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REPORTS

DATE:

1999

PHASE II
ENVIRONMENTAL SITE ASSESSMENT
SUNOCO, INC. (R&M)
LEA STATION
SEC 28, T20S, R37E
LEA COUNTY, NEW MEXICO

Prepared For
Sunoco, Inc. (R&M)

907 South Detroit
Tulsa, OK 74120

Prepared By
HALL GEOLOGICAL SERVICES, LLC
R. Vance Hall, CPG

5615 East 80th Place
Tulsa, OK 74136

June 21, 1999

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HGS Project No. SPL99-01

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LIST OF APPENDIXES

Sunoco, Inc. (R&M) (Sun) operates a crude oil trucking station, referred to as the "Lea Truck Station" or "Lea Station", consisting of approximately 0.13 acres located in the SE¼ NW¼ of Section 28, Township 20 South, Range 37 East, NMPM, Lea County, Texas. On August 31, 1998, the New Mexico Oil Conservation Division (NMOCD) requested that Sun submit a soil and groundwater investigation plan in response to reported groundwater contamination in a monitoring well near Lea Station.

Subsequently, Sun submitted a soil and groundwater investigation plan to the NMOCD. After the NMOCD approved the plan, Sun contracted Hall Geological Services, LLC (HGS) to conduct a Phase II Environmental Site Assessment of Lea Station. This report presents the results of the Lea Station site assessment.

1.1 METHODS

An experienced professional geologist, certified by the American Institute of Professional Geologists conducted the site assessment, including all field work, data analysis, and reporting. The assessment consisted of three principal phases, soil characterization, groundwater characterization, and geological and background research. Soils were sampled, screened for volatile hydrocarbons, described, and analyzed by an environmental laboratory. Groundwater was gauged, sampled, and analyzed by an environmental laboratory. Geological and background research consisted of obtaining and reviewing published and unpublished literature, and interviewing knowledgeable persons regarding site-specific issues. Specific tasks for each of these phases are listed in Section 2.2.

1.2 RESULTS AND CONCLUSIONS

1.2.1 Results

The principal findings of the soil/sediment characterization, including observations during the drilling operations, are as follows:

- The soil/sediment textures ranged from silty clay to loamy sand, all very calcareous, and exhibiting the early stages of caliche formation; no distinction between soil and alluvium was made for this report;
- Oily crusts were observed in surficial soils outside the Lea Station Enclosure and berms to the west and to the south of the enclosure, unrelated to Sun's operations, generally along the margins of an east-west access road for the adjoining facility;
- Numerous pipelines are present in the area, including a pipeline that is oriented northeast-southwest and that passes through the northwest corner of the Lea Station enclosure, approximately ten feet northwest of monitoring well MW99-1;
- Oil storage tanks and related piping, valves, and fittings unrelated to Sun's operations were observed to the west, south, and east of the Lea Station enclosure, including a very slowly dripping valve and stained soil outside of and a few feet east of the northeast corner of the Lea Station enclosure;

- An oil well and associated storage tanks were observed approximately eight hundred feet north of Lea Station;
- The hydrocarbon impacts to soils and sediments were typical of oilfield operations, and diminished with depth to undetectable or moderate concentrations at the water table;
- Detectable BTEX concentrations in soil/sediment samples:
  - Were present in two of the 28 soil/sediment samples from the four locations drilled;
  - For monitoring well MW-2, xylenes were detected for two samples from the 10- to 17-foot depth interval and ethylbenzene was detected for one sample from the 10- to 12-foot interval;
  - Were below the method detection limits for all samples from the 30- to 32-foot depth interval, approximately at the water table;
- Detectable TPH-GRO concentrations in soil/sediment samples:
  - Were present in one or more intervals in all four sampled locations, and concentrations ranged from below the method detection limit of 0.11 mg/kg, to a maximum of 1700 mg/kg in the 15- to 17-foot depth interval at MW-2;
- Detectable TPH-DRO concentrations in soil/sediment samples:
  - Were present in two or more intervals in all four sampled locations, and concentrations ranged from below the method detection limit of 2.6 mg/kg to a maximum of 13000 mg/kg for a surface sample at borehole BH-1;
- For each sampled location, the hydrocarbon concentrations in soil diminished to below detection limits with depth, with a recurrence of TPH slightly above the water table in two of the four locations.

The principal findings of the groundwater characterization are as follows:

- No light, non-aqueous phase liquid (LNAPL) is present in any of Sun's three monitoring wells;
- Detectable BTEX concentrations in groundwater samples:
  - Were present in two of the three monitoring wells, MW99-2 and MW99-3;
  - Were below the New Mexico Water Quality Control Commission ground water standards for all samples;
  - Benzene was present at the detection limit in monitoring well MW99-2;
  - Toluene was not detected in any of the three monitoring wells;
  - Ethylbenzene was present at concentrations at or near the detection limit in monitoring wells MW99-2 and MW99-3;
  - Xylenes were present at concentrations at or near the detection limit in monitoring wells MW99-2 and MW99-3;
- Detectable TPH-GRO concentrations in groundwater samples were near the detection limit in monitoring well MW99-3;
- Detectable TPH-DRO concentrations in groundwater were not present any of Sun's monitoring wells;
- The depth to groundwater at Lea Station was approximately 30 feet below ground level on April 15, 1999; and,
- Based on the single gauging event for Sun's three monitoring wells, the apparent groundwater flow direction is toward the southeast.

The principal findings of the geological and background research are as follows:

- The soil/sediment profile consists of Quaternary alluvium along Monument Draw, probably consisting of windblown and water-laid deposits derived in part from the Ogallala Formation, and overlain by sand dunes and/or soils developed on this alluvium by weathering processes;
- The groundwater flow direction mapped in the Laguna Valley is towards the southeast;
- Numerous oil wells and associated gathering systems and storage facilities are present in the area surrounding the Lea Station;
- Sun's field operations personnel reported that, for many years, the access roads within the adjoining facility were stabilized by oiling the surface; and,
- Groundwater contamination associated with oil field brines is commonplace in Lea County.

1.2.2 Conclusions

The site assessment findings are interpreted as follows:

- Soils at each of the four borehole/well locations have indications of historical hydrocarbon impact, mostly in the C10 to C28 range (TPH-DRO);
- The hydrocarbons in soil and sediment at the four borehole/well locations appear to have been absorbed/adsorbed, degraded, or otherwise attenuated at depth before reaching groundwater;
- The hydrocarbons dissolved in groundwater at Sun's three monitoring wells are below the detection limits or are present in trace concentrations, near the detection limits for all analytes;
- The east-southeastward groundwater flow direction indicated by this study is consistent with the regional flow direction described for the Laguna Valley area;
- The source of the minimal groundwater impacts at Sun's Lea Station is not certain, given the number of potential sources in the area, such as oil-encrusted soils adjacent to the facility, dripping valves, numerous pipelines, LNAPL in nearby monitoring wells, etc.;
- The Lea Station is not the source of the LNAPL in a monitoring well located about 57 feet south of Sun's monitoring well MW99-3, based on:
  - The soil and groundwater sampling results;
  - The absence of LNAPL in any of Sun's three monitoring wells, including a monitoring well (MW99-3) located between Sun's tanks and the offsite well that contains LNAPL;
  - The presence of oily crusts at the surface just outside of the Lea Station enclosure to the west and to the south;
  - The abundance of alternative potential sources of the LNAPL, such as the oiling of roads, the numerous pipelines, storage tanks, valves and fittings, and oil wells in the area;
- The LNAPL in the monitoring well 57 feet south of Sun's monitoring well MW99-3, may be the source of the minimal hydrocarbon concentrations in groundwater at Sun's Lea Station.

2.1 Purpose

The purpose of this Phase II Environmental Site Assessment is:

- to comply with the New Mexico Oil Conservation Division (NMOCD) request to conduct a soil and groundwater investigation at Sun's Lea Station (see NMOCD correspondence dated 8/31/98 and 11/25/98, and Sun correspondence dated 10/23/98);
- to obtain field and laboratory data that can be used to characterize the distributions and concentrations of hydrocarbons in soils and groundwater at four borehole/well locations within the boundary fence at Lea Station;
- to analyze soils and groundwater for benzene, toluene, ethylbenzene and xylenes (BTEX), total petroleum hydrocarbons in the gasoline range (TPH-GRO), and total petroleum hydrocarbons in the diesel range (TPH-DRO);
- to observe and record geological and manmade features in the field in order to improve the interpretation of data;
- to conduct geological and background research of published and unpublished literature and data sources that will yield additional data and define a geological context within which the findings of the site-specific study should be interpreted;
- to document the results in report form.

2.2 Work Scope and Conditions

The scope and methods of the Phase II Environmental Site Assessment were approved by the NMOCD and by EOTT Energy Pipeline Limited Partnership (EOTT), Sun's lessor for the Lea Station property. An experienced professional geologist, certified by the American Institute of Professional Geologists conducted the site assessment, including all field work and reporting. The assessment consisted of three principal phases, soil characterization, groundwater characterization, and geological and background research, outlined as follows:

1. Soil characterization:
   - Soil and/or poorly consolidated to unconsolidated sediments were sampled and described at four locations, from the surface to the approximate depth of groundwater;
   - Augered and cored samples were screened for volatile organic compounds with a photo-ionization detector (PID);
   - An environmental laboratory analyzed one soil/sediment sample from each five-foot depth interval for BTEX, TPH-GRO, and TPH-DRO;
2. Groundwater characterization:
   - Three groundwater monitoring wells were installed around the perimeter of Lea Station;
   - Each well was gauged with an electronic interface probe to accurately measure the depth to water and to detect liquid hydrocarbons, if present;

- Each well was purged prior to sampling; during well purging, the water quality parameters pH, temperature, and specific conductivity were measured to monitor the stabilization of water chemistry and to document that fresh groundwater was drawn into the wellbore for sampling;
- At each well, the groundwater was sampled using a disposable bailer;
- An environmental laboratory analyzed the groundwater from the three wells for BTEX, TPH-GRO, and TPH-DRO;

3. Geological and background research:
   - HGS reviewed the geological literature on Lea County, New Mexico;
   - HGS reviewed the water well records provided by the New Mexico State Engineer for a nine-section area centered on Lea Station;
   - HGS interviewed Sun's field operations personnel with respect to operational practices at Lea Station and the adjoining facilities; and,
   - The HGS field geology notes, the published geology, the data obtained from public information sources, and the laboratory results were integrated to provide the geologic interpretation presented here.

2.3 Limitations and Exceptions of Assessment

The findings and conclusions contained in this report are based on the work scope described above. This assessment was not intended to be exhaustive or to delineate the full extent of petroleum hydrocarbon impacts, particularly outside the perimeter fence at Sun's Lea Station.

Professional services have been performed, results obtained and reported, conclusions drawn, and subsequent recommendations prepared in accordance with generally accepted geological and environmental principles and practices. HGS is not responsible for independent conclusions, opinions, or recommendations made by others based on the field observations and other data presented in this report.

This report has been prepared for the exclusive use of Sunoco Inc. (R&M) and the NMOCD. Except for the forgoing purposes, this report shall not, in whole or in part, be disseminated or conveyed to any other party. This report should not be used or relied upon by any other party, in whole or in part, without the prior written consent of HGS and Sunoco Inc. (R&M).

2.4 Limiting Conditions and Methods Used

2.4.1 Limiting Conditions

Sun's Lea Station property is located within a bermed and fenced enclosure adjacent to EOTT's larger facility. Sun was restricted in its placement of sample locations to within the fenced boundary of its leased facility. The placement of boreholes/wells was adjusted to meet this requirement. Even so, the data obtained during the assessment findings are adequate to justify the conclusions made.

2.4.2 Drilling and Soil/Sediment Sampling Methods

Drilling was accomplished by a New Mexico-licensed monitoring well driller, Eades Environmental Drilling of Hobbs, New Mexico. The drilling unit was a truck-mounted, top-head drive, air-rotary rig.

At each location, the uppermost three feet was augered by hand with a carbon-steel bucket auger. This was to ensure that the drill rig would not penetrate underground utilities, and because the driller's rig configuration was not functional at depths of less than five feet. From a depth of five feet, to the estimated depth to water, one core sample was obtained for each five-foot interval with a Denison sampler equipped with a 2' long x 2" diameter split-spoon barrel. Rotary cuttings for non-core intervals were bagged and labeled.

Prior to collecting samples at each location, the hand auger, the split-spoon sampler, and the cast aluminum core rack were scrubbed with a solution of Alconox® and drinking water and rinsed with distilled water.

Core sample handling proceeded as follows:

- The split-spoon barrel was placed on a clean, cast aluminum core rack;
- The total length of recovered material was measured and recorded;
- The geologist promptly noted changes in soil/sediment texture, apparent hydrocarbon impacts, staining, and other readily apparent characteristics;
- Based on the preceding step, one or more intervals were split longitudinally, approximately into thirds, and two equal longitudinal volumes were placed respectively in a plastic freezer bag and in a glass sample container with a Teflon-lined lid;
- The sample split in the freezer bag was placed temporarily in a warm location in the sunlight, and the sample split in the glass container was labeled, packed in bubble pack and a freezer bag, and placed on ice;
- The total length of core, including the third longitudinal split, was described and measured in detail;
- A photo-ionization detector (PID) was used to estimate relative concentrations of volatile organic compounds for the sample split in the freezer bag, and the results recorded;
- Chain-of-custody documents were completed, ice was monitored and replaced regularly until shipment, and the samples were delivered by overnight courier to the environmental laboratory, accompanied by chain-of-custody documents.

2.4.3 Geologic Methods

HGS based the site-specific geology on the descriptions of rotary cuttings and core samples at the four boreholes drilled on site. The four borehole/well logs are included in the BOREHOLE/WELL LOGS Appendix of this report. These logs illustrate the field

descriptions and selected measurements related to the soil and groundwater characterization.

An experienced professional geologist, certified by the American Institute of Professional Geologists conducted the site assessment, including all field work and reporting. The assessment consisted of the following:

1. Soil characterization:
   - HGS sampled soil and/or poorly consolidated to unconsolidated sediments at four locations, from the surface to the approximate depth of groundwater, using a hand auger for the uppermost sample and a Denison sampler with a split-tube barrel for deeper samples;
   - HGS described all cored samples and selected rotary cuttings as follows:
     - The entire geological section penetrated by boreholes during the site investigation was described using the U. S. Department of Agriculture (USDA) soil textural triangle;
     - Median and maximum particle sizes were estimated in the field using the Udden-Wentworth particle size classification system;
     - The estimated particle sizes are graphically shown on the sample logs to facilitate borehole to borehole correlations using the vertical particle size profiles;
     - Graphic symbols from the Unified Soil Classification System (USCS) were used to represent soil and sediment types on the final drilling logs;
     - The Munsell® Soil Color Charts (1994 Revised Edition) were used to name colors;
   - HGS screened the cored samples for volatile organic compounds with a photo-ionization detector (PID);
   - An environmental laboratory analyzed one soil/sediment sample for each five-foot sampled interval for BTEX, TPH-GRO, and TPH-DRO (see Table 1);
2. Groundwater characterization:
   - Eades Environmental Drilling installed groundwater monitoring wells at three locations around the perimeter of Sun's Lea Station;
   - Based on the estimated depth to water, the screened interval for each well extended at least five feet above and ten feet below the water level;
   - Each well was surveyed by a surveyor (Basin Surveys) registered in the State of New Mexico, at the measure point (top of casing) and at a brass cap permanently mounted in the concrete apron surrounding each well;
   - Each well was gauged with a Heron Instruments electronic interface probe to measure the depth to water to the nearest 0.01 foot, and to detect liquid hydrocarbons, if present;
   - HGS used a low-flow submersible pump to purge three well volumes from each well prior to sampling;
   - During well purging, the water quality parameters pH, temperature, and specific conductivity were measured to monitor the stabilization of water chemistry and to ensure that the subsequent groundwater samples were the water samples (see Table 2);

- After purging, groundwater was sampled using a disposable polyethylene bailer;
- An environmental laboratory analyzed the post-purging groundwater samples from each well for BTEX, TPH-GRO, and TPH-DRO (see Table 3);

3. Geological and background research;
   - HGS reviewed the published geological literature and mapping covering the area;
   - HGS requested a water well records search from the for the Lea Station area from the New Mexico State Engineer's office; and,
4. Finally, the field geology, published geology, public information sources, and laboratory results were integrated to provide the geologic interpretation presented here.

2.4.3 Laboratory Methods

An environmental laboratory, Severn Trent Laboratories, Pensacola, Florida, was contracted to determine concentrations of BTEX and TPH-GRO using EPA Method 8021, and concentrations of TPH-DRO using EPA Method SW 8015 Modified.

3.1 Location and Legal Description

Sun's Lea Station consists of approximately 0.13 acres located in the SE¼ NW¼ of Section 28, Township 20 South, Range 37 East, NMPM, Lea County, New Mexico. The facility is located about 7 miles west and 10 miles south (highway miles) of Hobbs, New Mexico. Figure 1 shows the topography of the Lea Station area.

3.2 Site and Vicinity Characteristics

The Lea Station property is located within Laguna Valley, an area that slopes gently towards the east. The U. S. Geological Survey Monument South, New Mexico 7½' Quadrangle topographic map includes all of the NW¼ of section 28, T20S, R37E, the quarter section in which the Lea Station is located. The eastern 800 to 900 feet of section 28 falls within the adjoining Hobbs SW, N. Mex. 7½' Quadrangle topographic map.

The facility is a crude oil truck unloading station consisting of two 500-barrel capacity storage tanks within a fenced and bermed enclosure. The fenced enclosure measures approximately 80 feet from east to west and 80 to 95 feet from north to south (see Figure 2).

According to Sun's survey of Lea Station, the ground elevation ranges from 3503 feet to 3504 feet above mean sea level within the perimeter berm. These elevations are consistent with the Monument South quadrangle map. The surface drainage from the Lea Station is general controlled by manmade diversions, but is generally toward the southeast to Monument Draw, and then follows Monument Draw towards the east-southeast.

3.3 Structural Geology

The uppermost well-consolidated rock units underlying Lea Station are probably a part of Triassic Dockum Group. Mapping by Nicholson and Clebsch (1961, Plate 1) indicates that the unconformity surface at the top of the Dockum Group is at a depth of about 115 feet at Lea Station, and dips toward the southeast at rates ranging from about 10 to 30 feet per mile. No structural data were readily available for mappable units within the Dockum Group, but the deep structure is not relevant to the present study. The stratigraphic units within the Quaternary alluvium that overlies the Dockum Group unconformity (assuming that no remnants of the Tertiary Ogallala Formation are present) probably dip southeastward at rates equal to or less than the 10 to 30 feet per mile dip on the unconformity surface.

