

**AP - 36**

**STAGE 1 & 2  
WORKPLANS**

**DATE:**

**8/2003**

**STAGE 1 AND 2  
ABATEMENT PLAN**

*AP-0036  
HR-139*

**TNM 97-23 RELEASE SITE**

**Lea County, New Mexico**

**NW ¼ of the NE ¼ of Section 14, Township 22 South, Range 37 East  
NE ¼ of the NE ¼ of Section 14, Township 22 South, Range 37 East**

**Latitude: 32° 23' 45.3" North**

**Longitude: 103° 07' 51.8" West**

**NMOCD I.D. No.: 1R-139**

Prepared For:

**EOTT Energy, LLC**

5805 East Highway 80

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ETGI Project # EO2010

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## **1.0 CHRONOLOGY OF EVENTS**

October 22, 1997	C-141 Submitted to NMOCD by EOTT, Reported 617-Barrel Release, 400 Recovered, and Pipeline Repaired
November 1997	Excavation of Heavily Impacted Soil, Stockpiled On-site
January 13, 1998	KEI Oversees Excavation of Nine Test Pits in Areas Exhibiting Surface Staining, Soil Stockpiled On-site, Soil Samples Were Collected from Each Test Pit; Groundwater Monitor Well MW-1 Installed, Soil Samples Collected
January 14, 1998	KEI Oversees Drilling and Sampling of Soil Boring SB-1
January 21, 1998	KEI Oversees Deepening and Sampling of Test Pits T-3, T-5, T-6 and T-9
February 4, 1998	KEI Samples Groundwater Monitor Well MW-1
December 5, 1999	ETGI Samples Groundwater Monitor Well MW-1
August 23, 1999	ETGI Samples Groundwater Monitor Well MW-1
November 4, 1999	ETGI Samples Groundwater Monitor Well MW-1
January 13, 2000	ETGI Samples Groundwater Monitor Well MW-1
January 17-25, 2000	ETGI Installs Geoprobe® Sample Points GP-1 Through GP-79, Soil Samples Collected
February 11, 2000	ETGI Oversees Installation of Groundwater Monitor Wells MW-1 Through MW-4 and Soil Boring SB-2, Soil Samples Collected
February 16, 2000	ETGI Oversees Installation of Groundwater Monitor Well MW-5, Soil Samples Collected
February 25, 2000	Groundwater Monitor Wells MW-2 Through MW-5 Sampled
March 2, 2000	Select Geoprobe® Sample Points Reinstalled, Soil Samples Collected
May 18, 2000	Groundwater Monitor Wells MW-1 Through MW-5 Sampled
June 6, 2000	Groundwater Monitor Wells MW-1 Through MW-5 Sampled
September 15, 2000	Groundwater Monitor Wells MW-1 Through MW-5 Sampled

November 30, 2000	Groundwater Monitor Wells MW-1 Through MW-5 Sampled
March 16, 2001	Groundwater Monitor Wells MW-1 Through MW-5 Sampled
June 4, 2001	Groundwater Monitor Wells MW-1 Through MW-5 Sampled
September 24, 2001	Groundwater Monitor Wells MW-1 Through MW-5 Sampled
October 30, 2001	Groundwater Monitor Wells MW-1 Through MW-5 Sampled
December 2001	General Site Excavation Conducted, Soil Stockpiled On-site
January 28, 2002	Groundwater Monitor Wells MW-1 Through MW-3 and MW-5 Sampled, MW-4 Not Accessible Due to Site Excavation Activities
May 21, 2002	Groundwater Monitor Wells MW-1 Through MW-3 and MW-5 Sampled, MW-4 Not Accessible Due to Site Excavation Activities
September 19, 2002	Groundwater Monitor Wells MW-1 Through MW-3 and MW-5 Sampled, MW-4 Not Accessible Due to Site Excavation Activities
November-December 2002	Excavation Bottom and Sidewall Samples Collected
December 16, 2002	Groundwater Monitor Wells MW-1 Through MW-3 and MW-5 Sampled, MW-4 Not Accessible Due to Site Excavation Activities
February 24, 2003	Groundwater Monitor Wells MW-1 Through MW-3 and MW-5 Sampled, MW-4 Not Accessible Due to Site Excavation Activities
May 20, 2003	Groundwater Monitor Wells MW-1 Through MW-5 Sampled

## **2.0 INTRODUCTION AND SITE BACKGROUND**

The site is located approximately three miles southeast of the town of Eunice, New Mexico, in the NW ¼ of the NE ¼ of Section 14 Township 22 South, Range 37 East and NE ¼ of the NE ¼ of Section 14 Township 22 South, Range 37 East. For reference, a site location and site map are provided as Figures 1 and 2, respectively. The contents of this report are intended to fulfill requirements promulgated in 19 New Mexico Administrative Code (NMAC) 15.A19.E (3) and 19.E (4) and 20.6.2.4106 (C) and (D) of the NMAC.

According to the release report filed by the Texas-New Mexico Pipeline Company (TNM), a release was discovered on the 14-inch sour crude main line on 22 October 1997. A copy of the release report is included as Appendix D. Approximately 617 barrels (bbl) of crude oil was released and 400 bbl were recovered during emergency response actions. The pipeline was immediately excavated and repaired by TNM. Following pipeline inspection and repair, the release was attributed to internal corrosion. As a consequence of the release, two elongate areas of hydrocarbon-impacted soil extend outward from the release point. One area extended approximately 600 feet to the west and the other approximately 200 feet to the north from the release point resulting in approximately 24,000 square feet of stained surface soil (Figure 2). One groundwater monitor well and one soil boring were advanced on-site, MW-1 and SB-1, in January 1998 under the supervision of KEI Consultants, Inc. (KEI). In order to characterize the vertical extent of hydrocarbon impact to subsurface soils below the surface stained area, nine test pits were excavated by KEI within the stained areas on January 13, 1998. The test pits were extended to depths varying from 3.5 to 8.5 feet below ground surface (bgs) and sampled for Total Petroleum Hydrocarbons – Diesel Range Organics (TPH-DRO) constituent concentrations by EPA Method SW 846-8015 M. Following a review of the soil sampling results, additional excavation and soil sampling was conducted on January 21, 1998 in test pits 3, 5, 6 and 9, respectively. These pits were deepened to depths varying from 10 to 15 feet bgs and sampled for Benzene, Toluene, Ethyl-benzene and Xylene (BTEX) constituent concentrations by EPA Method SW 846-8021B/5030 and TPH-DRO constituent concentrations by EPA Method SW-846 8015M. Tabulated results and copies of laboratory reports of soil and groundwater sampling conducted by KEI prior to the involvement of the Environmental Technology Group, Inc. (ETGI) are included with the *Subsurface Investigation Report, TNM-97-23* dated June 3, 1998 on file at the New Mexico Oil Conservation Division (NMOCD) office in Hobbs, New Mexico.

ETGI is submitting this Stage I and II Abatement Plan for EOTT Energy, LLC (EOTT) to document remedial actions completed at the site since ETGI has assumed control of remedial planning (January 2000). ETGI also proposes additional response actions designed to fulfill requirements necessary to complete plume delineation and achieve site closure as set forth by the State of New Mexico under NMAC Title 19 standards. The regulatory basis for this Stage 1 and Stage 2 Abatement Plan is 19 NMAC 15.1.19.E. (3) & 19.E (4), 20 NMAC 6.2.4106 (C) and (D) and the NMOCD guidance document Guidelines for Remediation of Leaks, Spills, and Releases, (August 1993).

A review of the data existing for this site indicated the following:

- The soil column consisted primarily of very fine grained, well sorted, unconsolidated sands varying in color from white to brown with imbedded caliche nodules underlain by a firm, red to brown clay unit;
- An undetermined volume of hydrocarbon impacted soil was excavated from nine test pits and stockpiled on site pending treatment by the previous consultant;
- Groundwater at the site occurs at depths varying from approximately 56 to 62 feet bgs (Table 1);
- The inferred groundwater gradient at the site trends to the southeast, (Figure 4);
- ~~No Phase Separated Hydrocarbons (PSH) have been detected in any of the groundwater monitor wells or excavations on site.~~

- Excavation of petroleum contaminated soil on-site is incomplete.

### 3.0 SUMMARY OF RECENT FIELD ACTIVITIES

ETGI assumed control of oversight and design of remedial actions at the site and conducted site characterization activities utilizing a truck-mounted Geoprobe® rig in January 2000. A total of 79 Geoprobe® borings were installed to terminal depths varying from approximately 8 to 16 feet bgs and analyzed for Total Petroleum Hydrocarbons—Gasoline Range Organics/Diesel Range Organics (TPH-GRO/DRO) constituent concentrations (Figure 3). Soil samples displaying elevated PID readings (> 100 ppm) were also analyzed for BTEX constituent concentrations. Soil samples that did not exhibit any evidence of visual staining, olfactory evidence or PID readings were not submitted for laboratory analysis during the Geoprobe® investigation. Review of the analytical reports generated by laboratory analysis of soil samples obtained during the Geoprobe® investigation indicated soils impacted with TPH-GRO/DRO concentrations in excess of NMOCD regulatory standards were present at depths varying from 4 to 16 feet bgs in a number of the boring locations. The majority of impacted soil on site would be considered as unsaturated contaminated soil as characterized by NMOCD guidelines (August 1993). Four of the soil samples collected from sampling locations GP-35, GP-66 and GP-67, are considered highly contaminated/saturated soil. ETGI installed four groundwater monitor wells and one soil boring (MW-2 through MW-5 and SB-2) in February 2000 to further delineate the lateral and vertical extent of soil impacts existing on-site and to characterize the on-site groundwater. Excavation of the areas exhibiting surface staining was supervised by ETGI in December 2001 resulting in a trench approximately 600 feet by 20 feet by 6 feet trending to the west from the release point and a trench approximately 185 feet by 15 feet by 4 feet trending north to south, roughly centered on the release point (Figure 2). The north south trench was deepened to a depth of approximately 10 to 12 feet bgs in the area immediately below the release point. Approximately 4,000 cubic yards of soil are currently on-site pending approval of a soil abatement option by the NMOCD. Excavation bottom and sidewall sampling was conducted on 14 November and 12 December 2002, respectively. Review of the analytical reports of soil samples collected from the excavation bottom and side walls indicated soils impacted with TPH-GRO/DRO concentrations in excess of NMOCD regulatory standards remained in place on the walls and bottom of the excavated area. Remedial actions proposed to address the remaining impacted soil on-site are included in Section 4.1, Soil Remediation Options of this report. Boring logs generated during the Geoprobe® investigation and monitor well installation actions reflecting site lithology data and well completion details are included as Appendix A. Analytical results of the soil samples collected during Geoprobe® boring activities, monitor well installation and site excavation activities discussed here are provided in Tables 2 through 4. Cumulative groundwater elevation data, as recorded since February 2000, are provided in Table 1. A groundwater gradient map reflecting data gathered during the most recent monitoring event is attached as Figure 4. Copies of the laboratory reports generated from soil and groundwater sampling activities described herein are included as Appendix B. All soil samples were submitted under a completed chain-of-custody to Environmental Lab of Texas of Odessa, Texas and analyzed for TPH-GRO/DRO constituent concentrations utilizing EPA SW 846-8015M. Selected soil samples were analyzed for BTEX constituent concentrations utilizing EPA SW 846-8021B, 5030. Groundwater samples

were submitted under a completed chain-of-custody and analyzed for required constituents by the methods listed below:

- BTEX constituents using EPA Method SW 846-8021B, 5030;
- Polynuclear Aromatic Hydrocarbons (PAH) indicating semi-volatile constituent compounds using EPA Method SW-846-8270c;
- Total Dissolved Solids (TDS) using EPA Method SW 846-160.1;
- New Mexico Water Quality Control Commission (WQCC) Metals using EPA Method SW 846-6010;
- Chlorides using EPA Method SW 846-9253, and;
- Cations and anions using EPA Methods SW 846-6010 and 300.

## **4.0 GEOLOGY/HYDROGEOLOGY**

### **4.1 Area Geology/Hydrogeology**

The site is located approximately three miles south-southeast of the town of Eunice, New Mexico. This places it in the Southern Desertic Basins and Plains physiographic feature. The average surface elevation in the area ranges between 3,800 to 3,900 feet above sea level with the average surface topography sloping to the south and southeast at approximately 10 feet per mile. The groundwater gradient in the region appears to reflect the topography with a similar slope to the south and southeast with some local variations.

The site is located on the Pyote and Maljamar fine sands unit within the Pyote Series type soils. This mapping unit is about 45 percent Pyote fine sand, 45 percent Maljamar fine sand and 10 percent inclusions of Palomas and Kermit soils. This association consists of well-drained soils that have a fine sandy loam subsoil. They are found as eolian deposits on upland plains and alluvial fan deposits. Permeability is moderately rapid and runoff is very slow. Data collected by the United States Weather Bureau indicate that the average annual precipitation in the site vicinity is approximately 10 to 12 inches. This amount occurs primarily as storm events during the period between June and October. Water intake is rapid and the available water holding capacity is approximately 5 to 7 inches. Soil blowing is a severe hazard in areas dominated by this soil type. This soil is primarily utilized as rangeland, wildlife habitat and for recreational purposes.

In the site vicinity, the surface is composed of unconsolidated, wind blown sands and finer materials associated with the Tertiary aged Ogallala Formation, which serves as a major aquifer for southeastern New Mexico and several high plains states. Unconfined groundwater is typically present in these sands at varying depths and generally flows from the north to the south. This aquifer is typically characterized by relatively high hydraulic conductivity and transmissivity.

The Ogallala unconformably overlies the Triassic aged Dockum Group, locally referred to as the "red beds". While there are sand lenses within the Dockum Group, it is typically classified as an aquitard characterized by red silt and micaceous clay in which detectable groundwater is often absent or limited in extent. Where groundwater is present, the aquitard is usually characterized by relatively low hydraulic conductivity and transmissivity.

## **4.2 Site Geology/Hydrogeology**

The surface unit consists of brown, very fine-grained, well-sorted sand to a depth of approximately 5 feet bgs. It is underlain by a tan to white, very fine-grained, well-sorted sand to a depth of approximately 12 feet bgs. A hard, white, sandy caliche unit varying in thickness from approximately two to five feet thick underlies the surficial sand units. Underlying the caliche unit is a white, very fine-grained, well-sorted sand unit of variable thickness with imbedded caliche nodules. This unit grades into a tan, very fine-grained, well-sorted sand unit with imbedded caliche nodules. A tan to white, very fine-grained, well-sorted sand with imbedded caliche nodules occupies the lower vadose and capillary fringe zones on-site. It is the most substantial unit penetrated during monitor well installation activities varying in thickness from approximately 18 feet in monitor well MW-2 to 33 feet in monitor well MW-4. Groundwater was encountered in this unit at depths varying from 56 feet bgs to 62 feet bgs. Groundwater elevation contours generated from the May 20, 2003 groundwater monitoring event water level measurements indicate a general gradient of approximately 0.003 ft/ft to the southeast as measured between groundwater monitor wells MW-2 and MW-3.

WQCC statute 20.6.2 Subpart III.3101 and NMOCD Rule 19 NMAC 15.A.19.A state that groundwater with a TDS concentration of less than 10,000 mg/L is considered to be of present or reasonably foreseeable beneficial usage and is subject to abatement. All of the TDS concentrations recorded from analysis of the on-site groundwater are below this value therefore, the site groundwater qualifies for beneficial use and is subject to abatement to conform to standards as defined in the above referenced statutes.

## **4.3 New Mexico Oil Conservation Division (NMOCD) Soil Classification**

~~Initial site excavation activities have removed the highly contaminated/saturated soils that were associated with the heavily stained surface soil. Hydrocarbon impacted soil identified during the initial site characterization action extend to depths of approximately 16 feet bgs in certain areas (Table 2). The depth to groundwater on-site is approximately 56 to 62 feet bgs indicating that the lowermost contaminants are within 50 feet of the seasonal high water level (Table 1). Based on the NMOCD soil classification system 20 points would be assigned to the site as a result of this criterion.~~

The water well database, maintained by the New Mexico State Engineer's Office, was accessed in order to determine the location and type of nearby water wells in the area (Appendix C). The database indicated that there are 21 water wells located within an approximate 1 square mile radius of the site with at least one well located within 1,000 feet of the site. Based on the NMOCD soil classification system ~~120 points~~ would be assigned to the site as a result of this criterion.

An intermittent stream, the Monument Draw is located approximately 200 feet to the east of the site. Based on the NMOCD soil classification system ~~10 points~~ would be assigned to the site as a result of this criterion. The NMOCD guidelines indicate that the site would have a

Ranking Score of >19. The soil action levels for a site with a Ranking Score of >19 points are as follows:

- Benzene - 10 ppm
- BTEX - 50 ppm
- TPH - 100 ppm

#### 4.4 Distribution of Hydrocarbons in the Unsaturated Zone

Soil located near the surface within the heavily stained area and soil located at variable depths encountered during the installation of GeoProbe® sample points GP-9, GP-9A, GP-35, GP-65, GP-66, GP-67, GP-69, GP-71, GP-76, GP-78 and GP-79 is considered unsaturated contaminated soil as characterized by NMOCD (1993) guidelines due to elevated TPH-GRO/DRO constituent concentrations (Table 2). As indicated by a review of the laboratory reports generated from the GeoProbe® site characterization activities, ~~the impacted soil is restricted to depths varying from the surface to approximately 16 feet bgs.~~ Geoprobe® sampling points GP-71, GP-78 and GP-79 were duplicated on March 20, 2000 to collect a second sample from the most highly impacted soil in these areas. Soil samples collected from these sample points were analyzed for TPH-GRO/DRO constituent concentrations. A soil sample collected from sample point GP-79 was also analyzed for volatile and semi-volatile constituent concentrations for comparison with a crude oil sample collected from the pipeline. Review of the volatile and semi-volatile organic compound concentrations detected in these samples was inconclusive. As indicated by PID readings on the boring logs and laboratory analysis of soil samples collected during the installation of groundwater monitor wells MW-2, MW-3, and MW-5 and soil boring SB-2, soil in these areas has not been impacted by the on-site release (Appendix A). Review of the PID readings recorded during the installation of monitor well MW-4 indicate soil impacts from the surface to the terminus of the well. The decrease in magnitude of the readings from a depth of approximately 20 feet bgs to total depth of the borings suggests that the significant impacts were limited to the near surface area. The hard caliche layer encountered at approximately 12 feet bgs in monitor well MW-4 appears to have acted as a restrictive formation effectively reducing the volume of crude oil migrating downward in the soil column. The soil sample collected from a depth of approximately 20 feet bgs during the installation of monitor well MW-4 indicated a slight impact attributable to the on-site release. Soil samples collected from stockpiled soil indicate that a significant volume of impacted soil has been removed by the initial site excavation activities. Excavation bottom and sidewall sampling was conducted on November 14 and December 14, 2002, respectively. Review of the analytical reports generated by laboratory analysis of soil samples collected from the excavation bottom and side wall samples indicated soils impacted with TPH-GRO/DRO concentrations in excess of NMOCD regulatory standards remains in place in selected areas of the excavation walls and bottom.

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

- Visual observations of subsurface soil samples;
- Review of laboratory analyses of soil samples, and;
- Review of PID readings and notes on the boring logs.

#### **4.5 Distribution of Hydrocarbons in the Saturated Zone**

Dissolved phase BTEX constituent concentrations detected in groundwater samples collected from monitor wells MW-1, MW-3 and MW-5 have not exceeded NMOCD regulatory standards (Table 3). The dissolved phase benzene constituent concentration recorded at groundwater monitor well MW-2 exceeded the NMOCD regulatory standard in the fourth quarterly monitoring period in November 2000. Subsequent groundwater samples collected from monitor well MW-2 indicates benzene concentrations are below NMOCD regulatory standards. Laboratory analysis of groundwater samples collected from monitor well MW-4 between February 2000 to October 2001 indicate that the dissolved phase benzene constituent concentration exceeded the NMOCD regulatory standard. Due to site excavation activities, monitor well MW-4 was not sampled between November 2001 and April 2003. BTEX analysis of a groundwater sample obtained from monitor well MW-4 in May 2003 indicated that the dissolved phase benzene concentration was below the method detection limit of 0.001 mg/L. Review of the cumulative analytical results from groundwater sampling events indicated that benzene constituent concentrations were fluctuating over time in the area of monitor well MW-4.

Analysis for WQCC regulated metal constituents in the on-site groundwater indicates that dissolved phase concentrations of aluminum exceeded the regulatory standards at monitor wells MW-4 and MW-5. The WQCC regulatory standard for iron was exceeded in the on-site groundwater in all monitor wells (Table 4). Review of the analytical results resultant from semi-volatile (PAH) analysis did not indicate detectable concentrations of any of the listed chemicals (Table 5). A one-time groundwater sampling event on monitor well MW-4 for volatile organic constituents conducted on March 17, 2000 indicated a dissolved phase concentration of 2.57 mg/L of m-, p- xylenes that exceeded the regulatory standard (Table 6). Review of subsequent groundwater sampling results indicates that the total xylene concentrations observed at this monitor well had decreased substantially and are currently below the regulatory standard. Analysis of groundwater samples collected from on-site monitor wells indicate that TDS concentrations range from 1,342 mg/L to 5,657 mg/L (Table 7). The concentration of chlorides in on-site groundwater as determined from samples collected from on-site monitor wells vary from 319 mg/L to 2,437 mg/L. At the time of this report, there are no promulgated standards for chlorides in groundwater under Title 19 but a concentration of 250 mg/L is listed as the regulatory standard by the WQCC in the state of New Mexico, Title 20.6.2 NMAC.

#### **5.0 ABATEMENT OPTIONS**

##### **5.1 Soil Abatement Options**

Excavation activities have removed the highly contaminated/saturated soils on the site attributed to the pipeline release. Baseline sampling has been conducted on soil stockpiled on-site pending construction of a soil treatment cell. The relative cost of the remediation technologies is estimated below. Operational issues associated with each remedial technology are described in order to comparatively rate the viability of each remedial technology considered.

Abatement of impacted soil at the site is proposed using the following technologies:

- ① • Excavation and off-site disposal;
- ② • Excavation and on-site treatment, and;
- ③ • Human-health based risk assessment.

Under the first scenario, the stockpiled soil would be transported and subsequently disposed of at an NMOCD approved solid waste disposal facility. This would be the most costly soil remedial method due to costs incurred from transportation and disposal at an approved facility.

The second soil remedial technology would vary from the above scenario in that the stockpiled soil would be spread onto a treatment cell and treated on-site until confirmation sampling indicated that remedial activities had achieved cleanup goals applicable for this site. Soil shredding and nutrient enhancement activities followed by on-site aeration would achieve site cleanup goals in a reasonable time frame. The shredded soil would be spread out onto the treatment cell area approximately 18 to 24 inches thick and sampled for BTEX and TPH-GRO/DRO constituent concentrations to obtain a baseline reference. Soil in the treatment cell would be alternately disked and wetted as needed to induce volatilization and activate the nitrogen-enriched nutrients to promote destruction of the residual hydrocarbon materials. This treatment method has proven successful when utilized at sites impacted by subsurface hydrocarbon releases. Following confirmation of attainment of site cleanup goals, backfilling activities utilizing the treated soil and seeding and watering of the backfilled area would conclude site soil remediation action.

The third remedial technology selected to meet NMOCD regulatory cleanup standards is that of a Human-Health Based Risk Assessment technology. A site-specific approach will be employed to assess the probability of likely human exposure pathways with evaluations of the individual constituents of BTEX and TPH concentrations remaining in the unexcavated soil. Analytical fate-and-transport modeling will provide a means of estimating exposure concentrations and developing risk-based soil and groundwater remediation 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.

## 5.2 Groundwater Abatement Options

An accurate estimate of the hydrological properties of the contaminated aquifer materials will require completion of either a 24-hour steady state draw down test, slug test or laboratory analysis of core samples. Analysis of the data gathered from aquifer testing or core sample analysis will enable reliable estimates of transmissive and storage properties needed as modeling parameters used to design and test groundwater treatment alternatives at the site. In order to assess the effectiveness of potential bioremediation alternatives at the site, sampling and analysis of the indigenous microbe colonies present in both the unsaturated and saturated zones would need to be conducted.

Abatement of impacted groundwater at the site is technically feasible using the following technologies:

- 1 • Air sparging and vapor extraction;
- 2 • Monitored natural attenuation/long term groundwater monitoring, and;
- 3 • Human-health based risk assessment.

Data obtained from the slug test or analysis of core samples will be used to determine the permeability, porosity and hydraulic conductivity values of the impacted aquifer materials. An accurate estimate of these parameters is necessary since they control the movement of fluids and distribution of electron acceptors and nutrients in the effected aquifer

The first remedial technology considered for groundwater remediation at this site is the utilization of the combination of Air Sparging and Vacuum/Vapor Extraction technologies (AS/VE). Air sparging remediates the groundwater by stripping or volatilizing the BTEX constituents out of the dissolved phase and also by increasing in-situ biodegradation by the addition of oxygen to the impacted groundwater. As BTEX constituents are liberated from the aqueous phase and enter the gas phase, they migrate to the capillary fringe and subsequently the vadose zone. Vacuum/vapor extraction wells installed at these depths induce pressure gradients in the vadose zone, capturing the gaseous phase BTEX constituents for removal and treatment on the surface. This treatment technique would effectively remove BTEX constituents from the saturated and vadose zones. A groundwater monitoring program would be designed to monitor dissolved phase BTEX constituents and dissolved oxygen.

A single injection well pilot test will be conducted to test the applicability of this remedial technology at this site. A skid mounted compressor and vapor treatment unit as well as three vadose zone monitoring wells and three vapor extraction wells will be utilized for pilot testing purposes. The following in-situ parameters will be monitored during pilot testing: soil gas concentrations of BTEX constituents, soil gas pressure/vacuum and groundwater level measurements. The following in-situ parameters will be monitored after the air injection is turned off: dissolved phase BTEX concentration, dissolved oxygen levels and temperature, and Redox potential/pH. If possible the existing groundwater monitor well, MW-4, will be utilized as the injection well for pilot testing purposes. If well construction parameters of this existing monitor well are not conducive for pilot testing purposes, a new well will be installed for testing purposes. The 2-inch, schedule 40 PVC injection well will penetrate the saturated zone with approximately 5 feet of fully immersed, 0.020-inch slotted pipe. Air compressor(s) will be utilized to generate the required air pressure for injection purposes. The vapor recovery (VR) well field design will be triangular in shape with the terminus of the intake piping located just above the approximate capillary fringe. Down-hole construction details of the VR wells includes an approximate 10 foot length of 4-inch, 0.020-inch slotted, schedule 40 PVC pipe connected to 4-inch PVC riser piping to the surface. On the surface the VR wells will be piped to an activated carbon filtering system for effluent gas treatment prior to atmospheric discharge. A moisture knock out pot will be installed down line of the effluent piping manifold to prevent moisture from entering the carbon treatment unit. The AS/VE system will generally consist of a compressor, pressure regulator, pressure gauges, flow meters, vacuum blower, component isolation ball valves and an effluent gas treatment device connected with schedule 40 PVC pipe. In-situ system operating parameters which will be

monitored during system operation include: soil gas concentrations of BTEX constituents, injection well pressure and flow rate, SVE well vacuum and flow rate, extraction vapor concentrations, weekly oxygen, carbon dioxide, nitrogen and methane concentrations and the pulsing frequency.

The 2-inch, schedule 40 PVC injection well will penetrate the saturated zone with approximately 5 feet of fully immersed, 0.020-inch slotted pipe. An air compressor will be utilized to generate the required air pressure for the injection wells. On the surface the VR wells will be piped to an activated carbon filtering system for effluent gas treatment prior to atmospheric discharge. A moisture knock out pot will be installed down line of the effluent piping manifold to prevent moisture from entering the carbon treatment unit. Surface piping will include influent and effluent sampling ports, pressure and temperature gauges, an air flow meter and a flow shut-off valve upstream of the carbon unit. Data derived from pilot testing will be utilized to design the final AS/VE system configuration utilized on-site. Because of the limited area impacted by dissolved phase hydrocarbons on-site and decreasing concentrations, utilization of AS/VE technology would not be considered cost effective.

The second remedial technology selected to meet NMOCD regulatory cleanup standards at this site is utilization of a Monitored Natural Attenuation/Long Term Groundwater Monitoring technology (NA/LT). This technology relies on naturally occurring processes such as dispersion, diffusion, sorption and degradation (either biodegradation or abiotic processes such as hydrolysis), volatilization and dilution to control plume movement and destruction of dissolved phase hydrocarbons in the groundwater. Volatilization and diffusion are relatively unimportant in most non-clay groundwater systems; therefore, the main attenuation processes are dispersion, sorption, degradation and dilution. Dispersion is subsurface mixing due to groundwater movement and aquifer heterogeneities. The limited size of the impacted groundwater area at this site reduces the attenuation effects of dispersion since longitudinal and transverse dispersion components are observed to be more substantial in extended plumes, e.g. 4,000 to 5,000 feet in length. Vertical dispersion is not common at sites impacted with light non-aqueous phase liquids such as crude oil so this component may be disregarded. Sorption is a nondestructive process in which hydrocarbon compounds are sorbed to the aquifer matrix, represented by a retardation factor. Sorption operates as an attenuation process by effectively reducing the mass available to the dissolved phase plume. Biodegradation involves chemical transformation of the hydrocarbon constituents into mineralized end products, for instance CO<sub>2</sub>, H<sub>2</sub>O and salts, by living organisms. Occasionally, metabolic activity does change the chemical form of the hydrocarbon constituents but does not conclude with mineralization; this is referred to as biotransformation. Of particular importance in this pathway of attenuation is the determination of whether the impacted area is controlled by either anaerobic or aerobic conditions. Aerobic conditions exist under relatively oxygen rich environments resulting in compounds being formed through the reaction of available oxygen and dissolved phase hydrocarbons transforming into H<sub>2</sub>O. Anaerobic conditions are relatively oxygen poor environments and result in transformations into of nitrate, ferric iron, sulfate and carbon dioxide products. Dilution is mixing of the plume with groundwater flowing through the effected area. It becomes an important process in natural attenuation when the impacted groundwater enters a zone where significant surface recharge enters the impacted aquifer. There are no such zones that have been identified on-site therefore, dilution is not expected to be an active process when utilizing NA/LT technology.

Geochemical indicators and concentration migration rate calculations will be utilized to determine if dissolved phase hydrocarbons at this site are susceptible to natural attenuation. Because of the limited area impacted by dissolved phase hydrocarbons on-site, utilization of monitored natural attenuation/long term groundwater monitoring technology could be considered cost effective.

The third remedial technology selected to meet NMOCD regulatory cleanup standards at this site is utilization of a Human-Health Based Risk Assessment technology. A site-specific approach will be employed to assess the probability of likely human exposure pathways with evaluations of the individual constituents of BTEX and TPH-GRO/DRO concentrations present in the soil and the groundwater. Analytical fate-and-transport modeling will provide a means of estimating exposure concentrations and developing risk-based soil and groundwater remediation 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.

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

## 6.0 SUMMARY AND CONCLUSIONS

The site has an NMOCD Ranking Score of >19 points. The soil action levels for a site with this score are as follows:

- Benzene - 10 ppm
- BTEX - 50 ppm
- TPH - 100 ppm

A total of 79 Geoprobe® borings and four groundwater monitor wells (MW-2 through MW-5) were installed within the time frame of events described in this report. Additionally, hydrocarbon impacted soil located beneath the stained areas was also excavated and stockpiled for on-site treatment.

Review of the analytical reports generated by laboratory analysis of soil samples obtained during the Geoprobe® investigation indicated soils impacted with TPH-GRO/DRO concentrations in excess of NMOCD regulatory standards were present at depths varying ~~from 4 to 16 feet bgs~~ in a number of the boring locations. The majority of impacted soil on site would be considered as unsaturated contaminated soil as characterized by NMOCD guidelines (August 1993). Soil samples collected from sampling locations GP-9A 005-16', GP-35 002-8', GP-66 002-12', GP-66 004-16', GP-67 003-12' and GP-71 004-16' are considered highly contaminated/saturated soil. ETGI installed four groundwater monitor wells (MW-2 through MW-5) in February 2000 to further delineate the lateral and vertical

extent of soil impacts existing on-site and to characterize the on-site groundwater. Analysis of the soil sampling results generated during installation of these monitor wells did not indicate significant hydrocarbon impacts in the areas of these monitor wells.

Excavation of the areas exhibiting surface staining was supervised by ETGI in December 2001 resulting in a trench approximately 600 feet by 20 feet by 6 feet trending to the west from the release point and a trench approximately 185 feet by 15 feet by 4 feet trending north to south, roughly centered on the release point (Figure 2). The north south trench was deepened to a depth of approximately 10 to 12 feet bgs in the area immediately below the release point. Excavation bottom and sidewall sampling was conducted on November 14 and December 12, 2002, respectively. Review of the analytical reports generated by laboratory analysis of soil samples collected from the excavation bottom and side walls indicated soils impacted with TPH-GRO/DRO concentrations in excess of NMOCD regulatory standards remained in place on the walls and bottom of the excavated area.

Dissolved phase BTEX constituent concentrations detected in groundwater samples collected from monitor wells MW-1, MW-3 and MW-5 have not exceeded NMOCD regulatory standards. The dissolved phase benzene constituent concentration recorded at monitor well MW-2 exceeded the NMOCD regulatory standard in the fourth quarterly monitoring period in November 2000 only. Subsequent groundwater samples collected from monitor well MW-2 indicates benzene concentrations have decreased to levels at or below method detection limits which is considerably below NMOCD regulatory standards. Laboratory analysis of groundwater samples collected from monitor well MW-4 between February 2000 to October 2001 indicate that the dissolved phase benzene constituent concentration exceeded the NMOCD regulatory standard. Due to site excavation activities, monitor well MW-4 was not sampled between November 2001 and April 2003. BTEX analysis of a groundwater sample obtained from monitor well MW-4 in May 2003 indicated that the dissolved phase benzene concentration was below the method detection limit of 0.001 mg/L. Review of the cumulative analytical results from groundwater sampling events indicate that benzene constituent concentrations were fluctuating over time in the area of monitor well MW-4. Excavation of the highly impacted surface soil surrounding monitor well MW-4 has apparently removed a majority of the residually impacted soil that was acting as the source area for groundwater impact in the area.

~~ETGI recommends utilization of the second soil treatment method described in Section 5.1, Soil Abatement Options to achieve site cleanup goals in the soil currently stockpiled on-site. Utilization of the third remediation technology described in Section 5.1 Soil Abatement Options is recommended to address impacted soil remaining in place. Utilization of the third groundwater remediation option described in Section 5.2 Groundwater Abatement Options is recommended to address on-site groundwater conditions and achieve site closure.~~ The following assumptions and observations qualify this site for eventual closure from the NMOCD utilizing a human-health risk based assessment technology:

- Exposure Setting: depth to remaining impacted soil is >8 feet bgs and impacted groundwater >56 feet bgs;
- At Risk Population: technicians, heavy equipment operators, laborers, site supervisory personnel and local downwind population during soil treatment activities;

- Exposure Pathways: inhalation and ingestion when manipulating stockpiled soil in the treatment cells and groundwater sampling during regularly scheduled monitoring events, and;
- Exposure Points: soil and groundwater possibilities to the at-risk population identified above.

At this time, the existence of a threat to human exposure to petroleum hydrocarbon impacted soil at this site is limited; the work site is currently surrounded with barbed-wire fencing. Personnel associated with soil treatment and groundwater sampling activities are OSHA trained, experienced in soil and groundwater investigation and sampling methods and will be utilizing personal protective equipment while conducting site investigation activities. Filing of Deed Restriction documentation restricting future development or improvements to the area defined in this report in the county clerks office in Lovington, Lea County, New Mexico will reduce the potential for human exposure to the regulated constituents which may remain on-site following risk based site closure.

## **7.0 SCHEDULE OF ABATEMENT PLAN ACTIVITIES**

Following NMOCD approval of this Stage 1 and 2 Abatement Plan, ETGI will schedule construction of a soil treatment cell measuring approximately 400 feet in length by 100 feet in width on the north side of the excavated area. Stockpiled soil will be transferred to the cell as described in Section 5.1, Soil Abatement Options, as Abatement Plan cleanup goals are achieved, treated soil will be utilized as backfill material and returned to the excavation. Completion of backfilling activities utilizing the treated soil and site reseeding would conclude site soil remedial action. A risk assessment will be conducted to identify groundwater closure standards applicable for this site. Following completion of the risk assessment and NMOCD approval of subsequent recommendations, a site closure request report documenting all remedial actions conducted on-site will be submitted to the appropriate regulatory agency offices.

## **8.0 MONITORING PROGRAM**

All site monitoring wells will be gauged and sampled on a quarterly basis. Each well will be monitored for the presence of PSH and/or depth to groundwater. All of the groundwater monitoring wells, with the exception of those registering a presence of PSH, will be purged and sampled for dissolved phase BTEX constituents. Groundwater sampling methodology proposed at this site is described in Section 7.2, Groundwater Sampling of this report.

The quarterly groundwater monitoring data will be compiled and summarized in an annual report. The annual report will be submitted prior to April 1 of the following calendar year according to NMOCD guidelines.

## **9.0 QA/QC PROCEDURES**

### **9.1 Soil Sampling**

Samples of subsurface soils will be obtained utilizing a split spoon sampler. Representative soil samples will be divided into two separate portions using clean, disposable gloves and clean sampling tools. One portion of the soil sample will be placed in a zip-lock baggie. The baggie will be labeled and sealed for headspace analysis using a photoionization detector calibrated to a 100-ppm isobutylene standard. Each sample will be allowed to volatilize for approximately thirty minutes at ambient temperature prior to conducting the analysis. The soil sample registering the highest PID reading and any sample with a PID reading greater than or equal to 100 ppm will be selected for laboratory analysis.

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

Soil samples will be delivered to Environmental Lab of Texas, in Odessa, Texas for BTEX, TPH, and Water Quality Metals analyses using the methods described below. All samples will be analyzed within the appropriate holding times following the collection date.

- BTEX concentrations in accordance with EPA SW 846 Method 8021B, 5030;
- TPH concentrations in accordance with EPA SW 846 Method 8015M GRO/DRO, and;
- NMWQCC regulated metals in accordance with EPA SW Methods 6010B and 7470.

Core samples will be collected utilizing a Shelby tube sampling device, wrapped in plastic and sealed with duct tape. The core sample will be delivered to South West Laboratory, Inc. in Houston, Texas and analyzed for:

- Hydraulic conductivity in accordance with ASTM Method D5084;
- Moisture content in accordance with ASTM Method D2216;
- Wet and dry bulk density in accordance with ASTM Method D2937, and;
- Fractional organic carbon in accordance with ASTM Method D2974.

### **9.2 Groundwater Sampling**

After purging the wells, groundwater samples will be collected with a disposable Teflon sampler and polyethylene line by personnel wearing clean, disposable gloves. Groundwater sample containers will be filled in the order of decreasing volatilization sensitivity [i.e., BTEX containers will be filled first, polynuclear aromatic hydrocarbons (PAH) containers second and RCRA metals last].

Groundwater samples collected for BTEX analysis will be placed in 40 mL glass VOA vials equipped with Teflon lined caps, provided by the analytical laboratory. The vials will be

filled to a positive meniscus, sealed, and visually checked to ensure the absence of air bubbles.

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

Groundwater samples will be delivered to AnalySys, Inc. of Austin, Texas, for analyses using the methods described below. All groundwater samples collected from existing monitoring wells will be analyzed for dissolved-phase BTEX concentrations in accordance with EPA Method 8021B, 5030. All groundwater samples collected from the newly installed monitoring wells will be analyzed for:

- BTEX constituents in accordance with EPA Method 8021B, 5030;
- PAH semi-volatile constituents in accordance with EPA Method 8270c;
- TDS in accordance with EPA Method 160.1;
- Anions and cations in accordance with EPA Methods 300 and 6010, and;
- RCRA metals in accordance with EPA Method 6010B, 7470.

### **9.3 Decontamination Of Equipment**

Cleaning of drilling equipment is the responsibility of the drilling company. In general, the cleaning procedures will consist 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 split spoon sampling tool will be cleaned with Liqui-Nox® detergent and rinsed with distilled water.

### **9.4 Laboratory Protocol**

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

## **10.0 LIMITATIONS**

Environmental Technology Group, Inc. has prepared this Stage I and Stage II Abatement Plan 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 EOTT. 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 EOTT.

## **11.0 REFERENCES**

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

Title 19.15.1.19 NMAC: Prevention and Abatement of Water Pollution,  
15 March 1997.

Title 20.6.2 NMAC: New Mexico Water Quality Control Commission Regulations; 1 December 2001.

Subsurface Investigation Report Monitoring Well MW-1, Soil Boring SB-1, Texas-New Mexico Pipeline Company, TNM 97-23, Eunice, New Mexico; KEI Consultants, 3 June 1998.

Ground-Water Report 6, Geology and Ground-Water Conditions in Southern Lea County, New Mexico; Alexander Nicholson, Jr. and Alfred Clebsch Jr.; United States Geological Survey, New Mexico State Bureau of Mines and Mineral Resources, 1961.

Soil Survey - Lea County, New Mexico; U.S. Department of Agriculture, Soil Conservation Service, 1994.

Remediation Engineering Design Concepts; Suthan S. Suthersan, Lewis Publishers, CRC Press, 1997.

Groundwater Contamination, Transport and Remediation, 2 ed.; Bedient, Rifai and Newell, Prentice Hall, 1999.

Practical Techniques for Groundwater and Soil Remediation; Evan K. Nyer, CRC Press LLC, 1993.

Remediation of Petroleum Contaminated Soils; Eve-Riser-Roberts, Lewis Publishers, CRC Press, 1998.

