65-135	
Toluene	< 0.020	2.100	2.000	2.000	0.020	25.0	4.9	105.0	100.0	65-135	
Ethylbenzene	< 0.020	2.100	1.998	2.000	0.020	25.0	5.0	105.0	99.9	65-135	
m,p-Xylene	< 0.040	4.260	4.060	4.000	0.040	25.0	4.8	106.5	101.5	65-135	
o-Xylene	< 0.020	2.100	2.020	2.000	0.020	25.0	3.9	105.0	101.0	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]
N.D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A25A57

SW- 846 5030/8021B BTEX

Date Validated: Feb 3, 1999 11:45
Date Analyzed: Feb 2, 1999 23:35

Analyst: HL
Matrix: Solid

	BLANK SPIKE ANALYSIS						
Parameter	[A] Blank Result ppm	[B] Blank Spike Result ppm	[C] Blank Spike Amount ppm	[D] Detection Limit ppm	[E] QC Blank Spike Recovery %	[F] LIMITS Recovery Range %	[G] Qualifier
Benzene	< 0.0010	0.1140	0.1000	0.0010	114.0	65-135	
Toluene	< 0.0010	0.1120	0.1000	0.0010	112.0	65-135	
Ethylbenzene	< 0.0010	0.1120	0.1000	0.0010	112.0	65-135	
m,p-Xylene	< 0.0020	0.2280	0.2000	0.0020	114.0	65-135	
o-Xylene	< 0.0010	0.1150	0.1000	0.0010	115.0	65-135	

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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A25A57

SW- 846 5030/8021B BTEX

Date Validated: Feb 3, 1999 11:45
Date Analyzed: Feb 3, 1999 04:40

Analyst: HL
Matrix: Solid

	MATRIX SPIKE / MATRIX SPIKE DUPLICATE AND RECOVERY										
Q.C. Sample ID 90363- 025 / **Parameter**	[A] Sample Result ppm	[B] Matrix Spike Result ppm	[C] Matrix Spike Duplicate Result ppm	[D] Matrix Spike Amount ppm	[E] Detection Limit ppm	Matrix Limit Relative Difference %	[F] QC Spike Relative Difference %	[G] QC Matrix Spike Recovery %	[H] QC M.S.D. Recovery %	[I] Matrix Spike Recovery Range %	[J] Qualifier
Benzene	< 0.020	1.370	1.792	2.000	0.020	25.0	26.7	68.5	89.6	65-135	A
Toluene	< 0.020	1.378	1.798	2.000	0.020	25.0	26.4	68.9	89.9	65-135	A
Ethylbenzene	< 0.020	1.376	1.826	2.000	0.020	25.0	28.1	68.8	91.3	65-135	A
m,p-Xylene	< 0.040	2.780	3.680	4.000	0.040	25.0	27.9	69.5	92.0	65-135	A
o-Xylene	< 0.020	1.326	1.806	2.000	0.020	25.0	30.7	66.3	90.3	65-135	A

(A) RPD recovery exceeded lab control limits; MSD/MS/LCS are within acceptance range
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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A02A27

SW- 846 8015 M TPH- DRO (Diesel)

Date Validated: Feb 4, 1999 11:55
Date Analyzed: Feb 1, 1999 19:01

Analyst: MI
Matrix: Solid

	BLANK SPIKE ANALYSIS						
Parameter	[A] Blank Result	[B] Blank Spike Result	[C] Blank Spike Amount	[D] Detection Limit	[E] QC Blank Spike Recovery	[F] LIMITS Recovery Range	[G] Qualifier
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	
Total Petroleum Hydrocarbons	< 10	83	100	10	83.0	65-135	

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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A02A27

SW- 846 8015 M TPH- DRO (Diesel)

Date Validated: Feb 4, 1999 11:55
Date Analyzed: Feb 1, 1999 20:31

Analyst: MI
Matrix: Solid

	MATRIX SPIKE / MATRIX SPIKE DUPLICATE AND RECOVERY										
Q.C. Sample ID 90363- 001	[A] Sample Result	[B] Matrix Spike Result	[C] Matrix Spike Duplicate Result	[D] Matrix Spike Amount	[E] Detection Limit	Matrix Limit Relative Difference	[F] QC Spike Relative Difference	[G] QC Matrix Spike Recovery	[H] QC M.S.D. Recovery	[I] Matrix Spike Recovery Range	[J] Qualifier
Parameter	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	%	
Total Petroleum Hydrocarbons	< 10	69	73	100	10	30.0	5.6	69.0	73.0	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]
N.D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A02A28

SW- 846 8015 M TPH- DRO (Diesel)

Date Validated: Feb 5, 1999 15:00
Date Analyzed: Feb 2, 1999 14:45

Analyst: MI
Matrix: Solid

	BLANK SPIKE ANALYSIS						
	[A]	[B]	[C]	[D]	[E]	[F]	[G]
					QC	LIMITS	
Parameter	Blank Result	Blank Spike Result	Blank Spike Amount	Detection Limit	Blank Spike Recovery	Recovery Range	Qualifier
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	
Total Petroleum Hydrocarbons	< 10	103	100	10	103.0	65-135	

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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A02A28

SW- 846 8015 M TPH- DRO (Diesel)

Date Validated: Feb 5, 1999 15:00
Date Analyzed: Feb 2, 1999 21:46

Analyst: MI
Matrix: Solid

	MATRIX SPIKE / MATRIX SPIKE DUPLICATE AND RECOVERY										
Q.C. Sample ID 90363- 027	[A] Sample Result	[B] Matrix Spike Result	[C] Matrix Spike Duplicate Result	[D] Matrix Spike Amount	[E] Detection Limit	Matrix Limit Relative Difference	[F] QC Spike Relative Difference	[G] QC Matrix Spike Recovery	[H] QC M.S.D. Recovery	[I] Matrix Spike Recovery Range	[J] Qualifier
Parameter	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	%	
Total Petroleum Hydrocarbons	< 10	91	96	100	10	30.0	5.3	91.0	96.0	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]
N.D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A01A76

EPA1312/8260 SPLP Volatiles

Date Validated: Feb 19, 1999 12:00
Date Analyzed: Feb 18, 1999 12:47

Analyst: CYE
Matrix: Solid

	BLANK SPIKE ANALYSIS						
	[A]	[B]	[C]	[D]	[E]	[F]	[G]
	Blank	Blank Spike	Blank		QC	LIMITS	
Parameter	Result	Result	Spike Amount	Detection Limit	Blank Spike Recovery	Recovery Range	Qualifier
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	
Benzene	< 0.0010	0.0892	0.1000	0.0010	89.2	66-142	
Chlorobenzene	< 0.0010	0.0915	0.1000	0.0010	91.5	60-133	
1,1-Dichloroethene	< 0.0040	0.0914	0.1000	0.0040	91.4	59-172	
Toluene	< 0.0010	0.0887	0.1000	0.0010	88.7	59-139	
Trichloroethene	< 0.0030	0.0872	0.1000	0.0030	87.2	62-137	

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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A01A76

EPA1312/8260 SPLP Volatiles

Date Validated: Feb 19, 1999 12:00
Date Analyzed: Feb 18, 1999 14:59

Analyst: CYE
Matrix: Solid

	MATRIX SPIKE / MATRIX SPIKE DUPLICATE AND RECOVERY										
Q.C. Sample ID 90363- 004	[A] Sample Result	[B] Matrix Spike Result	[C] Matrix Spike Duplicate Result	[D] Matrix Spike Amount	[E] Detection Limit	Matrix Limit Relative Difference	[F] QC Spike Relative Difference	[G] QC Matrix Spike Recovery	[H] QC M.S.D. Recovery	[I] Matrix Spike Recovery Range	[J] Qualifier
Parameter	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	%	
Benzene	0.0055	0.2740	0.2830	0.2500	0.0050	20.0	3.2	107.4	111.0	66-142	
Chlorobenzene	< 0.0050	0.2445	0.2465	0.2500	0.0050	20.0	0.8	97.8	98.6	60-133	
1,1-Dichloroethene	< 0.0200	0.2745	0.2745	0.2500	0.0200	25.0	0.0	109.8	109.8	59-172	
Toluene	0.0620	0.3115	0.3095	0.2500	0.0050	20.0	0.6	99.8	99.0	59-139	
Trichloroethene	< 0.0150	0.2555	0.2570	0.2500	0.0150	20.0	0.6	102.2	102.8	62-137	

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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A34A68

SW846-1312/8270MOD SPLP-Semivolatiles

Date Validated: Feb 12, 1999 12:00
Date Analyzed: Feb 10, 1999 21:00

Analyst: LC
Matrix: Solid

BLANK SPIKE / BLANK SPIKE DUPLICATE AND RECOVERY

Parameter	[A] Blank Result ug/L	[B] Blank Spike Result ug/L	[C] Blank Spike Duplicate Result ug/L	[D] Blank Spike Amount ug/L	[E] Detection Limit ug/L	Blank Limit Relative Difference %	[F] QC Spike Relative Difference %	[G] QC Blank Spike Recovery %	[H] QC B.S.D. Recovery %	[I] Blank Spike Recovery Range %	[J] Qualifier
Acenaphthene	< 0.0025	0.0336	0.0374	0.0500	0.0025	19.0	10.7	67.2	74.8	31-137	
4-Chloro-3-methylphenol	< 0.0038	0.0327	0.0360	0.0500	0.0038	33.0	9.6	65.4	72.0	26-110	
2-Chlorophenol	< 0.0050	0.0297	0.0322	0.0500	0.0050	28.7	8.1	59.4	64.4	25-102	
1,4-Dichlorobenzene	< 0.0042	0.0290	0.0321	0.0500	0.0042	32.1	10.1	58.0	64.2	28-104	
2,4-Dinitrotoluene	< 0.0050	0.0315	0.0338	0.0500	0.0050	21.8	7.0	63.0	67.6	28-89	
N-Nitrosodi-n-propylamine	< 0.0040	0.0314	0.0358	0.0500	0.0040	55.4	13.1	62.8	71.6	41-126	
4-Nitrophenol	< 0.0040	0.0153	0.0158	0.0500	0.0040	47.2	3.2	30.6	31.6	11-114	
Pentachlorophenol	< 0.0086	0.0342	0.0355	0.0500	0.0086	48.9	3.7	68.4	71.0	17-109	
Phenol	< 0.0037	0.0148	0.0164	0.0500	0.0037	22.6	10.3	29.6	32.8	26-90	
Pyrene	< 0.0020	0.0383	0.0407	0.0500	0.0020	25.2	6.1	76.6	81.4	35-142	
1,2,4-Trichlorobenzene	< 0.0054	0.0297	0.0338	0.0500	0.0054	23.0	12.9	59.4	67.6	38-107	

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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A07A19

EPA 1312/418.1 SPLP TPH

Date Validated: Feb 11, 1999 09:24
Date Analyzed: Feb 10, 1999 11:15

Analyst: EZ
Matrix: Solid

	BLANK SPIKE / BLANK SPIKE DUPLICATE AND RECOVERY										
Parameter	[A] Blank Result ppm	[B] Blank Spike Result ppm	[C] Blank Spike Duplicate Result ppm	[D] Blank Spike Amount ppm	[E] Detection Limit ppm	Blank Limit Relative Difference %	[F] QC Spike Relative Difference %	[G] QC Blank Spike Recovery %	[H] QC B.S.D. Recovery %	[I] Blank Spike Recovery Range %	[J] Qualifier
Total Petroleum Hydrocarbons	< 0.50	4.88	4.84	4.42	0.50	20.0	0.8	110.4	109.5	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]
N.D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

ANALYTICAL CHAIN OF CUSTODY REPORT
CHRONOLOGY OF SAMPLES

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Manager: Theresa Nix
Project Location: Jal, NM

Project Name: Jal Station

XENCO COC#: -90363
Date Received in Lab: Jan 29, 1999 10:00 by SE
XENCO contact : Carlos Castro/Karen Olson

	Field ID	Lab. ID	Method Name	Method ID	Units	Turn Around	Date and Time: Sample Collected	Addition Requested	Extraction	Analysis
1	MW-3	90363-001	BTEX	SW-846	ppm	10 days	Jan 25, 1999 08:58		Feb 2, 1999 by HL	Feb 2, 1999 17:16 by HL
2			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 25, 1999 08:58		Feb 1, 1999 by ROK	Feb 1, 1999 20:31 by MI
3		90363-002	BTEX	SW-846	ppm	10 days	Jan 25, 1999 09:06		Feb 2, 1999 by HL	Feb 2, 1999 16:22 by HL
4			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 25, 1999 09:06		Feb 1, 1999 by ROK	Feb 1, 1999 22:47 by MI
5		90363-003	BTEX	SW-846	ppm	10 days	Jan 25, 1999 09:45		Feb 2, 1999 by HL	Feb 2, 1999 17:34 by HL
6			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 25, 1999 09:45		Feb 1, 1999 by ROK	Feb 1, 1999 23:32 by MI
7		90363-004	BTEX	SW-846	ppm	10 days	Jan 25, 1999 11:20		Feb 2, 1999 by HL	Feb 2, 1999 19:40 by HL
8			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 25, 1999 11:20		Feb 1, 1999 by ROK	Feb 3, 1999 12:39 by MI
9			SPLP TPH	EPA	ppm	7 days	Jan 25, 1999 11:20	Feb 5,1999 16:05	Feb 10, 1999 by EZ	Feb 10, 1999 11:40 by EZ
10			SPLP-SV(TCL)	SW846-1312/82	ug/L	7 days	Jan 25, 1999 11:20	Feb 5,1999 16:05	Feb 10, 1999 by ROK	Feb 11, 1999 00:10 by LC
11			VOA (8260)	EPA1312/8260	mg/kg	7 days	Jan 25, 1999 11:20	Feb 5,1999 16:05	Feb 18, 1999 by CYE	Feb 18, 1999 14:59 by CYE
12		90363-005	BTEX	SW-846	ppm	10 days	Jan 25, 1999 11:40		Feb 2, 1999 by HL	Feb 2, 1999 18:46 by HL
13			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 25, 1999 11:40		Feb 1, 1999 by ROK	Feb 2, 1999 01:03 by MI
14			MVPH	EPA 8015	ppm	10 days	Jan 25, 1999 11:40			
15			MEPH	EPA 8015	ppm	10 days	Jan 25, 1999 11:40			
16	MW-4	90363-006	BTEX	SW-846	ppm	10 days	Jan 25, 1999 15:18		Feb 2, 1999 by HL	Feb 2, 1999 17:52 by HL
17			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 25, 1999 15:18		Feb 1, 1999 by ROK	Feb 2, 1999 02:34 by MI
18	MW4	90363-007	BTEX	SW-846	ppm	10 days	Jan 25, 1999 16:03		Feb 2, 1999 by HL	Feb 2, 1999 18:10 by HL
19			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 25, 1999 16:03		Feb 1, 1999 by ROK	Feb 3, 1999 11:04 by MI
20	MW-4	90363-008	BTEX	SW-846	ppm	10 days	Jan 25, 1999 16:21		Feb 2, 1999 by HL	Feb 2, 1999 19:04 by HL
21			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 25, 1999 16:21		Feb 1, 1999 by ROK	Feb 2, 1999 04:05 by MI
22	MW-5	90363-009	BTEX	SW-846	ppm	10 days	Jan 26, 1999 12:10		Feb 2, 1999 by HL	Feb 2, 1999 18:28 by HL
23			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 26, 1999 12:10		Feb 1, 1999 by ROK	Feb 2, 1999 04:51 by MI
24		90363-010	BTEX	SW-846	ppm	10 days	Jan 26, 1999 12:16		Feb 2, 1999 by HL	Feb 2, 1999 22:59 by HL
25			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 26, 1999 12:16		Feb 1, 1999 by ROK	Feb 2, 1999 05:37 by MI
26		90363-011	BTEX	SW-846	ppm	10 days	Jan 26, 1999 12:47		Feb 2, 1999 by HL	Feb 2, 1999 20:17 by HL
27			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 26, 1999 12:47		Feb 1, 1999 by ROK	Feb 2, 1999 06:22 by MI
28		90363-012	BTEX	SW-846	ppm	10 days	Jan 26, 1999 14:23		Feb 2, 1999 by HL	Feb 2, 1999 20:35 by HL

XENCO Laboratories

ANALYTICAL CHAIN OF CUSTODY REPORT
CHRONOLOGY OF SAMPLES

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Manager: Theresa Nix
Project Location: Jal, NM

Project Name: Jal Station

XENCO COC#: -90363
Date Received in Lab: Jan 29, 1999 10:00 by SE
XENCO contact : Carlos Castro/Karen Olson

							Date and Time			
	Field ID	Lab. ID	Method Name	Method ID	Units	Turn Around	Sample Collected	Addition Requested	Extraction	Analysis
29			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 26, 1999 14:23		Feb 1, 1999 by ROK	Feb 2, 1999 07:07 by MI
30		90363-013	BTEX	SW-846	ppm	10 days	Jan 26, 1999 14:37		Feb 2, 1999 by HL	Feb 2, 1999 20:53 by HL
31			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 26, 1999 14:37		Feb 1, 1999 by ROK	Feb 2, 1999 07:53 by MI
32	MW-6	90363-014	BTEX	SW-846	ppm	10 days	Jan 27, 1999 08:39		Feb 2, 1999 by HL	Feb 2, 1999 21:11 by HL
33			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 27, 1999 08:39		Feb 1, 1999 by ROK	Feb 2, 1999 08:38 by MI
34		90363-015	BTEX	SW-846	ppm	10 days	Jan 27, 1999 08:43		Feb 2, 1999 by HL	Feb 2, 1999 21:29 by HL
35			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 27, 1999 08:43		Feb 1, 1999 by ROK	Feb 2, 1999 09:24 by MI
36		90363-016	BTEX	SW-846	ppm	10 days	Jan 27, 1999 08:54		Feb 2, 1999 by HL	Feb 2, 1999 21:47 by HL
37			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 27, 1999 08:54		Feb 1, 1999 by ROK	Feb 2, 1999 10:56 by MI
38		90363-017	BTEX	SW-846	ppm	10 days	Jan 27, 1999 09:27		Feb 2, 1999 by HL	Feb 2, 1999 22:05 by HL
39			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 27, 1999 09:27		Feb 1, 1999 by ROK	Feb 2, 1999 11:41 by MI
40		90363-018	BTEX	SW-846	ppm	10 days	Jan 27, 1999 11:00		Feb 2, 1999 by HL	Feb 2, 1999 19:22 by HL
41			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 27, 1999 11:00		Feb 1, 1999 by ROK	Feb 3, 1999 13:24 by MI
42		90363-019	BTEX	SW-846	ppm	10 days	Jan 27, 1999 11:30		Feb 2, 1999 by HL	Feb 2, 1999 22:23 by HL
43			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 27, 1999 11:30		Feb 1, 1999 by ROK	Feb 2, 1999 13:13 by MI
44	MW-3	90363-020	Org. Content	ASTM D2974	%	10 days	Jan 25, 1999 09:06			
45			Moisture	ASTM 2216-71	%	10 days	Jan 25, 1999 09:06			
46			Bulk Density	ASTM	PCF	10 days	Jan 25, 1999 09:06			
47			Porosity	ASTM D5084A	vv/v	10 days	Jan 25, 1999 09:06			
48			Grain Size	ASTM D422		7 days	Jan 25, 1999 09:06	Feb 8,1999 09:00		
49	MW-7	90363-021	BTEX	SW-846	ppm	10 days	Jan 27, 1999 15:44		Feb 2, 1999 by HL	Feb 2, 1999 22:41 by HL
50			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 27, 1999 15:44		Feb 1, 1999 by ROK	Feb 2, 1999 13:58 by MI
51		90363-022	BTEX	SW-846	ppm	10 days	Jan 27, 1999 17:00		Feb 3, 1999 by HL	Feb 3, 1999 06:10 by HL
52			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 27, 1999 17:00		Feb 1, 1999 by ROK	Feb 2, 1999 16:17 by MI
53		90363-023	BTEX	SW-846	ppm	10 days	Jan 27, 1999 17:15		Feb 3, 1999 by HL	Feb 3, 1999 07:23 by HL
54			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 27, 1999 17:15		Feb 1, 1999 by ROK	Feb 2, 1999 17:03 by MI
55	MW-8	90363-024	BTEX	SW-846	ppm	10 days	Jan 28, 1999 10:15		Feb 3, 1999 by HL	Feb 3, 1999 07:04 by HL
56			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 28, 1999 10:15		Feb 1, 1999 by ROK	Feb 2, 1999 18:34 by MI

