AP - 022

STAGE 1 & 2 REPORTS

DATE:

June 2003

AP-22

PRELIMINARY SITE INVESTIGATION REPORT

FORMER WILLIAMS PIT LOCATION
NE ¼ of the NW ¼ of Section 25, Township 18 South, Range 26 East
Eddy County, New Mexico

Prepared For:

Yates Petroleum Corporation
105 South Fourth Street
Artesia, New Mexico 88210

RECEIVED
FEB 25 2004
Oil Conservation Division
Environmental Bureau

ETGI Project # YP2220

Prepared By:
Environmental Technology Group, Inc.
2540 W. Marland
Hobbs, New Mexico 88240

June 2003

Robert B. Eidson
Geologist / Senior Project Manager

Chance Johnson
New Mexico Operations Manager

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1.0 INTRODUCTION

Yates Petroleum Corporation (YATES) is submitting this Preliminary Site Investigation Report as a summary of activities completed to date at the former Williams Pit site in Eddy County, New Mexico. The regulatory basis for site characterization actions conducted at this site is the August 1993 New Mexico Oil Conservation Division (NMOCD) *Guidelines for Remediation of Leaks, Spills, and Releases*. Data collected during this subsurface investigation is suitable for use in any subsequent Stage II Abatement Plan. The site is located in the NE ¼ of the NW ¼ of Section 25, Township 18 South, Range 26 East in Eddy County, New Mexico. The surface expression of the former pit area measures approximately 240 feet by 240 feet. The immediate area is dominated by exploration and production activities. For reference, a site location and site map are provided as Figures 1 and 2, respectively.

Site characterization action was conducted to assess subsurface soil and groundwater conditions associated with oil and gas exploration and production activities by the former responsible party operating the site. Environmental Technology Group, Inc. (ETGI) had previously conducted subsurface soil and groundwater characterization action at the site on 21 October 2000. Refer to the Preliminary Site Investigation Report, November 2000 for details of the previous site characterization action. Laboratory analysis of soil and groundwater samples collected during this previous investigation indicated that groundwater underlying the former pit area is impacted with dissolved phase benzene and chlorides in excess of NMOCD standards.

2.0 SUMMARY OF FIELD ACTIVITIES

ETGI mobilized an air rotary drilling rig on 28 August 2002 and a hollow-stem auger drilling rig on 6 September 2002 to conduct a preliminary site investigation and determine the nature and extent of dissolved phase benzene and chloride concentrations present in the soil and groundwater in the former pit area. ETGI advanced a total of four soil borings, subsequently converted to permanent groundwater monitor wells, to a maximum depth of approximately 45 feet, which was the prevailing depth to sufficiently assess the potential for groundwater impact. The monitor wells were developed utilizing a single use disposable Teflon bailer until a minimum of three well volumes had been removed and groundwater temperature, pH and conductivity parameters had stabilized. Approximately 48 hours after well development, the monitor wells were purged of three well volumes, again monitoring temperature, pH and conductivity parameters, allowed to recharge a minimum of 80 percent of the original well volume and sampled.

3.0 SITE DESCRIPTION

3.1 Regional Geology/Hydrogeology

In the site vicinity, the surface is composed of Quaternary alluvium associated with Pecos River flood plain deposits originating from the Sacramento Mountains to the west. The alluvium is underlain by the Triassic age Dockum Group formation that consists primarily of red silts and sands, which are slightly to moderately indurated. The Dockum Group is

approximately 1,000 feet thick in the site area and is divided into the Pierce Canyon redbeds and Santa Rosa sandstone in the site vicinity. These formations unconformably overly the Upper Permian Rustler Formation (gypsum, redbeds and dolomites) which unconformably overly the Middle Permian Chalk Bluff Formation (back reef deposits of dolomite, evaporites, redbeds and sandstone).

The site is located near the eastern margin of the Roswell Basin physiographic province, a north-south trending feature located between the Sacramento Mountains to the west and the Permian Basin to the east. Within this feature, groundwater commonly occurs in the alluvium near the Pecos River and in the Permian formations throughout the feature. These aquifers are typically characterized by relatively high hydraulic conductivity and transmissivity. Aquifers within the Triassic Dockum group are usually thin and discontinuous resulting in poor quality and low volume.

In the site vicinity, groundwater generally flows to the southeast toward the west channel of the Pecos River, which joins the main channel at the confluence of Brantley Reservoir. The east-west trending intermittent streams in the area appear to have little influence on the region hydraulic gradient; however local variations may occur in the vicinity of these drainage features during precipitation events.

Data collected by the United States Weather Bureau indicate that the average annual precipitation in the site vicinity is approximately 12.4 inches. This amount occurs primarily as storm events during the period from June to October, inclusive. Infiltration from these events is minimal given the high rate of surface runoff and evaporation. The Quaternary alluvium consists of clay, silt, sand, gravel and conglomerate in the near surface area. The thickness of the alluvium ranges from a thin veneer in the west to greater than 300 feet in places just west of the Pecos River. Groundwater in the alluvium originates from the cumulative effects of five sources: local precipitation, surface water, losses from leaky artesian wells, natural leakage of artesian water from the underlying artesian aquifers and irrigation return. The amount of water from each source is variable and indeterminate but, it has been concluded that the majority of the shallow groundwater supply is derived directly or indirectly from the artesian supply through natural leakage and that contributions from direct precipitation and surface runoff contribute as only a minor part of the total recharge. Movement of the shallow groundwater is primarily to the east toward the Pecos River channel where it discharges. The occurrence of shallow groundwater discharging into tributary streams of the Pecos River takes place where the channel beds are cut below the water table; therefore, groundwater locally moves toward those channels. There are a considerable number of shallow irrigation wells introducing artificial discharge into the area, which has locally altered the movement of shallow groundwater, inducing it to flow to the wells.

3.2 Site Geology/Hydrology

Review of the soil boring/monitor well details from previous site investigations and from the current investigation indicates that backfill materials are present at depths varying approximately from the surface to 12 feet bgs in the former pit area. Native, undisturbed soils underlying the former pit include four thin sandy clay units and two fine-grained, well-sorted

sand units. Unconsolidated, very fine-grained sand units are present on the surface areas surrounding the former pit area. The sands are characterized as dark yellowish orange to moderate yellowish brown, very fine grained, well-sorted alluvial deposits. A very thin discontinuous caliche unit was observed in the area of monitor well MW-1 but was not encountered in any of the other boring locations. Underlying the surface units are sandy clays and silty sands varying in thickness form 3 to 14 feet thick. These units are characterized as grayish orange to light brown and pale greenish yellow, soft to stiff with minor organic and ferric staining at depth in monitor wells MW-1 and MW-3, respectively.

Groundwater was encountered at depths varying from approximately 26 to 30 feet bgs during drilling activities. Following monitor well development, gauging measurements indicate that the depth to stabilized groundwater levels vary from approximately 31 to 32 feet bgs. Groundwater elevations observed in monitor well MW-4 are attributed to a local perched water unit located within the former pit structure.

3.3 New Mexico Oil Conservation Division (NMOCD) Soil Classification

Based on the following facts: depth to groundwater varying approximately 20 feet below the deepest known concentration of regulated contaminant, the nearest surface water body being greater than 1,000 feet away, and the distance of the nearest water well head being greater than 1,000 feet away, according to the NMOCD ranking system (NMOCD, 1993), the site can be assigned a ranking in the range of greater than 19. Therefore, the preliminary action levels are 100 mg/kg for TPH, 50 mg/kg for total BTEX, and 10 mg/kg for benzene in soils.

3.4 Distribution of Hydrocarbons in the Unsaturated Zone

ETGI mobilized a drilling rig on 28 August 2002 and 6 September 2002 to conduct a preliminary site investigation and determine the nature and extent of dissolved phase benzene and chloride concentrations present in the groundwater in the former pit area. To date, six soil borings have been advanced and four groundwater monitor wells have been installed at the site to characterize the potential impact to soil and groundwater at the site from the former pit area. Hydrocarbon contaminated soil in excess of NMOCD regulatory standards for TPH constituents was detected in the area of monitor well MW-4 to a depth of 10 feet bgs. Soil impacted with total BTEX constituents in excess of NMOCD regulatory standards in the area on monitor well MW-4 was identified to a depth of 5 feet bgs. There were no detectable concentrations of TPH or BTEX constituents in the soil samples collected during the installation of monitor wells MW-1, MW-2 or MW-3. Laboratory analysis of all soil samples collected during monitor well installation for chloride concentrations exceeded the NMOCD regulatory standard of 250 mg/kg plus the site background concentration. Results of the laboratory analysis of soil sampling conducted during monitor well installation activities are included in Table 2 and laboratory reports generated from monitor well installation activities are included as Appendix B.

The distribution of hydrocarbons in the unsaturated zone has been estimated by utilizing the following techniques:

- Visual observations of subsurface soil samples;
- Review of field screening data;
- Laboratory analyses of selected soil samples.

3.5 Distribution of Hydrocarbons in the Saturated Zone

ETGI advanced a total of four soil borings that were subsequently converted to permanent groundwater monitor wells, to depths varying from 35 to 43 feet bgs, to assess the potential for groundwater impact. Groundwater samples were collected and analyzed for BTEX, chlorides and TDS to determine if the water meets the NMOCD definition of "foreseeable beneficial use" (i.e. less than or equal to 10,000 mg/L TDS). Analysis of the groundwater samples collected from monitor wells MW-1, MW-2 and MW-3 indicate that the on-site groundwater in these areas has not been impacted with dissolved phase BTEX constituents above regulatory standards. Results of the laboratory analysis of the groundwater sample collected from monitor well MW-4 indicate that a dissolved phase benzene concentration, exceeding the NMOCD regulatory standard, is present below the former pit area. Concentrations of toluene, ethyl benzene and total xylenes were also present in the groundwater sample collected from monitor well MW-4 but, were considerably below the respective NMOCD regulatory standards. Analytical results indicate that TDS concentrations in groundwater samples collected from all on-site monitor wells is greater than 10,000 mg/L which would indicate that the shallow aquifer is not considered to be of foreseeable beneficial use. Review of the laboratory results derived from analysis for chloride and TDS content of the groundwater samples collected indicate elevated concentrations of both chloride and TDS are present on-site. A summary of all groundwater analytical results is provided in Table 3.

4.0 FOLLOW-UP ACTIVITIES

ETGI proposes to establish site-specific risk based closure criteria and utilize a long term groundwater monitoring plan at this site. Given the rural nature of the project location and lack of receptors (i.e. residential and other populated areas, domestic groundwater use, etc.), site-specific action levels will be used in lieu of the default NMOCD action levels. The risk assessment will be conducted using USEPA protocols, and will quantify potential impacts to human health for receptor populations present in the vicinity of the site.

Through the utilization of a Human-Health Based Risk Assessment process, a site-specific approach will be employed to assess the probability of likely human exposure pathways with evaluations of the individual constituents of TPH and BTEX concentrations present in the soil and chloride and TDS concentrations present in the groundwater. Analytical fate-and-transport modeling will provide a means of estimating exposure concentrations and developing risk-based soil and groundwater closure standards. Under ASTME E-1739 "Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites," modeling is recommended as a conservative first step under Tiers 1 and 2 of the site evaluation process, prior to use of more complex numerical modeling methods under Tier 3.