## **TABLES**

**TABLE 1**  
**GROUNDWATER ELEVATION**  
**EOTT ENERGY, LLC**  
**TNM 97- 23**  
**LEA COUNTY, NEW MEXICO**  
**ETGI PROJECT # EO 2010**

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 1	11/04/99	3,338.00	-	59.26	0.00	3,278.74
	02/25/00	3,338.00	-	59.33	0.00	3,278.67
	06/06/00	3,338.00	-	59.36	0.00	3,278.64
	09/15/00	3,338.00	-	59.42	0.00	3,278.58
	11/30/00	3,338.00	-	59.44	0.00	3,278.56
	03/16/01	3,338.00	-	59.38	0.00	3,278.62
	06/04/01	3,338.00	-	59.39	0.00	3,278.61
	09/24/01	3,338.00	-	59.48	0.00	3,278.52
	10/30/01	3,338.00	-	59.45	0.00	3,278.55
	01/28/02	3,338.00	-	59.54	0.00	3,278.46
	05/21/02	3,338.00	-	59.57	0.00	3,278.43
	09/19/02	3,338.00	-	59.71	0.00	3,278.29
	12/16/02	3,338.00	-	59.64	0.00	3,278.36
	02/24/03	3,338.00	-	59.72	0.00	3,278.28
	05/20/03	3,338.00	-	59.72	0.00	3,278.28
MW - 2	02/25/00	3,336.79	-	58.57	0.00	3,278.22
	06/06/00	3,336.79	-	58.60	0.00	3,278.19
	09/15/00	3,336.79	-	58.66	0.00	3,278.13
	11/30/00	3,336.79	-	58.66	0.00	3,278.13
	03/16/01	3,336.79	-	58.62	0.00	3,278.17
	06/04/01	3,336.79	-	58.63	0.00	3,278.16
	09/24/01	3,336.79	-	58.61	0.00	3,278.18
	10/30/01	3,336.79	-	58.72	0.00	3,278.07
	01/28/02	3,336.79	-	58.74	0.00	3,278.05
	05/21/02	3,336.79	-	58.78	0.00	3,278.01
	09/19/02	3,336.79	-	58.70	0.00	3,278.09
	12/16/02	3,336.79	-	58.64	0.00	3,278.15
	02/24/03	3,336.79	-	58.76	0.00	3,278.03
	05/20/03	3,336.79	-	58.87	0.00	3,277.92

**TABLE 1**  
**GROUNDWATER ELEVATION**

**EOTT ENERGY, LLC**  
**TNM 97- 23**  
**LEA COUNTY, NEW MEXICO**  
**ETGI PROJECT # EO 2010**

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 3	02/25/00	3,339.32	-	61.89	0.00	3,277.43
	06/06/00	3,339.32	-	61.91	0.00	3,277.41
	09/15/00	3,339.32	-	61.98	0.00	3,277.34
	11/30/00	3,339.32	-	62.00	0.00	3,277.32
	03/16/01	3,339.32	-	61.95	0.00	3,277.37
	06/04/01	3,339.32	-	61.95	0.00	3,277.37
	09/24/01	3,339.32	-	61.99	0.00	3,277.33
	10/30/01	3,339.32	-	62.22	0.00	3,277.10
	01/28/02	3,339.32	-	62.05	0.00	3,277.27
	05/21/02	3,339.32	-	62.05	0.00	3,277.27
	09/19/02	3,339.32	-	62.17	0.00	3,277.15
	12/16/02	3,339.32	-	62.04	0.00	3,277.28
MW - 4	02/24/03	3,339.32	-	62.18	0.00	3,277.14
	05/20/03	3,339.32	-	62.14	0.00	3,277.18
	02/25/00	3,335.50	-	56.81	0.00	3,278.69
	06/06/00	3,335.50	-	56.82	0.00	3,278.68
	09/15/00	3,335.50	-	56.85	0.00	3,278.65
	11/30/00	3,335.50	-	56.85	0.00	3,278.65
	03/16/01	3,335.50	-	56.74	0.00	3,278.76
	06/04/01	3,335.50	-	56.76	0.00	3,278.74
	09/24/01	3,335.50	-	56.83	0.00	3,278.67
	10/30/01	3,335.50	-	56.87	0.00	3,278.63
*	01/28/02	3,335.50	-	-	-	-
*	05/21/02	3,335.50	-	-	-	-
*	09/19/02	3,335.50	-	-	-	-
*	12/16/02	3,335.50	-	-	-	-
*	02/24/03	3,335.50	-	-	-	-
	05/20/03	3,335.50	-	56.92	0.00	3,278.58
MW - 5	02/25/00	3,337.21	-	59.35	0.00	3,277.86
	06/06/00	3,337.21	-	59.38	0.00	3,277.83
	09/15/00	3,337.21	-	59.45	0.00	3,277.76
	11/30/00	3,337.21	-	59.44	0.00	3,277.77

**TABLE 1**  
**GROUNDWATER ELEVATION**  
**EOTT ENERGY, LLC**  
**TNM 97- 23**  
**LEA COUNTY, NEW MEXICO**  
**ETGI PROJECT # EO 2010**

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
	03/16/01	3,337.21	-	59.42	0.00	3,277.79
MW - 5	06/04/01	3,337.21	-	59.42	0.00	3,277.79
	09/24/01	3,337.21	-	59.46	0.00	3,277.75
	10/30/01	3,337.21	-	59.51	0.00	3,277.70
	01/28/02	3,337.21	-	59.50	0.00	3,277.71
	05/21/02	3,337.21	-	59.65	0.00	3,277.56
	09/19/02	3,337.21	-	59.59	0.00	3,277.62
	12/16/02	3,337.21	-	59.51	0.00	3,277.70
	02/24/03	3,337.21	-	59.61	0.00	3,277.60
	05/20/03	3,337.21	-	59.66	0.00	3,277.55

\* Inaccessible due to excavation

**TABLE 2**  
**CONCENTRATIONS OF BTEX AND TPH IN SOIL**

**EOTT ENERGY, LLC**  
**TNM 97-23**  
**EUNICE, NEW MEXICO**  
**PROJECT # EO 2010**

*All concentrations are in mg/Kg*

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8020, 8021B, 5030				METHOD: EPA SW 846-8015M GRO/DRO	
		BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	GRO	DRO
GP1 001-4'	01/17/00					<10	<10
GP1 003-8'	01/17/00					<10	13
GP2 001-4'	01/17/00					<10	<10
GP2 003-8'	01/17/00					<10	<10
GP3 001-4'	01/17/00					<10	<10
GP3 003-8'	01/17/00					<10	<10
GP4 001-4'	01/17/00					<10	<10
GP4 002-8'	01/17/00					<10	23
GP5 001-4'	01/17/00					<10	<10
GP5 004-11.5'	01/17/00					<10	<10
GP6 001-4'	01/17/00					<10	<10
GP6 002-8'	01/17/00					<10	<10
GP7 001-4'	01/17/00					<10	<10
GP7 002-8'	01/17/00					<10	<10
GP8 001-4'	01/17/00					<10	<10
GP8 002-8'	01/17/00					<10	<10
GP9 001-4'	01/20/00					<10	<10
GP9 002-8'	01/17/00					1711	4198
GP9A 005-16'	01/18/00					4188	6621
GP9A 006-19'	01/18/00					<10	137
GP9B 002-8'	01/18/00					<10	13
GP17 001-1'	03/02/00	<0.100	<0.100	<0.100	<0.100	<10	<10
GP17 003-1'	03/02/00	<0.100	<0.100	<0.100	0.137	<10	709
GP35 001-1'	03/02/00	<0.100	0.260	1.05	3.62	1408	6009
GP35 002-1'	03/02/00	<0.100	0.775	6.95	15.01	2071	12213
GP35 003-1'	03/02/00	<0.100	56.9	6.43	124.3	3348	5508
GP35 004-1'	03/02/00	<0.100	46.9	7.82	97.0	2784	4980
GP49 001-1'	03/02/00	<0.100	0.204	<0.100	0.165	32	620
GP49 002-1'	03/02/00	<0.100	<0.100	<0.100	0.501	<10	377
GP49 003-1'	03/02/00	<0.100	<0.100	2.38	16.25	702	2064
GP49 004-1'	03/02/00	<0.100	<0.100	2.79	16.92	1240	3000
GP49 005-1'	03/02/00	<0.100	<0.100	<0.100	0.111	<10	<10
GP50 001-1'	03/02/00	<0.100	<0.100	<0.100	<0.100	<10	<10
GP50 002-1'	03/02/00	<0.100	<0.100	<0.100	<0.100	<10	<10
GP51 001-1'	03/02/00	<0.100	<0.100	<0.100	<0.100	<10	<10
GP51 002-1'	03/02/00	<0.100	<0.100	<0.100	<0.100	<10	<10

**TABLE 2**  
**CONCENTRATIONS OF BTEX AND TPH IN SOIL**

**EOTT ENERGY, LLC**  
**TNM 97-23**  
**EUNICE, NEW MEXICO**  
**PROJECT # EO 2010**

*All concentrations are in mg/Kg*

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8020, 8021B, 5030				METHOD: EPA SW 846-8015M GRO/DRO	
		BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	GRO	DRO
GP52 001-1'	03/02/00	<0.100	<0.100	<0.100	<0.100	<10	<10
GP52 002-1'	03/02/00	<0.100	<0.100	<0.100	<0.100	<10	<10
GP53 001-1'	03/02/00	<0.100	0.155	<0.100	<0.100	<10	<10
GP53 002-1'	03/02/00	<0.100	0.129	<0.100	<0.100	<10	<10
GP56 001-1'	03/02/00	<0.100	0.202	<0.100	0.151	<10	<10
GP56 002-1'	03/02/00	<0.100	0.115	<0.100	<0.100	<10	<10
GP57 001-1'	03/02/00	<0.100	<0.100	0.179	0.854	<10	<10
GP57 002-1'	03/02/00	<0.100	<0.100	<0.100	0.523	<10	<10
GP58 001-1'	03/02/00	<0.100	<0.100	<0.100	<0.100	<10	<10
GP58 002-1'	03/02/00	<0.100	<0.100	<0.100	<0.100	<10	<10
GP59 001-1'	03/02/00	<0.100	<0.100	<0.100	<0.100	<10	<10
GP59 002-1'	03/02/00	<0.100	<0.100	<0.100	<0.100	<10	<10
GP60 001-1'	03/02/00	<0.100	<0.100	<0.100	<0.100	<10	<10
GP60 002-1'	03/02/00	<0.100	<0.100	<0.100	<0.100	<10	<10
GP61 001-1'	03/02/00	<0.100	<0.100	<0.100	<0.100	<10	<10
GP61 002-1'	03/02/00	<0.100	<0.100	<0.100	<0.100	<10	<10
GP62 001-1'	03/02/00	<0.100	<0.100	<0.100	<0.100	<10	<10
GP62 002-1'	03/02/00	<0.100	<0.100	<0.100	<0.100	<10	<10
GP63 001 4'	01/25/00					2294	3240
GP63 002 8'	01/25/00					<10	<10
GP63 003 12'	01/25/00					<10	<10
GP64 001 4'	01/25/00					906	2759
GP64 002 8'	01/25/00					306	1110
GP64 003 12'	01/25/00					330	938
GP64 004 16'	01/25/00					<10	<10
GP65 001 4'	01/25/00					2282	4237
GP65 002 8'	01/25/00					1368	2561
GP65 003 12'	01/25/00					3350	5739
GP65 004 16'	01/25/00					3378	5119
GP65 005 20'	01/25/00					<10	<10
GP66 001 4'	01/25/00					2993	4428
GP66 002 8'	01/25/00					845	677
GP66 003 12'	01/25/00					9391	12666
GP66 004 16'	01/25/00					6670	9700
GP67 001 4'	01/25/00					2664	4915
GP67 002 8'	01/25/00					1474	2454

**TABLE 2**  
**CONCENTRATIONS OF BTEX AND TPH IN SOIL**  
**EOTT ENERGY, LLC**  
**TNM 97-23**  
**EUNICE, NEW MEXICO**  
**PROJECT # EO 2010**

*All concentrations are in mg/Kg*

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8020, 8021B, 5030				METHOD: EPA SW 846-8015M GRO/DRO	
		BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	GRO	DRO
GP67 003 12'	01/25/00					5088	6370
GP67 004 16'	01/25/00					<10	<10
GP68 001-4'	01/25/00					826	4826
GP68 002-8'	01/25/00					<10	95
GP68 003-12'	01/25/00					<10	69
GP68 004-16'	01/25/00					<10	<10
GP69 001-4'	01/25/00					2388	4374
GP69 002-8'	01/25/00					<10	92
GP69 003-12'	01/25/00					<10	17
GP69 004-16'	01/25/00					<10	11
GP70 001-4'	01/25/00					<10	33
GP70 002-8'	01/25/00					<10	25
GP71 001-4'	01/25/00					<10	31
GP71 002-8'	01/25/00					214	842
GP71 003-12'	01/25/00					2613	4050
GP71 004-16'	01/25/00					8555	11326
GP71	03/20/00					402	7089
GP72 001-4'	01/25/00					<10	20
GP72 002-8'	01/25/00					<10	53
GP72 003-12'	01/25/00					<10	<10
GP73 001-4'	01/25/00					463	1709
GP73 002-8'	01/25/00					1324	2353
GP74 001-4'	01/25/00					<10	<10
GP74 002-8'	01/25/00					<10	24
GP74 003-12'	01/25/00					<10	<10
GP75 001-4'	01/25/00					406	752
GP75 002-8'	01/25/00					1336	2266
GP75 003-12'	01/25/00					<10	<10
GP76 001 4'	01/25/00					2933	5121
GP76 002-8'	01/25/00					1144	2202
GP76 003-12'	01/25/00					1446	3212
GP76 004-16'	01/25/00					<10	<10
GP77 001-4'	01/25/00					<10	<10
GP77 002-8'	01/25/00					<10	21
GP77 003-12'	01/25/00					<10	<10
GP78 001-4'	01/25/00					1168	2289

**TABLE 2**  
**CONCENTRATIONS OF BTEX AND TPH IN SOIL**

**EOTT ENERGY, LLC**  
**TNM 97-23**  
**EUNICE, NEW MEXICO**  
**PROJECT # EO 2010**

*All concentrations are in mg/Kg*

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8020, 8021B, 5030				METHOD: EPA SW 846-8015M GRO/DRO	
		BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	GRO	DRO
GP78 002-8'	01/25/00					1655	2761
GP78 003-12'	01/25/00					3222	5592
GP78 004-16'	01/25/00					<10	<10
GP78	03/20/00					207	6764
GP79 001-4'	01/25/00					612	1137
GP79 002-8'	01/25/00					2654	4130
GP79 003-12'	01/25/00					127	352
GP79 004-16'	01/25/00					<10	<10
GP79	03/20/00					148	9339
MW - 2 (55')	02/11/00	<0.100	<0.100	<0.100	<0.100	<10	<10
MW - 3 (55')	02/11/00	<0.100	<0.100	<0.100	<0.100	<10	<10
MW - 4 (20')	02/11/00	<0.100	<0.100	<0.100	<0.100	<10	52
MW - 4 (55')	02/11/00	<0.100	<0.100	<0.100	<0.100	<10	<10
MW - 5 (55')	02/16/00	<0.100	<0.100	<0.100	<0.100	<10	<10
SB - 2 (55')	02/11/00	<0.100	<0.100	<0.100	<0.100	<10	<10
Sample 1	01/07/02	<0.025	0.032	<0.025	<0.025	<10	254
Sample 2	01/07/02	<0.025	0.053	0.035	0.470	78.0	3980
Sample 3	01/07/02	0.046	0.185	0.343	2.386	314	3980
Sample 4	01/07/02	<0.025	0.072	0.199	1.566	405	4950
Stockpile 1 Comp	11/14/02	<0.025	<0.025	<0.025	0.054	15.8	1660
Stockpile 2 Comp	11/14/02	<0.025	<0.025	<0.025	<0.025	29.3	1300
Stockpile 3 Comp	11/14/02	<0.025	<0.025	<0.025	<0.025	49.9	2340
Stockpile 4 Comp	11/14/02	0.042	0.178	0.086	0.675	38.0	1820
Stockpile 5 Comp	11/14/02	<0.025	<0.025	<0.025	<0.025	24.1	936
Stockpile 6 Comp	11/14/02	<0.025	<0.025	<0.025	<0.025	21.0	1120
Stockpile 7 Comp	11/14/02	<0.025	<0.025	<0.025	<0.025	17.0	744
Stockpile 8 Comp	11/14/02	<0.025	<0.025	<0.025	<0.025	34.6	1130
Stockpile 9 Comp	11/14/02	<0.025	0.114	0.223	2.327	435	5910
Stockpile 10 Comp	11/14/02	<0.025	<0.025	0.034	0.151	213	4660
Stockpile 11 Comp	11/14/02	<0.025	0.062	0.039	0.182	55.4	1820
Stockpile 12 Comp	11/14/02	<0.025	<0.025	<0.025	<0.025	10.5	482
Stockpile 13 Comp	11/14/02	<0.025	<0.025	<0.025	<0.025	56.2	3600
Stockpile 14 Comp	11/14/02	<0.025	<0.025	<0.025	<0.025	12.8	658
Stockpile 15 Comp	11/14/02	<0.025	<0.025	<0.025	<0.025	31.2	1780
Stockpile 16 Comp	11/14/02	<0.025	<0.025	<0.025	<0.025	<10.0	406
Stockpile 17 Comp	11/14/02	<0.025	<0.025	<0.025	<0.025	<10.0	204

**TABLE 2**  
**CONCENTRATIONS OF BTEX AND TPH IN SOIL**

**EOTT ENERGY, LLC**  
**TNM 97-23**  
**EUNICE, NEW MEXICO**  
**PROJECT # EO 2010**

*All concentrations are in mg/Kg*

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8020, 8021B, 5030				METHOD: EPA SW 846-8015M GRO/DRO	
		BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	GRO	DRO
Stockpile 18 Comp	11/14/02	<0.025	0.094	0.104	1.511	553	4920
Stockpile 19 Comp	11/14/02	<0.025	<0.025	<0.025	<0.025	37.9	1480
Exc. 1 Comp 6-6.5'	11/14/02	<0.025	<0.025	<0.025	<0.025	<10.0	142
Exc. 2 Comp 6-6.5'	11/14/02	<0.025	<0.025	<0.025	<0.025	<10.0	156
Exc. 3 Comp 6-6.5'	11/14/02	<0.025	<0.025	<0.025	<0.025	<10.0	226
Exc. 4 Comp 6-6.5'	11/14/02	<0.025	<0.025	<0.025	<0.025	34.6	1140
Exc. 5 Comp 6-6.5'	11/14/02	<0.025	0.025	0.025	0.103	118	2540
Exc. 6 Comp 6-6.5'	11/14/02	<0.025	<0.025	<0.025	<0.025	<10.0	709
Exc. 7 Comp	11/14/02	<0.025	<0.025	<0.025	<0.025	44.4	2730
Exc. 8 Comp 4-5'	11/14/02	<0.025	0.026	<0.025	0.078	<10.0	413
Rel Comp 10-12'	11/14/02	<0.025	0.029	0.039	0.155	114	2660
WW - 1	12/11/02	<0.025	<0.025	<0.025	<0.025	65.5	870
NW - 1	12/11/02	<0.025	<0.025	<0.025	<0.025	36.7	849
SW - 1	12/11/02	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0
NW - 2	12/11/02	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0
SW - 2	12/11/02	<0.025	<0.025	<0.025	<0.025	10.3	787
NW - 3	12/11/02	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0
SW - 3	12/11/02	<0.025	0.043	0.052	0.199	38.3	722
NW - 4	12/11/02	<0.025	<0.025	<0.025	<0.025	21.5	346
SW - 4	12/11/02	<0.025	<0.025	0.034	0.138	290	4700
NW - 5	12/11/02	<0.025	<0.025	<0.025	<0.025	39.9	2770
SW - 5	12/11/02	<0.025	<0.025	<0.025	<0.025	<10.0	358
NW - 6	12/11/02	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0
SW - 6	12/11/02	<0.025	<0.025	0.044	0.064	213	2590
SW - 7	12/11/02	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0
EW - 7	12/11/02	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0
WW - 7	12/11/02	<0.025	<0.025	<0.025	<0.025	<10.0	196
EW - 8	12/11/02	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0
WW - 8	12/11/02	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0
NW - 8	12/11/02	<0.025	<0.025	<0.025	<0.025	<10.0	36.1

TABLE 3  
CONCENTRATIONS OF BTEX IN GROUNDWATER

**EOTT ENERGY, LLC**  
**TNM 97-23**  
**LEA COUNTY, NM**  
**ETGI Project # EO 2010**

*All concentrations are reported in mg/L.*

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846 - 8220, 8221B, 8260, 5230			
		BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLEMES
MW - 1	05/12/99	<0.001	<0.001	<0.001	<0.001
	08/23/99	<0.001	<0.001	<0.001	<0.001
	11/04/99	<0.001	<0.001	<0.001	<0.001
	01/13/00	<0.001	<0.001	<0.001	<0.001
	05/18/00	<0.001	<0.001	<0.001	<0.001
	06/06/00	<0.001	<0.001	<0.001	<0.001
	09/15/00	<0.001	<0.001	<0.001	<0.001
	11/30/00	<0.001	<0.001	<0.001	<0.001
	03/16/01	<0.001	<0.001	<0.001	<0.001
	06/04/01	<0.005	0.0198	0.0197	0.0792
	09/24/01	<0.001	<0.001	<0.001	<0.001
	10/30/01	<0.001	<0.001	<0.001	<0.001
	01/28/02	<0.001	<0.001	<0.001	<0.001
	05/21/02	<0.001	<0.001	<0.001	<0.001
	09/19/02	<0.001	<0.001	<0.001	<0.001
	12/16/02	<0.001	<0.001	<0.001	<0.001
	02/24/03	<0.001	<0.001	<0.001	<0.001
	05/20/03	<0.001	<0.001	<0.001	<0.001
MW - 2	02/25/00	0.001	<0.001	<0.001	<0.001
	05/18/00	<0.001	<0.001	<0.001	<0.001
	06/06/00	0.005	0.003	<0.001	0.001
	09/15/00	<0.001	<0.001	<0.001	<0.001
	11/30/00	0.012	0.004	<0.001	0.002
	03/16/01	0.002	<0.001	<0.001	<0.001
	06/04/01	0.009	<0.005	<0.005	<0.005
	09/24/01	0.003	<0.001	<0.001	<0.001
	10/30/01	0.00191	<0.001	<0.001	<0.001
	01/28/02	0.00379	<0.001	<0.001	<0.001
	05/21/02	0.00581	0.001	<0.001	0.00125
	09/19/02	<0.001	<0.001	<0.001	<0.001
	12/16/02	0.005	<0.001	<0.001	<0.001
	02/24/03	<0.001	<0.001	<0.001	<0.001
	05/20/03	<0.001	<0.001	<0.001	<0.001
MW - 3	02/25/00	0.003	0.002	<0.001	<0.001
	05/18/00	0.001	<0.001	<0.001	<0.001
	06/06/00	<0.001	<0.001	<0.001	<0.001
	09/15/00	<0.001	<0.001	<0.001	<0.001
	11/30/00	<0.001	<0.001	<0.001	<0.001
	03/16/01	0.002	<0.001	<0.001	<0.001
	06/04/01	0.008	<0.005	<0.005	<0.005
	09/24/01	<0.001	<0.001	<0.001	<0.001
	10/30/01	<0.001	<0.001	<0.001	<0.001
	01/28/02	<0.001	<0.001	<0.001	<0.001
	05/21/02	<0.001	<0.001	<0.001	<0.001
	09/19/02	<0.001	<0.001	<0.001	<0.001
	12/16/02	0.002	<0.001	<0.001	<0.001
	02/24/03	<0.001	<0.001	<0.001	<0.001

TABLE 3  
CONCENTRATIONS OF BTEX IN GROUNDWATER

**EOTT ENERGY, LLC**  
**TNM 97-23**  
**LEA COUNTY, NM**  
**ETGI Project # EO 2010**

*All concentrations are reported in mg/L.*

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846 - 8220, 8221B, 8260, 5230			
		BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLEMES
MW - 3	05/20/03	<0.001	<0.001	<0.001	<0.001
MW - 4	02/25/00	0.012	0.007	0.001	0.005
	05/18/00	0.002	<0.001	<0.001	<0.001
	06/06/00	0.022	0.014	0.003	0.009
	09/15/00	0.018	0.008	<0.001	<0.001
	11/30/00	0.041	0.027	0.005	0.015
	03/16/01	0.023	0.013	0.002	0.006
	06/04/01	0.0149	0.0198	<0.005	<0.005
	09/24/01	0.027	0.0156	0.003	0.001
	10/30/01	0.018	0.011	0.001	0.005
	01/28/02	NA	NA	NA	NA
	05/21/02	NA	NA	NA	NA
	09/19/02	NA	NA	NA	NA
	12/16/02	NA	NA	NA	NA
	02/24/03	NA	NA	NA	NA
	05/20/03	<0.001	<0.001	<0.001	<0.001
MW - 5	02/25/00	0.001	<0.001	<0.001	<0.001
	05/18/00	<0.001	<0.001	<0.001	0.002
	06/06/00	0.002	0.001	<0.001	<0.001
	09/15/00	<0.001	<0.001	<0.001	<0.001
	11/30/00	<0.001	<0.001	<0.001	<0.001
	03/16/01	<0.001	<0.001	<0.001	<0.001
	06/04/01	<0.005	<0.005	<0.005	<0.005
	09/24/01	<0.001	<0.001	<0.001	<0.001
	10/30/01	<0.001	<0.001	<0.001	<0.001
	01/28/02	<0.001	<0.001	<0.001	<0.001
	05/21/02	<0.001	<0.001	<0.001	<0.001
	09/19/02	<0.001	<0.001	<0.001	<0.001
	12/16/02	<0.001	<0.001	<0.001	<0.001
	02/24/03	<0.001	<0.001	<0.001	<0.001
	05/20/03	<0.001	<0.001	<0.001	<0.001
EB - 1	09/15/00	<0.001	<0.001	<0.001	<0.001
	11/30/00	<0.001	<0.001	<0.001	<0.001
	03/16/01	<0.001	<0.001	<0.001	<0.001
	06/04/01	<0.001	<0.001	<0.001	<0.001
	09/24/01	<0.001	<0.001	<0.001	<0.001
	10/30/01	<0.001	<0.001	<0.001	<0.001
	01/28/02	<0.001	<0.001	<0.001	<0.001
	05/21/02	<0.001	<0.001	<0.001	<0.001
	09/19/02	<0.001	<0.001	<0.001	<0.001
	12/16/02	<0.001	<0.001	<0.001	<0.001
	02/24/03	<0.001	<0.001	<0.001	<0.001

Note: NA denotes well MW-4 was not accessible for sampling on date specified due to on-site excavation.

**TABLE 4**  
**CONCENTRATIONS OF METALS IN GROUNDWATER**

EOTT ENERGY, LLC  
 TNM 97-23  
 LEA COUNTY, NEW MEXICO  
 ETG Project # EO2010

All concentrations are reported in mg/L

EPA SW846 601(B) 7470

SAMPLE LOCATION	SAMPLE DATE	Aluminum	Arsenic	Barium	Beryllium	Calcium	Chromium	Copper	Iron	Lead	Manganese	Molybdenum	Nickel	Potassium	Selenium	Sodium	Silver	Tin	Zinc	Boron	Strontium					
MW - 1	02/01/98	<0.022	N/A	0.059	<0.022	<0.044	180	<0.11	<0.033	<0.11	N/A	72.0	<0.036	N/A	<0.22	<0.11	8.76	N/A	<0.089	187	<0.22	0.058	0.13	0.48	3.86	
MW - 2	02/23/00	2.400	0.0120	0.0640	<0.0040	<0.0010	133.0	<0.0050	<0.0200	<0.0100	1.600	<0.0030	75.30	0.0370	<0.0020	<0.050	<0.0100	13.90	0.0130	<0.00500	238.0	<0.00500	0.0630	<0.0200	0.587	3.57
MW - 3	02/23/00	4.550	0.0140	0.1100	<0.0040	<0.0010	171.0	0.0090	<0.0200	<0.0100	2.810	<0.0030	89.40	0.1370	<0.0020	<0.050	<0.0100	17.90	0.0170	<0.00500	433.0	<0.00500	0.0620	0.0240	0.612	4.71
MW - 4	02/23/00	7.100	0.0110	0.2370	<0.0040	<0.0010	636.0	<0.0050	<0.0200	0.0100	5.310	<0.0030	367.00	0.1620	<0.0020	<0.050	0.0130	45.10	0.0280	<0.00500	768.0	0.0620	0.0470	0.0290	0.517	15.70
MW - 5	02/23/00	5.060	0.0150	0.1050	<0.0040	<0.0010	164.0	0.0050	<0.0200	<0.0100	3.500	<0.0030	89.80	0.0810	<0.0020	<0.050	<0.0100	16.00	0.0180	<0.00500	252.0	<0.00500	0.0640	0.0220	0.639	4.18

Note: "N/A" denotes analyt not reported from laboratory.

Note: Results reported from MW-1 are from the KEI report referenced in Section 10.0 of this report.

TABLE 5

## CONCENTRATIONS OF SEMI-VOLATILES IN GROUNDWATER

EOTT ENERGY, LLC  
TNM 97-23  
LEA COUNTY, NEW MEXICO  
ETGI Project # EO2010

All concentrations are in mg/L

EPA SW846-8270C, 3510

SAMPLE LOCATION	SAMPLE DATE	Naphthalene	Acenaphthylene	Acenaphthene	Fluoranthene	Pyrene	Benz[a]anthracene	Chrysene	Benz[b]fluoranthene	Benz[k]fluoranthene	Indeno[1,2,3-cd]pyrene	Dibenz[a,h]anthracene	Benzo[e,h,j]perylene	
MW - 1	02/04/98	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW - 2	02/25/00	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW - 3	02/25/00	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW - 4	02/25/00	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW - 4	03/17/00	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW - 5	02/25/00	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

Note: Results reported from MW-1 are from the KEI report referenced in Section 10.0 of this report.

**TABLE 6**  
**CONCENTRATIONS OF VOLATILES IN GROUNDWATER**  
**FOOT ENERGY LLC**

EOTT ENERGY, LLC  
TJM 97-23  
EAA COUNTY, NEW MEXICO  
ETGI Project # EO 2010

All concentrations are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	Vinyl chloride	Bromo methane	Chloro methane	Vinyl chloride	Trichlorofluoromethane	1,1-Dichloroethylene	Methylene Chloride	trans-1,2-Dichloroethylene	1,1-Dichloroethane	2-Butanone	cis-1,2-Dichloroethylene	Bromo chloromethane	Chloroform	1,1,1-Trichloroethane	Carbon Tetrachloride
MW-4	3/17/00	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0050	<0.0020	<0.0020	<0.0100	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020

		EPA SW846-8260		
SAMPLE LOCATION	SAMPLE DATE	Benzene	1,2-Dichloroethane	Trichloroethylene
MW-4	3/17/00	<0.0020	<0.0020	<0.0020
		Dibromomethane	1,2-Dichloropropane	4-Methyl-2-Pentanone
		2-Hexanone	cis 1,3-Dichloropropene	
		Toluene	trans 1,3-Dichloropropene	1,1,2-Trichloroethane
				Dibromochloromethane
				Tetrachloroethylene
				Chlorobenzene
				1,1,1,2-Tetrachloroethane
				Ethylbenzene

EPA SW846-8260		SAMPLE LOCATION	SAMPLE DATE	m & p Xyline	o-Xylene	Styrene	Bromoform	1,1,2,2-Tetrachloroethane	1,2,3-Trichloropropane	1,4-Dichlorobenzene	1,2-Dichlorobenzene	1,2-Dibromo-3-Chloropropane	<0.0100
MW-4		3/17/00		2.57	<0.0020	<0.0020	<0.0020	<0.1100	<0.0020	<0.00100	<0.00100	<0.0100	<0.0100

TABLE 7

CONCENTRATIONS OF ANIONS/CATIONS IN GROUNDWATER

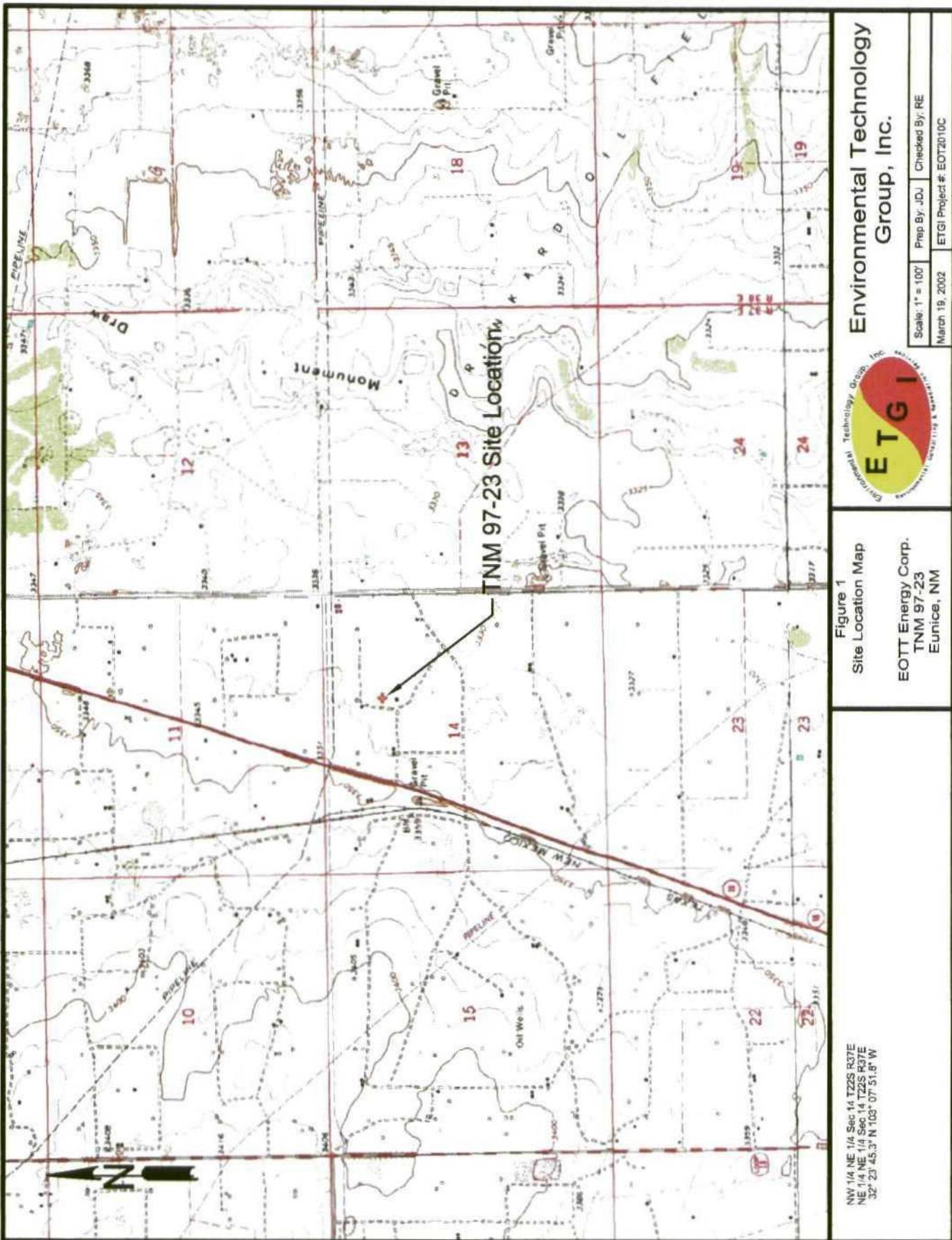
EOTT ENERGY, LLC  
TNM 97-23  
LEA COUNTY, NEW MEXICO  
ETGI PROJECT # EO 2010

*All concentrations are reported in mg/L.*

SAMPLE LOCATION	SAMPLE DATE	EPA SW375.4, 325.3, 310, 4500, 160.1				
		Sulfate	Chloride	Carbonate	Bicarbonate	TDS
MW - 1	02/04/98	165	405	<1.0	198	1570
MW - 2	02/25/00	480	319	0	205	1342
MW - 3	02/25/00	500	629	0	195	1841
MW - 4	02/25/00	822	2437	0	165	5657
MW - 5	02/25/00	492	399	0	215	1467

Note: Results reported from MW-1 are from the KEI report referenced in Section 10.0 of this report.

## **FIGURES**



**Environmental Technology Group, Inc.**

32° 23' 45.3N 103° 07' 51.8W  
Scale: 1" = 100'      Prep By: JDU      Checked By: RE

ETGI Project # E002010  
April 30, 2003

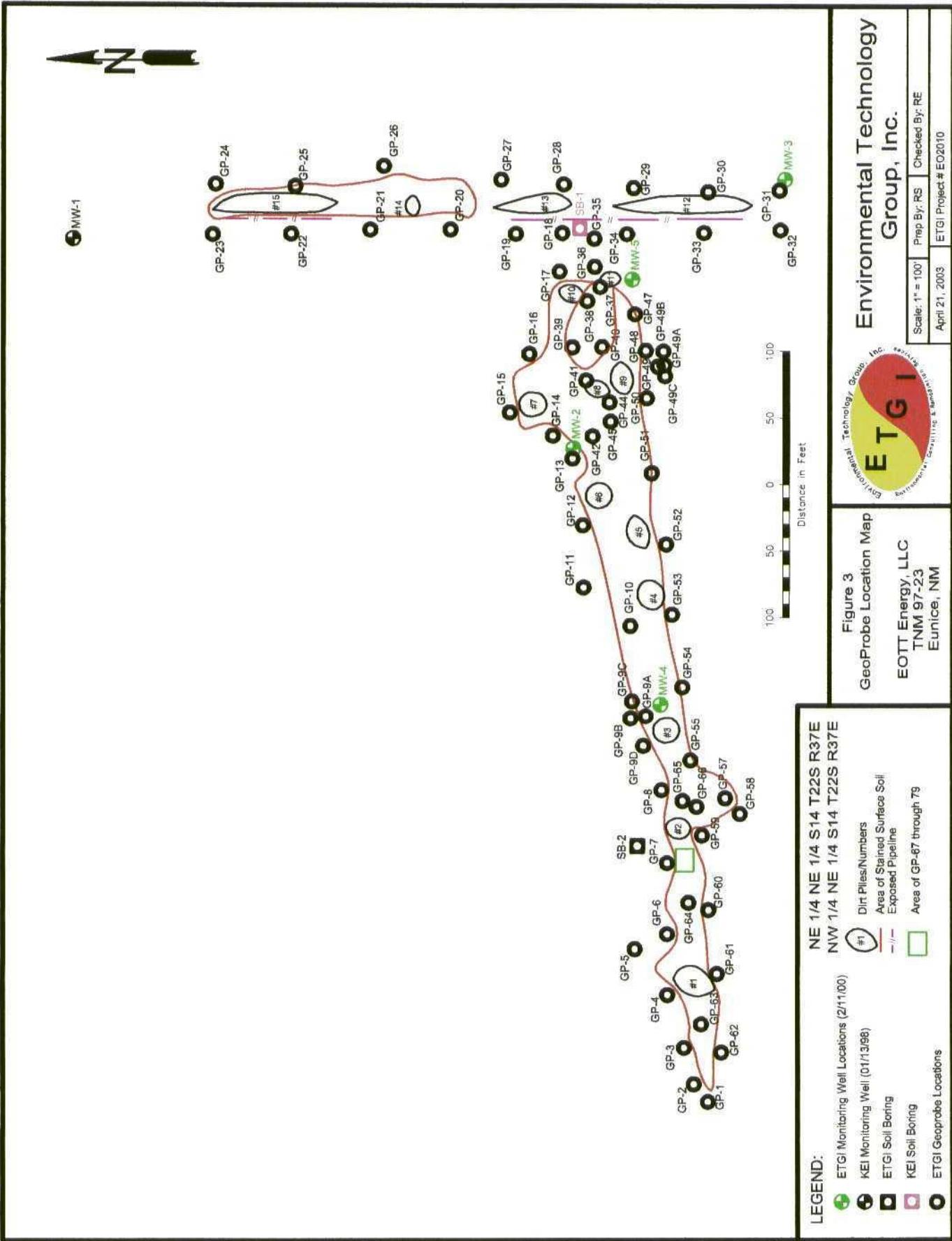
Figure 2  
Site Map  
EOTT Energy, LLC  
TNM 97-23  
Eunice, NM

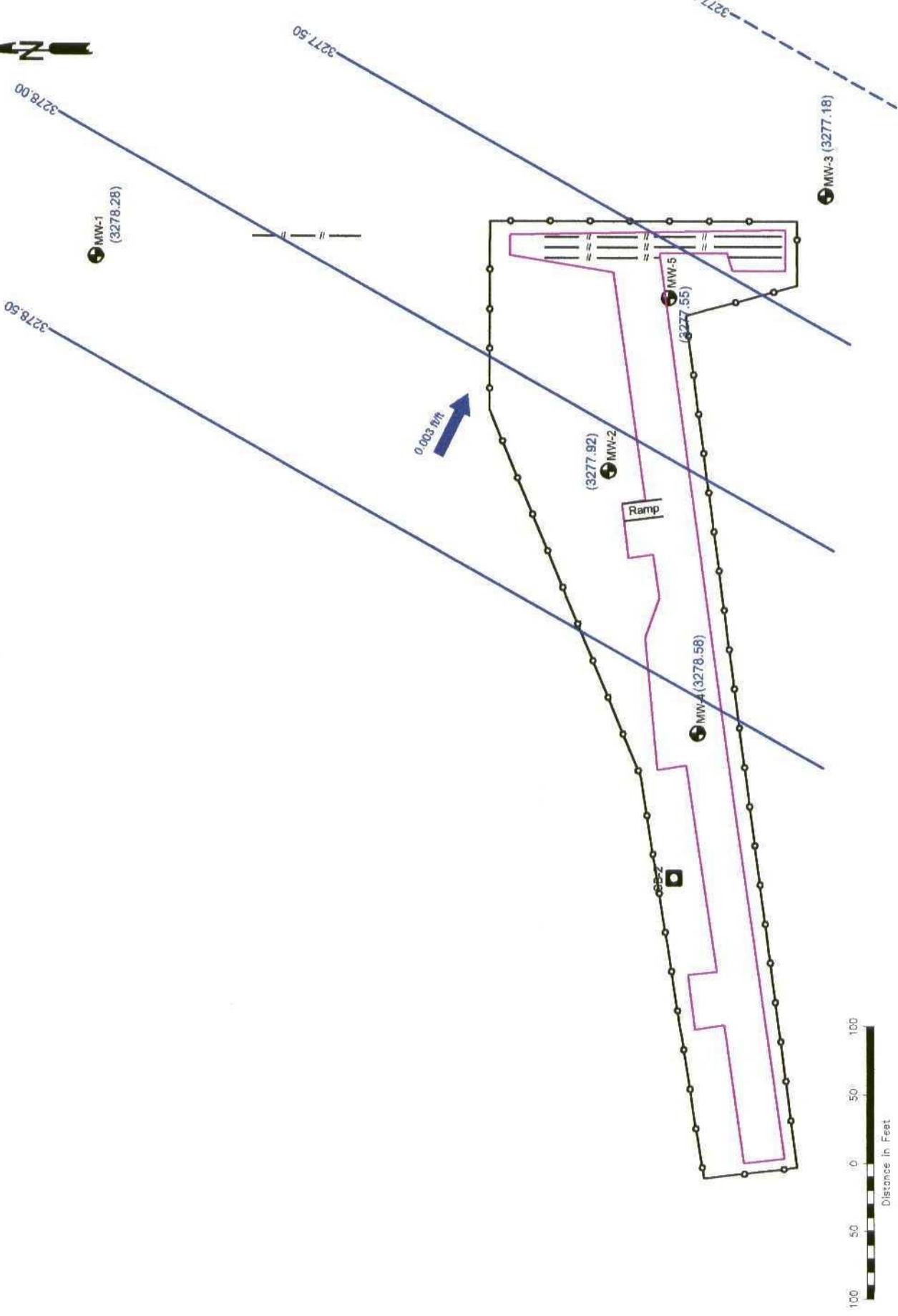
EOTT Energy, Inc.  
Environmental Technology Group, Inc.  
ETGI Environmental Technology Group, Inc.  
Environmental Technology Group, Inc.

LEGEND:  
● Monitor Well Location  
■ ETGI Soil Boring  
— Exposed Pipeline

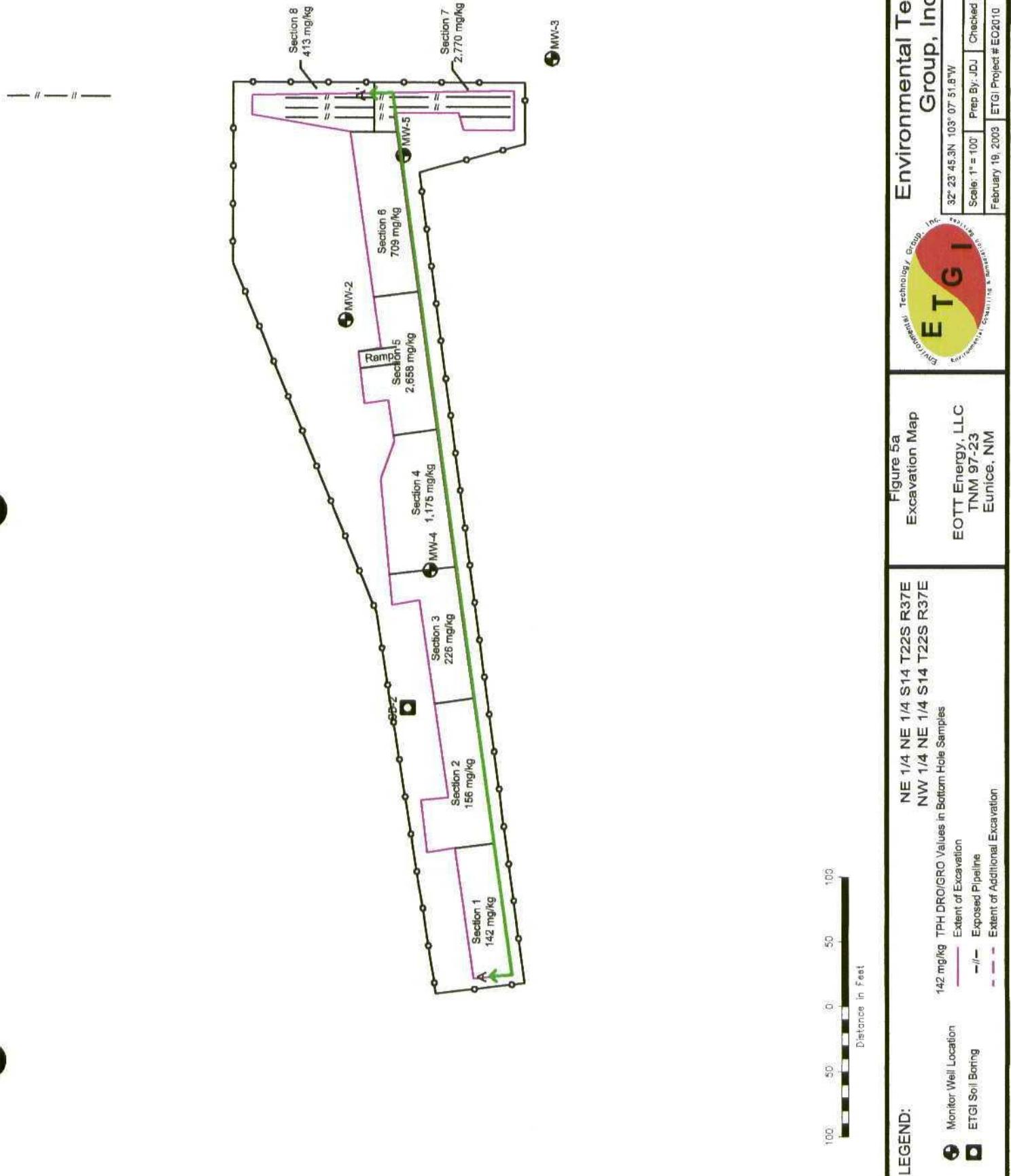
100  
50  
0  
50  
100  
Distance in Feet







<b>Environmental Technology Group, Inc.</b>		
32°23'45.3N 103°07'51.8W	Prep By: JDJ	Checked By: RE
Scale: 1" = 100'	ETGI Project # EO2010	July 16, 2003
	Environmental Technology Group, Inc. Engineering & Geotechnical Services	Environmental Technology Group, Inc. Engineering & Geotechnical Services



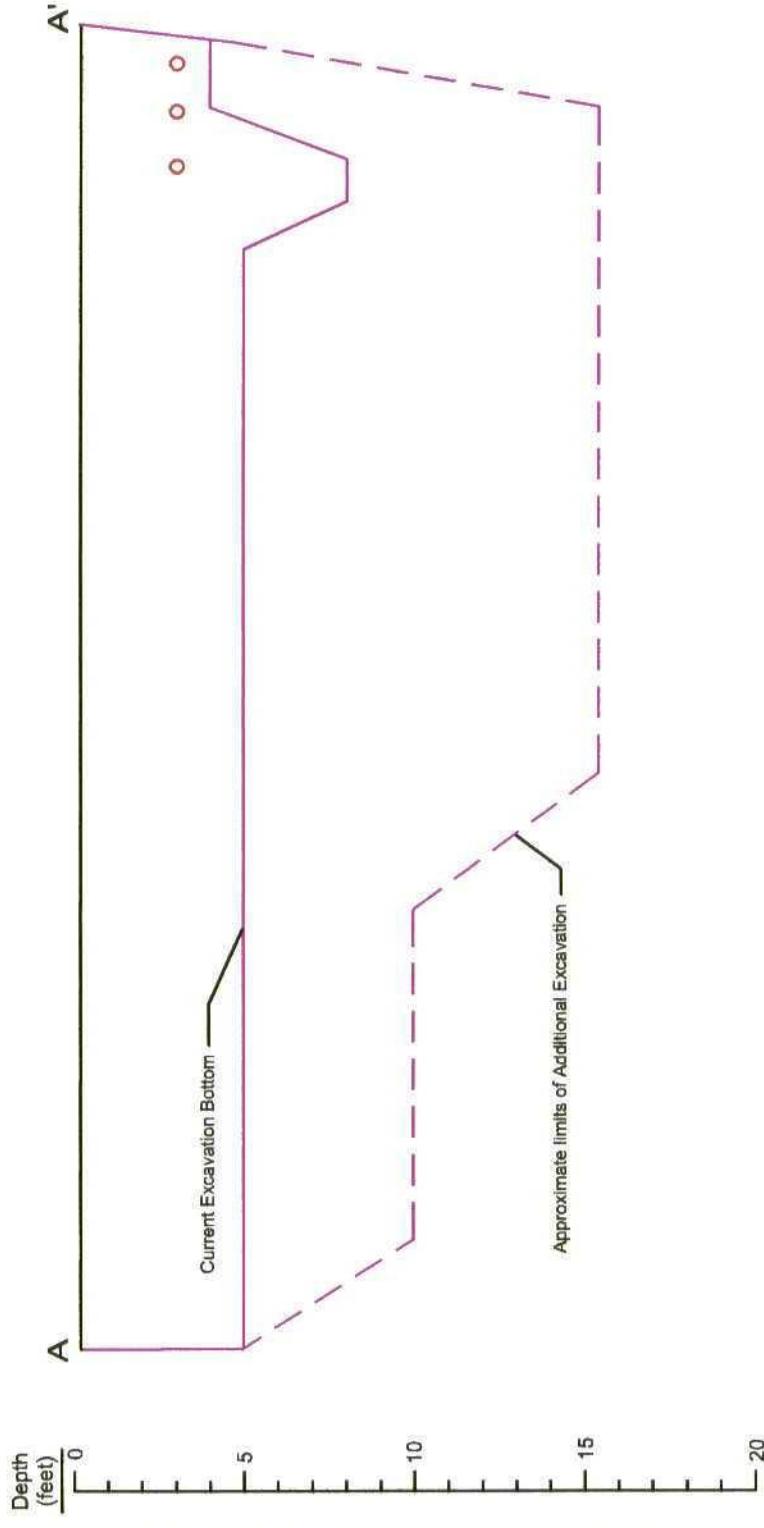


Figure 5b  
Conceptual Cross Section of Additional Excavation  
A - A'  
EOTT Energy, LLC TNM 97-23 Eunice, NM

NE 1/4 NE 1/4 S14 T22S R37E  
NW 1/4 NE 1/4 S14 T22S R37E

Environmental Technology  
Group, Inc.