3.4 Stratigraphy

The stratigraphic units of interest in the vicinity of the Lea Station are, in descending sequence:

- The Kermit-Wink complex, 1-3 percent slopes, or the Wink fine sand (the site is on the mapped boundary between these units) is the soil exposed at the surface, and is of uncertain thickness, grading downward into Quaternary alluvium;
- Quaternary alluvium, consisting of wind-blown and water-laid sediments to an estimated depth of 115 feet, and resting unconformably on the Dockum Group (assuming that no remnants of the Tertiary Ogallala Formation are present); and,
- The Triassic Dockum Group, consisting of red, green, and greenish-gray sandstone, siltstone, and claystone.

The deepest borehole drilled during this study reached a total depth of about 41 feet within the Quaternary alluvium. Some soil scientists would probably classify the entire 41-foot section as soil, because of the evidence of the alteration of the Quaternary sediments by weathering processes and/or evidence for secondary precipitation of calcite within the pores (caliche formation). Geologists tend to classify less of the section as soil. I believe most geologists would describe some or most of the 41-foot section as consisting of Quaternary sediments with varying degrees of weathering and caliche formation. For the purpose of this report, the entire geologic section described at Lea Station is described using the soil textural triangle of the U. S. Soil Conservation Service.

The uppermost five to seven feet consists of unconsolidated, fine-grained, well-sorted, sub-rounded, frosted, light brown to yellow-brown quartz sand with approximately five percent of feldspar and heavy minerals. Near the surface, a trace of rounded chert gravel and sparse wood fragments were encountered. This unit is interpreted to represent Recent wind-blown sand.

Below the uppermost unconsolidated unit, the soils/sediments begin to exhibit the characteristics of the early stages of caliche formation. The textures of the soils/sediments include loamy sand, sandy loam, sandy clay loam, clay loam, and silty clay. The detrital (sand) fraction is as described for the uppermost unit, but the calcite and calcareous silt and clay content is significantly greater. Colors are typically very pale brown, light gray, pinkish white, and white. The white and off-white sediments are generally the most calcareous. Indistinct, rounded, very calcareous nodules are present throughout the section where caliche is forming. Reeves (1971, 1976a, 1976b) discusses the possible origins of these deposits. Based on this cursory study, I believe that these soils/sediments are both water-laid (possibly lacustrine) and wind-laid Pleistocene deposits derived largely from nearby outcrops of the Tertiary Ogallala Formation. The early stages of caliche formation are evident throughout (the lower unit), a feature that reduces the effective porosity and permeability, especially where calcified units may be continuous.

3.4 Hydrogeology

Field observations, published geological literature, and public records provide information on the groundwater resources of the area. Information obtained from these diverse sources was compiled and reviewed for this assessment.

Based on historical data at Hobbs, New Mexico, Lea Station receives approximately 15.7 inches of precipitation annually (Nicholson and Clebsch, 1961). The months of April, May, and June are typically the peak months for precipitation. Groundwater levels for the wells near Lea Station commonly fluctuate as much as tens of feet between gauging events. No effort was made to determine whether these fluctuations were due to changes in the regional table due to seasonal precipitation or withdrawals, or due to site-specific withdrawals or mechanical problems within wells.

The hydrologic unit of interest in Laguna Valley and at Lea Station is the Quaternary alluvium that overlies the Triassic redbeds of the Dockum Group. Groundwater flow in Laguna Valley and at Lea Station is towards the east-southeast (Nicholson and Clebsch, 1961, Plate 2; this report, Figure 2). The depth to groundwater at Lea Station on April 15, 1999 was approximately 30 feet below ground level. On the evening of April 12, 1999, a significant precipitation event occurred that might have caused water levels to rise above the norm.

Groundwater quality in the shallow alluvial aquifer is variable. Most water wells in the Lea Station area provide water for livestock. According to Nicholson and Clebsch (1960), the groundwater in Lea County is locally contaminated by oilfield brines. Where the total dissolved solids (TDS) concentration exceeds 1,000 ppm, groundwater is not generally considered suitable for livestock.

The specific conductance of the groundwater at Lea Station ranged from approximately 2,200 micromhos to 2,800 micromhos at the time of well sampling. Nicholson and Clebsch (1961) use a factor of 0.65 to derive TDS values from specific conductance in Lea County. The resulting TDS for Lea Station, using a correction factor of 0.65, ranges from approximately 1,430 ppm to 1,820 ppm. This water would generally be considered unsuitable for consumption by livestock. The evaluation of possible groundwater contamination in the Lea Station area by oilfield brines is outside the scope of this study.

4.1 Site Assessment Findings

The principal findings of the soil/sediment characterization, including observations during the drilling operations, are as follows:

- The soil/sediment textures ranged from silty clay to loamy sand, all very calcareous, and exhibiting the early stages of caliche formation; no distinction between soil and alluvium was made for this report;
- Oily crusts were observed in surficial soils outside the Lea Station Enclosure and berms to the west and to the south of the enclosure, unrelated to Sun's operations, generally along the margins of an east-west access road for the adjoining facility (see Plate 2-A);
- Numerous pipelines are present in the area, including a pipeline that is oriented northeast-southwest and that passes through the northwest corner of the Lea Station enclosure, approximately ten feet northwest of monitoring well MW99-1;
- Oil storage tanks and related piping, valves, and fittings unrelated to Sun's operations were observed to the west, south, and east of the Lea Station enclosure, including a very slowly dripping valve and stained soil outside of and a few feet east of the northeast corner of the Lea Station enclosure (see Plate 2-B);
- An oil well and associated storage tanks were observed approximately eight hundred feet north of Lea Station;
- The hydrocarbon impacts to soils and sediments were typical of oilfield operations, and diminished with depth to undetectable or moderate concentrations at the water table (see Table 1);
- Detectable BTEX concentrations in soil/sediment samples (see Table 1):
  - Were present in two of the 28 soil/sediment samples from the four locations drilled;
  - For monitoring well MW-2, xylenes were detected for two samples from the 10- to 17-foot depth interval and ethylbenzene was detected for one sample from the 10- to 12-foot interval;
  - Were below the method detection limits for all samples from the 30- to 32-foot depth interval, approximately at the water table;
- Detectable TPH-GRO concentrations in soil/sediment samples (see Table 1):
  - Were present in one or more intervals in all four sampled locations, and concentrations ranged from below the method detection limit of 0.11 mg/kg, to a maximum of 1700 mg/kg in the 15- to 17-foot depth interval at MW-2;
- Detectable TPH-DRO concentrations in soil/sediment samples (see Table 1):
  - Were present in two or more intervals in all four sampled locations, and concentrations ranged from below the method detection limit of 2.6 mg/kg to a maximum of 13000 mg/kg for a surface sample at borehole BH-1;
- For each sampled location, the hydrocarbon concentrations in soil diminished to below detection limits with depth, with a recurrence of TPH slightly above the water table in two of the four locations.

The principal findings of the groundwater characterization are as follows:

- No light, non-aqueous phase liquid (LNAPL) is present in any of Sun's three monitoring wells (see Table 3);
- Detectable BTEX concentrations in groundwater samples (see Table 3):
  - Were present in two of the three monitoring wells, MW99-2 and MW99-3;
  - Were below the New Mexico Water Quality Control Commission ground water standards for all samples;
  - Benzene was present at the detection limit in monitoring well MW99-2;
  - Toluene was not detected in any of the three monitoring wells;
  - Ethylbenzene was present at concentrations at or near the detection limit in monitoring wells MW99-2 and MW99-3;
  - Xylenes were present at concentrations at or near the detection limit in monitoring wells MW99-2 and MW99-3;
- Detectable TPH-GRO concentrations in groundwater samples were near the detection limit in monitoring well MW99-3 (see Table 3);
- Detectable TPH-DRO concentrations in groundwater were not present any of Sun's monitoring wells (see Table 3);
- The depth to groundwater at Lea Station was approximately 30 feet below ground level on April 15, 1999; and,
- Based on the single gauging event for Sun's three monitoring wells, the apparent groundwater flow direction is toward the southeast (see Figure 2).

The principal findings of the geological and background research are as follows:

- The soil/sediment profile consists of Quaternary alluvium along Monument Draw, probably consisting of windblown and water-laid deposits derived in part from the Ogallala Formation, and overlain by sand dunes and/or soils developed on this alluvium by weathering processes;
- The groundwater flow direction mapped in the Laguna Valley is towards the southeast;
- Numerous oil wells and associated gathering systems and storage facilities are present in the area surrounding the Lea Station;
- Sun's field operations personnel reported that, for many years, the access roads within the adjoining facility were stabilized by oiling the surface; and,
- Groundwater contamination associated with oil field brines is commonplace in Lea County.

4.2 Conclusions

The site assessment findings are interpreted as follows:

- Soils at each of the four borehole/well locations have indications of historical hydrocarbon impact, mostly in the C10 to C28 range (TPH-DRO);
- The hydrocarbons in soil and sediment at the four borehole/well locations appear to have been absorbed/adsorbed, degraded, or otherwise attenuated at depth before reaching groundwater;

- The hydrocarbons dissolved in groundwater at Sun's three monitoring wells are below the detection limits or are present in trace concentrations, near the detection limits for all analytes;
- The east-southeastward groundwater flow direction indicated by this study is consistent with the regional flow direction described for the Laguna Valley area;
- The source of the minimal groundwater impacts at Sun's Lea Station is not certain, given the myriad of potential sources in the area, such as oil-encrusted soils adjacent to the facility, dripping valves, numerous pipelines, LNAPL in nearby monitoring wells, etc.;
- The Lea Station is not the source of the LNAPL in a monitoring well located about 57 feet south of Sun's monitoring well MW99-3, based on:
  - The soil and groundwater sampling results;
  - The absence of LNAPL in any of Sun's three monitoring wells, including a monitoring well (MW99-3) located between Sun's tanks and the offsite well that contains LNAPL;
  - The presence of oily crusts at the surface just outside of the Lea Station enclosure to the west and to the south;
  - The abundance of alternative potential sources of the LNAPL, such as the oiling of roads, the numerous pipelines, storage tanks, valves and fittings, and oil wells in the area;
- The LNAPL in the monitoring well 57 feet south of Sun's monitoring well MW99-3, may be the source of the minimal hydrocarbon concentrations in groundwater at Sun's Lea Station.

5.1 Geological Information Sources

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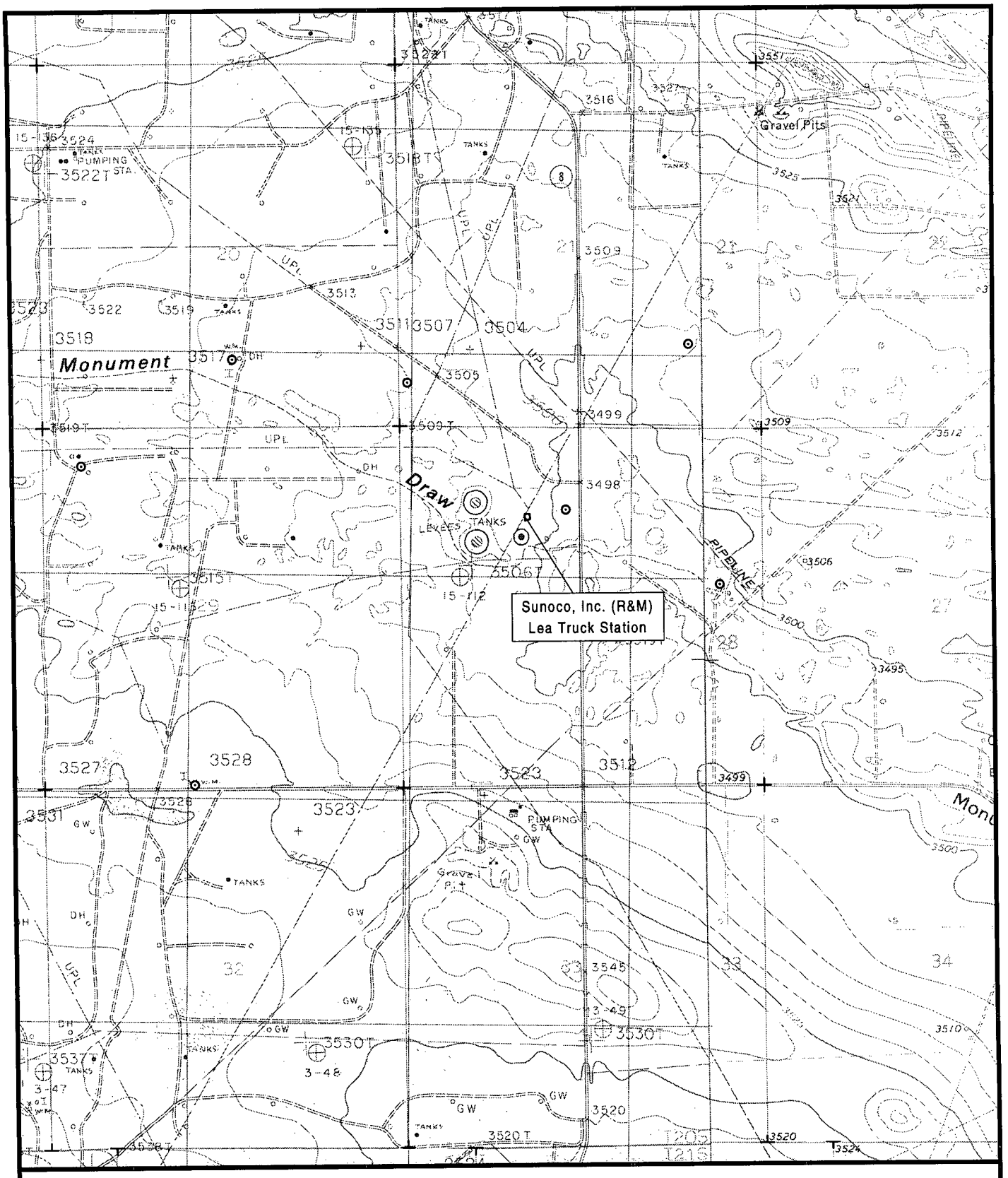
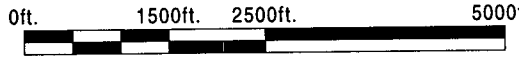
6.0 APPENDIXES

SEE TABS



West part from the U.S.G.S. Monument South, New Mexico. 7.5-Minute Quadrangle, based on 1978 aerial photography
East part from the U.S.G.S. Hobbs SW, N. Mex. 7.5-Minute Quadrangle, based on 1967 and 1977 aerial photography

WATER WELL
(STOCK OR OILFIELD)



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PROJECT #	SPL99 - 01
APPROVED BY	SAC
REVISION DATE	06 / 21 / 99

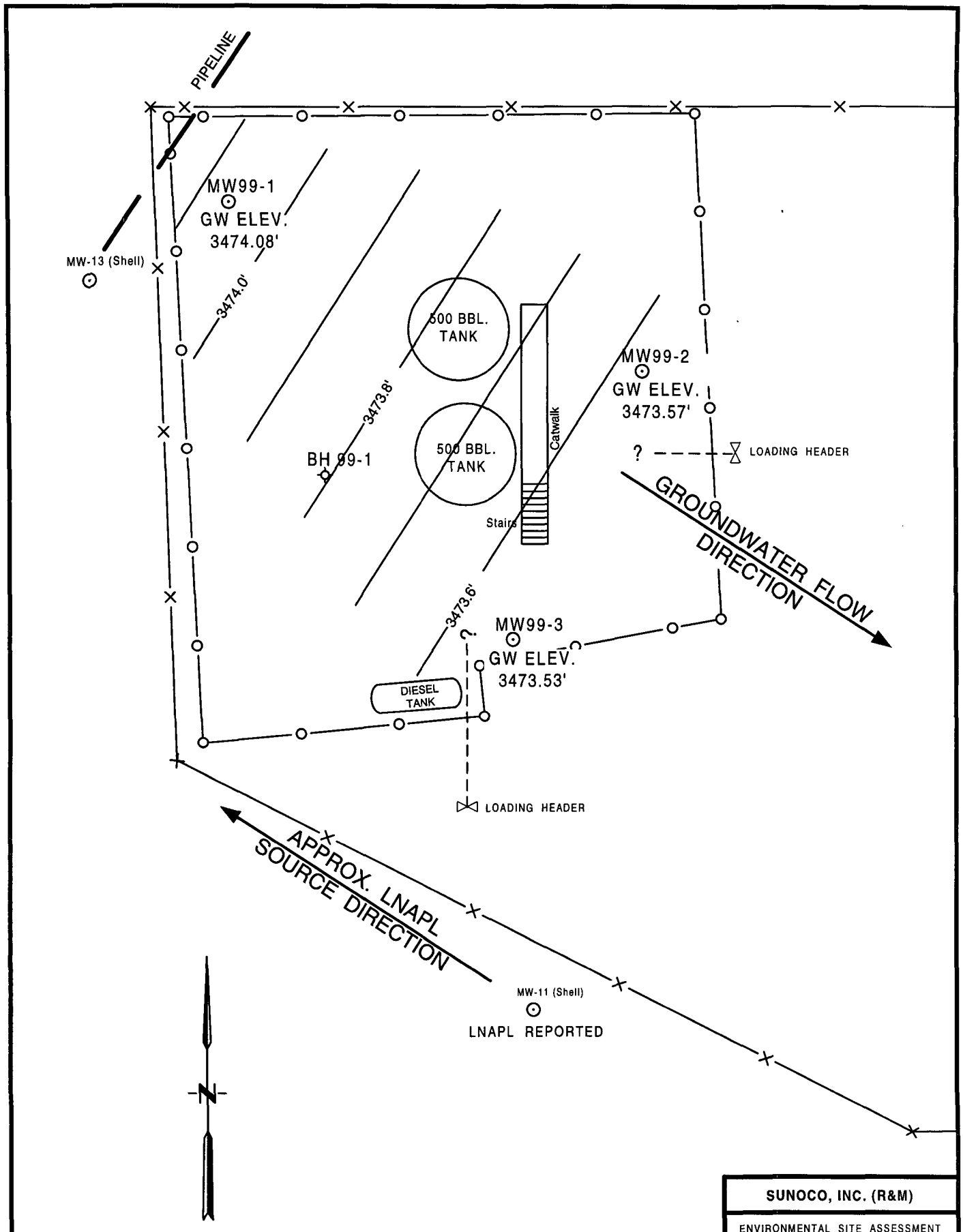
SUNOCO, INC. (R&M)