XENCO Laboratories

ANALYTICAL CHAIN OF CUSTODY REPORT
CHRONOLOGY OF SAMPLES

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Manager: Theresa Nix
Project Location: Jal, NM

Project Name: Jal Station

XENCO COC#: -90363
Date Received in Lab: Jan 29, 1999 10:00 by SE
XENCO contact : Carlos Castro/Karen Olson

	Field ID	Lab. ID	Method Name	Method ID	Units	Turn Around	Date and Time: Sample Collected	Date and Time: Addition Requested	Date and Time: Extraction	Date and Time: Analysis
57		90363-025	BTEX	SW-846	ppm	10 days	Jan 28, 1999 10:20		Feb 3, 1999 by HL	Feb 3, 1999 04:40 by HL
58			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 28, 1999 10:20		Feb 1, 1999 by ROK	Feb 2, 1999 17:47 by MI
59		90363-026	BTEX	SW-846	ppm	10 days	Jan 28, 1999 10:30		Feb 3, 1999 by HL	Feb 3, 1999 06:28 by HL
60			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 28, 1999 10:30		Feb 1, 1999 by ROK	Feb 2, 1999 20:11 by MI
61		90363-027	BTEX	SW-846	ppm	10 days	Jan 28, 1999 11:07		Feb 3, 1999 by HL	Feb 3, 1999 06:46 by HL
62			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 28, 1999 11:07		Feb 1, 1999 by ROK	Feb 2, 1999 20:59 by MI
63		90363-028	BTEX	SW-846	ppm	10 days	Jan 28, 1999 12:40		Feb 3, 1999 by HL	Feb 3, 1999 05:34 by HL
64			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 28, 1999 12:40		Feb 1, 1999 by ROK	Feb 2, 1999 23:21 by MI
65		90363-029	BTEX	SW-846	ppm	10 days	Jan 28, 1999 13:00		Feb 3, 1999 by HL	Feb 3, 1999 05:52 by HL
66			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 28, 1999 13:00		Feb 1, 1999 by ROK	Feb 3, 1999 00:09 by MI
67	MW-5	90363-030	Org. Content	ASTM D2974	%	10 days	Jan 26, 1999 14:40			
68			Moisture	ASTM 2216-71	%	10 days	Jan 26, 1999 14:40			
69			Bulk Density	ASTM	PCF	10 days	Jan 26, 1999 14:40			
70			Porosity	ASTM D5084A	vv/v	10 days	Jan 26, 1999 14:40			
71			Grain Size	ASTM D422		7 days	Jan 26, 1999 14:40	Feb 8,1999 09:00		

XENCO Laboratories

☐ 11381 Meadowglen, Suite L, Houston TX 77082 281-589-0692
☑ 5309 Wurzbach Road, Suite 104, San Antonio, TX 78238 210-509-3334
☐ 11078 Morrison Road, Suite D, Dallas, TX 75229 972-481-9999

ANALYSIS REQUEST & CHAIN OF CUSTODY RECORD

On-LINE Help & Technical Services at XENCO.com

Company COC No: Work Order No:

10068

Page 1 of 3

Company: K.e.i Consultants **Phone:** 210-680-3767

Project Name: JAL STATION ☐ Previously done at XENCO **Project ID:** 810006-1-0

Location: JAL, NM

Project Manager (PM): Theresa Nix **Project Director (PD):** Mike Hawthorne

Fax Results to ☑ PM and / or Theresa Nix **Fax/** 512-364-3556

Invoice to ☑ Accounting ☐ Include Invoice with Final Report Attn PM ☐ Invoice must have a P.O **Bill to:** 810006-1-0

Quote No. **P.O No** ☐ Call for a P.O.

Special DLs (RR I RR II DW QAPP See Lab PM Call Proj. PM)

Specifications

Sampler Name: Stas Grover **Signature:** Stanley Turner

Lab Only: 90363-SA

TAT: 5h 12h 20h 24h 48h 3d 5d 7d 14d 21d Standard TAT is 10 Working Days unless otherwise agreed in writing. But often reported in 5-7 Working Days

Analysis columns:
- BTEX by (8020, circled) 8021 8260 602 624 Other
- BTEX-MTBE by 8020 8021 8260 602 624 Other
- TPH by TX1005 418.1 8015GRO (8015DRO, circled) 8015JetF
- PAHs by (8270, circled) 8100 8310
- METALS by 6010 8RCRA Tot Pb TCLP8 13PP 23TAL See List
- VOAs by 8260 624 BTEX MTBE PPs TCL See List Call PM
- SVOAs by 8270 625 PAHs BN&A TCL PPs See List Call PM
- PAHs SPLP on Highest Sample
- TPH SPLP w/Highest TPH Level
- VOC SPLP w/Highest TPH Level
- SVOC SPLP w/Highest TPH Level
- ~~Fe, ... Cations, Batch ... Density / Porosity~~
- VPH/EPH Finger Print Sample
- TAT 5h 12h 20h 24h 48h 3d 5d 7d (10d, circled) 14d 21d
- Addn: PAH above mg/L W. mg/Kg S Highest Hit
- Hold Analysis

Remarks: Soil samples w/Highest TPH value need to be analyzed for TPH SPLP, VOC SPLP, SVOC SPLP. Call Theresa Nix @ 512-364-3440 for any questions.

#	Sample ID	Sampling Date	Time	Depth	Matrix	Composite	Grab	# Containers	Container Size	Type	Preservatives	BTEX by 8020	TPH by 8015DRO	PAHs by 8270	PAHs SPLP	TPH SPLP	VOC SPLP	SVOC SPLP	VPH/EPH	#
1	mw-3	1/25/99	8:58	10-12			/	2	4	GA	C4	/	/			/	/	/		1
2	mw-3	↓	9:06	20-22		/		2	↓	↓	↓	↓	↓							2
3	mw-3	↓	9:15	50-52			/	2	↓	↓	↓	↓	↓							3
4	mw-3	↓	11:20	85-87		/	(struck)	2	↓	↓	↓	↓	↓							4
5	mw-3	↓	11:40	87-89		/		4	4 / 32	GA / GC	↓	↓	↓	/	/				/	5
6	mw-4	↓	15:18	50-52			/	2	↓	↓	↓	↓	↓							6
7	mw-4	↓	16:03	85-87		/		2	↓	↓	↓	↓	↓							7
8	mw-4	↓	16:21	87-89			/	2	↓	↓	↓	↓	↓							8
9	mw-5	1/26/99	12:10	10-12			/	2	↓	↓	↓	↓	↓							9
10	mw-5	↓	12:16	20-22		/		2	↓	↓	↓	↓	↓							10

VIA UPS

N031 907 703 1

#	Relinquished by (Initials and Signature)	Relinquished to (Initials and Signature)	Date & Time	
1	Stanley Turner		1/28/99 1630	Total Containers per COC:
2				Rush TATs Fax Due: Final Fax Due:
3		Lab: Costa	1/29/99 10:00	Final Report Data Package Due Date:

Rush Charges are Pre-Approved upon Requesting them. All Terms Apply

Preservatives - Various (V), HCl pH<2 (H), H2SO4 pH<2 (S), ~~HNO4 pH<2 (N)~~, NaOH+Asoc Acid (NAA), ZnAc+NaOH (ZA), (Cool,<4C) (C4), None (N), See Label (SL), Other (O)

SIZE: 4oz (4), 8oz (8), 32oz (32), 40ml VOA (V), 1L (1), 500ml (.5), Tedlar Bag (B), Wipe (W), Other ______ **TYPE** Glass Amb (GA), Glass Clear (GC), Plastic (P), Other (O)

XENCO Laboratories

☐ 11381 Meadowglen, Suite L, Houston TX 77082 281-589-0692
☑ 5309 Wurzbach Road, Suite 104, San Antonio, TX 78238 210-509-3334
☐ 11078 Morrison Road, Suite D, Dallas, TX 75229 972-481-9999

ANALYSIS REQUEST & CHAIN OF CUSTODY RECORD

On-LINE Help & Technical Services at XENCO.com

10066

Company COC No: Work Order No: Page 2 of 3

Company: K.E.I. Consultants	Phone: 210-680-3767
Project Name: JAL STATION ☐ Previously done at XENCO	Project ID: 810006-1-0
Location: JAL, NM	
Project Manager (PM): Theresa Nix	Project Director (PD): Mike Hawthorne
Fax Results to ☑ PM and / or: Theresa Nix	Fax: 512-364-3556
Invoice to ☑ Accounting ☐ Include Invoice with Final Report Attn PM ☐ Invoice must have a P.O Bill to: 810006-1-0	
Quote No.	P.O No ☐ Call for a P.O.
Special DLs (RR I RR II DW QAPP See Lab PM Call Proj. PM)	
Specifications	
Sampler Name: Stas Grover	Signature: Stas Grover

Lab Only: 90363-SA

TAT: 5h 12h 20h 24h 48h 3d 5d 7d 14d 21d Standard TAT is 10 Working Days unless otherwise agreed in writing. But often reported in 5-7 Working Days

Lab Only Additions: Rcv by: From: / Date / Rcv by: From: / Date / Rcv by: From: / Date

#	Sample ID	Sampling Date	Time	Depth ft' in" m	Matrix A P S W	Composite	Grab	# Containers	Container Size	Type	Preservatives	BTEX by 8021 8260 602 624 Other (8020)	BTEX-MTBE by 8021 8260 602 624 Other (8020)	TPH by TX1005 418.1 8015GRO (8015DRO) 8015Jetf (8270) 8100 8310	PAHs by (8270) 8100 8310	METALS by 6010 8RCRA Tot Pb TCLP8 13PP 23TAL See List	VOAs by 8260 624 BTEX MTBE PPs TCL See List Call PM	SVOAs by 8270 625 PAHs BN&A TCL PPs See List Call PM	TAT 5h 12h 20h 24h 48h 3d 5d 7d (10d) 14d 21d	Addn: PAH above mg/L W, mg/Kg S Highest Hit	Hold Analysis	Remarks
1	mw-5	1/26/99	12:47	50-52			/	2	4	GA	C4	/		/							50:1 Samples w/ Highest TPH Value need to be analyzed for TPHSPLP, VOC's SPLP, & VOC's SPLP. Sample that had highest TPH reading Call Theresa Nix @ 512-364-3440 For Any Questions	
2	mw-5		14:23	85-87		/		2														
3	mw-5		14:37	87-89		/		2														
4	mw-6	1/27/99	8:39	0-2			/	2														
5	mw-6		8:43	10-12			/	2														
6	mw-6		8:54	20-22		/		2														
7	mw-6		9:27	50-52			/	2														
8	mw-6		11:00	85-87		/		2														
9	mw-6		11:30	87-89		/		3	4 32	GC GA		/	/	/	/							
10	mw-3	1/25/99	9:06	20-22		/			PIC		C4											

Relinquished by (Initials and Signature)	Relinquished to (Initials and Signature)	Date & Time
1 Stas Grover		1/28/99 1630
2		
3	Lab: Costa	1/29/99 10:00

Total Containers per COC:

Rush TATs Fax Due: Final Fax Due:

Final Report Data Package Due Date:

Rush Charges are Pre-Approved upon Requesting them. All Terms Apply

Preservatives - Various (V), HCl pH<2 (H), H2SO4 pH<2 (S), HNO4 pH<2 (N), NaOH+Asbc Acid (NAA), ZnAc+NaOH (ZA), (Cool.<4C) (C4), None (N), See Label (SL), Other (O) _____

SIZE: 4oz (4), 8oz (8), 32oz (32), 40ml VOA (V), 1L (1), 500ml (.5), Tedlar Bag (B), Wipe (W), Other _____ **TYPE** Glass Amb (GA), Glass Clear (GC), Plastic (P), Other (O) _____

XENCO Laboratories

☐ 11381 Meadowglen, Suite L, Houston TX 77082 281-589-0692
☑ 5309 Wurzbach Road, Suite 104, San Antonio, TX 78238 210-509-3334
☐ 11078 Morrison Road, Suite D, Dallas, TX 75229 972-481-9999

ANALYSIS REQUEST & CHAIN OF CUSTODY RECORD

On-LINE Help & Technical Services at XENCO.com

10067

Company COC No: | Work Order No: | Page 3 of 3

Company: Key Consultants	Phone: 210-680-3767
Project Name: JAL STATION ☐ Previously done at XENCO	Project ID: 810006-1-0
Location: JAL, NM	
Project Manager (PM): Theresa Nix	Project Director (PD): Jim Mosley
Fax Results to: ☑ PM and / or Theresa Nix	Fax: 512-364-3556
Invoice to: ☑ Accounting ☐ Include Invoice with Final Report Attn PM ☐ Invoice must have a P.O Bill to:	
Quote No.	P.O No 810006-1 ☐ Call for a P.O.
Special DLs (RR I RR II DW QAPP See Lab PM Call Proj. PM)	
Specifications	
Sampler Name: Stas Groves	Signature:

Lab Only: 90363-SA

TAT: 5h 12h 20h 24h 48h 3d 5d 7d 14d 21d Standard TAT is 10 Working Days unless otherwise agreed in writing. But often reported in 5-7 Working Days

Lab Only Additions: From: / Rcv by: / Date

#	Sample ID	Sampling Date	Time	Depth ft" In" m	Matrix A P S W	Composite	Grab	# Containers	Container Size	Type	Preservatives	BTEX by 8020 8021	BTEX-MTBE by 8020 8021 8260 602	TPH by TX1005 418.1 8015GRO 8015DRO 8015JetF	PAHs by 8270 8100 8310	METALS by 6010 8RCRA Tot Pb TCLP8 13PP 23TAL See List	VOAs by 8260 624 BTEX MTBE PPs TCL See List Call PM	SVOAs by 8270 625 PAHs BN&A TCL PPs See List Call PM	TAT 5h 12h 20h 24h 48h 3d 5d 7d 10d 14d 21d	Addn: PAH above mg/L W. mg/Kg S Highest Hit	Hold Analysis	Remarks
1	MW-7	1/27/99	15:44	50-52			✓			GA	<4	✓		✓	✓							TPH SPLP w/Highest TPH Level
2	MW-7		17:00	85-87		✓				↓												VOC SPLP " "
3	MW-7	↓	17:15	87-89		✓		3	4 32	GA GC												SVOC SPLP " "
4	MW-8	1/28/99	10:15	0-2			✓	2		GA												FOC, water Content, Bulk Density, Porosity
5	MW-8		10:20	10-12			✓	2														PAH's SPLP on Highest Sample
6	MW-8		10:30	20-22		✓		2														
7	MW-8		11:07	50-52			✓	2														
8	MW-8		12:40	85-87		✓		2		↓												
9	MW-8		13:00	87-89		✓		3	4 32	GA GC		↓		↓	✓							
10	MW-5	1/26/99	1440	89-91						PK	↓											

Relinquished by (Initials and Signature)	Relinquished to (Initials and Signature)	Date & Time
1		1/28/99 16:30
2		
3	Lab: Cardinal	1/29/99 10:00

Total Containers per COC:

Rush TATs Fax Due: Final Fax Due:

Final Report Data Package Due Date:

Rush Charges are Pre-Approved upon Requesting them. All Terms Apply

Preservatives - Various (V), HCl pH<2 (H), H2SO4 pH<2 (S), HNO4 pH<2 (N), NaOH+Asbc Acid (NAA), ZnAc+NaOH (ZA), (Cool,<4C) (C4), None (N), See Label (SL), Other (O) _____

SIZE: 4oz (4), 8oz (8), 32oz (32), 40ml VOA (V), 1L (1), 500ml (.5), Tedlar Bag (B), Wipe (W), Other _____ **TYPE** Glass Amb (GA), Glass Clear (GC), Plastic (P), Other (O) _____

ANALYTICAL REPORT -90466

for

KEI Consultants, Inc.

Project Manager: Theresa Nix

Project Name: Jal Station

Project Id: 810006-1-0

February 26, 1999

XENCO Laboratories

HOUSTON - DALLAS - SAN ANTONIO

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

XENCO Laboratories

11381 Meadowglen Suite L
Houston, Texas 77082-2647
(281) 589-0692 Fax: (281) 589-0695
Houston - Dallas - San Antonio - Latin America

February 26, 1999

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

Reference: **XENCO Report No.: -90466**
Project Name: Jal Station
Project ID: 810006-1-0
Project Address: Jal, NM

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 -90466.N 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, completeness or properly flagged.