Scale: NTS	Prep By: JDU	Checked By: RE
August 1, 2001	ETGI Project # EO2010	



## **APPENDICES**

**APPENDIX A**

**Soil Boring Logs**

## **FIELD BORING LOG**

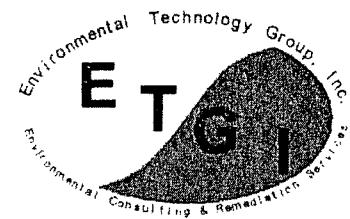
**Client Name: EOTT ENERGY CORP.**

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/17/00

Boring / Well Name: GP1



## FIELD BORING LOG

**Client Name: EOTT ENERGY CORP.**

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/17/00

Boring / Well Name: GP2

## **FIELD BORING LOG**

**Client Name: EOTT ENERGY CORP.**

Site Name: TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/17/00

Boring / Well Name: GP3

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

**Project Number:** EOT1010C

Date Drilled: 01/17/00

Boring / Well Name: GP4

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/17/00

Boring / Well Name: GP5

## **FIELD BORING LOG**

**Client Name:** EOTT ENERGY CORP.  
**Site Name:** TNM 97-23  
**Project Number:** EOT1010C  
**Date Drilled:** 01/17/00  
**Boring / Well Name:** GP6

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/17/00

Boring / Well Name: GP7

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/17/00

Boring / Well Name: GP8

## FIELD BORING LOG

**Client Name: EOTT ENERGY CORP.**

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/17/00

Boring / Well Name: GP9

# FIELD BORING LOG

Client Name: EOTT ENERGY CORP.

Site Name: TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/18/00

Boring / Well Name: GP9A

DEPTH	LITH.	LAB SAMPLE	PID (ppm)	STAIN	ODOR	SOIL DESCRIPTION								
4'			0	None	None	Sand (SP) brown-red silty sand, slight clay, dry, no odor.								
8'			435	Moderate	Moderate to strong	Sand (SP) brown-red silty soft clayey sand, slightly moist, with black streaks (discoloration at 7' to 8'), moderate to strong odor.								
12'			830	Moderate	Moderated to strong	Sand (SP) brown-red silty clayey sand, fine with black streaks, to tan-red clayey sand, at 9' to 10' to buff sandy caleche, at 10' to 11' moderated to strong odor.								
14'			790	Moderate	Strong	Buff to tan sandy caleche with black streaks at 11' to 13' to tan-brown fine sandy caleche with black-gray streaks, strong odor, slightly moist.								
16'		GP9A-005	840	None	Moderate	Brown-red-tan silty clayey sand with fine caleche gravel intermixed, to fine sand at 16', moderate odor.								
19'	Brick	GP9A-006	9.5	None	Slight	Light brown-tan-buff silty sandy caleche, slight odor.								
22'	Brick		23.2	None	None	Light brown-buff fine grain silty sandy caleche, dry, no odor.								
Refusal @ 22'						<table border="1"> <tr> <td>SILT</td> <td></td> </tr> <tr> <td>CLAY</td> <td></td> </tr> <tr> <td>SAND</td> <td></td> </tr> <tr> <td>CALECHE</td> <td></td> </tr> </table>	SILT		CLAY		SAND		CALECHE	
SILT														
CLAY														
SAND														
CALECHE														

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

Site Name: TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/18/00

Boring / Well Name: GP9B

## **FIELD BORING LOG**

**Client Name:** EOTT ENERGY CORP.  
**Site Name:** TNM 97-23  
**Project Number:** EOT1010C  
**Date Drilled:** 01/19/00  
**Boring / Well Name:** GP9C

## **FIELD BORING LOG**

**Client Name:** EOTT ENERGY CORP.  
**Site Name:** TNM 97-23  
**Project Number:** EOT1010C  
**Date Drilled:** 01/19/00  
**Boring / Well Name:** GP9D

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

Site Name: TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/19/00

Boring / Well Name: GP10

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/19/00

Boring / Well Name: GP11

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.  
**Site Name:** TNM 97-23  
**Project Number:** EOT1010C  
**Date Drilled:** 01/19/00  
**Boring / Well Name:** GP12

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/19/00

Boring / Well Name: GP13

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

**Project Number:** EOT1010C

Date Drilled: 01/19/00

Boring / Well Name: GP14

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/19/00

Boring / Well Name: GP15

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

Site Name: TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/19/00

Boring / Well Name: GP16

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/19/00 and 03/02/00

Boring / Well Name: GP17 and GP17-1

## **FIELD BORING LOG**

**Client Name:** EOTT ENERGY CORP.

Site Name: TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/20/00

Boring / Well Name: GP18

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/20/00

Boring / Well Name: GP19

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/20/00

Boring / Well Name: GP20

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.  
**Site Name:** TNM 97-23  
**Project Number:** EOT1010C  
**Date Drilled:** 01/20/00  
**Boring / Well Name:** GP21

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

Site Name: TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/20/00

Boring / Well Name: GP22

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

Site Name: TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/20/00

Boring / Well Name: GP23

## **FIELD BORING LOG**

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/20/00

Boring / Well Name: GP24

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/20/00

Boring / Well Name: GP25

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/20/00

Boring / Well Name: GP26

## FIELD BORING LOG

**Client Name: EOTT ENERGY CORP.**

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/20/00

Boring / Well Name: GP27

## **FIELD BORING LOG**

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/20/00

Boring / Well Name: GP28

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.  
**Site Name:** TNM 97-23  
**Project Number:** EOT1010C  
**Date Drilled:** 01/20/00  
**Boring / Well Name:** GP29

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/20/00

Boring / Well Name: GP30

## **FIELD BORING LOG**

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/20/00

Boring / Well Name: GP31

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/20/00

Boring / Well Name: GP32

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

Site Name: TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/20/00

Boring / Well Name: GP33

## **FIELD BORING LOG**

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/20/00

Boring / Well Name: GP34

## **FIELD BORING LOG**

**Client Name:** EOTT ENERGY CORP.  
**Site Name:** TNM 97-23  
**Project Number:** EOT1010C  
**Date Drilled:** 01/20/00 and 1/21/00 and 03/02/00  
**Boring / Well Name:** GP35 and GP35-1

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/21/00

Boring / Well Name: GP36

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.  
**Site Name:** TNM 97-23  
**Project Number:** EOT1010C  
**Date Drilled:** 01/21/00  
**Boring / Well Name:** GP37

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/21/00

Boring / Well Name: GP38

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/21/00

Boring / Well Name: GP39

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/21/00

Boring / Well Name: GP40

## FIELD BORING LOG

**Client Name: EOTT ENERGY CORP.**

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/21/00

Boring / Well Name: GP41

## FIELD BORING LOG

**Client Name: EOTT ENERGY CORP.**

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/21/00

Boring / Well Name: GP42

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/21/00

Boring / Well Name: GP43

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/21/00

Boring / Well Name: GP44

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/21/00

Boring / Well Name: GP45

## FIELD BORING LOG

**Client Name: EOTT ENERGY CORP.**

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/21/00

Boring / Well Name: GP46

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/21/00

Boring / Well Name: GP47

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/21/00

Boring / Well Name: GP48

## FIELD BORING LOG

Client Name: EOTT ENERGY CORP.

Site Name: TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/21/00 and 03/02/00

Boring / Well Name: GP49 and GP49-1

DEPTH	LITH.	LAB SAMPLE	PID (ppm)	STAIN	ODOR	SOIL DESCRIPTION
4'		GP49-001-1	18.0	None	None	Sand (SP), red-brown, very fine grain, well sorted, dry, no stain, no odor, clayey at 3.5'.
8'		GP49-002-1	39.3	None	Slight	Sand (SP), tan-white, very fine grain, well sorted, dry, no stain, slight odor, silty at 6.5'.
10'		GP49-003-1	166	None	Slight	Sand (SP), tan-white, very fine grain, well sorted, dry, no stain, slight odor, silty.
12'		GP49-004-1	322	None	Slight	Sand (SP), white, very fine grain, well sorted, dry, no stain, slight odor, silty with abundant calcareous nodules.
14'		GP49-005-1	27.8	None	Slight	Sand (SP), white, very fine grain, well sorted, dry, no stain, slight odor, silty with abundant calcareous nodules and calcareous.
						Refusal @ 14.0'
						SILT
						CLAY
						SAND
						CALECHE

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

**Project Number: EOT1010C**

Date Drilled: 01/24/00

Boring / Well Name: GP49A

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/24/00

Boring / Well Name: GP49B

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/24/00

Boring / Well Name: GP49C

## FIELD BORING LOG

**Client Name: EOTT ENERGY CORP.**

**Site Name:** TNM 97-23

Project Number: EOT1010C

**Date Drilled:** 01/24/00 and 03/02/00

**Boring / Well Name: GP50 and GP50-1**

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

**Project Number:** EOT1010C

Date Drilled: 01/24/00 and 03/02/00

**Boring / Well Name: GP51 and GP51-1**

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

Site Name: TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/24/00 and 03/02/00

Boring / Well Name: GP52 and GP52-1

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

Site Name: TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/24/00 and 03/02/00

**Boring / Well Name: GP53 and GP53-1**

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/24/00

Boring / Well Name: GP54

## **FIELD BORING LOG**

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/24/00

Boring / Well Name: GP55

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

**Date Drilled:** 01/24/00 and 03/02/00

**Boring / Well Name: GP56 and GP56-1**

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

**Date Drilled:** 01/24/00 and 03/02/00

**Boring / Well Name: GP57 and GP57-1**

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

**Date Drilled:** 01/24/00 and 03/02/00

**Boring / Well Name: GP58 and GP58-1**

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

**Project Number: EOT1010C**

Date Drilled: 01/24/00 and 03/02/00

**Boring / Well Name: GP59 and GP59-1**

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.  
**Site Name:** TNM 97-23  
**Project Number:** EOT1010C  
**Date Drilled:** 01/24/00 and 03/02/00  
**Boring / Well Name:** GP60 and GP60-1

## FIELD BORING LOG

**Client Name: EOTT ENERGY CORP.**

**Site Name:** TNM 97-23

Project Number: EOT1010C

**Date Drilled:** 01/24/00 and 03/02/00

**Boring / Well Name: GP61 and GP61-1**

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.  
**Site Name:** TNM 97-23  
**Project Number:** EOT1010C  
**Date Drilled:** 01/24/00 and 03/02/00  
**Boring / Well Name:** GP62 and GP62-1

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.  
**Site Name:** TNM 97-23  
**Project Number:** EOT1010C  
**Date Drilled:** 01/25/00  
**Boring / Well Name:** GP63

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/25/00

Boring / Well Name: GP64

## **FIELD BORING LOG**

**Client Name:** EOTT ENERGY CORP.

Site Name: TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/25/00

Boring / Well Name: GP65

DEPTH	LITH.	LAB SAMPLE	PID (ppm)	STAIN	ODOR	SOIL DESCRIPTION
4'		GP65-001	261	Slight	Mod.	Sand (SP), red-brown, very fine grain, well sorted, dry, slight stain, moderate odor, clayey at 3.5'.
8'		GP65-002	111	Slight	Slight	Sand (SP), red-brown, very fine grain, well sorted, dry, slight stain, slight odor, clayey at 5.5'.
12'		GP65-003	654	None	Slight	Sand (SP), tan, very fine grain, well sorted, dry, no stain, slight odor, clayey with caleche(not imbedded).
16'		GP65-004	509	None	Slight	Sand (SP), tan to red-brown, very fine grain, well sorted, dry, no stain, slight odor, caleche nodules ending at 15.5', with silty sand imbedded with caleche nodules.
20'		GP65-005	148	None	Slight	Sand (SP), tan to red-brown, very fine grain, well sorted; dry, no stain, slight odor, caleche nodules ending at 15.5', with silty sand imbedded with caleche nodules.
						Refusal @ 20.0'

## **FIELD BORING LOG**

**Client Name:** EOTT ENERGY CORP.  
**Site Name:** TNM 97-23  
**Project Number:** EOT1010C  
**Date Drilled:** 01/25/00  
**Boring / Well Name:** GP66

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/25/00

Boring / Well Name: GP67

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/25/00

Boring / Well Name: GP68

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.  
**Site Name:** TNM 97-23  
**Project Number:** EOT1010C  
**Date Drilled:** 01/25/00  
**Boring / Well Name:** GP69

## FIELD BORING LOG

**Client Name: EOTT ENERGY CORP.**

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/25/00

Boring / Well Name: GP70

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.  
**Site Name:** TNM 97-23  
**Project Number:** EOT1010C  
**Date Drilled:** 01/25/00  
**Boring / Well Name:** GP71

## **FIELD BORING LOG**

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.  
**Site Name:** TNM 97-23  
**Project Number:** EOT1010C  
**Date Drilled:** 01/25/00  
**Boring / Well Name:** GP73

## **FIELD BORING LOG**

**Client Name:** EOTT ENERGY CORP.  
**Site Name:** TNM 97-23  
**Project Number:** EOT1010C  
**Date Drilled:** 01/25/00  
**Boring / Well Name:** GP74

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/25/00

Boring / Well Name: GP75

## **FIELD BORING LOG**

**Client Name:** EOTT ENERGY CORP.  
**Site Name:** TNM 97-23  
**Project Number:** EOT1010C  
**Date Drilled:** 01/25/00  
**Boring / Well Name:** GP76

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.

**Site Name:** TNM 97-23

Project Number: EOT1010C

Date Drilled: 01/25/00

**Boring / Well Name: GP77**

## FIELD BORING LOG

**Client Name:** EOTT ENERGY CORP.  
**Site Name:** TNM 97-23  
**Project Number:** EOT1010C  
**Date Drilled:** 01/25/00  
**Boring / Well Name:** GP78

## **FIELD BORING LOG**

**Client Name:** EOTT ENERGY CORP.  
**Site Name:** TNM 97-23  
**Project Number:** EOT1010C  
**Date Drilled:** 01/25/00  
**Boring / Well Name:** GP79

DEPTH	LITH.	LAB SAMPLE	PID (ppm)	STAIN	ODOR	SOIL DESCRIPTION
4'		GP79-001	938	Heavy	Strong	Sand (SP), red-brown, very fine grain, well sorted, wet, heavy stain, strong odor.
8'		GP79-002	1096	Mod.	Strong	Sand (SP), red-brown, very fine grain, well sorted, wet, moderate stain, strong odor.
12'		GP79-003	171	None	Slight	Sand (SP), red-brown to tan, very fine grain, well sorted, moist, no stain, slight odor, clayey at 8.5' imbedded with silty sand at 10.5'.
16'		GP79-004	36.3	None	None	Sand (SP), tan to white, very fine grain, well sorted, dry, no stain, no odor, clayey layer ends at 13.0' with silty layer at 13.0' to 14.0'.
						Refusal @ 16.0'

## Soil Boring SB - 2

Depth (feet)	Soil Columns	PID Reading	Notes	Legend
0		0.0		 Sand - (SP) - Brown, very fine grain, well sorted, dry.
5		0.0		 Sand - (SP) - White, very fine grain, well sorted, dry, interbedded with caliche nodules.
10		0.0		 Sand - (SP) - Tan, very fine grain, well sorted, dry, interbedded with caliche nodules.
15		0.0		 Sand - (SP) - Tan to White, very fine grain, well sorted, dry, interbedded with caliche nodules.
20		0.0		
25		0.0		
30		0.0		 Clay - (ML) - Red bed, dry
35		0.0		 Caliche - White, hard, interbedded with sand.
40		0.0		
45		0.0		
50		0.0		 Indicates samples selected for laboratory analysis.
55		0.0	moist gravel	
60		0.0		
65		0.0		
70		TD	0.0	

### Soil Boring Log Details

Soil Boring SB - 2

EOTT Energy Corp. TNM 97 - 23 Eunice, NM

**Environmental Technology Group, Inc.**

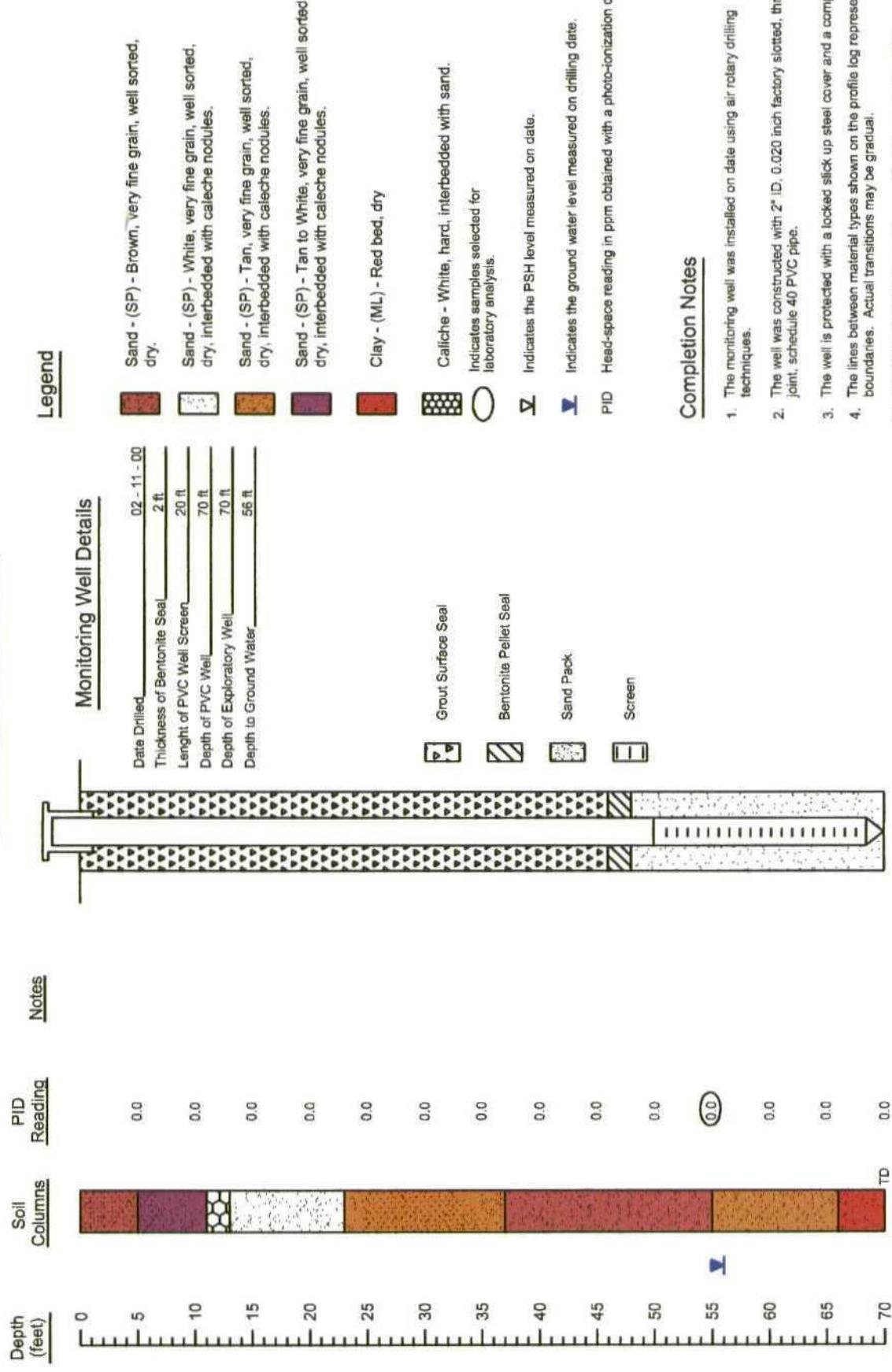


### Soil Boring Details

Date Drilled 02 / 11 / 00  
Plugged Surface to TD with Bentonite and hydrated with deionized water

Scaler: NTS Prep By: RS Checked By: JT  
February 11, 2000 ETGI Project # EOTT 1010C

## Monitoring Well MW - 2



## Boring Log And Monitoring Well Details

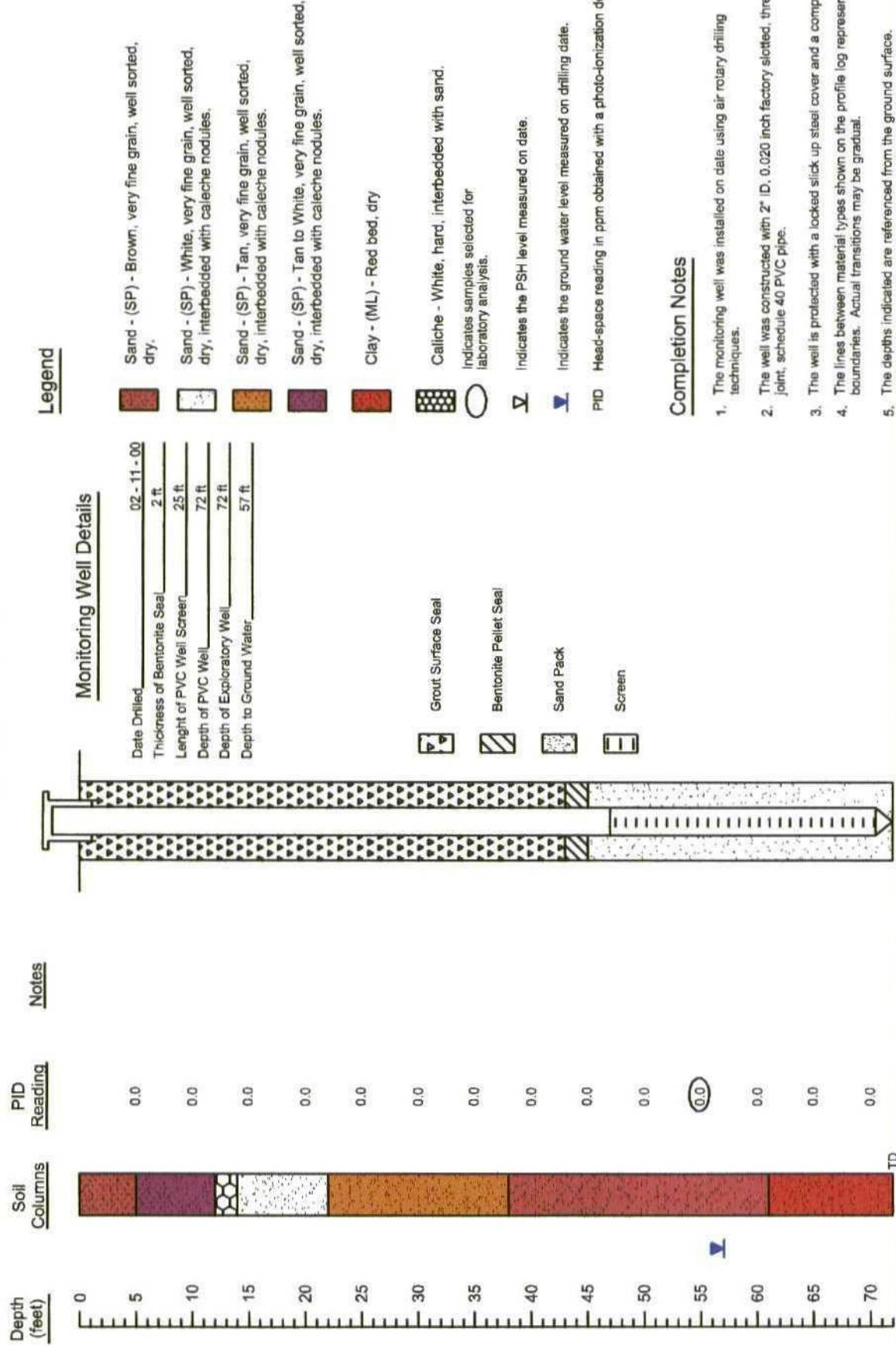
EOTT Energy Corp. TNM 97 - 23 Lea County, NM

Environmental Technology Group, Inc.

Scale: NTS      Prep By: RS      Checked By: JT  
February 11, 2000      EOTT Project # EOT 101C



## Monitoring Well MW - 3



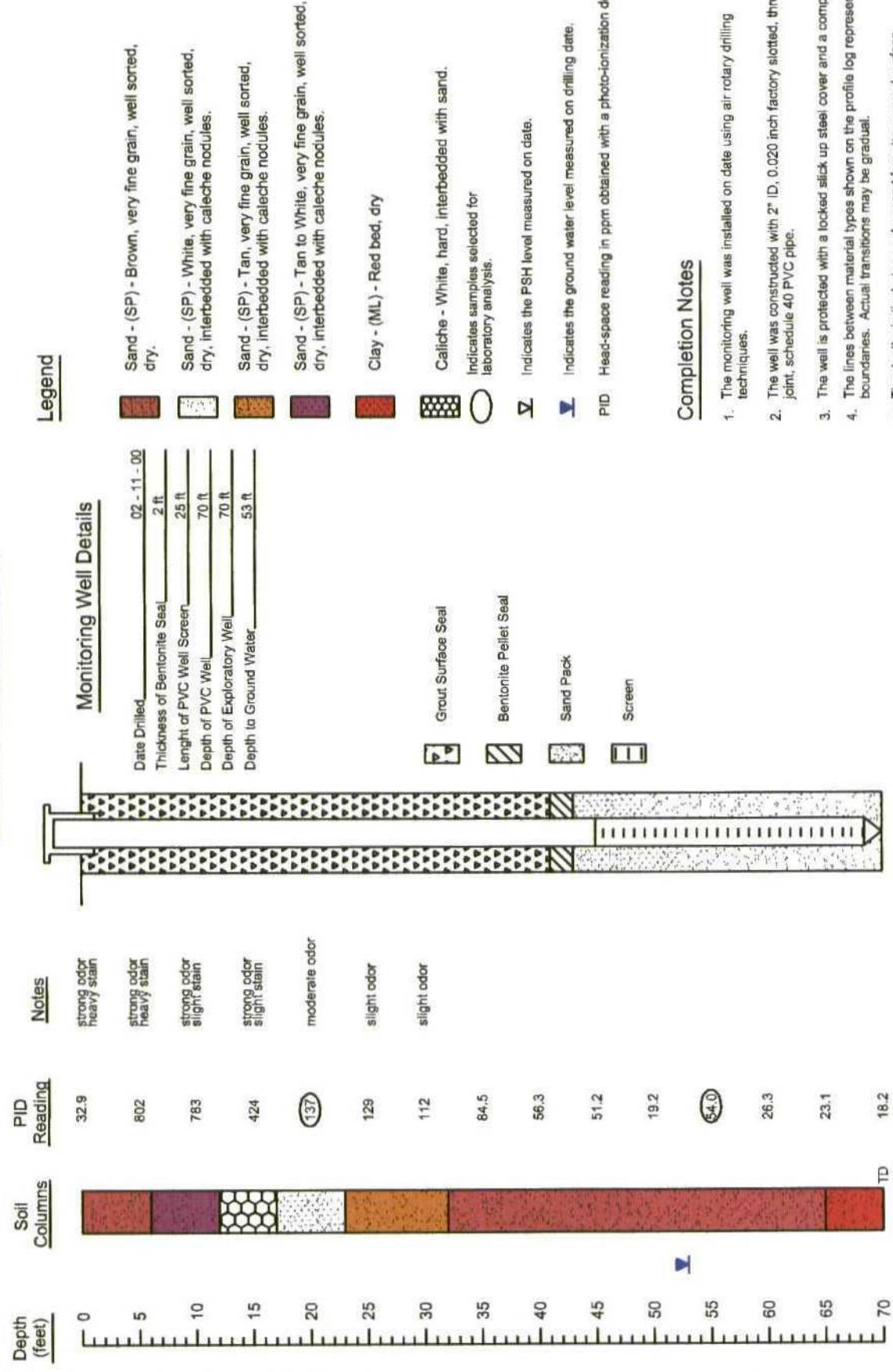
## Boring Log And Monitoring Well Details

EOTT Energy Corp. TNM 97 - 23 Eunice, NM

Environmental Technology Group, Inc.

Scale: NTS	Prep By: RS	Checked By: JT
February 11, 2000	ETGI Project # EOT 1010C	

## Monitoring Well MW - 4



**Boring Log And Monitoring Well Details**

**Monitoring Well - 4**

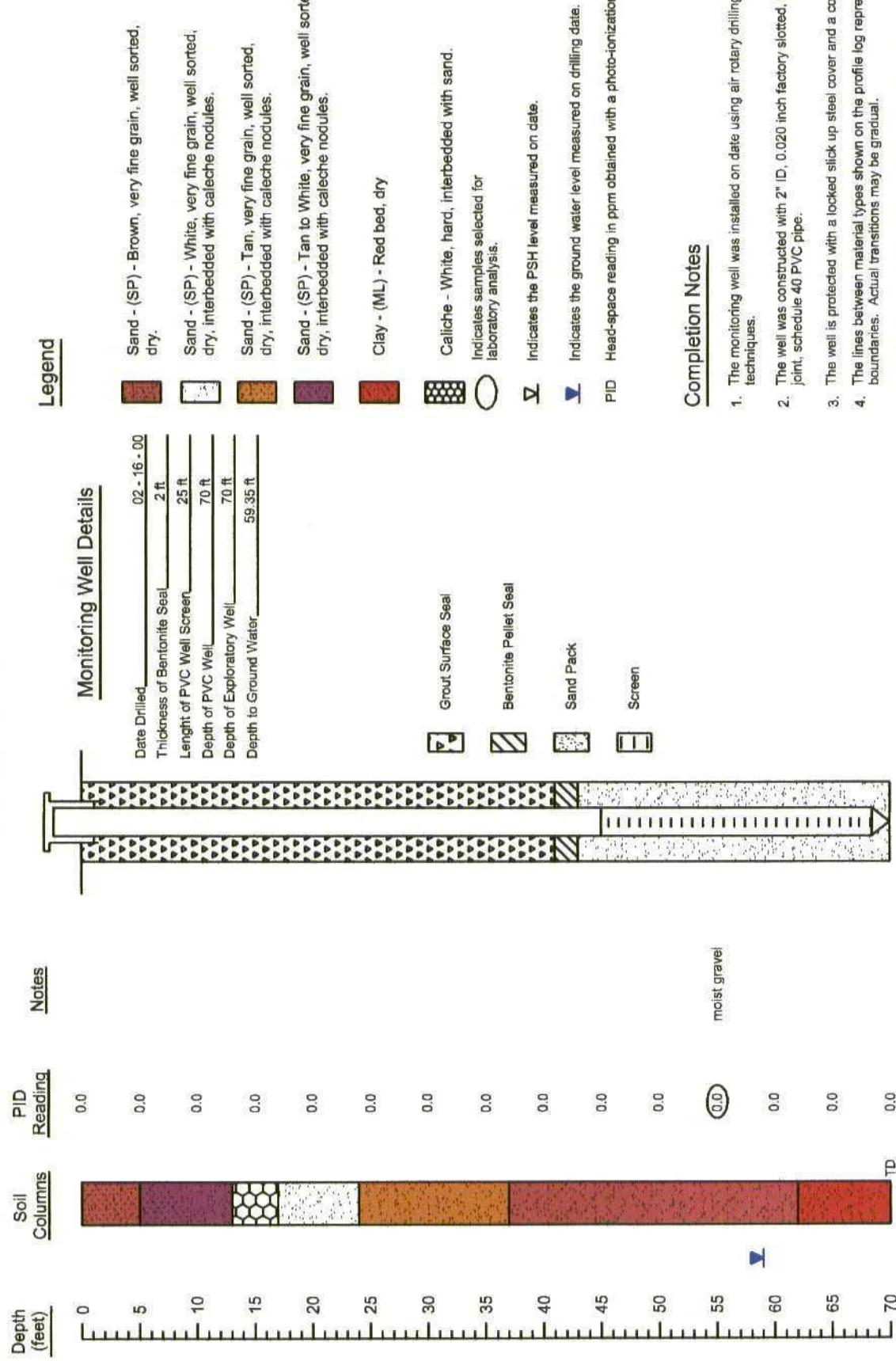
EOTT Energy Corp. TNM 97 - 23 Eunice, NM

**Environmental Technology Group, Inc.**



Scale: NTS Prep By: RS Checked By: JT  
February 11, 2000 ETGI Project # EOT 1010C

## Monitoring Well MW - 5



## Boring Log And Monitoring Well Details

EOTT Energy Corp. TNM 97 - 23 Eunice, NM

Environmental Technology Group, Inc.



Scale: NTS Prep By: RS Checked By: JT  
February 16, 2000 ETG Project # EOT 1010C

**APPENDIX B**

**Laboratory Reports**

# ENVIRONMENTAL LAB OF TEXAS, INC.

*"Don't Treat Your Soil Like Dirt!"*

FILE

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
ATTN: MR. JERRY NICKELL  
P.O. BOX 4845  
MIDLAND, TEXAS 79704  
FAX: 915-520-4310

Sample Type: Soil  
Sample Condition: Intact/Iced  
Project #: EOT1010C  
Project Name: None Given  
Project Location: Eunice, N.M.

Sampling Date: 01/17/00  
Receiving Date: 01/18/00  
Analysis Date: 01/18/00

ELT#	FIELD CODE	GRO	DRO
		C6-C10	>C10-C28
22877	GP1 - 001 4 ft.	<10	<10
22879	GP1 - 003 8 ft.	<10	13
22880	GP2 - 001 4 ft.	<10	<10
22882	GP2 - 003 8 ft.	<10	<10
22883	GP3 - 001 4 ft.	<10	<10
22885	GP3 - 003 8 ft.	<10	<10
22886	GP4 - 001 4 ft.	<10	<10
22887	GP4 - 002 8 ft.	<10	23
22888	GP5 - 001 4 ft.	<10	<10
22891	GP5 - 004 11.5 ft.	<10	<10
22892	GP6 - 001 4 ft.	<10	<10
22893	GP6 - 002 8 ft.	<10	<10
22894	GP7 - 001 4 ft.	<10	<10
22895	GP7 - 002 8 ft.	<10	<10
22896	GP8 - 001 4 ft.	<10	<10
22897	GP8 - 002 8 ft.	<10	<10
22898	GP9 - 001 4 ft.	<10	<10
22899	GP9 - 002 8 ft.	1711	4198

%INSTRUMENT ACCURACY	97	89
% EXTRACTION ACCURACY	114	94
BLANK	<10	<10

#### Methods: EPA SW 846-8015M GRO/DRC

Raland K. Tuttle      1-19-00  
Raland K. Tuttle      Date

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
ATTN: MR. JERRY NICKELL  
P.O. BOX 4845  
MIDLAND, TEXAS 79704  
FAX: 915-520-4310

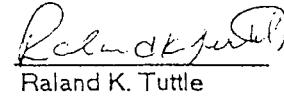
Sample Type: Soil  
Sample Condition: Intact/Iced  
Project #: EOT1010C  
Project Name: TNM Consulting  
Project Location: Eunice, N.M.

Sampling Date: 01/18/00  
Receiving Date: 01/19/00  
Analysis Date: 01/20/00

ELT#	FIELD CODE	GRO	DRO
		C6-C10	>C10-C28
		mg/kg	mg/kg
22918	GP9A-005 16	4188	6621
22919	GP9A-006 19	<10	137
22922	GP9B-002 8	<10	13

%INSTRUMENT ACCURACY	99	88
% EXTRACTION ACCURACY	98	93
BLANK	<10	<10

Methods: EPA SW 846-8015M GRO/DRO

  
Raland K. Tuttle

1-21-00  
Date



**Environmental Lab of Texas, Inc.** 12600 I-20 East Odessa, Texas 79763  
 (915) 563-1800 FAX (915) 563-1713

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: J. A. Jackson Phone #: 915-322-7137  
 Company Name & Address: EOT 1010 C FAX #: 915-320-4310

ANALYSIS REQUEST							Ref 2012
Sample ID: <u>80.15</u> Matrix: <u>Soil</u> Sampling Method: <u>Gravimetric</u> Preservative: <u>HCl</u> Matrix: <u>Soil</u> Other: <u>NH3</u> Date: <u>10/12/01</u> Time: <u>14:00</u> Remarks: <u>Soil for lead analysis</u>							
Lab # (LAB USE ONLY)	FIELD CODE	CONTAINERS	MATRIX	PRESERVATIVE	METHOD	SAMPLING	
22883	685-001/4'	X	1402	X			
22884	-002/6'						
22885	685-002/8'						
22886	685-004/11.5'						
22887	685-004/4'						
22888	685-004/8'						
22889	685-004/4+						
22890	685-004/8+						
22891	685-004/4+						
22892	685-004/8+						
22893	685-004/8+						
22894	685-004/4+						
22895	685-004/8+						
22896	685-004/4+						
22897	685-004/8+						
22898	685-004/4+						
Reliinquished by:	Date:	Times:	Received by:	Times:	Received by:	Times:	
Reliinquished by:	Date:	Times:	Received by Laboratory:				

(915) 561-1800 FAX (915) 563-1713

CHAMBER OF COMMERCE - MESA, ARIZONA

Project Manager:

Greg Nickell

Company Name & Address:

EATCO

Project #:

ECOTEC

Project Location:

Enrique JV

Phone #: (915) 562-1139

FAX #: (915) 520-4310

ANALYSIS REQUEST

TCLP Volatiles	TDS	RCI
TCLP Semi-Volatiles		
Total Metals Ag As Ba Cd Cr Pb Hg Se		
TCLP Metals Ag As Ba Cd Cr Pb Hg Se		
TPH <del>100.1</del> 80.15 mg/L		
BTEX X021/S030		

TCPL Volatiles  
TCLP Semi-Volatiles

TDS

RCI

Total Metals Ag As Ba Cd Cr Pb Hg Se

TDS

RCI

TCLP Volatiles  
TCLP Semi-Volatiles

TDS

RCI

Total Metals Ag As Ba Cd Cr Pb Hg Se

TDS

RCI

TCLP Volatiles  
TCLP Semi-Volatiles

TDS

RCI

Total Metals Ag As Ba Cd Cr Pb Hg Se

TDS

RCI

TCLP Volatiles  
TCLP Semi-Volatiles

TDS

RCI

Total Metals Ag As Ba Cd Cr Pb Hg Se

TDS

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TCLP Volatiles  
TCLP Semi-Volatiles

TDS

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Total Metals Ag As Ba Cd Cr Pb Hg Se

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TCLP Volatiles  
TCLP Semi-Volatiles

TDS

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Total Metals Ag As Ba Cd Cr Pb Hg Se

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TCLP Volatiles  
TCLP Semi-Volatiles

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Total Metals Ag As Ba Cd Cr Pb Hg Se

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TCLP Volatiles  
TCLP Semi-Volatiles

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Total Metals Ag As Ba Cd Cr Pb Hg Se

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TCLP Semi-Volatiles

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Total Metals Ag As Ba Cd Cr Pb Hg Se

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TCLP Volatiles  
TCLP Semi-Volatiles

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Total Metals Ag As Ba Cd Cr Pb Hg Se

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TCLP Semi-Volatiles

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Total Metals Ag As Ba Cd Cr Pb Hg Se

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TCLP Volatiles  
TCLP Semi-Volatiles

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Total Metals Ag As Ba Cd Cr Pb Hg Se

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TCLP Volatiles  
TCLP Semi-Volatiles

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Total Metals Ag As Ba Cd Cr Pb Hg Se

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TCLP Volatiles  
TCLP Semi-Volatiles

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Total Metals Ag As Ba Cd Cr Pb Hg Se

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RCI

TCLP Volatiles  
TCLP Semi-Volatiles

TDS

RCI

Total Metals Ag As Ba Cd Cr Pb Hg Se

TDS

RCI

TCLP Volatiles  
TCLP Semi-Volatiles

TDS

RCI

Total Metals Ag As Ba Cd Cr Pb Hg Se

TDS

RCI

TCLP Volatiles  
TCLP Semi-Volatiles

TDS

RCI

Total Metals Ag As Ba Cd Cr Pb Hg Se

TDS

RCI

REMARKS	Received by:	Time:	Received by:	Time:
Hold samples	J. J.	1/19/00		
RESULTS				



## Project Manager:

Phone#: 915-522-1155

Tracy Mackell  
Company Name & AddressETG&T  
Project #: 20710106

## Project Location:

Eunice NM

## Project Name:

TNM 9732  
Sample Stream

## ANALYSES REQUEST

List # (USE ONLY)	FIELD CODE	WATER	VOLUME/AMOUNT	AQUATIC/HARBOURS		SOIL	SLUDGE	ICE	TINODE	ICEL	NOTE	DATE	TIME	SAMPLING METHOD	PRESERVATIVE	PROJECT	TEST	TDS	TCRP Serial Number	TCLP VDabilitee	TCLP Meabls Ag As Cd Cr Pb Hg S	Total Meabls Ag As Cd Cr Pb Hg S	TPH	80.15 mg/l DRC	UTEX X1120/S1130	RCI		
				MATERIAL	PRESERVATIVE																							
22954	EP13-001	495	402	X	X																							
22955	EP13-002	94																										
22956	EP14-001	4 ft																										
22957	EP14-002	8 ft																										
22958	EP15-001	4 ft																										
22959	EP15-002	8 ft																										
22960	EP16-001	4 ft																										
22961	EP16-002	8 ft																										
22962	EP17-001	4 ft																										
22963	EP17-002	8 ft																										
22964	EP17-003	12 ft																										
22965	EP17-004	100 ft																										

Requisitioned by:	Date:	Received by:	Remarks:
Shanti Chauhan	1/19/00		

Thanks

Shanti Chauhan

1/20/00

Date:

Name:

Signature:

Title:

Position:

Date:

Name:

Title:

ANALYSIS REQUEST					
Project Manager	Tina Mikell				
Project Name & Address	EOT 1010 C				
Project #	TIN# 9732				
Project Location					
Sample N#					
File Code					
Category					
Volume/Amount					
# CONTAINERS					
WATER					
SOL					
STUDY					
CLL					
INNO					
CCE					
HOLE					
OUTER					
TAKE					
DTEx X1120/S130					
TPII 4TB1					
TCLP Vulnerabilities					
TCLP Solubility					
TCLP Metals AD As Ba Cd Cr Pb Hg Se					
TCLP Acetals AD As Ba Cd Cr Pb Hg Se					
TCLP VOCs					
TDS					
TCDF SEMI Vulnerabilities					
HC1					
80.15 mg/dL DRCGRC					
Requisitioned by:	Date:	Time:	Received by:	Time:	REMARKS
<i>Jacie Jones</i>	1/21/00				
Requisitioned by:	Date:	Time:	Received by:	Time:	
<i>Jacie Jones</i>	1/21/00				
Hold until next review date					
<i>Cathy Kowal</i>					

Project No.:

Tracy Nichols

Company Name & Address:  
EOTIOOC

Project #:

Phone #: 915-571-1131

Fax #: 915-571-0510

Project Location:

Project Name:

EOTIOOC

TNM 9732

Project Location:

Evidence NM

Sampler Signature:

Justine Jones

Sample ID:

DTEA X11211511311

COLLATERALS

FIELD CODE

USE  
CNY

VOLUME/AMOUNT

DATE

TIME

METHOD

PRESERVATIVE

SAMPLE

TEST

INSTR

TESTER

TESTER

TEST

TEST&lt;/

ANALYSIS REQUEST												
SAC IS AND FCD - DRCGRQ												
11C1												
TDS												
TCLP Serial Volatiles												
TCLP Volatiles												
Total Metals AR A3 D3 CD CRP110 S0												
TCLP Metals AR A3 D3 CD CRP110 S0												
TPH 418.1												
DTEX X11211/S11211												
TCLP 418.1												
Project Name: TNKA 9739												
Sampler Signature:												
FIELD CODE	COLLATION#	WATER	SOIL	AIR	SLURRY	OUTER	ICE	INTER	DATE	TIME	SAMPLING	
											PRESERVATIVE	METHOD
22003	6230	CON	4 ft		X	X						
22004	6230	CON	5 ft									
22005	6230	CON	1 ft									
22006	6231	CON	4 ft									
22007	6231	CON	5 ft									
22008	6232	CON	4 ft									
22009	6232	CON	5 ft									
22010	6233	CON	1 ft									
22011	6233	CON	4 ft									
22012	6233	CON	5 ft									
22013	6234	CON	4 ft									
Received by:	Date:	Time:	Received by:	Date:	Time:	REMARKS		1100 UNIT 1000 ANALYSIS				
Received by:	Date:	Time:	Received by:	Date:	Time:							
Received by:	Date:	Time:	Received by:	Date:	Time:							
Received by:	Date:	Time:	Received by:	Date:	Time:							

四百九

Plates N. 111

ANALYSIS REQUEST

Project Name & Address:		Phone #: 615-520-4510		FAX #: 615-520-4510		ANALYSIS REQUEST	
ETG LLC							
Project #:	ETG1010C	Project Name:	TNM 9732	Sampler Signature:	<i>J. J.</i>	REMARKS:	<i>Hold until hear otherwise</i>
Project Location:	ETN Inc NM	FIELD CODE		VOLUME/AMOUNT	# CONTAINERS	SAMPLING METHOD	PRESERVATIVE
LAS:	(LAS USE) ONLY			WATER	AIR	SOLID	LIQUID
DATE:				SOIL	SLUDGE	ICE	HONEY
TIME:				AIR	CUTTER	ICP	TCIP
RECEIVED BY:	<i>J. J.</i>	DATE:	<i>1/21/02</i>	TIME:		Received by:	
RECEIVED BY:	<i>J. J.</i>	DATE:	<i>1/21/02</i>	TIME:		Received by:	
RECEIVED BY:	<i>J. J.</i>	DATE:	<i>1/21/02</i>	TIME:		Received by:	
8315 medical BRCG RGA							

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

FILE

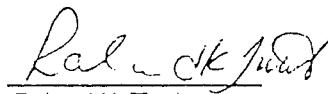
ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
ATTN: MR. JERRY NICKELL  
P.O. BOX 4845  
MIDLAND, TEXAS 79704  
FAX: 915-520-4310

Sample Type: Soil  
Sample Condition: Intact/Iced  
Project #: EOT1010C  
Project Name: TNM 97-23  
Project Location: Eunice, N.M.