ENVIRONMENTAL SITE ASSESSMENT
LEA STATION

NW ¼ SEC 28, T20SN, R37E
LEA COUNTY, NEW MEXICO

FIGURE 1

GENERAL SITE LOCATION
& TOPOGRAPHIC MAP



Surveyed by Gary L. Jones, NMPS # 7977

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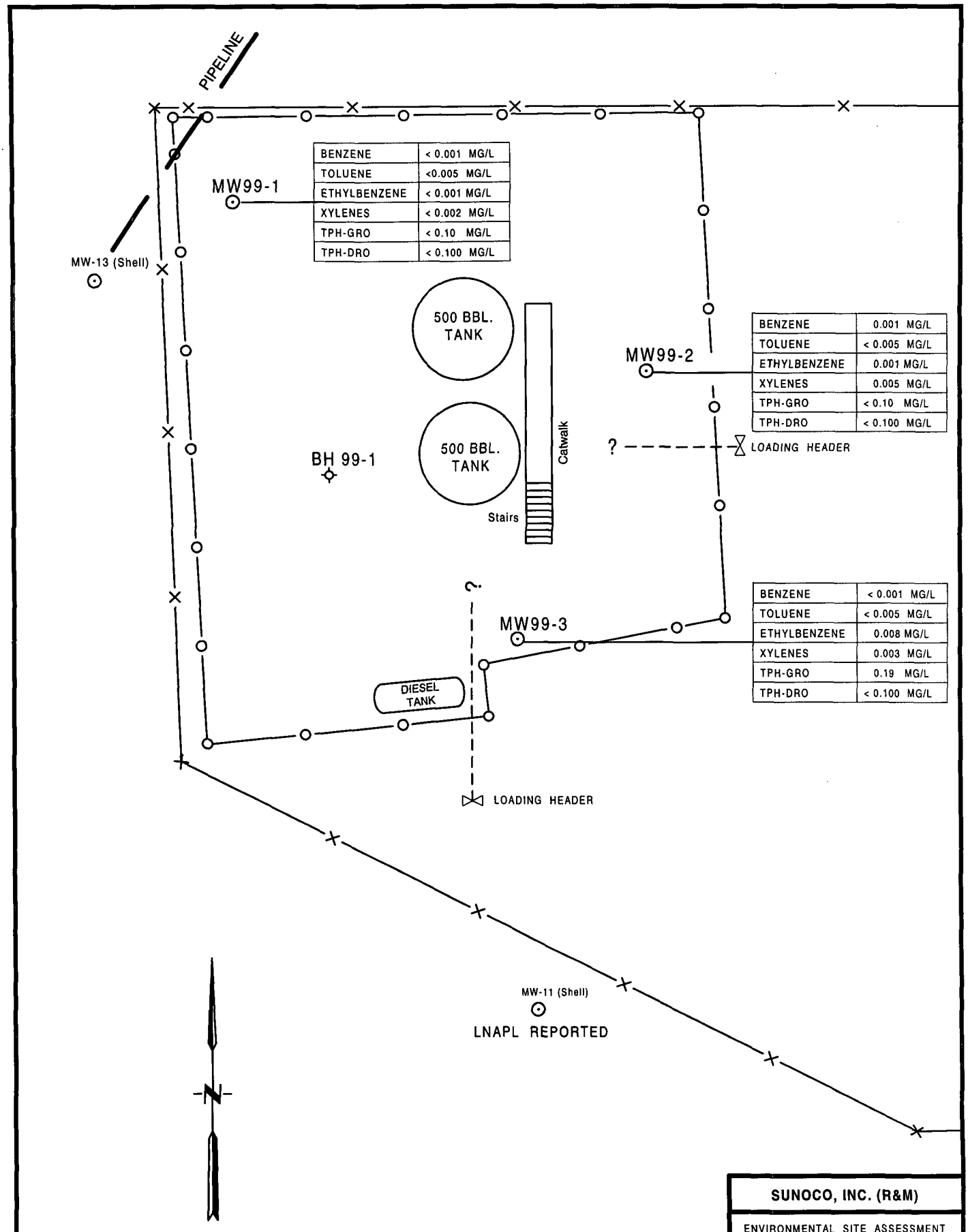
ENVIRONMENTAL SITE ASSESSMENT
LEA STATION

NW ¼ SEC 28, T20SN, R37E
LEA COUNTY, NEW MEXICO

FIGURE 2

GROUNDWATER
ELEVATION MAP



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SUNOCO, INC. (R&M)

ENVIRONMENTAL SITE ASSESSMENT
LEA STATION

NW ¼ SEC 28, T20SN, R37E
LEA COUNTY, NEW MEXICO

FIGURE 3
CONCENTRATIONS OF HYDROCARBONS IN GROUNDWATER MAP

TABLE 1. SOIL ANALYSES, SUNOCO INC. (R&M), LEA TRUCK STATION, APRIL 13 & 14, 1999

SAMPLE LOCATION (BOREHOLE OR WELL)		BTEX AND TPH (C6 – C10) [1] MG/KG					TPH (C10-C28) [2] MG/KG
ID	DEPTH INTERVAL	BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	TPH / GRO	TPH / DRO
BH99-1	0.0' – 1.0'	< 1.100	< 5.400	< 1.100	12.000	830	13000
BH99-1	5.0' – 7.0'	< 0.001	< 0.005	< 0.001	< 0.002	< 0.11	< 2.6
BH99-1	10.0' – 12.0'	< 0.001	< 0.005	< 0.001	< 0.002	< 0.11	< 2.7
BH99-1	15.0' – 17.0'	< 0.001	< 0.006	< 0.001	< 0.002	< 0.11	< 2.8
BH99-1	20.0' – 22.0'	< 0.001	< 0.007	< 0.001	< 0.003	< 0.14	< 3.5
BH99-1	25.0' – 27.0'	< 0.001	< 0.006	< 0.001	< 0.003	< 0.13	61
BH99-1	30.0' – 32.0'	< 0.001	< 0.006	< 0.001	< 0.002	< 0.11	< 2.8
MW99-1	2.0' – 3.0'	< 0.001	< 0.005	< 0.001	< 0.002	< 0.10	5.0
MW99-1	5.0' – 7.0'	< 0.001	< 0.005	< 0.001	< 0.002	1.4	940
MW99-1	10.0' – 12.0'	< 0.001	< 0.006	< 0.001	< 0.003	1.3	1500
MW99-1	15.0' – 17.0'	< 0.001	< 0.005	< 0.001	< 0.002	< 0.11	< 2.6
MW99-1	20.0' – 21.0'	< 0.001	< 0.006	< 0.001	< 0.002	< 0.12	< 2.9
MW99-1	25.0' – 27.0'	< 0.001	< 0.006	< 0.001	< 0.002	< 0.12	< 3.0
MW99-1	30.0' – 32.0'	< 0.001	< 0.006	< 0.001	< 0.002	< 0.12	< 2.9
MW99-2	1.0' – 2.0'	< 0.001	< 0.005	< 0.001	< 0.002	< 0.11	100
MW99-2	5.25' – 6.4'	< 0.001	< 0.006	< 0.001	< 0.003	1.1	160
MW99-2	10.0' – 12.0'	< 0.120	< 0.620	0.840	2.200	320	2500
MW99-2	15.0' – 17.0'	< 1.200	< 6.000	< 1.200	28.000	1700	4300
MW99-2	20.0' – 21.8'	< 0.001	< 0.005	< 0.001	< 0.002	2.7	210
MW99-2	25.0' – 27.0'	< 0.001	< 0.006	< 0.001	< 0.002	< 0.12	< 3.0
MW99-2	30.0' – 32.0'	< 0.001	< 0.005	< 0.001	< 0.002	0.65	82
MW99-3	1.0' – 2.0'	< 0.001	< 0.006	< 0.001	< 0.002	< 0.11	160
MW99-3	5.0' – 7.0'	< 0.001	< 0.005	< 0.001	< 0.002	< 0.11	8
MW99-3	10.0' – 11.6'	< 0.001	< 0.006	< 0.001	< 0.003	< 0.13	< 0.32
MW99-3	15.3' – 16.7'	< 0.002	< 0.009	< 0.002	< 0.004	< 0.18	3
MW99-3	20.0' – 21.35'	< 0.001	< 0.006	< 0.001	< 0.002	< 0.12	< 3
MW99-3	25.0' – 26.45'	< 0.001	< 0.006	< 0.001	< 0.002	< 0.12	< 3
MW99-3	30.0' – 31.45'	< 0.057	< 0.280	< 0.057	< 0.110	38	180

[1] EPA Method 8021Amod / 8015Amod / SW-846, 3rd Edition, Update III, Dec. 1996

[2] EPA Method 8015B (Mod.) / SW-846, 3rd Edition, Update III, Dec. 1996

TABLE 2. GROUNDWATER QUALITY PARAMETERS DURING WELL PURGING
SUNOCO INC. (R&M), LEA TRUCK STATION, APRIL 15, 1999

MONITORING WELL	PURGE VOLUME	DATA / MEASUREMENTS DURING WELL PURGING			
		TIME	TEMP DEGREES C	COND MS / CM	pH STD UNITS
MW99-1	Depth to water below TOC = 32.91'. Purged 4 gallons/volume (3.97 gal calculated). Very low turbidity. First volume slightly cloudy, second volume fairly clear, third volume clear.				
	0	09:50	16.4	2.23	6.61
	1	09:55	17.9	2.23	6.81
	2	10:03	18.3	2.21	7.07
	3	10:09	18.3	2.20	7.09
MW99-2	Depth to water below TOC = 33.10'. Purged 4 gallons/volume (4.02 gal calculated). Slight turbidity. First and second volumes very milky and cloudy, third volume clearing up significantly.				
	0	10:32	18.5	2.72	7.33
	1	10:40	18.6	2.56	7.42
	2	10:45	18.9	2.35	7.47
	3	10:52	19.1	2.29	7.46
MW99-3	Depth to water below TOC = 33.06'. Purged 4 gallons/volume (3.86 gal calculated). Low turbidity. First volume slightly milky, second volume noticeably clearer, third volume nearly clear.				
	0	11:10	18.4	2.89	7.44
	1	11:18	19.2	2.84	7.46
	2	11:28	19.6	2.85	7.40
	3	11:38	19.5	2.79	7.35

Measurements made with an Orion Model 1230, calibrated for pH and conductivity.

TABLE 3. NEW MEXICO WATER QUALITY CONTROL COMMISSION (NMWQCC) GROUND WATER STANDARDS AND GROUNDWATER ANALYSES, SUNOCO INC. (R&M), LEA TRUCK STATION, APRIL 15, 1999

SAMPLE LOCATION (BOREHOLE OR WELL)		BTEX AND TPH (C6 – C10) [1] MG/L					TPH (C10-C28) [2] MG/KG
ID	LNAPL THICKNESS	BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	TPH / GRO	TPH / DRO
NM WQCC[3] STD.	0	0.01	0.75	0.75	0.62	N / A	N / A
MW99-1	NOT DETECTED	< 0.001	< 0.005	< 0.001	< 0.002	< 0.10	<0.100
MW99-2	NOT DETECTED	0.001	< 0.005	0.001	0.005	< 0.10	<0.100
MW99-3	NOT DETECTED	< 0.001	< 0.005	0.008	0.003	0.19	<0.100

[1] EPA Method 8021Amod / 8015Amod / SW-846, 3rd Edition, Update III, Dec. 1996
[2] EPA Method 8015B (Mod.) / SW-846, 3rd Edition, Update III, Dec. 1996
[3] New Mexico Water Quality Control Commission

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SIGNATURE PAGE

Reviewed by: _____
STL Project Manager

Client:	SUN PIPE LINE CO. TULSA, OKLAHOMA
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Number:	SPL99-01
Project Location:	LEA TRUCK STATION, LEA CO, NM
Accession Number:	904325
Project Manager:	SCOTT CHRISTENSEN
Sampled By:	R. VANCE HALL

SEVERN TRENT LABORATORIES, INC.

Report Summary - By Sample

Project Name: SPL/LEA TRUCK STATION/LEA CO, NM

Sample Number: 1
Date Received: 15-APR-99
Date Sampled: 13-APR-99

Accession Number: 904325
Client Sample Desc: MW99-1 2'-3'
Matrix Code: SO
Dry Weight 96

	Parameter Name	Result	RL	Unit	Qualifier
BXTP	ETHYLBENZENE	ND	1	UG/KG	
BXTP	TOLUENE	ND	5	UG/KG	
BXTP	XYLENES (TOTAL)	ND	2	UG/KG	
BXTP	BENZENE	ND	1	UG/KG	
BXTP	TOTAL PETROLEUM HYDROCARBON	ND	0.10	MG/KG	
DROP	TOTAL PETROLEUM HYDROCARBON	5.0	2.6	MG/KG	

Report Summary - By Sample

Project Name: SPL/LEA TRUCK STATION/LEA CO, NM

Sample Number: 2
Date Received: 15-APR-99
Date Sampled: 13-APR-99

Accession Number: 904325
Client Sample Desc: MW99-1 5'-7'
Matrix Code: SO
Dry Weight 92

	Parameter Name	Result	RL	Unit	Qualifier
BXTP	ETHYLBENZENE	ND	1	UG/KG	
BXTP	TOLUENE	ND	5	UG/KG	
BXTP	XYLENES (TOTAL)	ND	2	UG/KG	
BXTP	BENZENE	ND	1	UG/KG	
BXTP	TOTAL PETROLEUM HYDROCARBON	1.4	0.11	MG/KG	
DROP	TOTAL PETROLEUM HYDROCARBON	940	2.7	MG/KG	

Report Summary - By Sample

Project Name: SPL/LEA TRUCK STATION/LEA CO, NM

Sample Number: 3
Date Received: 15-APR-99
Date Sampled: 13-APR-99

Accession Number: 904325
Client Sample Desc: MW99-1 10'-12'
Matrix Code: SO
Dry Weight 80

	Parameter Name	Result	RL	Unit	Qualifier
BXTP	ETHYLBENZENE	ND	1	UG/KG	
BXTP	TOLUENE	ND	6	UG/KG	
BXTP	XYLENES (TOTAL)	ND	3	UG/KG	
BXTP	BENZENE	ND	1	UG/KG	
BXTP	TOTAL PETROLEUM HYDROCARBON	1.3	0.13	MG/KG	
DROP	TOTAL PETROLEUM HYDROCARBON	1500	3.1	MG/KG	

Report Summary - By Sample

Project Name: SPL/LEA TRUCK STATION/LEA CO, NM

Sample Number: 4
Date Received: 15-APR-99
Date Sampled: 13-APR-99

Accession Number: 904325
Client Sample Desc: MW99-1 15'-17'
Matrix Code: SO
Dry Weight 95

	Parameter Name	Result	RL	Unit	Qualifier
BXTP	ETHYLBENZENE	ND	1	UG/KG	
BXTP	TOLUENE	ND	5	UG/KG	
BXTP	XYLENES (TOTAL)	ND	2	UG/KG	
BXTP	BENZENE	ND	1	UG/KG	
BXTP	TOTAL PETROLEUM HYDROCARBON	ND	0.11	MG/KG	
DROP	TOTAL PETROLEUM HYDROCARBON	ND	2.6	MG/KG	

Report Summary - By Sample

Project Name: SPL/LEA TRUCK STATION/LEA CO, NM

Sample Number: 5
Date Received: 15-APR-99
Date Sampled: 13-APR-99

Accession Number: 904325
Client Sample Desc: MW99-1 20'-21'
Matrix Code: SO
Dry Weight 85

	Parameter Name	Result	RL	Unit	Qualifier
BXTP	ETHYLBENZENE	ND	1	UG/KG	
BXTP	TOLUENE	ND	6	UG/KG	
BXTP	XYLENES (TOTAL)	ND	2	UG/KG	
BXTP	BENZENE	ND	1	UG/KG	
BXTP	TOTAL PETROLEUM HYDROCARBON	ND	0.12	MG/KG	
DROP	TOTAL PETROLEUM HYDROCARBON	ND	2.9	MG/KG	

Report Summary - By Sample

Project Name: SPL/LEA TRUCK STATION/LEA CO, NM

Sample Number: 6
Date Received: 15-APR-99
Date Sampled: 13-APR-99

Accession Number: 904325
Client Sample Desc: MW99-1 25'-27'
Matrix Code: SO
Dry Weight 84

	Parameter Name	Result	RL	Unit	Qualifier
BXTP	ETHYLBENZENE	ND	1	UG/KG	
BXTP	TOLUENE	ND	6	UG/KG	
BXTP	XYLENES (TOTAL)	ND	2	UG/KG	
BXTP	BENZENE	ND	1	UG/KG	
BXTP	TOTAL PETROLEUM HYDROCARBON	ND	0.12	MG/KG	
DROP	TOTAL PETROLEUM HYDROCARBON	ND	3.0	MG/KG	

Report Summary - By Sample

Project Name: SPL/LEA TRUCK STATION/LEA CO, NM

Sample Number: 7
Date Received: 15-APR-99
Date Sampled: 13-APR-99

Accession Number: 904325
Client Sample Desc: MW99-1 30'-32'
Matrix Code: SO
Dry Weight 85

	Parameter Name	Result	RL	Unit	Qualifier
8XTP	ETHYLBENZENE	ND	1	UG/KG	
8XTP	TOLUENE	ND	6	UG/KG	
8XTP	XYLENES (TOTAL)	ND	2	UG/KG	
8XTP	BENZENE	ND	1	UG/KG	
8XTP	TOTAL PETROLEUM HYDROCARBON	ND	0.12	MG/KG	
DROP	TOTAL PETROLEUM HYDROCARBON	ND	2.9	MG/KG	

Report Summary - By Sample

Project Name: SPL/LEA TRUCK STATION/LEA CO, NM

Sample Number: 8
Date Received: 15-APR-99
Date Sampled: 13-APR-99

Accession Number: 904325
Client Sample Desc: BH99-1 0'-1'
Matrix Code: SO
Dry Weight 93