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. -90466N 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 operates under the A2LA guidelines. Our Quality System meets ISO/IEC Guide 25 requirements which 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 L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY -90466

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Name: *Jal Station*
Project Manager: Theresa Nix
Project Location: Jal, NM

Date Received in Lab : Feb 5, 1999 10:15
Date Report Faxed: Feb 26, 1999
XENCO contact : Carlos Castro/Karen Olson

Analysis Requested	Lab ID: / Field ID: / Depth: / Matrix: / Sampled:	90466 001 MW - 9 10-12 Solid 01/29/99 08:52	90466 002 MW - 9 20-22 Solid 01/29/99 09:03	90466 003 MW - 9 50-55 Solid 01/29/99 09:36	90466 004 MW - 9 85-87 Solid 01/29/99 11:08	90466 005 MW - 9 87-89 Solid 01/29/99 11:25	90466 006 MW - 10 0-2 Solid 02/03/99 08:12
TPH-DRO (Diesel), Rerun **EPA 8015 M**	*Analyzed:* *Units:*	02/10/99 mg/kg R.L.	02/10/99 mg/kg R.L.	02/10/99 mg/kg R.L.	02/10/99 mg/kg R.L.	02/10/99 mg/kg R.L.	02/10/99 mg/kg R.L.
Total Petroleum Hydrocarbons		< 10 (10)	< 10 (10)	< 10 (10)	1080 (100)	4370 (100)	< 10 (10)
BTEX **EPA 8021B**	*Analyzed:* *Units:*		02/12/99 ppm R.L.	02/12/99 ppm R.L.	02/12/99 ppm R.L.	02/12/99 ppm R.L.	02/12/99 ppm R.L.
Benzene			< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)
Toluene			< 0.050 (0.050)	< 0.050 (0.050)	0.140 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)
Ethylbenzene			< 0.050 (0.050)	< 0.050 (0.050)	1.328 (0.050)	0.272 (0.050)	< 0.050 (0.050)
m,p-Xylene			< 0.100 (0.100)	< 0.100 (0.100)	1.693 (0.100)	0.435 (0.100)	< 0.100 (0.100)
o-Xylene			< 0.050 (0.050)	< 0.050 (0.050)	0.554 (0.050)	0.148 (0.050)	< 0.050 (0.050)
Total BTEX			N.D.	N.D.	3.715	0.855	N.D.
BTEX and MTBE **EPA 8021B**	*Analyzed:* *Units:*	02/12/99 mg/kg R.L.					
Benzene		< 0.050 (0.050)					
Toluene		< 0.050 (0.050)					
Ethylbenzene		0.075 (0.050)					
m,p-Xylene		< 0.100 (0.100)					
o-Xylene		< 0.050 (0.050)					
SPLP-Semivolatiles **EPA1312/8270**	*Analyzed:* *Units:*					02/16/99 mg/L R.L.	
Acenaphthene						0.025 (0.010)	
Acenaphthylene						< 0.010 (0.010)	
Anthracene						< 0.010 (0.010)	
Benz(a)anthracene						< 0.010 (0.010)	

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY -90466

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Name: *Jal Station*
Project Manager: Theresa Nix
Project Location: Jal, NM

Date Received in Lab : Feb 5, 1999 10:15
Date Report Faxed: Feb 26, 1999
XENCO contact : Carlos Castro/Karen Olson

Analysis Requested	*Lab ID:*	90466 001	90466 002	90466 003	90466 004	90466 005	90466 006
	Field ID:	MW - 9	MW - 9	MW - 9	MW - 9	MW - 9	MW - 10
	Depth:	10-12	20-22	50-55	85-87	87-89	0-2
	Matrix:	Solid	Solid	Solid	Solid	Solid	Solid
	Sampled:	01/29/99 08:52	01/29/99 09:03	01/29/99 09:36	01/29/99 11:08	01/29/99 11:25	02/03/99 08:12
SPLP-Semivolatiles EPA1312/8270	*Analyzed:*					02/16/99	
	Units:					mg/L R.L.	
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)	
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						< 0.010 (0.010)	
Di-n-octylphthalate						< 0.010 (0.010)	
Dibenz(a,h)anthracene						< 0.010 (0.010)	
Dibenzofuran						0.046 (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)	

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY -90466

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Name: *Jal Station*
Project Manager: Theresa Nix
Project Location: Jal, NM

Date Received in Lab : Feb 5, 1999 10:15
Date Report Faxed: Feb 26, 1999
XENCO contact : Carlos Castro/Karen Olson

Analysis Requested	Lab ID: / Field ID: / Depth: / Matrix: / Sampled:	90466 001 MW - 9 10-12 Solid 01/29/99 08:52	90466 002 MW - 9 20-22 Solid 01/29/99 09:03	90466 003 MW - 9 50-55 Solid 01/29/99 09:36	90466 004 MW - 9 85-87 Solid 01/29/99 11:08	90466 005 MW - 9 87-89 Solid 01/29/99 11:25	90466 006 MW - 10 0-2 Solid 02/03/99 08:12
SPLP-Semivolatiles EPA1312/8270	Analyzed: / Units:					02/16/99 mg/L R.L.	
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						0.035 (0.010)	
Hexachlorobenzene						< 0.010 (0.010)	
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						0.269 (0.100)	
2-Methylphenol						< 0.010 (0.010)	
4-Methylphenol						< 0.010 (0.010)	
N-Nitrosodi-n-propylamine						< 0.010 (0.010)	
N-Nitrosodiphenylamine						< 0.010 (0.010)	
Naphthalene						0.079 (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)	

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY -90466

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Name: *Jal Station*
Project Manager: Theresa Nix
Project Location: Jal, NM

Date Received in Lab : Feb 5, 1999 10:15
Date Report Faxed: Feb 26, 1999
XENCO contact : Carlos Castro/Karen Olson

Analysis Requested	*Lab ID:* / *Field ID:* / *Depth:* / *Matrix:* / *Sampled:*	90466 001 MW - 9 10-12 Solid 01/29/99 08:52	90466 002 MW - 9 20-22 Solid 01/29/99 09:03	90466 003 MW - 9 50-55 Solid 01/29/99 09:36	90466 004 MW - 9 85-87 Solid 01/29/99 11:08	90466 005 MW - 9 87-89 Solid 01/29/99 11:25	90466 006 MW - 10 0-2 Solid 02/03/99 08:12
SPLP-Semivolatiles **EPA1312/8270**	*Analyzed:* *Units:*					02/16/99 mg/L R.L.	
4-Nitrophenol						< 0.010 (0.010)	
Pentachlorophenol						< 0.025 (0.025)	
Phenanthrene						0.049 (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)	
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						0.039 (0.010)	
PAHs by GC-MS **EPA 8270**	*Analyzed:* *Units:*					02/10/99 mg/kg R.L.	
Acenaphthene						0.14 (0.07)	
Acenaphthylene						< 0.07 (0.07)	
Anthracene						< 0.07 (0.07)	
Benz(a)anthracene						< 0.07 (0.07)	
Benzo(a)pyrene						< 0.07 (0.07)	
Benzo(b)fluoranthene						< 0.07 (0.07)	
Benzo(g,h,i)perylene						< 0.07 (0.07)	
Benzo(k)fluoranthene						< 0.07 (0.07)	

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY -90466

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Manager: Theresa Nix
Project Location: Jal, NM

Project Name: Jal Station

Date Received in Lab : Feb 5, 1999 10:15
Date Report Faxed: Feb 26, 1999
XENCO contact : Carlos Castro/Karen Olson

Analysis Requested	*Lab ID:* / *Field ID:* / *Depth:* / *Matrix:* / *Sampled:*	90466 001 MW - 9 10-12 Solid 01/29/99 08:52	90466 002 MW - 9 20-22 Solid 01/29/99 09:03	90466 003 MW - 9 50-55 Solid 01/29/99 09:36	90466 004 MW - 9 85-87 Solid 01/29/99 11:08	90466 005 MW - 9 87-89 Solid 01/29/99 11:25	90466 006 MW - 10 0-2 Solid 02/03/99 08:12
PAHs by GC-MS **EPA 8270**	*Analyzed:* *Units:*					02/10/99 mg/kg R.L.	
Chrysene						< 0.07 (0.07)	
Dibenz(a,h)anthracene						< 0.07 (0.07)	
Fluoranthene						< 0.07 (0.07)	
Fluorene						0.24 (0.07)	
Indeno(1,2,3-cd)pyrene						< 0.07 (0.07)	
Naphthalene						0.41 (0.07)	
Phenanthrene						0.34 (0.07)	
Pyrene						< 0.07 (0.07)	
SPLP Volatiles **EPA 8260**	*Analyzed:* *Units:*					02/24/99 mg/kg 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)	
Chlorodibromomethane						< 0.025 (0.025)	
Chloroethane						< 0.050 (0.050)	
Chloroform						< 0.025 (0.025)	
Chloromethane						< 0.050 (0.050)	

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY -90466

KEI Consultants, Inc.

Project ID: 810006-1-0 | ***Project Name: Jal Station*** | **Date Received in Lab :** Feb 5, 1999 10:15

Project Manager: Theresa Nix | **Date Report Faxed:** Feb 26, 1999

Project Location: Jal, NM | **XENCO contact :** Carlos Castro/Karen Olson

Analysis Requested	*Lab ID:*	90466 001	90466 002	90466 003	90466 004	90466 005	90466 006
	Field ID:	MW - 9	MW - 9	MW - 9	MW - 9	MW - 9	MW - 10
	Depth:	10-12	20-22	50-55	85-87	87-89	0-2
	Matrix:	Solid	Solid	Solid	Solid	Solid	Solid
	Sampled:	01/29/99 08:52	01/29/99 09:03	01/29/99 09:36	01/29/99 11:08	01/29/99 11:25	02/03/99 08:12
SPLP Volatiles EPA 8260	*Analyzed:*					02/24/99	
	Units:					mg/kg R.L.	
2-Chlorotoluene						< 0.025 (0.025)	
4-Chlorotoluene						< 0.025 (0.025)	
1,2-Dibromo-3-chloropropane						< 0.025 (0.025)	
1,2-Dibromoethane						< 0.025 (0.025)	
Dibromomethane						< 0.025 (0.025)	
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						< 0.025 (0.025)	
Hexachlorobutadiene						< 0.025 (0.025)	
Isopropylbenzene (Cumene)						< 0.025 (0.025)	
MTBE						< 0.050 (0.050)	
Methylene chloride						< 0.050 (0.050)	
Naphthalene						0.096 (0.025)	
Styrene						< 0.025 (0.025)	
1,1,1,2-Tetrachloroethane						< 0.025 (0.025)	

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY -90466

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Name: *Jal Station*
Project Manager: Theresa Nix
Project Location: Jal, NM

Date Received in Lab : Feb 5, 1999 10:15
Date Report Faxed: Feb 26, 1999
XENCO contact : Carlos Castro/Karen Olson

Analysis Requested	Lab ID: / Field ID: / Depth: / Matrix: / Sampled:	90466 001 MW - 9 10-12 Solid 01/29/99 08:52	90466 002 MW - 9 20-22 Solid 01/29/99 09:03	90466 003 MW - 9 50-55 Solid 01/29/99 09:36	90466 004 MW - 9 85-87 Solid 01/29/99 11:08	90466 005 MW - 9 87-89 Solid 01/29/99 11:25	90466 006 MW - 10 0-2 Solid 02/03/99 08:12
SPLP Volatiles EPA 8260	Analyzed: / Units:					02/24/99 mg/kg R.L.	
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)	
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						0.039 (0.025)	
1,3,5-Trimethylbenzene						< 0.025 (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-Xylene						< 0.025 (0.025)	
n-Butylbenzene						< 0.025 (0.025)	
n-Propylbenzene						< 0.025 (0.025)	
o-Xylene						< 0.025 (0.025)	
p-Isopropyltoluene (p-Cymene)						< 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)	

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY -90466

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Name: Jal Station
Date Received in Lab : Feb 5, 1999 10:15
Project Manager: Theresa Nix
Date Report Faxed: Feb 26, 1999
Project Location: Jal, NM
XENCO contact : Carlos Castro/Karen Olson

Analysis Requested	*Lab ID:* *Field ID:* *Depth:* *Matrix:* *Sampled:*	90466 001 MW - 9 10-12 Solid 01/29/99 08:52	90466 002 MW - 9 20-22 Solid 01/29/99 09:03	90466 003 MW - 9 50-55 Solid 01/29/99 09:36	90466 004 MW - 9 85-87 Solid 01/29/99 11:08	90466 005 MW - 9 87-89 Solid 01/29/99 11:25	90466 006 MW - 10 0-2 Solid 02/03/99 08:12
SPLP Volatiles **EPA 8260**	*Analyzed:* *Units:*					02/24/99	
SPLP TPH **1312/418.1**	*Analyzed:* *Units:*					02/15/99 ppm R.L.	
Total Petroleum Hydrocarbons						2.0 (0.7)	

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY -90466

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Name: *Jal Station*
Project Manager: Theresa Nix
Project Location: Jal, NM

Date Received in Lab : Feb 5, 1999 10:15
Date Report Faxed: Feb 26, 1999
XENCO contact : Carlos Castro/Karen Olson

Analysis Requested		Lab ID: / Field ID: / Depth: / Matrix: / Sampled:	90466 007 MW - 10 50-55 Solid 02/03/99 09:25	90466 008 MW - 10 85-87 Solid 02/03/99 10:00	90466 009 MW - 10 87-89 Solid 02/03/99 10:25	90466 010 MW - 11 10-12 Solid 02/03/99 12:48	90466 011 MW - 11 20-22 Solid 02/03/99 13:05	90466 012 MW - 11 50-52 Solid 02/03/99 13:45
TPH-DRO (Diesel), Rerun **EPA 8015 M**		*Analyzed:* *Units:*	02/10/99 mg/kg R.L.	02/10/99 mg/kg R.L.	02/10/99 mg/kg R.L.	02/10/99 mg/kg R.L.	02/10/99 mg/kg R.L.	02/10/99 mg/kg R.L.
Total Petroleum Hydrocarbons			< 10 (10)	< 10 (10)	< 10 (10)	< 10 (10)	< 10 (10)	< 10 (10)
BTEX **EPA 8021B**		*Analyzed:* *Units:*	02/12/99 ppm R.L.	02/12/99 ppm R.L.	02/12/99 ppm R.L.	02/12/99 ppm R.L.	02/12/99 ppm R.L.	02/12/99 ppm R.L.
Benzene			< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)
Toluene			< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)
Ethylbenzene			< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)
m,p-Xylene			< 0.100 (0.100)	< 0.100 (0.100)	< 0.100 (0.100)	< 0.100 (0.100)	< 0.100 (0.100)	< 0.100 (0.100)
o-Xylene			< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)	< 0.050 (0.050)
Total BTEX			N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY -90466

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Manager: Theresa Nix
Project Location: Jal, NM

Project Name: Jal Station

Date Received in Lab : Feb 5, 1999 10:15
Date Report Faxed: Feb 26, 1999
XENCO contact : Carlos Castro/Karen Olson

Analysis Requested	*Lab ID:*	90466 013	90466 014				
	Field ID:	MW - 11	MW - 11				
	Depth:	85-87	87-89				
	Matrix:	Solid	Solid				
	Sampled:	02/03/99 15:30	02/03/99 15:47				
TPH-DRO (Diesel), Rerun	*Analyzed:*	02/10/99	02/10/99				
EPA 8015 M	*Units:*	mg/kg R.L.	mg/kg R.L.				
Total Petroleum Hydrocarbons		< 10 (10)	< 10 (10)				
BTEX	*Analyzed:*	02/12/99	02/12/99				
EPA 8021B	*Units:*	ppm R.L.	ppm R.L.				
Benzene		< 0.050 (0.050)	< 0.050 (0.050)				
Toluene		< 0.050 (0.050)	< 0.050 (0.050)				
Ethylbenzene		< 0.050 (0.050)	< 0.050 (0.050)				
m,p-Xylene		< 0.100 (0.100)	< 0.100 (0.100)				
o-Xylene		< 0.050 (0.050)	< 0.050 (0.050)				
Total BTEX		N.D.	N.D.				

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A29A82

SW- 846 5030/8021B BTEX and MTBE

Date Validated: Dec 12, 1999 12:45
Date Analyzed: Feb 11, 1999 17:22

Analyst: SCS
Matrix: Solid

	BLANK SPIKE ANALYSIS						
Parameter	[A] Blank Result mg/kg	[B] Blank Spike Result mg/kg	[C] Blank Spike Amount mg/kg	[D] Detection Limit mg/kg	[E] QC Blank Spike Recovery %	[F] LIMITS Recovery Range %	[G] Qualifier
Benzene	< 0.0010	0.1257	0.1000	0.0010	125.7	65-135	
Toluene	< 0.0010	0.1221	0.1000	0.0010	122.1	65-135	
Ethylbenzene	< 0.0010	0.1123	0.1000	0.0010	112.3	65-135	
MTBE	< 0.0200	0.8214	1.0000	0.0200	82.1	65-135	
m,p-Xylene	< 0.0020	0.2367	0.2000	0.0020	118.4	65-135	
o-Xylene	< 0.0010	0.1162	0.1000	0.0010	116.2	65-135	

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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A29A82

SW- 846 5030/8021B BTEX and MTBE

Date Validated: Dec 12, 1999 12:45
Date Analyzed: Feb 12, 1999 03:14

Analyst: SCS
Matrix: Solid

	MATRIX SPIKE / MATRIX SPIKE DUPLICATE AND RECOVERY										
Q.C. Sample ID 90466- 001 / **Parameter**	[A] Sample Result mg/kg	[B] Matrix Spike Result mg/kg	[C] Matrix Spike Duplicate Result mg/kg	[D] Matrix Spike Amount mg/kg	[E] Detection Limit mg/kg	Matrix Limit Relative Difference %	[F] QC Spike Relative Difference %	[G] QC Matrix Spike Recovery %	[H] QC M.S.D. Recovery %	[I] Matrix Spike Recovery Range %	[J] Qualifier
Benzene	< 0.050	2.595	2.715	2.000	0.050	25.0	4.5	129.8	135.8	65-135	
Toluene	< 0.050	2.525	2.640	2.000	0.050	25.0	4.5	126.3	132.0	65-135	
Ethylbenzene	0.075	2.375	2.480	2.000	0.050	25.0	4.3	115.0	120.3	65-135	
MTBE	< 1.000	56.310	54.560	50.000	1.000	25.0	3.2	112.6	109.1	65-135	
m,p-Xylene	< 0.100	5.095	5.295	4.000	0.100	25.0	3.8	127.4	132.4	65-135	
o-Xylene	< 0.050	2.485	2.565	2.000	0.050	25.0	3.2	124.3	128.3	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]
N.D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A29A83

SW- 846 5030/8021B BTEX

Date Validated: Feb 15, 1999 14:36
Date Analyzed: Feb 12, 1999 09:27

Analyst: SCS
Matrix: Solid

	BLANK SPIKE ANALYSIS						
Parameter	[A] Blank Result ppm	[B] Blank Spike Result ppm	[C] Blank Spike Amount ppm	[D] Detection Limit ppm	[E] QC Blank Spike Recovery %	[F] LIMITS Recovery Range %	[G] Qualifier
Benzene	< 0.0010	0.1245	0.1000	0.0010	124.5	65-135	
Toluene	< 0.0010	0.1207	0.1000	0.0010	120.7	65-135	
Ethylbenzene	< 0.0010	0.1113	0.1000	0.0010	111.3	65-135	
m,p-Xylene	< 0.0020	0.2350	0.2000	0.0020	117.5	65-135	
o-Xylene	< 0.0010	0.1152	0.1000	0.0010	115.2	65-135	

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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A29A83