Sampling Date: 01/25/00  
Receiving Date: 01/25/00  
Analysis Date: 01/26/00

ELT#	FIELD CODE	GRO	DRO
		C6-C10	>C10-C28
		mg/kg	mg/kg
23130	GP63 001 4'	2294	3240
23131	GP63 002 8'	<10	<10
23132	GP63 003 12'	<10	<10
23133	GP64 001 4'	906	2759
23134	GP64 002 8'	306	1110
23135	GP64 003 12'	330	938
23136	GP64 004 16'	<10	<10
23137	GP65 001 4'	2282	4237
23138	GP65 002 8'	1368	2561
23139	GP65 003 12'	3350	5739
23140	GP65 004 16'	3378	5119
23141	GP65 005 20'	<10	<10
23142	GP66 001 4'	2993	4428
23143	GP66 002 8'	845	677
23144	GP66 003 12'	9391	12666
23145	GP66 004 16'	6670	9700
23146	GP67 001 4'	2664	4915
23147	GP67 002 8'	1474	2454
23148	GP67 003 12'	5088	6370
23149	GP67 004 16'	<10	<10
%INSTRUMENT ACCURACY		110	102
% EXTRACTION ACCURACY		110	93
BLANK		<10	<10

Methods: EPA SW 846-8015M GRO/DRO

  
Raland K. Tuttle      1-31-00  
Date

# ENVIRONMENTAL LAB OF TEXAS, INC.

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
ATTN: MR. JERRY NICKELL  
P.O. BOX 4845  
MIDLAND, TEXAS 79704  
FAX: 915-520-4310

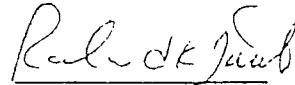
Sample Type: Soil  
Sample Condition: Intact/Iced  
Project #: EOT1010C  
Project Name: TNM 97-23  
Project Location: Eunice, N.M.

Sampling Date: 01/25/00  
Receiving Date: 01/25/00  
Analysis Date: 01/27/00

ELT#	FIELD CODE	GRO	DRO
		C6-C10	>C10-C28
		mg/kg	mg/kg
23150	GP68 001 4'	826	4826
23151	GP68 002 8'	<10	95
23152	GP68 003 12'	<10	69
23153	GP68 004 16'	<10	<10
23154	GP69 001 4'	2388	4374
23155	GP69 002 8'	<10	92
23156	GP69 003 12'	<10	17
23157	GP69 004 16'	<10	11
23158	GP70 001 4'	<10	33
23159	GP70 002 8'	<10	25
23160	GP71 001 4'	<10	31
23161	GP71 002 8'	214	842
23162	GP71 003 12'	2613	4050
23163	GP71 004 16'	8555	11326
23164	GP72 001 4'	<10	20
23165	GP72 002 8'	<10	53
23166	GP72 003 12'	<10	<10

%INSTRUMENT ACCURACY	103	85
% EXTRACTION ACCURACY	101	86
BLANK	<10	<10

Methods: EPA SW 846-8015M GRO/DRO



Raland K. Tuttle

1-31-00

Date

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

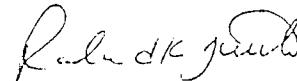
ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
ATTN: MR. JERRY NICKELL  
P.O. BOX 4845  
MIDLAND, TEXAS 79704  
FAX: 915-520-4310

Sample Type: Soil  
Sample Condition: Intact/Iced  
Project #: EOT1010C  
Project Name: TNM 97-23  
Project Location: Eunice, N.M.

Sampling Date: 01/25/00  
Receiving Date: 01/25/00  
Analysis Date: 1/27 & 1/28/00

ELT#	FIELD CODE	GRO	DRO
		C6-C10	>C10-C28
		mg/kg	mg/kg
23167	GP73 001 4'	463	1709
23168	GP73 002 8'	1324	2353
23169	GP74 001 4'	<10	<10
23170	GP74 002 8'	<10	24
23171	GP74 003 12'	<10	<10
23172	GP75 001 4'	406	752
23173	GP75 002 8'	1336	2266
23174	GP75 003 12'	<10	<10
23175	GP76 001 4'	2933	5121
23176	GP76 002 8'	1144	2202
23177	GP76 003 12'	1446	3212
23178	GP76 004 16'	<10	<10
23179	GP77 001 4'	<10	<10
23180	GP77 002 8'	<10	21
23181	GP77 003 12'	<10	<10
23182	GP78 001 4'	1168	2289
23183	GP78 002 8'	1655	2761
23184	GP78 003 12'	3222	5592
23185	GP78 004 16'	<10	<10
23186	GP79 001 4'	612	1137
23187	GP79 002 8'	2654	4130
23188	GP79 003 12'	127	352
23189	GP79 004 16'	<10	<10
%INSTRUMENT ACCURACY		103	88
% EXTRACTION ACCURACY		101	87
BLANK		<10	<10

Methods: EPA SW 846-8015M GRO/DRO



Raland K. Tuttle

1-31-00

Date

Project Manager:

Phone #: 915-522-1132

ANALYSIS REQUEST

J Nickell

Company Name &amp; Address:

ETC I

Project #: EOT 1010c

Project Location: 1010c

Project Name:

TNM 97-23

Sampler Signature:

Eunice NM

LAB # (LAB USE) C/N/Y	FIELD CODE	# COUNTAINERS	VOLUME/AMOUNT	WATER	SOIL	AIR	SLUDGE	OUTER	NOMEX	ICE	HCl	TOTAL METALS AG AS BA Cd Cr Pb Hg Se	TCLP Semi Volatiles	TDS	RCI	80.15 mod DRAGG C	TPH 418.1		DETEX 8020/5030		TOTAL METALS Ag As Ba Cd Cr Pb Hg Se		TCLP Volatiles		TCLP Semi Volatiles		TDS		RCI		80.15 mod DRAGG C	
																DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME			
23130 GP63 001 4'							X			X																						
23131 GP63 002 8'																																
23132 GP63 003 12'																																
23133 GP64 001 4'																																
23134 GP64 002 8'																																
23135 GP64 003 12'																																
23136 GP64 004 16'																																
23137 GP65 001 4'																																
23138 GP65 002 8'																																
23139 GP65 003 12'																																
23140 GP65 004 14'																																
RECORDED BY:		DATE:		TIME:		RECORDED BY:		DATE:		TIME:		RECORDED BY:		DATE:		TIME:		RECORDED BY:		DATE:		TIME:		RECORDED BY:		DATE:		TIME:				
<i>Anita Jones</i>		1/26/00		12:00		<i>D. L. de la Torre</i>																										
RECORDED BY:		DATE:		TIME:		RECORDED BY:		DATE:		TIME:		RECORDED BY:		DATE:		TIME:		RECORDED BY:		DATE:		TIME:		RECORDED BY:		DATE:		TIME:				
<i></i>																																
RECORDED BY:		DATE:		TIME:		RECORDED BY:		DATE:		TIME:		RECORDED BY:		DATE:		TIME:		RECORDED BY:		DATE:		TIME:		RECORDED BY:		DATE:		TIME:				

Project Manager:

J Nickel

Company Name &amp; Address:

ETCI

Project #:

EOT10105

Project Location:

Eunice NM

Project Name:

TNM 97-23

Sampler Signature:

## ANALYSIS REQUEST

80.15 mod DRQ6R0

TDS

TCLP Semi-Volatiles

TCLP Volatiles

Total Metals As Ba Cd Cr Pb Hg Se

TCLP Metals Ag As Ba Cd Cr Pb Hg Se

TPII 4181

DTEX 8020/5030

RCI

LAB # (LAS USE) ONLY	FIELD CODE	# COLLECTORS	VOLUME/AMOUNT	WATER	SOIL	AIR	SLUDGE	ICE	LIDOC	HCl	DATE	TIME	METHOD	PRESERVATIVE	SAMPLING		REMARKS		
															COLLECTOR		NUMBER		
23141	GPM5	005	20'				X								X		1/25		
23142	GPM6	001	4'																
23143	GPM6	002	8'																
23144	GPM6	003	12'																
23145	GPM6	004	14'																
23146	GPM7	001	4'																
23147	GPM7	002	8'																
23148	GPM7	003	12'																
23149	GPM7	004	16'																
23150	GPM8	001	4'																
23151	GPM8	002	8'																

Received by:

Chata Jones - 1/26/00

Time:

12:00

Received by:

Pala Givens

Time:

Received by:

Time:

Received by:

Time:

Received by:

Time:

Project Manager

Литература

ANALYSIS REQUEST

Company Name & Address:

३८

Project Name:

Project Location:

માનવ જીવને

(915) 563-1800 FAX (915) 563-1713

Project Manager:

J Nickell

Company Name &amp; Address:

ETG

Project #:

EOT 1010C

Project Location:

Environ NM

Phone #: 915-522-1133  
FAX #: 915-520-4310

## ANALYSIS REQUEST

Project Name:

TNM 97-23

Sampler Signature:

Lab # (LAB USE) ONLY	FIELD CODE	CONTAINERS	MATRIX	PRESERVATIVE		SAMPLING METHOD	TIME
				DATE	QUANT		
23143	GP71	004	1 <sup>o</sup>	4/22	X		1/25
23144	GP72	001	4'				
23145	GP72	002	8'				
23146	GP72	003	12'				
23147	GP73	001	4'				
23148	GP73	002	8'				
23149	GP74	001	4'				
23150	GP74	002	8'				
23171	GP74	003	12'				
23172	GP75	001	4'				
23173	GP75	002	8'				

## REMARKS

Received by:

*Ruth Clark*

Received by:

Received by Laboratory:

Requisitioned by:

*道士 Jones*

Date:

Requisitioned by:

Date:

/

(915) 563-1800 FAX (915) 563-1711

## Project Manager:

J. Nickell

## Company Name &amp; Address:

ETCET

## Project #:

EOT1010C

Phone #: 915 - 522 - 1139  
FAX #: 915 - 520 - 4310

## Project Name:

TNM 97-23

## Sampler Signature:

## ANALYSIS REQUEST

8015 mod DR04R0

RCI

TDS

TCP/Semi Volatiles

TCP/Volatiles

TCP/Materials Ag As Ba Cd Cr Pb Hg Se

TCP/Materials Ag As Ba Cd Cr Pb Hg Se

TPH 418.1

BTEX X1020/5030

LAS # (LAS USE) (ONLY)	FIELD CODE	# COLLECTORS	WATER	SOIL	AIR	SLUDGE	HCl	HNO3	ICP	HPLC	OIL/OTHER	DATE	TIME	SAMPLING	PRESERVATIVE METHOD	MATRIX	COLLECTOR		
																	Material		
23174	GPT5	003	12'			X												1/25'	
23175	GPT6	001	4'																
23176	GPT6	002	8'																
23177	GPT6	003	12'																
23178	GPT6	004	16'																
23179	GPT7	001	4'																
23180	GPT7	002	8'																
23181	GPT7	003	12'																
23182	GPT8	001	4'																
23183	GPT8	002	8'																
23184	GPT8	003	12'																

Released by:	Date:	Time:	Remarks
<i>Christie Jones</i>	1/24/00	12:00	<i>Call back from C</i>
Received by:			
Received by Laboratory:			

(915) 563-1800 FAX (915) 563-1115

Project Manager

J. Nickell  
Project Manager

Project Name & ref.: T. Nickell  
Company Name & Address:

Phone #: 915-522-1137  
FAX #: 915-520-4310

ANALYSIS REQUEST

# ENVIRONMENTAL FILE LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
ATTN: MR. JESSE TAYLOR  
P.O. BOX 4845  
MIDLAND, TEXAS 79704  
FAX: 505-392-3760

Sample Type: Soil  
Sample Condition: Intact/Iced  
Project #: EOT 1010C  
Project Name: TNM 97-23  
Project Location: Eunice, N.M.

Sampling Date: 02/11/00  
Receiving Date: 02/15/00  
Analysis Date: 02/15/00

ELT#	FIELD CODE	BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m,p-XYLENE mg/kg	o-XYLENE mg/kg
23564	MW-2 (55')	<0.100	<0.100	<0.100	<0.100	<0.100
23565	MW-3 (55')	<0.100	<0.100	<0.100	<0.100	<0.100
23566	MW-4 (20')	<0.100	<0.100	<0.100	<0.100	<0.100
23567	MW-4 (55')	<0.100	<0.100	<0.100	<0.100	<0.100
23568	SB-2 (55')	<0.100	<0.100	<0.100	<0.100	<0.100
% IA		111	104	103	107	104
% EA		106	103	100	102	100
BLANK		<0.100	<0.100	<0.100	<0.100	<0.100

METHODS: SW 846-8021B,5030

Raland K. Tuttle  
Raland K. Tuttle

2-17-00  
Date

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
ATTN: MR. JESSE TAYLOR  
P.O. BOX 4845  
MIDLAND, TEXAS 79704  
FAX: 505-392-3760

Sample Type: Soil  
Sample Condition: Intact/Iced  
Project #: EOT1010C  
Project Name: TNM 97-23  
Project Location: Eunice, N.M.

Sampling Date: 02/11/00  
Receiving Date: 02/15/00  
Analysis Date: 02/16/00

ELT#	FIELD CODE	GRO	DRO
		C6-C10	>C10-C28
		mg/kg	mg/kg
23564	MW-2 (55')	<10	<10
23565	MW-3 (55')	<10	<10
23566	MW-4 (20')	<10	52
23567	MW-4 (55')	<10	<10
23568	SB-2 (55')	<10	<10

%INSTRUMENT ACCURACY	100	108
% EXTRACTION ACCURACY	106	109
BLANK	<10	<10

Methods: EPA SW 846-8015M GRO/DRO

  
Raland K. Tuttle

2-17-00  
Date



# ENVIRONMENTAL LAB OF , INC.

FILE

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
ATTN: MR. JESSE TAYLOR  
P.O. BOX 4845  
MIDLAND, TEXAS 79704  
FAX: 505-392-3760

Sample Type: Soil  
Sample Condition: Intact/Iced  
Project #: EOT1010C  
Project Name: TNM 97-23  
Project Location: Lea County, N.M.

Sampling Date: 02/16/00  
Receiving Date: 02/24/00  
Analysis Date: 02/24/00

ELT#	FIELD CODE	GRO C6-C10 mg/kg	DRO >C10-C28 mg/kg
23721	MW-5 (55')	<10	<10

%INSTRUMENT ACCURACY	120	102
% EXTRACTION ACCURACY	124	93
BLANK	<10	<10

Methods: EPA SW 846-8015M GRO/DRO

Raland K. Tuttle  
Raland K. Tuttle

2-28-00  
Date

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: MR. JESSE TAYLOR

P.O. BOX 4845

MIDLAND, TEXAS 79704

FAX: 505-392-2760

Sample Type: Soil

Sampling Date: 02/16/00

Sample Condition: Intact/Iced

Receiving Date: 02/24/00

Project #: EOT 1010C

Analysis Date: 02/25 & 02/26/00

Project Name: TNM 97-23

Project Location: Lea County, N.M.

ELT#	FIELD CODE	BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m,p-XYLENE mg/kg	o-XYLENE mg/kg
23721	MW-5 (55')	<0.100	<0.100	<0.100	<0.100	<0.100
% IA		100	96	94	96	94
% EA		98	96	91	94	93
BLANK		<0.100	<0.100	<0.100	<0.100	<0.100

METHODS: SW 846-8021B,5030

Roland K. Tuttle  
Roland K. Tuttle

2-28-00  
Date



# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

FILE

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
 ATTN: MR. JESSE TAYLOR  
 P.O. BOX 4845  
 MIDLAND, TEXAS 79704  
 FAX: 505-392-3760  
 FAX: 915-520-4310(Jerry)  
 FAX: 281-362-8932(Teresa)

Sample Type: Soil  
 Sample Condition: Intact/ Iced  
 Project #: EOT 1010C  
 Project Name: TNM 97-23  
 Project Location: Eunice, N.M.

Sampling Date: 03/02/00  
 Receiving Date: 03/02/00  
 Analysis Date: 3/03 & 3/04/00

ELT#	FIELD CODE	BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m,p-XYLENE mg/kg	<i>o</i> -XYLENE mg/kg
23927	GP-17-001-1	<0.100	<0.100	<0.100	<0.100	<0.100
23928	GP-17-003-1	<0.100	<0.100	<0.100	0.137	<0.100
23931	GP-35-001-1	<0.100	0.260	1.05	1.45	2.17
23932	GP-35-002-1	<0.100	0.775	6.95	5.73	9.28
23933	GP-35-003-1	<0.100	56.9	6.43	85.4	38.9
23934	GP-35-004-1	<0.100	46.9	7.82	68.9	28.1
23935	GP-49-001-1	<0.100	0.204	<0.100	<0.100	0.165
23936	GP-49-002-1	<0.100	<0.100	<0.100	0.297	0.204
23937	GP-49-003-1	<0.100	<0.100	2.38	10.0	6.25
23938	GP-49-004-1	<0.100	<0.100	2.79	10.9	6.02
23939	GP-49-005-1	<0.100	<0.100	<0.100	0.111	<0.100
23940	GP-50-001-1	<0.100	<0.100	<0.100	<0.100	<0.100
23941	GP-50-002-1	<0.100	<0.100	<0.100	<0.100	<0.100
23942	GP-51-001-1	<0.100	<0.100	<0.100	<0.100	<0.100
23943	GP-51-002-1	<0.100	<0.100	<0.100	<0.100	<0.100
23944	GP-52-001-1	<0.100	<0.100	<0.100	<0.100	<0.100
23945	GP-52-002-1	<0.100	<0.100	<0.100	<0.100	<0.100
23946	GP-53-001-1	<0.100	0.155	<0.100	<0.100	<0.100
23947	GP-53-002-1	<0.100	0.129	<0.100	<0.100	<0.100
23948	GP-56-001-1	<0.100	0.202	<0.100	0.151	<0.100
23949	GP-56-002-1	<0.100	0.115	<0.100	<0.100	<0.100
23950	GP-57-001-1	<0.100	<0.100	0.179	0.854	<0.100
23951	GP-57-002-1	<0.100	<0.100	<0.100	0.523	<0.100
% IA		104	99	98	101	98
% EA		102	98	96	98	96
BLANK		<0.100	<0.100	<0.100	<0.100	<0.100

METHODS: SW 846-8021B,5030

Raland K. Tuttle  
 Raland K. Tuttle

3-6-00  
 Date

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
 ATTN: MR. JESSE TAYLOR  
 P.O. BOX 4845  
 MIDLAND, TEXAS 79704  
 FAX: 505-392-3760  
 FAX: 915-520-4310(Jerry)  
 FAX: 281-362-8932(Teresa)

Sample Type: Soil  
 Sample Condition: Intact/ Iced  
 Project #: EOT 1010C  
 Project Name: TNM 97-23  
 Project Location: Eunice, N.M.

Sampling Date: 03/02/00  
 Receiving Date: 03/02/00  
 Analysis Date: 03/05/00

ELT#	FIELD CODE	BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m,p-XYLENE mg/kg	o-XYLENE mg/kg
23952	GP-58-001-1	<0.100	<0.100	<0.100	<0.100	<0.100
23953	GP-58-002-1	<0.100	<0.100	<0.100	<0.100	<0.100
23954	GP-59-001-1	<0.100	<0.100	<0.100	<0.100	<0.100
23955	GP-59-002-1	<0.100	<0.100	<0.100	<0.100	<0.100
23956	GP-60-001-1	<0.100	<0.100	<0.100	<0.100	<0.100
23957	GP-60-002-1	<0.100	<0.100	<0.100	<0.100	<0.100
23958	GP-61-001-1	<0.100	<0.100	<0.100	<0.100	<0.100
23959	GP-61-002-1	<0.100	<0.100	<0.100	<0.100	<0.100
23960	GP-62-001-1	<0.100	<0.100	<0.100	<0.100	<0.100
23961	GP-62-002-1	<0.100	<0.100	<0.100	<0.100	<0.100

% IA	101	99	96	99	96
% EA	107	102	99	103	99
BLANK	<0.100	<0.100	<0.100	<0.100	<0.100

METHODS: SW 846-8021B,5030

Roland K. Tuttle  
 Roland K. Tuttle

3-6-00  
 Date

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

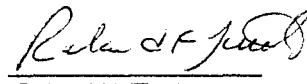
ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
ATTN: MR. JESSE TAYLOR  
P.O. BOX 4845  
MIDLAND, TEXAS 79704  
FAX: 505-392-3760  
FAX: 915-520-4310(Jerry)  
FAX: 281-362-8932 (Teresa)

Sample Type: Soil  
Sample Condition: Intact/Iced  
Project #: EOT1010C  
Project Name: TNM 97-23  
Project Location: Eunice, N.M.

Sampling Date: 03/02/00  
Receiving Date: 03/02/00  
Analysis Date: 03/03/00

ELT#	FIELD CODE	GRO	DRO
		C6-C10	>C10-C28
		mg/kg	mg/kg
23927	GP-17-001-1	<10	<10
23928	GP-17-003-1	<10	709
23931	GP-35-001-1	1408	6009
23932	GP-35-002-1	2071	12213
23933	GP-35-003-1	3348	5508
23934	GP-35-004-1	2784	4980
23935	GP-49-001-1	32	620
23936	GP-49-002-1	<10	377
23937	GP-49-003-1	702	2064
23938	GP-49-004-1	1240	3000
23939	GP-49-005-1	<10	<10
23940	GP-50-001-1	<10	<10
23941	GP-50-002-1	<10	<10
23942	GP-51-001-1	<10	<10
23943	GP-51-002-1	<10	<10
23944	GP-52-001-1	<10	<10
23945	GP-52-002-1	<10	<10
23946	GP-53-001-1	<10	<10
23947	GP-53-002-1	<10	<10
23948	GP-56-001-1	<10	<10
23949	GP-56-002-1	<10	<10
%INSTRUMENT ACCURACY		113	85
% EXTRACTION ACCURACY		109	88
BLANK		<10	<10

Methods: EPA SW 846-8015M GRO/DRO

  
Raland K. Tuttle

3-6-00  
Date

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
ATTN: MR. JESSE TAYLOR  
P.O. BOX 4845  
MIDLAND, TEXAS 79704  
FAX: 505-392-3760  
FAX: 915-520-4310(Jerry)  
FAX: 281-362-8932 (Teresa)

Sample Type: Soil  
Sample Condition: Intact/Iced  
Project #: EOT1010C  
Project Name: TNM 97-23  
Project Location: Eunice, N.M.

Sampling Date: 03/02/00  
Receiving Date: 03/02/00  
Analysis Date: 03/03/00

ELT#	FIELD CODE	GRO	DRO
		C6-C10	>C10-C28
		mg/kg	mg/kg
23950	GP-57-001-1	<10	<10
23951	GP-57-002-1	<10	<10
23952	GP-58-001-1	<10	<10
23953	GP-58-002-1	<10	<10
23954	GP-59-001-1	<10	<10
23955	GP-59-002-1	<10	<10
23956	GP-60-001-1	<10	<10
23957	GP-60-002-1	<10	<10
23958	GP-61-001-1	<10	<10
23959	GP-61-002-1	<10	<10
23960	GP-62-001-1	<10	<10
23961	GP-62-002-1	<10	<10

%INSTRUMENT ACCURACY	96	79
% EXTRACTION ACCURACY	94	77
BLANK	<10	<10

Methods: EPA SW 846-8015M GRO/DRO

  
Raland K. Tuttle

3-6-00  
Date



**Environmental Lab of Texas, Inc.** 12600 West I-20 East Odessa, Texas 79763  
 (915) 563-1800 FAX (915) 563-1713

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

2001-95

Project Manager: Jessie Taylor

Phone # (915) 464-9166

FAX #: (905) 392-3760

Company Name & Address:

ET.L.I. P.O. Box 4845 Midland Tx 79704

Project Name:

EOT 1010C

Project Location:

E Unice N.W.

Sampler Signature:

*John Dutton*

ANALYSIS REQUEST

TPH 8015 DEO/GEO  
 TCLP Semivolatiles  
 TDS  
 TCLP Volatiles  
 Total Metals Ag As Ba Cd Cr Pb Hg Se  
 TCLP Metals Ag As Ba Cd Cr Pb Hg Se  
 TPH 418.1  
 BTX 81120/5030

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	MATRIX	PRESERVATIVE METHOD	TIME	DATE	OTHER ICE NONE	SAMPLING	
								AIR	SOIL
23938	GP-49-004-1	1	4oz	X	X	4:30	X		
23939	GP-49-005-1	1			X	4:45	X		
23940	GP-SO-001-1	1				10:30	X		
23941	GP-SO-002-1	1				10:45	X		
23942	GP-SI-001-1	1				11:00	X		
23943	GP-SI-002-1	1				11:15	X		
23944	GP-SI-001-1	1				11:30	X		
23945	GP-SI-002-1	1				11:45	X		
23946	GP-SI-001-1	1				12:00	X		
23947	GP-SI-002-1	1				12:15	X		
23948	GP-SI-001-1	1				12:30	X		

RELINQUISHED BY:	DATE:	TIME:	REMARKS
<i>John Dutton</i>	2/11/00	5:46	<i>Relocated</i>
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY LABORATORY:

2064

**Environmental Lab of Texas, Inc.** 12600 West I-20 East Odessa, Texas 79763  
 (915) 563-1800 FAX (915) 563-1713

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

COP: 95

3A4

		ANALYSIS REQUEST			
Project Manager:	Jessie Taylor	Project Name:	TUM 9723	Sample Signature:	<i>Jessie Taylor</i>
Company Name & Address:	E.T.L.T. P.O. Box 4845 Midland Tx 79704	Project Location:	EOT 1010 C	Project #:	
LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS Volume/Amount	MATRIX	PRESERVATIVE METHOD	SAMPLING TIME
23949	LP-S6-002-1	1	AIR	HNO3	X 12:45
23950	LP-S7-001-1	1	SOLID	HCL	X 1:06
23951	LP-S7-002-1	1	SLUDGE	OTHER	X 1:15
23952	LP-S8-001-1	1	WATER	NONE	X 1:30
23953	LP-S8-002-1	1			X 1:45
23954	LP-S9-001-1	1			X 2:00
23955	LP-S9-002-1	1			X 2:15
23956	LP-00-001-1	1			X 2:30
23957	LP-60-002-1	1			X 2:45
23958	LP-61-001-1	1			X 3:00
23959	LP-61-002-1	1			X 3:15
Relinquished by:	Date:	Times:	Received by:	REMARKS	
<i>Jessie Taylor</i>	2/22/00	5:46	<i>Rocky</i>		
Relinquished by:	Date:	Times:	Received by:		
Relinquished by:	Date:	Times:	Received by Laboratory:		

**Environmental Lab of Texas, Inc.** 12600 West I-20 East Odessa, Texas 79763  
(915) 563-1800 FAX (915) 563-1713

**CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST**

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

FILE

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
ATTN: MR. JESSE TAYLOR  
P.O. BOX 4845  
MIDLAND, TEXAS 79704  
FAX: 915-520-4310  
FAX: 505-392-3760

Sample Type: Soil

Sampling Date: 03/20/00

Sample Condition: Intact/Iced

Receiving Date: 03/20/00

Project #: None Given

Analysis Date: 03/21 & 03/22/00

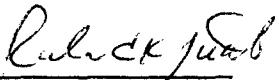
Project Name: TNM 97-23

Project Location: Lea County, N.M.

ELT#	FIELD CODE	GRO	DRO
		C6-C10	>C10-C28
		mg/kg	mg/kg
24179	GP 71	402	7089
24180	GP 78	207	6764
24181	GP 79	148	9339

%INSTRUMENT ACCURACY	114	104
% EXTRACTION ACCURACY	62	113
BLANK	<10	<10

Methods: EPA SW 846-8015M GRO/DRO

  
Raland K. Tuttle

4-13-00  
Date

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: MR. JESSE TAYLOR

Page 1 of 2

P.O. BOX 4845

MIDLAND, TEXAS 79704

FAX: 915-520-4310

FAX: 505-392-3760

Sample Type: Soil

Sampling Date: 03/20/00

Sample Condition: Intact/Iced

Receiving Date: 03/20/00

Project #: None Given

Analysis Date: 04/03/00

Project Name: TNM 97-23

Project Location: Lea County, N.M.

Field Code: GP 79

Volatiles EPA SW 846-8260, (mg/kg)

ELT#

REPORTING

%DEV

Method

Blank

Compounds	ELT#	REPORTING LIMIT	%DEV	Method
Chloromethane	ND	0.100	22.9	ND
Vinyl chloride	ND	0.100	13.8	ND
Bromomethane	ND	0.100	24.7	ND
Chloroethane	ND	0.100	10.4	ND
Trichlorofluoromethane	ND	0.100	5.2	ND
Acetone	ND	0.100	-17.2	ND
1,1-Dichloroethene	ND	0.100	12.6	ND
Carbon Disulfide	ND	0.100	12.9	ND
Methylene Chloride	ND	0.100	18.0	ND
trans-1,2-Dichloroethene	ND	0.100	10.5	ND
1,1-Dichloroethane	ND	0.100	8.6	ND
2-Butanone	0.532	0.100	24.8	ND
cis-1,2-dichloroethene	ND	0.100	9.6	ND
Bromochloromethane	ND	0.100	10.3	ND
Chloroform	ND	0.100	5.8	ND
1,1,1-Trichloroethane	ND	0.100	11.5	ND
Carbon Tetrachloride	ND	0.100	12.8	ND
Benzene	ND	0.100	6.2	ND
1,2 Dichloroethane	ND	0.100	1.7	ND
Trichloraethene	ND	0.100	2.5	ND
1,2-Dichloropropane	ND	0.100	8.1	ND
Dibromomethane	ND	0.100	10.3	ND
Bromodichloromethane	ND	0.100	5.3	ND
2-Hexanone	ND	0.100	23.6	ND
4-Methyl 2-Pentanone	ND	0.100	23.9	ND
cis 1,3 Dichloropropene	ND	0.100	8.2	ND
Toluene	ND	0.100	4.2	ND
trans 1,3-Dichloropropene	ND	0.100	18.3	ND
1,1,2-Trichloroethane	ND	0.100	6.3	ND
Dibromochloromethane	ND	0.100	-0.7	ND

## ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: MR. JESSE TAYLOR  
P.O. BOX 4845  
MIDLAND, TEXAS 79704  
FAX: 915-520-4310

Page 2 of 2

Sample Type: Soil FAX: 505-392-3760 Sampling Date: 03/20/00  
Sample Condition: Intact/Iced Receiving Date: 03/20/00  
Project #: None Given Analysis Date: 04/03/00

Project Name: TNM 97-23  
Project Location: Lea County, N.M.  
Field Code: GP 79

Volatiles EPA SW 846-8260, (mg/kg)

## Compounds

Volatiles EPA SW 846-8260, (mg/kg) ELT# REPORTING %DEV Method  
Compounds 24181 LIMIT Blank

Sampling Date: 03/20/00  
Receiving Date: 03/20/00  
Analysis Date: 04/03/00

Volatiles EPA SW 846-8260, (mg/kg) Compounds	ELT# 24181	REPORTING LIMIT	%DEV	Method Blank
Tetrachloroethene	ND	0.100	-17.6	ND
Chlorobenzene	ND	0.100	-8.0	ND
1,1,1,2-Tetrachloroethane	ND	0.100	14.0	ND
Ethylbenzene	ND	0.100	-1.2	ND
m&p Xylene	ND	0.100	5.8	ND
o-Xylene	ND	0.100	-1.8	ND
Styrene	ND	0.100	-4.7	ND
Bromoform	ND	0.100	-1.9	ND
1,1,2,2-Tetrachloroethane	ND	0.100	14.0	ND
1,2,3-Trichloropropane	ND	0.100	10.3	ND
1,4-Dichlorobenzene	ND	0.100	-0.5	ND
1,2-Dichlorobenzene	ND	0.100	0.2	ND
1,2-Dibromo-3-Chloropropane	ND	0.100	12.7	ND

SYSTEM MONITORING COMPOUNDS	% RECOVERY	ND=<REPORTING LIMIT
Dibromofluoromethane	101	
Toluene-d8	91	
4-Bromofluorobenzene	93	
1,2-dichloroethane-d4	99	

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

Pg 1 of 2

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
 ATTN: MR. JESSE TAYLOR  
 P.O. BOX 4845  
 MIDLAND, TEXAS 79704  
 FAX: 505-392-3760  
 FAX: 915-520-4310

Sample Type: Soil  
 Sample Condition: Intact/Iced  
 Project #: None Given  
 Project Name: TNM 97-23  
 Project Location: Lea County, N.M.  
 Field Code: GP 79

Sampling Date: 03/20/00  
 Receiving Date: 03/20/00  
 Analysis Date: 03/31/00

EPA SW846 8270 (mg/kg)	REPORT LIMIT	ELT#	RPD	%EA	%DEV
Naphthalene	0.250	ND			4.5
Acenaphthylene	0.250	ND			4.2
Acenaphthene	0.250	ND	8	41	5.2
Fluorene	0.250	ND			5.7
Phenanthrene	0.250	ND			3.9
Anthracene	0.250	ND			1.1
Fluoranthene	0.250	ND			5.0
Pyrene	0.250	ND	2	34	8.6
Benzo[a]anthracene	0.250	ND			11.3
Chrysene	0.250	ND			13.2
Benzo[b]fluoranthene	0.250	ND			17.4
Benzo[k]fluoranthene	0.250	ND			12.9
Benzo [a]pyrene	0.250	ND			8.3
Indeno[1,2,3-cd]pyrene	0.250	ND			0.0
Dibenz[a,h]anthracene	0.250	ND			1.7
Benzo[g,h,i]perylene	0.250	ND			2.0

#### % RECOVERY

Nitrobenzene-d5 SURR	*
2-Fluorobiphenyl SURR	*
Terphenyl-d14 SURR	*

ND= not detected at reporting limit

\*NOTE: surrogate diluted out

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
 ATTN: MR. JESSE TAYLOR  
 P.O. BOX 4845  
 MIDLAND, TEXAS 79704  
 FAX: 505-392-3760  
 FAX: 915-520-4310

Sample Type: Soil  
 Sample Condition: Intact/ Iced  
 Project #: None Given  
 Project Name: TNM 97-23  
 Project Location: Lea County, N.M.  
 Field Code: GP 79

Sampling Date: 03/20/00  
 Receiving Date: 03/20/00  
 Analysis Date: 03/31/00  
 ELT # 24181

Tentatively Identified Compounds	EQ <sub>L</sub> mg/kg
2-Methylnaphthalene	0.001
3,6-dimethyl-undecane	0.016
Tridecane	0.029
6-propyl-tridecane	0.025
Heptadecane	0.034
2,6-dimethyl-heptadecane	0.040
Octadecane	0.029
2,6,10,14-tetramethyl-hexadecane	0.042
Tetradecane	0.040
Eicosane	0.044
Docosane	0.049
Nonadecane	0.021
10-methyl-eicosane	0.050

EQ<sub>L</sub> = estimated quantitation level

Method: EPA SW 846 8270C , 3510

Raland K. Tuttle  
 Raland K. Tuttle

4/13-00  
 Date

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: MR. JESSE TAYLOR  
P.O. BOX 4845  
MIDLAND, TEXAS 79704  
FAX: 915-520-4310

Page 1 of 2

Sample Type: Oil

FAX: 505-392-3760

Sampling Date: 03/20/00

Sample Condition: Intact/Iced

Receiving Date: 03/20/00

Project #: None Given

Analysis Date: 04/03/00

Project Name: TNM 97-23

Project Location: Lea County, N.M.

Field Code: Pipeline

Volatile EPA SW 846-8260, (mg/kg)

ELT#

24182

REPORTING

LIMIT

%DEV

Method

Blank

Chloromethane	ND	81	22.9	ND
Vinyl chloride	ND	81	13.8	ND
Bromomethane	ND	81	24.7	ND
Chloroethane	ND	81	10.4	ND
Trichlorofluoromethane	ND	81	5.2	ND
Acetone	ND	81	-17.2	ND
1,1-Dichloroethene	ND	81	12.6	ND
Carbon Disulfide	ND	81	12.9	ND
Methylene Chloride	ND	81	18.0	ND
trans-1,2-Dichloroethene	ND	81	10.5	ND
1,1-Dichloroethane	ND	81	8.6	ND
2-Butanone	ND	81	24.8	ND
cis-1,2-dichloroethene	ND	81	9.6	ND
Bromochloromethane	ND	81	10.3	ND
Chloroform	ND	81	5.8	ND
1,1,1-Trichloroethane	ND	81	11.5	ND
Carbon Tetrachloride	ND	81	12.8	ND
Benzene	8019	81	6.2	ND
1,2 Dichloroethane	ND	81	1.7	ND
Trichloroethene	ND	81	2.5	ND
1,2-Dichloropropane	ND	81	8.1	ND
Dibromomethane	ND	81	10.3	ND
Bromodichloromethane	ND	81	5.3	ND
2-Hexanone	ND	81	23.6	ND
4-Methyl 2-Pentanone	ND	81	23.9	ND
cis 1,3 Dichloropropene	ND	81	8.2	ND
Toluene	13441	81	4.2	ND
trans 1,3-Dichloropropene	ND	81	18.3	ND
1,1,2-Trichloroethane	ND	81	6.3	ND
Dibromochloromethane	ND	81	-0.7	ND

## ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: MR. JESSE TAYLOR  
 P.O. BOX 4845  
 MIDLAND, TEXAS 79704  
 FAX: 915-520-4310

Page 2 of 2

Sample Type: Oil Sampling Date: 03/20/00  
 Sample Condition: Intact/Iced Receiving Date: 03/20/00  
 Project #: None Given Analysis Date: 04/03/00  
 Project Name: TNM 97-23  
 Project Location: Lea County, N.M.  
 Field Code: Pipeline

Volatiles EPA SW 846-8260, (mg/kg) Compounds	ELT# 24182	REPORTING LIMIT	%DEV	Method Blank
---	---------------	--------------------	------	-----------------

Tetrachloroethene	ND	81	-17.6	ND
Chlorobenzene	ND	81	-8.0	ND
1,1,1,2-Tetrachloroethane	ND	81	14.0	ND
Ethylbenzene	2879	81	-1.2	ND
m&p Xylene	6644	81	5.8	ND
o-Xylene	ND	81	-1.8	ND
Styrene	ND	81	-4.7	ND
Bromoform	ND	81	-1.9	ND
1,1,2,2-Tetrachloroethane	ND	81	14.0	ND
1,2,3-Trichloropropane	ND	81	10.3	ND
1,4-Dichlorobenzene	ND	81	-0.5	ND
1,2-Dichlorobenzene	ND	81	0.2	ND
1,2-Dibromo-3-Chloropropane	ND	81	12.7	ND

SYSTEM MONITORING COMPOUNDS	% RECOVERY	ND=<REPORTING LIMIT
Dibromofluoromethane	99	
Toluene-d8	88	
4-Bromofluorobenzene	84	
1,2-dichloroethane-d4	99	

Tentatively Identified Compound	EQL mg/kg	Tentatively Identified Compound	EQL mg/kg
1,3-Dichloropropane	6	sec-Butylbenzene	439
Isopropylbenzene	924	p-Isopropyltoluene	459
1,3,5-Trimethylbenzene	823	Naphthalene	1251

Raland K. Tuttle

Date

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

Pg 1 of 2

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
 ATTN: MR. JESSE TAYLOR  
 P.O. BOX 4845  
 MIDLAND, TEXAS 79704  
 FAX: 505-392-3760  
 FAX: 915-520-4310

Sample Type: Oil  
 Sample Condition: Intact/ Iced  
 Project #: None Given  
 Project Name: TNM 97-23  
 Project Location: Lea County, N.M.  
 Field Code: Pipeline

Sampling Date: 03/20/00  
 Receiving Date: 03/20/00  
 Analysis Date: 03/31/00

EPA SW846 8270 (mg/kg)	REPORT LIMIT	ELT#	RPD	%EA	%DEV
Naphthalene	0.250	ND			1.4
Acenaphthylene	0.250	ND			10.4
Acenaphthene	0.250	ND	8	41	1.5
Fluorene	0.250	ND			2.0
Phenanthrene	0.250	ND			7.6
Anthracene	0.250	ND			6.6
Fluoranthene	0.250	ND			-1.1
Pyrene	0.250	ND	2	34	5.2
Benz[a]anthracene	0.250	ND			9.7
Chrysene	0.250	ND			8.0
Benz[b]fluoranthene	0.250	ND			15.9
Benz[k]fluoranthene	0.250	ND			16.3
Benzo [a]pyrene	0.250	ND			5.3
Indeno[1,2,3-cd]pyrene	0.250	ND			3.6
Dibenz[a,h]anthracene	0.250	ND			3.8
Benzo[g,h,i]perylene	0.250	ND			-2.4

#### % RECOVERY

Nitrobenzene-d5 SURR	*
2-Fluorobiphenyl SURR	*
Terphenyl-d14 SURR	*

ND= not detected at reporting limit

\*NOTE: surrogate diluted out

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
 ATTN: MR. JESSE TAYLOR  
 P.O. BOX 4845  
 MIDLAND, TEXAS 79704  
 FAX: 505-392-3760  
 FAX: 915-520-4310

Sample Type: Oil  
 Sample Condition: Intact/ Iced  
 Project #: None Given  
 Project Name: TNM 97-23  
 Project Location: Lea County, N.M.  
 Field Code: Pipeline

Sampling Date: 03/20/00  
 Receiving Date: 03/20/00  
 Analysis Date: 03/31/00  
 ELT # 24182

Tentatively Identified Compounds	EQ <sub>L</sub> mg/kg
Phenol	0.028
2-Chlorophenol	0.027
1,4-Dichlorobenzene	0.010
n-Nitroso-di-n-propylamine	0.021
1,2,4-Trichlorobenzene	0.013
4-Chloro-3-methylphenol	0.047
2-Methylnaphthalene	0.001
2,6-dimethyl-naphthalene	0.001
2,3-dimethyl-naphthalene	0.002
3-nitro-phenol	0.004
1-methyl-2,4-dinitro-benzene	0.010
2-methyl-anthracene	0.002
1H-Phenalen-1-one	0.006
9-Phenanthrenol	0.002
1-iodo-dodecane	0.002
Pyrene	0.025

EQ<sub>L</sub> = estimated quantitation level

Method: EPA SW 846 8270C , 3510

Roland K. Tuttle  
 Roland K. Tuttle

4-13-00  
 Date



# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

E.T.G.I.  
ATTN: KEN DUTTON  
2540 W. MARLAND  
HOBBS, NM 88240  
FAX: 505-397-4701

Sample Type: Soil  
Sample Condition: Intact/ Iced/ 1.5 deg C  
Project Name: TNM 97-23  
Project #: EOT 2010C  
Project Location: Eunice, NM

Sampling Date: 01/07/02  
Receiving Date: 01/07/02  
Analysis Date: 01/07/02

ELT#	FIELD CODE	BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m,p-XYLENE mg/kg	o-XYLENE mg/kg
0202345-01	Sample 1	<0.025	0.032	<0.025	<0.025	<0.025

QUALITY CONTROL	0.102	0.099	0.095	0.206	0.099
TRUE VALUE	0.100	0.100	0.100	0.200	0.100
% EA	102	99	95	112	111
SPIKED AMOUNT	0.100	0.100	0.100	0.200	0.100
ORIGINAL SAMPLE	<0.025	0.041	<0.025	0.044	<0.025
SPIKE	0.108	0.112	0.107	0.229	0.111
SPIKE DUP	0.104	0.106	0.103	0.222	0.107
%EA	104	104	103	110	107
BLANK	<0.025	<0.025	<0.025	<0.025	<0.025
RPD	3.77	5.50	3.81	3.10	3.57

METHODS: EPA SW 846-8021B ,5030

Celey D. Keene  
Celey D. Keene  
Raland K. Tuttle

1-09-02  
Date

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

E.T.G.I.  
ATTN: KEN DUTTON  
2540 W. MARLAND  
HOBBS, NM 88240  
FAX: 505-397-4701

Sample Type: Soil  
Sample Condition: Intact/ Iced/ 1.5 deg C  
Project Name: TNM 97-23  
Project #: EOT 2010C  
Project Location: Eunice, NM

Sampling Date: 01/07/02  
Receiving Date: 01/07/02  
Analysis Date: 01/07/02

ELT #	FIELD CODE	BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m,p-XYLENE mg/kg	<i>o</i> -XYLENE mg/kg
0202345-02	Sample 2	<0.025	0.053	0.035	0.390	0.080
0202345-03	Sample 3	0.046	0.185	0.343	2.10	0.286
0202345-04	Sample 4	<0.025	0.072	0.199	1.20	0.366

QUALITY CONTROL	0.110	0.109	0.103	0.223	0.106
TRUE VALUE	0.100	0.100	0.100	0.200	0.100
% IA	110	109	103	112	106
SPIKED AMOUNT	0.100	0.100	0.100	0.200	0.100
ORIGINAL SAMPLE	<0.025	0.031	<0.025	<0.025	<0.025
SPIKE	0.113	0.116	0.112	0.244	0.115
SPIKE DUP	0.109	0.112	0.109	0.238	0.112
%EA	109	110	108	111	109
BLANK	<0.025	<0.025	<0.025	<0.025	<0.025
RPD	3.60	3.51	2.71	2.49	2.64

METHODS: EPA SW 846-8021B,5030

Ral. c/KT  
Carey D. Keene  
Randall K. Tuttle

1-09-02  
Date

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

E.T.C.I.  
ATTN: KEN DUTTON  
2540 W. MARLAND  
HOGBS, NM 88240  
FAX: 505-397-4701

Sample Type: Soil  
Sample Condition: Intact/ Iced/ 1 5 deg C  
Project Name: TNM 97-23  
Project #: EOT 2010C  
Project Location: Eunice, NM