Annual groundwater monitoring will be conducted until chloride and TDS concentration levels begin decreasing through natural attenuation mechanisms. The monitoring frequency

will be increased to a semi-annual schedule and finally to a quarterly monitoring schedule to demonstrate constituent concentrations approaching the Risk Based closure criteria.

In order to prevent subsequent unintended or accidental human exposure to TPH constituents remaining on-site following a risk based scenario, the specific site area will be deed restricted preventing future consideration of development or improvements in the county clerk office, Lovington, Lea County, New Mexico.

Documentation of the aforementioned actions will be submitted to the NMOCD in the final subsurface investigation and site remediation report. Upon receipt of NMOCD approval of the proposed risk assessment in this Preliminary Site Investigation Report, the activities described above will be implemented.

5.0 QA/QC PROCEDURES

5.1 Soil Sampling

Samples of subsurface soils were obtained utilizing a five-foot continuous sampling device using clean, disposable gloves and clean sampling tools. One half of each sample was placed into a labeled zip-lock baggie and exposed to sunlight and ambient temperature for a minimum of thirty minutes prior to field screening with a photoionization detector (PID) calibrated to a 100 ppm isobutylene standard. Soil samples selected for laboratory analysis were sealed in an insulated cooler on ice under completed chain-of custody and transported to the Environmental Laboratory of Texas in Odessa, Texas for the requested 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 headspace 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 delivered to Environmental Lab of Texas, Inc. in Odessa, Texas for BTEX, TPH and chloride analyses using the methods described below. All soil samples were analyzed within fourteen days following the collection date.

The soil samples were analyzed as follows:

- BTEX concentrations in accordance with EPA SW 846 Method 8021B, 5030
- TPH concentrations in accordance with modified EPA SW 846 Method 8015M GRO/DRO
- Chloride concentrations in accordance with EPA SW846 Method 9253

5.2 Groundwater Sampling

Monitor 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. Monitor wells with sufficient recharge were purged by removing a minimum of three well volumes. Monitor wells that did not recharge sufficiently were purged until no additional groundwater could be obtained.

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

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

Groundwater samples, collected for TDS analysis, were filled to capacity in sterile, amber, 1 liter glass containers equipped with Teflon-lined caps. Groundwater samples, collected for chloride analysis, were filled to capacity in sterile, 500-ml plastic containers equipped with Teflon-lined caps preserved with nitric acid. The analytical laboratory provided all containers and preservatives.

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 groundwater samples were analyzed as follows:

- BTEX concentrations in accordance with EPA SW 846 Methods 8021B, 5030
- TDS concentrations in accordance with EPA SW 846 Method 160.1
- Chloride concentrations in accordance with EPA SW 846 Method 9253

5.3 Decontamination Of Equipment

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

5.4 Laboratory Protocol

The laboratory was responsible for proper QA/QC procedures after signing the chain-of-custody form. These procedures were either transmitted with the laboratory reports or are on file at the laboratory.

6.0 LIMITATIONS

Environmental Technology Group, Inc. has prepared this Preliminary Site Investigation Report to the best of its ability. No other warranty, expressed or implied, is made or intended.

Environmental Technology Group, Inc. has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. Environmental Technology Group, Inc. has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. Environmental Technology Group, Inc. has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Environmental Technology Group, Inc. also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Yates Petroleum Corporation. The information contained in this report including all exhibits and attachments, may not be used by any other party without the express consent of Environmental Technology Group, Inc. and/or Yates Petroleum Corporation.

7.0 REFERENCES

Title 19 NMAC 15.A.19;

Guidelines for Remediation of Leaks, Spills and Releases; August 1993 (NMOCD, 1993);

Unlined Surface Impoundment Closure Guidelines; February 1993 (NMOCD, 1993); and

Geology and Ground-Water Resources of Eddy County, New Mexico; G. E. Hendrickson and R. S. Jones; United States Geological Survey, New Mexico State Bureau of Mines and Mineral Resources and the State Engineer of New Mexico, 1952.

8.0 DISTRIBUTION

Copies 1 and 2 to: Ms. Lisa Norton and Mr. Jerry Fanning
Yates Petroleum Corporation
105 South Fourth Street
Artesia, New Mexico 88210

Copy 3 to: Environmental Technology Group, Inc.
4600 West Wall Street
Midland, Texas 79703

Copy 4 to: Environmental Technology Group, Inc. (Hobbs Office)
2540 W. Marland
Hobbs, New Mexico 88240

COPY NO.: 2

Quality Control Reviewer

TABLES

TABLE 1

GROUNDWATER ELEVATION DATA

YATES PETROLEUM CORPORATION
FORMER WILLIAMS PIT SITE
EDDY COUNTY, NEW MEXICO
ETGI PROJECT # YA 2217

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	GROUND WATER ELEVATION
MW - 1	09/18/02	3,282.57	-	31.92	0.00	3,250.65
	09/19/02	3,282.57	-	32.05	0.00	3,250.52
MW - 2	09/18/02	3,282.34	-	32.08	0.00	3,250.26
	09/19/02	3,282.34	-	31.85	0.00	3,250.49
MW - 3	09/18/02	3,282.98	-	32.35	0.00	3,250.63
	09/19/02	3,282.98	-	32.38	0.00	3,250.60
MW - 4	09/18/02	3,282.70	-	31.70	0.00	3,251.00
	09/19/02	3,282.70	-	31.72	0.00	3,250.98

TABLE 2

CONCENTRATIONS OF BTEX, CHLORIDES AND TPH IN SOIL

YATES PETROLEUM CORPORATION
FORMER WILLIAMS PIT SITE
EDDY COUNTY, NEW MEXICO
ETGI Project # YA 2217

All concentrations are in mg/kg

SAMPLE NAME	SAMPLE DATE	SAMPLE DEPTH	SW 846-8021B, 5030					Method: 9253	Method: 8015	
			BENZENE	TOLUENE	ETHYL-BENZENE	M,P-XYLENES	O-XYLENES	CHLORIDES	GRO	DRO
MW-1	08/28/02	15'	<0.025	<0.025	<0.025	<0.025	<0.025	851	<10.0	<10.0
	08/28/02	25'	<0.025	<0.025	<0.025	<0.025	<0.025	6760	<10.0	<10.0
	08/28/02	30'	<0.025	<0.025	<0.025	<0.025	<0.025	7270	<10.0	<10.0
MW-2	08/28/02	20'	<0.025	<0.025	<0.025	<0.025	<0.025	14100	<10.0	<10.0
	08/28/02	30'	<0.025	<0.025	<0.025	<0.025	<0.025	390	<10.0	<10.0
MW-3	09/06/02	15'	<0.025	<0.025	<0.025	<0.025	<0.025	8680	<10.0	<10.0
	09/06/02	25'	<0.025	<0.025	<0.025	<0.025	<0.025	11000	<10.0	<10.0
	09/06/02	35'	<0.025	<0.025	<0.025	<0.025	<0.025	5320	<10.0	<10.0
MW-4	09/06/02	5'	8.11	2.81	20.3	24.4	9.71	4250	1380	9720
	09/06/02	10'	3.08	1.18	12.4	14.6	5.36	7440	467	4550
	09/06/02	29'	<0.025	<0.025	<0.025	<0.025	<0.025	2750	<10.0	<10.0

TABLE 3

CONCENTRATIONS OF BTEX, CHLORIDES AND TDS IN GROUNDWATER

YATES PETROLEUM CORPORATION
FORMER WILLIAMS PIT SITE
EDDY COUNTY , NEW MEXICO
ETGI PROJECT # YA 2217

All concentrations are in mg/L

SAMPLE LOCATION	SAMPLE DATE	SW 846-8021B, 5030				Method: 9253	Method:160.1
		BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	CHLORIDES	TDS
MW - 1	09/19/02	<0.001	<0.001	<0.001	<0.001	26600	36800
MW - 2	09/19/02	<0.001	<0.001	<0.001	<0.001	13300	22500
MW - 3	09/19/02	0.002	<0.001	<0.001	<0.001	33700	50100
MW - 4	09/19/02	0.142	<0.001	<0.001	0.006	8150	14700