SW- 846 5030/8021B BTEX

Date Validated: Feb 15, 1999 14:36
Date Analyzed: Feb 12, 1999 10:47

Analyst: SCS
Matrix: Solid

MATRIX SPIKE / MATRIX SPIKE DUPLICATE AND RECOVERY

Q.C. Sample ID 90466- 007 / Parameter	[A] Sample Result ppm	[B] Matrix Spike Result ppm	[C] Matrix Spike Duplicate Result ppm	[D] Matrix Spike Amount ppm	[E] Detection Limit ppm	Matrix Limit Relative Difference %	[F] QC Spike Relative Difference %	[G] QC Matrix Spike Recovery %	[H] QC M.S.D. Recovery %	[I] Matrix Spike Recovery Range %	[J] Qualifier
Benzene	< 0.050	2.350	2.575	2.000	0.050	25.0	9.1	117.5	128.8	65-135	
Toluene	< 0.050	2.300	2.520	2.000	0.050	25.0	9.1	115.0	126.0	65-135	
Ethylbenzene	< 0.050	2.160	2.365	2.000	0.050	25.0	9.1	108.0	118.3	65-135	
m,p-Xylene	< 0.100	4.640	5.075	4.000	0.100	25.0	9.0	116.0	126.9	65-135	
o-Xylene	< 0.050	2.235	2.425	2.000	0.050	25.0	8.2	111.8	121.3	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]
N.D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A02A29

SW- 846 8015 M TPH- DRO (Diesel), Rerun

Date Validated: Feb 11, 1999 11:00
Date Analyzed: Feb 9, 1999 19:19

Analyst: MM
Matrix: Solid

	BLANK SPIKE ANALYSIS						
	[A]	[B]	[C]	[D]	[E]	[F]	[G]
					QC	LIMITS	
Parameter	Blank Result	Blank Spike Result	Blank Spike Amount	Detection Limit	Blank Spike Recovery	Recovery Range	Qualifier
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	
Total Petroleum Hydrocarbons	< 10	114	100	10	114.0	65-135	

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

for Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A02A29

SW- 846 8015 M TPH- DRO (Diesel), Rerun

Date Validated: Feb 11, 1999 11:00
Date Analyzed: Feb 9, 1999 20:48

Analyst: MM
Matrix: Solid

	MATRIX SPIKE / MATRIX SPIKE DUPLICATE AND RECOVERY										
Q.C. Sample ID 90465- 002	[A] Sample Result	[B] Matrix Spike Result	[C] Matrix Spike Duplicate Result	[D] Matrix Spike Amount	[E] Detection Limit	Matrix Limit Relative Difference	[F] QC Spike Relative Difference	[G] QC Matrix Spike Recovery	[H] QC M.S.D. Recovery	[I] Matrix Spike Recovery Range	[J] Qualifier
Parameter	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	%	
Total Petroleum Hydrocarbons	< 10	100	108	100	10	30.0	7.7	100.0	108.0	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]
N.D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A34A65

SW846-8270 PAHs by GC-MS

Date Validated: Feb 10, 1999 15:55
Date Analyzed: Feb 10, 1999 10:48

Analyst: LC
Matrix: Solid

	BLANK SPIKE ANALYSIS						
Parameter	[A] Blank Result mg/kg	[B] Blank Spike Result mg/kg	[C] Blank Spike Amount mg/kg	[D] Detection Limit mg/kg	[E] QC Blank Spike Recovery %	[F] LIMITS Recovery Range %	[G] Qualifier
Acenaphthene	< 0.067	1.242	1.665	0.067	74.6	31-137	
4-Chloro-3-methylphenol	< 0.126	1.122	1.665	0.126	67.4	26-103	
2-Chlorophenol	< 0.166	1.146	1.665	0.166	68.8	25-102	
1,4-Dichlorobenzene	< 0.140	1.159	1.665	0.140	69.6	28-104	
2,4-Dinitrotoluene	< 0.166	1.136	1.665	0.166	68.2	28-89	
N-Nitrosodi-n-propylamine	< 0.133	1.239	1.665	0.133	74.4	41-126	
4-Nitrophenol	< 0.133	0.932	1.665	0.133	56.0	11-114	
Pentachlorophenol	< 0.286	1.122	1.665	0.286	67.4	17-109	
Phenol	< 0.123	1.152	1.665	0.123	69.2	26-90	
Pyrene	< 0.067	1.392	1.665	0.067	83.6	35-142	
1,2,4-Trichlorobenzene	< 0.180	1.119	1.665	0.180	67.2	38-107	

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

for Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A34A65

SW846-8270 PAHs by GC-MS

Date Validated: Feb 10, 1999 15:55
Date Analyzed: Feb 10, 1999 13:14

Analyst: LC
Matrix: Solid

MATRIX SPIKE / MATRIX SPIKE DUPLICATE AND RECOVERY

Q.C. Sample ID 90466-005 / Parameter	[A] Sample Result mg/kg	[B] Matrix Spike Result mg/kg	[C] Matrix Spike Duplicate Result mg/kg	[D] Matrix Spike Amount mg/kg	[E] Detection Limit mg/kg	Matrix Limit Relative Difference %	[F] QC Spike Relative Difference %	[G] QC Matrix Spike Recovery %	[H] QC M.S.D. Recovery %	[I] Matrix Spike Recovery Range %	[J] Qualifier
Acenaphthene	0.133	1.722	1.472	1.665	0.067	19.0	15.7	95.4	80.4	31-137	
4-Chloro-3-methylphenol	< 0.126	1.182	1.186	1.665	0.126	33.0	0.3	71.0	71.2	26-103	
2-Chlorophenol	< 0.166	1.099	1.079	1.665	0.166	28.7	1.8	66.0	64.8	25-102	
1,4-Dichlorobenzene	< 0.140	1.069	1.056	1.665	0.140	32.1	1.2	64.2	63.4	28-104	
2,4-Dinitrotoluene	< 0.166	1.349	1.265	1.665	0.166	21.8	6.4	81.0	76.0	28-89	
N-Nitrosodi-n-propylamine	< 0.133	1.255	1.116	1.665	0.133	55.4	11.7	75.4	67.0	41-126	
4-Nitrophenol	< 0.133	1.022	1.269	1.665	0.133	47.2	21.6	61.4	76.2	11-114	
Pentachlorophenol	< 0.286	1.352	1.292	1.665	0.286	48.9	4.5	81.2	77.6	17-109	
Phenol	< 0.123	1.069	1.072	1.665	0.123	22.6	0.3	64.2	64.4	26-90	
Pyrene	< 0.067	1.505	1.319	1.665	0.067	25.2	13.2	90.4	79.2	35-142	
1,2,4-Trichlorobenzene	< 0.180	1.119	1.116	1.665	0.180	23.0	0.3	67.2	67.0	38-107	

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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A01B03

EPA1312/8260 SPLP Volatiles

Date Validated: Feb 25, 1999 16:15
Date Analyzed: Feb 24, 1999 11:37

Analyst: CYE
Matrix: Solid

	BLANK SPIKE ANALYSIS						
Parameter	[A] Blank Result mg/kg	[B] Blank Spike Result mg/kg	[C] Blank Spike Amount mg/kg	[D] Detection Limit mg/kg	[E] QC Blank Spike Recovery %	[F] LIMITS Recovery Range %	[G] Qualifier
Benzene	< 0.0010	0.0729	0.1000	0.0010	72.9	66-142	
Chlorobenzene	< 0.0010	0.0844	0.1000	0.0010	84.4	60-133	
1,1-Dichloroethene	< 0.0040	0.0627	0.1000	0.0040	62.7	59-172	
Toluene	0.0011	0.0737	0.1000	0.0010	72.6	59-139	
Trichloroethene	< 0.0030	0.0701	0.1000	0.0030	70.1	62-137	

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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A34A78

SW846- 8270 PAHs by GC- MS

Date Validated: Feb 17, 1999 15:36
Date Analyzed: Feb 16, 1999 21:18

Analyst: LC
Matrix: Liquid

	BLANK SPIKE / BLANK SPIKE DUPLICATE AND RECOVERY										
Parameter	[A] Blank Result mg/L	[B] Blank Spike Result mg/L	[C] Blank Spike Duplicate Result mg/L	[D] Blank Spike Amount mg/L	[E] Detection Limit mg/L	Blank Limit Relative Difference %	[F] QC Spike Relative Difference %	[G] QC Blank Spike Recovery %	[H] QC B.S.D. Recovery %	[I] Blank Spike Recovery Range %	[J] Qualifier
Acenaphthene	< 0.0020	0.0374	0.0370	0.0500	0.0020	31.0	1.1	74.8	74.0	46-118	
4-Chloro-3-methylphenol	< 0.0020	0.0331	0.0353	0.0500	0.0020	42.0	6.4	66.2	70.6	23-110	
2-Chlorophenol	< 0.0020	0.0305	0.0330	0.0500	0.0020	40.0	7.9	61.0	66.0	27-123	
1,4-Dichlorobenzene	< 0.0020	0.0339	0.0355	0.0500	0.0020	28.0	4.6	67.8	71.0	36-97	
2,4-Dinitrotoluene	< 0.0020	0.0404	0.0390	0.0500	0.0020	38.0	3.5	80.8	78.0	24-108	
N-Nitrosodi-n-propylamine	< 0.0040	0.0343	0.0349	0.0500	0.0040	38.0	1.7	68.6	69.8	41-116	
4-Nitrophenol	< 0.0040	0.0240	0.0232	0.0500	0.0040	50.5	3.4	48.0	46.4	10-80	
Pentachlorophenol	< 0.0010	0.0335	0.0349	0.0500	0.0010	50.0	4.1	67.0	69.8	9-103	
Phenol	< 0.0010	0.0214	0.0223	0.0500	0.0010	42.0	4.1	42.8	44.6	12-89	
Pyrene	< 0.0020	0.0423	0.0408	0.0500	0.0020	31.0	3.6	84.6	81.6	26-127	
1,2,4-Trichlorobenzene	< 0.0010	0.0353	0.0378	0.0500	0.0010	28.0	6.8	70.6	75.6	39-98	

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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A07A22

EPA 1312/418.1 SPLP TPH

Date Validated: Feb 16, 1999 10:30
Date Analyzed: Feb 15, 1999 15:55

Analyst: EZ
Matrix: Solid

	BLANK SPIKE / BLANK SPIKE DUPLICATE AND RECOVERY										
Parameter	[A] Blank Result ppm	[B] Blank Spike Result ppm	[C] Blank Spike Duplicate Result ppm	[D] Blank Spike Amount ppm	[E] Detection Limit ppm	Blank Limit Relative Difference %	[F] QC Spike Relative Difference %	[G] QC Blank Spike Recovery %	[H] QC B.S.D. Recovery %	[I] Blank Spike Recovery Range %	[J] Qualifier
Total Petroleum Hydrocarbons	< 0.50	4.16	4.35	4.42	0.50	20.0	4.5	94.1	98.4	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]
N.D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

ANALYTICAL CHAIN OF CUSTODY REPORT
CHRONOLOGY OF SAMPLES

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Manager: Theresa Nix
Project Location: Jal, NM

Project Name: Jal Station

XENCO COC#: -90466
Date Received in Lab: Feb 5, 1999 10:15 by SE
XENCO contact : Carlos Castro/Karen Olson

	Field ID	Lab. ID	Method Name	Method ID	Units	Turn Around	Date and Time: Sample Collected	Date and Time: Addition Requested	Date and Time: Extraction	Date and Time: Analysis
1	MW - 9	90466-001	BTEX-MTBE	SW-846	mg/kg	10 days	Jan 29, 1999 08:52		Feb 10, 1999 by OSR	Feb 12, 1999 03:14 by SCS
2			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 29, 1999 08:52		Feb 9, 1999 by ROK	Feb 10, 1999 00:35 by MM
3		90466-002	BTEX	SW-846	ppm	10 days	Jan 29, 1999 09:03		Feb 10, 1999 by OSR	Feb 12, 1999 03:33 by SCS
4			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 29, 1999 09:03		Feb 9, 1999 by ROK	Feb 10, 1999 01:20 by MM
5		90466-003	BTEX	SW-846	ppm	10 days	Jan 29, 1999 09:36		Feb 10, 1999 by OSR	Feb 12, 1999 03:52 by SCS
6			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 29, 1999 09:36		Feb 9, 1999 by ROK	Feb 10, 1999 07:55 by MM
7		90466-004	BTEX	SW-846	ppm	10 days	Jan 29, 1999 11:08		Feb 10, 1999 by OSR	Feb 12, 1999 04:11 by SC
8			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 29, 1999 11:08		Feb 9, 1999 by ROK	Feb 10, 1999 20:21 by MM
9		90466-005	BTEX	SW-846	ppm	10 days	Jan 29, 1999 11:25		Feb 10, 1999 by OSR	Feb 12, 1999 04:30 by SCS
10			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Jan 29, 1999 11:25		Feb 9, 1999 by ROK	Feb 10, 1999 21:05 by MM
11			PAHs	SW846-8270	mg/kg	10 days	Jan 29, 1999 11:25		Feb 9, 1999 by ROK	Feb 10, 1999 13:14 by LC
12			SPLP-SV(TCL)	SW846-1312/82	mg/Kg	7 days	Jan 29, 1999 11:25	Feb11,1999 13:40	Feb 12, 1999 by ROK	Feb 16, 1999 23:51 by LC
13			VOA (8260)	EPA1312/8260	mg/kg	7 days	Jan 29, 1999 11:25	Feb11,1999 13:40	Feb 24, 1999 by CYE	Feb 24, 1999 14:44 by CYE
14			SPLP TPH	EPA	ppm	7 days	Jan 29, 1999 11:25	Feb11,1999 13:40	Feb 15, 1999 by EZ	Feb 15, 1999 16:20 by EZ
15	MW - 10	90466-006	BTEX	SW-846	ppm	10 days	Feb 3, 1999 08:12		Feb 12, 1999 by SCS	Feb 12, 1999 10:28 by SCS
16			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Feb 3, 1999 08:12		Feb 9, 1999 by ROK	Feb 10, 1999 10:56 by MM
17		90466-007	BTEX	SW-846	ppm	10 days	Feb 3, 1999 09:25		Feb 12, 1999 by SCS	Feb 12, 1999 10:47 by SCS
18			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Feb 3, 1999 09:25		Feb 9, 1999 by ROK	Feb 10, 1999 11:41 by MM
19		90466-008	BTEX	SW-846	ppm	10 days	Feb 3, 1999 10:00		Feb 12, 1999 by SCS	Feb 12, 1999 11:45 by SCS
20			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Feb 3, 1999 10:00		Feb 9, 1999 by ROK	Feb 10, 1999 13:56 by MM
21		90466-009	BTEX	SW-846	ppm	10 days	Feb 3, 1999 10:25		Feb 12, 1999 by SCS	Feb 12, 1999 12:04 by SCS
22			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Feb 3, 1999 10:25		Feb 9, 1999 by ROK	Feb 10, 1999 15:07 by MM
23	MW - 11	90466-010	BTEX	SW-846	ppm	10 days	Feb 3, 1999 12:48		Feb 12, 1999 by SCS	Feb 12, 1999 12:23 by SCS
24			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Feb 3, 1999 12:48		Feb 9, 1999 by ROK	Feb 10, 1999 16:37 by MM
25		90466-011	BTEX	SW-846	ppm	10 days	Feb 3, 1999 13:05		Feb 12, 1999 by SCS	Feb 12, 1999 13:01 by SCS
26			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Feb 3, 1999 13:05		Feb 9, 1999 by ROK	Feb 10, 1999 17:22 by MM
27		90466-012	BTEX	SW-846	ppm	10 days	Feb 3, 1999 13:45		Feb 12, 1999 by SCS	Feb 12, 1999 13:20 by SCS
28			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Feb 3, 1999 13:45		Feb 9, 1999 by ROK	Feb 10, 1999 18:07 by MM

XENCO Laboratories

ANALYTICAL CHAIN OF CUSTODY REPORT
CHRONOLOGY OF SAMPLES

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Manager: Theresa Nix
Project Location: Jal, NM

Project Name: Jal Station

XENCO COC#: -90466
Date Received in Lab: Feb 5, 1999 10:15 by SE
XENCO contact : Carlos Castro/Karen Olson

	Field ID	Lab. ID	Method Name	Method ID	Units	Turn Around	Date and Time: Sample Collected	Addition Requested	Extraction	Analysis
29		90466-013	BTEX	SW-846	ppm	10 days	Feb 3, 1999 15:30		Feb 12, 1999 by SCS	Feb 12, 1999 13:39 by SCS
30			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Feb 3, 1999 15:30		Feb 9, 1999 by ROK	Feb 10, 1999 18:52 by MM
31		90466-014	BTEX	SW-846	ppm	10 days	Feb 3, 1999 15:47		Feb 12, 1999 by SCS	Feb 12, 1999 13:58 by SCS
32			TPH8015M-D	SW-846 8015 M	mg/kg	10 days	Feb 3, 1999 15:47		Feb 9, 1999 by ROK	Feb 10, 1999 19:36 by MM

XENCO Laboratories

☐ 11381 Meadowglen, Suite L, Houston TX 77082 281-589-0692
☑ 5309 Wurzbach Road, Suite 104, San Antonio, TX 78238 210-509-3334
☐ 11078 Morrison Road, Suite D, Dallas, TX 75229 972-481-9999

ANALYSIS REQUEST & CHAIN OF CUSTODY RECORD

On-LINE Help & Technical Services at XENCO.com

10061

Company COC No: 254 Work Order No: 810006-1-0 Page 1 of 2

Company	Phone
K·E·I Consultants	210-680-3767
Project Name ☐ Previously done at XENCO	**Project ID**
JAL STATION	810006-1-0
Location JAL, NM	
Project Manager (PM)	**Project Director (PD)**
Theresa Nix	Mike Hawthorne
Fax Results to ☑PM and / or Theresa Nix	**Fax** 1-512-364-3556
Invoice to ☑Accounting ☐ Include Invoice with Final Report Attn PM ☐ Invoice must have a P.O Bill to: 810006-1-0	
Quote No.	**P.O No** ☐ Call for a P.O.
Special DLs (RR I RR II DW QAPP See Lab PM Call Proj. PM)	
Specifications	

Sampler Name STAS Grover Signature Stanley Grover

Lab Only: 904LeLe -SA

TAT: 5h 12h 20h 24h 48h 3d 5d 7d 14d 21d Standard TAT is 10 Working Days unless otherwise agreed in writing. But often reported in 5-7 Working Days

Remarks

Run SPLP SVOC, SPLP VOC and SPLP TPH on samples with the highest TPH concentration above 100 mg/kg. Call Theresa Nix for any questions on analyses.