Sampling Date: 01/07/02  
Receiving Date: 01/07/02  
Analysis Date: 01/07/02

ELT#	FIELD CODE	GRO	DRO
		C6-C10 mg/kg	>C10-C28 mg/kg
0202345-01	Sample 1	<10	254
0202345-02	Sample 2	78	3980
0202345-03	Sample 3	314	3980
0202345-04	Sample 4	405	4950

QUALITY CONTROL	545	530
TRUE VALUE	500	500
% INSTRUMENT ACCURACY	109	106
SPIKED AMOUNT	476	476
ORIGINAL SAMPLE	<10	52
SPIKE	582	533
SPIKE DUP	544	530
% EXTRACTION ACCURACY	114	100
BLANK	<10	<10
RPD	6.75	0.56

Methods: SW 846-8015M

Rul. & L2Q  
Caley D. Keane  
Roland K. Tuttle

1-09-02  
Date



COPY

# ANALYTICAL REPORT

Prepared for:

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

**Project:** TNM 97-23

**PO#:** EO2010

**Order#:** G0205070

**Report Date:** 11/25/2002

Certificates

US EPA Laboratory Code TX00158

FILE

# ENVIRONMENTAL LAB OF TEXAS

## SAMPLE WORK LIST

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

Order#: G0205070  
 Project: EO-2010  
 Project Name: TNM 97-23  
 Location: Eunice, 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.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u>		<u>Date / Time</u>		<u>Preservative</u>
			<u>Collected</u>	<u>Received</u>	<u>Container</u>		
<b>0205070-01</b>	Stockpile 4 comp	SOIL	11/14/02 10:38	11/19/02 17:15	4 oz glass		Ice
	<u>Lab Testing:</u>		Rejected: No	Temp: 2.0C			
	8015M						
	8021B/5030 BTEX						
<b>0205070-02</b>	Exc. 8 Comp 4-5'	SOIL	11/14/02 10:00	11/19/02 17:15	4 oz glass		Ice
	<u>Lab Testing:</u>		Rejected: No	Temp: 2.0C			
	8015M						
	8021B/5030 BTEX						
<b>0205070-03</b>	Stockpile 17 comp	SOIL	11/14/02 13:50	11/19/02 17:15	4 oz glass		Ice
	<u>Lab Testing:</u>		Rejected: No	Temp: 2.0C			
	8015M						
	8021B/5030 BTEX						
<b>0205070-04</b>	Stockpile 8 comp	SOIL	11/14/02 11:10	11/19/02 17:15	4 oz glass		Ice
	<u>Lab Testing:</u>		Rejected: No	Temp: 2.0C			
	8015M						
	8021B/5030 BTEX						
<b>0205070-05</b>	Stockpile 18 comp	SOIL	11/14/02 13:57	11/19/02 17:15	4 oz glass		Ice
	<u>Lab Testing:</u>		Rejected: No	Temp: 2.0C			
	8015M						
	8021B/5030 BTEX						
<b>0205070-06</b>	Stockpile 13 Comp	SOIL	11/14/02 13:20	11/19/02 17:15	4 oz glass		Ice
	<u>Lab Testing:</u>		Rejected: No	Temp: 2.0C			
	8015M						
	8021B/5030 BTEX						
<b>0205070-07</b>	Stockpile 14 Comp	SOIL	11/14/02 13:27	11/19/02 17:15	4 oz glass		Ice
	<u>Lab Testing:</u>		Rejected: No	Temp: 2.0C			

# ENVIRONMENTAL LAB OF TEXAS

## SAMPLE WORK LIST

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

Order#: G0205070  
 Project: EO-2010  
 Project Name: TNM 97-23  
 Location: Eunice, NM

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<u>Lab ID:</u>	<u>Sample :</u> 8015M 8021B/5030 BTEX	<u>Matrix:</u> SOIL	<u>Date / Time</u>		<u>Date / Time</u>		<u>Preservative</u>
			<u>Collected</u>	<u>Received</u>	<u>Container</u>		
0205070-08	Stockpile 7 Comp  <u>Lab Testing:</u> 8015M 8021B/5030 BTEX	SOIL	11/14/02 10:55	11/19/02 17:15	4 oz glass		Ice
0205070-09	Exc. 6 Comp 6-6.5'  <u>Lab Testing:</u> 8015M 8021B/5030 BTEX	SOIL	11/14/02 9:25	11/19/02 17:15	4 oz glass		Ice
0205070-10	Stockpile 16 Comp  <u>Lab Testing:</u> 8015M 8021B/5030 BTEX	SOIL	11/14/02 13:40	11/19/02 17:15	4 oz glass		Ice
0205070-11	Exc. 2 Comp 6-6.5'  <u>Lab Testing:</u> 8015M 8021B/5030 BTEX	SOIL	11/14/02 8:45	11/19/02 17:15	4 oz glass		Ice
0205070-12	Stockpile 10 comp  <u>Lab Testing:</u> 8015M 8021B/5030 BTEX	SOIL	11/14/02 11:22	11/19/02 17:15	4 oz glass		Ice
0205070-13	Exc. 1 Comp 6-6.5'  <u>Lab Testing:</u> 8015M 8021B/5030 BTEX	SOIL	11/14/02 8:32	11/19/02 17:15	4 oz glass		Ice

# ENVIRONMENTAL LAB OF TEXAS

## SAMPLE WORK LIST

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

Order#: G0205070  
 Project: EO-2010  
 Project Name: TNM 97-23  
 Location: Eunice, NM

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<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u>		<u>Date / Time</u>		<u>Preservative</u>
			<u>Collected</u>	<u>Received</u>	<u>Container</u>		
<b>0205070-14</b>	Exc 4 Comp 6-6.5'	SOIL	11/14/02 9:05	11/19/02 17:15	4 oz glass		Ice
	<u>Lab Testing:</u>		Rejected: No	Temp: 2.0C			
	8015M						
	8021B/5030 BTEX						
<b>0205070-15</b>	Stockpile 11 Comp	SOIL	11/14/02 11:28	11/19/02 17:15	4 oz glass		Ice
	<u>Lab Testing:</u>		Rejected: No	Temp: 2.0C			
	8015M						
	8021B/5030 BTEX						
<b>0205070-16</b>	Stockpile 15 Comp	SOIL	11/14/02 13:34	11/19/02 17:15	4 oz glass		Ice
	<u>Lab Testing:</u>		Rejected: No	Temp: 2.0C			
	8015M						
	8021B/5030 BTEX						
<b>0205070-17</b>	Exc. 3 Comp 6-6.5'	SOIL	11/14/02 8:55	11/19/02 17:15	4 oz glass		Ice
	<u>Lab Testing:</u>		Rejected: No	Temp: 2.0C			
	8015M						
	8021B/5030 BTEX						
<b>0205070-18</b>	Stockpile 3 Comp	SOIL	11/14/02 10:30	11/19/02 17:15	4 oz glass		Ice
	<u>Lab Testing:</u>		Rejected: No	Temp: 2.0C			
	8015M						
	8021B/5030 BTEX						
<b>0205070-19</b>	Stockpile 1 Comp	SOIL	11/14/02 10:20	11/19/02 17:15	4 oz glass		Ice
	<u>Lab Testing:</u>		Rejected: No	Temp: 2.0C			
	8015M						
	8021B/5030 BTEX						
<b>0205070-20</b>	Stockpile 9 Comp	SOIL	11/14/02 11:16	11/19/02 17:15	4 oz glass		Ice
	<u>Lab Testing:</u>		Rejected: No	Temp: 2.0C			

FILE

# ENVIRONMENTAL LAB OF TEXAS

## SAMPLE WORK LIST

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

Order#: G0205070  
 Project: EO-2010  
 Project Name: TNM 97-23  
 Location: Eunice, NM

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<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u>		<u>Date / Time</u>		<u>Preservative</u>
			<u>Collected</u>	<u>Received</u>	<u>Container</u>		
	8015M						
	8021B/5030 BTEX						
<b>0205070-21</b>	Exc. 7 Comp	SOIL	11/14/02 9:50	11/19/02 17:15	4 oz glass		Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.0C			
	8015M						
	8021B/5030 BTEX						
<b>0205070-22</b>	Stockpile 6 Comp	SOIL	11/14/02 10:49	11/19/02 17:15	4 oz glass		Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.0C			
	8015M						
	8021B/5030 BTEX						
<b>0205070-23</b>	Stockpile 5 Comp	SOIL	11/14/02 10:44	11/19/02 17:15	4 oz glass		Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.0C			
	8015M						
	8021B/5030 BTEX						
<b>0205070-24</b>	Release pt. Comp 10-12'	SOIL	11/14/02 9:40	11/19/02 17:15	4 oz glass		Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.0C			
	8015M						
	8021B/5030 BTEX						
<b>0205070-25</b>	Exc. 5 Comp 6-6.5'	SOIL	11/14/02 9:15	11/19/02 17:15	4 oz glass		Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.0C			
	8015M						
	8021B/5030 BTEX						
<b>0205070-26</b>	Stockpile 19 Comp	SOIL	11/14/02 14:07	11/19/02 17:15	4 oz glass		Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.0C			
	8015M						
	8021B/5030 BTEX						

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# ENVIRONMENTAL LAB OF TEXAS

## SAMPLE WORK LIST

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

Order#: G0205070  
 Project: EO-2010  
 Project Name: TNM 97-23  
 Location: Eunice, 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.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u>		<u>Date / Time</u>		<u>Preservative</u>
			<u>Collected</u>	<u>Received</u>	<u>Container</u>		
<b>0205070-27</b>	Stockpile 12 Comp	SOIL	11/14/02 11:33	11/19/02 17:15	4 oz glass		Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.0C			
	8015M						
	8021B/5030 BTEX						
<b>0205070-28</b>	Stockpile 2 Comp	SOIL	11/14/02 10:25	11/19/02 17:15	4 oz glass		Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.0C			
	8015M						
	8021B/5030 BTEX						

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205070  
 Project: EO-2010  
 Project Name: TNM 97-23  
 Location: Eunice, NM

Lab ID: 0205070-01  
 Sample ID: Stockpile 4 comp

### 8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/21/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	38.0	10.0
DRÖ, >C12-C35	1,820	10.0
TOTAL, C6-C35	1,858	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	101%	70	130
1-Chlorooctadecane	100%	70	130

### 8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02 0:07	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	0.042	0.025
Ethylbenzene	0.086	0.025
Toluene	0.178	0.025
p/m-Xylene	0.616	0.025
o-Xylene	0.059	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	110%	80	120
Bromofluorobenzene	102%	80	120

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

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ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

**FILE**

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205070  
 Project: EO-2010  
 Project Name: TNM 97-23  
 Location: Eunice, NM

Lab ID: 0205070-02  
 Sample ID: Exc. S Comp 4-5'

### 8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/21/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	413	10.0
TOTAL, C6-C35	413	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	109%	70	130
1-Chlorooctadecane	108%	70	130

### 8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02 0:29	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	0.026	0.025
p/m-Xylene	0.078	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	94%	80	120
Bromofluorobenzene	100%	80	120

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ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

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# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205070  
Project: EO-2010  
Project Name: TNM 97-23  
Location: Eunice, NM

Lab ID: 0205070-03  
Sample ID: Stockpile 17 comp

### 8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/21/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	204	10.0
TOTAL, C6-C35	204	10.0

Surrogates	% Recovered	QC Limits (%)
1-Chlorooctane	121%	70 130
1-Chlorooctadecane	121%	70 130

### 8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02	1	25	CK	8021B
		0:50				

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	95%	80 120
Bromofluorobenzene	103%	80 120

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ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

FILE

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205070  
 Project: EO-2010  
 Project Name: TNM 97-23  
 Location: Eunice, NM

Lab ID: 0205070-04  
 Sample ID: Stockpile 8 comp

### 8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/21/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	34.6	10.0
IDRO, >C12-C35	1,130	10.0
TOTAL, C6-C35	1,165	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	103%	70	130
1-Chlorooctadecane	104%	70	130

### 8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02	1	25	CK	8021B
		1:11				

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	102%	80	120

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Page 4 of 28

ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

FILE

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Robert Edison  
Environmental Technology Group, Inc.  
2540 West Maryland  
Hobbs, NM 88242

Order#: G0205070  
Project: EG-2010  
Project Name: TNM 97-23  
Location: Eunice, NM

Lab ID: 0205070-05  
Sample ID: Stockpile 18 comp

### 8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/21/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	553	10.0
DRO, >C12-C35	4,920	10.0
TOTAL, C6-C35	5,473	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	117%	70	130
1-Chlorooctadecane	144%	70	130

### 8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02 1:32	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	0.104	0.025
Toluene	0.094	0.025
p/m-Xylene	0.907	0.025
o-Xylene	0.604	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	83%	80	120
Bromofluorobenzene	109%	80	120

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ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

**FILE**

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Robert Edison  
 Environmental Technology Group, Inc.  
 2540 West Maryland  
 Hobbs, NM 88242

Order#: G0205070  
 Project: EO-2010  
 Project Name: TNM 97-23  
 Location: Eunice, NM

Lab ID: 0205070-06  
 Sample ID: Stockpile 13 Comp

### 8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/21/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	56.2	10.0
DRO, >C12-C35	3,600	10.0
TOTAL, C6-C35	3,656	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	108%	70	130
1-Chlorooctadecane	110%	70	130

### 8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02 1:53	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	89%	80	120
Bromofluorobenzene	96%	80	120

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ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

**FILE**

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205070  
Project: EO-2010  
Project Name: TNM 97-23  
Location: Eunice, NM

Lab ID: 0205070-07  
Sample ID: Stockpile 14 Comp

### 8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/21/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	12.8	10.0
IDRO, >C12-C35	658	10.0
TOTAL, C6-C35	671	10.0

Surrogates	% Recovered	QC Limits (%)
1-Chlorooctane	106%	70 130
1-Chlorooctadecane	105%	70 130

### 8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02 2:14	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	92%	80 120
Bromofluorobenzene	101%	80 120

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

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ENVIRONMENTAL LAB OF TEXAS LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

FILE

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205070  
 Project: EO-2010  
 Project Name: TNM 97-23  
 Location: Eunice, NM

Lab ID: 0205070-08  
 Sample ID: Stockpile 7 Comp

### 8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>		11/21/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	17.0	10.0
IDRO, >C12-C35	744	10.0
TOTAL, C6-C35	761	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	105%	70	130
1-Chlorooctadecane	107%	70	130

### 8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>		11/22/02 2:35	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	86%	80	120
Bromofluorobenzene	97%	80	120

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

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ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West 1-20 East, Odessa, TX 79765 Ph: 915-563-1800

FILE

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Robert Edison  
Environmental Technology Group, Inc.  
2540 West Maryland  
Hobbs, NM 88242

Order#: G0205070  
Project: EO-2010  
Project Name: TNM 97-23  
Location: Eunice, NM

Lab ID: 0205070-09  
Sample ID: Exc. 6 Comp 6-6.5'

### 8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/21/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	709	10.0
TOTAL, C6-C35	709	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	106%	70	130
1-Chlorooctadecane	107%	70	130

### 8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02	1	25	CK	8021B
		2.56				

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	87%	80	120
Bromofluorobenzene	94%	80	120

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

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ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

FILE

Nov 25 02 03:31P

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Robert Edison  
Environmental Technology Group, Inc.  
2540 West Maryland  
Hobbs, NM 88242

Order#: G0205070  
Project: EO-2016  
Project Name: TNM 97-23  
Location: Eunice, NM

Lab ID: 0205070-10  
Sample ID: Stockpile 16 Comp

**8015M**

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/21/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	406	10.0
TOTAL, C6-C35	406	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	117%	70	130
1-Chlorooctadecane	115%	70	130

**8021B/5030 BTEX**

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02 3:17	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	92%	80	120
Bromofluorobenzene	99%	80	120

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

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ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

**FILE**

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Robert Edison  
 Environmental Technology Group, Inc.  
 2540 West Maryland  
 Hobbs, NM 88242

Order#: G0205070  
 Project: EO-2010  
 Project Name: TNM 97-23  
 Location: Eunice, NM

Lab ID: 0205070-11  
 Sample ID: Exc. 2 Comp 6-6-S'

### 8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/21/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	156	10.0
TOTAL, C6-C35	156	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	99%	70	130
1-Chlorooctadecane	95%	70	130

### 8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02 4:00	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	81%	80	120
Bromofluorobenzene	91%	80	120

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

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ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

FILE

Nov 25 02 03:32p

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205070  
Project: EO-2010  
Project Name: INM 97-23  
Location: Eunice, NM

Lab ID: 0205070-12  
Sample ID: Stockpile 10 comp

### 8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/21/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	213	10.0
DRO, >C12-C35	4,660	10.0
TOTAL, C6-C35	4,873	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	112%	70	130
1-Chlorooctadecane	125%	70	130

### 8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02 8:19	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	0.034	0.025
Toluene	<0.025	0.025
p/m-Xylene	0.100	0.025
o-Xylene	0.051	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	100%	80	120
Bromofluorobenzene	104%	80	120

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

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ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

FILE

Nov 25 02 03:32p

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Robert Edison  
 Environmental Technology Group, Inc.  
 2540 West Maryland  
 Hobbs, NM 88242

Order#: G0205070  
 Project: EO-2010  
 Project Name: TNM 97-23  
 Location: Eunice, NM

Lab ID: 0205070-13  
 Sample ID: Exc. 1 Comp 6-6.5'

**8015M**

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/21/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	142	10.0
TOTAL, C6-C35	142	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	95%	70	130
1-Chlorooctadecane	92%	70	130

**8021B/5030 BTEX**

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02 8:40	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 (%)	
aa-Toluene	96%	80	120
Bromofluorobenzene	100%	80	120

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

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ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

**FILE**

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205070  
Project: EO-2010  
Project Name: TNM 97-23  
Location: Eunice, NM

Lab ID: 0205070-14  
Sample ID: Exc 4 Comp 6-6.5'

**8015M**

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/21/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	34.6	10.0
DRO, >C12-C35	1,140	10.0
TOTAL, C6-C35	1,175	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	96%	70	130
1-Chlorooctadecane	94%	70	130

**8021B/5030 BTEX**

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02 9:01	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	92%	80	120
Bromofluorobenzene	86%	80	120

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

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ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

**FILE**

Nov 25 02 03:32P

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Robert Edison  
Environmental Technology Group, Inc.  
2540 West Maryland  
Hobbs, NM 88242

Order#: G0205070  
Project: EO-2010  
Project Name: TNM 97-23  
Location: Eunice, NM

Lab ID: 0205070-15  
Sample ID: Stockpile 11 Comp

**8015M**

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/21/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	55.4	10.0
DRO, >C12-C35	1,820	10.0
TOTAL, C6-C35	1,875	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	123%	70	130
1-Chlorooctadecane	118%	70	130

**8021B/5030 BTEX**

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02 9:22	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	0.039	0.025
Toluene	0.062	0.025
p/m-Xylene	0.147	0.025
o-Xylene	0.035	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	89%	80	120
Bromofluorobenzene	98%	80	120

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

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ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

**FILE**

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205070  
Project: EO-2010  
Project Name: TNM 27-23  
Location: Eunice, NM

Lab ID: 0205070-16  
Sample ID: Stockpile 15 Comp

### 8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/21/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	31.2	10.0
DRO, >C12-C35	1,780	10.0
TOTAL, C6-C35	1,811	10.0

Surrogates	% Recovered	QC Limits (%)
1-Chlorooctane	103%	70 130
1-Chlorooctadecane	100%	70 130

### 8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02 9:43	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	88%	80 120
Bromofluorobenzene	95%	80 120

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

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ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

**FILE**

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205070  
Project: EG-2010  
Project Name: TNM 97-23  
Location: Eunice, NM

Lab ID: 0205070-17  
Sample ID: Exc. 3 Comp 6-6.5'

### 8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	226	10.0
TOTAL, C6-C35	226	10.0

Surrogates	% Recovered	QC Limits (%)
1-Chlorooctane	115%	70 130
1-Chlorooctadecane	115%	70 130

### 8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02 10:04	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	99%	80 120

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

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ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

FILE

Nov 25 02 03:33p

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Robert Edison  
 Environmental Technology Group, Inc.  
 2540 West Maryland  
 Hobbs, NM 88242

Order#: G0205070  
 Project: EO-2010  
 Project Name: TNM 97-23  
 Location: Eunice, NM

Lab ID: 0205070-18  
 Sample ID: Stockpile 3 Comp

### 8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	49.9	10.0
DRO, >C12-C35	2,340	10.0
TOTAL, C6-C35	2,390	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	106%	70	130
1-Chlorooctadecane	109%	70	130

### 8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02 10:26	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	98%	80	120

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

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ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

**FILE**

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Robert Edison  
 Environmental Technology Group, Inc.  
 2540 West Marland  
 Hubbs, NM 88242

Order#: G0205070  
 Project: EO-2010  
 Project Name: TNM 97-23  
 Location: Eunice, NM

Lab ID: 0205070-19  
 Sample ID: Stockpile 1 Comp

### 8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	15.8	10.0
DRO, >C12-C35	1,660	10.0
TOTAL, C6-C35	1,676	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	114%	70	130
1-Chlorooctadecane	111%	70	130

### 8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02 10:47	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	0.054	0.025
n-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)	
o,p-Toluene	84%	80	120
Bromofluorobenzene	96%	80	120

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

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ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

FILE

Nov 25 02 03:34p

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Robert Edison  
 Environmental Technology Group, Inc.  
 2540 West Maryland  
 Hobbs, NM 88242

Order#: G0205070  
 Project: EO-2010  
 Project Name: TNM 97-23  
 Location: Eunice, NM

Lab ID: 0205070-20  
 Sample ID: Stockpile 9 Comp

**8015M**

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	435	10.0
IDRO, >C12-C35	5,910	10.0
TOTAL, C6-C35	6,345	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	120%	70	130
1-Chlorooctadecane	151%	70	130

**8021B/5030 BTEX**

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02 11:08	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	0.223	0.025
Toluene	0.114	0.025
p/m-Xylene	1.64	0.025
o-Xylene	0.687	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	84%	80	120
Bromofluorobenzene	100%	80	120

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

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ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

**FILE**

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Robert Edison  
 Environmental Technology Group, Inc.  
 2540 West Maryland  
 Hobbs, NM 88242

Order#: G0205070  
 Project: EO-2010  
 Project Name: TNM 97-23  
 Location: Eunice, NM

Lab ID: 0205070-21  
 Sample ID: Exc. 7 Comp

### 8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	44.4	10.0
DRO, >C12-C35	2,730	10.0
TOTAL, C6-C35	2,770	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	107%	70	130
1-Chlorooctadecane	112%	70	130

### 8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02 13:57	1	25	CK	8021B
0003858-02						

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	83%	80	120
Bromofluorobenzene	85%	80	120

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Robert Edison  
Environmental Technology Group, Inc.  
2540 West Maryland  
Hobbs, NM 88242

Order#: G0205070  
Project: EO-2010  
Project Name: TNM 97-23  
Location: Eunice, NM

Lab ID: 0205070-22

Sample ID: Stockpile 6 Comp

**8015M**

<u>Method</u> <u>Blank</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
		11/22/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	21.0	10.0
DRO, >C12-C35	1,120	10.0
TOTAL, C6-C35	1,141	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	116%	70	130
1-Chlorooctadecane	116%	70	130

**8021B/5030 BTEX**

<u>Method</u> <u>Blank</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
0003858-02		11/22/02 14:18	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	88%	80	120
Bromofluorobenzene	97%	80	120

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

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ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

**FILE**

Nov 25 02 03:35p

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205070  
 Project: EO-2010  
 Project Name: TNM 97-23  
 Location: Eunice, NM

Lab ID: 0205070-23  
 Sample ID: Stockpile 5 Comp

### 8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	24.1	10.0
DRO, >C12-C35	936	10.0
TOTAL, C6-C35	960	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	100%	70	130
1-Chlorooctadecane	100%	70	130

### 8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02 14:39	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	86%	80	120
Bromofluorobenzene	95%	80	120

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

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ENVIRONMENTAL LAB OF TEXAS I. LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

FILE

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205070  
Project: EO-2010  
Project Name: TNM 97-23  
Location: Eunice, NM

Lab ID: 0205070-24  
Sample ID: Release pt. Comp 10-17'

### 8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	114	10.0
IDRO, >C12-C35	2,660	10.0
TOTAL, C6-C35	2,774	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	121%	70	130
1-Chlorooctadecane	133%	70	130

### 8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02 15:20	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	0.039	0.025
Toluene	0.029	0.025
p/m-Xylene	0.107	0.025
o-Xylene	0.048	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	85%	80	120
Bromofluorobenzene	92%	80	120

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

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ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

FILE

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205070  
Project: EO-2010  
Project Name: TNM 97-23  
Location: Eunice, NM

Lab ID: 0205070-25  
Sample ID: Exc. 5 Comp 6-6.5'

**8015M**

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	118	10.0
DRO, >C12-C35	2,540	10.0
TOTAL, C6-C35	2,658	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	112%	70	130
1-Chlorooctadecane	116%	70	130

**8021B/5030 BTEX**

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02 15:41	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	0.103	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	84%	80	120
Bromofluorobenzene	88%	80	120

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

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ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

**FILE**

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205070  
Project: EO-2010  
Project Name: TNM 97-23  
Location: Eunice, NM

Lab ID: 0205070-26  
Sample ID: Stockpile 19 Comp

### 8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	37.9	10.0
DRO, >C12-C35	1,480	10.0
TOTAL, C6-C35	1,518	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	104%	70	130
1-Chlorooctadecane	105%	70	130

### 8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02 16:02	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
m-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	83%	80	120
Bromofluorobenzene	94%	80	120

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

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ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

**FILE**

Nov 25 02 03:36p

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205070  
 Project: EO-2010  
 Project Name: UNM 97-23  
 Location: Eunice, NM

Lab ID: 0205070-27  
 Sample ID: Stockpile 12 Comp

**8015M**

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	10.5	10.0
DRO, >C12-C35	482	10.0
TOTAL, C6-C35	492	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	98%	70	130
1-Chlorooctadecane	96%	70	130

**8021B/5030 BTEX**

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02 16:23	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	80%	80	120
Bromofluorobenzene	92%	80	120

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

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ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

**FILE**

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205070  
 Project: EO-2010  
 Project Name: TNM 97-23  
 Location: Eunice, NM

Lab ID: 0205070-28  
 Sample ID: Stockpile 2 Comp

### 8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	29.3	10.0
DRG, >C12-C35	1,300	10.0
TOTAL, C6-C35	1,329	10.0

Surrogates	% Recovered	QC Limits (%)
1-Chlorooctane	103%	70 130
1-Chlorooctadecane	103%	70 130

### 8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		11/22/02 16:44	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	89%	80 120
Bromofluorobenzene	84%	80 120

Approval: *Raland K. Tuttle* 11-25-02  
 Raland K. Tuttle, Lab Director, QA Officer  
 Celey D. Keene, Org. Tech. Director  
 Jeanne McMurray, Inorg. Tech. Director  
 Sandra Biczugba, Lab Tech.  
 Sara Molina, Lab Tech

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

ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

**ENVIRONMENTAL LAB OF TEXAS**  
**QUALITY CONTROL REPORT**

8015M

Order#: G0205070

<b>BLANK</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0003846-02			<10.0		
TOTAL, C6-C35-mg/kg		0003847-02			<10.0		
<b>MS</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0205070-08	761	952	1680	96.5%	
TOTAL, C6-C35-mg/kg		0205070-28	1329	952	2230	94.5%	
<b>MSD</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0205070-08	761	952	1830	112.3%	8.5%
TOTAL, C6-C35-mg/kg		0205070-28	1329	952	2120	83 %	5.1%
<b>SRM</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0003846-05		1000	1100	110.%	
TOTAL, C6-C35-mg/kg		0003847-05		1000	1070	107.%	

**ENVIRONMENTAL LAB OF TEXAS**  
**QUALITY CONTROL REPORT**

8021B/5030 BTEX

Order#: G0205070

<b>BLANK</b>		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg	SOIL	0003845-02			<0.025		
Benzene-mg/kg		0003858-02			<0.025		
Ethylbenzene-mg/kg		0003845-02			<0.025		
Ethylbenzene-mg/kg		0003858-02			<0.025		
Toluene-mg/kg		0003845-02			<0.025		
Toluene-mg/kg		0003858-02			<0.025		
p/m-Xylene-mg/kg		0003845-02			<0.025		
p/m-Xylene-mg/kg		0003858-02			<0.025		
o-Xylene-mg/kg		0003845-02			<0.025		
o-Xylene-mg/kg		0003858-02			<0.025		
<b>MS</b>		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg	SOIL	0205070-18	0	0.1	0.093	93.%	
Benzene-mg/kg		0205075-07	0	0.1	0.089	89.%	
Ethylbenzene-mg/kg		0205070-18	0	0.1	0.098	98.%	
Ethylbenzene-mg/kg		0205075-07	0	0.1	0.096	96.%	
Toluene-mg/kg		0205070-18	0	0.1	0.095	95.%	
Toluene-mg/kg		0205075-07	0	0.1	0.090	90.%	
p/m-Xylene-mg/kg		0205070-18	0	0.2	0.209	104.5%	
p/m-Xylene-mg/kg		0205075-07	0	0.2	0.203	101.5%	
o-Xylene-mg/kg		0205070-18	0	0.1	0.099	99.%	
o-Xylene-mg/kg		0205075-07	0	0.1	0.096	96.%	
<b>MSD</b>		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg	SOIL	0205070-18	0	0.1	0.090	90.%	3.3%
Benzene-mg/kg		0205075-07	0	0.1	0.089	89.%	0.%
Ethylbenzene-mg/kg		0205070-18	0	0.1	0.094	94.%	4.2%
Ethylbenzene-mg/kg		0205075-07	0	0.1	0.096	96.%	0.%
Toluene-mg/kg		0205070-18	0	0.1	0.092	92.%	3.2%
Toluene-mg/kg		0205075-07	0	0.1	0.091	91.%	1.1%
p/m-Xylene-mg/kg		0205070-18	0	0.2	0.200	100.%	4.4%
p/m-Xylene-mg/kg		0205075-07	0	0.2	0.203	101.5%	0.%
o-Xylene-mg/kg		0205070-18	0	0.1	0.094	94.%	5.2%
o-Xylene-mg/kg		0205075-07	0	0.1	0.096	96.%	0.%
<b>SRM</b>		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg	SOIL	0003845-05		0.1	0.097	97.%	
Benzene-mg/kg		0003858-05		0.1	0.093	93.%	
Ethylbenzene-mg/kg		0003845-05		0.1	0.102	102.%	
Ethylbenzene-mg/kg		0003858-05		0.1	0.104	104.%	
Toluene-mg/kg		0003845-05		0.1	0.100	100.%	

FILE

## ENVIRONMENTAL LAB OF TEXAS

## QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0205070

SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Toluene-mg/kg		0003858-05		0.1	0.099	99.5%	
p/m-Xylene-mg/kg		0003845-05		0.2	0.216	108.0%	
p/m-Xylene-mg/kg		0003858-05		0.2	0.226	113.0%	
o-Xylene-mg/kg		0003845-05		0.1	0.103	103.0%	
o-Xylene-mg/kg		0003858-05		0.1	0.106	106.0%	

FILE

# CASE NARRATIVE

## ENVIRONMENTAL LAB OF TEXAS

**Prepared for:**

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

Order#: G0205070

Project: TNM 97-23

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
Stockpile 4 comp	0205070-01	SOIL	11/14/2002	11/19/2002
Exc. 8 Comp 4-5'	0205070-02	SOIL	11/14/2002	11/19/2002
Stockpile 17 comp	0205070-03	SOIL	11/14/2002	11/19/2002
Stockpile 8 comp	0205070-04	SOIL	11/14/2002	11/19/2002
Stockpile 18 comp	0205070-05	SOIL	11/14/2002	11/19/2002
Stockpile 13 Comp	0205070-06	SOIL	11/14/2002	11/19/2002
Stockpile 14 Comp	0205070-07	SOIL	11/14/2002	11/19/2002
Stockpile 7 Comp	0205070-08	SOIL	11/14/2002	11/19/2002
Exc. 6 Comp 6-6.5'	0205070-09	SOIL	11/14/2002	11/19/2002
Stockpile 16 Comp	0205070-10	SOIL	11/14/2002	11/19/2002
Exc. 2 Comp 6-6.5'	0205070-11	SOIL	11/14/2002	11/19/2002
Stockpile 10 comp	0205070-12	SOIL	11/14/2002	11/19/2002
Exc. 1 Comp 6-6.5'	0205070-13	SOIL	11/14/2002	11/19/2002
Exc 4 Comp 6-6.5'	0205070-14	SOIL	11/14/2002	11/19/2002
Stockpile 11 Comp	0205070-15	SOIL	11/14/2002	11/19/2002
Stockpile 15 Comp	0205070-16	SOIL	11/14/2002	11/19/2002
Exc. 3 Comp 6-6.5'	0205070-17	SOIL	11/14/2002	11/19/2002
Stockpile 3 Comp	0205070-18	SOIL	11/14/2002	11/19/2002
Stockpile 1 Comp	0205070-19	SOIL	11/14/2002	11/19/2002
Stockpile 9 Comp	0205070-20	SOIL	11/14/2002	11/19/2002
Exc. 7 Comp	0205070-21	SOIL	11/14/2002	11/19/2002
Stockpile 6 Comp	0205070-22	SOIL	11/14/2002	11/19/2002
Stockpile 5 Comp	0205070-23	SOIL	11/14/2002	11/19/2002
Release pt. Comp 10-	0205070-24	SOIL	11/14/2002	11/19/2002
Exc. 5 Comp 6-6.5'	0205070-25	SOIL	11/14/2002	11/19/2002
Stockpile 19 Comp	0205070-26	SOIL	11/14/2002	11/19/2002
Stockpile 12 Comp	0205070-27	SOIL	11/14/2002	11/19/2002
Stockpile 2 Comp	0205070-28	SOIL	11/14/2002	11/19/2002

---

# CASE NARRATIVE

## ENVIRONMENTAL LAB OF TEXAS

Prepared for:

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

Order#: G0205070

Project: TNM 97-23

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.

**Surrogate recoveries on the 8015M TPH are outside control limits due to matrix interference from coeluting compounds. (0205070-05, 20, 24)**

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

**FILE**



# Environmental Lab of Texas, Inc.

12600 West I-20 East  
Odessa, Texas 79763

Phone: 915-563-1800  
Fax: 915-563-1713

Project Manager: Robert Edison

Company Name: E.T.G.-I.

Company Address: 2540 W. Maryland

City/State/Zip: Hobbs, NM 88241

Telephone No: 505-327-4882

Sampler Signature: El Taylor & Danny Stevens

CC#: 195  
CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST  
Page 2 of 3

Project Name: TNm 97-23

Project #: EO-2014

Project Loc: Excise, NM

PO #:

Fax No: 505-397-4701

LAB # (Lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Contaminants	Preservative		Matrix	Analyze For:		Sample Container intact?	Temperature Upon Receipt:	Laboratory Comments:
					NaOH	HCl		TOTAL	ICP			
Stackpile 1 comp.	6-6.5'	11-14-02	0845	1	X							
Stackpile 1 comp.	6-6.5'	11-14-02	1122	1								
Exc. 1 comp.	6-6.5'	11-14-02	0832	1								
Exc. 4 comp.	6-6.5'	11-14-02	0905	1								
Stackpile 11 comp.	6-6.5'	11-14-02	1128	1								
Stackpile 15 comp.	6-6.5'	11-14-02	1334	1								
Exc. 3 comp.	6-6.5'	11-14-02	0855	1								
Stackpile 3 comp.	6-6.5'	11-14-02	1036	1								
Stackpile 1 comp.	6-6.5'	11-14-02	1028	1								
Stackpile 9 comp.	6-6.5'	11-14-02	1116	1								

Special Instructions:

Reinstituted by: <u>Maile Camps</u>	Date: <u>11/19/02</u>	Time: <u>1315</u>	Received by: <u>at 1315</u>	Date: <u>11/19/02</u>	Time: <u>1942</u>
Reinstituted by: <u>John</u>	Date: <u>11/19/02</u>	Time: <u>1715</u>	Received by: <u>EL OT</u>	Date: <u>11/19/02</u>	Time: <u>1715</u>



FILE

## ANALYTICAL REPORT

Prepared for:

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

**Project:** Kennan  
**PO#:** EO 2010  
**Order#:** G0205234  
**Report Date:** 12/19/2002

Certificates  
US EPA Laboratory Code TX00158

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

**COPY**

Lab ID: 0205234-01  
 Sample ID: WW 1

Order#: G0205234  
 Project: TNM 97-23  
 Project Name: Kennan  
 Location: Eunice, NM

### **8015M**

<u>Method Blank</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
		12/12/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	65.5	10.0
DRO, >C12-C35	870	10.0
TOTAL, C6-C35	936	10.0

Surrogates	% Recovered	QC Limits
1-Chlorooctane	84%	70 130
1-Chlorooctadecane	99%	70 130

### **8021B/5030 BTEX**

<u>Method Blank</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
0004084-02		12/15/02 2:59	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Toluene	<0.025	0.025
Ethylbenzene	<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	113%	80 120

DL = Diluted      N/A = Not

RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS I, LTD.      12600 West I-20 East, Odessa, TX 79765      Ph: 915-563-1800

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205234  
 Project: TNM 97-23  
 Project Name: Kennan  
 Location: Eunice, NM

Lab ID: 0205234-02  
 Sample ID: NW 1

### **8015M**

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
		12/12/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	36.7	10.0
DRO, >C12-C35	849	10.0
TOTAL, C6-C35	886	10.0

Surrogates	% Recovered	QC Limits	
1-Chlorooctane	84%	70	130
1-Chlorooctadecane	99%	70	130

### **8021B/5030 BTEX**

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
0004084-02		12/15/02 3:41	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Toluene	<0.025	0.025
Ethylbenzene	<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	115%	80	120

DL = Diluted      N/A = Not

RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS I, LTD.      12600 West I-20 East, Odessa, TX 79765      Ph: 915-563-1800

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205234  
 Project: TNM 97-23  
 Project Name: Kennan  
 Location: Eunice, NM

Lab ID: 0205234-03  
 Sample ID: SW 1

### *8015M*

<u>Method Blank</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
		12/12/02	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

Surrogates	% Recovered	QC Limits	
1-Chlorooctane	81%	70	130
1-Chlorooctadecane	85%	70	130

### *8021B/5030 BTEX*

<u>Method Blank</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
0004084-02		12/15/02 4:02	1	25	CK	8021B

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

Surrogates	% Recovered	QC Limits	
aaa-Toluene	111%	80	120
Bromofluorobenzene	116%	80	120

DL = Diluted      N/A = Not

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ENVIRONMENTAL LAB OF TEXAS I, LTD.      12600 West I-20 East, Odessa, TX 79765      Ph: 915-563-1800

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205234  
 Project: TNM 97-23  
 Project Name: Kennan  
 Location: Eunice, NM

Lab ID: 0205234-04  
 Sample ID: NW 2

### **8015M**

Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Analyzed</u>	Sample <u>Amount</u>	Dilution <u>Factor</u>	Analyst	Method
		12/12/02	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

Surrogates	% Recovered	QC Limits	
1-Chlorooctane	83%	70	130
1-Chlorooctadecane	85%	70	130

### **8021B/5030 BTEX**

Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Analyzed</u>	Sample <u>Amount</u>	Dilution <u>Factor</u>	Analyst	Method
0004084-02		12/14/02 23:29	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Toluene	<0.025	0.025
Ethylbenzene	<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	102%	80	120

DL = Diluted      N/A = Not

RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS I, LTD.      12600 West I-20 East, Odessa, TX 79765      Ph: 915-563-1800

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205234  
 Project: TNM 97-23  
 Project Name: Kennan  
 Location: Eunice, NM

Lab ID: 0205234-05  
 Sample ID: SW 2

### 8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>		12/12/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	10.3	10.0
DRO, >C12-C35	787	10.0
TOTAL, C6-C35	797	10.0

Surrogates	% Recovered	QC Limits
1-Chlorooctane	87%	70 130
1-Chlorooctadecane	101%	70 130

### 8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>		12/15/02 9:37	1	25	CK	8021B

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

Surrogates	% Recovered	QC Limits
aaa-Toluene	82%	80 120
Bromofluorobenzene	108%	80 120

DL = Diluted      N/A = Not

RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS I, LTD.      12600 West I-20 East, Odessa, TX 79765      Ph: 915-563-1800

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205234  
 Project: TNM 97-23  
 Project Name: Kennan  
 Location: Eunice, NM

Lab ID: 0205234-06  
 Sample ID: NW 3

### *8015M*

Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Analyzed</u>	Sample <u>Amount</u>	Dilution <u>Factor</u>	Analyst	Method
		12/12/02	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

Surrogates	% Recovered	QC	Limits
1-Chlorooctane	90%	70	130
1-Chlorooctadecane	94%	70	130

### *8021B/5030 BTEX*

Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Analyzed</u>	Sample <u>Amount</u>	Dilution <u>Factor</u>	Analyst	Method
0004084-02		12/15/02 9:58	1	25	CK	8021B

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

Surrogates	% Recovered	QC	Limits
aaa-Toluene	119%	80	120
Bromofluorobenzene	114%	80	120

DL = Diluted      N/A = Not

RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS I, LTD.      12600 West I-20 East, Odessa, TX 79765      Ph: 915-563-1800

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205234  
 Project: TNM 97-23  
 Project Name: Kennan  
 Location: Eunice, NM

Lab ID: 0205234-07  
 Sample ID: SW 3

### ***8015M***

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>		12/12/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	38.3	10.0
DRO, >C12-C35	722	10.0
TOTAL, C6-C35	760	10.0

Surrogates	% Recovered	QC Limits
1-Chlorooctane	88%	70 130
1-Chlorooctadecane	102%	70 130

### ***8021B/5030 BTEX***

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>		12/17/02 3:28	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Toluene	0.043	0.025
Ethylbenzene	0.052	0.025
p/m-Xylene	0.145	0.025
o-Xylene	0.054	0.025

Surrogates	% Recovered	QC Limits
aaa-Toluene	97%	80 120
Bromofluorobenzene	105%	80 120

DL = Diluted      N/A = Not

RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS I, LTD.      12600 West I-20 East, Odessa, TX 79765      Ph: 915-563-1800

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205234  
 Project: TNM 97-23  
 Project Name: Kennan  
 Location: Eunice, NM

Lab ID: 0205234-08  
 Sample ID: NW 4

### ***8015M***

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		12/12/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	21.5	10.0
DRO, >C12-C35	346	10.0
TOTAL, C6-C35	368	10.0

Surrogates	% Recovered	QC Limits	
1-Chlorooctane	86%	70	130
1-Chlorooctadecane	93%	70	130

### ***8021B/5030 BTEX***

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		12/17/02 8:42	1	25	CK	8021B

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

Surrogates	% Recovered	QC Limits	
aaa-Toluene	108%	80	120
Bromofluorobenzene	109%	80	120

DL = Diluted

N/A = Not

RL = Reporting Limit

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# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205234  
 Project: TNM 97-23  
 Project Name: Kennan  
 Location: Eunice, NM

Lab ID: 0205234-09  
 Sample ID: SW 4

### ***8015M***

<u>Method Blank</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
		12/12/02	1	5	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	290	50.0
DRO, >C12-C35	4700	50.0
TOTAL, C6-C35	4990	50.0

Surrogates	% Recovered	QC	Limits
1-Chlorooctane	17%	70	130
1-Chlorooctadecane	30%	70	130

### ***8021B/5030 BTEX***

<u>Method Blank</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
0004084-02		12/17/02 9:03	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Toluene	<0.025	0.025
Ethylbenzene	0.034	0.025
p/m-Xylene	0.138	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC	Limits
aaa-Toluene	97%	80	120
Bromofluorobenzene	106%	80	120

DL = Diluted

N/A = Not

RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205234  
 Project: TNM 97-23  
 Project Name: Kennan  
 Location: Eunice, NM

Lab ID: 0205234-10  
 Sample ID: NW 5

### *8015M*

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
		12/12/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	39.9	10.0
DRO, >C12-C35	2,770	10.0
TOTAL, C6-C35	2,810	10.0

Surrogates	% Recovered	QC Limits	
1-Chlorooctane	86%	70	130
1-Chlorooctadecane	100%	70	130

### *8021B/5030 BTEX*

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
0004084-02		12/15/02 11:23	1	25	CK	8021B

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

Surrogates	% Recovered	QC Limits	
aaa-Toluene	80%	80	120
Bromofluorobenzene	111%	80	120

DL = Diluted

N/A = Not

RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205234  
 Project: TNM 97-23  
 Project Name: Kennan  
 Location: Eunice, NM

Lab ID: 0205234-11  
 Sample ID: SW 5

### ***8015M***

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>		12/12/02	1	1	CK	<b>8015M</b>

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	358	10.0
TOTAL, C6-C35	358	10.0

Surrogates	% Recovered	QC Limits
1-Chlorooctane	90%	70 130
1-Chlorooctadecane	96%	70 130

### ***8021B/5030 BTEX***

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>		12/17/02 9:25	1	25	CK	<b>8021B</b>

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Toluene	<0.025	0.025
Ethylbenzene	<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	105%	80 120

DL = Diluted      N/A = Not

RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS I, LTD.      12600 West I-20 East, Odessa, TX 79765      Ph: 915-563-1800

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205234  
 Project: TNM 97-23  
 Project Name: Kennan  
 Location: Eunice, NM

Lab ID: 0205234-12  
 Sample ID: NW 6

### *8015M*

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>		12/12/02	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

Surrogates	% Recovered	QC Limits
1-Chlorooctane	91%	70    130
1-Chlorooctadecane	97%	70    130

### *8021B/5030 BTEX*

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>		12/18/02 1:01	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Toluene	<0.025	0.025
Ethylbenzene	<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	109%	80    120

DL = Diluted      N/A = Not

RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS I, LTD.      12600 West I-20 East, Odessa, TX 79765      Ph: 915-563-1800

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205234  
 Project: TNM 97-23  
 Project Name: Kennan  
 Location: Eunice, NM

Lab ID: 0205234-13  
 Sample ID: SW 6

### *8015M*

Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Analyzed</u>	Sample <u>Amount</u>	Dilution <u>Factor</u>	Analyst	Method
		12/12/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	213	10.0
DRO, >C12-C35	2,590	10.0
TOTAL, C6-C35	2,803	10.0

Surrogates	% Recovered	QC Limits	
1-Chlorooctane	92%	70	130
1-Chlorooctadecane	92%	70	130

### *8021B/5030 BTEX*

Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Analyzed</u>	Sample <u>Amount</u>	Dilution <u>Factor</u>	Analyst	Method
0004117-02		12/18/02 1:45	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Toluene	<0.025	0.025
Ethylbenzene	0.044	0.025
p/m-Xylene	0.064	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits	
aaa-Toluene	110%	80	120
Bromofluorobenzene	109%	80	120

DL = Diluted      N/A = Not

RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS I, LTD.      12600 West I-20 East, Odessa, TX 79765      Ph: 915-563-1800

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205234  
 Project: TNM 97-23  
 Project Name: Kennan  
 Location: Eunice, NM

Lab ID: 0205234-14  
 Sample ID: SW 7

### ***8015M***

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
		12/12/02	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

Surrogates	% Recovered	QC	Limits
1-Chlorooctane	89%	70	130
1-Chlorooctadecane	92%	70	130

### ***8021B/5030 BTEX***

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
0004117-02		12/18/02 10:22	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Toluene	<0.025	0.025
Ethylbenzene	<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	113%	80	120

DL = Diluted      N/A = Not

RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS I, LTD.      12600 West I-20 East, Odessa, TX 79765      Ph: 915-563-1800

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205234  
 Project: TNM 97-23  
 Project Name: Kennan  
 Location: Eunice, NM

Lab ID: 0205234-15  
 Sample ID: EW 7

### *8015M*

<u>Method Blank</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
		12/12/02	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

Surrogates	% Recovered	QC Limits
1-Chlorooctane	99%	70 130
1-Chlorooctadecane	107%	70 130

### *8021B/5030 BTEX*

<u>Method Blank</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
0004117-02		12/18/02 2:51	1	25	CK	8021B

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

Surrogates	% Recovered	QC Limits
aaa-Toluene	115%	80 120
Bromofluorobenzene	109%	80 120

DL = Diluted      N/A = Not

RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS I, LTD.      12600 West I-20 East, Odessa, TX 79765      Ph: 915-563-1800

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205234  
 Project: TNM 97-23  
 Project Name: Kennan  
 Location: Eunice, NM

Lab ID: 0205234-16  
 Sample ID: WW 7

### ***8015M***

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		12/12/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	196	10.0
TOTAL, C6-C35	196	10.0

Surrogates	% Recovered	QC	Limits
1-Chlorooctane	89%	70	130
1-Chlorooctadecane	97%	70	130

### ***8021B/5030 BTEX***

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		12/18/02 8:34	1	25	CK	8021B

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

Surrogates	% Recovered	QC	Limits
aaa-Toluene	120%	80	120
Bromofluorobenzene	108%	80	120

DL = Diluted      N/A = Not

RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS I, LTD.      12600 West I-20 East, Odessa, TX 79765      Ph: 915-563-1800

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205234  
 Project: TNM 97-23  
 Project Name: Kennan  
 Location: Eunice, NM

Lab ID: 0205234-17  
 Sample ID: EW 8

### 8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		12/12/02	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

Surrogates	% Recovered	QC Limits
1-Chlorooctane	90%	70 130
1-Chlorooctadecane	95%	70 130

### 8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		12/18/02 8:56	1	25	CK	8021B

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

Surrogates	% Recovered	QC Limits
aaa-Toluene	113%	80 120
Bromofluorobenzene	104%	80 120

DL = Diluted

N/A = Not

RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205234  
 Project: TNM 97-23  
 Project Name: Kennan  
 Location: Eunice, NM

Lab ID: 0205234-18  
 Sample ID: WW 8

### 8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>		12/12/02	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

Surrogates	% Recovered	QC Limits
1-Chlorooctane	90%	70 130
1-Chlorooctadecane	96%	70 130

### 8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>		12/18/02 9:17	1	25	CK	8021B

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

Surrogates	% Recovered	QC Limits
aaa-Toluene	115%	80 120
Bromofluorobenzene	107%	80 120

DL = Diluted

N/A = Not

RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0205234  
 Project: TNM 97-23  
 Project Name: Kennan  
 Location: Eunice, NM

Lab ID: 0205234-19  
 Sample ID: NW 8

### 8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>		12/12/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	36.1	10.0
TOTAL, C6-C35	36.1	10.0

Surrogates	% Recovered	QC Limits
1-Chlorooctane	86%	70 130
1-Chlorooctadecane	92%	70 130

### 8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>		12/18/02 9:47	1	25	CK	8021B

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

Surrogates	% Recovered	QC Limits
aaa-Toluene	110%	80 120
Bromofluorobenzene	104%	80 120

#### Approval:

Raland K. Tuttle, Lab Director, QA Officer  
 Celey D. Keene, Org. Tech. Director  
 Jeanne McMurrey, Inorg. Tech. Director  
 Sandra Biezugbe, Lab Tech.  
 Sara Molina, Lab Tech.