FIGURES

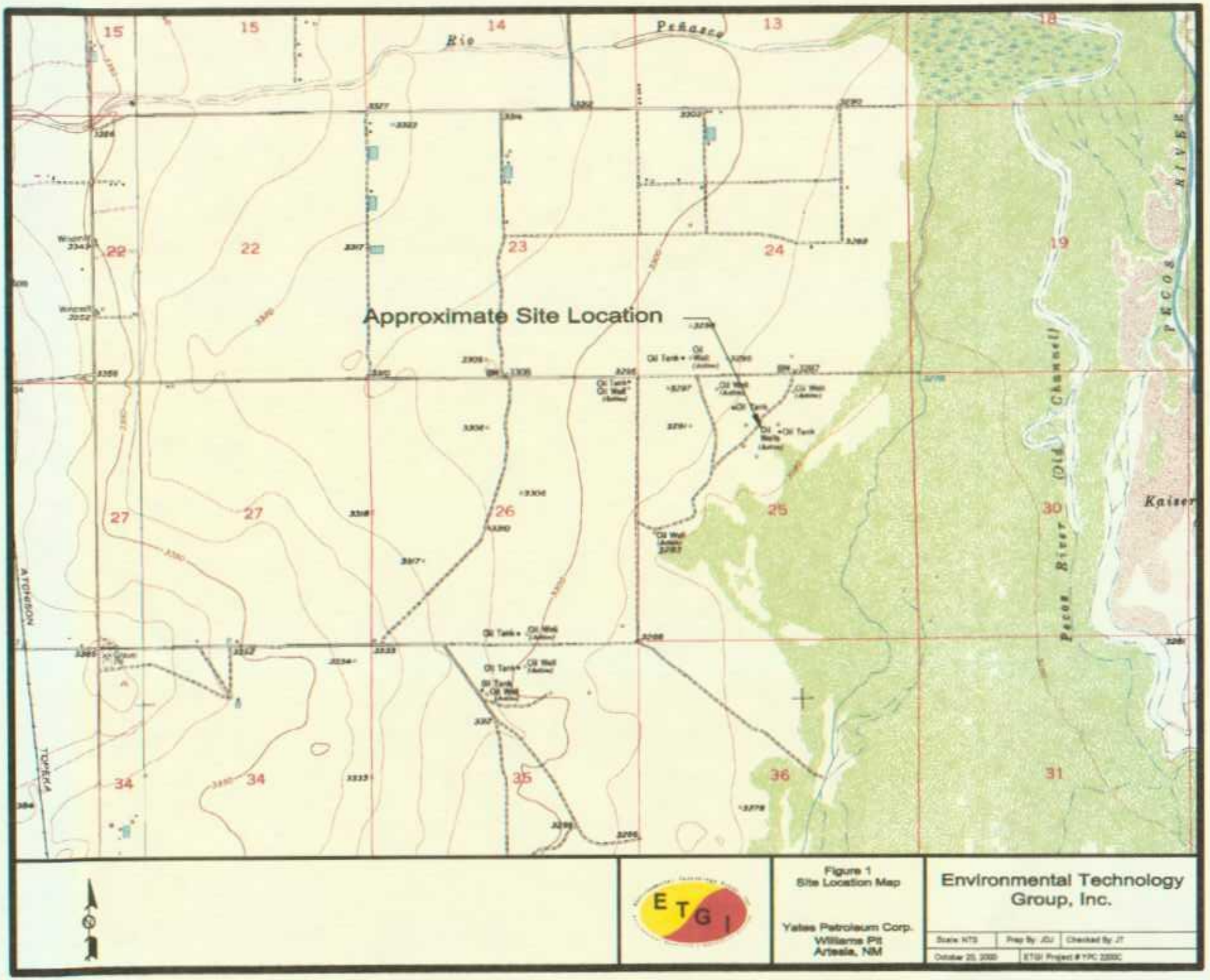
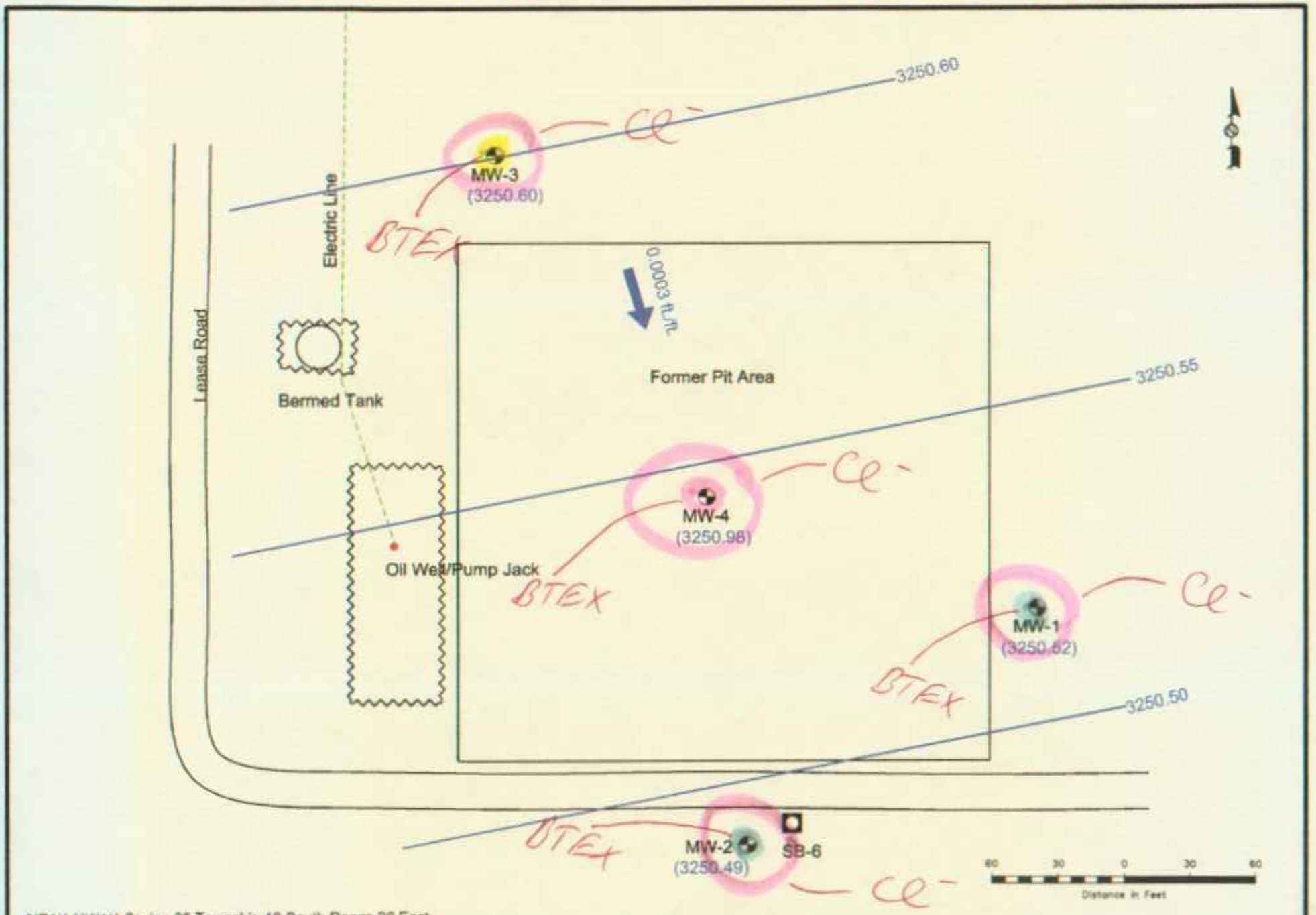


Figure 1
Site Location Map

Yates Petroleum Corp.
Williams Pit
Artesia, NM

Environmental Technology Group, Inc.

Scale: NTS	Prep By: JDJ	Checked By: JT
October 20, 2000	ETGI Project # YPC 2000C	


3250.60
MW-3
(3250.60)
Cl-
BTEX
Electric Line
Lease Road
0.0003 ft./ft.
Former Pit Area
Bermed Tank
3250.55
MW-4
(3250.98)
Cl-
Oil Well/Pump Jack
BTEX
MW-1
(3250.62)
Cl-
BTEX
3250.50
BTEX
MW-2
(3250.49)
SB-6
Cl-
60 30 0 30 60
Distance in Feet
NE1/4 NW1/4 Secion 25 Township 18 South Range 26 East
Legend:
Monitor Well Location and Groundwater Elevation in Feet
Earthen Berm
Soil Boring Location
Groundwater Gradient Contour Line with Elevation in Feet
Groundwater Gradient Direction and Magnitude
Figure 2
Site Map
Yates Petroleum Corporation
Former Williams Pit Site
Eddy County, New Mexico
ETGI
Environmental Technology Group, Inc.

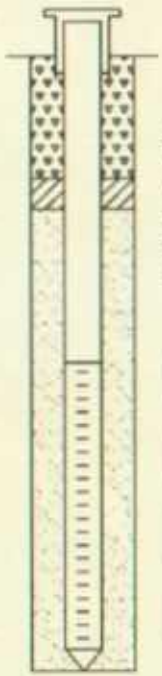
APPENDICES

Appendix A

Soil Boring Logs

Monitoring Well MW - 1

Depth (feet)	Soil Columns	PID Reading	Odor	Stain	Notes
0					
5		3.0	None	None	
10		3.4	None	Brown	
15		(3.3)	None	None	
20		3.9	None	None	
25		(4.9)	None	Black Organic	
30	▼	(4.7)	None	Organic	Moist
35					
40	TD				
45					
50					
55					
60					
65					



Monitoring Well Details

Date Drilled	8 - 28 - 02
Thickness of Bentonite Seal	3 ft
Length of PVC Well Screen	20 ft
Depth of PVC Well	40 ft
Depth of Exploratory Well	40 ft
Depth to Ground Water	29 ft

Grout Surface Seal

Bentonite Pellet Seal

Sand Pack

Screen

Legend

Silty Sand - (SM) - Dark Yellowish-Orange, Very Fine Grained Sand, Fractured, Caliche Filling.

Caliche - Very Pale Orange, Soft.

Sandy Clay - (CL) - Grayish-Orange, Soft, to Firm, Intermittant Caliche.

Sandy Clay - (CL) - Light-Brown, Soft, Damp to Moist.

( ) Indicates samples selected for laboratory analysis.

▼ Indicates the ground water level measured on date.

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

Completion Notes

1. The monitoring well was installed on date using air rotary drilling techniques.
2. The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
3. The well is protected with a locked stick up steel cover and a 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.

Boring Log And Monitoring Well Detail

Monitoring Well - 1

Yates Petroleum. Former Williams Pit Site Eddy County, NM

ETGI

Environmental Technology Group, Inc.

Scale: use scale	Prep By: LGM	Checked By: RE
Oct. 14, 2002	LTGI Project # YA2217	

Monitoring Well MW - 2

Depth (feet)	Soil Columns	PID Reading	Odor	Stain	Notes
0					
5		3.5	None	None	
10		3.1	None	Brown	
15		2.9	None	None	
20		(3.8)	None	Trace Black	
25		2.7	None	None	Damp
30		(6.8)	None	None	Wet
35					
40					
45					
50					
55					
60					
65					

TD

Monitoring Well Details

Date Drilled	8 - 28 - 02
Thickness of Bentonite Seal	3 ft
Length of PVC Well Screen	20 ft
Depth of PVC Well	43 ft
Depth of Exploratory Well	43 ft
Depth to Ground Water	29 ft

Grout Surface Seal

Bentonite Pellet Seal

Sand Pack

Screen

Legend

Silty Sand - (SC) - Moderate Yellowish-Brown, Very Fine Grained, Sightly Fractured, Filled with Clear to White Qtz.

Sandy Clay - (CL) - Moderate Green to Grayish Orange, Medium Soft to stiff, Imbedded Caliche.

Sandy Clay - (CL) - Moderate Brown, Soft.

Indicates samples selected for laboratory analysis.

Indicates the ground water level measured on date.

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

Completion Notes

1. The monitoring well was installed on date using air rotary drilling techniques.
2. The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
3. The well is protected with a locked stick up steel cover and a 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.

Boring Log And Monitoring Well Detail

Monitoring Well - 2

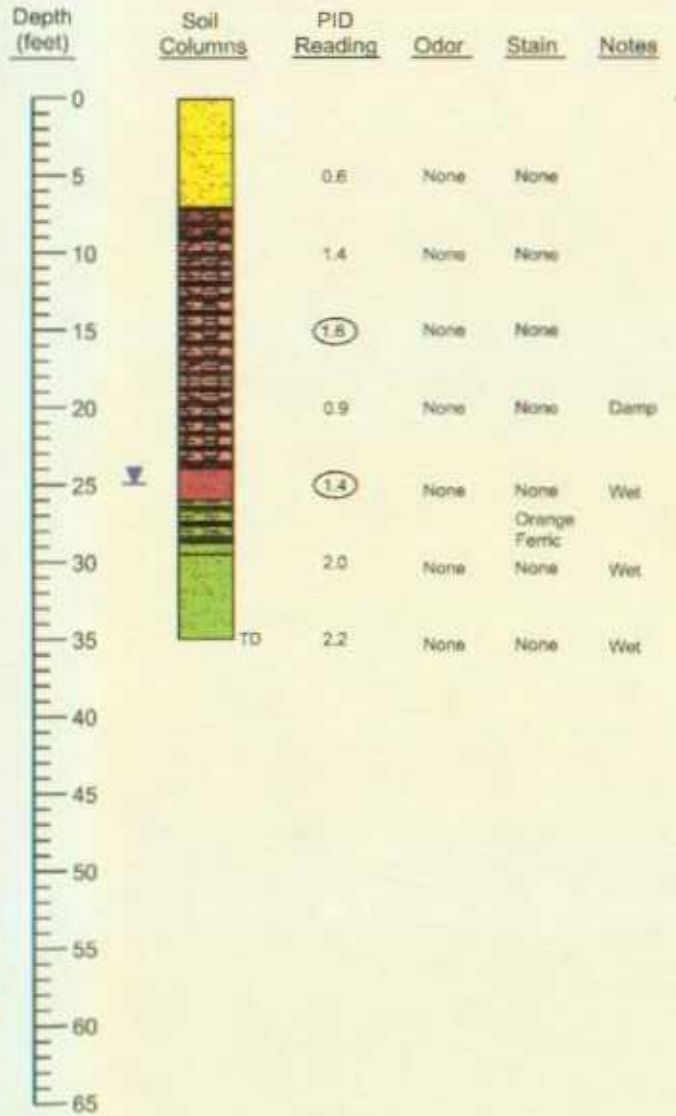
Yates Petroleum. Former Williams Pit Site Eddy County, NM

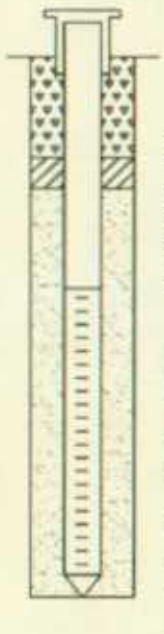
Environmental Technology Group, Inc.