Lab Only Additions

	Sample ID	Sampling Date	Time	Depth ft' in" m	Matrix A P S W	Composite	Grab	# Containers	Container Size	Type	Preservatives
1	MW-9	1-29-99	8:52	10-12			/	2	4	GA	C4
2	MW-9		9:03	20-22		/		2	4	GA	
3	MW-9		9:36	50-52			/	2	4	GA	
4	MW-9		11:08	85-87		/		2	4	GA	
5	MW-9	↓	11:25	87-89		/		3	(4) (32)	GA GC	
6	MW-10	2/3/99	8:12	0-2 10-12			/	2	4	GA	
7	~~MW-10~~	~~2/3/99~~	~~8:20~~	~~20-22~~	~~/~~						
8	MW-10		9:25	50-55			/	2	4	GA	
9	MW-10		10:00	85-87		/		2	4	GA	
10	MW-10	↓	10:25	87-89		/		3	(4) (32)	GA GC	

	BTEX by 8021 8260 602 624 Other	BTEX-MTBE by 8020 8021 8260 602 624 Other	TPH by TX1005 418.1 8015GRO 8015DRO 8015JetF	PAHs by 8270 8100 8310	METALS by 6010 8RCRA Tot Pb TCLP8 13PP 23TAL See List	VOAs by 8260 624 BTEX MTBE PPs TCL See List Call PM	SVOAs by 8270 625 PAHs BN&A TCL PPs See List Call PM	TAT 5h 12h 20h 24h 48h 3d 5d 7d (10d) 14d 21d	Addn: PAH above mg/L W, mg/Kg S Highest Hit	Hold Analysis
1	/		/	/						
2										
3										
4										
5				/						
6										
7										
8										
9										
10	↓		↓							

N240 1475 88 1

Relinquished by (Initials and Signature)	Relinquished to (Initials and Signature)	Date & Time
1 Stanley Grover		2/3/99
2		
3	Lab: Stacy Sanchez	2/5/99 1015

Total Containers per COC 31

Rush TATs Fax Due: Final Fax Due:

Final Report Data Package Due Date:

Rush Charges are Pre-Approved upon Requesting them. All Terms Apply

Preservatives - Various (V), HCl pH<2 (H), H2SO4 pH<2 (S), HNO4 pH<2 (N), NaOH+Asbc Acid (NAA), ZnAc+NaOH (ZA), (Cool,<4C) (C4), None (N), See Label (SL), Other (O) _____

SIZE: 4oz (4), 8oz (8), 32oz (32), 40ml VOA (V), 1L (1), 500ml (.5), Tedlar Bag (B), Wipe (W), Other _____ **TYPE** Glass Amb (GA), Glass Clear (GC), Plastic (P), Other (O) _____

XENCO Laboratories

☐ 11381 Meadowglen, Suite L, Houston TX 77082 281-589-0692
☑ 5309 Wurzbach Road, Suite 104, San Antonio, TX 78238 210-509-3334
☐ 11078 Morrison Road, Suite D, Dallas, TX 75229 972-481-9999

ANALYSIS REQUEST & CHAIN OF CUSTODY RECORD

On-LINE Help & Technical Services at XENCO.com

17558

Company COC No: 254 Work Order No: 810006-1-0 Page 2 of 2

Company	Phone	Lab Only: 904666-SA
K·E·I Consultants	210-680-3767	
Project Name ☐ Previously done at XENCO	**Project ID**	**TAT:** 5h 12h 20h 24h 48h 3d 5d 7d 14d 21d Standard TAT is 10 Working Days
JAL Station	810006-1-0	*unless otherwise agreed in writing. But often reported in 5-7 Working Days*
Location Jal, NM		
Project Manager (PM)	**Project Director (PD)**	
Theresa Nix	Mike Hawthorne	
Fax Results to ☑ PM and / or Theresa Nix	**Fax** 512-364-3556	
Invoice to ☑ Accounting ☐ Include Invoice with Final Report Attn PM ☐ Invoice must have a P.O Bill to: 810006-1-0		
Quote No.	**P.O No** 810006-1-0 ☐ Call for a P.O.	
Special DLs (RR I RR II DW QAPP See Lab PM Call Proj. PM)		
Specifications		
Sampler Name Stas Graver	Signature Stanley Graver	

	Sample ID	Sampling Date	Time	Depth ft' In" m	Matrix A P S W	Composite	Grab	# Containers	Container Size	Type	Preservatives	BTEX by 8020 / 8021 8260 602 624 Other	BTEX-MTBE by 8020 8021 8260 602 624 Other	TPH by TX1005 418.1 8015GRO 8015DRO 8015JetF	PAHs by 8270 8100 8310	METALS by 6010 8RCRA Tot Pb TCLP8 13PP 23TAL See List	VOAs by 8260 624 BTEX MTBE PPs TCL See List Call PM	SVOAs by 8270 625 PAHs BN&A TCL PPs See List Call PM	TAT 5h 12h 20h 24h 48h 3d 5d 7d (10d) 14d 21d	Addn: PAH above mg/L W. mg/Kg S Highest Hit	Hold Analysis
1	MW-11	2/3/99	12:48	10-12			/	2	4	GA	C4	/		/							
2	MW-11		13:05	20-22		/															
3	MW-11		13:45	50-52			/														
4	MW-11		15:30	85-87		/		↓	↓	↓											
5	MW-11	↓	15:47	87-89		/		3	(4) (32)	GA GC	↓	↓		↓							
6																					
7																					
8																					
9																					
10																					

Remarks

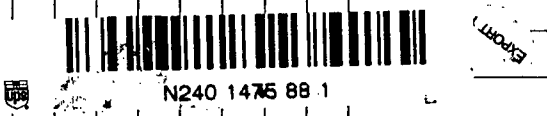
SPLP TPH on Samples w/ Highest TPH Concentration above 100mg/kg.
-Call Theresa Nix for any questions on Analyses.

Lab Only Additions

From: Rcv by: Date

From: Rcv by: Date

From: Rcv by: Date



Relinquished by (Initials and Signature)	Relinquished to (Initials and Signature)	Date & Time	
1 Stanley Graver		2/3/99	Total Containers per COC: 31
2			**Rush TATs Fax Due:** Final Fax Due:
3	**Lab:** Stacy Sigler	2/5/99 10:15	Final Report Data Package Due Date:
			Rush Charges are Pre-Approved upon Requesting them. All Terms Apply

Preservatives - Various (V), HCl pH<2 (H), H2SO4 pH<2 (S), HNO3 pH<2 (N), NaOH+Asbc Acid (NAA), ZnAc+NaOH (ZA), (Cool,<4C) (C4), None (N), See Label (SL), Other (O) _____

SIZE: 4oz (4), 8oz (8), 32oz (32), 40ml VOA (V), 1L (1), 500ml (.5), Tedlar Bag (B), Wipe (W), Other _____ **TYPE** Glass Amb (GA), Glass Clear (GC), Plastic (P), Other (O) _____

McBride-Ratcliff and Associates, Inc.

TO: Ms. Karen Olson
Xenco Laboratories
11321 Meadowglen, Suite L
Houston, Texas 77082

DATE OF REPORT: March 26, 1999
PROJECT NUMBER: 79995366

TEST METHOD(s): *ASTM D2974, Standard Test Method for Moisture, Ash, and Organic Matter of Peat and Other Organic Soils*

NOTE: *Xenco delivered two samples to the MRA lab. The samples were contained in sealed plastic bags.*

RESULTS OF LABORATORY TESTS

Sample Identification	90363-20	90363-30
Date of Test	March 25, 1999	March 25, 1999
Organic Content, % (gm/gm)	1.2 (0.012)	1.0 (0.010)
Ash Content, %	98.8	99.0
Furnace Temperature, °C	440	440
Water Content, % by oven-dried mass	10.7	17.7
Water Content, % by total mass	9.7	15.0

Floyd L. Ratcliff

By:_____

9433 Kirby Drive - Houston, Texas 77054 - (713) 852-3000 - (713) 797-6578 fax

McBride-Ratcliff and Associates, Inc.

TO: Ms. Karen Olson
Xenco Laboratories
11321 Meadowglen, Suite L
Houston, Texas 77082

DATE OF REPORT: February 11, 1999
PROJECT NUMBER: 79995366
PAGE 1 OF 1

TEST METHOD(s): *ASTM D422, Standard Test Method for Particle-Size Analysis of Soils*

NOTE: Xenco delivered two samples to the MRA lab. The samples were contained in sealed plastic bags. The samples were not suitable for the tests requested. Per your instructions, a grain size analysis was performed on each sample.

RESULTS OF LABORATORY TESTS

Sample I.D.	90363-20	90363-30
Classification	Red and Tan Silty Sand	Red and Tan poorly graded Sand with silt
USCS Symbol	SM	SP-SM
Sieve or Particle Size	**% Finer**	
¾ inch	100.0	100.0
#4	99.8	85.8
#10	99.7	79.9
#40	97.4	72.0
#200	42.7	9.8

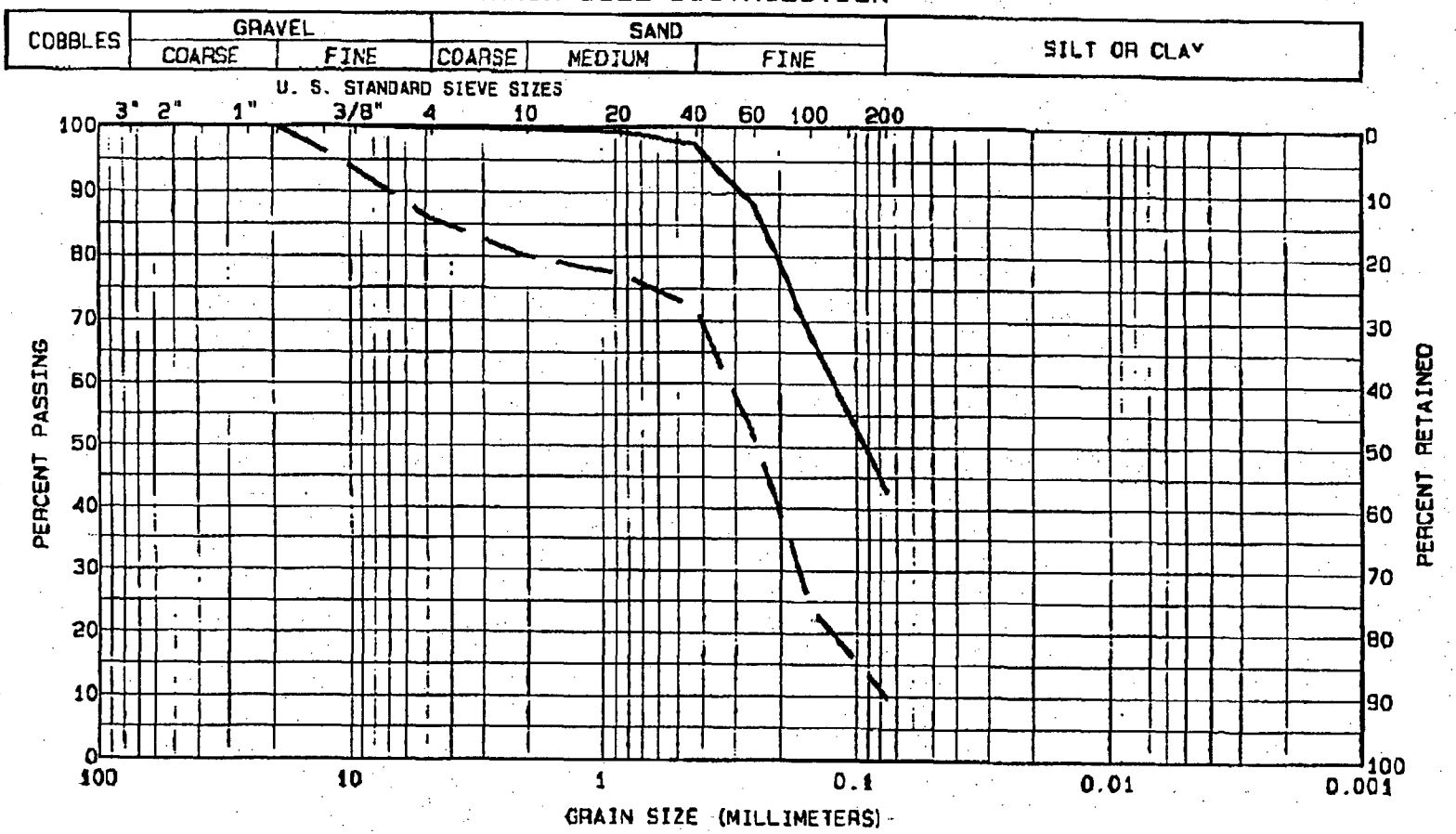
Note: Grain Size Data are presented graphically on Figure 1

Floyd L Ferguson

By:_____

9433 Kirby Drive - Houston, Texas 77054 - (713) 862-3000 - (713) 797-6578 fax

GRAIN SIZE DISTRIBUTION



Boring No.	Depth, (feet)	Comments	Classification	Symbol
		90363-20	Silty Sand (SM)	———
		90363-30	Sand w/silt (SP-SM)	—— —

File No. 79955366
Figure No. 1

McBride-Ratcliff and Associates, Inc.

ANALYTICAL REPORT -90763

for

KEI Consultants, Inc.

Project Manager: T. Nix/S. Grover

Project Name: Jal Station

Project Id: 810006-1-0

March 8, 1999

XENCO Laboratories

HOUSTON - DALLAS - SAN ANTONIO

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

XENCO Laboratories

11381 Meadowglen Suite L
Houston, Texas 77082-2647
(281) 589-0692 Fax: (281) 589-0695
Houston - Dallas - San Antonio - Latin America

March 8, 1999

Project Manager: T. Nix/S. Grover
KEI Consultants, Inc.
5309 Wurzbach Rd. Suite 100
San Antonio, TX 78238

Reference: **XENCO Report No.: -90763**
Project Name: Jal Station
Project ID: 810006-1-0
Project Address: Jal, New Mexico

Dear T. Nix/S. Grover:

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 -90763.. 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, completeness or properly flagged.

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. -90763. 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 operates under the A2LA guidelines. Our Quality System meets ISO/IEC Guide 25 requirements which 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 L. Clemons, II
QA/QC Manager

XENCO Laboratories

ANALYTICAL CHAIN OF CUSTODY REPORT
CHRONOLOGY OF SAMPLES

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Manager: T. Nix/S. Grover
Project Location: Jal, New Mexico

Project Name: Jal Station

XENCO COC#: -90763
Date Received in Lab: Feb 24, 1999 09:45 by JO
XENCO contact : Carlos Castro/Karen Olson

	Field ID	Lab. ID	Method Name	Method ID	Units	Turn Around	Date and Time: Sample Collected	Date and Time: Addition Requested	Date and Time: Extraction	Date and Time: Analysis
1	MW-1	90763-001	BTEX	SW-846	ppm	7 days	Feb 23, 1999 09:00		Feb 24, 1999 by HL	Feb 24, 1999 16:32 by HL
2			PAHs	SW846-8270	mg/L	7 days	Feb 23, 1999 09:00		Feb 26, 1999 by BHP	Feb 27, 1999 05:59 by LC
3			Tot Metal MS	EPA	mg/L	7 days	Feb 23, 1999 09:00		Feb 25, 1999 by JOS	Mar 1, 1999 18:15 by MAB
4			TDS	EPA 160.1	mg/L	7 days	Feb 23, 1999 09:00		Feb 24, 1999 by JO	Feb 25, 1999 08:10 by JO
5			Anions	EPA 300.0	mg/L	7 days	Feb 23, 1999 09:00		Mar 1, 1999 by AO	Mar 1, 1999 18:58 by AO
6			Carbonate	SM4500CO2D	mg/L	7 days	Feb 23, 1999 09:00		Feb 25, 1999 by IF	Feb 25, 1999 10:20 by IF
7			Bicarbonate	SM 4500CO2D	mg/L	7 days	Feb 23, 1999 09:00		Feb 25, 1999 by IF	Feb 25, 1999 10:20 by IF
8			Mercury, Tot	SW846-7470	mg/L	7 days	Feb 23, 1999 09:00		Feb 25, 1999 by JS	Feb 26, 1999 11:48 by AO
9	MW-4	90763-002	BTEX	SW-846	ppm	7 days	Feb 23, 1999 13:30		Feb 24, 1999 by HL	Feb 24, 1999 16:50 by HL
10			PAHs	SW846-8270	mg/L	7 days	Feb 23, 1999 13:30		Feb 26, 1999 by BHP	Feb 27, 1999 06:47 by LC
11			Tot Metal MS	EPA	mg/L	7 days	Feb 23, 1999 13:30		Feb 25, 1999 by JOS	Mar 1, 1999 18:57 by MAB
12			TDS	EPA 160.1	mg/L	7 days	Feb 23, 1999 13:30		Feb 24, 1999 by JO	Feb 25, 1999 08:15 by JO
13			Anions	EPA 300.0	mg/L	7 days	Feb 23, 1999 13:30		Mar 1, 1999 by AO	Mar 1, 1999 15:40 by AO
14			Carbonate	SM4500CO2D	mg/L	7 days	Feb 23, 1999 13:30		Feb 25, 1999 by IF	Feb 25, 1999 10:30 by IF
15			Bicarbonate	SM 4500CO2D	mg/L	7 days	Feb 23, 1999 13:30		Feb 25, 1999 by IF	Feb 25, 1999 10:30 by IF
16			Mercury, Tot	SW846-7470	mg/L	7 days	Feb 23, 1999 13:30		Feb 25, 1999 by JS	Feb 26, 1999 11:51 by AO
17	MW-5	90763-003	BTEX	SW-846	ppm	7 days	Feb 23, 1999 09:30		Feb 24, 1999 by HL	Feb 24, 1999 17:07 by HL
18			PAHs	SW846-8270	mg/L	7 days	Feb 23, 1999 09:30		Feb 26, 1999 by BHP	Feb 27, 1999 07:36 by LC
19			Tot Metal MS	EPA	mg/L	7 days	Feb 23, 1999 09:30		Feb 25, 1999 by JOS	Mar 1, 1999 19:04 by MAB
20			TDS	EPA 160.1	mg/L	7 days	Feb 23, 1999 09:30		Feb 24, 1999 by JO	Feb 25, 1999 08:20 by JO
21			Anions	EPA 300.0	mg/L	7 days	Feb 23, 1999 09:30		Mar 1, 1999 by AO	Mar 1, 1999 15:51 by AO
22			Carbonate	SM4500CO2D	mg/L	7 days	Feb 23, 1999 09:30		Feb 25, 1999 by IF	Feb 25, 1999 10:40 by IF
23			Bicarbonate	SM 4500CO2D	mg/L	7 days	Feb 23, 1999 09:30		Feb 25, 1999 by IF	Feb 25, 1999 10:40 by IF
24			Mercury, Tot	SW846-7470	mg/L	7 days	Feb 23, 1999 09:30		Feb 25, 1999 by JS	Feb 26, 1999 11:52 by AO
25	MW-7	90763-004	BTEX	SW-846	ppm	7 days	Feb 23, 1999 10:45		Feb 24, 1999 by HL	Feb 24, 1999 21:50 by HL
26			PAHs	SW846-8270	mg/L	7 days	Feb 23, 1999 10:45		Feb 26, 1999 by BHP	Feb 27, 1999 09:30 by LC
27			Tot Metal MS	EPA	mg/L	7 days	Feb 23, 1999 10:45		Feb 25, 1999 by JOS	Mar 1, 1999 19:11 by MAB
28			TDS	EPA 160.1	mg/L	7 days	Feb 23, 1999 10:45		Feb 24, 1999 by JO	Feb 25, 1999 08:25 by JO

XENCO Laboratories

ANALYTICAL CHAIN OF CUSTODY REPORT
CHRONOLOGY OF SAMPLES

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Manager: T. Nix/S. Grover
Project Location: Jal, New Mexico