	Parameter Name	Result	RL	Unit	Qualifier
BXTP	ETHYLBENZENE	ND	1100	UG/KG	
BXTP	TOLUENE	ND	5400	UG/KG	
BXTP	XYLENES (TOTAL)	12000	2200	UG/KG	
BXTP	BENZENE	ND	1100	UG/KG	
BXTP	TOTAL PETROLEUM HYDROCARBON	830	110	MG/KG	
DROP	TOTAL PETROLEUM HYDROCARBON	13000	54	MG/KG	

Report Summary - By Sample

Project Name: SPL/LEA TRUCK STATION/LEA CO, NM

Sample Number: 9
Date Received: 15-APR-99
Date Sampled: 13-APR-99

Accession Number: 904325
Client Sample Desc: BH99-1 5'-7'
Matrix Code: SO
Dry Weight 95

	Parameter Name	Result	RL	Unit	Qualifier
BXTP	ETHYLBENZENE	ND	1	UG/KG	
BXTP	TOLUENE	ND	5	UG/KG	
BXTP	XYLENES (TOTAL)	ND	2	UG/KG	
BXTP	BENZENE	ND	1	UG/KG	
BXTP	TOTAL PETROLEUM HYDROCARBON	ND	0.11	MG/KG	
DROP	TOTAL PETROLEUM HYDROCARBON	ND	2.6	MG/KG	

Report Summary - By Sample

Project Name: SPL/LEA TRUCK STATION/LEA CO, NM

Sample Number: 10
Date Received: 15-APR-99
Date Sampled: 13-APR-99

Accession Number: 904325
Client Sample Desc: BH99-1 10'-12'
Matrix Code: SO
Dry Weight 91

	Parameter Name	Result	RL	Unit	Qualifier
BXTP	ETHYLBENZENE	ND	1	UG/KG	
BXTP	TOLUENE	ND	5	UG/KG	
BXTP	XYLENES (TOTAL)	ND	2	UG/KG	
BXTP	BENZENE	ND	1	UG/KG	
BXTP	TOTAL PETROLEUM HYDROCARBON	ND	0.11	MG/KG	
DROP	TOTAL PETROLEUM HYDROCARBON	ND	2.7	MG/KG	

Report Summary - By Sample

Project Name: SPL/LEA TRUCK STATION/LEA CO, NM

Sample Number: 11
Date Received: 15-APR-99
Date Sampled: 13-APR-99

Accession Number: 904325
Client Sample Desc: BH99-1 15'-17'
Matrix Code: SO
Dry Weight 88

	Parameter Name	Result	RL	Unit	Qualifier
BXTP	ETHYLBENZENE	ND	1	UG/KG	
BXTP	TOLUENE	ND	6	UG/KG	
BXTP	XYLENES (TOTAL)	ND	2	UG/KG	
BXTP	BENZENE	ND	1	UG/KG	
BXTP	TOTAL PETROLEUM HYDROCARBON	ND	0.11	MG/KG	
DROP	TOTAL PETROLEUM HYDROCARBON	ND	2.8	MG/KG	

Report Summary - By Sample

Project Name: SPL/LEA TRUCK STATION/LEA CO, NM

Sample Number: 12
Date Received: 15-APR-99
Date Sampled: 13-APR-99

Accession Number: 904325
Client Sample Desc: BH99-1 20'-22'
Matrix Code: SO
Dry Weight 72

	Parameter Name	Result	RL	Unit	Qualifier
BXTP	ETHYLBENZENE	ND	1	UG/KG	
BXTP	TOLUENE	ND	7	UG/KG	
BXTP	XYLENES (TOTAL)	ND	3	UG/KG	
BXTP	BENZENE	ND	1	UG/KG	
BXTP	TOTAL PETROLEUM HYDROCARBON	ND	0.14	MG/KG	
DROP	TOTAL PETROLEUM HYDROCARBON	ND	3.5	MG/KG	

Report Summary - By Sample

Project Name: SPL/LEA TRUCK STATION/LEA CO, NM

Sample Number: 13
Date Received: 15-APR-99
Date Sampled: 13-APR-99

Accession Number: 904325
Client Sample Desc: BH99-1 25'-27'
Matrix Code: SO
Dry Weight 79

	Parameter Name	Result	RL	Unit	Qualifier
BXTP	ETHYLBENZENE	ND	1	UG/KG	
BXTP	TOLUENE	ND	6	UG/KG	
BXTP	XYLENES (TOTAL)	ND	3	UG/KG	
BXTP	BENZENE	ND	1	UG/KG	
BXTP	TOTAL PETROLEUM HYDROCARBON	ND	0.13	MG/KG	
DROP	TOTAL PETROLEUM HYDROCARBON	61	3.2	MG/KG	

Report Summary - By Sample

Project Name: SPL/LEA TRUCK STATION/LEA CO, NM

Sample Number: 14
Date Received: 15-APR-99
Date Sampled: 13-APR-99

Accession Number: 904325
Client Sample Desc: BH99-1 30'-32'
Matrix Code: SO
Dry Weight 89

	Parameter Name	Result	RL	Unit	Qualifier
BXTP	ETHYLBENZENE	ND	1	UG/KG	
BXTP	TOLUENE	ND	6	UG/KG	
BXTP	XYLENES (TOTAL)	ND	2	UG/KG	
BXTP	BENZENE	ND	1	UG/KG	
BXTP	TOTAL PETROLEUM HYDROCARBON	ND	0.11	MG/KG	
DROP	TOTAL PETROLEUM HYDROCARBON	ND	2.8	MG/KG	

Report Summary - By Sample

Project Name: SPL/LEA TRUCK STATION/LEA CO, NM

Sample Number: 15
Date Received: 15-APR-99
Date Sampled: 13-APR-99

Accession Number: 904325
Client Sample Desc: MW99-2 1'-2'
Matrix Code: SO
Dry Weight 95

	Parameter Name	Result	RL	Unit	Qualifier
BXTP	ETHYLBENZENE	ND	1	UG/KG	
BXTP	TOLUENE	ND	5	UG/KG	
BXTP	XYLENES (TOTAL)	ND	2	UG/KG	
BXTP	BENZENE	ND	1	UG/KG	
BXTP	TOTAL PETROLEUM HYDROCARBON	ND	0.11	MG/KG	
DROP	TOTAL PETROLEUM HYDROCARBON	100	2.6	MG/KG	

Report Summary - By Sample

Project Name: SPL/LEA TRUCK STATION/LEA CO, NM

Sample Number: 16
Date Received: 15-APR-99
Date Sampled: 13-APR-99

Accession Number: 904325
Client Sample Desc: MW99-2 5.25'-6.4'
Matrix Code: SO
Dry Weight 80

	Parameter Name	Result	RL	Unit	Qualifier
BXTP	ETHYLBENZENE	ND	1	UG/KG	
BXTP	TOLUENE	ND	6	UG/KG	
BXTP	XYLENES (TOTAL)	ND	3	UG/KG	
BXTP	BENZENE	ND	1	UG/KG	
BXTP	TOTAL PETROLEUM HYDROCARBON	1.1	0.13	MG/KG	
DROP	TOTAL PETROLEUM HYDROCARBON	160	3.1	MG/KG	

Report Summary - By Sample

Project Name: SPL/LEA TRUCK STATION/LEA CO, NM

Sample Number: 17
Date Received: 15-APR-99
Date Sampled: 13-APR-99

Accession Number: 904325
Client Sample Desc: MW99-2 10'-12'
Matrix Code: SO
Dry Weight 81

	Parameter Name	Result	RL	Unit	Qualifier
BXTP	ETHYLBENZENE	840	120	UG/KG	
BXTP	TOLUENE	ND	620	UG/KG	
BXTP	XYLENES (TOTAL)	2200	250	UG/KG	
BXTP	BENZENE	ND	120	UG/KG	
BXTP	TOTAL PETROLEUM HYDROCARBON	320	12	MG/KG	
DROP	TOTAL PETROLEUM HYDROCARBON	2500	12	MG/KG	

Report Summary - By Sample

Project Name: SPL/LEA TRUCK STATION/LEA CO, NM

Sample Number: 18
Date Received: 15-APR-99
Date Sampled: 13-APR-99

Accession Number: 904325
Client Sample Desc: MW99-2 15'-17'
Matrix Code: SO
Dry Weight 84

	Parameter Name	Result	RL	Unit	Qualifier
BXTP	ETHYLBENZENE	ND	1200	UG/KG	
BXTP	TOLUENE	ND	6000	UG/KG	
BXTP	XYLENES (TOTAL)	28000	2400	UG/KG	
BXTP	BENZENE	ND	1200	UG/KG	
BXTP	TOTAL PETROLEUM HYDROCARBON	1700	120	MG/KG	
DROP	TOTAL PETROLEUM HYDROCARBON	4300	15	MG/KG	

Report Summary - By Sample

Project Name: SPL/LEA TRUCK STATION/LEA CO, NM

Sample Number: 19
Date Received: 15-APR-99
Date Sampled: 13-APR-99

Accession Number: 904325
Client Sample Desc: MW99-2 20'-21.8'
Matrix Code: SO
Dry Weight 94

	Parameter Name	Result	RL	Unit	Qualifier
BXTP	ETHYLBENZENE	ND	1	UG/KG	
BXTP	TOLUENE	ND	5	UG/KG	
BXTP	XYLENES (TOTAL)	2	2	UG/KG	
BXTP	BENZENE	ND	1	UG/KG	
BXTP	TOTAL PETROLEUM HYDROCARBON	2.7	0.11	MG/KG	
DROP	TOTAL PETROLEUM HYDROCARBON	210	2.7	MG/KG	

Report Summary - By Sample

Project Name: SPL/LEA TRUCK STATION/LEA CO, NM

Sample Number: 20
Date Received: 15-APR-99
Date Sampled: 13-APR-99

Accession Number: 904325
Client Sample Desc: MW99-2 25'-27'
Matrix Code: SO
Dry Weight 82

	Parameter Name	Result	RL	Unit	Qualifier
BXTP	ETHYLBENZENE	ND	1	UG/KG	
BXTP	TOLUENE	ND	6	UG/KG	
BXTP	XYLENES (TOTAL)	ND	2	UG/KG	
BXTP	BENZENE	ND	1	UG/KG	
BXTP	TOTAL PETROLEUM HYDROCARBON	ND	0.12	MG/KG	
DROP	TOTAL PETROLEUM HYDROCARBON	ND	3	MG/KG	

Report Summary - By Sample

Project Name: SPL/LEA TRUCK STATION/LEA CO, NM

Sample Number: 21
Date Received: 15-APR-99
Date Sampled: 13-APR-99

Accession Number: 904325
Client Sample Desc: MW99-2 30'-32'
Matrix Code: SO
Dry Weight 91

	Parameter Name	Result	RL	Unit	Qualifier
BXTP	ETHYLBENZENE	ND	1	UG/KG	
BXTP	TOLUENE	ND	5	UG/KG	
BXTP	XYLENES (TOTAL)	ND	2	UG/KG	
BXTP	BENZENE	ND	1	UG/KG	
BXTP	TOTAL PETROLEUM HYDROCARBON	0.65	0.11	MG/KG	
DROP	TOTAL PETROLEUM HYDROCARBON	82	2.7	MG/KG	

Report Summary - By Sample

Project Name: SPL/LEA TRUCK STATION/LEA CO, NM

Sample Number: 22
Date Received: 15-APR-99
Date Sampled: 13-APR-99

Accession Number: 904325
Client Sample Desc: MW99-3 1'-2'
Matrix Code: SO
Dry Weight 88

	Parameter Name	Result	RL	Unit	Qualifier
BXTP	ETHYLBENZENE	ND	1	UG/KG	
BXTP	TOLUENE	ND	6	UG/KG	
BXTP	XYLENES (TOTAL)	ND	2	UG/KG	
BXTP	BENZENE	ND	1	UG/KG	
BXTP	TOTAL PETROLEUM HYDROCARBON	ND	0.11	MG/KG	
DROP	TOTAL PETROLEUM HYDROCARBON	160	2.8	MG/KG	

Report Summary - By Sample

Project Name: SPL/LEA TRUCK STATION/LEA CO, NM

Sample Number: 23
Date Received: 15-APR-99
Date Sampled: 14-APR-99

Accession Number: 904325
Client Sample Desc: MW99-3 5'-7'
Matrix Code: SO
Dry Weight 95

	Parameter Name	Result	RL	Unit	Qualifier
BXTP	ETHYLBENZENE	ND	1	UG/KG	
BXTP	TOLUENE	ND	5	UG/KG	
BXTP	XYLENES (TOTAL)	ND	2	UG/KG	
BXTP	BENZENE	ND	1	UG/KG	
BXTP	TOTAL PETROLEUM HYDROCARBON	ND	0.11	MG/KG	
DROP	TOTAL PETROLEUM HYDROCARBON	8	2.6	MG/KG	

Report Summary - By Sample

Project Name: SPL/LEA TRUCK STATION/LEA CO, NM

Sample Number: 24
Date Received: 15-APR-99
Date Sampled: 14-APR-99

Accession Number: 904325
Client Sample Desc: MW99-3 10'-11.6'
Matrix Code: SO
Dry Weight 78

	Parameter Name	Result	RL	Unit	Qualifier
BXTP	ETHYLBENZENE	ND	1	UG/KG	
BXTP	TOLUENE	ND	6	UG/KG	
BXTP	XYLENES (TOTAL)	ND	3	UG/KG	
BXTP	BENZENE	ND	1	UG/KG	
BXTP	TOTAL PETROLEUM HYDROCARBON	ND	0.13	MG/KG	
DROP	TOTAL PETROLEUM HYDROCARBON	ND	3.2	MG/KG	

Report Summary - By Sample

Project Name: SPL/LEA TRUCK STATION/LEA CO, NM

Sample Number: 25
Date Received: 15-APR-99
Date Sampled: 14-APR-99

Accession Number: 904325
Client Sample Desc: MW99-3 15.3'-16.7'
Matrix Code: SO
Dry Weight 56

	Parameter Name	Result	RL	Unit	Qualifier
BXTP	ETHYLBENZENE	ND	2	UG/KG	
BXTP	TOLUENE	ND	9	UG/KG	
BXTP	XYLENES (TOTAL)	ND	4	UG/KG	
BXTP	BENZENE	ND	2	UG/KG	
BXTP	TOTAL PETROLEUM HYDROCARBON	ND	0.18	MG/KG	
DROP	TOTAL PETROLEUM HYDROCARBON	3	4.5	MG/KG	

Report Summary - By Sample

Project Name: SPL/LEA TRUCK STATION/LEA CO, NM

Sample Number: 26
Date Received: 15-APR-99
Date Sampled: 14-APR-99

Accession Number: 904325
Client Sample Desc: MW99-3 20'-21.35'
Matrix Code: SO
Dry Weight 83

	Parameter Name	Result	RL	Unit	Qualifier
BXTP	ETHYLBENZENE	ND	1	UG/KG	
BXTP	TOLUENE	ND	6	UG/KG	
BXTP	XYLENES (TOTAL)	ND	2	UG/KG	
BXTP	BENZENE	ND	1	UG/KG	
BXTP	TOTAL PETROLEUM HYDROCARBON	ND	0.12	MG/KG	
DROP	TOTAL PETROLEUM HYDROCARBON	ND	3	MG/KG	

Report Summary - By Sample

Project Name: SPL/LEA TRUCK STATION/LEA CO, NM

Sample Number: 27
Date Received: 15-APR-99
Date Sampled: 14-APR-99

Accession Number: 904325
Client Sample Desc: MW99-3 25'-26.45'
Matrix Code: SO
Dry Weight 82

	Parameter Name	Result	RL	Unit	Qualifier
BXTP	ETHYLBENZENE	ND	1	UG/KG	
BXTP	TOLUENE	ND	6	UG/KG	
BXTP	XYLENES (TOTAL)	ND	2	UG/KG	
BXTP	BENZENE	ND	1	UG/KG	
BXTP	TOTAL PETROLEUM HYDROCARBON	ND	0.12	MG/KG	
DROP	TOTAL PETROLEUM HYDROCARBON	ND	3	MG/KG	

Report Summary - By Sample

Project Name: SPL/LEA TRUCK STATION/LEA CO, NM

Sample Number: 28
Date Received: 15-APR-99
Date Sampled: 14-APR-99

Accession Number: 904325
Client Sample Desc: MW99-3 30'-31.45'
Matrix Code: SO
Dry Weight 88

	Parameter Name	Result	RL	Unit	Qualifier
BXTP	ETHYLBENZENE	ND	57	UG/KG	
BXTP	TOLUENE	ND	280	UG/KG	
BXTP	XYLENES (TOTAL)	ND	110	UG/KG	
BXTP	BENZENE	ND	57	UG/KG	
BXTP	TOTAL PETROLEUM HYDROCARBON	38	5.7	MG/KG	
DROP	TOTAL PETROLEUM HYDROCARBON	180	2.8	MG/KG	

Committed To Your Success

SEVERN TRENT LABORATORIES, INC. – PENSACOLA, FLORIDA
STATE CERTIFICATIONS

Alabama Department of Environmental Management, Laboratory ID No. 40150 (Drinking Water by Reciprocity with FL)

Arizona Department of Health Services, Lab ID No. AZ0589 (Hazardous Waste & Wastewater)

Arkansas Department of Pollution Control and Ecology, (No Laboratory ID No. assigned by state) (Environmental)

State of California, Department of Health Services, Laboratory ID No. 2338 (Hazardous Waste and Wastewater)

State of Connecticut, Department of Health Services, Connecticut Lab Approval No. PH-0697 (Drinking Water, Hazardous Waste and Wastewater)

Delaware Health & Social Services, Division of Public Health, Laboratory ID No. FL094 (Drinking Water by Reciprocity with FL)

Florida DOH Laboratory ID No. 81142 (Drinking Water), Laboratory ID No. E81010 (Hazardous Waste and Wastewater)

Florida, Radioactive Materials License No. G0733-1

Foreign Soil Permit, Permit No. S-37599

Kansas Department of Health & Environment, Laboratory ID No. E10253 (Wastewater and Hazardous Waste)

Commonwealth of Kentucky, Natural Resources and Environmental Protection Cabinet, Laboratory ID No. 90043 (Drinking Water)

State of Louisiana, DHH, Office of Public Health Division of Laboratories, Laboratory ID No. 98-25 (Drinking Water)

State of Maryland, DH&MH Laboratory ID No. 233 (Drinking Water by Reciprocity with Florida)