Scale: NTS	Prep By: LGM	Checked By: RE
Oct. 15, 2002	ETGI Project #YA2217	

NE 1/4 of the NW 1/4 of Section 25, Township 18 South, Range 26 East

Monitoring Well MW - 3





Monitoring Well Details

Date Drilled	9 - 6 - 02
Thickness of Bentonitic Seal	3 ft
Length of PVC Well Screen	20 ft
Depth of PVC Well	35 ft
Depth of Exploratory Well	35 ft
Depth to Ground Water	25 ft

Grout Surface Seal

Bentonite Pellet Seal

Sand Pack

Screen

Legend

Silty Sand - (SM) - Dark Yellowish-Orange, Very Fine Grained, Imbedded Course Qtz Grains, Poorly Sorted, Loose.

Sandy Clay - (CL) - Light-Brown to Moderate Brown, Soft, Imbedded Caliche.

Clay - (CL) - Light Brown to Moderate Brown, Stiff, Imbedded Caliche.

Silty Sand - (SM) - Light Brown, Very Fine Grained, Well Sorted, Moist, Loose.

Sandy Clay - (CL) - Pale Greenish-Yellow, Soft, wet.

Sand - (SW) - Moderate Yellowish Brown, Medium Grained, Well Sorted, Sub-Rounded To Round, Wet.

Clay - (CL) - Dark Yellowish Orange, Soft, Wet.

Indicates samples selected for laboratory analysis.

Indicates the ground water level measured on date.

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

Completion Notes

1. The monitoring well was installed on date using hollow stem auger drilling techniques.
2. The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
3. The well is protected with a locked stick up steel cover and a 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.

Boring Log And Monitoring Well Detail

Monitoring Well - 3

Yates Petroleum. Former Williams Pit Site Eddy County, NM

ETGI

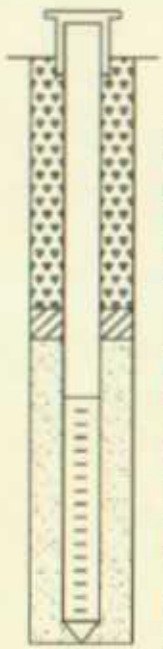
Environmental Technology Group, Inc.

Scale: NTS	Prep By: LGM	Checked By: RE
Oct. 15, 2002	ETGI Project #YA2217	

NE 1/4 of the NW 1/4 of Section 25, Township 18 South, Range 28 East

Monitoring Well MW - 4

Depth (feet)	Soil Columns	PID Reading	Odor	Stain	Notes
0					
5		537	Strong	Heavy	
10		685	Strong	Heavy	
15		9.1	None	None	
20		5.8	None	None	
25		21.7	None	None	
30		11.8	None	Organic	Moist
35	TD	4.6	None	None	Wet
40					
45					
50					
55					
60					
65					



Monitoring Well Details

Date Drilled	9 - 6 - 02
Thickness of Bentonite Seal	3 ft
Length of PVC Well Screen	15 ft
Depth of PVC Well	38 ft
Depth of Exploratory Well	38 ft
Depth to Ground Water	29 ft

Grout Surface Seal

Bentonite Pellet Seal

Sand Pack

Screen

Legend

Silty Sand - (SM) - Dark Olive, Very Fine Grained Fill.

Sandy Clay - (CL) - Grayish Black, Soft, Heavy Stained, Strong Odor.

Sand - (SW) - Greenish Black,Very Fine Grained, Well Sorted, Heavy Stain, and Odor.

Silty Sand - (SM) - Light Brown, Very Fine Grained, Well Sorted.

Sandy Clay - (CL) - Moderate Brown, Moderate Soft to Soft.

Sandy Clay - (CL) - Grayish Orange, Medium Soft, Moist.

Sandy Clay - (CL) - Dark Yellowish Orange, Medium Soft To Stiff, Medium Grained, Sub-Rounded Sand Grains, Quartz Gravel Seam.

Sandy Clay - (CL) - Very Light Gray, Soft, Moist.

Sand - (SW) - Very Light Gray, Fine Grained, Heavy Ferric Or Iron Staining, Well Sorted, Wet.

Sand - (SW) - Dark Yellowish Orange, Fine Grained, Well Sorted, Well Rounded, Wet.

Indicates samples selected for laboratory analysis.

Indicates the ground water level measured on date.

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

Completion Notes

1. The monitoring well was installed on date using hollow stem auger drilling techniques.
2. The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
3. The well is protected with a locked stick up steel cover and a 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.

Boring Log And Monitoring Well Detail

Monitoring Well - 4

Yates Petroleum. Former Williams Pit Site Eddy County, NM

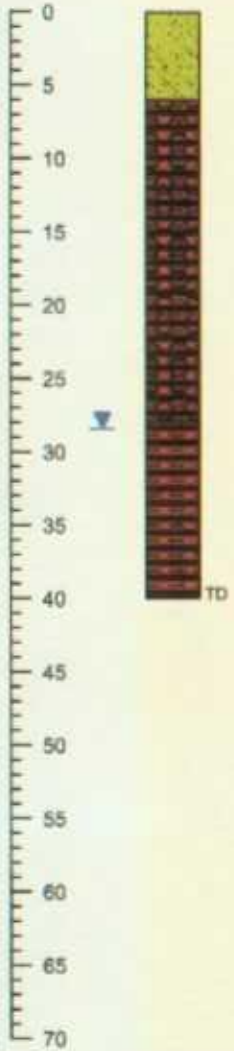
Environmental Technology Group, Inc.

Scale: NTS	Prep By: LGM	Checked By: RE
Oct. 15, 2002	ETGI Project #YA2217	

NE 1/4 of the NW 1/4 of Section 23, Township 18 South, Range 28 East

Soil Boring SB-6

Depth (feet)	Soil Columns	PID Reading	Petroleum Odor	Petroleum Stain
5		5.3	None	None
10		2.5	None	None
15		3.0	None	None
20		3.1	None	None
25		4.8	None	None
30		4.1	None	None



Legend

- Silty Sand - (SC) - Moderate Yellowish-Brown, Very Fine Grained.
- Sandy Clay -(CL)- Moderate Brown to Grayish-Orange, Soft to Medium, Sporatic Caliche Nodules.
- Sandy Clay - (CL) - Moderate Brown, Soft, Moist to Wet.
- PID — Head-space reading in ppm obtained with a photo-ionization detector. All PID readings were analyzed.
- Indicates samples selected for laboratory analysis.
- Indicates the ground water level measured on date.

Soil Boring Details

Date Drilled 08 / 28 / 02

Plugged - Surface to TD with Bentonite and hydrated with deionized water.

Soil Boring Log Details

Soil Boring SB-6

Yates Petroleum. Former Williams Pit Site Eddy County, NM

Environmental Technology Group, Inc.

Scale: NTS	Prep By: LGM	Checked By: RB
Oct. 15, 2002	ETGI Project #YA2217	

NE 1/4 of the NW 1/4 of Section 25, Township 18 South, Range 28 East

Appendix B

Laboratory Reports

ANALYTICAL REPORT

Prepared for:

Robert Eidson
Environmental Technology Group, Inc.
2540 West Marland
Hobbs, NM 88242

Project:	Yates Petroleum
PO#:	YA-2200
Order#:	G0204449
Report Date:	09/12/2002

Certificates
US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

Environmental Technology Group, Inc.
2540 West Marland
Hobbs, NM 88242
505-394-4701

Order#: G0204449
Project:
Project Name: Yates Petroleum
Location: Artesia, NM

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

Lab ID:	Sample :	Matrix:	Date / Time Collected	Date / Time Received	Container	Preservative
0204449-01	Williams MW-1 15'	SOIL	8/28/02 10:16	9/6/02 12:30	4 oz Glass	Ice
	Lab Testing: 8015M, 8021B/5030 BTEX, Chloride	Rejected: No		Temp: 0.5 C		
0204449-02	Williams MW-1 25'	SOIL	8/28/02 10:34	9/6/02 12:30	4 oz Glass	Ice
	Lab Testing: 8015M, 8021B/5030 BTEX, Chloride	Rejected: No		Temp: 0.5 C		
0204449-03	Williams MW-1 30'	SOIL	8/28/02 10:50	9/6/02 12:30	4 oz Glass	Ice
	Lab Testing: 8015M, 8021B/5030 BTEX, Chloride	Rejected: No		Temp: 0.5 C		
0204449-04	Williams MW-2 20'	SOIL	8/28/02 16:22	9/6/02 12:30	4 oz Glass	Ice
	Lab Testing: 8015M, 8021B/5030 BTEX, Chloride	Rejected: No		Temp: 0.5 C		
0204449-05	Williams MW-2 30'	SOIL	8/28/02 16:51	9/6/02 12:30	4 oz Glass	Ice
	Lab Testing: 8015M, 8021B/5030 BTEX, Chloride	Rejected: No		Temp: 0.5 C		
0204449-06	Lattion MW-1 35'	SOIL	9/3/02 9:59	9/6/02 12:30	4 oz Glass	Ice
	Lab Testing: 8015M	Rejected: No		Temp: 0.5 C		

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Robert Eidson
Environmental Technology Group, Inc.
2540 West Marland
Hobbs, NM 88242

Order#: G0204449
Project:
Project Name: Yates Petroleum
Location: Artesia, NM

Lab ID: 0204449-01
Sample ID: Williams MW-1 15'

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		9/6/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0003097-02		9/10/02 0:43	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	103%	80	120
Bromofluorobenzene	109%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Robert Eidson
Environmental Technology Group, Inc.
2540 West Marland
Hobbs, NM 88242

Order#: G0204449
Project:
Project Name: Yates Petroleum
Location: Artesia, NM

Lab ID: 0204449-02
Sample ID: Williams MW-1 25'

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		9/6/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0003097-02		9/10/02 9:02	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	121%	80	120
Bromofluorobenzene	116%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Robert Eidson
Environmental Technology Group, Inc.
2540 West Marland
Hobbs, NM 88242

Order#: G0204449
Project:
Project Name: Yates Petroleum
Location: Artesia, NM

Lab ID: 0204449-03
Sample ID: Williams MW-1 30'

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		9/6/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0003097-02		9/10/02 9:24	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	114%	80	120
Bromofluorobenzene	114%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Robert Eidson
Environmental Technology Group, Inc.
2540 West Marland
Hobbs, NM 88242

Order#: G0204449
Project:
Project Name: Yates Petroleum
Location: Artesia, NM

Lab ID: 0204449-04
Sample ID: Williams MW-2 20'

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		9/6/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0003097-02		9/10/02 9:46	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	105%	80	120
Bromofluorobenzene	110%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Robert Eidson
Environmental Technology Group, Inc.
2540 West Marland
Hobbs, NM 88242

Order#: G0204449
Project:
Project Name: Yates Petroleum
Location: Artesia, NM

Lab ID: 0204449-01
Sample ID: Williams MW-1 15'

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	851	mg/kg	1	20	9253	9/11/02	SB

Lab ID: 0204449-02
Sample ID: Williams MW-1 25'