Project Name: Jal Station

XENCO COC#: -90763
Date Received in Lab: Feb 24, 1999 09:45 by JO
XENCO contact : Carlos Castro/Karen Olson

	Field ID	Lab. ID	Method Name	Method ID	Units	Turn Around	Date and Time: Sample Collected	Addition Requested	Extraction	Analysis
29			Anions	EPA 300.0	mg/L	7 days	Feb 23, 1999 10:45		Mar 1, 1999 by AO	Mar 1, 1999 16:01 by AO
30			Carbonate	SM4500CO2D	mg/L	7 days	Feb 23, 1999 10:45		Feb 25, 1999 by IF	Feb 25, 1999 10:50 by IF
31			Bicarbonate	SM 4500CO2D	mg/L	7 days	Feb 23, 1999 10:45		Feb 25, 1999 by IF	Feb 25, 1999 10:50 by IF
32			Mercury, Tot	SW846-7470	mg/L	7 days	Feb 23, 1999 10:45		Feb 25, 1999 by JS	Feb 26, 1999 11:52 by AO
33	MW-10	90763-005	BTEX	SW-846	ppm	7 days	Feb 23, 1999 12:45		Feb 24, 1999 by HL	Feb 24, 1999 17:25 by HL
34			PAHs	SW846-8270	mg/L	7 days	Feb 23, 1999 12:45		Feb 26, 1999 by BHP	Feb 27, 1999 10:18 by LC
35			Tot Metal MS	EPA	mg/L	7 days	Feb 23, 1999 12:45		Feb 25, 1999 by JOS	Mar 1, 1999 19:18 by MAB
36			TDS	EPA 160.1	mg/L	7 days	Feb 23, 1999 12:45		Feb 24, 1999 by JO	Feb 25, 1999 08:30 by JO
37			Anions	EPA 300.0	mg/L	7 days	Feb 23, 1999 12:45		Mar 1, 1999 by AO	Mar 1, 1999 16:12 by AO
38			Carbonate	SM4500CO2D	mg/L	7 days	Feb 23, 1999 12:45		Feb 25, 1999 by IF	Feb 25, 1999 11:00 by IF
39			Bicarbonate	SM 4500CO2D	mg/L	7 days	Feb 23, 1999 12:45		Feb 25, 1999 by IF	Feb 25, 1999 11:00 by IF
40			Mercury, Tot	SW846-7470	mg/L	7 days	Feb 23, 1999 12:45		Feb 25, 1999 by JS	Feb 26, 1999 11:53 by AO
41	MW-11	90763-006	BTEX	SW-846	ppm	7 days	Feb 23, 1999 11:15		Feb 24, 1999 by HL	Feb 24, 1999 18:54 by HL
42			PAHs	SW846-8270	mg/L	7 days	Feb 23, 1999 11:15		Feb 26, 1999 by BHP	Feb 27, 1999 11:06 by LC
43			Tot Metal MS	EPA	mg/L	7 days	Feb 23, 1999 11:15		Feb 25, 1999 by JOS	Mar 1, 1999 19:25 by MAB
44			TDS	EPA 160.1	mg/L	7 days	Feb 23, 1999 11:15		Feb 25, 1999 by JO	Mar 1, 1999 08:50 by JO
45			Anions	EPA 300.0	mg/L	7 days	Feb 23, 1999 11:15		Mar 1, 1999 by AO	Mar 1, 1999 16:23 by AO
46			Carbonate	SM4500CO2D	mg/L	7 days	Feb 23, 1999 11:15		Feb 25, 1999 by IF	Feb 25, 1999 11:10 by IF
47			Bicarbonate	SM 4500CO2D	mg/L	7 days	Feb 23, 1999 11:15		Feb 25, 1999 by IF	Feb 25, 1999 11:10 by IF
48			Mercury, Tot	SW846-7470	mg/L	7 days	Feb 23, 1999 11:15		Feb 25, 1999 by JS	Feb 26, 1999 11:54 by AO
49	MW-12	90763-007	BTEX	SW-846	ppm	7 days	Feb 23, 1999 12:00		Feb 24, 1999 by HL	Feb 24, 1999 18:00 by HL
50			PAHs	SW846-8270	mg/L	7 days	Feb 23, 1999 12:00		Feb 26, 1999 by BHP	Feb 27, 1999 11:55 by LC
51			Tot Metal MS	EPA	mg/L	7 days	Feb 23, 1999 12:00		Feb 25, 1999 by JOS	Mar 1, 1999 19:32 by MAB
52			TDS	EPA 160.1	mg/L	7 days	Feb 23, 1999 12:00		Feb 25, 1999 by JO	Mar 1, 1999 08:55 by JO
53			Anions	EPA 300.0	mg/L	7 days	Feb 23, 1999 12:00		Mar 1, 1999 by AO	Mar 1, 1999 16:33 by AO
54			Carbonate	SM4500CO2D	mg/L	7 days	Feb 23, 1999 12:00		Feb 25, 1999 by IF	Feb 25, 1999 11:20 by IF
55			Bicarbonate	SM 4500CO2D	mg/L	7 days	Feb 23, 1999 12:00		Feb 25, 1999 by IF	Feb 25, 1999 11:20 by IF
56			Mercury, Tot	SW846-7470	mg/L	7 days	Feb 23, 1999 12:00		Feb 25, 1999 by JS	Feb 26, 1999 11:56 by AO

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY -90763

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Name: Jal Station
Date Received in Lab : Feb 24, 1999 09:45
Project Manager: T. Nix/S. Grover
Date Report Faxed: Mar 8, 1999
Project Location: Jal, New Mexico
XENCO contact : Carlos Castro/Karen Olson

Analysis Requested	*Lab ID:*	90763 001	90763 002	90763 003	90763 004	90763 005	90763 006
	Field ID:	MW-1	MW-4	MW-5	MW-7	MW-10	MW-11
	Depth:						
	Matrix:	Liquid	Liquid	Liquid	Liquid	Liquid	Liquid
	Sampled:	02/23/99 09:00	02/23/99 13:30	02/23/99 09:30	02/23/99 10:45	02/23/99 12:45	02/23/99 11:15
Total Metals by ICP-MS	*Analyzed:*	03/01/99	03/01/99	03/01/99	03/01/99	03/01/99	03/01/99
Tot Metal MS	*Units:*	mg/L R.L.	mg/L R.L.	mg/L R.L.	mg/L R.L.	mg/L R.L.	mg/L R.L.
Aluminum		< 4.44 (4.44)	< 4.44 (4.44)	< 4.44 (4.44)	4.93 (4.44)	< 4.44 (4.44)	< 4.44 (4.44)
Arsenic		< 0.06 (0.06)	< 0.06 (0.06)	< 0.06 (0.06)	< 0.06 (0.06)	< 0.28 (0.28)	< 0.06 (0.06)
Barium		< 0.56 (0.56)	< 0.56 (0.56)	0.65 (0.56)	< 0.56 (0.56)	< 0.56 (0.56)	< 0.56 (0.56)
Beryllium		< 0.111 (0.111)	< 0.11 (0.11)	< 0.111 (0.111)	< 0.111 (0.111)	< 0.111 (0.111)	< 0.111 (0.111)
Boron		< 0.56 (0.56)	1.78 (0.56)	< 0.56 (0.56)	< 0.56 (0.56)	< 0.56 (0.56)	< 0.56 (0.56)
Cadmium		< 0.006 (0.006)	< 0.006 (0.006)	< 0.006 (0.006)	< 0.006 (0.006)	< 0.006 (0.006)	< 0.006 (0.006)
Calcium		587 (5.6)	447 (5.6)	1650 (5.56)	737 (5.6)	949 (5.6)	387 (5.6)
Chromium		0.13 (0.03)	< 0.03 (0.03)	< 0.03 (0.03)	< 0.03 (0.03)	< 0.03 (0.03)	< 0.03 (0.03)
Cobalt		< 0.03 (0.03)	< 0.03 (0.03)	< 0.03 (0.03)	< 0.03 (0.03)	< 0.03 (0.03)	< 0.03 (0.03)
Copper		< 0.28 (0.28)	< 0.03 (0.03)	< 0.03 (0.03)	0.034 (0.028)	0.068 (0.028)	< 0.17 (0.17)
Iron		8.72 (0.56)	1.44 (0.56)	1.28 (0.56)	3.11 (0.56)	< 0.56 (0.56)	2.56 (0.56)
Lead		0.021 (0.011)	0.019 (0.011)	< 0.011 (0.011)	0.030 (0.011)	< 0.011 (0.011)	0.019 (0.011)
Magnesium		202 (2.78)	49.3 (2.8)	49.8 (2.8)	78.5 (2.8)	55.9 (2.8)	49.6 (2.8)
Manganese		0.31 (0.11)	< 0.28 (0.28)	0.85 (0.11)	0.42 (0.11)	0.32 (0.11)	0.23 (0.11)
Molybdenum		< 0.56 (0.56)	< 0.56 (0.56)	< 0.56 (0.56)	< 0.56 (0.56)	< 0.56 (0.56)	< 0.56 (0.56)
Nickel		< 0.17 (0.17)	< 0.17 (0.17)	< 0.17 (0.17)	< 0.17 (0.17)	< 0.17 (0.17)	< 0.17 (0.17)
Potassium		14.56 (2.78)	9.17 (2.78)	8.39 (2.78)	12.11 (2.78)	9.44 (2.78)	9.389 (2.778)
Selenium		0.13 (0.04)	< 0.04 (0.04)	< 0.04 (0.04)	< 0.04 (0.04)	< 0.04 (0.04)	< 0.04 (0.04)
Silicon		62.28 (1.11)	60.06 (1.11)	54.67 (1.11)	60.44 (1.11)	44.11 (1.11)	61.56 (1.11)
Silver		< 0.03 (0.03)	< 0.03 (0.03)	< 0.03 (0.03)	< 0.03 (0.03)	< 0.03 (0.03)	< 0.03 (0.03)
Sodium		167 (5.556)	92.44 (5.56)	66.89 (5.56)	231 (5.556)	43.83 (5.56)	227 (5.556)
Strontium		11.59 (0.56)	2.89 (0.56)	4.61 (0.56)	4.74 (0.56)	3.89 (0.56)	2.909 (0.556)
Tin		< 0.56 (0.56)	< 0.56 (0.56)	< 0.56 (0.56)	< 0.56 (0.56)	< 0.56 (0.56)	< 0.56 (0.56)
Vanadium		< 0.167 (0.167)	< 0.17 (0.17)	< 0.167 (0.167)	< 0.167 (0.167)	< 0.167 (0.167)	< 0.167 (0.167)

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY -90763

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Manager: T. Nix/S. Grover
Project Location: Jal, New Mexico

Project Name: Jal Station

Date Received in Lab : Feb 24, 1999 09:45
Date Report Faxed: Mar 8, 1999
XENCO contact : Carlos Castro/Karen Olson

Analysis Requested	*Lab ID:* / *Field ID:* / *Depth:* / *Matrix:* / *Sampled:*	90763 001 MW-1 Liquid 02/23/99 09:00	90763 002 MW-4 Liquid 02/23/99 13:30	90763 003 MW-5 Liquid 02/23/99 09:30	90763 004 MW-7 Liquid 02/23/99 10:45	90763 005 MW-10 Liquid 02/23/99 12:45	90763 006 MW-11 Liquid 02/23/99 11:15
Total Metals by ICP-MS	*Analyzed:*	03/01/99	03/01/99	03/01/99	03/01/99	03/01/99	03/01/99
Tot Metal MS	*Units:*	mg/L R.L.	mg/L R.L.	mg/L R.L.	mg/L R.L.	mg/L R.L.	mg/L R.L.
Zinc		< 0.56 (0.56)	< 0.56 (0.56)	< 0.56 (0.56)	< 0.56 (0.56)	< 0.56 (0.56)	< 0.56 (0.56)
Total Mercury	*Analyzed:*	02/26/99	02/26/99	02/26/99	02/26/99	02/26/99	02/26/99
EPA 7470	*Units:*	mg/L R.L.	mg/L R.L.	mg/L R.L.	mg/L R.L.	mg/L R.L.	mg/L R.L.
Mercury		< 0.0011 (0.0011)	< 0.0011 (0.0011)	< 0.0011 (0.0011)	< 0.0011 (0.0011)	< 0.0011 (0.0011)	< 0.0011 (0.0011)
BTEX	*Analyzed:*	02/24/99	02/24/99	02/24/99	02/24/99	02/24/99	02/24/99
EPA 8021B	*Units:*	ppm R.L.	ppm R.L.	ppm R.L.	ppm R.L.	ppm R.L.	ppm R.L.
Benzene		< 0.001 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)
Toluene		< 0.001 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)
Ethylbenzene		< 0.001 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)
m,p-Xylene		< 0.002 (0.002)	0.003 (0.002)	< 0.002 (0.002)	0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)
o-Xylene		< 0.001 (0.001)	0.002 (0.001)	< 0.001 (0.001)	0.002 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)
Total BTEX		N.D.	0.005	N.D.	0.004	N.D.	N.D.
PAHs by GC-MS	*Analyzed:*	02/27/99	02/27/99	02/27/99	02/27/99	02/27/99	02/27/99
EPA 8270	*Units:*	mg/L R.L.	mg/L R.L.	mg/L R.L.	mg/L R.L.	mg/L R.L.	mg/L R.L.
Acenaphthene		< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	0.003 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)
Acenaphthylene		< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)
Anthracene		< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)
Benz(a)anthracene		< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)
Benzo(a)pyrene		< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)
Benzo(b)fluoranthene		< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)
Benzo(g,h,i)perylene		< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)
Benzo(k)fluoranthene		< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY -90763

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Name: *Jal Station*
Project Manager: T. Nix/S. Grover
Project Location: Jal, New Mexico

Date Received in Lab : Feb 24, 1999 09:45
Date Report Faxed: Mar 8, 1999
XENCO contact : Carlos Castro/Karen Olson

Analysis Requested	Lab ID: / Field ID: / Depth: / Matrix: / Sampled:	90763 001 MW-1 Liquid 02/23/99 09:00	90763 002 MW-4 Liquid 02/23/99 13:30	90763 003 MW-5 Liquid 02/23/99 09:30	90763 004 MW-7 Liquid 02/23/99 10:45	90763 005 MW-10 Liquid 02/23/99 12:45	90763 006 MW-11 Liquid 02/23/99 11:15
PAHs by GC-MS EPA 8270	Analyzed: / Units:	02/27/99 mg/L R.L.	02/27/99 mg/L R.L.	02/27/99 mg/L R.L.	02/27/99 mg/L R.L.	02/27/99 mg/L R.L.	02/27/99 mg/L R.L.
Chrysene		< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)
Dibenz(a,h)anthracene		< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)
Fluoranthene		< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)
Fluorene		< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	0.005 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)
Indeno(1,2,3-cd)pyrene		< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)
Naphthalene		< 0.002 (0.002)	0.005 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)
Phenanthrene		< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	0.003 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)
Pyrene		< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)
Bicarbonate SM 4500CO2D	Analyzed: / Units:	02/25/99 mg/L R.L.	02/25/99 mg/L R.L.	02/25/99 mg/L R.L.	02/25/99 mg/L R.L.	02/25/99 mg/L R.L.	02/25/99 mg/L R.L.
Bicarbonate		362 (4.0)	377 (4.0)	280 (4.0)	402 (4.0)	256 (4.0)	272 (4.0)
Carbonate SM4500CO2D	Analyzed: / Units:	02/25/99 mg/L R.L.	02/25/99 mg/L R.L.	02/25/99 mg/L R.L.	02/25/99 mg/L R.L.	02/25/99 mg/L R.L.	02/25/99 mg/L R.L.
Carbonate		< 4.0 (4.0)	< 4.0 (4.0)	< 4.0 (4.0)	< 4.0 (4.0)	< 4.0 (4.0)	< 4.0 (4.0)
Total Dissolved Solids EPA 160.1	Analyzed: / Units:	02/25/99 mg/L R.L.	02/25/99 mg/L R.L.	02/25/99 mg/L R.L.	02/25/99 mg/L R.L.	02/25/99 mg/L R.L.	03/01/99 mg/L R.L.
Total Dissolved Solids		2670 (5.0)	730 (5.0)	640 (5.0)	1330 (5.0)	610 (5.0)	2060 (5.0)
Anions by Ion Chromatography EPA 300.0	Analyzed: / Units:	03/01/99 mg/L R.L.	03/01/99 mg/L R.L.	03/01/99 mg/L R.L.	03/01/99 mg/L R.L.	03/01/99 mg/L R.L.	03/01/99 mg/L R.L.
Chloride		767 (10)	34 (2)	15 (2)	58.6 (2.0)	54 (2)	89 (2)
Sulfate		1960 (10)	55 (2)	40 (2)	980 (10.0)	38 (2)	389 (2)

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY -90763

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Manager: T. Nix/S. Grover
Project Location: Jal, New Mexico

Project Name: Jal Station

Date Received in Lab : Feb 24, 1999 09:45
Date Report Faxed: Mar 8, 1999
XENCO contact : Carlos Castro/Karen Olson

Analysis Requested	*Lab ID:*	90763 007					
	Field ID:	MW-12					
	Depth:						
	Matrix:	Liquid					
	Sampled:	02/23/99 12:00					
Total Metals by ICP-MS	*Analyzed:*	03/01/99					
Tot Metal MS	*Units:*	mg/L	R.L.				
Aluminum		5.78	(4.44)				
Arsenic		< 0.06	(0.06)				
Barium		0.59	(0.56)				
Beryllium		< 0.111	(0.111)				
Boron		< 0.56	(0.56)				
Cadmium		< 0.006	(0.006)				
Calcium		524	(5.6)				
Chromium		< 0.03	(0.03)				
Cobalt		< 0.03	(0.03)				
Copper		0.04	(0.03)				
Iron		3.33	(0.56)				
Lead		0.031	(0.011)				
Magnesium		48.1	(2.8)				
Manganese		0.28	(0.11)				
Molybdenum		< 0.56	(0.56)				
Nickel		< 0.17	(0.17)				
Potassium		9.67	(2.78)				
Selenium		< 0.04	(0.04)				
Silicon		64.33	(1.11)				
Silver		< 0.03	(0.03)				
Sodium		97.22	(5.56)				
Strontium		2.85	(0.56)				
Tin		< 0.56	(0.56)				
Vanadium		< 0.167	(0.167)				

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY -90763

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Name: Jal Station
Date Received in Lab : Feb 24, 1999 09:45
Project Manager: T. Nix/S. Grover
Date Report Faxed: Mar 8, 1999
Project Location: Jal, New Mexico
XENCO contact : Carlos Castro/Karen Olson

Analysis Requested	*Lab ID:*	90763 007					
	Field ID:	MW-12					
	Depth:						
	Matrix:	Liquid					
	Sampled:	02/23/99 12:00					
Total Metals by ICP-MS	*Analyzed:*	03/01/99					
Tot Metal MS	*Units:*	mg/L	R.L.				
Zinc		< 0.56	(0.56)				
Total Mercury	*Analyzed:*	02/26/99					
EPA 7470	*Units:*	mg/L	R.L.				
Mercury		< 0.0011	(0.0011)				
BTEX	*Analyzed:*	02/24/99					
EPA 8021B	*Units:*	ppm	R.L.				
Benzene		< 0.001	(0.001)				
Toluene		< 0.001	(0.001)				
Ethylbenzene		< 0.001	(0.001)				
m,p-Xylene		< 0.002	(0.002)				
o-Xylene		< 0.001	(0.001)				
Total BTEX		N.D.					
PAHs by GC-MS	*Analyzed:*	02/27/99					
EPA 8270	*Units:*	mg/L	R.L.				
Acenaphthene		< 0.002	(0.002)				
Acenaphthylene		< 0.002	(0.002)				
Anthracene		< 0.002	(0.002)				
Benz(a)anthracene		< 0.002	(0.002)				
Benzo(a)pyrene		< 0.002	(0.002)				
Benzo(b)fluoranthene		< 0.002	(0.002)				
Benzo(g,h,i)perylene		< 0.002	(0.002)				
Benzo(k)fluoranthene		< 0.002	(0.002)				

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY -90763

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Manager: T. Nix/S. Grover
Project Location: Jal, New Mexico

Project Name: Jal Station

Date Received in Lab : Feb 24, 1999 09:45
Date Report Faxed: Mar 8, 1999
XENCO contact : Carlos Castro/Karen Olson

Analysis Requested	Lab ID: / Field ID: / Depth: / Matrix: / Sampled:	90763 007 / MW-12 / Liquid / 02/23/99 12:00					
PAHs by GC-MS **EPA 8270**	Analyzed: / Units:	02/27/99 mg/L	R.L.				
Chrysene		< 0.002	(0.002)				
Dibenz(a,h)anthracene		< 0.002	(0.002)				
Fluoranthene		< 0.002	(0.002)				
Fluorene		< 0.002	(0.002)				
Indeno(1,2,3-cd)pyrene		< 0.002	(0.002)				
Naphthalene		< 0.002	(0.002)				
Phenanthrene		< 0.002	(0.002)				
Pyrene		< 0.002	(0.002)				
Bicarbonate **SM 4500CO2D**	Analyzed: / Units:	02/25/99 mg/L	R.L.				
Bicarbonate		382	(4.0)				
Carbonate **SM4500CO2D**	Analyzed: / Units:	02/25/99 mg/L	R.L.				
Carbonate		< 4.0	(4.0)				
Total Dissolved Solids **EPA 160.1**	Analyzed: / Units:	03/01/99 mg/L	R.L.				
Total Dissolved Solids		600	(5.0)				
Anions by Ion Chromatography **EPA 300.0**	Analyzed: / Units:	03/01/99 mg/L	R.L.				
Chloride		8	(2)				
Sulfate		31	(2)				

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY -90763

KEI Consultants, Inc.