Commonwealth of Massachusetts, DEP, Laboratory ID No. M-FL094 (Hazardous Waste and Wastewater)

State of Michigan, Bureau of E&OccH (No Laboratory ID No. assigned by state) (Drinking Water by Reciprocity with Florida)

New Hampshire DES, Laboratory ID No. 250598-A (Wastewater)

State of New Jersey, Department of Environmental Protection & Energy, Laboratory ID No. 49006 (Wastewate and Hazardous Waster)

New York State, Department of Health, Laboratory ID No. 11503 (Wastewater and Solids/Hazardous Waste)

North Carolina Department of Environment, Health, & Natural Resources, Laboratory ID No. 314 (Hazardous Waste and Wastewater)

North Dakota DH&Consol Labs, Laboratory ID No. R-108 (Hazardous Waste and Wastewater by Reciprocity with California)

State of Oklahoma, Oklahoma Department of Environmental Quality, Laboratory ID No. 9810 (Hazardous Waste and Wastewater)

Commonwealth of Pennsylvania, Department of Environmental Resources, Laboratory ID No. 68-467 (Drinking Water)

South Carolina DH&EC, Laboratory ID No. 96026 (Wastewater by Reciprocity with FL and Solids/Hazardous Waste by Reciprocity with CA)

Tennessee Department of Health & Environment, Laboratory ID No. 02907 (Drinking Water)

Tennessee Division of Underground Storage Tanks Approved Laboratory

Virginia Department of General Services, Laboratory ID No. 00008 (Drinking Water by Reciprocity with FL)

State of Washington, Department of Ecology, Laboratory ID No. C282 (Hazardous Waste and Wastewater)

West Virginia Division of Environmental Protection, Office of Water Resources, Laboratory ID No. 136 (Hazardous Waste and Wastewater Reciprocity with FL)

American Industrial Hygiene Association (AIHA) Accredited Laboratory, Laboratory ID No. 9133

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

Analysis Report

Analysis: DRO\PETRO. HYDROCARBON RANGE C10-C28

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Department:	SEMI-VOLATILE FUELS

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	DRO\PETRO. HYDROCARBON RANGE C10-C28
Analysis Method:	DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method:	3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.
Matrix:	SOIL
QC Level:	II

Lab Id:	001	Sample Date/Time:	13-APR-99 0935
Client Sample Id:	MW99-1 2'-3'	Received Date:	15-APR-99
Batch: FPS056		Extraction Date:	16-APR-99
Blank: A	Dry Weight %: 96	Analysis Date:	20-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/KG	5.0	2.6	
ORTHO TER PHENYL	%REC/SURR	100	64-165	
ANALYST	INITIALS	HAH		

Comments:

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	DRO\PETRO. HYDROCARBON RANGE C10-C28
Analysis Method:	DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method:	3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.
Matrix:	SOIL
QC Level:	II

Lab Id:	002		Sample Date/Time:	13-APR-99 1015
Client Sample Id:	MW99-1 5'-7'		Received Date:	15-APR-99
Batch: FPS056			Extraction Date:	16-APR-99
Blank: A	Dry Weight %:	92	Analysis Date:	20-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/KG	940	2.7	
ORTHO TER PHENYL	%REC/SURR	95	64-165	
ANALYST	INITIALS	HAH		

Comments:

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	DRO\PETRO. HYDROCARBON RANGE C10-C28
Analysis Method:	DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method:	3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.
Matrix:	SOIL
QC Level:	II

Lab Id:	003		Sample Date/Time:	13-APR-99 1034
Client Sample Id:	MW99-1 10'-12'		Received Date:	15-APR-99
Batch: FPS056			Extraction Date:	16-APR-99
Blank: A	Dry Weight %:	80	Analysis Date:	20-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/KG	1500	3.1	
ORTHO TER PHENYL	%REC/SURR	88	64-165	
ANALYST	INITIALS	HAH		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	DRO\PETRO. HYDROCARBON RANGE C10-C28
Analysis Method:	DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method:	3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.
Matrix:	SOIL
QC Level:	II

Lab Id:	004		Sample Date/Time:	13-APR-99 1045
Client Sample Id:	MW99-1 15'-17'		Received Date:	15-APR-99
Batch: FPS056			Extraction Date:	16-APR-99
Blank: A	Dry Weight %:	95	Analysis Date:	20-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	2.6	
ORTHO TER PHENYL	%REC/SURR	94	64-165	
ANALYST	INITIALS	HAH		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	DRO\PETRO. HYDROCARBON RANGE C10-C28
Analysis Method:	DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method:	3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.
Matrix:	SOIL
QC Level:	II

Lab Id:	005		Sample Date/Time:	13-APR-99 1105
Client Sample Id:	MW99-1 20'-21'		Received Date:	15-APR-99
Batch: FPS056			Extraction Date:	16-APR-99
Blank: A	Dry Weight %:	85	Analysis Date:	20-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	2.9	
ORTHO TER PHENYL	%REC/SURR	89	64-165	
ANALYST	INITIALS	HAH		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	DRO\PETRO. HYDROCARBON RANGE C10-C28
Analysis Method:	DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method:	3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.
Matrix:	SOIL
QC Level:	II

Lab Id:	006		Sample Date/Time:	13-APR-99 1120
Client Sample Id:	MW99-1 25'-27'		Received Date:	15-APR-99
Batch: FPS056			Extraction Date:	16-APR-99
Blank: A	Dry Weight %:	84	Analysis Date:	20-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	3.0	
ORTHO TER PHENYL	%REC/SURR	98	64-165	
ANALYST	INITIALS	HAH		

Comments:

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	DRO\PETRO. HYDROCARBON RANGE C10-C28
Analysis Method:	DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method:	3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.
Matrix:	SOIL
QC Level:	II

Lab Id:	007		Sample Date/Time:	13-APR-99 1150
Client Sample Id:	MW99-1 30'-32'		Received Date:	15-APR-99
Batch: FPS056			Extraction Date:	16-APR-99
Blank: A	Dry Weight %:	85	Analysis Date:	20-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	2.9	
ORTHO TER PHENYL	%REC/SURR	74	64-165	
ANALYST	INITIALS	HAH		

Comments:

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	DRO\PETRO. HYDROCARBON RANGE C10-C28
Analysis Method:	DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method:	3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.
Matrix:	SOIL
QC Level:	II

Lab Id:	008		Sample Date/Time:	13-APR-99 1330
Client Sample Id:	BH99-1 0'-1'		Received Date:	15-APR-99
Batch: FPS056			Extraction Date:	16-APR-99
Blank: A	Dry Weight %:	93	Analysis Date:	21-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/KG	13000	54	
ORTHO TER PHENYL	%REC/SURR	D	64-165	
ANALYST	INITIALS	HAH		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	DRO\PETRO. HYDROCARBON RANGE C10-C28
Analysis Method:	DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method:	3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.
Matrix:	SOIL
QC Level:	II

Lab Id:	009		Sample Date/Time:	13-APR-99 1350
Client Sample Id:	BH99-1 5'-7'		Received Date:	15-APR-99
Batch: FPS056			Extraction Date:	16-APR-99
Blank: A	Dry Weight %:	95	Analysis Date:	20-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	2.6	
ORTHO TER PHENYL	%REC/SURR	90	64-165	
ANALYST	INITIALS	HAH		

Comments:

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	DRO\PETRO. HYDROCARBON RANGE C10-C28
Analysis Method:	DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method:	3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.
Matrix:	SOIL
QC Level:	II

Lab Id:	010		Sample Date/Time:	13-APR-99 1358
Client Sample Id:	BH99-1 10'-12'		Received Date:	15-APR-99
Batch: FPS056			Extraction Date:	16-APR-99
Blank: A	Dry Weight %:	91	Analysis Date:	20-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	2.7	
ORTHO TER PHENYL	%REC/SURR	71	64-165	
ANALYST	INITIALS	HAH		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	DRO\PETRO. HYDROCARBON RANGE C10-C28
Analysis Method:	DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method:	3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.
Matrix:	SOIL
QC Level:	II

Lab Id:	011		Sample Date/Time:	13-APR-99 1405
Client Sample Id:	BH99-1 15'-17'		Received Date:	15-APR-99
Batch: FPS056			Extraction Date:	16-APR-99
Blank: A	Dry Weight %:	88	Analysis Date:	20-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	2.8	
ORTHO TER PHENYL	%REC/SURR	83	64-165	
ANALYST	INITIALS	HAH		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	DRO\PETRO. HYDROCARBON RANGE C10-C28
Analysis Method:	DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method:	3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.
Matrix:	SOIL
QC Level:	II

Lab Id:	012		Sample Date/Time:	13-APR-99 1425
Client Sample Id:	BH99-1 20'-22'		Received Date:	15-APR-99
Batch: FPS056			Extraction Date:	16-APR-99
Blank: A	Dry Weight %:	72	Analysis Date:	20-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	3.5	
ORTHO TER PHENYL	%REC/SURR	78	64-165	
ANALYST	INITIALS	HAH		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	DRO\PETRO. HYDROCARBON RANGE C10-C28
Analysis Method:	DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method:	3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.
Matrix:	SOIL
QC Level:	II

Lab Id:	013		Sample Date/Time:	13-APR-99 1444
Client Sample Id:	BH99-1 25'-27'		Received Date:	15-APR-99
Batch: FPS056			Extraction Date:	16-APR-99
Blank: A	Dry Weight %:	79	Analysis Date:	20-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/KG	61	3.2	
ORTHO TER PHENYL	%REC/SURR	91	64-165	
ANALYST	INITIALS	HAH		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	DRO\PETRO. HYDROCARBON RANGE C10-C28
Analysis Method:	DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method:	3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.
Matrix:	SOIL
QC Level:	II

Lab Id:	014		Sample Date/Time:	13-APR-99 1459
Client Sample Id:	BH99-1 30'-32'		Received Date:	15-APR-99
Batch: FPS056			Extraction Date:	16-APR-99
Blank: A	Dry Weight %:	89	Analysis Date:	20-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	2.8	
ORTHO TER PHENYL	%REC/SURR	78	64-165	
ANALYST	INITIALS	HAH		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	DRO\PETRO. HYDROCARBON RANGE C10-C28
Analysis Method:	DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method:	3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.
Matrix:	SOIL
QC Level:	II

Lab Id:	016	Sample Date/Time:	13-APR-99 1533
Client Sample Id:	MW99-2 5.25'-6.4'	Received Date:	15-APR-99
Batch: FPS056		Extraction Date:	16-APR-99
Blank: A	Dry Weight %: 80	Analysis Date:	20-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/KG	160	3.1	
ORTHO TER PHENYL	%REC/SURR	83	64-165	
ANALYST	INITIALS	HAH		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	DRO\PETRO. HYDROCARBON RANGE C10-C28
Analysis Method:	DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method:	3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.
Matrix:	SOIL
QC Level:	II

Lab Id:	017		Sample Date/Time:	13-APR-99 1546
Client Sample Id:	MW99-2 10'-12'		Received Date:	15-APR-99
Batch: FPS056			Extraction Date:	16-APR-99
Blank: A	Dry Weight %:	81	Analysis Date:	21-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/KG	2500	12	
ORTHO TER PHENYL	%REC/SURR	95	64-165	
ANALYST	INITIALS	HAH		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	DRO\PETRO. HYDROCARBON RANGE C10-C28
Analysis Method:	DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method:	3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.
Matrix:	SOIL
QC Level:	II

Lab Id:	018		Sample Date/Time:	13-APR-99 1600
Client Sample Id:	MW99-2 15'-17'		Received Date:	15-APR-99
Batch: FPS056			Extraction Date:	16-APR-99
Blank: A	Dry Weight %:	84	Analysis Date:	21-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/KG	4300	15	
ORTHO TER PHENYL	%REC/SURR	119	64-165	
ANALYST	INITIALS	HAH		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	DRO\PETRO. HYDROCARBON RANGE C10-C28
Analysis Method:	DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method:	3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.
Matrix:	SOIL
QC Level:	II

Lab Id:	019	Sample Date/Time:	13-APR-99 1614
Client Sample Id:	MW99-2 20'-21.8'	Received Date:	15-APR-99
Batch: FPS056		Extraction Date:	16-APR-99
Blank: A	Dry Weight %: 94	Analysis Date:	20-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/KG	210	2.7	
ORTHO TER PHENYL	%REC/SURR	75	64-165	
ANALYST	INITIALS	HAH		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	DRO\PETRO. HYDROCARBON RANGE C10-C28
Analysis Method:	DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method:	3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.
Matrix:	SOIL
QC Level:	II

Lab Id:	020		Sample Date/Time:	13-APR-99 1636
Client Sample Id:	MW99-2 25'-27'		Received Date:	15-APR-99
Batch: FPS056			Extraction Date:	16-APR-99
Blank: A	Dry Weight %:	82	Analysis Date:	21-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	3	
ORTHO TER PHENYL	%REC/SURR	86	64-165	
ANALYST	INITIALS	HAH		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	DRO\PETRO. HYDROCARBON RANGE C10-C28
Analysis Method:	DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method:	3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.
Matrix:	SOIL
QC Level:	II

Lab Id:	021		Sample Date/Time:	13-APR-99 1654
Client Sample Id:	MW99-2 30'-32'		Received Date:	15-APR-99
Batch: FPS058			Extraction Date:	17-APR-99
Blank: A	Dry Weight %:	91	Analysis Date:	22-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/KG	82	2.7	
ORTHO TER PHENYL	%REC/SURR	97	64-165	
ANALYST	INITIALS	HC		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	DRO\PETRO. HYDROCARBON RANGE C10-C28
Analysis Method:	DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method:	3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.
Matrix:	SOIL
QC Level:	II

Lab Id:	022		Sample Date/Time:	13-APR-99 1715
Client Sample Id:	MW99-3 1'-2'		Received Date:	15-APR-99
Batch: FPS058			Extraction Date:	17-APR-99
Blank: A	Dry Weight %:	88	Analysis Date:	22-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/KG	160	2.8	
ORTHO TER PHENYL	%REC/SURR	65	64-165	
ANALYST	INITIALS	HC		

Comments:

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	DRO\PETRO. HYDROCARBON RANGE C10-C28
Analysis Method:	DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method:	3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.
Matrix:	SOIL
QC Level:	II

Lab Id:	023		Sample Date/Time:	14-APR-99 1000
Client Sample Id:	MW99-3 5'-7'		Received Date:	15-APR-99
Batch: FPS058			Extraction Date:	17-APR-99
Blank: A	Dry Weight %:	95	Analysis Date:	22-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/KG	8	2.6	
ORTHO TER PHENYL	%REC/SURR	90	64-165	
ANALYST	INITIALS	HC		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	DRO\PETRO. HYDROCARBON RANGE C10-C28
Analysis Method:	DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method:	3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.
Matrix:	SOIL
QC Level:	II

Lab Id:	024		Sample Date/Time:	14-APR-99 1020
Client Sample Id:	MW99-3 10'-11.6'		Received Date:	15-APR-99
Batch: FPS058			Extraction Date:	17-APR-99
Blank: A	Dry Weight %:	78	Analysis Date:	22-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	3.2	
ORTHO TER PHENYL	%REC/SURR	97	64-165	
ANALYST	INITIALS	HC		

Comments:

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	DRO\PETRO. HYDROCARBON RANGE C10-C28
Analysis Method:	DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method:	3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.
Matrix:	SOIL
QC Level:	II

Lab Id:	025	Sample Date/Time:	14-APR-99 1028
Client Sample Id:	MW99-3 15.3'-16.7'	Received Date:	15-APR-99
Batch: FPS058		Extraction Date:	17-APR-99
Blank: A	Dry Weight %: 56	Analysis Date:	22-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/KG	3	4.5	
ORTHO TER PHENYL	%REC/SURR	77	64-165	
ANALYST	INITIALS	HC		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	DRO\PETRO. HYDROCARBON RANGE C10-C28
Analysis Method:	DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method:	3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.
Matrix:	SOIL
QC Level:	II

Lab Id:	026		Sample Date/Time:	14-APR-99 1041
Client Sample Id:	MW99-3 20'-21.35'		Received Date:	15-APR-99
Batch: FPS058			Extraction Date:	17-APR-99
Blank: A	Dry Weight %:	83	Analysis Date:	22-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	3	
ORTHO TER PHENYL	%REC/SURR	97	64-165	
ANALYST	INITIALS	LBL		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	DRO\PETRO. HYDROCARBON RANGE C10-C28
Analysis Method:	DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method:	3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.
Matrix:	SOIL
QC Level:	II

Lab Id:	027		Sample Date/Time:	14-APR-99 1052
Client Sample Id:	MW99-3 25'-26.45'		Received Date:	15-APR-99
Batch: FPS058			Extraction Date:	17-APR-99
Blank: A	Dry Weight %:	82	Analysis Date:	22-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	3	
ORTHO TER PHENYL	%REC/SURR	82	64-165	
ANALYST	INITIALS	LBL		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	DRO\PETRO. HYDROCARBON RANGE C10-C28
Analysis Method:	DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method:	3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.
Matrix:	SOIL
QC Level:	II

Lab Id:	028		Sample Date/Time:	14-APR-99 1118
Client Sample Id:	MW99-3 30'-31.45'		Received Date:	15-APR-99
Batch: FPS058			Extraction Date:	17-APR-99
Blank: A	Dry Weight %:	88	Analysis Date:	22-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/KG	180	2.8	
ORTHO TER PHENYL	%REC/SURR	80	64-165	
ANALYST	INITIALS	LBL		

Comments:

"Method Report Summary"

Accession Number: 904325
Client: SUN PIPE LINE CO.
Project Number: SPL99-01
Project Name: SPL/LEA TRUCK STATION/LEA CO, NM
Project Location: LEA TRUCK STATION, LEA CO, NM
Test: DRO\PETRO. HYDROCARBON RANGE C10-C28