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	6760	mg/kg	1	20	9253	9/11/02	SB

Lab ID: 0204449-03
Sample ID: Williams MW-1 30'

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	7270	mg/kg	1	20	9253	9/11/02	SB

Lab ID: 0204449-04
Sample ID: Williams MW-2 20'

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	5940	mg/kg	1	20	9253	9/11/02	SB

Lab ID: 0204449-05
Sample ID: Williams MW-2 30'

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	14100	mg/kg	1	20	9253	9/11/02	SB

Lab ID: 0204449-06
Sample ID: Lattion MW-1 35'

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	390	mg/kg	1	20	9253	9/11/02	SB

RL = Reporting Limit N/A = Not Applicable

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8015M

Order#: G0204449

BLANK SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	0003091-02			<10.0		
TOTAL, C6-C35-mg/kg	0003092-02			<10.0		
CONTROL SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	0003091-03		952	859	90.2%	
CONTROL DUP SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	0003091-04		952	847	89.%	1.4%
MS SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	0204449-08	0	952	828	87.%	
MSD SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	0204449-08	0	952	867	91.1%	4.6%
SRM SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	0003091-05		1000	849	84.9%	
TOTAL, C6-C35-mg/kg	0003092-05		1000	862	86.2%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0204449

BLANK SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg	0003097-02			<0.025		
Benzene-mg/kg	0003104-02			<0.025		
Benzene-mg/kg	0003116-02			<0.025		
Ethylbenzene-mg/kg	0003097-02			<0.025		
Ethylbenzene-mg/kg	0003104-02			<0.025		
Ethylbenzene-mg/kg	0003116-02			<0.025		
Toluene-mg/kg	0003097-02			<0.025		
Toluene-mg/kg	0003104-02			<0.025		
Toluene-mg/kg	0003116-02			<0.025		
p/m-Xylene-mg/kg	0003097-02			<0.025		
p/m-Xylene-mg/kg	0003104-02			<0.025		
p/m-Xylene-mg/kg	0003116-02			<0.025		
o-Xylene-mg/kg	0003097-02			<0.025		
o-Xylene-mg/kg	0003104-02			<0.025		
o-Xylene-mg/kg	0003116-02			<0.025		

CONTROL SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg	0003104-03		0.1	0.085	85.%	
Ethylbenzene-mg/kg	0003104-03		0.1	0.086	86.%	
Toluene-mg/kg	0003104-03		0.1	0.086	86.%	
p/m-Xylene-mg/kg	0003104-03		0.2	0.178	89.%	
o-Xylene-mg/kg	0003104-03		0.1	0.086	86.%	

CONTROL DUP SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg	0003104-04		0.1	0.087	87.%	2.3%
Ethylbenzene-mg/kg	0003104-04		0.1	0.089	89.%	3.4%
Toluene-mg/kg	0003104-04		0.1	0.090	90.%	4.5%
p/m-Xylene-mg/kg	0003104-04		0.2	0.185	92.5%	3.9%
o-Xylene-mg/kg	0003104-04		0.1	0.089	89.%	3.4%

MS SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg	0204447-06	0	0.1	0.090	90.%	
Benzene-mg/kg	0204450-09	0	0.1	0.085	85.%	
Ethylbenzene-mg/kg	0204447-06	0	0.1	0.092	92.%	
Ethylbenzene-mg/kg	0204450-09	0	0.1	0.085	85.%	
Toluene-mg/kg	0204447-06	0	0.1	0.093	93.%	
Toluene-mg/kg	0204450-09	0	0.1	0.085	85.%	
p/m-Xylene-mg/kg	0204447-06	0	0.2	0.190	95.%	
p/m-Xylene-mg/kg	0204450-09	0	0.2	0.178	89.%	
o-Xylene-mg/kg	0204447-06	0	0.1	0.092	92.%	
o-Xylene-mg/kg	0204450-09	0	0.1	0.086	86.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

MSD SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg	0204447-06	0	0.1	0.087	87.%	3.4%
Benzene-mg/kg	0204450-09	0	0.1	0.087	87.%	2.3%
Ethylbenzene-mg/kg	0204447-06	0	0.1	0.089	89.%	3.3%
Ethylbenzene-mg/kg	0204450-09	0	0.1	0.090	90.%	5.7%
Toluene-mg/kg	0204447-06	0	0.1	0.089	89.%	4.4%
Toluene-mg/kg	0204450-09	0	0.1	0.089	89.%	4.6%
p/m-Xylene-mg/kg	0204447-06	0	0.2	0.184	92.%	3.2%
p/m-Xylene-mg/kg	0204450-09	0	0.2	0.186	93.%	4.4%
o-Xylene-mg/kg	0204447-06	0	0.1	0.089	89.%	3.3%
o-Xylene-mg/kg	0204450-09	0	0.1	0.091	91.%	5.6%

SRM SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg	0003097-05		0.1	0.088	88.%	
Benzene-mg/kg	0003104-05		0.1	0.104	104.%	
Benzene-mg/kg	0003116-05		0.1	0.103	103.%	
Ethylbenzene-mg/kg	0003097-05		0.1	0.089	89.%	
Ethylbenzene-mg/kg	0003104-05		0.1	0.106	106.%	
Ethylbenzene-mg/kg	0003116-05		0.1	0.107	107.%	
Toluene-mg/kg	0003097-05		0.1	0.090	90.%	
Toluene-mg/kg	0003104-05		0.1	0.107	107.%	
Toluene-mg/kg	0003116-05		0.1	0.107	107.%	
p/m-Xylene-mg/kg	0003097-05		0.2	0.184	92.%	
p/m-Xylene-mg/kg	0003104-05		0.2	0.218	109.%	
p/m-Xylene-mg/kg	0003116-05		0.2	0.221	110.5%	
o-Xylene-mg/kg	0003097-05		0.1	0.089	89.%	
o-Xylene-mg/kg	0003104-05		0.1	0.104	104.%	
o-Xylene-mg/kg	0003116-05		0.1	0.107	107.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0204449

BLANK SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg	0003111-01			<20.0		
Chloride-mg/kg	0003112-01			<20.0		
MS SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg	0204449-01	851	1000	1840	98.9%	
Chloride-mg/kg	0204449-21	390	1000	1400	101.%	
MSD SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg	0204449-01	851	1000	1830	97.9%	0.5%
Chloride-mg/kg	0204449-21	390	1000	1382	99.2%	1.3%
SRM SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg	0003111-04		5000	4960	99.2%	
Chloride-mg/kg	0003112-04		5000	4960	99.2%	

CASE NARRATIVE

ENVIRONMENTAL LAB OF TEXAS

Prepared for:

Environmental Technology Group, Inc.
2540 West Marland
Hobbs, NM 88242

Order#: G0204449

Project: Yates Petroleum

The following samples were received as indicated and on the attached Chain of Custody record. All analyses were performed within the holding time and with acceptable quality control results unless otherwise noted.

SAMPLE ID	LAB ID	MATRIX	Date Collected	Date Received
Williams MW-1 15'	0204449-01		08/28/2002	09/06/2002
Williams MW-1 25'	0204449-02		08/28/2002	09/06/2002
Williams MW-1 30'	0204449-03		08/28/2002	09/06/2002
Williams MW-2 20'	0204449-04		08/28/2002	09/06/2002
Williams MW-2 30'	0204449-05		08/28/2002	09/06/2002
Lattion MW-1 35'	0204449-06		09/03/2002	09/06/2002
Lattion MW-1 58'	0204449-07		09/03/2002	09/06/2002
Lattion MW-1 70'	0204449-08		09/03/2002	09/06/2002
Lattion MW-2 25'	0204449-09		09/03/2002	09/06/2002
Lattion MW-2 55'	0204449-10		09/04/2002	09/06/2002
Lattion MW-2 70'	0204449-11		09/04/2002	09/06/2002
Lattion MW-3 15'	0204449-12		09/04/2002	09/06/2002
Lattion MW-3 35'	0204449-13		09/04/2002	09/06/2002
Lattion MW-3 65'	0204449-14		09/05/2002	09/06/2002
Lattion MW-4 20'	0204449-15		09/04/2002	09/06/2002
Lattion MW-4 45	0204449-16		09/05/2002	09/06/2002
Lattion MW-4 55'	0204449-17		09/05/2002	09/06/2002
Scripps MW-2 10'	0204449-18		08/30/2002	09/06/2002
Scripps MW-2 25'	0204449-19		08/30/2002	09/06/2002
Scripps MW-2 45'	0204449-20		08/30/2002	09/06/2002
Scripps MW-3 15'	0204449-21		08/30/2002	09/06/2002
Scripps MW-3 30'	0204449-22		08/30/2002	09/06/2002
Scripps MW-3 45'	0204449-23		08/30/2002	09/06/2002
Scripps MW-4 10'	0204449-24		08/30/2002	09/06/2002
Scripps MW-4 20'	0204449-25		08/30/2002	09/06/2002
Scripps MW-4 42'	0204449-26		08/30/2002	09/06/2002

Sample 0204449-25 had a high recovery [illegible] of the surrogates due to coeluting compounds.

CASE NARRATIVE

ENVIRONMENTAL LAB OF TEXAS

Prepared for:

Environmental Technology Group, Inc.
2540 West Marland
Hobbs, NM 88242

Order#: G0204449

Project: Yates Petroleum

The following samples were received as indicated below and on the attached Chain of Custody record. All analyses were performed within the holding time and with acceptable quality control results unless otherwise noted.

The enclosed results of analyses are representative of the samples as received by the laboratory. Environmental Lab of Texas makes no representations or certifications as to the methods of sample collection, sample identification, or transportation handling procedures used prior to our receipt of samples. To the best of my knowledge, the information contained in this report is accurate and complete.

Approved By: Rolandt Tabb Date: 9-13-02

Environmental Lab of Texas I, Ltd.

COC # 141 1 of 3

Environmental Lab of Texas I, Ltd.

500 West I-20 East
Odessa, Texas 79763
Phone: 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Robert Eidson
Company Name: ETGI
Company Address: 2540 W. Marland
City/State/Zip: Hobbs, NM 88240
Telephone No: (505) 397-4882 Fax No: (505) 397-4701
Sampler Signature: Robert Eidson

Project Name: Yates Petroleum
Project #: YA-2200
Project Loc: Artesia, NM
PO #:

Nov 07 02 02:57p

LAB # (lab use only)	FIELD CODE	Date Sampled (2002)	Time Sampled	No. of Containers	Preservative: Ice	HNO3	HCl	NaOH	H2SO4	None	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify)	Analyze For: TCLP / TOTAL: TPH 418.1 / 8015M / 1005 / 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	ROI	RUSH TAT (Pre-Schedule)	Standard TAT
22041119-01	Williams MW-1 15'	8-28	10:16	1	X									X		X		X					X			
02	Williams MW-1 25'	8-28	10:34																							
03	Williams MW-1 30'	8-28	10:50																							
04	Williams MW-2 20'	8-28	16:22																							
05	Williams MW-2 30'	8-28	16:51																							
06	Lattion MW-1 35'	9-3	09:59																							
07	Lattion MW-1 58'	9-3	12:11																							
08	Lattion MW-1 70'	9-3	13:15																							
09	Lattion MW-2 25'	9-3	17:12																							
10	Lattion MW-2 55'	9-4	08:01	↓	↓									↓		↓		↓					↓			

Special Instructions:

Sample Containers Intact? Y N
Temperature Upon Receipt:
Laboratory Comments:
Rec 0.5°C

Relinquished by	Date	Time	Received by:	Date	Time
Robert Eidson	9-6-02	09:31		9-6-02	931
Relinquished by	Date	Time	Received by ELOT:	Date	Time
	9-6-02	12:35		9/06/02	1230

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COC # 141 dof 3

nvironmental Lab of Texas I, Ltd.