Project ID: 810006-1-0
Project Manager: T. Nix/S. Grover
Project Location: Jal, New Mexico

Project Name: Jal Station

Date Received in Lab : Feb 24, 1999 09:45
Date Report Faxed: Mar 8, 1999
XENCO contact : *Carlos Castro/Karen Olson*

Analysis Requested	*Lab ID:*	90763 007					
	Field ID:	MW-12					
	Depth:						
	Matrix:	Liquid					
	Sampled:	02/23/99 12:00					
Anions by Ion Chromatography EPA 300.0	*Analyzed:*	03/01/99					
	Units:						

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A48B23

EPA SW846/6020 Total Metals by ICP- MS

Date Validated: Mar 2, 1999 09:11
Date Analyzed: Mar 1, 1999 17:55

Analyst: MAB
Matrix: Liquid

	BLANK SPIKE ANALYSIS						
Parameter	[A] Blank Result mg/L	[B] Blank Spike Result mg/L	[C] Blank Spike Amount mg/L	[D] Detection Limit mg/L	[E] QC Blank Spike Recovery %	[F] LIMITS Recovery Range %	[G] Qualifier
Aluminum	< 0.556	2.402	2.200	0.556	109.2	70-125	
Arsenic	< 0.028	2.194	2.220	0.028	98.8	70-125	
Barium	< 0.111	1.032	1.100	0.111	93.8	70-125	
Beryllium	< 0.111	0.452	0.444	0.111	101.8	70-125	
Boron	< 0.556	1.556	2.200	0.556	70.7	70-125	
Cadmium	< 0.0044	0.4606	0.4440	0.0044	103.7	75-125	
Calcium	< 0.556	2.222	2.200	0.556	101.0	70-125	
Chromium	< 0.5556	1.1244	1.1000	0.5556	102.2	70-125	
Cobalt	< 0.1111	1.1950	1.1000	0.1111	108.6	75-125	
Copper	< 0.167	1.133	1.100	0.167	103.0	70-125	
Iron	< 0.556	2.667	2.220	0.556	120.1	70-125	
Lead	< 0.5556	2.3422	2.2200	0.5556	105.5	75-125	
Magnesium	< 2.778	5.000	5.500	2.778	90.9	70-125	
Manganese	< 0.139	2.364	2.220	0.139	106.5	70-125	
Molybdenum	< 0.556	1.161	1.100	0.556	105.5	70-125	
Nickel	< 0.556	1.189	1.100	0.556	108.1	70-125	
Potassium	< 2.778	4.944	5.500	2.778	89.9	70-125	
Selenium	< 0.044	2.268	2.200	0.044	103.1	70-125	
Silicon	< 1.111	4.667	4.400	1.111	106.1	70-125	
Silver	< 0.0278	1.2194	1.1000	0.0278	110.9	75-125	
Sodium	< 5.556	15.389	16.500	5.556	93.3	70-125	
Strontium	< 0.556	2.383	2.200	0.556	108.3	70-125	

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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A48B23

EPA SW846/6020 Total Metals by ICP- MS

Date Validated: Mar 2, 1999 09:11
Date Analyzed: Mar 1, 1999 17:55

Analyst: MAB
Matrix: Liquid

	BLANK SPIKE ANALYSIS						
Parameter	[A] Blank Result mg/L	[B] Blank Spike Result mg/L	[C] Blank Spike Amount mg/L	[D] Detection Limit mg/L	[E] QC LIMITS Blank Spike Recovery %	[F] Recovery Range %	[G] Qualifier
Tin	< 0.556	2.611	2.200	0.556	118.7	70-125	
Vanadium	< 0.1667	1.1233	1.1000	0.1667	102.1	75-125	
Zinc	< 0.167	1.033	1.100	0.167	93.9	70-125	

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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A48B23

EPA SW846/6020 Total Metals by ICP- MS

Date Validated: Mar 2, 1999 09:11
Date Analyzed: Mar 1, 1999 18:15

Analyst: MAB
Matrix: Liquid

	MATRIX DUPLICATE ANALYSIS					MATRIX SPIKE ANALYSIS				
Q.C. Sample ID 90763- 001	[A] Sample Result	[B] Duplicate Result	[C] Detection Limit	[D] QC LIMITS Relative Difference	[E] QC LIMITS Relative Difference	[F] Matrix Spike Result	[G] Matrix Spike Amount	[H] QC LIMITS Matrix Spike Recovery	[I] QC LIMITS Recovery Range	[G] Qualifier
Parameter	mg/L	mg/L	mg/L	%	%	mg/L	mg/L	%	%	
Manganese	0.314	0.309	0.139	1.6	25.0	2.376	2.22	92.9	70-125	
Molybdenum	< 0.556	< 0.556	0.556	N.C	25.0	1.159	1.10	105.4	70-125	
Nickel	< 0.556	< 0.556	0.556	N.C	25.0	1.189	1.10	108.1	70-125	
Potassium	14.556	14.500	2.778	0.4	25.0	18.444	4.40	88.4	70-125	
Selenium	0.128	0.127	0.044	0.8	25.0	2.203	2.20	94.3	70-125	
Silicon	62.278	63.167	1.111	1.4	25.0	65.944	4.40	83.3	70-125	
Silver	< 0.028	< 0.028	0.028	N.C	25.0	0.187	1.10	17.0	75-125	B
Sodium	167	171	5.5556	2.4	25.0	176	13.200	68.2	70-125	A
Strontium	11.589	11.694	0.556	0.9	25.0	13.600	2.22	90.6	70-125	
Tin	< 0.556	< 0.556	0.556	N.C	25.0	2.556	2.22	115.1	70-125	
Vanadium	< 0.1667	< 0.1667	0.1667	N.C	25.0	1.1733	1.100	106.7	75-125	
Zinc	< 0.167	< 0.167	0.167	N.C	25.0	0.902	1.10	82.0	70-125	

(A) High analyte result affects spike recovery; PDS within acceptance limits.
(B) PDS and LCS within acceptance limits.
Relative Difference [D] = 200*(B-A)/(B+A)
Matrix Spike Recovery [H] = 100*(F-A)/[G]
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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A05A60

SW846- 7470 Total Mercury

Date Validated: Feb 26, 1999 14:44
Date Analyzed: Feb 26, 1999 11:47

Analyst: AO
Matrix: Liquid

	BLANK SPIKE ANALYSIS						
	[A]	[B]	[C]	[D]	[E]	[F]	[G]
					QC	LIMITS	
Parameter	Blank Result	Blank Spike Result	Blank Spike Amount	Detection Limit	Blank Spike Recovery	Recovery Range	Qualifier
	mg/L	mg/L	mg/L	mg/L	%	%	
Mercury	< 0.0011	0.0060	0.0056	0.0011	107.1	70-120	

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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A05A60

SW846- 7470 Total Mercury

Date Validated: Feb 26, 1999 14:44
Date Analyzed: Feb 26, 1999 11:57

Analyst: AO
Matrix: *Liquid*

	BLANK SPIKE ANALYSIS						
Parameter	[A] Blank Result mg/L	[B] Blank Spike Result mg/L	[C] Blank Spike Amount mg/L	[D] Detection Limit mg/L	[E] QC Blank Spike Recovery %	[F] LIMITS Recovery Range %	[G] Qualifier
Mercury	< 0.0011	0.0050	0.0056	0.0011	89.3	70-120	

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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A05A60

SW846- 7470 Total Mercury

Date Validated: Feb 26, 1999 14:44
Date Analyzed: Feb 26, 1999 11:49

Analyst: AO
Matrix: Liquid

	MATRIX DUPLICATE ANALYSIS					MATRIX SPIKE ANALYSIS				
Q.C. Sample ID 90763- 001	[A] Sample Result	[B] Duplicate Result	[C]	[D] QC	[E] LIMITS	[F] Matrix Spike Result	[G] Matrix Spike Amount	[H] QC	[I] LIMITS	[G] Qualifier
Parameter			Detection Limit	Relative Difference	Relative Difference			Matrix Spike Recovery	Recovery Range	
	mg/L	mg/L	mg/L	%	%	mg/L	mg/L	%	%	
Mercury	< 0.0011	< 0.0011	0.0011	N.C	25.0	0.0054	0.0056	96.4	70-120	

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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A05A60

SW846- 7470 Total Mercury

Date Validated: Feb 26, 1999 14:44
Date Analyzed: Feb 26, 1999 12:00

Analyst: AO
Matrix: Liquid

	MATRIX DUPLICATE ANALYSIS					MATRIX SPIKE ANALYSIS				
Q.C. Sample ID 90714- 001	[A] Sample Result	[B] Duplicate Result	[C]	[D] QC	[E] LIMITS	[F] Matrix Spike Result	[G] Matrix Spike Amount	[H] QC	[I] LIMITS	[G]
Parameter			Detection Limit	Relative Difference	Relative Difference			Matrix Spike Recovery	Recovery Range	Qualifier
	mg/L	mg/L	mg/L	%	%	mg/L	mg/L	%	%	
Mercury	< 0.0011	< 0.0011	0.0011	N.C	25.0	0.0053	0.0056	94.6	70-120	

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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A25A90

SW- 846 5030/8021B BTEX

Date Validated: Feb 26, 1999 13:00
Date Analyzed: Feb 24, 1999 13:16

Analyst: HL
Matrix: Liquid

	BLANK SPIKE ANALYSIS						
	[A]	[B]	[C]	[D]	[E]	[F]	[G]
					QC	LIMITS	
Parameter	Blank Result	Blank Spike Result	Blank Spike Amount	Detection Limit	Blank Spike Recovery	Recovery Range	Qualifier
	ppm	ppm	ppm	ppm	%	%	
Benzene	< 0.0010	0.1080	0.1000	0.0010	108.0	65-135	
Toluene	< 0.0010	0.1030	0.1000	0.0010	103.0	65-135	
Ethylbenzene	< 0.0010	0.1020	0.1000	0.0010	102.0	65-135	
m,p-Xylene	< 0.0020	0.2110	0.2000	0.0020	105.5	65-135	
o-Xylene	< 0.0010	0.1030	0.1000	0.0010	103.0	65-135	

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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A25A90

SW- 846 5030/8021B BTEX

Date Validated: Feb 26, 1999 13:00
Date Analyzed: Feb 24, 1999 18:18

Analyst: HL
Matrix: Liquid

	MATRIX SPIKE / MATRIX SPIKE DUPLICATE AND RECOVERY										
Q.C. Sample ID 90763- 007	[A] Sample Result	[B] Matrix Spike Result	[C] Matrix Spike Duplicate Result	[D] Matrix Spike Amount	[E] Detection Limit	Matrix Limit Relative Difference	[F] QC Spike Relative Difference	[G] QC Matrix Spike Recovery	[H] QC M.S.D. Recovery	[I] Matrix Spike Recovery Range	[J] Qualifier
Parameter	ppm	ppm	ppm	ppm	ppm	%	%	%	%	%	
Benzene	< 0.0010	0.1200	0.1140	0.1000	0.0010	20.0	5.1	120.0	114.0	65-135	
Toluene	< 0.0010	0.1090	0.1030	0.1000	0.0010	20.0	5.7	109.0	103.0	65-135	
Ethylbenzene	< 0.0010	0.1060	0.1010	0.1000	0.0010	20.0	4.8	106.0	101.0	65-135	
m,p-Xylene	< 0.0020	0.2230	0.2130	0.2000	0.0020	20.0	4.6	111.5	106.5	65-135	
o-Xylene	< 0.0010	0.1100	0.1040	0.1000	0.0010	20.0	5.6	110.0	104.0	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]
N.D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A34B17

SW846-8270 PAHs by GC-MS

Date Validated: Mar 1, 1999 20:20
Date Analyzed: Feb 27, 1999 03:34

Analyst: LC
Matrix: Liquid

BLANK SPIKE / BLANK SPIKE DUPLICATE AND RECOVERY

Parameter	[A] Blank Result mg/L	[B] Blank Spike Result mg/L	[C] Blank Spike Duplicate Result mg/L	[D] Blank Spike Amount mg/L	[E] Detection Limit mg/L	Blank Limit Relative Difference %	[F] QC Spike Relative Difference %	[G] QC Blank Spike Recovery %	[H] QC B.S.D. Recovery %	[I] Blank Spike Recovery Range %	[J] Qualifier
Acenaphthene	< 0.0020	0.0477	0.0471	0.0500	0.0020	31.0	1.3	95.4	94.2	46-118	
4-Chloro-3-methylphenol	< 0.0020	0.0455	0.0484	0.0500	0.0020	42.0	6.2	91.0	96.8	23-110	
2-Chlorophenol	< 0.0020	0.0419	0.0434	0.0500	0.0020	40.0	3.5	83.8	86.8	27-123	
1,4-Dichlorobenzene	< 0.0020	0.0427	0.0435	0.0500	0.0020	28.0	1.9	85.4	87.0	36-97	
2,4-Dinitrotoluene	< 0.0020	0.0451	0.0466	0.0500	0.0020	38.0	3.3	90.2	93.2	24-108	
N-Nitrosodi-n-propylamine	< 0.0040	0.0483	0.0507	0.0500	0.0040	38.0	4.8	96.6	101.4	41-116	
4-Nitrophenol	< 0.0040	0.0416	0.0439	0.0500	0.0040	50.5	5.4	83.2	87.8	10-80	
Pentachlorophenol	< 0.0010	0.0347	0.0371	0.0500	0.0010	50.0	6.7	69.4	74.2	9-103	
Phenol	< 0.0010	0.0401	0.0418	0.0500	0.0010	42.0	4.2	80.2	83.6	12-89	
Pyrene	< 0.0020	0.0495	0.0506	0.0500	0.0020	31.0	2.2	99.0	101.2	26-127	
1,2,4-Trichlorobenzene	< 0.0010	0.0433	0.0441	0.0500	0.0010	28.0	1.8	86.6	88.2	39-98	

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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch - 19A20A27

SM 4500C02D Bicarbonate

Date Validated: Feb 26, 1999 10:26
Date Analyzed: Feb 25, 1999 09:30

Analyst: IF
Matrix: Liquid

BLANK SPIKE ANALYSIS

Parameter	[A] Blank Result	[B] Blank Spike Result	[C] Blank Spike Amount	[D] Detection Limit	[E] QC Blank Spike Recovery	[F] LIMITS Recovery Range	[G] Qualifier
	mg/L	mg/L	mg/L	mg/L	%	%	
Bicarbonate	< 4.00	250	250	4.00	100.0	70-125	

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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A20A27

SM 4500CO2D Bicarbonate

Date Validated: Feb 26, 1999 10:26
Date Analyzed: Feb 25, 1999 10:00

Analyst: IF
Matrix: Liquid

	MATRIX DUPLICATE ANALYSIS					
Q.C. Sample ID 90786- 001	[A] Sample Result	[B] Duplicate Result	[C]	[D] QC LIMITS	[E]	[F]
Parameter			Detection Limit	Relative Difference	Relative Difference	Qualifier
	mg/L	mg/L	mg/L	%	%	
Bicarbonate	194	192	4.00	1.0	25.0	

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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A20A28

SM4500CO2D Carbonate

Date Validated: Feb 26, 1999 10:26
Date Analyzed: Feb 25, 1999 10:00

Analyst: IF
Matrix: Liquid

	MATRIX DUPLICATE ANALYSIS					
Q.C. Sample ID 90736- 001	[A] Sample Result	[B] Duplicate Result	[C]	[D] QC	[E] LIMITS	[F]
Parameter			Detection Limit	Relative Difference	Relative Difference	Qualifier
	mg/L	mg/L	mg/L	%	%	
Carbonate	< 4.00	< 4.00	4.00	N.C	25.0	

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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A47A08

EPA 160.1 Total Dissolved Solids

Date Validated: Feb 25, 1999 14:45
Date Analyzed: Feb 25, 1999 08:30

Analyst: JO
Matrix: Liquid

	MATRIX DUPLICATE ANALYSIS					
Q.C. Sample ID 90763- 005	[A] Sample Result	[B] Duplicate Result	[C] Detection Limit	[D] QC Relative Difference	[E] LIMITS Relative Difference	[F] Qualifier
Parameter	mg/L	mg/L	mg/L	%	%	
Total Dissolved Solids	610	600	5.00	1.7	25.0	

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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A47A09