Client Sample Id:	Parameter:	Unit:	Result:
MW99-1 2'-3'	TOTAL PETROLEUM HYDROCARBON	MG/KG	5.0
MW99-1 5'-7'	TOTAL PETROLEUM HYDROCARBON	MG/KG	940
MW99-1 10'-12'	TOTAL PETROLEUM HYDROCARBON	MG/KG	1500
BH99-1 0'-1'	TOTAL PETROLEUM HYDROCARBON	MG/KG	13000
BH99-1 25'-27'	TOTAL PETROLEUM HYDROCARBON	MG/KG	61
MW99-2 1'-2'	TOTAL PETROLEUM HYDROCARBON	MG/KG	100
MW99-2 5.25'-6.4'	TOTAL PETROLEUM HYDROCARBON	MG/KG	160
MW99-2 10'-12'	TOTAL PETROLEUM HYDROCARBON	MG/KG	2500
MW99-2 15'-17'	TOTAL PETROLEUM HYDROCARBON	MG/KG	4300
MW99-2 20'-21.8'	TOTAL PETROLEUM HYDROCARBON	MG/KG	210
MW99-2 30'-32'	TOTAL PETROLEUM HYDROCARBON	MG/KG	82
MW99-3 1'-2'	TOTAL PETROLEUM HYDROCARBON	MG/KG	160
MW99-3 5'-7'	TOTAL PETROLEUM HYDROCARBON	MG/KG	8
MW99-3 15.3'-16.7'	TOTAL PETROLEUM HYDROCARBON	MG/KG	3
MW99-3 30'-31.45'	TOTAL PETROLEUM HYDROCARBON	MG/KG	180

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

Analysis Report

Analysis: BETX AND TPH C6-C10 RANGE

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Department:	GC/VOA

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	BETX AND TPH C6-C10 RANGE
Analysis Method:	8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method:	5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992
Matrix:	SOIL
QC Level:	II

Lab Id:	001		Sample Date/Time:	13-APR-99 0935
Client Sample Id:	MW99-1 2'-3'		Received Date:	15-APR-99
Batch: TRS042			Extraction Date:	N/A
Blank: A	Dry Weight %:	96	Analysis Date:	19-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/KG	ND	1	
TOLUENE	UG/KG	ND	5	
ETHYLBENZENE	UG/KG	ND	1	
XYLENES (TOTAL)	UG/KG	ND	2	
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	0.10	
TRIFLUOROTOLUENE (PID)	%REC/SURR	98	72-123	
TRIFLUOROTOLUENE (FID)	%REC/SURR	102	72-123	
ANALYST	INITIALS	CN		

Comments:

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	BETX AND TPH C6-C10 RANGE
Analysis Method:	8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method:	5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992
Matrix:	SOIL
QC Level:	II

Lab Id:	002		Sample Date/Time:	13-APR-99 1015
Client Sample Id:	MW99-1 5'-7'		Received Date:	15-APR-99
Batch: TRS041			Extraction Date:	N/A
Blank: C	Dry Weight %:	92	Analysis Date:	20-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/KG	ND	1	
TOLUENE	UG/KG	ND	5	
ETHYLBENZENE	UG/KG	ND	1	
XYLENES (TOTAL)	UG/KG	ND	2	
TOTAL PETROLEUM HYDROCARBON	MG/KG	1.4	0.11	
TRIFLUOROTOLUENE (PID)	%REC/SURR	84	72-123	
TRIFLUOROTOLUENE (FID)	%REC/SURR	87	72-123	
ANALYST	INITIALS	CN		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	BETX AND TPH C6-C10 RANGE
Analysis Method:	8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method:	5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992
Matrix:	SOIL
QC Level:	II

Lab Id:	003	Sample Date/Time:	13-APR-99 1034
Client Sample Id:	MW99-1 10'-12'	Received Date:	15-APR-99
Batch: TRS041		Extraction Date:	N/A
Blank: C	Dry Weight %: 80	Analysis Date:	20-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/KG	ND	1	
TOLUENE	UG/KG	ND	6	
ETHYLBENZENE	UG/KG	ND	1	
XYLENES (TOTAL)	UG/KG	ND	3	
TOTAL PETROLEUM HYDROCARBON	MG/KG	1.3	0.13	
TRIFLUOROTOLUENE (PID)	%REC/SURR	81	72-123	
TRIFLUOROTOLUENE (FID)	%REC/SURR	85	72-123	
ANALYST	INITIALS	CN		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	BETX AND TPH C6-C10 RANGE
Analysis Method:	8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method:	5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992
Matrix:	SOIL
QC Level:	II

Lab Id:	004		Sample Date/Time:	13-APR-99 1045
Client Sample Id:	MW99-1 15'-17'		Received Date:	15-APR-99
Batch: TRS041			Extraction Date:	N/A
Blank: C	Dry Weight %:	95	Analysis Date:	20-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/KG	ND	1	
TOLUENE	UG/KG	ND	5	
ETHYLBENZENE	UG/KG	ND	1	
XYLENES (TOTAL)	UG/KG	ND	2	
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	0.11	
TRIFLUOROTOLUENE (PID)	%REC/SURR	105	72-123	
TRIFLUOROTOLUENE (FID)	%REC/SURR	109	72-123	
ANALYST	INITIALS	CN		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	BETX AND TPH C6-C10 RANGE
Analysis Method:	8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method:	5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992
Matrix:	SOIL
QC Level:	II

Lab Id:	005		Sample Date/Time:	13-APR-99 1105
Client Sample Id:	MW99-1 20'-21'		Received Date:	15-APR-99
Batch: TRS041			Extraction Date:	N/A
Blank: C	Dry Weight %:	85	Analysis Date:	20-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/KG	ND	1	
TOLUENE	UG/KG	ND	6	
ETHYLBENZENE	UG/KG	ND	1	
XYLENES (TOTAL)	UG/KG	ND	2	
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	0.12	
TRIFLUOROTOLUENE (PID)	%REC/SURR	103	72-123	
TRIFLUOROTOLUENE (FID)	%REC/SURR	109	72-123	
ANALYST	INITIALS	CN		

Comments:

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	BETX AND TPH C6-C10 RANGE
Analysis Method:	8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method:	5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992
Matrix:	SOIL
QC Level:	II

Lab Id:	006		Sample Date/Time:	13-APR-99 1120
Client Sample Id:	MW99-1 25'-27'		Received Date:	15-APR-99
Batch: TRS041			Extraction Date:	N/A
Blank: C	Dry Weight %:	84	Analysis Date:	20-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/KG	ND	1	
TOLUENE	UG/KG	ND	6	
ETHYLBENZENE	UG/KG	ND	1	
XYLENES (TOTAL)	UG/KG	ND	2	
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	0.12	
TRIFLUOROTOLUENE (PID)	%REC/SURR	107	72-123	
TRIFLUOROTOLUENE (FID)	%REC/SURR	109	72-123	
ANALYST	INITIALS	CN		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	BETX AND TPH C6-C10 RANGE
Analysis Method:	8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method:	5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992
Matrix:	SOIL
QC Level:	II

Lab Id:	007		Sample Date/Time:	13-APR-99 1150
Client Sample Id:	MW99-1 30'-32'		Received Date:	15-APR-99
Batch: TRS042			Extraction Date:	N/A
Blank: C	Dry Weight %:	85	Analysis Date:	21-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/KG	ND	1	
TOLUENE	UG/KG	ND	6	
ETHYLBENZENE	UG/KG	ND	1	
XYLENES (TOTAL)	UG/KG	ND	2	
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	0.12	
TRIFLUOROTOLUENE (PID)	%REC/SURR	103	72-123	
TRIFLUOROTOLUENE (FID)	%REC/SURR	108	72-123	
ANALYST	INITIALS	CN		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	BETX AND TPH C6-C10 RANGE
Analysis Method:	8021BMod/8015BMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method:	5035Mod/5030BMod, SW-846, 3rd Edition, Update III, Dec. 1996
Matrix:	SOIL
QC Level:	II

Lab Id:	008		Sample Date/Time:	13-APR-99 1330
Client Sample Id:	BH99-1 0'-1'		Received Date:	15-APR-99
Batch: EXT013			Extraction Date:	20-APR-99
Blank: A	Dry Weight %:	93	Analysis Date:	20-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/KG	ND	1100	
TOLUENE	UG/KG	ND	5400	
ETHYLBENZENE	UG/KG	ND	1100	
XYLENES (TOTAL)	UG/KG	12000	2200	
TOTAL PETROLEUM HYDROCARBON	MG/KG	830	110	
TRIFLUOROTOLUENE (PID)	%REC/SURR	D	72-123	
TRIFLUOROTOLUENE (FID)	%REC/SURR	D	72-123	
ANALYST	INITIALS	SA		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	BETX AND TPH C6-C10 RANGE
Analysis Method:	8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method:	5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992
Matrix:	SOIL
QC Level:	II

Lab Id:	009		Sample Date/Time:	13-APR-99 1350
Client Sample Id:	BH99-1 5'-7'		Received Date:	15-APR-99
Batch: TRS042			Extraction Date:	N/A
Blank: C	Dry Weight %:	95	Analysis Date:	21-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/KG	ND	1	
TOLUENE	UG/KG	ND	5	
ETHYLBENZENE	UG/KG	ND	1	
XYLENES (TOTAL)	UG/KG	ND	2	
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	0.11	
TRIFLUOROTOLUENE (PID)	%REC/SURR	110	72-123	
TRIFLUOROTOLUENE (FID)	%REC/SURR	112	72-123	
ANALYST	INITIALS	CN		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	BETX AND TPH C6-C10 RANGE
Analysis Method:	8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method:	5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992
Matrix:	SOIL
QC Level:	II

Lab Id:	010		Sample Date/Time:	13-APR-99 1358
Client Sample Id:	BH99-1 10'-12'		Received Date:	15-APR-99
Batch: TRS042			Extraction Date:	N/A
Blank: B	Dry Weight %:	91	Analysis Date:	20-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/KG	ND	1	
TOLUENE	UG/KG	ND	5	
ETHYLBENZENE	UG/KG	ND	1	
XYLENES (TOTAL)	UG/KG	ND	2	
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	0.11	
TRIFLUOROTOLUENE (PID)	%REC/SURR	105	72-123	
TRIFLUOROTOLUENE (FID)	%REC/SURR	108	72-123	
ANALYST	INITIALS	CN		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	BETX AND TPH C6-C10 RANGE
Analysis Method:	8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method:	5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992
Matrix:	SOIL
QC Level:	II

Lab Id:	011		Sample Date/Time:	13-APR-99 1405
Client Sample Id:	BH99-1 15'-17'		Received Date:	15-APR-99
Batch: TRS042			Extraction Date:	N/A
Blank: B	Dry Weight %:	88	Analysis Date:	20-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/KG	ND	1	
TOLUENE	UG/KG	ND	6	
ETHYLBENZENE	UG/KG	ND	1	
XYLENES (TOTAL)	UG/KG	ND	2	
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	0.11	
TRIFLUOROTOLUENE (PID)	%REC/SURR	106	72-123	
TRIFLUOROTOLUENE (FID)	%REC/SURR	108	72-123	
ANALYST	INITIALS	CN		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	BETX AND TPH C6-C10 RANGE
Analysis Method:	8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method:	5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992
Matrix:	SOIL
QC Level:	II

Lab Id:	012		Sample Date/Time:	13-APR-99 1425
Client Sample Id:	BH99-1 20'-22'		Received Date:	15-APR-99
Batch: TRS042			Extraction Date:	N/A
Blank: B	Dry Weight %:	72	Analysis Date:	20-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/KG	ND	1	
TOLUENE	UG/KG	ND	7	
ETHYLBENZENE	UG/KG	ND	1	
XYLENES (TOTAL)	UG/KG	ND	3	
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	0.14	
TRIFLUOROTOLUENE (PID)	%REC/SURR	104	72-123	
TRIFLUOROTOLUENE (FID)	%REC/SURR	107	72-123	
ANALYST	INITIALS	CN		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	BETX AND TPH C6-C10 RANGE
Analysis Method:	8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method:	5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992
Matrix:	SOIL
QC Level:	II

Lab Id:	013		Sample Date/Time:	13-APR-99 1444
Client Sample Id:	BH99-1 25'-27'		Received Date:	15-APR-99
Batch: TRS042			Extraction Date:	N/A
Blank: B	Dry Weight %:	79	Analysis Date:	20-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/KG	ND	1	
TOLUENE	UG/KG	ND	6	
ETHYLBENZENE	UG/KG	ND	1	
XYLENES (TOTAL)	UG/KG	ND	3	
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	0.13	
TRIFLUOROTOLUENE (PID)	%REC/SURR	105	72-123	
TRIFLUOROTOLUENE (FID)	%REC/SURR	110	72-123	
ANALYST	INITIALS	CN		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	BETX AND TPH C6-C10 RANGE
Analysis Method:	8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method:	5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992
Matrix:	SOIL
QC Level:	II

Lab Id:	015		Sample Date/Time:	13-APR-99 1515
Client Sample Id:	MW99-2 1'-2'		Received Date:	15-APR-99
Batch: TRS042			Extraction Date:	N/A
Blank: B	Dry Weight %:	95	Analysis Date:	21-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/KG	ND	1	
TOLUENE	UG/KG	ND	5	
ETHYLBENZENE	UG/KG	ND	1	
XYLENES (TOTAL)	UG/KG	ND	2	
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	0.11	
TRIFLUOROTOLUENE (PID)	%REC/SURR	88	72-123	
TRIFLUOROTOLUENE (FID)	%REC/SURR	92	72-123	
ANALYST	INITIALS	CN		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	BETX AND TPH C6-C10 RANGE
Analysis Method:	8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method:	5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992
Matrix:	SOIL
QC Level:	II

Lab Id:	016	Sample Date/Time:	13-APR-99 1533
Client Sample Id:	MW99-2 5.25'-6.4'	Received Date:	15-APR-99
Batch: TRS042		Extraction Date:	N/A
Blank: C	Dry Weight %: 80	Analysis Date:	21-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/KG	ND	1	
TOLUENE	UG/KG	ND	6	
ETHYLBENZENE	UG/KG	ND	1	
XYLENES (TOTAL)	UG/KG	ND	3	
TOTAL PETROLEUM HYDROCARBON	MG/KG	1.1	0.13	
TRIFLUOROTOLUENE (PID)	%REC/SURR	95	72-123	
TRIFLUOROTOLUENE (FID)	%REC/SURR	96	72-123	
ANALYST	INITIALS	CN		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	BETX AND TPH C6-C10 RANGE
Analysis Method:	8021BMod/8015BMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method:	5035Mod/5030BMod, SW-846, 3rd Edition, Update III, Dec. 1996
Matrix:	SOIL
QC Level:	II

Lab Id:	017		Sample Date/Time:	13-APR-99 1546
Client Sample Id:	MW99-2 10'-12'		Received Date:	15-APR-99
Batch: EXT013			Extraction Date:	20-APR-99
Blank: A	Dry Weight %:	81	Analysis Date:	21-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/KG	ND	120	
TOLUENE	UG/KG	ND	620	
ETHYLBENZENE	UG/KG	840	120	
XYLENES (TOTAL)	UG/KG	2200	250	
TOTAL PETROLEUM HYDROCARBON	MG/KG	320	12	
TRIFLUOROTOLUENE (PID)	%REC/SURR	D	72-123	
TRIFLUOROTOLUENE (FID)	%REC/SURR	D	72-123	
ANALYST	INITIALS	SA		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	BETX AND TPH C6-C10 RANGE
Analysis Method:	8021BMod/8015BMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method:	5035Mod/5030BMod, SW-846, 3rd Edition, Update III, Dec. 1996
Matrix:	SOIL
QC Level:	II

Lab Id:	018		Sample Date/Time:	13-APR-99 1600
Client Sample Id:	MW99-2 15'-17'		Received Date:	15-APR-99
Batch: EXT013			Extraction Date:	20-APR-99
Blank: A	Dry Weight %:	84	Analysis Date:	21-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/KG	ND	1200	
TOLUENE	UG/KG	ND	6000	
ETHYLBENZENE	UG/KG	ND	1200	
XYLENES (TOTAL)	UG/KG	28000	2400	
TOTAL PETROLEUM HYDROCARBON	MG/KG	1700	120	
TRIFLUOROTOLUENE (PID)	%REC/SURR	D	72-123	
TRIFLUOROTOLUENE (FID)	%REC/SURR	D	72-123	
ANALYST	INITIALS	SA		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	BETX AND TPH C6-C10 RANGE
Analysis Method:	8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method:	5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992
Matrix:	SOIL
QC Level:	II

Lab Id:	019	Sample Date/Time:	13-APR-99 1614
Client Sample Id:	MW99-2 20'-21.8'	Received Date:	15-APR-99
Batch: TRS042		Extraction Date:	N/A
Blank: C	Dry Weight %: 94	Analysis Date:	21-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/KG	ND	1	
TOLUENE	UG/KG	ND	5	
ETHYLBENZENE	UG/KG	ND	1	
XYLENES (TOTAL)	UG/KG	2	2	
TOTAL PETROLEUM HYDROCARBON	MG/KG	2.7	0.11	
TRIFLUOROTOLUENE (PID)	%REC/SURR	96	72-123	
TRIFLUOROTOLUENE (FID)	%REC/SURR	99	72-123	
ANALYST	INITIALS	CN		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	BETX AND TPH C6-C10 RANGE
Analysis Method:	8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method:	5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992
Matrix:	SOIL
QC Level:	II

Lab Id:	020		Sample Date/Time:	13-APR-99 1636
Client Sample Id:	MW99-2 25'-27'		Received Date:	15-APR-99
Batch: TRS042			Extraction Date:	N/A
Blank: B	Dry Weight %:	82	Analysis Date:	21-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/KG	ND	1	
TOLUENE	UG/KG	ND	6	
ETHYLBENZENE	UG/KG	ND	1	
XYLENES (TOTAL)	UG/KG	ND	2	
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	0.12	
TRIFLUOROTOLUENE (PID)	%REC/SURR	106	72-123	
TRIFLUOROTOLUENE (FID)	%REC/SURR	108	72-123	
ANALYST	INITIALS	CN		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	BETX AND TPH C6-C10 RANGE
Analysis Method:	8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method:	5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992
Matrix:	SOIL
QC Level:	II

Lab Id:	021	Sample Date/Time:	13-APR-99 1654
Client Sample Id:	MW99-2 30'-32'	Received Date:	15-APR-99
Batch: TRS044		Extraction Date:	N/A
Blank: A	Dry Weight %: 91	Analysis Date:	22-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/KG	ND	1	
TOLUENE	UG/KG	ND	5	
ETHYLBENZENE	UG/KG	ND	1	
XYLENES (TOTAL)	UG/KG	ND	2	
TOTAL PETROLEUM HYDROCARBON	MG/KG	0.65	0.11	
TRIFLUOROTOLUENE (PID)	%REC/SURR	105	72-123	
TRIFLUOROTOLUENE (FID)	%REC/SURR	107	72-123	
ANALYST	INITIALS	CN		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	BETX AND TPH C6-C10 RANGE
Analysis Method:	8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method:	5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992
Matrix:	SOIL
QC Level:	II