500 West I-20 East
esso, Texas 79763
Phone: 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Robert Eidson
Company Name: ETGT
Company Address: 3540 W Marland
City/State/Zip: Hobbs, NM 88240
Telephone No: (505) 397-4882 Fax No (505) 397-4701
Sampler Signature: Robert Eidson

Project Name: Yates Petroleum
Project #: YA 2200
Project Loc: Artesia, NM
PO #:

Nov 07 02 02:57p

AEI # (Lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	HNO3	HCl	NaOH	H2SO4	None	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify):	Analyze For: TCLP: (TPH) 418.1	8015M	1005	1006	TOTAL: Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	IRC	RUSH TAT (Pre-Schedule)	Standard TAT
020444		2002																										
11	LAtlion MW-2 70'	9-4	08:55	1	X									X		X				X						X		
12	LAtlion MW-3 15'	9-4	10:45																									
13	LAtlion MW-3 35'	9-4	11:26																									
14	LAtlion MW-3 65'	9-5	12:22																									
15	LAtlion MW-4 20'	9-4	15:34																									
16	LAtlion MW-4 45'	9-5	07:57																									
17	LAtlion MW-4 55'	9-5	09:00																									
18	Scripps MW-2 10'	8-30	09:48																									
19	Scripps MW-2 25'	8-30	10:26																									
20	Scripps MW-2 45'	8-30	11:12																									

Special Instructions:

Sample Containers Intact? Y N
Temperature Upon Receipt:
Laboratory Comments:
rec 0.5°C

Relinquished by:	Date	Time	Received by:	Date	Time
Robert Eidson	9-6-02	0931		9-6-02	9 31
Relinquished by	Date	Time	Received by ELOT:	Date	Time
	9-6-02	12:35		9-6-02	1230

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(loc # 141 3 of 3.

Environmental Lab of Texas, Inc.

12600 West I-20 East
Odessa, Texas 79763
Phone: 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Robert Eidson
Company Name: ETGI
Company Address: 2540 W. Marland
City/State/Zip: Hobbs, NM 88240
Telephone No: (505) 397-4882 Fax No: (505) 397-4701
Sampler Signature: Robert Eidson

Project Name: Yates Petroleum
Project #: VA 2200
Project Loc: Artesia, NM
PO #:

Nov 07 02 02:58p

0204449 LAB # (lab use only)	FIELD CODE	Date Sampled (2002)	Time Sampled	No. of Containers	Preservative: Ice	HNO3	HCl	NaOH	H2SO4	None	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify)	Analyze For: TCLP / TOTAL: TDS (CL) SAR / EC	TPH 418.1	TPH TX 1005/1006	TPH 8015M GRO/DRO	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030								RUSH TAT (Pre-Schedule)	Standard TAT
21	Scripps MW-3 15'	9-30	11:56	1	X									X		X			X				X									
22	Scripps MW-3 30'	9-30	12:24																													
23	Scripps MW-3 45'	9-30	12:54																													
24	Scripps MW-4 10'	9-30	14:48																													
25	Scripps MW-4 30'	9-30	15:04																													
26	Scripps MW-4 42'	9-30	15:47																													

Special Instructions:

Sample Containers Intact? Y N
Temperature Upon Receipt:
Laboratory Comments:
Rec. 0.5°C

Relinquished by	Date	Time	Received by	Date	Time
Robert Eidson	9-6-02	6931		9-6-02	93[illegible]
Relinquished by:	Date	Time	Received by ELOT	Date	Time
	9-602	12:35		9-6-02	1230

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ANALYTICAL REPORT

Prepared for:

KEN DUTTON
Environmental Technology Group, Inc.
2540 W. MARLAND
HOBBS, NM 88240

Project:	Williams
PO#:	
Order#:	G0204527
Report Date:	09/20/2002

Certificates
US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

Environmental Technology Group, Inc.
2540 W. MARLAND
HOBBS, NM 88240
505-397-4701

Order#: G0204527
Project: YA2217
Project Name: Williams
Location: Artesia, NM

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

Lab ID:	Sample :	Matrix:	Date / Time Collected	Date / Time Received	Container	Preservative
0204527-01	Williams MW-3 (15')	SOIL	9/6/02 8:44	9/16/02 14:10	4 oz glass	Ice
	Lab Testing: 8015M, 8021B/5030 BTEX, Chloride	**Rejected:** No		**Temp:** 4 C		
0204527-02	Williams MW-3 (25')	SOIL	9/6/02 9:03	9/16/02 14:10	4 oz glass	Ice
	Lab Testing: 8015M, 8021B/5030 BTEX, Chloride	**Rejected:** No		**Temp:** 4 C		
0204527-03	Williams MW-3 (35')	SOIL	9/6/02 9:25	9/16/02 14:10	4 oz glass	Ice
	Lab Testing: 8015M, 8021B/5030 BTEX, Chloride	**Rejected:** No		**Temp:** 4 C		
0204527-04	Williams MW-4 (5')	SOIL	9/6/02 10:50	9/16/02 14:10	4 oz glass	Ice
	Lab Testing: 8015M, 8021B/5030 BTEX, Chloride	**Rejected:** No		**Temp:** 4 C		
0204527-05	Williams MW-4 (10')	SOIL	9/6/02 11:02	9/16/02 14:10	4 oz glass	Ice
	Lab Testing: 8015M, 8021B/5030 BTEX, Chloride	**Rejected:** No		**Temp:** 4 C		
0204527-06	Williams MW-4 (29')	SOIL	9/6/02 12:00	9/16/02 14:10	4 oz glass	Ice
	Lab Testing: 8015M	**Rejected:** No		**Temp:** 4 C		

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

Environmental Technology Group, Inc.
2540 W. MARLAND
HOBBS, NM 88240
505-397-4701

Order#: G0204527
Project: YA2217
Project Name: Williams
Location: Artesia, NM

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

Lab ID:	Sample :	Matrix:	Date / Time Collected	Date / Time Received	Container	Preservative
	8021B/5030 BTEX					
	Chloride					

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

KEN DUTTON
Environmental Technology Group, Inc.
2540 W. MARLAND
HOBBS, NM 88240

Order#:	G0204527
Project:	YA2217
Project Name:	Williams
Location:	Artesia, NM

Lab ID: 0204527-01
Sample ID: Williams MW-3 (15')

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		9/17/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0003187-02		9/19/02 18:05	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	106%	80	120
Bromofluorobenzene	104%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

KEN DUTTON
Environmental Technology Group, Inc.
2540 W. MARLAND
HOBBS, NM 88240

Order#: G0204527
Project: YA2217
Project Name: Williams
Location: Artesia, NM

Lab ID: 0204527-02
Sample ID: Williams MW-3 (25')

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		9/17/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0003187-02		9/19/02 18:27	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	91%	80	120
Bromofluorobenzene	95%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

KEN DUTTON
Environmental Technology Group, Inc.
2540 W. MARLAND
HOBBS, NM 88240

Order#: G0204527
Project: YA2217
Project Name: Williams
Location: Artesia, NM

Lab ID: 0204527-03
Sample ID: Williams MW-3 (35')

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		9/17/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0003187-02		9/19/02 18:50	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	100%	80	120
Bromofluorobenzene	97%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

KEN DUTTON
Environmental Technology Group, Inc.
2540 W. MARLAND
HOBBS, NM 88240

Order#: G0204527
Project: YA2217
Project Name: Williams
Location: Artesia, NM

Lab ID: 0204527-04
Sample ID: Williams MW-4 (5')

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		9/17/02	1	10	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	**1380**	100
DRO, >C12-C35	**9720**	100
TOTAL, C6-C35	**11100**	100

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0003187-02		9/19/02 19:12	1	100	CK	8021B

Parameter	Result mg/kg	RL
Benzene	**8.11**	0.100
Ethylbenzene	**20.3**	0.100
Toluene	**2.81**	0.100
p/m-Xylene	**24.4**	0.100
o-Xylene	**9.71**	0.100

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	**158%**	**80**	**120**
Bromofluorobenzene	**96%**	**80**	**120**

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

KEN DUTTON
Environmental Technology Group, Inc.
2540 W. MARLAND
HOBBS, NM 88240

Order#: G0204527
Project: YA2217
Project Name: Williams
Location: Artesia, NM

Lab ID: 0204527-05
Sample ID: Williams MW-4 (10')

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		9/17/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	**467**	10.0
DRO, >C12-C35	**4,550**	10.0
TOTAL, C6-C35	**5,017**	10.0

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0003187-02		9/19/02 19:34	1	100	CK	8021B

Parameter	Result mg/kg	RL
Benzene	**3.08**	0.100
Ethylbenzene	**12.4**	0.100
Toluene	**1.18**	0.100
p/m-Xylene	**14.6**	0.100
o-Xylene	**5.36**	0.100

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	**248%**	**80**	**120**
Bromofluorobenzene	**102%**	**80**	**120**

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

KEN DUTTON
Environmental Technology Group, Inc.
2540 W. MARLAND
HOBBS, NM 88240

Order#: G0204527
Project: YA2217
Project Name: Williams
Location: Artesia, NM

Lab ID: 0204527-06
Sample ID: Williams MW-4 (29')

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		9/17/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	**<10.0**	10.0
DRO, >C12-C35	**<10.0**	10.0
TOTAL, C6-C35	**<10.0**	10.0

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0003187-02		9/19/02 19:56	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	**<0.025**	0.025
Ethylbenzene	**<0.025**	0.025
Toluene	**<0.025**	0.025
p/m-Xylene	**<0.025**	0.025
o-Xylene	**<0.025**	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	**103%**	**80**	**120**
Bromofluorobenzene	**103%**	**80**	**120**

Approval: Raland K Tuttle 9-23-02
Raland K. Tuttle, Lab Director, QA Officer — Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

KEN DUTTON
Environmental Technology Group, Inc.
2540 W. MARLAND
HOBBS, NM 88240

Order#: G0204527
Project: YA2217
Project Name: Williams
Location: Artesia, NM

Lab ID: 0204527-01
Sample ID: Williams MW-3 (15')

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	8680	mg/kg	1	20	9253	9/17/02	SB

Lab ID: 0204527-02
Sample ID: Williams MW-3 (25')

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	11000	mg/kg	1	20	9253	9/17/02	SB

Lab ID: 0204527-03
Sample ID: Williams MW-3 (35')

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	5320	mg/kg	1	20	9253	9/17/02	SB

Lab ID: 0204527-04
Sample ID: Williams MW-4 (5')

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	4250	mg/kg	1	20	9253	9/17/02	SB

Lab ID: 0204527-05
Sample ID: Williams MW-4 (10')

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	7440	mg/kg	1	20	9253	9/17/02	SB

Lab ID: 0204527-06
Sample ID: Williams MW-4 (29')

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	2750	mg/kg	1	20	9253	9/17/02	SB

RL = Reporting Limit N/A = Not Applicable

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

KEN DUTTON	Order#:	G0204527
Environmental Technology Group, Inc.	Project:	YA2217
2540 W. MARLAND	Project Name:	Williams
HOBBS, NM 88240	Location:	Artesia, NM