EPA 160.1 Total Dissolved Solids

Date Validated: Mar 1, 1999 15:00
Date Analyzed: Mar 1, 1999 08:55

Analyst: JO
Matrix: Liquid

	MATRIX DUPLICATE ANALYSIS					
Q.C. Sample ID 90763- 007	[A] Sample Result	[B] Duplicate Result	[C] Detection Limit	[D] QC Relative Difference	[E] LIMITS Relative Difference	[F] Qualifier
Parameter	mg/L	mg/L	mg/L	%	%	
Total Dissolved Solids	600	620	5.00	3.3	25.0	

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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A10A50

EPA 300.0 Anions by Ion Chromatography

Date Validated: Mar 2, 1999 13:00
Date Analyzed: Mar 1, 1999 12:18

Analyst: AO
Matrix: Liquid

	BLANK SPIKE / BLANK SPIKE DUPLICATE AND RECOVERY										
Parameter	[A] Blank Result mg/L	[B] Blank Spike Result mg/L	[C] Blank Spike Duplicate Result mg/L	[D] Blank Spike Amount mg/L	[E] Detection Limit mg/L	Blank Limit Relative Difference %	[F] QC Spike Relative Difference %	[G] QC Blank Spike Recovery %	[H] QC B.S.D. Recovery %	[I] Blank Spike Recovery Range %	[J] Qualifier
Chloride	< 0.20	10.60	11.00	10.00	0.20	20.0	3.7	106.0	110.0	70-125	
Nitrate	< 0.20	10.30	10.30	10.00	0.20	20.0	0.0	103.0	103.0	70-125	
Sulfate	< 0.20	10.40	10.50	10.00	0.20	20.0	1.0	104.0	105.0	70-125	

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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A10A50

EPA 300.0 Anions by Ion Chromatography

Date Validated: Mar 2, 1999 13:00
Date Analyzed: Mar 1, 1999 14:36

Analyst: AO
Matrix: Liquid

	MATRIX DUPLICATE ANALYSIS					
Q.C. Sample ID 90789- 001	[A] Sample Result	[B] Duplicate Result	[C] Detection Limit	[D] QC Relative Difference	[E] LIMITS Relative Difference	[F] Qualifier
Parameter	mg/L	mg/L	mg/L	%	%	
Nitrate	2.18	2.00	0.40	8.6	20.0	
Sulfate	93.70	85.20	0.40	9.5	20.0	

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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

☐ 11381 Meadowglen, Suite L, Houston TX 77082 281-589-0692
☒ 5309 Wurzbach Road, Suite 104, San Antonio, TX 78238 210-509-3334
☐ 11078 Morrison Road, Suite D, Dallas, TX 75229 972-481-9999

ANALYSIS REQUEST & CHAIN OF CUSTODY RECORD

On-LINE Help & Technical Services at XENCO.com

Company COC No: 266 Work Order No: 810006-1-0

13025

Page 1 of 1

Company: KEI Phone: (210) 680-3767

Project Name: JAL STATION ☐ Previously done at XENCO Project ID: 810006-1-0

Location: JAL, NM

Project Manager (PM): SJG / T.N. (210)(680)-3763 Project Director (PD): (512) 364-3556

Fax Results to ☒ PM and / or Fax

Invoice to ☐ Accounting ☐ Include Invoice with Final Report Attn PM ☐ Invoice must have a P.O Bill to: 810006-1-0

Quote No. P.O No ☐ Call for a P.O.

Special DLs (RR I RR II DW QAPP See Lab PM Call Proj. PM)

Specifications

Sampler Name: KEN DUTTON Signature: Ken Dutton

Lab Only: 90763-SA

TAT: 5h 12h 20h 24h 48h 3d 5d 7d 14d 21d Standard TAT is 10 Working Days unless otherwise agreed in writing. But often reported in 5-7 Working Days

Analyses: BTEX by 8020 (circled) 8021 8260 602 624 Other; BTEX-MTBE by 8020 8021 8260 602 624 Other; TPH by TX1005 418.1 8015GRO 8015DRO 8015JetF; PAHs by 8270 or 8100 (circled) 8310; METALS by 6010 (circled) 8RCRA Tot Pb TCLP8 13PP 23TAL See List; VOAs by 8260 624 BTEX MTBE PPs TCL See List Call PM; SVOAs by 8270 625 PAHs BN&A TCL PPs See List Call PM; TDS - 160.1; ANIONS/CATIONS - 6010 + 300.0

TAT 5h 12h 20h 24h 48h 3d 5d 7d 10d (circled) 14d 21d

Addn: PAH above mg/L W, mg/Kg S Highest Hit

Hold Analysis

Remarks: QUEST: T. N. (512) 364-3699; S G (210) 680-3767

#	Sample ID	Sampling Date	Time	Depth ft in m	Matrix A P S W	Composite	Grab	# Containers	Container Size	Type	Preservatives	BTEX by 8020	BTEX-MTBE	TPH	PAHs	METALS	VOAs	SVOAs	TDS - 160.1	ANIONS/CATIONS - 6010 + 300.0	#
1	MW-1	2/23/99	0900		W		X	6	5 (1) .5	GA P	H, CL O	X			X	X			X	X	1
2	MW-4	↓	1330		↓		↓	↓	↓	↓	↓	↓			↓	↓			↓	↓	2
3	MW-5	↓	0930		↓		↓	↓	↓	↓	↓	↓			↓	↓			↓	↓	3
4	MW-7	↓	1045		↓		↓	↓	↓	↓	↓	↓			↓	↓			↓	↓	4
5	MW-10	↓	1245		↓		↓	↓	↓	↓	↓	↓			↓	↓			↓	↓	5
6	MW-11	↓	1115		↓		↓	↓	↓	↓	↓	↓			↓	↓			↓	↓	6
7	MW-12	↓	1200		↓		↓	↓	↓	↓	↓	↓			↓	↓			↓	↓	7
8																					8
9																					9
10																					10

N235 4304 13 7 EXPORT 1

N235 4304 12 8 EXPORT 1

Lab Only Additions: From: Rcv by: Date (×3)

#	Relinquished by (Initials and Signature)	Relinquished to (Initials and Signature)	Date & Time	
1	Ken Dutton KD		2/23/99 1500	Total Containers per COC: 42
2			Via U.P.S.	Rush TATs Fax Due: Final Fax Due:
3		Lab: Johnny Orona	2/24/99 10:45	Final Report Data Package Due Date:
				Rush Charges are Pre-Approved upon Requesting them. All Terms Apply

Preservatives - Various (V), HCl pH<2 (H), H2SO4 pH<2 (S), HNO4 pH<2 (N), NaOH+Asbc Acid (NAA), ZnAc+NaOH (ZA), (Cool,<4C) (C4), None (N), See Label (SL), Other (O) HNO_3

SIZE: 4oz (4), 8oz (8), 32oz (32), 40ml VOA (V), 1L (1), 500ml (.5), Tedlar Bag (B), Wipe (W), Other ______ **TYPE** Glass Amb (GA), Glass Clear (GC), Plastic (P), Other (O) ______

QA/QC PROCEDURES

DECONTAMINATION OF EQUIPMENT

Cleaning of drilling equipment was the responsibility of the drilling company. In general, the cleaning procedures consisted of using high pressure steam to wash the drilling and sampling equipment prior to drilling and prior to starting each hole. Prior to use, the sampling equipment was cleaned with Liqui-Nox detergent and rinsed with distilled water.

SOIL SAMPLING

Samples of the subsurface soils were obtained utilizing an air rotary drilling rig with split spoon samples at discrete intervals. Representative soil samples were divided into 2 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 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 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.

Soil samples were express mailed to Xenco Laboratories of San Antonio, Texas for BTEX, TPH-DRO, SPLP SVOC, and SPLP TPH analyses using the methods described below. Soil samples were prepared for analysis by the analytical laboratory for BTEX, TPH, and SPLP concentrations within 14 days following the collection date.

The soil samples were analyzed in accordance with the methods as follows:

- BTEX concentrations in accordance with EPA Method SW846-8021B
- TPH concentrations in accordance with modified EPA Method 8015-DRO
- SPLP TPH concentrations in accordance with EPA Method 1312/418.1
- SPLP SVOC concentrations in accordance with EPA Method SW846-1312/8270
- SPLP VOC concentrations in accordance with EPA Method 1312/8260
- PAH concentrations in accordance with EPA Method 8270

GROUND WATER SAMPLING

Monitoring wells were developed and purged with a clean PVC bailer. The bailer was cleaned prior to each use with Liqui-Nox detergent and rinsed with distilled water. Monitoring wells with sufficient recharge were purged by removing a minimum of 3 well volumes. Monitoring wells that did not recharge sufficiently were purged until no additional ground water could be obtained.

After purging the wells, ground water samples were collected with a disposable Teflon sampler and polyethylene line by personnel wearing clean, disposable gloves. Ground water sample containers were filled in the order of decreasing volatilization sensitivity (i.e., BTEX containers were filled first and PAH containers second).

Ground water samples collected for BTEX analysis were placed in 40 ml glass VOA vials equipped with Teflon-lined caps. The containers provided were pre-preserved with HCl by the analytical laboratory. The vials were filled to a positive meniscus, sealed, and visually checked to ensure the absence of air bubbles.

Ground water samples collected for PAH and Cations/Anions analyses were filled to capacity in sterile, 1 liter glass containers equipped with Teflon-lined caps. Ground water samples collected for metals analysis were filled to capacity in 1 liter plastic containers pre-preserved with HNO_3 and equipped with Teflon-lined caps. The containers were provided by the analytical laboratory.

The filled containers were labeled and placed on ice in an insulated cooler. The cooler was sealed for transportation to the analytical laboratory. Proper chain-of-custody documentation was maintained throughout the sampling process.

The ground water samples were analyzed in accordance with the methods as follows:

- BTEX concentrations in accordance with EPA Method SW846-8021B
- Metals concentrations in accordance with EPA ICP Method 6010
- PAH concentrations in accordance with EPA Method 8270
- Anion concentrations in accordance with EPA Method 300.0
- Cation concentrations in accordance with SM Method 4500CO2D
- TDS concentrations in accordance with EPA Method 160.1
- TPH concentrations in accordance with EPA Method 8015M Diesel Range Organics
- SPLP VOC concentrations in accordance with EPA Method 1312/8260
- SPLP SVOC concentrations in accordance with EPA Method 1312/8270
- SPLP TPH concentrations in accordance with EPA Method 1312/418.1
- Mercury concentrations in accordance with EPA Method 7470

LABORATORY PROTOCOL

The laboratory was responsible for proper QA/QC procedures. These procedures are either transmitted with the laboratory reports or are on file at the laboratory.

Banks Information Solutions, Inc.

Water Well Report™

March 15, 1999

CLIENT

KEI

5309 Wurzbach Road, Suite 100

San Antonio, TX 78238

SITE

Jal Station

Units O, P, & B

Jal, NM (Lea County)

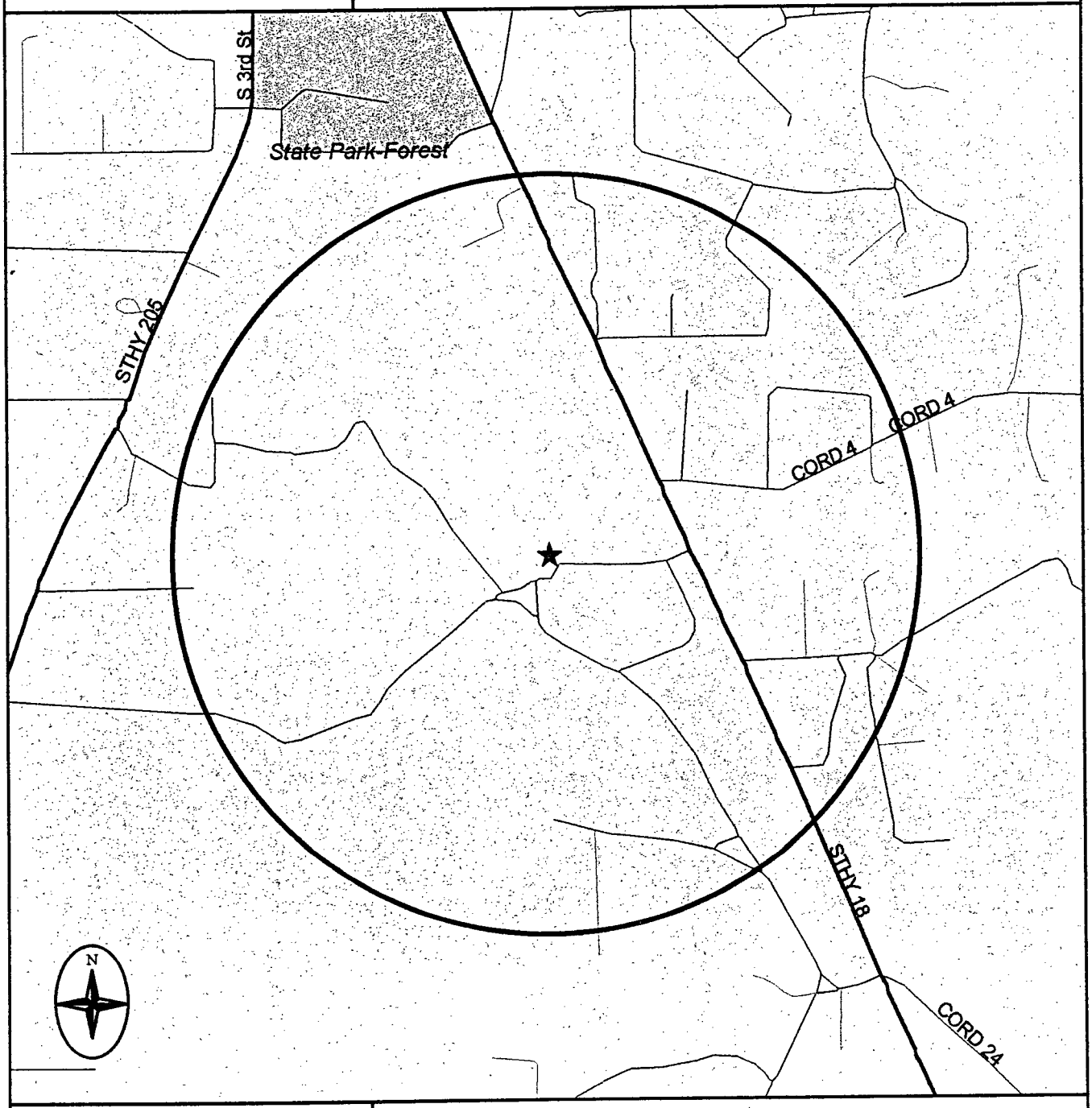
031599-002

P.O. Box 12851, Capitol Station, Austin, TX 78711
1701 Nueces, Austin, TX 78701
512.478.0059 FAX 512.478.1433 e-mail banks@banksinfo.com

Banks Information Solutions, Inc.

Water Well Report™

Map of Wells within One Mile

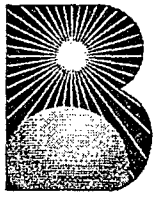


- Subject Site
- Ground Water Wells (Cluster)
- Ground Water Well
- Airport
- Hospital
- Highway
- Primary road
- Secondary and connecting road
- Local road
- Access road
- Water body
- Park
- State

0 0.25 0.5 Miles

Banks Information Solutions, Inc.
P.O. Box 12851, Capitol Station Austin, Texas 78711
1701 Nueces Austin, Texas 78701
512-478-0059 FAX 512-478-1433 E Mail: BANKS@BANKSINFO.COM

March 15, 1999



Banks Information Solutions, Inc.

Water Well Report™

DETAILS

Banks Information Solutions, Inc. Performed A Thorough Well Search And No True Or Active Groundwater Wells Were Found.

P.O. Box 12851, Capitol Station, Austin, TX 78711
1701 Nueces, Austin, TX 78701
512.478.0059 FAX 512.478.1433 e-mail banks@banksinfo.com

Banks Information Solutions, Inc.

Water Well Report™

SUMMARY

Water Well Report™ Research Mapping Protocol

Banks Information Solutions, Inc. Water Well Report™ is prepared from existing state water well databases and additional file data/records research conducted at the New Mexico State Engineers Office-District 2 located in Roswell, New Mexico. In New Mexico, water wells are located within a grid system using section, township, and range. The locations of these wells on the enclosed map were plotted using a GIS program, ArcView 3.0a, with the aid of the section, township, and range of the wells provided by the drillers logs.

Banks Information Solutions, Inc. has performed a thorough and diligent search of all groundwater well information provided and recorded with the New Mexico State Engineers Office. All mapped locations are based on information obtained from the NMSEO. Although Banks performs quality assurance and quality control on all research projects, we recognize that any inaccuracies of the records and mapped well locations could possibly be traced to the appropriate regulatory authority or the actual driller. It may be possible that some water well schedules and logs have never been submitted to the regulatory authority by the water driller and, thus, may explain the possible unaccountability of privately drilled wells. It is uncertain if the above listing provides 100% of the existing wells within the area of review. Therefore, Banks Information Solutions, Inc. cannot fully guarantee the accuracy of the data or well location(s) of those maps and records maintained by the New Mexico State Engineer regulatory authorities.

P.O. Box 12851, Capitol Station, Austin, TX 78711
1701 Nueces, Austin, TX 78701
512.478.0059 FAX 512.478.1433 e-mail banks@banksinfo.com

NOTICE OF PUBLICATION

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Oil Conservation Division Regulations, the following Stage 1 abatement plan has been submitted to the Director of the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505, Telephone (505) 827-7131:

Texas - New Mexico Pipe Line Company, Tony Savoie, (505) 395-2705, P. O. Box 1030, Jal, New Mexico 88252 has submitted a Stage 1 Abatement Plan for the Jal Station facility, 2 miles south of Jal on State Highway 18, Jal, New Mexico 88252 in the SE/4, SW/4 of Section 32, Township 25 South, Range 37 East, Lea County, New Mexico. The site is approximately 27 acres where Texas - New Mexico Pipe Line Company operates a crude oil transportation and storage facility. Light Non-Aqueous Phase Liquid (LNAPL) has been observed on the ground water. The Stage 1 abatement plan presents the following subsurface investigation activities: confirmation of property line location, determine site geology and hydrogeology, subsurface hydraulic conductivity, transmissivity, and storativity information; conduct a registered water well search within a 1 mile radius of the site; installation of monitoring/recovery wells to delineate hydrocarbon impact around MW-2 in general accordance with the TNMPL Initial Ground Water Investigation Standard Protocol for New Mexico dated December 1, 1997; collect soil and ground water samples for laboratory analysis from each monitoring/recovery well to determine the magnitude of hydrocarbon impact to ground water; collect a ground water sample for laboratory analysis from the on-site water well; obtain depth to ground water measurements and calculate the ground water gradient and direction; survey all well locations by a Professional Land Surveyor registered in the State of New Mexico; and prepare a report summarizing field activities and laboratory results.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The Stage 1 abatement plan may be viewed at the above address or at the Oil Conservation Division District Office, 1000 West Broadway, Hobbs, New Mexico 88240, Telephone (505) 392-4046, between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed Stage 1 abatement plan, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him.