Lab Id:	022	Sample Date/Time:	13-APR-99 1715
Client Sample Id:	MW99-3 1'-2'	Received Date:	15-APR-99
Batch: TRS042		Extraction Date:	N/A
Blank: C	Dry Weight %: 88	Analysis Date:	21-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/KG	ND	1	
TOLUENE	UG/KG	ND	6	
ETHYLBENZENE	UG/KG	ND	1	
XYLENES (TOTAL)	UG/KG	ND	2	
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	0.11	
TRIFLUOROTOLUENE (PID)	%REC/SURR	76	72-123	
TRIFLUOROTOLUENE (FID)	%REC/SURR	80	72-123	
ANALYST	INITIALS	CN		

Comments:

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	BETX AND TPH C6-C10 RANGE
Analysis Method:	8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method:	5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992
Matrix:	SOIL
QC Level:	II

Lab Id:	023		Sample Date/Time:	14-APR-99 1000
Client Sample Id:	MW99-3 5'-7'		Received Date:	15-APR-99
Batch: TRS042			Extraction Date:	N/A
Blank: C	Dry Weight %:	95	Analysis Date:	21-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/KG	ND	1	
TOLUENE	UG/KG	ND	5	
ETHYLBENZENE	UG/KG	ND	1	
XYLENES (TOTAL)	UG/KG	ND	2	
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	0.11	
TRIFLUOROTOLUENE (PID)	%REC/SURR	80	72-123	
TRIFLUOROTOLUENE (FID)	%REC/SURR	82	72-123	
ANALYST	INITIALS	CN		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	BETX AND TPH C6-C10 RANGE
Analysis Method:	8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method:	5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992
Matrix:	SOIL
QC Level:	II

Lab Id:	024	Sample Date/Time:	14-APR-99 1020
Client Sample Id:	MW99-3 10'-11.6'	Received Date:	15-APR-99
Batch: TRS042		Extraction Date:	N/A
Blank: C	Dry Weight %: 78	Analysis Date:	22-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/KG	ND	1	
TOLUENE	UG/KG	ND	6	
ETHYLBENZENE	UG/KG	ND	1	
XYLENES (TOTAL)	UG/KG	ND	3	
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	0.13	
TRIFLUOROTOLUENE (PID)	%REC/SURR	104	72-123	
TRIFLUOROTOLUENE (FID)	%REC/SURR	108	72-123	
ANALYST	INITIALS	CN		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	BETX AND TPH C6-C10 RANGE
Analysis Method:	8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method:	5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992
Matrix:	SOIL
QC Level:	II

Lab Id:	025	Sample Date/Time:	14-APR-99 1028
Client Sample Id:	MW99-3 15.3'-16.7'	Received Date:	15-APR-99
Batch: TRS042		Extraction Date:	N/A
Blank: C	Dry Weight %: 56	Analysis Date:	22-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/KG	ND	2	
TOLUENE	UG/KG	ND	9	
ETHYLBENZENE	UG/KG	ND	2	
XYLENES (TOTAL)	UG/KG	ND	4	
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	0.18	
TRIFLUOROTOLUENE (PID)	%REC/SURR	101	72-123	
TRIFLUOROTOLUENE (FID)	%REC/SURR	106	72-123	
ANALYST	INITIALS	CN		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	BETX AND TPH C6-C10 RANGE
Analysis Method:	8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method:	5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992
Matrix:	SOIL
QC Level:	II

Lab Id:	026	Sample Date/Time:	14-APR-99 1041
Client Sample Id:	MW99-3 20'-21.35'	Received Date:	15-APR-99
Batch: TRS042		Extraction Date:	N/A
Blank: C	Dry Weight %: 83	Analysis Date:	22-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/KG	ND	1	
TOLUENE	UG/KG	ND	6	
ETHYLBENZENE	UG/KG	ND	1	
XYLENES (TOTAL)	UG/KG	ND	2	
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	0.12	
TRIFLUOROTOLUENE (PID)	%REC/SURR	105	72-123	
TRIFLUOROTOLUENE (FID)	%REC/SURR	110	72-123	
ANALYST	INITIALS	CN		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	BETX AND TPH C6-C10 RANGE
Analysis Method:	8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method:	5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992
Matrix:	SOIL
QC Level:	II

Lab Id:	027	Sample Date/Time:	14-APR-99 1052
Client Sample Id:	MW99-3 25'-26.45'	Received Date:	15-APR-99
Batch: TRS042		Extraction Date:	N/A
Blank: C	Dry Weight %: 82	Analysis Date:	22-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/KG	ND	1	
TOLUENE	UG/KG	ND	6	
ETHYLBENZENE	UG/KG	ND	1	
XYLENES (TOTAL)	UG/KG	ND	2	
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	0.12	
TRIFLUOROTOLUENE (PID)	%REC/SURR	102	72-123	
TRIFLUOROTOLUENE (FID)	%REC/SURR	105	72-123	
ANALYST	INITIALS	CN		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Test:	BETX AND TPH C6-C10 RANGE
Analysis Method:	8021BMod/8015BMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method:	5035Mod/5030BMod, SW-846, 3rd Edition, Update III, Dec. 1996
Matrix:	SOIL
QC Level:	II

Lab Id:	028		Sample Date/Time:	14-APR-99 1118
Client Sample Id:	MW99-3 30'-31.45'		Received Date:	15-APR-99
Batch: EXT013			Extraction Date:	20-APR-99
Blank: A	Dry Weight %:	88	Analysis Date:	22-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/KG	ND	57	
TOLUENE	UG/KG	ND	280	
ETHYLBENZENE	UG/KG	ND	57	
XYLENES (TOTAL)	UG/KG	ND	110	
TOTAL PETROLEUM HYDROCARBON	MG/KG	38	5.7	
TRIFLUOROTOLUENE (PID)	%REC/SURR	93	72-123	
TRIFLUOROTOLUENE (FID)	%REC/SURR	104	72-123	
ANALYST	INITIALS	SA		

Comments:

"Method Report Summary"

Accession Number: 904325
Client: SUN PIPE LINE CO.
Project Number: SPL99-01
Project Name: SPL/LEA TRUCK STATION/LEA CO, NM
Project Location: LEA TRUCK STATION, LEA CO, NM
Test: BETX AND TPH C6-C10 RANGE

Client Sample Id:	Parameter:	Unit:	Result:
MW99-1 5'-7'	TOTAL PETROLEUM HYDROCARBON	MG/KG	1.4
MW99-1 10'-12'	TOTAL PETROLEUM HYDROCARBON	MG/KG	1.3
BH99-1 0'-1'	XYLENES (TOTAL)	UG/KG	12000
	TOTAL PETROLEUM HYDROCARBON	MG/KG	830
MW99-2 5.25'-6.4'	TOTAL PETROLEUM HYDROCARBON	MG/KG	1.1
MW99-2 10'-12'	ETHYLBENZENE	UG/KG	840
	XYLENES (TOTAL)	UG/KG	2200
	TOTAL PETROLEUM HYDROCARBON	MG/KG	320
MW99-2 15'-17'	XYLENES (TOTAL)	UG/KG	28000
	TOTAL PETROLEUM HYDROCARBON	MG/KG	1700
MW99-2 20'-21.8'	XYLENES (TOTAL)	UG/KG	2
	TOTAL PETROLEUM HYDROCARBON	MG/KG	2.7
MW99-2 30'-32'	TOTAL PETROLEUM HYDROCARBON	MG/KG	0.65
MW99-3 30'-31.45'	TOTAL PETROLEUM HYDROCARBON	MG/KG	38

SEVERN TRENT LABORATORIES, INC. 11 East Olive Rd Pensacola, FL 32514 (850) 474-1001

Data Qualifiers for Final Report

STL-Pensacola Inorganic/Organic and AFCEE Projects (under QAPP)

J4	(For positive results)	Temperature limits exceeded (≤2°C or ≥ 6°C)
J5	(TICs)	The reported value is quantitated as a TIC; therefore, it is estimated
J6	(For positive results)	LCS or Surrogate %R is > upper control limit (UCL) or < lower control limit (LCL)
J7	(For positive results)	The reported value is > the laboratory MDL and < lowest calibration standards; therefore, the quantitation is an estimation.
J (AFCEE description)	The analyte was positively identified, the quantitation is an estimation	
R1	(For nondetects)	Temperature limits exceeded (≤2°C or ≥ 6°C)
R2	Improper preservation, no preservative present in sample upon receipt	
R3	Improper preservation, incorrect preservative present in sample upon receipt	
R4	Holding time exceeded	
R5	Collection requirements not met, improper container used for sample	
R6	LCS or surrogate %R is < LCL and analyte is not detected or surrogate %R is < 10% for detects/nondetects	
R7	Internal standard area outside –50% to +100% of initial calibration midpoint standard.	
R8	Second source calibration verification exceeds acceptance criteria.	
R9	Improper preservation, sample not filtered in the field.	
R (AFCEE description)	The data are unusable due to deficiencies in the ability to analyze the sample and meet QC criteria	
F	< laboratory or AFCEE RL and > laboratory MDL	
F (AFCEE description)	The analyte was positively identified but the associated numerical value is below the AFCEE or lab RL	
U2	< Laboratory MDL (value for result will be the MDL, never below the MDL)	
U (AFCEE description)	The analyte was analyzed for but not detected. The associated numerical value is at or below the MDL	
B (AFCEE description)	The analyte was found in the associated blank, as well as in the sample	
@	Adjusted reporting limit due to sample matrix (dilution prior to digestion and/or analysis)	
+	Elevated reporting limit due to dilution into calibration range	
•	Elevated reporting limit due to matrix interference (dilution prior to digestion and/or analysis)	
#	Elevated reporting limit due to insufficient sample size	
D	Diluted out	
M	A matrix effect was present (sample was analyzed twice to confirm or chromatogram had interfering peaks)	
S	Incorrect sample amount was submitted to the laboratory for analysis	
T	Second-column confirmation exceeded the SW-846 criteria of 40% RPD for this compound.	

ND = Not Detected at or above the STL-Pensacola reporting limit (RL) N/S = Not Submitted N/A = Not Applicable
IDL = Laboratory Instrument Detection Limit MDL = Laboratory Method Detection Limit
RL = Reporting Limit (AFCEE RLs are listed in the AFCEE QAPP)

Any time a sample arrives at the laboratory improperly preserved (at improper pH or temperature) or after holding time has expired or prepared or analyzed after holding time, client must be notified in writing (i.e. case narrative)

Florida Projects Inorganic/Organic
Refer to back side of this page

ICR Projects Inorganic/Organic

A1	Acceptable	R6	Rejected

Examples: ICR Flags
R6 = Laboratory extracted the sample but the refrigerator malfunctioned so the extract became warm and client was notified
R6 = Sample arrived in laboratory in good condition; however, the laboratory did not analyze it within EPA's established holding time limit

CLP and CLP-like Projects: Refer to referenced CLP Statement of Work (SOW) for explanation of data qualifiers

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

Quality Control Report

Analysis: DRO\PETRO. HYDROCARBON RANGE C10-C28

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Department:	SEMI-VOLATILE FUELS

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"QC Report"

Title: Soil Blank
Batch: FPS056
Analysis Method: DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method: 3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.

Blank Id: A Date Analyzed: 20-APR-99 Date Extracted: 16-APR-99

Parameters:	Units:	Results:	Reporting Limits:
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	2.5
ORTHO TER PHENYL	%REC/SURR	108	64-165
ANALYST	INITIALS	HAH	

Comments:

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"QC Report"

Title: Soil Blank
Batch: FPS058
Analysis Method: DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method: 3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.

Blank Id: A Date Analyzed: 22-APR-99 Date Extracted: 17-APR-99

Parameters:	Units:	Results:	Reporting Limits:
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	2.5
ORTHO TER PHENYL	%REC/SURR	115	64-165
ANALYST	INITIALS	HC	

Comments:

"QC Report"

Title: Soil LCS
Batch: FPS056
Analysis Method: DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method: 3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.

RS Date Analyzed: 20-APR-99 RS Date Extracted: 16-APR-99

Parameters:	Spike Added	Sample Conc	RS Conc	RS %Rec	Rec Lmts
TOTAL PETROLEUM HYDROCARBON	436	<2.5	408	94	55-133
Surrogates:					
ORTHO TER PHENYL (OTP)				100	64-165

Comments:

Notes:
N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT
MG/KG = PARTS PER MILLION. < = LESS THAN REPORTING LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

"QC Report"

Title: Soil LCS
Batch: FPS058
Analysis Method: DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method: 3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.

RS Date Analyzed: 22-APR-99 RS Date Extracted: 17-APR-99

Parameters:	Spike Added	Sample Conc	RS Conc	RS %Rec	Rec Lmts
TOTAL PETROLEUM HYDROCARBON	436	<2.5	479	110	55-133
Surrogates:					
ORTHO TER PHENYL (OTP)				122	64-165

Comments:

Notes:
N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT
MG/KG = PARTS PER MILLION. < = LESS THAN REPORTING LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

"QC Report"

Title: Soil Matrix Spike/Matrix Spike Duplicate
Batch: FPS056
Analysis Method: DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method: 3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.

Dry Weight %: 92 MS Date Analyzed: 20-APR-99 MS Date Extracted: 16-APR-99
Sample Spiked: 904325-2 MSD Date Analyzed: 20-APR-99 MSD Date Extracted: 16-APR-99

Parameters:	Spike Added	Sample Conc	MS Conc	MS %Rec	MSD Conc	MSD %Rec	RPD	RPD Lmts	Rec Lmts
TOTAL PETROLEUM HYDROCARBON	474	1030	1750	152	1700	141	8	64	8-176
Surrogates:									
ORTHO TER PHENYL (OTP)				96		80			64-165

Comments:

Notes:
N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT
MG/KG = PARTS PER MILLION. < = LESS THAN REPORTING LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

"QC Report"

Title: Soil Matrix Spike/Matrix Spike Duplicate
Batch: FPS058
Analysis Method: DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method: 3550B/SW-846, 3rd Ed, 3rd Update, Dec 1996.

Dry Weight %: 91 MS Date Analyzed: 22-APR-99 MS Date Extracted: 17-APR-99
Sample Spiked: 904325-21 MSD Date Analyzed: 22-APR-99 MSD Date Extracted: 17-APR-99

Parameters:	Spike Added	Sample Conc	MS Conc	MS %Rec	MSD Conc	MSD %Rec	RPD	RPD Lmts	Rec Lmts
TOTAL PETROLEUM HYDROCARBON	479	90.1	452	76	510	88	15	64	8-176
Surrogates:									
ORTHO TER PHENYL (OTP)				98		110			64-165

Comments:

Notes:
N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT
MG/KG = PARTS PER MILLION. < = LESS THAN REPORTING LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

Common Notation for Organic Reporting

N/S = NOT SUBMITTED
N/A = NOT APPLICABLE
UG = MICROGRAMS
UG/L = PARTS PER BILLION
UG/KG = PARTS PER BILLION
MG/M3 = MILLIGRAM PER CUBIC METER
PPMV = PART PER MILLION BY VOLUME
MG/KG = PARTS PER MILLION
MG/L = PARTS PER MILLION
< = LESS THAN
ND = NOT DETECTED AT OR ABOVE THE STL-PENSACOLA REPORTING LIMIT (RL).
E = EXCEED THE CALIBRATION CURVE; THEREFORE, RESULTS ARE ESTIMATED.

SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

ORGANIC SOILS ARE REPORTED ON A DRYWEIGHT BASIS.

RPT LMTS = REPORTING LIMITS BASED ON METHOD DETECTION LIMIT STUDIES.

RPD = RELATIVE PERCENT DIFFERENCE (OR DEVIATION)

STL/GC/FID
STL GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH FLAME IONIZATION DETECTOR (FID).

STL/GC/FIX
STL GAS CHROMATOGRAPHIC METHOD FOR ANALYSIS OF FIXED GASES EMPLOYING DIRECT INJECTION ON COLUMN WITH THERMAL CONDUCTIVITY DETECTOR (TCD) AND FLAME IONIZATION DETECTOR (FID).

STL/GC/FPD
STL GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH FLAME PHOTOMETRIC DETECTOR (FPD) IN SULFUR-SPECIFIC MODE.

STL/GC/PID
STL GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH PHOTOIONIZATION DETECTOR (PID).

STL/GC/TCD
STL GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH THERMAL CONDUCTIVITY DETECTOR (TCD).

SW-846 METHOD 9020
PARTICULATE MATTER IS REMOVED BY ALLOWING PARTICULATES TO SETTLE IN THE SAMPLE CONTAINER AND DECANTING THE SUPERNATANT LIQUID. EXCESSIVE PARTICULATES ARE REMOVED BY FILTRATION OF THE SUPERNATANT LIQUID.

RSK 175
SAMPLE PREPARATION AND CALCULATIONS FOR DISSOLVED GAS ANALYSIS IN WATER SAMPLES USING A GC HEADSPACE EQUILIBRATION TECHNIQUE, RSK SOP-175, ROBERT S. KERR ENVIRONMENTAL RESEARCH LABORATORY, USEPA, AUGUST 11, 1994.

STL-PN USES THE MOST CURRENT PROMULGATED METHODS CONTAINED IN THE REFERENCE MANUALS.