Approval: Raland K. Tuttle 9-23-02
Raland K. Tuttle, Lab Director, QA Officer Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

RL = Reporting Limit N/A = Not Applicable

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8015M

Order#: G0204527

BLANK SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	0003172-02			<10.0		
CONTROL SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
TOTAL, C6-C35-mg/kg	0003172-03		1000	1070	107.%	
CONTROL DUP SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
TOTAL, C6-C35-mg/kg	0003172-04		1000	1080	108.%	0.9%
SRM SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
TOTAL, C6-C35-mg/kg	0003172-05		1000	1080	108.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0204527

BLANK SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg	0003187-02			<0.025		
Ethylbenzene-mg/kg	0003187-02			<0.025		
Toluene-mg/kg	0003187-02			<0.025		
p/m-Xylene-mg/kg	0003187-02			<0.025		
o-Xylene-mg/kg	0003187-02			<0.025		
MS SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Benzene-mg/kg	0204528-01	0	0.1	0.103	103.%	
Ethylbenzene-mg/kg	0204528-01	0	0.1	0.106	106.%	
Toluene-mg/kg	0204528-01	0	0.1	0.105	105.%	
p/m-Xylene-mg/kg	0204528-01	0	0.2	0.220	110.%	
o-Xylene-mg/kg	0204528-01	0	0.1	0.106	106.%	
MSD SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Benzene-mg/kg	0204528-01	0	0.1	0.102	102.%	1.%
Ethylbenzene-mg/kg	0204528-01	0	0.1	0.106	106.%	0.%
Toluene-mg/kg	0204528-01	0	0.1	0.104	104.%	1.%
p/m-Xylene-mg/kg	0204528-01	0	0.2	0.219	109.5%	0.5%
o-Xylene-mg/kg	0204528-01	0	0.1	0.105	105.%	0.9%
SRM SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Benzene-mg/kg	0003187-05		0.1	0.107	107.%	
Ethylbenzene-mg/kg	0003187-05		0.1	0.107	107.%	
Toluene-mg/kg	0003187-05		0.1	0.108	108.%	
p/m-Xylene-mg/kg	0003187-05		0.2	0.222	111.%	
o-Xylene-mg/kg	0003187-05		0.1	0.107	107.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0204527

BLANK SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg	0003168-01			<20.00		
MS SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Chloride-mg/kg	0204527-01	8680	5000	13600	98.4%	
MSD SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Chloride-mg/kg	0204527-01	8680	5000	13600	98.4%	0.%
SRM SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Chloride-mg/kg	0003168-04		5000	4960	99.2%	

CASE NARRATIVE

ENVIRONMENTAL LAB OF TEXAS

Prepared for:

Environmental Technology Group, Inc.
2540 W. MARLAND
HOBBS, NM 88240

Order#: **G0204527**

Project: **Williams**

The following samples were received as indicated below and on the attached Chain of Custody record. All analyses were performed within the holding time and with acceptable quality control results unless otherwise noted.

SAMPLE ID	LAB ID	MATRIX	Date Collected	Date Received
Williams MW-3 (15'	0204527-01	SOIL	09/06/2002	09/16/2002
Williams MW-3 (25'	0204527-02	SOIL	09/06/2002	09/16/2002
Williams MW-3 (35'	0204527-03	SOIL	09/06/2002	09/16/2002
Williams MW-4 (5')	0204527-04	SOIL	09/06/2002	09/16/2002
Williams MW-4 (10'	0204527-05	SOIL	09/06/2002	09/16/2002
Williams MW-4 (29'	0204527-06	SOIL	09/06/2002	09/16/2002

Surrogate recoveries are outside control limits due to interference from coeluting compounds

The enclosed results of analyses are representative of the samples as received by the laboratory. Environmental Lab of Texas makes no representations or certifications as to the methods of sample collection, sample identification, or transportation handling procedures used prior to our receipt of samples. To the best of my knowledge, the information contained in this report is accurate and complete.

Approved By: Kalamdk Jubl Date: 9-23-02

Environmental Lab of Texas I, Ltd.

C.O.C # 147 Williams 1 of 2

Environmental Lab of Texas I, Ltd.

2600 West I-20 East
Odessa, Texas 79763
Phone: 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: KEN DUTTON
Company Name: ETGI
Company Address: 2540 WEST MARLAND
City/State/Zip: HOBBS / NM / 88242
Telephone No: (505) 397-4882
Fax No: (505) 397-4701
Sampler Signature:

Project Name: ~~YATES~~ VARIOUS
Project #: ~~YA 2220~~
Project Loc: ARTESIA, NM
PO #:

0204527

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	HNO_3	HCl	NaOH	H_2SO_4	None	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify):	Analyze For: TCLP: TPH: 418.1 8015M 1005 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	TOTAL: BTEX 8021B/5030	RCI	RUSH TAT (Pre-Schedule)	Standard TAT
01	WILLIAMS MW-3 (15')	9/6/02	0844	1	X									X		X		X					X			X
02	WILLIAMS MW-3 (25')	9/6/02	0903	1	X									X		X		X					X			X
03	WILLIAMS MW-3 (35')	9/6/02	0925	1	X									X		X		X					X			X
04	WILLIAMS MW-4 (5')	9/6/02	1050	1	X									X		X		X					X			X
05	WILLIAMS MW-4 (10')	9/6/02	1102	1	X									X		X		X					X			X
06	WILLIAMS MW-4 (29')	9/6/02	1200	1	X									X		X		X					X			X
	INEX MW-1 (35')	9/9/02	1000	1	X									X		X		X					X			X
	INEX MW-1 (55')	9/9/02	1113	1	X									X		X		X					X			X
	INEX MW-1 (70')	9/9/02	1229	1	X									X		X		X					X			X
	INEX MW-2 (35')	9/10/02	0855	1	X									X		X		X					X			X

Special Instructions: PROJ. #'s WILLIAMS: YA 2217
INEX: YA 2220

Sample Containers Intact? Y N
Temperature Upon Receipt:
Laboratory Comments:
4°C

Relinquished by:	Date	Time	Received by:	Date	Time
	9/14/02	14:10			
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
				9-16-02	14:10

ANALYTICAL REPORT

Prepared for:

KEN DUTTON
E.T.G.I.
2540 WEST MARLAND
HOBBS, NM 88240

Project:	Williams
PO#:	
Order#:	G0204571
Report Date:	09/30/2002

Certificates
US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

E.T.G.I.
2540 WEST MARLAND
HOBBS, NM 88240
505-397-4701

Order#: G0204571
Project: YA 2217
Project Name: Williams
Location: Artesia, NM

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

Lab ID:	Sample :	Matrix:	Date / Time Collected	Date / Time Received	Container	Preservative
0204571-01	MW 1	WATER	9/19/02 9:50	9/20/02 14:05	See COC	Ice
	Lab Testing:	**Rejected:** No		**Temp:** 3.0 C		
	8021B/5030 BTEX					
	Chloride					
	Total Dissolved Solids (TDS)					
0204571-02	MW 2	WATER	9/19/02 9:20	9/20/02 14:05	See COC	Ice
	Lab Testing:	**Rejected:** No		**Temp:** 3.0 C		
	8021B/5030 BTEX					
	Chloride					
	Total Dissolved Solids (TDS)					
0204571-03	MW 3	WATER	9/19/02 10:37	9/20/02 14:05	See COC	Ice
	Lab Testing:	**Rejected:** No		**Temp:** 3.0 C		
	8021B/5030 BTEX					
	Chloride					
	Total Dissolved Solids (TDS)					
0204571-04	MW 4	WATER	9/19/02 10:15	9/20/02 14:05	See COC	Ice
	Lab Testing:	**Rejected:** No		**Temp:** 3.0 C		
	8021B/5030 BTEX					
	Chloride					
	Total Dissolved Solids (TDS)					

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

KEN DUTTON		Order#:	G0204571
E.T.G.I.		Project:	YA 2217
2540 WEST MARLAND		Project Name:	Williams
HOBBS, NM 88240		Location:	Artesia, NM

Lab ID: 0204571-01
Sample ID: MW 1

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0003245-02		9/27/02 0:17	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	<0.001	0.001
Ethylbenzene	<0.001	0.001
Toluene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	92%	80	120
Bromofluorobenzene	94%	80	120

Lab ID: 0204571-02
Sample ID: MW 2

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0003245-02		9/27/02 0:40	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	<0.001	0.001
Ethylbenzene	<0.001	0.001
Toluene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	93%	80	120
Bromofluorobenzene	90%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

KEN DUTTON
E.T.G.I.
2540 WEST MARLAND
HOBBS, NM 88240

Order#: G0204571
Project: YA 2217
Project Name: Williams
Location: Artesia, NM

Lab ID: 0204571-0[illegible]
Sample ID: MW 3

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0003245-02		9/27/02 1:02	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.002	0.001
Ethylbenzene	<0.001	0.001
Toluene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	92%	80	120
Bromofluorobenzene	92%	80	120

Lab ID: 0204571-04
Sample ID: MW 4

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0003245-02		9/27/02 1:24	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.142	0.001
Ethylbenzene	<0.001	0.001
Toluene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	0.006	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	123%	80	120
Bromofluorobenzene	95%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

KEN DUTTON	Order#:	G0204571
E.T.G.I.	Project:	YA 2217
2540 WEST MARLAND	Project Name:	Williams
HOBBS, NM 88240	Location:	Artesia, NM

Approval: Raland K Tuttle 9-30-02
Raland K. Tuttle, Lab Director, QA Officer Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

KEN DUTTON
E.T.G.I.
2540 WEST MARLAND
HOBBS, NM 88240

Order#: G0204571
Project: YA 2217
Project Name: Williams
Location: Artesia, NM

Lab ID: 0204571-01
Sample ID: MW 1

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	26600	mg/L	1	5.00	9253	9/24/02	SB
Total Dissolved Solids (TDS)	36800	mg/L	1	5.0	160.1	9/24/02	TAL

Lab ID: 0204571-02
Sample ID: MW 2

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	13300	mg/L	1	5.00	9253	9/24/02	SB
Total Dissolved Solids (TDS)	22500	mg/L	1	5.0	160.1	9/24/02	TAL

Lab ID: 0204571-03
Sample ID: MW 3

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	33700	mg/L	1	5.00	9253	9/24/02	SB
Total Dissolved Solids (TDS)	50100	mg/L	1	5.0	160.1	9/24/02	TAL

Lab ID: 0204571-04
Sample ID: MW 4

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	8150	mg/L	1	5.00	9253	9/24/02	SB
Total Dissolved Solids (TDS)	14700	mg/L	1	5.0	160.1	9/24/02	TAL

Approval: Raland K Tuttle 9-30-02
Raland K. Tuttle, Lab Director, QA Officer — Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

RL = Reporting Limit N/A = Not Applicable

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0204571

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L	0003245-02			<0.001		
Ethylbenzene-mg/L	0003245-02			<0.001		
Toluene-mg/L	0003245-02			<0.001		
p/m-Xylene-mg/L	0003245-02			<0.001		
o-Xylene-mg/L	0003245-02			<0.001		
MS WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Benzene-mg/L	0204610-04	0	0.1	0.096	96.%	
Ethylbenzene-mg/L	0204610-04	0	0.1	0.098	98.%	
Toluene-mg/L	0204610-04	0	0.1	0.100	100.%	
p/m-Xylene-mg/L	0204610-04	0	0.2	0.208	104.%	
o-Xylene-mg/L	0204610-04	0	0.1	0.098	98.%	
MSD WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Benzene-mg/L	0204610-04	0	0.1	0.102	102.%	6.1%
Ethylbenzene-mg/L	0204610-04	0	0.1	0.104	104.%	5.9%
Toluene-mg/L	0204610-04	0	0.1	0.105	105.%	4.9%
p/m-Xylene-mg/L	0204610-04	0	0.2	0.221	110.5%	6.1%
o-Xylene-mg/L	0204610-04	0	0.1	0.105	105.%	6.9%
SRM WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Benzene-mg/L	0003245-05		0.1	0.095	95.%	
Ethylbenzene-mg/L	0003245-05		0.1	0.097	97.%	
Toluene-mg/L	0003245-05		0.1	0.098	98.%	
p/m-Xylene-mg/L	0003245-05		0.2	0.207	103.5%	
o-Xylene-mg/L	0003245-05		0.1	0.098	98.%	

COC: 189

Environmental Lab of Texas, Inc.