Date

DL = Diluted      N/A = Not

RL = Reporting Limit

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# ENVIRONMENTAL LAB OF TEXAS

## QUALITY CONTROL REPORT

**8015M**

Order#: G0205234

<b>BLANK</b> Recovery	SOIL Pct (%) SOIL	LAB-ID # RPD	Concentr.	Sample	Concentr	Spike	QC Test	Result
TOTAL, C6-C35-mg/kg		0004058-02			<10.0			
<b>MS</b> Recovery	SOIL Pct (%) SOIL	LAB-ID # RPD	Concentr.	Sample	Concentr	Spike	QC Test	Result
TOTAL, C6-C35-mg/kg		0205234-17	0	952	937	98.4%		
<b>MSD</b> Recovery	SOIL Pct (%) SOIL	LAB-ID # RPD	Concentr.	Sample	Concentr	Spike	QC Test	Result
TOTAL, C6-C35-mg/kg		0205234-17	0	952	977	102.6%		4.2%
<b>SRM</b> Recovery	SOIL Pct (%) SOIL	LAB-ID # RPD	Concentr.	Sample	Concentr	Spike	QC Test	Result
TOTAL, C6-C35-mg/kg		0004058-05		1000	1040	104.%		

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# ENVIRONMENTAL LAB OF TEXAS

## QUALITY CONTROL REPORT

**8021B/5030 BTEX**

Order#: G0205234

### **BLANK**

Recovery

	SOIL Pct (%) SOIL	LAB-ID # RPD	Concentr.	Sample	Concentr	Spike	QC Test	Result
Benzene-mg/kg		0004084-02			<0.025			
Benzene-mg/kg		0004117-02			<0.025			
Toluene-mg/kg		0004084-02			<0.025			
Toluene-mg/kg		0004117-02			<0.025			
Ethylbenzene-mg/kg		0004084-02			<0.025			
Ethylbenzene-mg/kg		0004117-02			<0.025			
p/m-Xylene-mg/kg		0004084-02			<0.025			
p/m-Xylene-mg/kg		0004117-02			<0.025			
o-Xylene-mg/kg		0004084-02			<0.025			
o-Xylene-mg/kg		0004117-02			<0.025			

### **MS**

Recovery

	SOIL Pct (%) SOIL	LAB-ID # RPD	Concentr.	Sample	Concentr	Spike	QC Test	Result
Benzene-mg/kg		0205234-03	0	0.1	0.108	108.%		
Benzene-mg/kg		0205251-02	0	0.1	0.105	105.%		
Toluene-mg/kg		0205234-03	0	0.1	0.109	109.%		
Toluene-mg/kg		0205251-02	0	0.1	0.111	111.%		
Ethylbenzene-mg/kg		0205234-03	0	0.1	0.106	106.%		
Ethylbenzene-mg/kg		0205251-02	0	0.1	0.108	108.%		
Xylene-mg/kg		0205234-03	0	0.2	0.222	111.%		
p/m-Xylene-mg/kg		0205251-02	0	0.2	0.228	114.%		
o-Xylene-mg/kg		0205234-03	0	0.1	0.110	110.%		
o-Xylene-mg/kg		0205251-02	0	0.1	0.111	111.%		

### **MSD**

Recovery

	SOIL Pct (%) SOIL	LAB-ID # RPD	Concentr.	Sample	Concentr	Spike	QC Test	Result
Benzene-mg/kg		0205234-03	0	0.1	0.106	106.%		1.9%
Benzene-mg/kg		0205251-02	0	0.1	0.109	109.%		3.7%
Toluene-mg/kg		0205234-03	0	0.1	0.108	108.%		0.9%
Toluene-mg/kg		0205251-02	0	0.1	0.114	114.%		2.7%
Ethylbenzene-mg/kg		0205234-03	0	0.1	0.105	105.%		0.9%
Ethylbenzene-mg/kg		0205251-02	0	0.1	0.112	112.%		3.6%
p/m-Xylene-mg/kg		0205234-03	0	0.2	0.222	111.%		0.%
p/m-Xylene-mg/kg		0205251-02	0	0.2	0.233	116.5%		2.2%
o-Xylene-mg/kg		0205234-03	0	0.1	0.108	108.%		1.8%
o-Xylene-mg/kg		0205251-02	0	0.1	0.113	113.%		1.8%

### **SRM**

Recovery

	SOIL Pct (%) SOIL	LAB-ID # RPD	Concentr.	Sample	Concentr	Spike	QC Test	Result
Benzene-mg/kg		0004084-05		0.1	0.104	104.%		
Benzene-mg/kg		0004117-05		0.1	0.105	105.%		
Toluene-mg/kg		0004084-05		0.1	0.106	106.%		
Toluene-mg/kg		0004117-05		0.1	0.107	107.%		
Ethylbenzene-mg/kg		0004084-05		0.1	0.103	103.%		

# ENVIRONMENTAL LAB OF TEXAS

## QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0205234

**SRM**  
Recovery

SOIL Pct (%) SOIL	LAB-ID # RPD	Concentr.	Sample	Concentr	Spike	QC Test	Result
Ethylbenzene-mg/kg	0004117-05		0.1	0.109	109.%		
p/m-Xylene-mg/kg	0004084-05		0.2	0.218	109.%		
p/m-Xylene-mg/kg	0004117-05		0.2	0.223	111.5%		
o-Xylene-mg/kg	0004084-05		0.1	0.108	108.%		
o-Xylene-mg/kg	0004117-05		0.1	0.107	107.%		

ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

# CASE NARRATIVE

## ENVIRONMENTAL LAB OF TEXAS

Prepared for:

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

Order#: G0205234

Project: Kennan

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
WW 1	0205234-01	SOIL	12/11/2002	12/12/2002
NW 1	0205234-02	SOIL	12/11/2002	12/12/2002
SW 1	0205234-03	SOIL	12/11/2002	12/12/2002
NW 2	0205234-04	SOIL	12/11/2002	12/12/2002
SW 2	0205234-05	SOIL	12/11/2002	12/12/2002
NW 3	0205234-06	SOIL	12/11/2002	12/12/2002
SW 3	0205234-07	SOIL	12/11/2002	12/12/2002
NW 4	0205234-08	SOIL	12/11/2002	12/12/2002
SW 4	0205234-09	SOIL	12/11/2002	12/12/2002
NW 5	0205234-10	SOIL	12/11/2002	12/12/2002
SW 5	0205234-11	SOIL	12/11/2002	12/12/2002
NW 6	0205234-12	SOIL	12/11/2002	12/12/2002
SW 6	0205234-13	SOIL	12/11/2002	12/12/2002
SW 7	0205234-14	SOIL	12/11/2002	12/12/2002
EW 7	0205234-15	SOIL	12/11/2002	12/12/2002
WW 7	0205234-16	SOIL	12/11/2002	12/12/2002
EW 8	0205234-17	SOIL	12/11/2002	12/12/2002
WW 8	0205234-18	SOIL	12/11/2002	12/12/2002
NW 8	0205234-19	SOIL	12/11/2002	12/12/2002

**Surrogate recoveries on the 8015M TPH are outside the control limits because they were diluted out.  
(0205234-09)**

# CASE NARRATIVE

## ENVIRONMENTAL LAB OF TEXAS

**Prepared for:**

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

**Order#:** G0205234

**Project:** Kennan

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:

**Environmental Lab of Texas I, Ltd.**

Date:

Environmental Consulting Engineers  
Project Manager: **R. B. SIEGMUND**  
Project Name: **KENIAN**  
Project Location: **S. J. SIEGMUND**

For Use On: EOTT ENERGY CORP Projects Only  
EOTT ENERGY CORP  
East Business 20  
TX 79702  
(915) 687-3400  
(915) 582-2781

CHAIN OF CUSTODY AND ANALYSIS REQUEST  
ANALYSIS REQUEST  
(Circle or Specify Method If Any)

LAB # (Lab Use Only)	FIELD CODE	PRESERVATION			SAMPLING	TIME	DATE	ICCE	HNO <sub>3</sub>	HCl	SOIL	AIR	SLUDGE	WATER	VOLUME/AMOUNT	# CONTAINERS	H2O	NaHSO <sub>4</sub>	HClO <sub>4</sub>	None	TPH 8015 GRD/RO	PAH 8270C (6100 New Mexico Only)	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Values	TCP/LP Semi Volumes	Volatile 8290B	Semi Volatiles 8270C	Gardens/Arbors 8275 A/B/C/D/E	TDS 1604	TDS 1601	Cation/Anions 8275 A/B/C/D/E
		MATRIX	METHOD	PRESERVATION																											
01	1 m3	-	X	-	X	12:11	12:35	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
02	1 m3	-	X	-	X	-	12:51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
03	1 m3	-	X	-	X	-	12:45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
04	1 m3	-	X	-	X	-	12:58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
05	1 m3	-	X	-	X	-	13:03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
06	1 m3	-	X	-	X	-	13:10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
07	1 m3	-	X	-	X	-	13:15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
08	1 m3	-	X	-	X	-	13:21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
09	1 m3	-	X	-	X	-	13:27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
10	1 m3	-	X	-	X	-	13:34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11	1 m3	-	X	-	X	-	13:39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
12	1 m3	-	X	-	X	-	13:45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
13	1 m3	-	X	-	X	-	13:50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	REMARKS:	REMARKS:	REMARKS:	REMARKS:	REMARKS:	REMARKS:	REMARKS:	REMARKS:	REMARKS:	REMARKS:	REMARKS:	REMARKS:	REMARKS:	REMARKS:	REMARKS:	REMARKS:	REMARKS:	REMARKS:	REMARKS:	REMARKS:	REMARKS:	REMARKS:	REMARKS:	REMARKS:		
Mr. Judson	12/13/02	14:10																													





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

97-03  
EO 2010

May 20, 1999

FILE

Project Manager: Stanley Grover  
KEi Consultants, Ltd.  
5309 Wurzbach Rd. Suite 100  
San Antonio, TX 78238

Reference: XENCO Report No.: -91912  
Project Name: EOTT  
Project ID: 710046-1-0  
Project Address: Lea County, NM

Dear Stanley 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 -91912.G 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. -91912G 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

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.  
Certified and approved by numerous States and Agencies.  
A Small Business and Minority Status Company that delivers SERVICE and QUALITY!



## ANALYTICAL CHAIN OF CUSTODY REPORT

### CHRONOLOGY OF SAMPLES

KEI Consultants, Ltd.

Project ID: 710046-1-0

Project Manager: Stanley Grover

Project Location: Lea County, NM

Project Name: EOTT

XENON COC# : -91912  
Date Received in Lab: May 13, 1999 12:57 by DA  
XENON contact : Carlos Castan/Debbie Simmons

Field ID	Lab. ID	Method Name	Method ID	Units	Turn Around	Date and Time			
						Sample Collected	Addition Requested	Extraction	Analysis
1 AW 1	91912-001	BTEX	SW-846	ppm	7 days	May 12, 1999 09:16	May 18, 1999 by MGC	May 18, 1999 16:01 by MGC	May 18, 1999 16:01 by MGC

## KEI Consultants, Ltd.

Project Name: EOTT

Project ID: 710046-1-0

Project Manager: Stanley Grover

Project Location: Lea County, NM

Date Received in Lab : May 13, 1999 12:57

Date Report Faxed: May 20, 1999

XENCO contact : Carlos Castro/Debbie Simmons

Analysis Requested	Lab ID: Field ID: Depth: Matrix: Sampled:	91912 001 MW-1  Liquid 05/12/99 09:15			
BTEX EPA 8021B	Analyzed: Units:	05/18/99 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.			

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

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

  
Eddie L. Clemons, II  
QA/QC Manager



# Certificate Of Quality Control for Batch 119A03C11

Date Validated: May 19, 1999 14:00  
 Date Analyzed: May 18, 1999 12:23

## SW- 846 5030/3021B IR/PIX

Analyst: MG

Matrix: Liquid

### 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	[F] Blank Limit Relative Difference %	[G] QC	[H] QC	[I] B.S.D. Recovery %	[J] Blank Spike Recovery Range %	Qualifier
Benzene	< 0.0010	0.0961	0.0933	0.1000	0.0010	20.0	3.0	96.1	93.3	65-135	
Cyclohexene	< 0.0010	0.0947	0.0920	0.1000	0.0010	20.0	2.9	94.7	92.0	65-135	
Ethylbenzene	< 0.0010	0.1030	0.1001	0.1000	0.0010	20.0	2.9	103.0	100.1	65-135	
o,p-Xylene	< 0.0020	0.1958	0.1907	0.2000	0.0020	20.0	2.6	97.9	95.4	65-135	
o-Xylene	< 0.0010	0.0922	0.0900	0.1000	0.0010	20.0	2.4	92.2	90.0	65-135	

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

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

B.S.D. = Blank Spike Duplicate

B.S.D. Recovery [H] =  $100 \cdot (C-A)/D$

D.D. = Below detection limit or not detected

All results are based on triplicate and validated for QC purposes

Eddie L. Clemmons, II  
 QA/QC Manager

[ ] 11301 Washburn Road, Suite 1, Houston TX 77082 281-589-0092  
 [ ] 11301 Washburn Road, Suite 104, San Antonio, TX 78238 210-509-3334  
 [ ] 11301 Washburn Road, Suite D, Dallas, TX 75229 972-481-9999

**ANALYSIS REQUEST & CHAIN OF CUSTODY RECORD**  
**On-Line Help & Technical Services at XENCO.com**

Company OOC No: 332 Work Order No:

, d812

Page 1 of 1

Company	XENCO		Phone	(210) 689-3767		Lab Only	9/9/2-8/		Lab Only Additions
Project Name	XENCO		Project ID	710046-1-28		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		
Location	11301 Washburn Road, Suite 104, San Antonio, TX 78238		Project Manager (PM)	M. Nunez		ADCH: PAH CO2/VE mg/LW. mg/kg's Highest Hit	Date	Rec'd by:	From:
Project Manager (PM)	S. R. O'Neil		Fax Results to	(210) 689-3763		SVOCs by 6270 625 PAHS BNBA TCL PPS See List Call PM	Date	Rec'd by:	From:
Invoked to	[ ] Accounting [ ] Purchase [ ] Final Report Attn PM		TPH by TX1005 416.1 8015GR0 8015DRO 8015Series			VOAs by 6260 624 BTEX MTBE PPS TCL See List Call PM	Date	Rec'd by:	From:
Specified PM's (P.M.)	[ ] Purchase [ ] Final Report [ ] Final Report PM		PAHS by 6270 8100 8310			METALS by 6210 BRCRA Total PB TCPB 13PP 23TAL See List Call PM	Date	Rec'd by:	From:
Invoked to	[ ] Accounting [ ] Purchase [ ] Final Report Attn PM		BTEX-MTBE by 8020 8021 8260 602 624 Other			PAHS by 6260 602 624 Other	Date	Rec'd by:	From:
Specified PM's (P.M.)	[ ] Purchase [ ] Final Report PM		TPH by TX1005 416.1 8015GR0 8015DRO 8015Series			TPH by TX1005 416.1 8015GR0 8015DRO 8015Series	Date	Rec'd by:	From:
Specifications			P.O. No.	<input checked="" type="checkbox"/> Call for a P.O.		Preservatives	Date	Rec'd by:	From:
Signature			Special Instructions			Type	Date	Rec'd by:	From:
Sampling Date			# Containers			Container Size	Date	Rec'd by:	From:
Sampling Date			Composite			Composite A P/S	Date	Rec'd by:	From:
Sampling Date			Media			Media A P/S	Date	Rec'd by:	From:
Sampling Date			Time			Time A P/S	Date	Rec'd by:	From:
Sampling Date			Sample ID			Sample ID A P/S	Date	Rec'd by:	From:
Sampling Date			Signature			Signature A P/S	Date	Rec'd by:	From:
Sampling Date			Relinquished to (Initials and Signature)			Relinquished to (Initials and Signature)	Date & Time	Total Containers per COC:	Rush TATs Fax Due:
Sampling Date			Lab:			Lab:	12/29/99 10:00	12/29/99	Final Repair Data Package Due Date:
Sampling Date			Spec. Lab:			Spec. Lab:	12/29/99 11:57	12/29/99	Rush Charges are Pre-Approved upon Requesting them. All Items Apply
Sampling Date			Preservatives			Preservatives			TYPE Glass Amb (GA), Glass Clear (GC), Plastic (P), Other (O)
Sampling Date			Spec. Lab:			Spec. Lab:			SITE: Acid (A), Base (B), Sulfate (32), Ammonium (32), NaOH Asbc Acid (NA), ZnAc, NaOH (ZA), (Cool,<4C) (C4), None (N), See Label (SL), Other (O)

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
ATTN: MR. JESSE TAYLOR  
P.O. BOX 4845  
MIDLAND, TEXAS 79704  
FAX: 915-520-4310

Sample Type: Water  
Sample Condition: Intact/ Iced/HCl  
Project #: TNM 97-23  
Project Name: None Given  
Project Location: Lea County, N.M.

Sampling Date: 08/23/99  
Receiving Date: 08/27/99  
Analysis Date: 08/27/99

ELT#	FIELD CODE	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYLBENZENE (mg/L)	m,p-XYLENE (mg/L)	o-XYLENE (mg/L)
19611	MW-1	<0.001	<0.001	<0.001	<0.001	<0.001
% IA		97	92	93	91	92
% EA		97	89	85	86	86
BLANK		<0.001	<0.001	<0.001	<0.001	<0.001

METHODS: EPA SW 846-8020,5030

Roland K. Tuttle  
Roland K. Tuttle

9-2-99  
Date

**Environmental Lab of Texas, Inc.** 12600 West I-20 East Odessa, Texas 79763  
 (915) 563-1800 FAX (915) 563-1713

Project Manager:		Phone #: (915) 664-9166	FAX #:	ANALYSIS REQUEST	
Company Name & Address:		TESSER TAPE LOR P.O. BOX 4845 MEDICAL TX 79704			
Project #:		Project Name: <i>Jan Deller</i>			
Project Location:		TOM 97-23 Lubbock County, NM			
		Sampler Signature: <i>Jan Deller</i>			
LAB # (LAB USE ONLY)	FIELD CODE	CONTAINERS		SAMPLING	TIME
		VOLUME/AMOUNT	MATRIX	PRESERVATIVE	METHOD
10/6/11	HW-1	2	V X	X X	8-23 1400 X
REMARKS /HAR RESULTS 10: Non-Detectable 1606 W. CALLE SUR APT B HOBBES NM 88240-0985					
Reliquished by: <i>Jan Deller</i>	Date: 20 Aug 95	Time: 0845	Received by:		
Reliquished by:	Date:	Time:	Received by:		
Reliquished by:	Date: 8/27/99	Time: 10:30	Received by Laboratory: <i>Craig Kline</i>		

000: 887

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ETGI  
ATTN: MR. JESSE TAYLOR  
P.O. BOX 4845  
MIDLAND, TEXAS 79704  
FAX: 505-392-3760(Ken Dutton)

Sample Type: Water  
Sample Condition: Intact/Iced/HCl  
Project #: EOT 1015C  
Project Name: TNM 97-23  
Project Location: Lea County, N.M.

Sampling Date: 11/04/99  
Receiving Date: 11/06/99  
Analysis Date: 11/06/99

ELT#	FIELD CODE	BENZENE mg/L	TOLUENE mg/L	ETHYLBENZENE mg/L	m,p-XYLENE mg/L	o-XYLENE mg/L
21394	MW-1	<0.001	<0.001	<0.001	<0.001	<0.001

% IA	105	101	102	103	102
% EA	103	98	98	99	98
BLANK	<0.001	<0.001	<0.001	<0.001	<0.001

METHODS: SW 846-8021,5030

Celey D. Keene

11/8/99



**ENVIRONMENTAL****FILE****LAB OF  , INC.***"Don't Treat Your Soil Like Dirt!"*

ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: MR. JESSE TAYLOR

P.O. BOX 4845

MIDLAND, TEXAS 79704

FAX: 505-392-3760

Sample Type: Water

Sampling Date: 01/13/00

Sample Condition: Intact/Iced/HCl

Receiving Date: 01/14/00

Project #: EOT1015C

Analysis Date: 01/18 &amp; 01/19/00

Project Name: TNM 97-23

Project Location: Lea County, N.M.

ELT#	FIELD CODE	BENZENE mg/L	TOLUENE mg/L	ETHYLBENZENE mg/L	m,p-XYLENE mg/L	o-XYLENE mg/L
22849	MW-1	<0.001	<0.001	<0.001	<0.001	<0.001

% IA	94	91	89	91	88
% EA	93	90	87	88	87
BLANK	<0.001	<0.001	<0.001	<0.001	<0.001

METHODS: EPA SW 846-8021B,5030

Raland K. Tuttle

Raland K. Tuttle

1-20-00

Date



# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

FILE

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
ATTN: MR. JESSE TAYLOR  
P.O. BOX 4845  
MIDLAND, TEXAS 79704  
FAX: 505-392-3760  
FAX: 915-520-4310

Sample Type: Water  
Sample Condition: Intact/Iced/HCl  
Project #: EOT1010R  
Project Name: TNM 97-23  
Project Location: Lea County, N.M.

Sampling Date: 02/25/00  
Receiving Date: 02/25/00  
Analysis Date: 02/28/00

ELT#	FIELD CODE	BENZENE mg/L	TOLUENE mg/L	ETHYLBENZENE mg/L	m,p-XYLENE mg/L	o-XYLENE mg/L
23786	MW-2	0.001	<0.001	<0.001	<0.001	<0.001
23787	MW-3	0.003	0.002	<0.001	<0.001	<0.001
23788	MW-4	0.012	0.007	0.001	0.004	0.001
23789	MW-5	0.001	<0.001	<0.001	<0.001	<0.001

% IA	99	96	92	97	95
% EA	97	94	90	91	90
BLANK	<0.001	<0.001	<0.001	<0.001	<0.001

METHODS: EPA SW 846-8021B,5030

Raland K. Tuttle  
Raland K. Tuttle

3-2-00  
Date

# ENVIRONMENTAL LAB OF TEXAS, INC.

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
ATTN: MR. JESSE TAYLOR  
P.O. BOX 4845  
MIDLAND, TEXAS 79704  
FAX: 505-392-3760  
FAX: 915-520-4310

Sample Type: Water  
Sample Condition: Intact/ Iced  
Project #: EOT 1010R  
Project Name: TNM 97-23  
Project Location: Lea County, N.M.

Sampling Date: 02/25/00  
Receiving Date: 02/25/00  
Analysis Date: See Below

ELT#	FIELD CODE	Sulfate mg/L	Chloride mg/L	Carbonate mg/L	Bicarbonate mg/L	TDS mg/L
23786	MW-2	480	319	0	205	1342
23787	MW-3	500	629	0	195	1841
23788	MW-4	822	2437	0	165	5657
23789	MW-5	492	399	0	215	1467

QUALITY CONTROL	56.4	5052	*	*	*
TRUE VALUE	50.0	5000	*	*	*
% PRECISION	113	101	*	*	*
ANALYSIS DATE	02/28/00	02/28/00	02/28/00	02/28/00	02/29/00

METHODS: EPA 375.4, 325.3, 310, 160.1

Raland K. Tuttle  
Raland K. Tuttle

3-2-00  
Date

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
ATTN: MR. JESSE TAYLOR  
P.O. BOX 4845  
MIDLAND, TEXAS 79704  
FAX: 505-392-3760  
FAX: 915-520-4310

Sample Type: Water  
Sample Condition: Intact/ Iced  
Project #: EOT 1010R  
Project Name: TNM 97-23  
Project Location: Lea County, N.M.  
Field Code: MW-2

Sampling Date: 02/25/00  
Receiving Date: 02/25/00  
Extraction Date: 02/29/00  
Analysis Date: 02/29/00

EPA SW846 8270 (mg/l)	REPORT LIMIT	ELT#	RPD	%EA	%IA
Naphthalene	0.005	ND			60
Acenaphthylene	0.005	ND			74
Acenaphthene	0.005	ND	11.27	75	80
Fluorene	0.005	ND			86
Phenanthrene	0.005	ND			82
Anthracene	0.005	ND			82
Fluoranthene	0.005	ND			82
Pyrene	0.005	ND	3.64	81	86
Benzo[a]anthracene	0.005	ND			86
Chrysene	0.005	ND			84
Benzo[b]fluoranthene	0.005	ND			62
Benzo[k]fluoranthene	0.005	ND			104
Benzo [a]pyrene	0.005	ND			84
Indeno[1,2,3-cd]pyrene	0.005	ND			76
Dibenz[a,h]anthracene	0.005	ND			90
Benzo[g,h,i]perylene	0.005	ND			94

#### % RECOVERY

Nitrobenzene-d5 SURR	72
2-Fluorobiphenyl SURR	91
Terphenyl-d14 SURR	82

ND= NOT DETECTED

Method: EPA SW 846 8270C , 3510

Raland K. Tuttle  
Raland K. Tuttle

3-2-00  
Date

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
 ATTN: MR. JESSE TAYLOR  
 P.O. BOX 4845  
 MIDLAND, TEXAS 79704  
 FAX: 505-392-3760  
 FAX: 915-520-4310

Sample Type: Water  
 Sample Condition: Intact/ Iced  
 Project #: EOT 1010R  
 Project Name: TNM 97-23  
 Project Location: Lea County, N.M.  
 Field Code: MW-3

Sampling Date: 02/25/00  
 Receiving Date: 02/25/00  
 Extraction Date: 02/29/00  
 Analysis Date: 02/29/00

EPA SW846 8270 (mg/l)	REPORT LIMIT	ELT#	RPD	%EA	%IA
Naphthalene	0.005	ND			60
Acenaphthylene	0.005	ND			74
Acenaphthene	0.005	ND	11.27	75	80
Fluorene	0.005	ND			86
Phenanthrene	0.005	ND			82
Anthracene	0.005	ND			82
Fluoranthene	0.005	ND			82
Pyrene	0.005	ND	3.64	81	86
Benzo[a]anthracene	0.005	ND			86
Chrysene	0.005	ND			84
Benzo[b]fluoranthene	0.005	ND			62
Benzo[k]fluoranthene	0.005	ND			104
Benzo [a]pyrene	0.005	ND			84
Indeno[1,2,3-cd]pyrene	0.005	ND			76
Dibenz[a,h]anthracene	0.005	ND			90
Benzo[g,h,i]perylene	0.005	ND			94

#### % RECOVERY

Nitrobenzene-d5 SURR	75
2-Fluorobiphenyl SURR	97
Terphenyl-d14 SURR	83

ND= NOT DETECTED

Method: EPA SW 846 8270C . 3510

Raland K. Tuttle  
 Raland K. Tuttle

3-2-00  
 Date

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
 ATTN: MR. JESSE TAYLOR  
 P.O. BOX 4845  
 MIDLAND, TEXAS 79704  
 FAX: 505-392-3760  
 FAX: 915-520-4310

Sample Type: Water  
 Sample Condition: Intact/ Iced  
 Project #: EOT 1010R  
 Project Name: TNM 97-23  
 Project Location: Lea County, N.M.  
 Field Code: MW-4

Sampling Date: 02/25/00  
 Receiving Date: 02/25/00  
 Extraction Date: 02/29/00  
 Analysis Date: 02/29/00

EPA SW846 8270 (mg/l)	REPORT LIMIT	ELT#	RPD	%EA	%IA
Naphthalene	0.005	ND			60
Acenaphthylene	0.005	ND			74
Acenaphthene	0.005	ND	11.27	75	80
Fluorene	0.005	ND			86
Phenanthrene	0.005	ND			82
Anthracene	0.005	ND			82
Fluoranthene	0.005	ND			82
Pyrene	0.005	ND	3.64	81	86
Benzo[a]anthracene	0.005	ND			86
Chrysene	0.005	ND			84
Benzo[b]fluoranthene	0.005	ND			62
Benzo[k]fluoranthene	0.005	ND			104
Benzo [a]pyrene	0.005	ND			84
Indeno[1,2,3-cd]pyrene	0.005	ND			76
Dibenz[a,h]anthracene	0.005	ND			90
Benzo[g,h,i]perylene	0.005	ND			94

#### % RECOVERY

Nitrobenzene-d5 SURR	75
2-Fluorobiphenyl SURR	95
Terphenyl-d14 SURR	82

ND= NOT DETECTED

Method: EPA SW 846 8270C . 3510

Raland K. Tuttle  
 Raland K. Tuttle

3-2-00  
 Date

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
 ATTN: MR. JESSE TAYLOR  
 P.O. BOX 4845  
 MIDLAND, TEXAS 79704  
 FAX: 505-392-3760  
 FAX: 915-520-4310

Sample Type: Water  
 Sample Condition: Intact/ Iced  
 Project #: EOT 1010R  
 Project Name: TNM 97-23  
 Project Location: Lea County, N.M.  
 Field Code: MW-5

Sampling Date: 02/25/00  
 Receiving Date: 02/25/00  
 Extraction Date: 02/29/00  
 Analysis Date: 02/29/00

EPA SW846 8270 (mg/l)	REPORT LIMIT	ELT# 23789	RPD	%EA	%IA
Naphthalene	0.005	ND			60
Acenaphthylene	0.005	ND			74
Acenaphthene	0.005	ND	11.27	75	80
Fluorene	0.005	ND			86
Phenanthrene	0.005	ND			82
Anthracene	0.005	ND			82
Fluoranthene	0.005	ND			82
Pyrene	0.005	ND	3.64	81	86
Benzo[a]anthracene	0.005	ND			86
Chrysene	0.005	ND			84
Benzo[b]fluoranthene	0.005	ND			62
Benzo[k]fluoranthene	0.005	ND			104
Benzo [a]pyrene	0.005	ND			84
Indeno[1,2,3-cd]pyrene	0.005	ND			76
Dibenz[a,h]anthracene	0.005	ND			90
Benzo[g,h,i]perylene	0.005	ND			94

#### % RECOVERY

Nitrobenzene-d5 SURR	71
2-Fluorobiphenyl SURR	89
Terphenyl-d14 SURR	71

ND= NOT DETECTED

Method: EPA SW 846 8270C , 3510

Raland K. Tuttle  
 Raland K. Tuttle

3-2-00  
 Date

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
 ATTN: MR. JESSE TAYLOR  
 P.O. BOX 4845  
 MIDLAND, TEXAS 79704  
 FAX: 505-392-3760  
 FAX: 915-520-4310

Sample Type: Water  
 Sample Condition: Intact/Iced/HNO<sub>3</sub>  
 Project #: EOT 1010R  
 Project Name: TNM 97-23  
 Project Location: Lea County, N.M.

Sample Date: 02/25/00  
 Receiving Date: 02/25/00  
 Analysis Date: 03/01/00

Analyte (mg/L)	MW-2 23786	MW-3 23787	MW-4 23788	MW-5 23789	Reporting Limit	%IA	%EA	BLANK	RPD
Aluminum	2.400	4.250	7.100	5.060	0.0500	98	98	<0.0500	0.46
Arsenic	0.0120	0.0140	0.0110	0.0150	0.0050	108	114	<0.0050	2.94
Barium	0.0640	0.1100	0.2370	0.1060	0.0100	90	95	<0.0100	1.01
Beryllium	ND	ND	ND	ND	0.0040	98	102	<0.0040	0.00
Cadmium	ND	ND	ND	ND	0.0010	92	94	<0.0010	0.00
Calcium	133.0	171.0	636.0	164.0	1.000	91	*	<1.000	1.48
Chromium	ND	0.0090	ND	0.0050	0.0050	95	98	<0.0050	1.02
Cobalt	ND	ND	ND	ND	0.0200	94	95	<0.0200	1.25
Copper	ND	ND	0.0100	ND	0.0100	93	101	<0.0100	1.18
Iron	1.600	2.810	5.310	3.500	0.0500	102	61	<0.0500	0.00
Lead	ND	ND	ND	ND	0.0030	92	96	<0.0030	0.00
Magnesium	75.30	89.40	367.0	89.80	1.000	90	*	<1.000	1.31
Manganese	0.0370	0.1370	0.1620	0.0810	0.0150	95	97	<0.0150	0.96
Mercury	ND	ND	ND	ND	0.00020	109	87	<0.00020	10.87
Molybdenum	ND	ND	ND	ND	0.050	100	102	<0.050	1.55
Nickel	ND	ND	0.0130	ND	0.0100	96	95	<0.0100	1.05
Potassium	13.90	17.90	45.10	16.00	1.000	80	*	<1.000	2.15
Selenium	0.0130	0.0170	0.0280	0.0180	0.0050	94	102	<0.0050	0.00
Silver	ND	ND	ND	ND	0.00500	90	98	<0.0050	0.00
Sodium	238.0	433.0	768.0	252.0	1.000	96	*	<1.000	6.53
Tin	ND	ND	0.0620	ND	0.0500	104	107	<0.0500	1.85
Vanadium	0.0630	0.0620	0.0470	0.0640	0.0200	93	98	<0.0200	1.26
Zinc	ND	0.0240	0.0290	0.0220	0.0200	103	99	<0.0200	1.40
Boron	0.587	0.612	0.517	0.639	0.050	92	104	<0.050	1.22
Strontium	3.57	4.71	15.7	4.18	0.050	102	101	<0.050	1.52

ND = Below Reporting Limit

METHOD: EPA SW846-6010B, 7470

Raland K. Tuttle  
 Raland K. Tuttle

3-2-00  
 Date



# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

FILE

ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: MR. JESSE TAYLOR  
P.O. BOX 4845  
MIDLAND, TEXAS 79704  
FAX: 915-520-4310

Page 1 of 2

Sample Type: Water  
Sample Condition: Intact/Iced  
Project #: None Given  
Project Name: TNM 97-23  
Project Location: Lea County  
Field Code: MW-4

Sampling Date: 03/17/00  
Receiving Date: 03/20/00  
Analysis Date: 03/22/00

Volatiles EPA SW 846-8260, (mg/L)  
Compounds

ELT# 24177 REPORTING LIMIT %DEV Method % EA

Chloromethane	ND	0.0020	19.2	ND	
Vinyl chloride	ND	0.0020	9.7	ND	
Bromomethane	ND	0.0020	6.6	ND	
Chloroethane	ND	0.0020	1.5	ND	
Trichlorofluoromethane	ND	0.0020	-8.0	ND	
Acetone	ND	0.0100	-19.8	ND	
1,1-Dichloroethene	ND	0.0020	-0.4	ND	110
Carbon Disulfide	ND	0.0020	-6.4	ND	
Methylene Chloride	ND	0.0050	2.3	ND	
trans-1,2-Dichloroethene	ND	0.0020	-1.6	ND	
1,1-Dichloroethane	ND	0.0020	-1.5	ND	
2-Butanone	ND	0.0100	-4.0	ND	
cis-1,2-dichloroethene	ND	0.0020	-1.9	ND	
Bromochloromethane	ND	0.0020	4.7	ND	
Chloroform	ND	0.0020	-4.2	ND	
1,1,1-Trichloroethane	ND	0.0020	-3.4	ND	
Carbon Tetrachloride	ND	0.00200	-5.8	ND	
Benzene	ND	0.0020	-8.6	ND	122
1,2 Dichloroethane	ND	0.0020	-9.5	ND	
Trichloroethene	ND	0.0020	-12.3	ND	120
1,2-Dichloropropane	ND	0.0020	-14.4	ND	
Dibromomethane	ND	0.0020	-14.7	ND	
Bromodichloromethane	ND	0.0020	-17.0	ND	
2-Hexanone	ND	0.0100	-21.6	ND	
4-Methyl 2-Pentanone	ND	0.0100	-18.4	ND	
cis 1,3 Dichloropropene	ND	0.0020	-7.3	ND	
Toluene	ND	0.0020	-9.9	ND	124
trans 1,3-Dichloropropene	ND	0.0020	-18.0	ND	
1,1,2-Trichloroethane	ND	0.0020	-4.4	ND	
Dibromochloromethane	ND	0.0020	-7.7	ND	

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: MR. JESSE TAYLOR  
P.O. BOX 4845  
MIDLAND, TEXAS 79704  
FAX: 915-520-4310

Page 2 of 2

Sample Type: Water  
Sample Condition: Intact/Iced  
Project #: None Given  
Project Name: TNM 97-23  
Project Location: Lea County  
Field Code: MW-4

FAX: 505-392-3760

Sampling Date: 03/17/00  
Receiving Date: 03/20/00  
Analysis Date: 03/22/00

Volatiles EPA SW 846-8260, (mg/L)  
Compounds

ELT#  
24177

REPORTING  
LIMIT

Method  
Blank

% EA

Tetrachloroethene	ND	0.0020	-8.2	ND	
Chlorobenzene	ND	0.0020	-3.7	ND	110
1,1,1,2-Tetrachloroethane	ND	0.0020	-9.7	ND	
Ethylbenzene	ND	0.0020	4.9	ND	
m&p Xylene	2.57	0.0020	5.7	ND	
o-Xylene	ND	0.0020	-5.5	ND	
Styrene	ND	0.0020	-2.1	ND	
Bromoform	ND	0.0020	-12.8	ND	
1,1,2,2-Tetrachloroethane	ND	0.0020	-8.5	ND	
1,2,3-Trichloropropane	ND	0.0020	-4.6	ND	
1,4-Dichlorobenzene	ND	0.0020	-7.0	ND	
1,2-Dichlorobenzene	ND	0.0020	-9.7	ND	
1,2-Dibromo-3-Chloropropane	ND	0.0100	-30.2	ND	

SYSTEM MONITORING COMPOUNDS	% RECOVERY	ND=<REPORTING LIMIT
Dibromofluoromethane	108	
Toluene-d8	92	
4-Bromofluorobenzene	94	
1,2-dichloroethane-d4	112	

Tentatively Identified Compound	EQL mg/L	Tentatively Identified Compound	EQL mg/L
methyl-cyclopentane	0.0034	methyl-cyclohexane	0.0050
Cyclohexane	0.0086		

Raland K. Tuttle

Raland K. Tuttle

4-7-00

Date

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

Pg 1 of 2

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
ATTN: MR. JESSE TAYLOR  
P.O. BOX 4845  
MIDLAND, TEXAS 79704  
FAX: 505-392-3760  
FAX: 915-520-4310

Sample Type: Water  
Sample Condition: Intact/ Iced  
Project #: None Given  
Project Name: TNM 97-23  
Project Location: Lea County, N.M.  
Field Code: MW-4

Sampling Date: 03/17/00  
Receiving Date: 03/20/00  
Analysis Date: 03/31/00

EPA SW846 8270 (mg/L)	REPORT LIMIT	ELT#	RPD	%EA	%DEV
Naphthalene	0.005	ND			4.5
Acenaphthylene	0.005	ND			4.2
Acenaphthene	0.005	ND	8	41	5.2
Fluorene	0.005	ND			5.7
Phenanthrene	0.005	ND			3.9
Anthracene	0.005	ND			1.1
Fluoranthene	0.005	ND			5.0
Pyrene	0.005	ND	2	34	8.6
Benzo[a]anthracene	0.005	ND			11.3
Chrysene	0.005	ND			13.2
Benzo[b]fluoranthene	0.005	ND			17.4
Benzo[k]fluoranthene	0.005	ND			12.9
Benzo [a]pyrene	0.005	ND			8.3
Indeno[1,2,3-cd]pyrene	0.005	ND			0.0
Dibenz[a,h]anthracene	0.005	ND			1.7
Benzo[g,h,i]perylene	0.005	ND			2.0

#### % RECOVERY

Nitrobenzene-d5 SURR	52
2-Fluorobiphenyl SURR	62
Terphenyl-d14 SURR	64

ND= not detected at reporting limit

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
ATTN: MR. JESSE TAYLOR  
P.O. BOX 4845  
MIDLAND, TEXAS 79704  
FAX: 505-392-3760  
FAX: 915-520-4310

Sample Type: Water  
Sample Condition: Intact/ Iced  
Project #: None Given  
Project Name: TNM 97-23  
Project Location: Lea County  
Field Code: MW-4

Sampling Date: 03/17/00  
Receiving Date: 03/20/00  
Analysis Date: 03/31/00  
ELT # 24177

Tentatively Identified Compounds	EQL mg/L
3-nit-1,2-benzenedicarboxylic acid	*

\* NOTE: Present but less than report limit.