12600 West I-20 East
Odessa, Texas 79763
Phone: 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: KEN DUTTON
Company Name: ETGI
Company Address: 2540 W MARLAND
City/State/Zip: HOBBS NM 88240
Telephone No: (505) 397-4882
Fax No: (505) 397-4701
Sampler Signature: Simon Casas

Project Name: Williams
Project #: YA 2217
Project Loc: ARTESIA, NM
PO #:

LAB # (lab use only) 0204571	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	HNO₃	HCl 40 ML	NaOH	H₂SO₄	None L.5 HDPE	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify)	Analyze For: TDS/Cl/SAR/EC	TPH 418.1	TPH TX 1005/1006	TPH 8015M GRO/DRO	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B							RUSH TAT (Pre-Schedule)	Standard TAT
01	MW 1	9/19/02	0950	3	X		X			X		X				X							X								
02	MW 2	↓	0920	↓	↓		↓			↓		↓				↓							↓								
03	MW 3	↓	1037	↓	↓		↓			↓		↓				↓							↓								
04	MW 4	↓	1015	↓	↓		↓			↓		↓				↓							↓								

Special Instructions:

Relinquished by	Date	Time	Received by:	Date	Time
Simon Casas	9/20/02	1100	Marcelo Campos	9/20/02	1100
Relinquished by: Marcelo Campos	9/20/02	1405	Received by ELOT: Alan Keene	9/20/02	14:05

Sample Containers Intact? (Y) N
Temperature Upon Receipt: 3.0°C
Laboratory Comments:

Appendix C
Water Well Search

New Mexico Office of the State Engineer
Well Reports and Downloads

Township: 18S Range: 26E Sections: 23,24,25,26,35,36

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) ○ Non-Domestic ○ Domestic ◉ All

Well / Surface Data Report | Avg Depth to Water Report | Water Column Report | Clear Form | WATERS Menu | Help

WELL / SURFACE DATA REPORT 06/04/2003

DB File Nbr	Use (acre ft per annum)	Diversion	Owner	Well Number	Source	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are biggest to smallest) Tws	Rng	Sec	q	q	q	X Y are in Feet Zone	X	Y	UTM are in Meters) UTM Zone	Easting	Northi
RA 00297	IRR	1188.25	CHARLES MARTIN, INC.	RA 01296	Shallow	18S	26E	23	1	3	3				13	559997	362
				RA 01296 S	Shallow	18S	26E	23	3	1	1				13	559998	362
				RA 01296 S2	Shallow	18S	26E	23	1	3	2				13	560197	362
RA 00773	DOM	3	J.B. SMITH	RA 00773		18S	26E	23	2	1					13	560899	362
RA 00774	DOM	3	TOM LATTION	RA 00774		18S	26E	23	2	1					13	560899	362
RA 00775	DOM	0	BOARD OF REGENTS	RA 00775		18S	26E	23	2	1					13	556755	362
RA 00779	IRR	2832.2	DONALD FANNING AND SONS, INC.	RA 01524 S7	Shallow	18S	26E	25	1	1	1				13	561603	362
RA 00827	IRR	344.225	NEW MEXICO STATE UNIVERSITY	RA 00775		18S	26E	23	2	1					13	556755	362
RA 01144	DOM	0	CHARIES R. MARTIN	RA 01144 -S	Artesian	18S	26E	23	1	3					13	560098	362
RA 01210	IRR	673.75	ROGERS, INC.	RA 01210	Shallow	18S	26E	23	3	3	2				13	560199	362
				RA 01210 S	Shallow	18S	26E	23	2	2	1				13	561199	362
RA 01296	IRR	1067.15	CHARLES MARTIN INC.	RA 01296	Shallow	18S	26E	23	1	3	3				13	559997	362
				RA 01296 S	Shallow	18S	26E	23	3	1	1				13	559998	362
				RA 01296 S2	Shallow	18S	26E	23	1	3	2				13	560197	362
RA 01446 A	nul	0	CHARLES MARTIN	RA 01446 A		18S	26E	23	1	3	1				13	559997	362
RA 01881	PRO	0	BASSETT & BIRNEY ET AL	RA 01881		18S	26E	26	3	3					13	560105	361
RA 02132	nul	0	X	RA 02132		18S	26E	23	2	1	1				13	560798	362
RA 02132 B	IRR	866.6	BOB MORGAN	RA 02132 B	Shallow	18S	26E	24	1	2	1				13	562000	362
				RA 02132 BS		18S	26E	24	1	3	1				13	561600	362
				RA 02132 BS2	Shallow	18S	26E	24	1	1	3				13	561600	362
				RA 02132 BS3	Shallow	18S	26E	24	1	3	1				13	561600	362
RA 02627	PRO	3	SIMMS & RESSE OIL CO	RA 02627	Shallow	18S	26E	35	2	2	1				13	561215	361

RA 03217	nul	0	DONALD E. FANNING	RA 03217		18S	26E	25	1	1		13	561704	362
RA 03409	DOM	3	SANDRA TERRY	RA 03409	Shallow	18S	26E	24	2	4	1	13	562804	362
RA 03409 REPAR	DOM	3	SANDERS TERRY	RA 03409 REPAR	Shallow	18S	26E	24	2	4	2	13	563004	362
RA 03750	STK	3	PAUL & JOHNNIE ROGERS	RA 03750	Shallow	18S	26E	24	4	3		13	562508	362
RA 03900	DOM	3	PAUL & JOHNNIE ROGERS	RA 03900	Artesian	18S	26E	24	1	3	1	13	561600	362
RA 03968	DOM	3	SANDERS TERRY	RA 03968		18S	26E	24	2	2	1	13	562801	362
RA 04018	OBS	0	E. P. CAMPBELL	RA 04018		18S	26E	26	4	3	3	13	560807	361
RA 04022	OBS	0	E. P. CAMPBELL	RA 04022	Artesian	18S	26E	35	1	2		13	560511	361
RA 05237	DOM	3	QUENTIN ROGERS	RA 05237		18S	26E	23	2	1	3	13	560798	362
RA 06979	PRO	0	YATES PETROLEUM CORPORATION	RA 06979		18S	26E	25	1	1		13	561704	362
RA 07219	MUL	3	ROBERT LYNN BARNES	RA 07219	Shallow	18S	26E	26	4			13	561109	361
RA 07242 -EXPL	DOM	3	HUBERT C. GREEN	RA 07242 -EXPL	Shallow	18S	26E	26	4	3		13	560908	361
RA 07242 EXP	EXP	0	HUBERT C. GREEN	RA 07242 EXP	Shallow	18S	26E	26	4	3		13	560908	361
RA 07243 -EXPL	DOM	3	HUBERT C. GREEN	RA 07243 -EXPL	Shallow	18S	26E	26	4	3		13	560908	361
RA 07243 EXP	nul	0	HUBERT C. GREEN	RA 07243 EXP	Shallow	18S	26E	26	4	3		13	560908	361
RA 07243 EXPL	DOM	3	HUBERT C. GREEN	RA 07243 EXPL	Shallow	18S	26E	26	4	3		13	560908	361
RA 09207	NOT	3	GREGORY IRMA	RA 09207	Shallow	18S	26E	35	3	4	2	13	560625	361
RA 09208	NOT	3	GREGORY IRMA	RA 09208	Shallow	18S	26E	35	3	4	2	13	560625	361
RA 09209	NOT	3	GREGORY IRMA	RA 09209	Shallow	18S	26E	35	3	4	2	13	560625	361
RA 09210	NOT	3	GREGORY IRMA	RA 09210	Shallow	18S	26E	35	3	4	2	13	560625	361
RA 09211	NOT	3	GREGORY IRMA	RA 09211	Shallow	18S	26E	35	3	4	4	13	560625	361
RA 09212	NOT	3	GREGORY IRMA	RA 09212	Shallow	18S	26E	35	3	4	4	13	560625	361
RA 09213	DOM	3	GREGORY IRMA	RA 09213	Shallow	18S	26E	35	3	4	4	13	560625	361
RA 09214	NOT	3	GREGORY IRMA	RA 09214	Shallow	18S	26E	35	3	4	4	13	560625	361
RA 09374	PRO	0	H&S OIL LLC	RA 09374	Shallow	18S	26E	25	1	1	2	13	561803	362
RA 09874	DOM	3	MELLISA DUNCAN	RA 09874		18S	26E	35	1	2		13	560511	361

Record Count: 48

New Mexico Office of the State Engineer
Well Reports and Downloads

Township: 18S Range: 26E Sections: 23,24,25,26,35,36

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) ○ Non-Domestic ○ Domestic ◉ All

Well / Surface Data Report | Avg Depth to Water Report | Water Column Report | Clear Form | WATERS Menu | Help

AVERAGE DEPTH OF WATER REPORT 06/04/2003

							(Depth Water in Feet)		
Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	Min	Max	Avg
RA	18S	26E	23				2	70	80	75
RA	18S	26E	24				4	18	90	40
RA	18S	26E	26				6	50	55	52
RA	18S	26E	35				9	40	50	46

Record Count: 21

New Mexico Office of the State Engineer
Well Reports and Downloads

Township: 18S Range: 27E Sections: 19,30,31

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) Non-Domestic Domestic All

Well / Surface Data Report | Avg Depth to Water Report | Water Column Report

Clear Form | WATERS Menu | Help

WELL / SURFACE DATA REPORT 06/04/2003

(acre ft per annum) (quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are biggest to smallest) X Y are in Feet UTM are in Meters)

DB File Nbr	Use	Diversion	Owner	Well Number	Source	Tws	Rng	Sec	q	q	q	Zone	X	Y	UTM_Zone	Easting	Northi
RA 04298	OBS	0	LEE DRILLING CO	RA 04298	Shallow	18S	27E	19	2	1					13	564133	362
RA 05660	PRO	0	INC. READ & STEVENS	RA 05660	Shallow	18S	27E	31	4	3					13	564140	361

Record Count: 2

New Mexico Office of the State Engineer
Well Reports and Downloads

Township: 18S Range: 27E Sections: 19,30,31

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) ○ Non-Domestic ○ Domestic ◉ All

Well / Surface Data Report | Avg Depth to Water Report | Water Column Report | Clear Form | WATERS Menu | Help

AVERAGE DEPTH OF WATER REPORT 06/04/2003

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet) Min	Max	Avg
RA	18S	27E	31				1	65	65	65

Record Count: 1