EQL = estimated quantitation level

Method: EPA SW 846 8270C , 3510

Raland K. Tuttle  
Raland K. Tuttle

4-7-00  
Date

**Environmental Lab of Texas, Inc.** 12600 West I-20 East Odessa, Texas 79763  
 (915) 563-1800 FAX (915) 563-1713

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

109

Project Manager:	Jesse T. Kroll		Phone #: (915) 664-9166 FAX #: (915) 392-3060	ANALYSIS REQUEST			
Company Name & Address:	P.O. Box 9095 Midland TX 79708						
Project #:			TENM 97-23				
Project Location:			Sample Signature: <i>Jesse Kroll</i>				
LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	MATRIX	PRESERVATIVE	METHOD	SAMPLING	TIME
24177	WW 4	3 VL	X			X	3-17-1990
VOLUME/AMOUNT							
OTHER							
HNO3							
ICE							
NONE							
OTHER							
HCL							
SLUDGE							
AIR							
SOIL							
WATER							
# CONCENTRERS							
#							
REMARKS							
Relinquished by: <i>Jesse Kroll</i>	Date: 3-20-00	Times: 1500	Received by: <i>J. McMurtry</i>				
Relinquished by:	Date:	Times:	Received by:				
Relinquished by:	Date:	Times:	Received by Laboratory: <i>Invoce Enviro Test 10/Sm</i>				

**ENVIRONMENTAL  
LAB OF TEXAS, INC.**

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
 ATTN: MR. JESSE TAYLOR  
 P.O. BOX 4845  
 MIDLAND, TEXAS 79704  
 FAX: 915-520-4310  
 FAX: 505-392-3760

Sample Type: Water

Sample Condition: Intact/ Iced/HCl/ 56 deg. F

Project #: BOT 2010C

Project Name: TNM 97-23

Project Location: Lea County, N.M

Sampling Date: 05/18/00

Receiving Date: 05/22/00

Analysis Date: 05/27 & 05/28/00

ELT#	FIELD CODE	BENZENE mg/L	TOLUENE mg/L	ETHYLBENZENE mg/L	m,p-XYLENE mg/L	o-XYLENE mg/L
25942	MW 1	<0.001	<0.001	<0.001	<0.001	<0.001
25943	MW 2	<0.001	<0.001	<0.001	<0.001	<0.001
25944	MW 3	0.001	<0.001	<0.001	<0.001	<0.001
25945	MW 4	0.002	<0.001	<0.001	<0.001	<0.001
25946	MW 5	<0.001	<0.001	<0.001	0.002	<0.001
<hr/>						
% IA		97	94	95	102	94
% EA		94	91	93	98	91
BLANK		<0.001	<0.001	<0.001	<0.001	<0.001

METHODS: SW 846-8021B,5030

Roland K. Tuttle  
Roland K. Tuttle

5-30-00  
Date

# Environmental Lab of Texas, Inc. 12600 West 1-20 East Odessa, Texas 79763

(915) 563-1800 FAX (915) 563-1713

## CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Tesse Tice Phone #: (915) 392-8773 / C 0 C # 160

Company Name & Address: C&C FAX #: (915) 392-3760

Project #: LOT 2018 C

Project Location: 100 Box 4645 N.W. Ave TX 79740

Project Name: TRIP 92-23

Sample Site Number: -100

Project Start Date: 5/15/92

Project End Date: 5/15/92

Project Status: Completed

Project Description: Soil Contaminant

Sample Type: Soil

Sample Sub-Type: Soil

Sample Description: -100

Sample ID: 100

Sample Date: 5/15/92

Sample Time: 1400

Sample Method: Soil

Preservative: None

Matrix: Air

Other: HCl

Date: 5/15/92

Time: 1400

Sampling Method: Soil

Volume/Amount: 100 ml

Comments: None

Analyst: None

Date: 5/15/92

Time: 1400

Method: None

Comments: None

Analyst: None

Date: 5/15/92

Time: 1400

Method: None

Comments: None

Analyst: None

Date: 5/15/92

Time: 1400

Method: None

Comments: None

Analyst: None

Date: 5/15/92

Time: 1400

Method: None

Comments: None

Analyst: None

Date: 5/15/92

Time: 1400

Method: None

Comments: None

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: MR. JESSE TAYLOR

P.O. BOX 4845

MIDLAND, TEXAS 79704

FAX: 915-520-4310

FAX: 505-392-3760

Sample Type: Water

Sample Condition: Intact/ Iced/HCl/ 32 deg. F

Project #: EOT 2010C

Project Name: TNM 97-23

Project Location: Lea County, N.M.

Sampling Date: 06/06/00

Receiving Date: 06/10/00

Analysis Date: 06/12/00

ELTH#	FIELD CODE	BENZENE mg/L	TOLUENE mg/L	ETHYLBENZENE mg/L	m,p-XYLENE mg/L	<i>o</i> -XYLENE mg/L
26556	MW 1	<0.001	<0.001	<0.001	<0.001	<0.001
26557	MW 2	0.005	0.003	<0.001	0.001	<0.001
26558	MW 3	<0.001	<0.001	<0.001	<0.001	<0.001
26559	MW 4	0.022	0.014	0.003	0.007	0.002
26560	MW 5	0.002	0.001	<0.001	<0.001	<0.001

% IA	90	87	89	96	88
% EA	96	95	98	106	97
BLANK	<0.001	<0.001	<0.001	<0.001	<0.001

METHODS: SW 846-8021B,5030

Umesh Rao  
Umesh Rao, Ph. D.

6/14/00  
Date



**ENVIRONMENTAL  
LAB OF  , INC.**

**FILE****"Don't Treat Your Soil Like Dirt!"**

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
 ATTN: BETH ALDRICH  
 P.O. BOX 4845  
 MIDLAND, TEXAS 79704  
 FAX: 915-520-4310  
 FAX: 505-397-4701

Sample Type: Water

Sample Condition: Intact/ Iced/ HCl/ -1 deg. C

Project #: EOT 2010C

Project Name: TNM 97-23

Project Location: Lea County, N.M.

Sampling Date: 09/15/00

Receiving Date: 09/16/00

Analysis Date: 09/21/00

ELT#	FIELD CODE	BENZENE mg/L	TOLUENE mg/L	ETHYLBENZENE mg/L	m,p-XYLENE mg/L	o-XYLENE mg/L	TOTAL BTEX mg/L
31033	MW 1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
31034	MW 2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
31035	MW 3	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
31036	MW 4	0.018	0.008	<0.001	<0.001	<0.001	0.026
31037	MW 5	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
31038	EB 1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

% IA	98	96	95	96	90
% EA	92	90	91	92	86
BLANK	<0.001	<0.001	<0.001	<0.001	<0.001

METHODS: SW 846-8021B,5030

Roland K. Tuttle  
Roland K. Tuttle

9-25-00  
Date



# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
 ATTN: BETH ALDRICH  
 P.O. BOX 4845  
 MIDLAND, TEXAS 79704  
 FAX: 915-520-4310

Sample Type: Water  
 Sample Condition: Intact/ Iced/ HCl/ 0.5 deg. C  
 Project #: EOT 2010C  
 Project Name: TNM 97-23  
 Project Location: Lea County, N.M.

Sampling Date: 11/30/00  
 Receiving Date: 12/02/00  
 Analysis Date: 12/03/00

ELT#	FIELD CODE	BENZENE mg/L	TOLUENE mg/L	ETHYLBENZENE mg/L	m,p-XYLENE mg/L	<i>o</i> -XYLENE mg/L
34576	MW 1	<0.001	<0.001	<0.001	<0.001	<0.001
34577	MW 2	0.012	0.004	<0.001	0.002	<0.001

%IA	95	102	100	103	98
%EA	96	103	101	104	99
BLANK	<0.001	<0.001	<0.001	<0.001	<0.001

METHODS: EPA SW 846-8021B, 5030

Roland K. Tuttle  
Roland K. Tuttle

12-4-00  
Date

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
 ATTN: BETH ALDRICH  
 P.O. BOX 4845  
 MIDLAND, TEXAS 79704  
 FAX: 915-520-4310

Sample Type: Water  
 Sample Condition: Intact/ Iced/ HCl/ 0.5 deg. C  
 Project #: EOT 2010C  
 Project Name: TNM 97-23  
 Project Location: Lea County, N.M.

Sampling Date: 11/30/00  
 Receiving Date: 12/02/00  
 Analysis Date: 12/03/00

ELT#	FIELD CODE	BENZENE mg/L	TOLUENE mg/L	ETHYLBENZENE mg/L	m,p-XYLENE mg/L	<i>o</i> -XYLENE mg/L
34578	MW 3	<0.001	<0.001	<0.001	<0.001	<0.001
34579	MW 4	0.041	0.027	0.005	0.011	0.004
34580	MW 5	<0.001	<0.001	<0.001	<0.001	<0.001
34581	EB 1	<0.001	<0.001	<0.001	<0.001	<0.001

%IA	95	102	100	103	98
%EA	96	103	101	104	99
BLANK	<0.001	<0.001	<0.001	<0.001	<0.001

METHODS: EPA SW 846-8021B ,5030

Roland K. Tuttle  
 Roland K. Tuttle

12-4-00  
 Date



# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

**FILE**

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
 ATTN: MR. JESSE TAYLOR  
 P.O. BOX 4845  
 MIDLAND, TEXAS 79704  
 FAX: 520-4310  
 FAX: 505-397-4701

Sample Type: Water  
 Sample Condition: Intact/ Iced/ HCl/ 0.5 deg. C  
 Project #: EOT 2010C  
 Project Name: TNM 97-23  
 Project Location: Lea County, N.M.

Sampling Date: 03/16/01  
 Receiving Date: 03/26/01  
 Analysis Date: 03/28/01

ELT #	FIELD CODE	BENZENE mg/L	TOLUENE mg/L	ETHYLBENZENE mg/L	m,p-XYLENE mg/L	o-XYLENE mg/L
38497	MW 1	<0.001	<0.001	<0.001	<0.001	<0.001
38498	MW 2	0.002	<0.001	<0.001	<0.001	<0.001
38499	MW 3	0.002	<0.001	<0.001	<0.001	<0.001
38500	MW 4	0.023	0.013	0.002	0.005	0.001
38501	MW 5	<0.001	<0.001	<0.001	<0.001	<0.001
38502	EB 1	<0.001	<0.001	<0.001	<0.001	<0.001
%IA		86	89	94	99	94
%EA		86	88	92	97	93
BLANK		<0.001	<0.001	<0.001	<0.001	<0.001

METHODS: EPA SW 846-8021B ,5030

R. L. K. Tuttle  
 Roland K. Tuttle

3-30-01  
 Date



**FILE****Summary Report**

Ken Dutton  
ETGI  
2540 W. Marland  
Hobbs, NM

Report Date: June 14, 2001  
Order ID Number: A01060719

Project Number: EOT 2010C  
Project Name: TNM 97-23  
Project Location: Lea County NM

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
172811	MW-1	Water	6/4/01	11:15	6/7/01
172812	MW-2	Water	6/4/01	12:25	6/7/01
172813	MW-3	Water	6/4/01	11:35	6/7/01
172814	MW-4	Water	6/4/01	12:42	6/7/01
172815	MW-5	Water	6/4/01	12:00	6/7/01
172816	EB-1	Water	6/4/01	13:00	6/7/01

This report consists of a total of 1 page(s) and is intended only as a summary of results for the sample(s) listed above.

Sample - Field Code	BTEX					Total BTEX (mg/L)
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	M,P,O-Xylene (mg/L)		
172811 - MW-1	<0.005	0.0198	0.0197	0.0792		0.1187
172812 - MW-2	0.0091	<0.005	<0.005	<0.005		0.0091
172813 - MW-3	0.0085	<0.005	<0.005	<0.005		0.0085
172814 - MW-4	0.0149	0.0198	<0.005	<0.005		0.0347
172815 - MW-5	<0.005	<0.005	<0.005	<0.005		<0.005
172816 - EB-1	<0.005	<0.005	<0.005	<0.005		<0.005

# TRACEANALYSIS, INC.

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155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944  
E-Mail: lab@traceanalysis.com

## Analytical and Quality Control Report

Ken Dutton  
ETGI  
2540 W. Marland  
Hobbs, NM

Report Date: June 14, 2001  
Order ID Number: A01060719

Project Number: EOT 2010C  
Project Name: TNM 97-23  
Project Location: Lea County NM

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
172811	MW-1	Water	6/4/01	11:15	6/7/01
172812	MW-2	Water	6/4/01	12:25	6/7/01
172813	MW-3	Water	6/4/01	11:35	6/7/01
172814	MW-4	Water	6/4/01	12:42	6/7/01
172815	MW-5	Water	6/4/01	12:00	6/7/01
172816	EB-1	Water	6/4/01	13:00	6/7/01

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 6 pages and shall not be reproduced except in its entirety including the chain of custody (COC), without written approval of TraceAnalysis, Inc.



Dr. Blair Leftwich, Director

## Analytical Report

**Sample: 172811 - MW-1**

Analysis: BTEX      Analytical Method: S 8021B      QC Batch: QC11906      Date Analyzed: 6/11/01  
 Analyst: CG      Preparation Method: E 5030B      Prep Batch: PB10188      Date Prepared: 6/11/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.005	mg/L	5	0.001
Toluene		0.0198	mg/L	5	0.001
Ethylbenzene		0.0197	mg/L	5	0.001
M,P,O-Xylene		0.0792	mg/L	5	0.001
Total BTEX		0.1187	mg/L	5	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.503	mg/L	5	0.10	100	72 - 128
4-BFB		0.471	mg/L	5	0.10	94	72 - 128

**Sample: 172812 - MW-2**

Analysis: BTEX      Analytical Method: S 8021B      QC Batch: QC11906      Date Analyzed: 6/11/01  
 Analyst: CG      Preparation Method: E 5030B      Prep Batch: PB10188      Date Prepared: 6/11/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		0.0091	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		0.0091	mg/L	5	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.507	mg/L	5	0.10	101	72 - 128
4-BFB		0.468	mg/L	5	0.10	93	72 - 128

**Sample: 172813 - MW-3**

Analysis: BTEX      Analytical Method: S 8021B      QC Batch: QC11906      Date Analyzed: 6/11/01  
 Analyst: CG      Preparation Method: E 5030B      Prep Batch: PB10188      Date Prepared: 6/11/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		0.0085	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		0.0085	mg/L	5	0.001

*Continued ...*

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.497	mg/L	5	0.10	99	72 - 128
4-BFB		0.453	mg/L	5	0.10	90	72 - 128

**Sample: 172814 - MW-4**

Analysis: BTEX      Analytical Method: S 8021B      QC Batch: QC11906      Date Analyzed: 6/11/01  
 Analyst: CG      Preparation Method: E 5030B      Prep Batch: PB10188      Date Prepared: 6/11/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		0.0149	mg/L	5	0.001
Toluene		0.0198	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		0.0347	mg/L	5	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.496	mg/L	5	0.10	99	72 - 128
4-BFB		0.452	mg/L	5	0.10	90	72 - 128

**Sample: 172815 - MW-5**

Analysis: BTEX      Analytical Method: S 8021B      QC Batch: QC11906      Date Analyzed: 6/11/01  
 Analyst: CG      Preparation Method: E 5030B      Prep Batch: PB10188      Date Prepared: 6/11/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.005	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		<0.005	mg/L	5	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.498	mg/L	5	0.10	99	72 - 128
4-BFB		0.454	mg/L	5	0.10	90	72 - 128

**Sample: 172816 - EB-1**

Analysis: BTEX      Analytical Method: S 8021B      QC Batch: QC11906      Date Analyzed: 6/11/01  
 Analyst: CG      Preparation Method: E 5030B      Prep Batch: PB10188      Date Prepared: 6/11/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.005	mg/L	5	0.001
Toluene		<0.005	mg/L	5	0.001
Ethylbenzene		<0.005	mg/L	5	0.001

*Continued ...*

...Continued Sample: 172816 Analysis: BTEX

Param	Flag	Result	Units	Dilution	RDL
M,P,O-Xylene		<0.005	mg/L	5	0.001
Total BTEX		<0.005	mg/L	5	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.512	mg/L	5	0.10	102	72 - 128
4-BFB		0.463	mg/L	5	0.10	92	72 - 128

## Quality Control Report

### Method Blank

Method Blank

QCBatch: QC11906

Param	Flag	Results	Units	Reporting Limit
Benzene		<0.001	mg/L	0.001
Toluene		<0.001	mg/L	0.001
Ethylbenzene		<0.001	mg/L	0.001
M,P,O-Xylene		<0.001	mg/L	0.001
Total BTEX		<0.001	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0893	mg/L	1	0.10	89	72 - 128
4-BFB		0.0822	mg/L	1	0.10	82	72 - 128

## Quality Control Report

### Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes

QCBatch: QC11906

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
MTBE	0.104	0.106	mg/L	1	0.10	<0.001	104	1	80 - 120	20
Benzene	0.0972	0.0984	mg/L	1	0.10	<0.001	97	1	80 - 120	20
Toluene	0.0968	0.0985	mg/L	1	0.10	<0.001	96	1	80 - 120	20
Ethylbenzene	0.0981	0.0997	mg/L	1	0.10	<0.001	98	1	80 - 120	20
M,P,O-Xylene	0.299	0.304	mg/L	1	0.30	<0.001	99	1	80 - 120	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
TFT	0.101	0.103	mg/L	1	0.10	101	103	72 - 128
4-BFB	0.0985	0.0997	mg/L	1	0.10	98	99	72 - 128

## Quality Control Report

### Continuing Calibration Verification Standards

CCV (1)

QCBatch: QC11906

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0944	94	85 - 115	6/11/01
Benzene		mg/L	0.10	0.0878	87	85 - 115	6/11/01

*Continued ...*

*... Continued*

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Toluene		mg/L	0.10	0.0874	87	85 - 115	6/11/01
Ethylbenzene		mg/L	0.10	0.088	88	85 - 115	6/11/01
M,P,O-Xylene		mg/L	0.30	0.269	89	85 - 115	6/11/01

## CCV (2)      QCBatch: QC11906

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0911	91	85 - 115	6/11/01
Benzene		mg/L	0.10	0.0914	91	85 - 115	6/11/01
Toluene		mg/L	0.10	0.0906	90	85 - 115	6/11/01
Ethylbenzene		mg/L	0.10	0.0907	90	85 - 115	6/11/01
M,P,O-Xylene		mg/L	0.30	0.2758	91	85 - 115	6/11/01

## ICV (1)      QCBatch: QC11906

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.1	100	85 - 115	6/11/01
Benzene		mg/L	0.10	0.0966	96	85 - 115	6/11/01
Toluene		mg/L	0.10	0.0964	96	85 - 115	6/11/01
Ethylbenzene		mg/L	0.10	0.0975	97	85 - 115	6/11/01
M,P,O-Xylene		mg/L	0.30	0.297	99	85 - 115	6/11/01





# FILE

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(512) 444-5896 • FAX (512) 444-7766

**Client:** Environmental Tech Group  
**Attn:** Ken Dutton  
**Address:** 2540 W. Marland  
Hobbs  
**Phone:** 505 397-4882    **FAX:** 505 397-4701

## REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	µg/L	---	10/05/01	8260b	J	3.8	92	94.3	104.8	---
Benzene	<1	µg/L	1	<1	10/05/01	8260b	---	3	92.8	95	97
Ethylbenzene	<1	µg/L	1	<1	10/05/01	8260b	J	3.1	92.6	94.8	97
m,p-Xylenes	<1	µg/L	1	<1	10/05/01	8260b	---	3.3	93.8	96.3	97.6
o-Xylene	<1	µg/L	1	<1	10/05/01	8260b	---	3.9	87.7	90.5	100.4
Toluene	<1	µg/L	1	<1	10/05/01	8260b	---	---	---	---	---

## QUALITY ASSURANCE DATA<sup>1</sup>

Report#/Lab ID#: 120052	Report Date: 10/09/01
Project ID: TNM 97-23 ECT 2010C	
Sample Name: MW 1	
Sample Matrix: water	
Date Received: 10/02/2001	Time: 14:53
Date Sampled: 09/24/2001	Time: 13:00

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Respectfully Submitted,

*Richard Laster*  
Richard Laster

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B = Analyte detected in associated method blank(s). S1 =MS and/or MSD recovery exceed advisory limits. S2 =Post digestion spike (PDS) recovery exceeds advisory limit. S3 =MS and/or MSD and PDS recoveries exceed advisory limits. P =Precision higher than advisory limit. M =Matrix interference.

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(512) 444-5896 • FAX (512) 447-6666  
Report#Lab ID#: 120052  
Sample Matrix: water

Client: Environmental Tech Group  
Attn: Ken Dutton  
Project ID: TNM 97-23 EOT 2010C  
Sample Name: MW 1

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
2-Dichloroethane-d4	8260b	80.2	80-120	---
Toluene-d8	8260b	95	88-110	---

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

## Exceptions Report:

Report #/Lab ID#:120052 Matrix:water  
Client: Environmental Tech Group Attn: Ken Dutton  
Project ID: TNM 97-23 EOT 2010C  
Sample Name: MW 1

### Sample Temperature/Condition <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

### Sample Bottles & Preservation

- Sample received in appropriate container(s) and appear to be appropriately preserved.
- Sample received in appropriate container(s). State of sample preservation unknown.
- Sample received in inappropriate container(s) and/or with unknown state of preservation.

### J flag Discussion

A J flag data qualifier indicates (as required under TNRCC-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (eg. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

### Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
Benzene	J	See J-flag discussion above.
m,p-Xylenes	J	See J-flag discussion above.

Notes:



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**Client:** Environmental Tech Group  
**Attn:** Ken Dutton  
**Address:** 2540 W. Marland  
 Hobbs  
**Phone:** 505 397-4882    **FAX:** 505 397-4701

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Reco <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics 8260b/BTEX	---		---		10/05/01	8260b	---	---	---	---	---
Benzene	3.45	µg/L	1	<1	10/05/01	8260b	---	3.8	92	94.3	104.8
Ethylbenzene	<1	µg/L	1	<1	10/05/01	8260b	---	3	92.8	95	96.7
m,p-Xylenes	<1	µg/L	1	<1	10/05/01	8260b	---	3.1	92.6	94.8	96.7
o-Xylene	<1	µg/L	1	<1	10/05/01	8260b	---	3.3	93.8	96.3	97.6
Toluene	<1	µg/L	1	<1	10/05/01	8260b	J	3.9	87.7	90.5	100.4

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Respectfully Submitted,

*Richard Laster*  
Richard Laster

Report# / Lab ID#:	120053	Report Date:	10/09/01
Project ID#:	TNM 97-23 EOT 2010C		
Sample Name:	MW 2		
Sample Matrix:	water		
Date Received:	10/02/2001	Time:	14:53
Date Sampled:	09/24/2001	Time:	14:30

#### QUALITY ASSURANCE DATA<sup>1</sup>

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Reco <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics 8260b/BTEX	---		---		10/05/01	8260b	---	---	---	---	---
Benzene	3.45	µg/L	1	<1	10/05/01	8260b	---	3.8	92	94.3	104.8
Ethylbenzene	<1	µg/L	1	<1	10/05/01	8260b	---	3	92.8	95	96.7
m,p-Xylenes	<1	µg/L	1	<1	10/05/01	8260b	---	3.1	92.6	94.8	96.7
o-Xylene	<1	µg/L	1	<1	10/05/01	8260b	---	3.3	93.8	96.3	97.6
Toluene	<1	µg/L	1	<1	10/05/01	8260b	J	3.9	87.7	90.5	100.4

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Reco.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B = Analyte detected in associated method blank(s). S1 = MS and/or MSD recovery exceed advisory limits. S2 = Post digestion spike (PDS) recovery exceeds advisory limits. S3 =MS and/or MSD and PDS recoveries exceed advisory limits. P =Precision higher than advisory limit. M =Matrix interference.

Report#/Lab ID#: 129053

Sample Matrix: water

Project ID: TNNM97-23 EOT 2010C  
Sample Name: MW 2

Client: Environmental Tech Group  
Attn: Ken Dutton

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
2-Dichloroethane-d4	8260b	82.5	80-120	---
Toluene-d8	8260b	89.7	88-110	---

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

## Exceptions Report:

Report #/Lab ID#:120053	Matrix: water
Client: Environmental Tech Group	Attn: Ken Dutton
Project ID: TNM 97-23 ECT 2010C	
Sample Name: MW 2	

### Sample Temperature/Condition <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

### Sample Bottles & Preservation

- Sample received in appropriate container(s) and appear to be appropriately preserved.
- Sample received in appropriate container(s). State of sample preservation unknown.
- Sample received in inappropriate container(s) and/or with unknown state of preservation.

### J flag Discussion

A J flag data qualifier indicates (as required under TNRCC-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (eg. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

### Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
Toluene	J	See J-flag discussion above.

Notes:

**AnalySys Inc.**

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**Client:** Environmental Tech Group  
**Attn:** Ken Dutton  
**Address:** 2540 W. Marland  
 Hobbs  
**Phone:** 505 397-4882 **FAX:** 505 397-4701

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	µg/L	1	<1	10/05/01	8260b	---	---	92	94.3	104.8
Benzene	<1	µg/L	1	<1	10/05/01	8260b	---	3.8	92.8	95	104.8
Ethylbenzene	<1	µg/L	1	<1	10/05/01	8260b	---	3	92.6	94.8	104.8
m,p-Xylenes	<1	µg/L	1	<1	10/05/01	8260b	---	3.1	93.8	96.3	97.6
o-Xylene	<1	µg/L	1	<1	10/05/01	8260b	---	3.3	97.6	100.4	100.4
Toluene	<1	µg/L	1	<1	10/05/01	8260b	---	3.9	87.7	90.5	100.4

**QUALITY ASSURANCE DATA<sup>1</sup>**

Report#Lab ID#: 120054	Report Date: 10/09/01
Project ID: TNM 97-23 EOT 2010C	
Sample Name: MW 3	
Sample Matrix: water	
Date Received: 10/02/2001	Time: 14:53
Date Sampled: 09/24/2001	Time: 13:30

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*Richard Laster*  
Richard Laster

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2209 N. Padre Island Dr., Corpus Christi, TX 7840408

(512) 444-5396 • FAX (512) 444-5396

Report#/Lab ID#: 120054  
Sample Matrix: water

Client: Environmental Tech Group  
Attn: Ken Dutton

Project ID: TNM 97-23 EOT 2010C  
Sample Name: MW 3

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
2-Dichloroethane-d4	8260b	86.1	80-120	---
Toluene-d8	8260b	90.2	88-110	---

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

Client: Environmental Tech Group  
 Attn: Ken Dutton  
 Address: 2540 W. Marland Hobbs  
 Phone: 505 397-4882 FAX: 505 397-4701

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---		---		10/05/01	8260b	---	---	---	---	---
Benzene	26.9	µg/L	1	<1	10/05/01	8260b	---	3.8	92	94.3	104.8
Ethylbenzene	2.78	µg/L	1	<1	10/05/01	8260b	---	3	92.8	95	96.7
m,p-Xylenes	7.31	µg/L	1	<1	10/05/01	8260b	---	3.1	92.6	94.8	95.7
o-Xylene	2.67	µg/L	1	<1	10/05/01	8260b	---	3.3	93.8	96.3	97.6
Toluene	15.6	µg/L	1	<1	10/05/01	8260b	---	3.9	87.7	90.5	100.4

#### QUALITY ASSURANCE DATA<sup>1</sup>

Report# / Lab ID#:	120055	Report Date:	10/09/01
Project ID:	TNM 97-23 EOT 2010C		
Sample Name:	MW 4		
Sample Matrix:	water		
Date Received:	10/02/2001	Time:	14:53
Date Sampled:	09/24/2001	Time:	15:00

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Respectfully Submitted,

*Richard Laster*  
Richard Laster

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**Environmental Tech Group**

2209 N. Padre Island Dr., Corpus Christi, TX 78404-08  
(512) 444-5896 • FAX (512) 447-6666  
Report#Lab ID#: 120055  
Sample Matrix: water

Client: Environmental Tech Group  
Attn: Ken Dutton  
Project ID: TNM 97-23 EOT 2010C  
Sample Name: MW 4

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
,2-Dichloroethane-d4	8260b	89.9	80-120	---
Toluene-d8	8260b	88.8	88-110	---

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

**Client:** Environmental Tech Group  
**Attn:** Ken Dutton  
**Address:** 2540 W. Marland Hobbs  
**Phone:** 505 397-4882 **FAX:** 505 397-4701

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qua <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---		---		10/05/01	8260b	---	---	---	---	---
Benzene	<1	µg/L	1	<1	10/05/01	8260b	---	3.8	92	94.3	104.8
Ethylbenzene	<1	µg/L	1	<1	10/05/01	8260b	---	3	92.8	95	96.7
m,p-Xylenes	<1	µg/L	1	<1	10/05/01	8260b	---	3.1	92.6	94.8	104.8
o-Xylene	<1	µg/L	1	<1	10/05/01	8260b	---	3.3	93.8	96.3	97.6
Toluene	<1	µg/L	1	<1	10/05/01	8260b	---	3.9	87.7	90.5	100.4

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*Richard Laster*  
Richard Laster

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Report#/ <b>Lab ID#</b> : 120056	Report Date: 10/09/01
Project ID: TNM 97-23 EOT 2010C	
Sample Name: MW 5	
Sample Matrix: water	
Date Received: 10/02/2001	Time: 14:53
Date Sampled: 09/24/2001	Time: 14:00

**QUALITY ASSURANCE DATA<sup>1</sup>**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qua <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---		---		10/05/01	8260b	---	---	---	---	---
Benzene	<1	µg/L	1	<1	10/05/01	8260b	---	3.8	92	94.3	104.8
Ethylbenzene	<1	µg/L	1	<1	10/05/01	8260b	---	3	92.8	95	96.7
m,p-Xylenes	<1	µg/L	1	<1	10/05/01	8260b	---	3.1	92.6	94.8	104.8
o-Xylene	<1	µg/L	1	<1	10/05/01	8260b	---	3.3	93.8	96.3	97.6
Toluene	<1	µg/L	1	<1	10/05/01	8260b	---	3.9	87.7	90.5	100.4

Cient: Environmental Tech Group  
ttn: Ken Dutton  
Project ID: TNM 97-23 EOT 2010C  
Sample Name: MW 5

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
2-Dichloroethane-d4	8260b	90.1	80-120	---
oluene-d8	8260b	88.7	88-110	---

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



4221 Freidrich Lane, Suite 190, Austin, TX 78744 &  
 2209 N. Padre Island Dr., Corpus Christi, TX 78408  
 (512) 444-5896 • FAX (512) 444-7766

**Client:** Environmental Tech Group  
**Attn:** Ken Dutton  
**Address:** 2540 W. Marland Hobbs Nm 88240  
**Phone:** 505 397-4882 **FAX:** 505 397-4701

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	µg/L	---	10/05/01	8260b	---	---	---	---	---	---
Benzene	<1	µg/L	1	<1	10/05/01	8260b	---	3.8	92	94.3	104.8
Ethylbenzene	<1	µg/L	1	<1	10/05/01	8260b	---	3	92.8	95	104.8
m,p-Xylenes	<1	µg/L	1	<1	10/05/01	8260b	---	3.1	92.6	94.8	104.8
o-Xylene	<1	µg/L	1	<1	10/05/01	8260b	---	3.3	93.8	96.3	104.8
Toluene	<1	µg/L	1	<1	10/05/01	8260b	---	3.9	87.7	90.5	100.4

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Respectfully Submitted,

*Richard Laster*  
Richard Laster

Richard Laster

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Report#/Lab ID#: 120057	Report Date: 10/09/01
Project ID: TNM 97-23 EOT 2010C	
Sample Name: EB 1	
Sample Matrix: water	
Date Received: 10/02/2001	Time: 14:53
Date Sampled: 09/24/2001	Time: 15:20

#### QUALITY ASSURANCE DATA<sup>1</sup>

2209 N. Padre Island Dr., Corpus Christi, TX 7840408  
(512) 444-5896 • FAX (512) 447

Report#Lab ID#: 120057  
Sample Matrix: water

Project ID: TNM 97-23 EOT 2010C  
Sample Name: EB 1

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
2-Dichloroethane-d4	8260b	87.5	80-120	---
oluene-d8	8260b	91.7	88-110	---

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

## CHAIN-OF-CUSTODY

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 Phone/Fax (512) 472-4182 Fax(Fax#) (512) 477-4701

Bill to (if different):

Company Name ETGI  
 Address \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 ATTN: \_\_\_\_\_  
 Phone \_\_\_\_\_ Fax \_\_\_\_\_

Rush Status (must be confirmed with lab mgr.):  
 Project Name/PO#: TNM 92-23 Sampler: James Cason

Client Sample No., Description/Identification	Date Sampled	Time Sampled	No. of Containers	Soil	Water	Waste	Lab I.D. # (Lab only)	Comments
MW 1	9-24-01	13:00	2	X			120052 X	
MW 2		14:30	1				120053	
MW 3		13:30	1				120054	
MW 4		15:00	1				120055	
MW 5		14:00	1				120056 Y	
EB 1		15:20	1				120057 Y	

Analyses Requested (1)								
Please attach explanatory information as required								
1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18
19	20	21	22	23	24	25	26	27
28	29	30	31	32	33	34	35	36
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46	47	48	49	50	51	52	53	54
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64	65	66	67	68	69	70	71	72
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766	767	768	769	770	771	772	773	774
775	776	777	778	779	780	781	782	783
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802	803	804	805	806	807	808	809	800
801	802	803	804	805	806	807	808	809
800	801	802	803	804	805	806	807	808

Analyses Requested (1)								
Please attach explanatory information as required								
1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18
19	20	21	22	23	24	25	26	27
28	29	30	31	32	33	34	35	36
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85	86	87	88	89	80	81	82	83
84	85	86	87	88	89	80	81	82
83	84	85	86	87	88	89	80	81
82	83	84	85	86	87	88	89	80
81	82	83	84	85	86	87	88	89
80	81	82	83	84	85	86		

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 (512) 444-5896 • FAX (512) 447-4766

**Client:** Environmental Tech Group  
**Attn:** Matina Smith  
**Address:** 4600 W. Wall  
 Midland, TX 79703  
**Phone:** (915) 522-1139 **FAX:** (915) 520-4310

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	--		--		11/09/01	8260b	--	--	--	--	--
Benzene	<1	µg/L	1	<1	11/09/01	8260b	--	17.7	101.9	103.5	101.4
Ethylbenzene	<1	µg/L	1	<1	11/09/01	8260b	--	0.3	93	95.4	91.2
m,p-Xylenes	<1	µg/L	1	<1	11/09/01	8260b	--	0.3	96.4	98.7	95
o-Xylene	<1	µg/L	1	<1	11/09/01	8260b	--	0.2	96.6	98.4	95.7
Toluene	<1	µg/L	1	<1	11/09/01	8260b	--	17.4	108.6	110.8	109.8

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*Richard Laster*  
Richard Laster

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Report#/ <b>Lab ID#:</b> 121915	<b>Report Date:</b> 11/15/01
Project ID:	TNM 97-23 EOT 2010C
Sample Name:	MW 1
Sample Matrix:	water
Date Received:	11/02/2001
Date Sampled:	10/30/2001
Time:	09:30
Time:	10:00

**Orbil Sys**

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2209 N. Padre Island Dr., Corpus Christi, TX 7840408  
(512) 444-5896 • FAX (512) 447-4766

Client: Environmental Tech Group  
Attn: Matina Smith

Project ID: TNM 97-23 EOT 2010C  
Sample Name: MW 1

Report# /Lab ID#: 121915  
Sample Matrix: water

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	99.3	80-120	---
Toluene-d8	8260b	91.3	88-110	---

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

**AnalySys**

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2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 444-5896 • FAX (512) 447-4766

Client: Environmental Tech Group  
Attn: Matina Smith  
Address: 4600 W. Wall  
Midland, TX 79703  
  
Phone: (915) 522-1139 FAX: (915) 520-4310

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	---	---		11/09/01	8260b	---	---	---	---	---
Benzene	1.91	µg/L	1	<1	11/09/01	8260b	---	17.7	101.9	103.5	101.4
Ethylbenzene	<1	µg/L	1	<1	11/09/01	8260b	---	0.3	93	95.4	91.2
m,p-Xylenes	<1	µg/L	1	<1	11/09/01	8260b	J	0.3	96.4	98.7	95
o-Xylene	<1	µg/L	1	<1	11/09/01	8260b	---	0.2	96.6	98.4	95.7
Toluene	<1	µg/L	1	<1	11/09/01	8260b	---	17.4	108.6	110.8	109.8

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Respectfully Submitted,

*Richard Laster*  
Richard Laster

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote US EPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B = Analyte detected in associated method blank(s). S1 =MS and/or MSD recovery exceed advisory limits. S2 =Post digestion spike (PDS) recovery exceeds advisory limit. S3 =MS and/or MSD and PDS recoveries exceed advisory limits. P =Precision higher than advisory limit. M =Matrix interference.



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Client: Environmental Tech Group  
Attn: Matina Smith

Project ID: TNM 97-23 EOT 2010C  
Sample Name: MW 2

Report# / Lab ID#: 121916  
Sample Matrix: water

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	87.8	80-120	---
Toluene-d8	8260b	92.9	88-110	---

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

## Exception Report:

Report #/Lab ID#: 121916 Matrix: water  
Client: Environmental Tech Group Attn: Matina Smith  
Project ID: TNM 97-23 EOT 2010C  
Sample Name: MW 2

### Sample Temperature/Condition <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

### Sample Bottles & Preservation

- Sample received in appropriate container(s) and appear to be appropriately preserved.
- Sample received in appropriate container(s). State of sample preservation unknown.
- Sample received in inappropriate container(s) and/or with unknown state of preservation.

### J flag Discussion

A J flag data qualifier indicates (as required under TNRCC-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (eg. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

### Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
m,p-Xylenes	J	See J-flag discussion above.

Notes:



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**Client:** Environmental Tech Group  
**Attn:** Matina Smith  
**Address:** 4600 W. Wall  
 Midland,  
 TX 79703  
**Phone:** (915) 522-1139    **FAX:** (915) 520-4310

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method	Data Qual <sup>6</sup>	Prec. <sup>7</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	--		--		11/09/01	8260b	--	--	--	--	--
Benzene	<1	µg/L	1	<1	11/09/01	8260b	--	17.7	101.9	103.5	101.4
Ethylbenzene	<1	µg/L	1	<1	11/09/01	8260b	--	0.3	93	95.4	91.2
m,p-Xylenes	<1	µg/L	1	<1	11/09/01	8260b	--	0.3	96.4	98.7	95
o-Xylene	<1	µg/L	1	<1	11/09/01	8260b	--	0.2	96.6	98.4	95.7
Volume	<1	µg/L	1	<1	11/09/01	8260b	--	17.4	108.6	110.8	109.8

#### QUALITY ASSURANCE DATA<sup>1</sup>

Report#/ <b>Lab ID#:</b> 121917	Report Date: 11/15/01
Project ID: TNM 97-23 EOT 2010C	
Sample Name: MW 3	
Sample Matrix: water	
Date Received: 11/02/2001	Time: 09:30
Date Sampled: 10/30/2001	Time: 10:15

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Respectfully Submitted,

*Richard Laster*  
Richard Laster

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Client: Environmental Tech Group  
Attn: Matina Smith

Project ID: TNM 97-23 EOT 2010C  
Sample Name: MW 3

Report# / Lab ID#: 121917  
Sample Matrix: water

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	97.6	80-120	---
Tohene-d8	8260b	88.3	88-110	---

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

**Client:** Environmental Tech Group  
**Attn:** Mariana Smith  
**Address:** 4600 W. Wall  
 Midland, TX 79703  
**Phone:** (915) 522-1139 **FAX:** (915) 520-4310

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	--	µg/L	--	<1	11/09/01	8260b	--	--	--	--	--
Benzene	17.6	µg/L	1	<1	11/09/01	8260b	--	17.7	101.9	103.5	101.4
Ethylbenzene	1.2	µg/L	1	<1	11/09/01	8260b	--	0.3	93	95.4	91.2
m,p-Xylenes	3.65	µg/L	1	<1	11/09/01	8260b	--	0.3	96.4	98.7	95
o-Xylene	1.42	µg/L	1	<1	11/09/01	8260b	--	0.2	96.6	98.4	95.7
Toluene	10.6	µg/L	1	<1	11/09/01	8260b	--	17.4	108.6	110.8	109.8

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Respectfully Submitted,

*Richard Laster*  
Richard Laster

Richard Laster

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Report# / Lab ID#:	121918	Report Date:	11/15/01
Project ID:	TNM 97-23 EOT 2010C		
Sample Name:	MW 4		
Sample Matrix:	water		
Date Received:	11/02/2001	Time:	09:30
Date Sampled:	10/30/2001	Time:	11:00

**QUALITY ASSURANCE DATA<sup>1</sup>**

**CHILLYS INC.**

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Client: Environmental Tech Group  
Attn: Matina Smith

Project ID: TNM 97-23 EOT 2010C  
Sample Name: MW 4

Report# /Lab ID#: 121918  
Sample Matrix: water

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	107	80-120	---
Toluene-d8	8260b	90.6	88-110	---

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

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Analysys Inc.

Client: Environmental Tech Group  
Attn: Maitra Smith  
Address: 4600 W. Wall  
Midland, TX 79703  
Phone: (915) 522-1139 FAX: (915) 520-4310

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	---	---	<1	11/09/01	8260b	---	---	---	---	---
Benzene	<1	µg/L	1	<1	11/09/01	8260b	---	17.7	101.9	103.5	101.4
Ethylbenzene	<1	µg/L	1	<1	11/09/01	8260b	---	0.3	93	95.4	91.2
m,p-Xylenes	<1	µg/L	1	<1	11/09/01	8260b	---	0.3	96.4	98.7	95
o-Xylene	<1	µg/L	1	<1	11/09/01	8260b	---	0.2	96.6	98.4	95.7
Toluene	<1	µg/L	1	<1	11/09/01	8260b	---	17.4	108.6	110.8	109.8

#### QUALITY ASSURANCE DATA<sup>1</sup>

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Respectfully Submitted,

*Richard Laster*

Richard Laster

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**Analysys**  
inC.

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(512) 444-5896 • FAX (512) 447-4766

Client: Environmental Tech Group  
Attn: Matina Smith

Project ID: TNM 97-23 EOT 2010C  
Sample Name: MW 5

Report# /Lab ID#: 121919  
Sample Matrix: water

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	97.8	80-120	--
Toluene-d8	8260b	90.1	88-110	--

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

**Client:** Environmental Tech Group  
**Attn:** Matina Smith  
**Address:** 4600 W. Wall  
Midland,  
TX 79703  
**Phone:** (915) 522-1139    **FAX:** (915) 520-4310

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	---	---	---	11/09/01	8260b	---	---	---	---	---
Benzene	<1	µg/L	1	<1	11/09/01	8260b	---	17.7	101.9	103.5	101.4
Ethylbenzene	<1	µg/L	1	<1	11/09/01	8260b	---	0.3	93	95.4	91.2
m,p-Xylenes	<1	µg/L	1	<1	11/09/01	8260b	---	0.3	96.4	98.7	95
o-Xylene	<1	µg/L	1	<1	11/09/01	8260b	---	0.2	96.6	98.4	95.7
Toluene	<1	µg/L	1	<1	11/09/01	8260b	---	17.4	108.6	110.8	109.8

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Respectfully Submitted,

*Richard Laster*

Richard Laster

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**Analysys**

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(512) 444-5896 • FAX (512) 447-4766

Client: Environmental Tech Group  
Attn: Matina Smith

Project ID: TNM 97-23 EOT 2010C  
Sample Name: EB 1

Report#/Lab ID#: 121920  
Sample Matrix: water

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	108	80-120	---
Toluene-d8	8260b	89.3	88-110	---

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



**Analytical Services**

# FILE

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**Client:** Environmental Tech Group  
**Attn:** Matina Smith  
**Address:** 4600 W. Wall  
           Midland, TX 79703  
**Phone:** (915) 522-1139   **FAX:** (915) 520-4310

## REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	µg/L	---	<1	02/01/02	8260b	---	---	---	---	---
Benzene	<1	µg/L	1	<1	02/01/02	8260b	---	0.6	108.1	115	96.6
Ethylbenzene	<1	µg/L	1	<1	02/01/02	8260b	---	0.4	102.9	106.8	101
m,p-Xylenes	<1	µg/L	1	<1	02/01/02	8260b	---	1.5	113.9	117.9	111.1
o-Xylene	<1	µg/L	1	<1	02/01/02	8260b	---	2	102.5	106.6	100
Toluene	<1	µg/L	1	<1	02/01/02	8260b	---	0.7	98.5	111	83.8

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Respectfully Submitted,

*Richard Lasier*  
Richard Lasier

Richard Lasier

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**Control Systems Inc.**

4221 Friedrich Lane, Suite 190, Austin, TX 78744 &  
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(512) 444-5896 • FAX (512) 447-4766

**Client:** Environmental Tech Group  
**Attn:** Matina Smith

**Project ID:** TNM 97-23 EOT 2010C  
**Sample Name:** MW 1

**Report# / Lab ID#:** 123528  
**Sample Matrix:** water

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	85.9	80-120	---
Toluene-d8	8260b	101	88-110	---

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

**AnalySys**  
inc.

**Client:** Environmental Tech Group  
**Attn:** Matina Smith  
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 TX 79703  
**Phone:** (915) 522-1139    **FAX:** (915) 520-4310

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	µg/L	---	<1	02/01/02	8260b	---	---	---	---	---
Benzene	3.79	µg/L	1	<1	02/01/02	8260b	---	0.6	108.1	115	96.6
Ethylbenzene	<1	µg/L	1	<1	02/01/02	8260b	---	0.4	102.9	106.8	101
m,p-Xylenes	<1	µg/L	1	<1	02/01/02	8260b	---	1.5	113.9	117.9	111.1
o-Xylene	<1	µg/L	1	<1	02/01/02	8260b	---	2	102.5	106.6	100
Toluene	<1	µg/L	1	<1	02/01/02	8260b	J	0.7	98.5	111	83.8

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Richard Laster

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Report#/Lab ID#: 125229	Report Date: 02/05/02
Project ID: TNM 97-23 EOT 2010C	
Sample Name: MW 2	
Sample Matrix: water	
Date Received: 02/01/2002	Time: 10:18
Date Sampled: 01/28/2002	Time: 15:45

**AnalysYS**  
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Report# / Lab ID#: 125229  
Sample Matrix: water

Project ID: TNM 97-23 EOT 2010C  
Sample Name: MW 2

Client: Environmental Tech Group  
Attn: Matina Smith

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	84.6	80-120	---
Toluene-d8	8260b	103	88-110	---

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

## Exceptions Report:

Report #/Lab ID#: 125229	Matrix: water	Attn: Matina Smith
Client: Environmental Tech Group		
Project ID: TNM 97-23 EOT 2010C		
Sample Name: MW 2		

### Sample Temperature/Condition <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

### Sample Bottles & Preservation

- Sample received in appropriate container(s) and appear to be appropriately preserved.
- Sample received in appropriate container(s). State of sample preservation unknown.
- Sample received in inappropriate container(s) and/or with unknown state of preservation.

### J flag Discussion

A J flag data qualifier indicates (as required under TNRCC-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (eg. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

### Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualifier	Comment
Toluene	J	See J-flag discussion above.

Notes:

[Large blank area for notes]

**AnalySys Inc.**

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2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 444-5896 • FAX (512) 447-4766

Client: Environmental Tech Group  
Attn: Matina Smith  
Address: 4600 W. Wall  
Midland,  
TX 79703  
Phone: (915) 522-1139 FAX: (915) 520-4310

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	µg/L	---	<1	02/01/02	8260b	J	0.6	108.1	115	96.6
Benzene	<1	µg/L	1	<1	02/01/02	8260b	---	0.4	102.9	106.8	101
Ethylbenzene	<1	µg/L	1	<1	02/01/02	8260b	---	1.5	113.9	117.9	111.1
m,p-Xylenes	<1	µg/L	1	<1	02/01/02	8260b	---	2	102.5	106.6	100
o-Xylene	<1	µg/L	1	<1	02/01/02	8260b	---	0.7	98.5	111	83.8
Toluene	<1	µg/L	1	<1	02/01/02	8260b	---				

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Respectfully Submitted,

*Richard Laster*  
Richard Laster

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**Analys** Inc.

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(512) 444-5896 • FAX (512) 447-4766

Client: Environmental Tech Group  
Attn: Matina Smith

Project ID: TNM 97-23 EOT 2010C  
Sample Name: MW 3

Report#/Lab ID#: 125230  
Sample Matrix: water

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	101	80-120	---
Toluene-d8	8260b	101	88-110	---

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

## Exceptions Report:

Report #/Lab ID#: 125230 Matrix: water  
Client: Environmental Tech Group Attn: Marina Smith  
Project ID: TNM 97-23 EOT 2010C  
Sample Name: MW 3

### Sample Temperature/Condition <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

### Sample Bottles & Preservation

- Sample received in appropriate container(s) and appear to be appropriately preserved.
- Sample received in appropriate container(s). State of sample preservation unknown.
- Sample received in inappropriate container(s) and/or with unknown state of preservation.

### J flag Discussion

A J flag data qualifier indicates (as required under TNRCC-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (e.g. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

### Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
Benzene	J	See J-flag discussion above.

Notes:

# AnalySys<sup>inc.</sup>

Client: Environmental Tech Group  
Attn: Matina Smith  
Address: 4600 W. Wall  
Midland, TX 79703  
Phone: (915) 522-1139 FAX: (915) 520-4310

## REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	µg/L	---	<1	02/01/02	8260b	---	---	---	---	---
Benzene	<1	µg/L	1	<1	02/01/02	8260b	---	0.6	108.1	115	96.6
Ethylbenzene	<1	µg/L	1	<1	02/01/02	8260b	---	0.4	102.9	106.8	101
m,p-Xylenes	<1	µg/L	1	<1	02/01/02	8260b	---	1.5	113.9	117.9	111.1
o-Xylene	<1	µg/L	1	<1	02/01/02	8260b	---	2	102.5	106.6	100
Toluene	<1	µg/L	1	<1	02/01/02	8260b	---	0.7	98.5	111	83.8

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Respectfully Submitted,

*Richard Laster*  
Richard Laster

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**Onalysys**

Client: Environmental Tech Group  
Attn: Matina Smith

Project ID: TNM97-23 EOT 2010C  
Sample Name: MW 5

Report# /Lab ID#: 125231  
Sample Matrix: water

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	89.4	80-120	---
Toluene-d8	8260b	98.6	88-110	---

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

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**AnalySys**  
Inc.

Client: Environmental Tech Group  
 Attn: Marina Smith  
 Address: 4600 W. Wall  
 Midland, TX 79703  
 Phone: (915) 522-1139 FAX: (915) 520-4310

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-82260b/BTEX	---	µg/L	---	<1	02/01/02	82260b	---	---	---	---	---
Benzene	<1	µg/L	1	<1	02/01/02	82260b	---	0.6	108.1	115	96.6
Ethylbenzene	<1	µg/L	1	<1	02/01/02	82260b	---	0.4	102.9	106.8	101
m,p-Xylenes	<1	µg/L	1	<1	02/01/02	82260b	---	1.5	113.9	117.9	111.1
o-Xylene	<1	µg/L	1	<1	02/01/02	82260b	---	2	102.5	106.6	100
Toluene	<1	µg/L	1	<1	02/01/02	82260b	---	0.7	98.5	111	83.8

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Respectfully Submitted,

*Richard Laster*  
Richard Laster

Richard Laster

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# EnviroSIS Inc.

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2209 N. Padre Island Dr., Corpus Christi, TX 78404-088  
(512) 444-5896 • FAX (512) 447-4766

Client: Environmental Tech Group  
Attn: Matina Smith

Project ID: TNM 97-23 EOT 2010C  
Sample Name: EB 1

Report#/Lab ID#: 125232  
Sample Matrix: water

## REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	94.3	80-120	---
Toluene-d8	8260b	101	88-110	---

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



<b>Client:</b>	Environmental Tech Group
<b>Attn:</b>	Ken Dutton
<b>Address:</b>	2540 W. Marland Hobbs,
<b>Phone:</b>	505 397-4882
<b>FAX:</b>	505 397-4701

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method 6	Data Qual 7	Prec. 2	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	µg/L	---	06/01/02	8260b	---	---	---	---	---	---
Benzene	<1	µg/L	1	<1	06/01/02	8260b	---	3.4	89.5	93.7	90.6
Ethylbenzene	<1	µg/L	1	<1	06/01/02	8260b	---	1.2	99.3	99.1	100
m,p-Xylenes	<1	µg/L	1	<1	06/01/02	8260b	---	2.4	98.8	99.9	100
o-Xylene	<1	µg/L	1	<1	06/01/02	8260b	---	1.9	99	98.9	99.2
Toluene	<1	µg/L	1	<1	06/01/02	8260b	---	4.4	92.6	95.8	94.6

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Respectfully Submitted,

*Richard Laster*  
Richard Laster

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**Final Syntec**

4221 Friedrich Lane, Suite 190, Austin, TX 78751 &  
2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 444-5896 • FAX (512) 447-4766

**Client:** Environmental Tech Group  
**Attn:** Ken Dutton

**Project ID:** TNM-97-23 EOT 2010C  
**Sample Name:** MW 1

**Report# / Lab ID#:** 130180  
**Sample Matrix:** water

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	91.8	80-120	---
Toluene-d8	8260b	101	88-110	---

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



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**Client:** Environmental Tech Group  
**Attn:** Ken Dutton  
**Address:** 2540 W. Marland  
 Hobbs,  
**Phone:** 505 397-4882      **FAX:** 505 397-4701

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	µg/L	---	<1	06/01/02	8260b	---	---	---	---	---
Benzene	5.81	µg/L	1	<1	06/01/02	8260b	---	3.4	89.5	93.7	90.6
Ethylbenzene	<1	µg/L	1	<1	06/01/02	8260b	---	1.2	99.3	99.1	100
m,p-Xylenes	1.25	µg/L	1	<1	06/01/02	8260b	---	2.4	98.8	99.9	100
o-Xylene	<1	µg/L	1	<1	06/01/02	8260b	J	1.9	99	98.9	99.2
Toluene	1.39	µg/L	1	<1	06/01/02	8260b	---	4.4	92.6	95.8	94.6

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Respectfully Submitted,

*Richard Laster*  
Richard Laster

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**Chemical Sciences Inc.**

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(512) 444-5896 • FAX (512) 447-4766

**Client:** Environmental Tech Group  
**Attn:** Ken Dutton

**Project ID:** TNM-97-23 EOT 2010C  
**Sample Name:** MW 2

**Report#**/Lab ID#: 130181  
**Sample Matrix:** water

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	102	80-120	---
Toluene-d8	8260b	102	88-110	---

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

## Exceptions Report:

Report #/Lab ID#: 130181	Matrix: water
Client: Environmental Tech Group	Attn: Ken Dutton
Project ID: TNM-97-23 EOT 2010C	
Sample Name: MW 2	

### Sample Temperature Condition <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

### Sample Bottles & Preservation

- Sample received in appropriate container(s) and appear to be appropriately preserved.
- Sample received in appropriate container(s). State of sample preservation unknown.
- Sample received in inappropriate container(s) and/or with unknown state of preservation.

### J flag Discussion

A J flag data qualifier indicates (as required under TNRCC-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (eg. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

### Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
o-Xylene	J	See J-flag discussion above.

Notes: \_\_\_\_\_



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 2269 N. Padre Island Dr., Corpus Christi, TX 78408  
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**Client:** Environmental Tech Group  
**Attn:** Ken Dutton  
**Address:** 2540 W. Marland  
 Hobbs,  
**Phone:** 505 397-4882      **FAX:** 505 397-4701

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---		---		06/01/02	8260b	---	---	---	---	---
Benzene	<1	µg/L	1	<1	06/01/02	8260b	---	3.4	89.5	93.7	90.6
Ethylbenzene	<1	µg/L	1	<1	06/01/02	8260b	---	1.2	99.3	99.1	100
m,p-Xylenes	<1	µg/L	1	<1	06/01/02	8260b	---	2.4	98.8	99.9	100
o-Xylene	<1	µg/L	1	<1	06/01/02	8260b	---	1.9	99	98.9	99.2
Toluene	<1	µg/L	1	<1	06/01/02	8260b	---	4.4	92.6	95.8	94.6

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Respectfully Submitted,

*Richard Laster*  
Richard Laster

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**Final Syntec**

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(512) 444-5896 • FAX (512) 447-4766

Client: Environmental Tech Group  
Attn: Ken Dutton

Project ID: TNM-97-23 EOT 2010C  
Sample Name: MW 3

Report# /Lab ID#: 130182  
Sample Matrix: water

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	94.4	80-120	---
Toluene-d8	8260b	101	88-110	---

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

**AnalySys Inc.**

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Client: Environmental Tech Group  
Attn: Ken Dutton  
Address: 2540 W. Marland  
Hobbs,  
Phone: 505 397-4882 FAX: 505 397-4701

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>
Volatile organics-8260b/BTEX	---		---		06/01/02	8260b
Benzene	<1	µg/L	1	<1	06/01/02	8260b
Ethylbenzene	<1	µg/L	1	<1	06/01/02	8260b
m,p-Xylenes	<1	µg/L	1	<1	06/01/02	8260b
o-Xylene	<1	µg/L	1	<1	06/01/02	8260b
Toluene	<1	µg/L	1	<1	06/01/02	8260b

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Respectfully Submitted,

*Richard Laster*

Richard Laster

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Report#	Lab ID#: 130183	Report Date:	06/04/02
Project ID:	TNM-97-23 EOT 2010C		
Sample Name:	MW 5		
Sample Matrix:	water		
Date Received:	05/31/2002	Time:	09:40
Date Sampled:	05/21/2002	Time:	16:00

**QUALITY ASSURANCE DATA<sup>1</sup>**

	Data	Qual	Prec.	Recov.	CCV <sup>4</sup>	LCS <sup>4</sup>
	---	---	---	---	---	---
	---	---	---	---	---	---
	---	---	---	---	---	---
	---	---	---	---	---	---

**Environmental Sciences Inc.**

4221 Freidrich Lane, Suite 190, Austin, TX 78744  
2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 444-5896 • FAX (512) 447-4766

Client: Environmental Tech Group  
Attn: Ken Dutton

Project ID: TNM-97-23 EOT 2010C  
Sample Name: MW 5

Report# /Lab ID#: 130183  
Sample Matrix: water

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	105	80-120	---
Toluene-d8	8260b	103	88-110	---

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

**ANALYSYS INC.**

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2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 444-5896 • FAX (512) 447-4766

Client: Environmental Tech Group  
Attn: Ken Dutton  
Address: 2540 W. Marland Hobbs, NM 88240  
Phone: 505 397-4882 FAX: 505 397-4701

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	--		--		06/01/02	8260b	--	--	--	--	--
Benzene	<1	µg/L	1	<1	06/01/02	8260b	--	3.4	89.5	93.7	90.6
Ethylbenzene	<1	µg/L	1	<1	06/01/02	8260b	--	1.2	99.3	99.1	100
m,p-Xylenes	<1	µg/L	1	<1	06/01/02	8260b	--	2.4	98.8	99.9	100
o-Xylene	<1	µg/L	1	<1	06/01/02	8260b	--	1.9	99	98.9	99.2
Toluene	<1	µg/L	1	<1	06/01/02	8260b	--	4.4	92.6	95.8	94.6

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Respectfully Submitted,

*Richard Laster*  
Richard Laster

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**Final Syntec**

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(512) 444-5896 • FAX (512) 447-4766

Client: Environmental Tech Group  
Attn: Ken Dutton

Project ID: TNM-97-23 EOT 2010C  
Sample Name: EB 1

Report#/Lab ID#: 130184  
Sample Matrix: water

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	93.1	80-120	---
Toluene-d8	8260b	100	88-110	---

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



**AnalySys**  
Inc.**FILE**

3512 Montopolis Dr., Austin, TX 78744  
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Client: Environmental Tech Group  
 Attn: Ken Dutton  
 Address: 2540 W. Maryland  
 Hobbs,  
 NM 88240  
 Phone: 505 397-4882 FAX: 505 397-4701

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---		---		09/27/02	8260b	---	---	---	---	---
Benzene	<1	µg/L	1	<1	09/27/02	8260b	---	11.6	112.9	99.7	128.9
Ethylbenzene	<1	µg/L	1	<1	09/27/02	8260b	---	5.8	102.4	104.4	102.5
m,p-Xylenes	<1	µg/L	1	<1	09/27/02	8260b	---	4.5	96.6	100.3	98.2
o-Xylene	<1	µg/L	1	<1	09/27/02	8260b	---	3.1	96.2	100.6	98.3
Toluene	<1	µg/L	1	<1	09/27/02	8260b	---	9.9	89.8	100.4	98

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Respectfully Submitted,

*Richard Laster*

Richard Laster

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**Final Sys**  
Inc.

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(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Tech Group  
Attn: Ken Dutton

Project ID: TNM 97 - 23 EOT 2010  
Sample Name: MW 1

Report#Lab ID#: 134051  
Sample Matrix: water

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	107	80-120	---
Toluene-d8	8260b	96.2	88-110	---

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

**AnalySys<sup>TM</sup>**

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Client: Environmental Tech Group  
Attn: Ken Dutton  
Address: 2540 W. Maryland  
Hobbs,  
Phone: 505 397-4882 FAX: 505 397-4701

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>
Volatile organics-8260b/BTEX	---	---	---	---	09/27/02	8260b
Benzene	<1	µg/L	1	<1	09/27/02	8260b
Ethylbenzene	<1	µg/L	1	<1	09/27/02	8260b
m,p-Xylenes	<1	µg/L	1	<1	09/27/02	8260b
o-Xylene	<1	µg/L	1	<1	09/27/02	8260b
Toluene	<1	µg/L	1	<1	09/27/02	8260b

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Respectfully Submitted,

*Richard Laster*

Richard Laster

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inc.

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Client: Environmental Tech Group  
Attn: Ken Dutton

Project ID: TNM 97 - 23 EOT 2010  
Sample Name: MW 2

Report#Lab ID#: 134052  
Sample Matrix: water

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	105	80-120	---
Toluene-d8	8260b	94.7	88-110	---

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

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Client: Environmental Tech Group  
 Attn: Ken Dutton  
 Address: 2540 W. Maryland  
 Hobbs,  
 NM 88240  
 Phone: 505 397-4882 FAX: 505 397-4701

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	---	---	---	09/27/02	8260b	---	---	---	---	---
Benzene	<1	µg/L	1	<1	09/27/02	8260b	---	11.6	112.9	99.7	128.8
Ethylbenzene	<1	µg/L	1	<1	09/27/02	8260b	---	5.8	102.4	104.4	102.5
m,p-Xylenes	<1	µg/L	1	<1	09/27/02	8260b	---	4.5	96.6	100.3	98.2
o-Xylene	<1	µg/L	1	<1	09/27/02	8260b	---	3.1	96.2	100.6	98.3
Toluene	<1	µg/L	1	<1	09/27/02	8260b	---	9.9	89.8	100.4	98

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Respectfully Submitted,

*Richard Lester*  
Richard Lester

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**Final 5<sup>th</sup> NC**

Client: Environmental Tech Group  
Attn: Ken Dutton

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	90.1	80-120	---
Toluene-d8	8260b	96.8	88-110	---

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

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Report#/Lab ID#: 134053  
Sample Matrix: water

Project ID: TNM 97 - 23 EOT 2010  
Sample Name: MW 3

Report#/Lab ID#: 134053  
Sample Matrix: water

**AnalySys**  
mC.

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**Client:** Environmental Tech Group  
**Attn:** Ken Dutton  
**Address:** 2540 W. Maryland  
 Hobbs,  
 NM 88240  
**Phone:** 505 397-4882    **FAX:** 505 397-4701

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	µg/L	---	<1	09/27/02	8260b	---	---	---	---	---
Benzene	<1	µg/L	1	<1	09/27/02	8260b	---	11.6	112.9	99.7	128.9
Ethylbenzene	<1	µg/L	1	<1	09/27/02	8260b	---	5.8	102.4	104.4	102.5
m,p-Xylenes	<1	µg/L	1	<1	09/27/02	8260b	---	4.5	96.6	100.3	98.2
o-Xylene	<1	µg/L	1	<1	09/27/02	8260b	---	3.1	96.2	100.6	98.3
Toluene	<1	µg/L	1	<1	09/27/02	8260b	---	9.9	89.8	100.4	98

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Respectfully Submitted,

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Richard Laster

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Report#/ <b>Lab ID#:</b> 134054	<b>Report Date:</b> 10/02/02
<b>Project ID:</b> TNM 97 - 23 EOT 2010	
<b>Sample Name:</b> MW 5	
<b>Sample Matrix:</b> water	
<b>Date Received:</b> 09/25/2002	<b>Time:</b> 09:45
<b>Date Sampled:</b> 09/19/2002	<b>Time:</b> 10:10

**QUALITY ASSURANCE DATA<sup>1</sup>**

**Final Syntec**

Client: Environmental Tech Group  
Attn: Ken Dutton

Project ID: TNM 97 - 23 EOT 2010  
Sample Name: MW 5

Report# / Lab ID#: 134054  
Sample Matrix: water

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	99	80-120	---
Toluene-d8	8260b	96.5	88-110	---

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

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**Client:** Environmental Tech Group  
**Att'n:** Ken Dutton  
**Address:** 2540 W. Maryland  
 Hobbs,  
**Phone:** 505 397-4882    **FAX:** 505 397-4701

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---		---		09/27/02	8260b	---	---	---	---	---
Benzene	<1	µg/L	1	<1	09/27/02	8260b	---	11.6	112.9	99.7	128.0
Ethylbenzene	<1	µg/L	1	<1	09/27/02	8260b	---	5.8	102.4	104.4	102.5
m,p-Xylenes	<1	µg/L	1	<1	09/27/02	8260b	---	4.5	96.6	100.3	98.2
o-Xylene	<1	µg/L	1	<1	09/27/02	8260b	---	3.1	96.2	100.6	98.3
Toluene	<1	µg/L	1	<1	09/27/02	8260b	---	9.9	89.8	100.4	98

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Respectfully Submitted,

*Richard Laster*

Richard Laster

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Client: Environmental Tech Group  
Attn: Ken Dutton

Project ID: TNM 97 - 23 EOT 2010  
Sample Name: EB 1

Report#Lab ID#: 134055  
Sample Matrix: water

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	103	80-120	---
Toluene-d8	8260b	96.9	88-110	---

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



# FILE

**AnalySys**

Client: Environmental Tech Group  
 Attn: Robert Edison  
 Address: 2540 W. Maryland  
 Hobbs  
 NM 88240  
 Phone: 505 397-4882 FAX: 505 397-4701

## REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	---	---	<1	12/20/02	8260b	---	---	---	---	---
Benzene	<1	µg/L	1	<1	12/20/02	8260b	---	7.9	88.5	86.6	80.3
Ethylbenzene	<1	µg/L	1	<1	12/20/02	8260b	---	3.7	111.2	111.2	105.4
m,p-Xylenes	<1	µg/L	1	<1	12/20/02	8260b	---	5.7	108.3	107.3	99.7
o-Xylene	<1	µg/L	1	<1	12/20/02	8260b	---	4.6	112.2	110.7	105.4
Toluene	<1	µg/L	1	<1	12/20/02	8260b	---	12.9	101	90.1	88.7

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Respectfully Submitted,

*Richard Laster*

Richard Laster

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Report#Lab ID#: 137516 Report Date: 12/26/02

Project ID: TNM 97-23 EO 2010

Sample Name: MW 1

Sample Matrix: water

Date Received: 12/18/2002

Time: 14:30

Date Sampled: 12/16/2002

Time: 13:48

## QUALITY ASSURANCE DATA<sup>1</sup>

**ONLINE**

**ANALYSIS**

Client: Environmental Tech Group  
Attn: Robert Edison

Project ID: TNM 97-23 EO 2010  
Sample Name: MW 1

Report#Lab ID#: 137516  
Sample Matrix: water

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	85	80-120	---
Toluene-d8	8260b	98.9	88-110	---

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

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Environmental Testing

**Client:** Environmental Tech Group  
**Attn:** Robert Edison  
**Address:** 2540 W. Maryland  
 Hobbs  
**Phone:** 505 397-4882      **FAX:** 505 397-4701

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---		---		12/20/02	8260b	---	---	---	---	---
Benzene	5.15	µg/L	1	<1	12/20/02	8260b	---	7.9	88.5	86.6	80.3
Ethylbenzene	<1	µg/L	1	<1	12/20/02	8260b	---	3.7	111.2	111.2	105.4
m,p-Xylenes	<1	µg/L	1	<1	12/20/02	8260b	J	5.7	108.3	107.3	99.7
o-Xylene	<1	µg/L	1	<1	12/20/02	8260b	J	4.6	112.2	110.7	105.4
Toluene	<1	µg/L	1	<1	12/20/02	8260b	J	12.9	101	90.1	88.7

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Respectfully Submitted,

*Richard Laster*

Richard Laster

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**CHROMS**

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**Client:** Environmental Tech Group      **Project ID:** TNM 97-23 EO 2010  
**Attn:** Robert Edison      **Sample Name:** MW 2

**Report# / Lab ID#:** 137517  
**Sample Matrix:** water

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	87.1	80-120	---
Toluene-d8	8260b	97.7	88-110	---

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

## Exceptions Report:

Report #/Lab ID#: 137517 Matrix: water  
Client: Environmental Tech Group Attn: Robert Edison  
Project ID: TNM 97-23 EO 2010  
Sample Name: MW 2

### Sample Temperature/Condition <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

### Sample Bottles & Preservation

- Sample received in appropriate container(s) and appear to be appropriately preserved.
- Sample received in appropriate container(s). State of sample preservation unknown.
- Sample received in inappropriate container(s) and/or with unknown state of preservation.

### J flag Discussion

A J flag data qualifier indicates (as required under TCEQ-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (eg. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

### Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
m,p-Xylenes	J	See J-flag discussion above.
o-Xylene	J	See J-flag discussion above.
Toluene	J	See J-flag discussion above.

### Notes:

# AnalySys

ANALYTICAL SERVICES

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**Client:** Environmental Tech Group  
**Attn:** Robert Edison  
**Address:** 2540 W. Marland Hobbs NM 88240  
**Phone:** 505 397-4882 **FAX:** 505 397-4701

## REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	...	...	...	<1	12/20/02	8260b	---	---	---	---	---
Benzene	2.26	µg/L	1	<1	12/20/02	8260b	---	7.9	88.5	86.6	80.3
Ethylbenzene	<1	µg/L	1	<1	12/20/02	8260b	J	3.7	111.2	111.2	105.4
m,p-Xylenes	<1	µg/L	1	<1	12/20/02	8260b	J	5.7	108.3	107.3	99.7
o-Xylene	<1	µg/L	1	<1	12/20/02	8260b	---	4.6	112.2	110.7	105.4
Toluene	<1	µg/L	1	<1	12/20/02	8260b	J	12.9	101	90.1	88.7

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Respectfully Submitted,

*Richard Laster*  
Richard Laster

Richard Laster

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Report#/Lab ID#: 137518	Report Date: 12/26/02
Project ID: TNM 97-23 EO 2010	
Sample Name: MW 3	
Sample Matrix: water	
Date Received: 12/18/2002	Time: 14:30
Date Sampled: 12/16/2002	Time: 15:19

**EnviroS**  
TEC

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**Client:** Environmental Tech Group  
**Attn:** Robert Edison

**Project ID:** TNM 9/7/23 EO 2010  
**Sample Name:** MW 3

**Report#/Lab ID#:** 137518  
**Sample Matrix:** water

#### **REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	86.1	80-120	---
Toluene-d8	8260b	96.4	88-110	---

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

## Exceptions Report:

Report #/Lab ID#: 137518	Matrix: water
Client: Environmental Tech Group	
Project ID: TNM 97-23 EO 2010	
Sample Name: MW 3	

### Sample Temperature/Condition $\leq 6^{\circ}\text{C}$

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is  $\leq 6^{\circ}\text{C}$ . Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

### Sample Bottles & Preservation

- Sample received in appropriate container(s) and appear to be appropriately preserved.
- Sample received in appropriate container(s). State of sample preservation unknown.
- Sample received in inappropriate container(s) and/or with unknown state of preservation.

### J flag Discussion

A J flag data qualifier indicates (as required under TCEQ-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blocks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (eg. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

### Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
Ethylbenzene	J	See J-flag discussion above.
m,p-Xylenes	J	See J-flag discussion above.
Toluene	J	See J-flag discussion above.

### Notes:

**AnalySys**  
BTEX

Client: Environmental Tech Group  
 Attn: Robert Edison  
 Address: 2540 W. Marland Hobbs NM 88240  
 Phone: 505 397-4882 FAX: 505 397-4701

## REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---		---		12/20/02	8260b	---	---	---	---	---
Benzene	<1	µg/L	1	<1	12/20/02	8260b	---	7.9	88.5	86.6	80.3
Ethylbenzene	<1	µg/L	1	<1	12/20/02	8260b	---	3.7	111.2	111.2	105.4
m,p-Xylenes	<1	µg/L	1	<1	12/20/02	8260b	---	5.7	108.3	107.3	99.7
o-Xylene	<1	µg/L	1	<1	12/20/02	8260b	---	4.6	112.2	110.7	105.4
Toluene	<1	µg/L	1	<1	12/20/02	8260b	---	12.9	101	90.1	88.7

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*Richard Laster*  
Richard Laster

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Report#/Lab ID#: 137519 Report Date: 12/26/02

Project ID: TNM 97-23 EO 2010

Sample Name: MW 5

Sample Matrix: water

Date Received: 12/18/2002 Time: 14:30

Date Sampled: 12/16/2002 Time: 14:54

QUALITY ASSURANCE DATA<sup>1</sup>

**QNTL<sup>Y</sup>5<sup>Y5</sup>**

Client: Environmental Tech Group  
Attn: Robert Edison

Project ID: TNM 97-23 EO 2010  
Sample Name: MW 5

Report# /Lab ID#: 137519  
Sample Matrix: water

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	82.7	80-120	---
Toluene-d8	8260b	99.2	88-110	---

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

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**Client:** Environmental Tech Group  
**Attn:** Robert Edison  
**Address:** 2540 W. Maryland  
 Hobbs  
**Phone:** 505 397-4882    **FAX:** 505 397-4701

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	µg/L	---	<1	12/19/02	8260b	---	---	---	---	---
Benzene	<1	µg/L	1	<1	12/19/02	8260b	---	7.9	88.5	86.6	80.3
Ethylbenzene	<1	µg/L	1	<1	12/19/02	8260b	---	3.7	111.2	111.2	105.4
m,p-Xylenes	<1	µg/L	1	<1	12/19/02	8260b	---	5.7	108.3	107.3	99.7
o-Xylene	<1	µg/L	1	<1	12/19/02	8260b	---	4.6	112.2	110.7	105.4
Toluene	<1	µg/L	1	<1	12/19/02	8260b	---	12.9	101	90.1	88.7

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Richard Laster

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Report#/Lab ID#: 137520	Report Date: 12/26/02
Project ID: TNM 97-23 EO 2010	
Sample Name: EB 1	
Sample Matrix: water	
Date Received: 12/18/2002	Time: 14:30
Date Sampled: 12/16/2002	Time: 15:26

**QUALITY ASSURANCE DATA<sup>1</sup>**

**CDL 4545**

Client: Environmental Tech Group  
Attn: Robert Edison

Project ID: TNM 97-23 EO 2010  
Sample Name: EB 1

Report# /Lab ID#: 137520  
Sample Matrix: water

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	81.8	80-120	---
Toluene-d8	8260b	98	88-110	---

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

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**AnalySys**  
IDC

**Client:** Environmental Tech Group  
**Attn:** Robert Eidson  
**Address:** 2540 W. Maryland  
 Hobbs NM 88240  
**Phone:** 505 397-4882 **FAX:** 505 397-4701

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---		---		03/06/03	8260b	---	---	---	---	---
Benzene	<1	µg/L	1	<1	03/06/03	8260b	---	0.4	70.2	100.2	70.1
Ethylbenzene	<1	µg/L	1	<1	03/06/03	8260b	---	0.7	102.8	97.8	104.1
m,p-Xylenes	<1	µg/L	1	<1	03/06/03	8260b	---	1	95.3	89	96.9
o-Xylene	<1	µg/L	1	<1	03/06/03	8260b	---	6.6	101.5	102.7	126.6
Toluene	<1	µg/L	1	<1	03/06/03	8260b	---	4	90.9	84.3	87.5

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**QNTL Sys**

Environmental Tech Group  
Attn: Robert Eidson

Project ID: EO 2010  
Sample Name: WE972322403MW-1

Report# /Lab ID#: 139986  
Sample Matrix: water

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	108	80-120	---
Toluene-d8	8260b	107	88-110	---

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

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Client: Environmental Tech Group  
 Attn: Robert Eidson  
 Address: 2540 W. Maryland  
 Hobbs NM 88240  
 Phone: 505 397-4882 FAX: 505 397-4701

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	µg/L	---	<1	03/06/03	8260b	---	---	---	---	---
Benzene	<1	µg/L	1	<1	03/06/03	8260b	---	0.4	70.2	100.2	70.1
Ethylbenzene	<1	µg/L	1	<1	03/06/03	8260b	---	0.7	102.8	97.8	104.1
m,p-Xylenes	<1	µg/L	1	<1	03/06/03	8260b	---	1	95.3	89	96.9
o-Xylene	<1	µg/L	1	<1	03/06/03	8260b	---	6.6	101.5	102.7	126.6
Toluene	<1	µg/L	1	<1	03/06/03	8260b	---	4	90.9	84.3	87.5

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**CONTROLS**

Attn: Robert Eidsom  
Client: Environmental Tech Group

Project ID: EO 2010  
Sample Name: WE97322403MW-2

Report# / Lab ID#: 139987  
Sample Matrix: water

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	103	80-120	---
Toluene-d8	8260b	102	88-110	---

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

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Client: Environmental Tech Group  
Attn: Robert Eidson  
Address: 2540 W. Maryland  
Hobbs  
Phone: 505 397-4882 FAX: 505 397-4701

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---		---	<1	03/06/03	8260b	---	---	---	---	---
Benzene	<1	µg/L	1	<1	03/06/03	8260b	---	0.4	70.2	100.2	70.1
Ethylbenzene	<1	µg/L	1	<1	03/06/03	8260b	---	0.7	102.8	97.8	104.1
m,p-Xylenes	<1	µg/L	1	<1	03/06/03	8260b	---	1	95.3	89	96.9
o-Xylene	<1	µg/L	1	<1	03/06/03	8260b	---	6.6	101.5	102.7	126.6
Toluene	<1	µg/L	1	<1	03/06/03	8260b	---	4	90.9	84.3	87.5

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Respectfully Submitted,

*Richard Laster*  
Richard Laster

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**QNTL<sup>Y</sup>5<sup>Y5</sup>**

Client: Environmental Tech Group  
Attn: Robert Edson

Project ID: EO 2010  
Sample Name: WEF9/2322403MW-3

Report#Lab ID#: 139988  
Sample Matrix: water

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	108	80-120	---
Toluene-d8	8260b	94.3	88-110	---

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

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**AnalySys**  
RTE

Client: Environmental Tech Group  
 Attn: Robert Eidson  
 Address: 2540 W. Marland  
 Hobbs NM 88240  
 Phone: 505 397-4882 FAX: 505 397-4701

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	µg/L	---	<1	03/06/03	8260b	---	---	---	---	---
Benzene	<1	µg/L	1	<1	03/06/03	8260b	---	0.4	70.2	100.2	70.1
Ethylbenzene	<1	µg/L	1	<1	03/06/03	8260b	---	0.7	102.8	97.8	104.1
m,p-Xylenes	<1	µg/L	1	<1	03/06/03	8260b	---	1	95.3	89	96.9
o-Xylene	<1	µg/L	1	<1	03/06/03	8260b	---	6.6	101.5	102.7	126.6
Toluene	<1	µg/L	1	<1	03/06/03	8260b	---	4	90.9	84.3	87.5

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Richard Laster

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Report# /Lab ID#: 139989	Report Date: 03/07/03
Project ID: EO 2010	
Sample Name: WE972322403MW-5	
Sample Matrix: water	
Date Received: 02/28/2003	Time: 14:30
Date Sampled: 02/24/2003	Time: 16:00

**QUALITY ASSURANCE DATA<sup>1</sup>**

**CHROMASYS**  
INC.

3512 Montopolis Drive, Austin, TX 78744 &  
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(512) 385-5886 • FAX (512) 385-7411

Report#Lab ID#: 139989  
Sample Matrix: water

Client: Environmental Tech Group  
Attn: Robert Eddson

Project ID: EO 2010

Sample Name: WE972322403MW-5

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	103	80-120	---
Toluene-d8	8260b	94.9	88-110	---

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

CHAPTERS

### Send Reports

Bill to (if different)

Company Name E. T. G. L.  
Address 2549 W. Maryland

City Hoboken State NJ Zip 07030

ATTN: Robert E. Edson  
Phone 503-244-8883 Fax 503-244-4281

Rush Status (must be confirmed with lab mgr.):

Project Name/PO#:2020 Sample

Client Sample No.	Date Collected	Time Collected	No. of Samples	Lab I.D. #
12345	10/10/2010	10:00 AM	5	12345

Sample Relinquished By

Name	Affiliation	Date	Time	Name	Affiliation	Date	Time
Shatzi Et ET		2-24-03		Melanie Hargrave	A.S.I.	2/28/03	14:30

Second time of above described samples to Analytical Services Inc. for analytical testing constitutes agreement by buyer/samples to Analytical Services Inc. standard terms.

# FILE

ANALYST  
S

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

<b>Client:</b>	Environmental Tech Group
<b>Attn:</b>	Robert Eidsom
<b>Address:</b>	2540 W. Marland Hobbs NM 88240
<b>Phone:</b>	505 397-4882 FAX: 505 397-4701

## REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	µg/L	---	<1	05/30/03	8260b	---	---	87.7	83.8	89.5
Benzene	<1	µg/L	1	<1	05/30/03	8260b	---	2.2	96.4	92.3	98.7
Ethylbenzene	<1	µg/L	1	<1	05/30/03	8260b	---	1	100.4	95.3	103.3
m,p-Xylenes	<1	µg/L	1	<1	05/30/03	8260b	---	0.8	98.7	94.6	106.6
o-Xylene	<1	µg/L	1	<1	05/30/03	8260b	---	0.4	96	89.8	99.1
Toluene	<1	µg/L	1	<1	05/30/03	8260b	---	---	---	---	---

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*Richard Laster*

Richard Laster

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Report#/ <i>Lab ID#</i> : 143245	Report Date: 06/03/03
Project ID: EO 2010	
Sample Name: MW-1	
Sample Matrix: water	
Date Received: 05/28/2003	Time: 15:20
Date Sampled: 05/20/2003	Time: 10:00

*7/17/05*

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

Client: Environmental Tech Group  
Attn: Robert Eidson

Project ID: EO 2010  
Sample Name: MW-1

Report# /Lab ID#: 143245  
Sample Matrix: water

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	106	80-120	---
Toluene-d8	8260b	103	88-110	---

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

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**Client:** Environmental Tech Group  
**Attn:** Robert Edson  
**Address:** 2540 W. Maryland  
 Hobbs  
**Phone:** 505 397-4882    **FAX:** 505 397-4701

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method 6	Data Qual 7	Prec 2	Recov 3	CCV 4	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	µg/L	---	<1	05/30/03	8260b	---	---	---	---	---
Benzene	<1	µg/L	1	<1	05/30/03	8260b	---	0.9	87.7	83.8	89.5
Ethylbenzene	<1	µg/L	1	<1	05/30/03	8260b	---	2.2	96.4	92.3	98.7
m,p-Xylenes	<1	µg/L	1	<1	05/30/03	8260b	---	1	100.4	95.3	103.3
o-Xylene	<1	µg/L	1	<1	05/30/03	8260b	---	0.8	98.7	94.6	106.6
Toluene	<1	µg/L	1	<1	05/30/03	8260b	---	0.4	96	89.8	99.1

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Report#/Lab ID#: 143246	Report Date: 06/03/03
Project ID: EO 2010	
Sample Name: MW-2	
Sample Matrix: water	
Date Received: 05/28/2003	Time: 15:20
Date Sampled: 05/20/2003	Time: 11:00

**QUALITY ASSURANCE DATA<sup>1</sup>**

**MTL VS**

**Client:** Environmental Tech Group  
**Attn:** Robert Eidson

**Project ID:** EO 2010  
**Sample Name:** MW-2

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	96.1	80-120	---
Toluene-d8	8260b	101	88-110	---

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

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(512) 385-5886 • FAX (512) 385-7411

**Report# /Lab ID#:** 143246  
**Sample Matrix:** water

**ANALYSYS**

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 2209 N. Padre Island Dr., Corpus Christi, TX 78408  
 (512) 385-5836 • FAX (512) 385-7411

**Client:** Environmental Tech Group  
**Attn:** Robert Eidson  
**Address:** 2540 W. Maryland  
 Hobbs  
**Phone:** 505 397-4882    **FAX:** 505 397-4701

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	µg/L	---	<1	05/30/03	8260b	---	---	---	---	---
Benzene	<1	µg/L	1	<1	05/30/03	8260b	---	0.9	87.7	83.8	89.5
Ethylbenzene	<1	µg/L	1	<1	05/30/03	8260b	---	2.2	96.4	92.3	98.7
m,p-Xylenes	<1	µg/L	1	<1	05/30/03	8260b	---	1	100.4	95.3	103.3
o-Xylene	<1	µg/L	1	<1	05/30/03	8260b	---	0.8	98.7	94.6	106.6
Toluene	<1	µg/L	1	<1	05/30/03	8260b	---	0.4	96	89.8	99.1

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**Report#**/Lab ID#: 143247    **Report Date:** 06/03/03  
**Project ID:** EO 2010  
**Sample Name:** MW-3  
**Sample Matrix:** water  
**Date Received:** 05/28/2003    **Time:** 15:20  
**Date Sampled:** 05/20/2003    **Time:** 12:00

**QUALITY ASSURANCE DATA<sup>1</sup>**

**Environmental Services**

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

Client: Environmental Tech Group  
Attn: Robert Erdson

Project ID: EO 2010  
Sample Name: MW-3

Report# / Lab ID#: 143247  
Sample Matrix: water

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	92.1	80-120	--
Toluene-d8	8260b	102	88-110	--

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

**ANALYST**

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

**Client:** Environmental Tech Group  
**Attn:** Robert Eidson  
**Address:** 2540 W. Marland Hobbs NM 88240  
**Phone:** 505 397-4882 **FAX:** 505 397-4701

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---		---		05/30/03	8260b	---	---	---	---	---
Benzene	<1	µg/L	1	<1	05/30/03	8260b	---	0.9	87.7	83.8	89.5
Ethylbenzene	<1	µg/L	1	<1	05/30/03	8260b	---	2.2	96.4	92.3	98.7
m,p-Xylenes	<1	µg/L	1	<1	05/30/03	8260b	---	1	100.4	95.3	103.3
o-Xylene	<1	µg/L	1	<1	05/30/03	8260b	---	0.8	98.7	94.6	106.6
Toluene	<1	µg/L	1	<1	05/30/03	8260b	---	0.4	96	89.8	99.1

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Richard Laster

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**Q77LVS**

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2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 355-5886 • FAX (512) 385-7411

**Client:** Environmental Tech Group  
**Attn:** Robert Eidson

**Project ID:** EO 2010  
**Sample Name:** MW-4

**Report# /Lab ID#:** 143248  
**Sample Matrix:** water

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	88.9	80-120	---
Toluene-d8	8260b	106	88-110	---

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

**ANALYSYS INC.**

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 (512) 385-5886 • FAX (512) 385-7411

**Client:** Environmental Tech Group  
**Attn:** Robert Eidsen  
**Address:** 2540 W. Marland  
 Hobbs NM 88240  
**Phone:** 505 397-4882 **FAX:** 505 397-4701

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	µg/L	---	<1	05/30/03	8260b	---	---	---	---	---
Benzene	<1	µg/L	1	<1	05/30/03	8260b	---	0.9	87.7	83.8	89.5
Ethylbenzene	<1	µg/L	1	<1	05/30/03	8260b	---	2.2	96.4	92.3	98.7
m,p-Xylenes	<1	µg/L	1	<1	05/30/03	8260b	---	1	100.4	95.3	103.3
o-Xylene	<1	µg/L	1	<1	05/30/03	8260b	---	0.8	98.7	94.6	106.6
Toluene	<1	µg/L	1	<1	05/30/03	8260b	---	0.4	96	89.8	99.1

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Richard Laster

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**OTILYSG**

3512 Montopolis Drive, Austin, TX 78744 &  
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(512) 385-5886 • FAX (512) 385-7411

Client:	Environmental Tech Group	Project ID: EO 2010	Report# /Lab ID#: 143249
Attn:	Robert Edson	Sample Name: MW-5	Sample Matrix: water

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	99.2	80-120	---
Toluene-d8	8260b	103	88-110	---

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



**APPENDIX C**

**Water Well Search**

*Mexico Office of the State Engineer*  
Well Reports and Downloads

Sections: [10,11,12,13,14,15,22,23,24]

Zone: [ ] Number: [ ] Search Radius: [ ]

(Last) [ ] Suffix: [ ]

C Non-Domestic C Domestic C All

Avg Depth to Water Report	Water Column Report
Drill	WATERS Menu
	Help

3

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are biggest to smallest)

Number	Source	Tws	Rng	Sec	q q q	Zone	X Y are in Feet		Y	UTM Zone	Easting	UTM are in Meters	Northing
							X	Y					
87 DCL		22S	37E	24	1 3 3					13	676515	35837C	
89 DCL		22S	37E	13	1 1 4					13	676680	358571	
95 DCL		22S	37E	12	1 1 4					13	676652	358732	
99 DCL		22S	37E	14	2 4 2					13	676285	35855C	
113 DCL		22S	37E	15	3 3 3					13	673285	358445	
181 DCL		22S	37E	22	4 1 3					13	674108	35832€	
182 DCL		22S	37E	22	4 3 3					13	674114	35828€	
183 DCL		22S	37E	22	4 1 3					13	674108	35832€	
155 EXP		22S	37E	14	2 2					13	676179	358581	
181 EXP	Shallow	22S	37E	14	2 2 2					13	676278	358591	
181 EXP		22S	37E	14	2 2 2					13	676278	358591	
662	Shallow	22S	37E	15	1 3 3					13	673271	35852€	
673 EXP		22S	37E	15	2 2					13	674570	35857€	
674	Shallow	22S	37E	15	1 1					13	673366	35857€	
675	Shallow	22S	37E	15	1 2 2					13	673866	35858€	
679	Shallow	22S	37E	15	3 3					13	673386	35845€	
684	Shallow	22S	37E	15	1 1					13	673366	35857€	
699	Shallow	22S	37E	15	1					13	673573	35855€	
706	Shallow	22S	37E	24	3 1 3					13	676522	35833€	
708	Shallow	22S	37E	15	3 4 2					13	673989	35851€	
709	Shallow	22S	37E	15	3 4 2					13	673887	35846€	



**New Mexico Office of the State Engineer  
Well Reports and Downloads**

Township: <input type="text" value="22S"/>	Range: <input type="text" value="37E"/>	Sections: <input type="text" value="10,11,12,13,14,15,22,23,24"/>
NAD27 X: <input type="text"/>	Y: <input type="text"/>	Zone: <input type="text"/>
County: <input type="checkbox"/>	Basin: <input type="text"/>	Number: <input type="text"/>
Owner Name: (First) <input type="text"/> (Last) <input type="text"/>		
<input type="checkbox"/> C Non-Domestic <input type="checkbox"/> C Domestic <input checked="" type="checkbox"/> All		
<a href="#">Well / Surface Data Report</a> <a href="#">Avg Depth to Water Report</a> <a href="#">Water Column Report</a>		
<a href="#">Clear Form</a> <a href="#">WATERS Menu</a> <a href="#">Help</a>		

AVERAGE DEPTH OF WATER REPORT 07/22/2003

Bsn	Trs	Rng	Sec	Zone	X	Y	Wells	1	65	Max	Min	(Depth Water in Feet)
CP	22S	37E	14						65	65		
CP	22S	37E	15					7	75	185		
CP	22S	37E	24					1	60	60		

Record Count: 9

**APPENDIX D**

**Release Notification Form (C-141)**

District I - (505) 393-6161  
 P.O. Box 1980  
 Hobbs, NM 88241-1980  
 District II - (505) 748-1283  
 811 South First  
 Artesia, NM 88210  
 District III - (505) 334-6178  
 1000 Rio Brazos Road  
 Carlsbad, NM 87410  
 District IV - (505) 827-7131

State of New Mexico  
 Energy Minerals and Natural Resources Department  
 Oil Conservation Division

2040 South Pacheco Street  
 Santa Fe, New Mexico 87505  
 (505) 827-7131

Form C-141  
 Originated 2/13/97

Submit 2 copies to  
 Appropriate District  
 Office in accordance  
 with Rule 116 on  
 back side of form

Release Notification and Corrective Action

OPERATOR

Initial Report

Final Report

Name Texas-New Mexico Pipe Line Company	Contact Edwin H. Gripp
Address Box 60028, San Angelo, TX 76906	Telephone No. (915) 947-9000
Facility Name 14" main line	Facility Type Pipeline
Surface Owner L.V. Lewis Estate	Mineral Owner
	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
14	225	37E						Lea

NATURE OF RELEASE

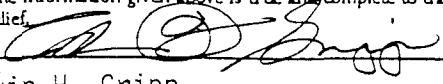
Type of Release Sour crude	Volume of Release 612 Barrels	Volume Recovered 400 Barrels
Source of Release 14" main line	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 10-22-97 11:45 AM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Bonnie Richardson	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Date and Hour 10-22-97 2:30 PM	If YES, Volume Impacting the Watercourse —

If a Watercourse was Impacted, Describe Fully.  
—

Describe Cause of Problem and Remedial Action Taken.  
Internal Corrosion

Describe Area Affected and Cleanup Action Taken.  
17 385 sq. ft. pasture land. On site remediation.

Describe General Conditions Prevailing (Temperature, Precipitation, etc.).  
70° Cloudy Dry

I hereby certify that the information given above is true and complete to the best of my knowledge and belief.  
Signature: 

OIL CONSERVATION DIVISION

Printed Name: Edwin H. Gripp

Approved by  
District Supervisor:

Title: District Manager

Approval Date:

Expiration Date:

Date: Phone: 915-947-9001

Conditions of Approval:

Attached:

\* Attach Additional Sheets If Necessary

State Corp. Commission  
Pipe Line Division

Hazardous Waste Section  
NM Environmental Improvement Div.

JWC JAS

TNM-97-23