SW = STEVE WILHITE
RW = RITA WINGO
KS = KENDALL SMITH
LBL = LISA BIZZELL-LOWE
LP = LEVERNE PETERSON
PLD = PAULA DOUGHTY
DK = DARLENE KINCHEN
BT = BECKY TREMMEL
[illegible]H = HOLLIE HOFFMAN
[illegible] = HOLLY CHANCE

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

Quality Control Report

Analysis: BETX AND TPH C6-C10 RANGE

Accession:	904325
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO, NM
Project Location:	LEA TRUCK STATION, LEA CO, NM
Department:	GC/VOA

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"QC Report"

Title: Low Soil Blank
Batch: TRS042
Analysis Method: 8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method: 5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992

Blank Id: A Date Analyzed: 19-APR-99 Date Extracted: N/A

Parameters:	Units:	Results:	Reporting Limits:
BENZENE	UG/KG	ND	1
CHLOROBENZENE	UG/KG	ND	1
1,2-DICHLOROBENZENE	UG/KG	ND	2
1,3-DICHLOROBENZENE	UG/KG	ND	2
1,4-DICHLOROBENZENE	UG/KG	ND	2
ETHYLBENZENE	UG/KG	ND	1
TOLUENE	UG/KG	ND	2
XYLENES (TOTAL)	UG/KG	ND	2
METHYL T-BUTYL ETHER	UG/KG	ND	5
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	0.10
TRIFLUOROTOLUENE (PID)	%REC/SURR	108	72-123
TRIFLUOROTOLUENE (FID)	%REC/SURR	109	72-123
ANALYST	INITIALS	CN	

Comments:

"QC Report"

Title: Low Soil Blank
Batch: TRS041
Analysis Method: 8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method: 5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992

Blank Id: C Date Analyzed: 19-APR-99 Date Extracted: N/A

Parameters:	Units:	Results:	Reporting Limits:
BENZENE	UG/KG	ND	1
CHLOROBENZENE	UG/KG	ND	1
1,2-DICHLOROBENZENE	UG/KG	ND	2
1,3-DICHLOROBENZENE	UG/KG	ND	2
1,4-DICHLOROBENZENE	UG/KG	ND	2
ETHYLBENZENE	UG/KG	ND	1
TOLUENE	UG/KG	ND	2
XYLENES (TOTAL)	UG/KG	ND	2
METHYL T-BUTYL ETHER	UG/KG	ND	5
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	0.10
TRIFLUOROTOLUENE (PID)	%REC/SURR	104	72-123
TRIFLUOROTOLUENE (FID)	%REC/SURR	107	72-123
ANALYST	INITIALS	CN	

Comments:

"QC Report"

Title: Low Soil Blank
Batch: TRS042
Analysis Method: 8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method: 5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992

Blank Id: C Date Analyzed: 21-APR-99 Date Extracted: N/A

Parameters:	Units:	Results:	Reporting Limits:
BENZENE	UG/KG	ND	1
CHLOROBENZENE	UG/KG	ND	1
1,2-DICHLOROBENZENE	UG/KG	ND	2
1,3-DICHLOROBENZENE	UG/KG	ND	2
1,4-DICHLOROBENZENE	UG/KG	ND	2
ETHYLBENZENE	UG/KG	ND	1
TOLUENE	UG/KG	ND	2
XYLENES (TOTAL)	UG/KG	ND	2
METHYL T-BUTYL ETHER	UG/KG	ND	5
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	0.10
TRIFLUOROTOLUENE (PID)	%REC/SURR	104	72-123
TRIFLUOROTOLUENE (FID)	%REC/SURR	109	72-123
ANALYST	INITIALS	CN	

Comments:

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"QC Report"

Title: High Soil Blank
Batch: EXT013
Analysis Method: 8021BMod/8015BMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method: 5035Mod/5030BMod, SW-846, 3rd Edition, Update III, Dec. 1996

Blank Id: A Date Analyzed: 21-APR-99 Date Extracted: 20-APR-99

Parameters:	Units:	Results:	Reporting Limits:
BENZENE	UG/KG	ND	50
CHLOROBENZENE	UG/KG	ND	50
1,2-DICHLOROBENZENE	UG/KG	ND	100
1,3-DICHLOROBENZENE	UG/KG	ND	100
1,4-DICHLOROBENZENE	UG/KG	ND	100
ETHYLBENZENE	UG/KG	ND	50
TOLUENE	UG/KG	ND	100
XYLENES (TOTAL)	UG/KG	ND	100
METHYL T-BUTYL ETHER	UG/KG	ND	250
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	5.0
TRIFLUOROTOLUENE (PID)	%REC/SURR	107	72-123
TRIFLUOROTOLUENE (FID)	%REC/SURR	107	72-123
ANALYST	INITIALS	SA	

Comments:

"QC Report"

Title: Low Soil Blank
Batch: TRS042
Analysis Method: 8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method: 5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992

Blank Id: B Date Analyzed: 20-APR-99 Date Extracted: N/A

Parameters:	Units:	Results:	Reporting Limits:
BENZENE	UG/KG	ND	1
CHLOROBENZENE	UG/KG	ND	1
1,2-DICHLOROBENZENE	UG/KG	ND	2
1,3-DICHLOROBENZENE	UG/KG	ND	2
1,4-DICHLOROBENZENE	UG/KG	ND	2
ETHYLBENZENE	UG/KG	ND	1
TOLUENE	UG/KG	ND	2
XYLENES (TOTAL)	UG/KG	ND	2
METHYL T-BUTYL ETHER	UG/KG	ND	5
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	0.10
TRIFLUOROTOLUENE (PID)	%REC/SURR	105	72-123
TRIFLUOROTOLUENE (FID)	%REC/SURR	107	72-123
ANALYST	INITIALS	CN	

Comments:

"QC Report"

Title: Low Soil Blank
Batch: TRS044
Analysis Method: 8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method: 5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992

Blank Id: A Date Analyzed: 22-APR-99 Date Extracted: N/A

Parameters:	Units:	Results:	Reporting Limits:
BENZENE	UG/KG	ND	1
CHLOROBENZENE	UG/KG	ND	1
1,2-DICHLOROBENZENE	UG/KG	ND	2
1,3-DICHLOROBENZENE	UG/KG	ND	2
1,4-DICHLOROBENZENE	UG/KG	ND	2
ETHYLBENZENE	UG/KG	ND	1
TOLUENE	UG/KG	ND	2
XYLENES (TOTAL)	UG/KG	ND	2
METHYL T-BUTYL ETHER	UG/KG	ND	5
TOTAL PETROLEUM HYDROCARBON	MG/KG	ND	0.10
TRIFLUOROTOLUENE (PID)	%REC/SURR	103	72-123
TRIFLUOROTOLUENE (FID)	%REC/SURR	106	72-123
ANALYST	INITIALS	CN	

Comments:

"QC Report"

Title: Low Soil LCS
Batch: TRS042
Analysis Method: 8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method: 5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992

RS Date Analyzed: 19-APR-99 RS Date Extracted: N/A

Parameters:	Spike Added	Sample Conc	RS Conc	RS %Rec	Rec Lmts
BENZENE	50	<1	53	106	72-132
TOLUENE	50	<2	52	104	69-132
TOTAL PETROLEUM HYDROCARBON	950	<100	948	100	50-150
Surrogates:					
TRIFLUOROTOLUENE (PID)		o		104	72-123
TRIFLUOROTOLUENE (FID)				107	72-123

Comments:

Notes:
N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT
UG/KG = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

"QC Report"

Title: Low Soil LCS
Batch: TRS041
Analysis Method: 8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method: 5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992

RS Date Analyzed: 15-APR-99 RS Date Extracted: N/A

Parameters:	Spike Added	Sample Conc	RS Conc	RS %Rec	Rec Lmts
BENZENE	50	<1	53	106	72-132
TOLUENE	50	<2	53	106	69-132
TOTAL PETROLEUM HYDROCARBON	950	<100	936	99	50-150
Surrogates:					
TRIFLUOROTOLUENE (PID)				104	72-123
TRIFLUOROTOLUENE (FID)				107	72-123

Comments:

Notes:
N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT
UG/KG = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

"QC Report"

Title: High Soil LCS
Batch: EXT013
Analysis Method: 8021BMod/8015BMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method: 5035Mod/5030BMod, SW-846, 3rd Edition, Update III, Dec. 1996

RS Date Analyzed: 20-APR-99 RS Date Extracted: 20-APR-99

Parameters:	Spike Added	Sample Conc	RS Conc	RS %Rec	Rec Lmts
BENZENE	500	<50	570	114	72-132
TOLUENE	500	<100	580	116	69-132
TOTAL PETROLEUM HYDROCARBON	9500	<1000	10300	108	50-150
Surrogates:					
TRIFLUOROTOLUENE (PID)				99	72-123
TRIFLUOROTOLUENE (FID)				97	72-123

Comments:

Notes:
N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT
UG/KG = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

"QC Report"

Title: Low Soil LCS
Batch: TRS044
Analysis Method: 8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method: 5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992

RS Date Analyzed: 22-APR-99 RS Date Extracted: N/A

Parameters:	Spike Added	Sample Conc	RS Conc	RS %Rec	Rec Lmts
BENZENE	50	<1	51	102	72-132
TOLUENE	50	<2	50	100	69-132
TOTAL PETROLEUM HYDROCARBON	950	<100	909	96	50-150
Surrogates:					
TRIFLUOROTOLUENE (PID)				103	72-123
TRIFLUOROTOLUENE (FID)				106	72-123

Comments:

Notes:
N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT
UG/KG = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

"QC Report"

Title: Low Soil Matrix
Batch: TRS042
Analysis Method: 8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method: 5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992

Dry Weight %: 96 MS Date Analyzed: 20-APR-99 MS Date Extracted: N/A
Sample Spiked: 904325-1 MSD Date Analyzed: 20-APR-99 MSD Date Extracted: N/A

Parameters:	Spike Added	Sample Conc	MS Conc	MS %Rec	MSD Conc	MSD %Rec	RPD	RPD Lmts	Rec Lmts
BENZENE	52	<1	50	96	52	100	4	16	77-136
TOLUENE	52	<2.1	51	98	54	104	6	17	66-132
TOTAL PETROLEUM HYDROCARBON	990	<100	790	80	880	89	11	50	50-150
Surrogates:									
TRIFLUOROTOLUENE (PID)				96		102			72-123
TRIFLUOROTOLUENE (FID)				98		104			72-123

Comments:

Notes:
N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT
UG/KG = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

"QC Report"

Title: Low Soil Matrix
Batch: TRS041
Analysis Method: 8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method: 5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992

Dry Weight %: 85 MS Date Analyzed: 19-APR-99 MS Date Extracted: N/A
Sample Spiked: 904319-8 MSD Date Analyzed: 19-APR-99 MSD Date Extracted: N/A

Parameters:	Spike Added	Sample Conc	MS Conc	MS %Rec	MSD Conc	MSD %Rec	RPD	RPD Lmts	Rec Lmts
BENZENE	59	<1.2	64	108	64	108	0	16	77-136
TOLUENE	59	<2.4	64	108	62	105	3	17	66-132
TOTAL PETROLEUM HYDROCARBON	1100	<120	1100	100	1100	100	0	50	50-150
Surrogates:									
TRIFLUOROTOLUENE (PID)				103		103			72-123
TRIFLUOROTOLUENE (FID)				105		106			72-123

Comments:

Notes:
N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT
UG/KG = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

"Manually Generated QC Report"

Title: High Soil Matrix\No Calculations
Batch: EXT013
Analysis Method: 8021BMod/8015BMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method: 5035Mod/5030BMod, SW-846, 3rd Edition, Update III, Dec. 1996

Dry Weight %: 93
Sample Spiked: 904325-8

MS Date Analyzed: 23-APR-99
MSD Date Analyzed: 23-APR-99

MS Date Extracted: 20-APR-99
MSD Date Extracted: 20-APR-99

Parameters:	Spike Added	Sample Conc	MS Conc	MS %Rec	MSD Conc	MSD %Rec	RPD	RPD Lmts	Rec Lmts
BENZENE	500	<50	D	0	D	0	0	16	77-136
TOLUENE	500	<100	D	0	D	0	0	17	66-132
TOTAL PETROLEUM HYDROCARBON	9500	830000	D	0	D	0	0	50	50-150
Surrogates:									
TRIFLUOROTOLUENE (PID)				D		D			72-123
TRIFLUOROTOLUENE (FID)				D		D			72-123

Comments:
NO MS/MSD AVAILABLE DUE TO HIGH DILUTION PERFORMED - SEE LCS DATA.

Notes:
N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT
UG/KG = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

"Manually Generated QC Report"

Title: Low Soil Matrix
Batch: TRS044
Analysis Method: 8021AMod/8015AMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method: 5030AMod/SW-846, 3rd Edition, Update I, Jul. 1992

Dry Weight %: 91 MS Date Analyzed: 23-APR-99 MS Date Extracted: N/A
Sample Spiked: 904325-21 MSD Date Analyzed: 23-APR-99 MSD Date Extracted: N/A

Parameters:	Spike Added	Sample Conc	MS Conc	MS %Rec	MSD Conc	MSD %Rec	RPD	RPD Lmts	Rec Lmts
BENZENE	55	<1.1	57	104	56	102	2	16	77-136
TOLUENE	55	<2.2	58	105	57	104	1	17	66-132
TOTAL PETROLEUM HYDROCARBON	1000	650	1300	65	1300	65	0	50	50-150
Surrogates:									
TRIFLUOROTOLUENE (PID)				100		100			72-123
TRIFLUOROTOLUENE (FID)				104		106			72-123

Comments:

Notes:
N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT
UG/KG = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

Common notation for Organic reporting

N/A = NOT APPLICABLE
UG/L = PARTS PER BILLION.
UG/KG = PARTS PER BILLION.
MG/KG = PARTS PER MILLION.
MG/M3 = MILLIGRAM PER CUBIC METER
PPMV = PART PER MILLION BY VOLUME
MG/L = PARTS PER MILLION.
ND = NOT DETECTED AT OR ABOVE STL-PENSACOLA REPORTING LIMIT (RL)
< = LESS THAN DETECTION LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.
ORGANIC SOILS ARE REPORTED ON A DRY WEIGHT BASIS.
** COMPOUNDS FLAGGED IN METHOD ARE NOT WITHIN THE FIVE POINT CURVE. THEY ARE SEARCHED FOR QUALITATIVELY.

RECOGNIZED INITIALS:

SK-SHELLEY KEARLEY

SB-SHARON BRADDOCK

SA-SUZANNE ASHMORE

CN-CARL NOBLE

TR-TRACI ROBERTS

DT-DAVID TALLEY

Severn Trent Laboratories of Florida
PROJECT SAMPLE INSPECTION FORM

Lab Accession #: 904325 Date Received: 4-15-99

1.	Was there a Chain of Custody?	(Yes)	No*		8.	Were samples checked for preservative? *(Check pH of all H_2O requiring preservative (STL-PN SOP 917) except VOA vials that require zero headspace)**	Yes	No*	(N/A)
2.	Was Chain of Custody properly filled out and relinquished?	(Yes)	No*		9.	Is there sufficient volume for analysis requested?	(Yes)	No*	N/A (Can)
3.	Were samples received cold? (Criteria: 2° - 6°C: STL-SOP 1055)	(Yes)	No*	N/A	10.	Were samples received within Holding Time? (REFER TO STL-SOP 1040)	(Yes)	No*	
4.	Were all samples properly labeled and identified?	(Yes)	No*		11.	Is Headspace visible > ¼" in diameter in VOA vials?* If any headspace is evident, comment in out-of-control section.	Yes*	No	(N/A)
5.	Did samples require splitting? Req By: PM Client Other*	Yes*	(No)		12.	If sent, were matrix spike bottles returned?	Yes	No*	(N/A)
6.	Were samples received in proper containers for analysis requested?	(Yes)	No*		13.	Was Project Manager notified of problems? (initials:_____)	Yes	No*	(N/A)
7.	Were all sample containers received intact?	(Yes)	No*						

Airbill Number(s): A3101856081
A3101856063
A3101856072

Shipped By: UPS

Cooler Number(s): THEIRS

Shipping Charges: N/A

Cooler Weight(s): 2/2, 23, 48 LBS.

Cooler Temp(s) (°C): 2.0°C COCKS

(LIST THERMOMETER NUMBER(S) FOR VERIFICATION)

Out of Control Events and Inspection Comments:

(USE BACK OF PSIF FOR ADDITIONAL NOTES AND COMMENTS)

Inspected By: JDW **Date:** 4-15-99 **Logged By:** JDW **Date:** 4-15-99

* *Note all Out-of-Control and/or questionable events on Comment Section of this form.*

* *Note who requested the splitting of samples on the Comment Section of this form.*

* *All preservatives for the State of North Carolina, the State of New York, and other requested samples are to be recorded on the sheet provided to record pH results (STL-SOP 938).*

* *According to EPA, ¼" of headspace is allowed in 40 ml vials requiring volatile analysis, however, STL makes it policy to record any headspace as out-of-control (STL-SOP 938).*

Severn Trent Laboratories
11 East Olive Road • Pensacola, FL 32514
Tel: (850) 474-1001 • Fax: (850) 474-4789
Committed To *Your* Success

CHAIN OF CUSTODY 1 of 3

LAB ACCESSION # 904325

PART 1 - Bottle Shipment Information

CLIENT:

CLIENT PROJECT NUMBER:

QUANTITY OF SAMPLE CONTAINERS SHIPPED	PRESERVATIVE H_2SO_4	HNO3	HCL	Zn Acetate	$Na_2S_2O_3$	Unpreserved	NaOH	PLASTIC CONTAINERS 8 oz.	16 oz.	32 oz.	½ gallon	1 gallon	Whirl-pak	100-ML Cup	GLASS CONTAINERS 120 ml (A)	1 liter (A)	1 liter (C)	40 ml Vial	4 oz. wm	8 oz. wm	16 oz. wm	32 oz. wm	D.I. Trip Blank	NOTES

Relinquished By:	Time	Date	Received By:	Time	Date

PART 2 - Sample/Project Information

SAMPLE MATRIX CODES

DW DRINKING WATER; WW WASTEWATER; GW GROUNDWATER; AI AIR; SO SOIL; OI OIL; SW SURFACE WATER; SL SLUDGE; ST STORMWATER; CST

PARAMETERS AND PRESERVATIVES REQUESTED

SAMPLE I.D.	SAMPLE DATE	SAMPLE TIME	MATRIX	TPH-DRO/8015	TPH-GRO/8021	BTEX/8021	TOTAL # OF BOTTLES
MW99-1 2'-3'	4/13/99	0935	SO	✓	✓	✓	2
MW99-1 5'-7'	4/13/99	1015	SO	✓	✓	✓	2
MW99-1 10'-12'	4/13/99	1034	SO	✓	✓	✓	2
MW99-1 15'-17'	4/13/99	1045	SO	✓	✓	✓	2
MW99-1 20'-21'	4/13/99	1105	SO	✓	✓	✓	2
MW99-1 25'-27'	4/13/99	1120	SO	✓	✓	✓	2
MW99-1 30'-32'	4/13/99	1150	SO	✓	✓	✓	2
BH99-1 0'-1'	4/13/99	1330	SO	✓	✓	✓	2
BH99-1 5'-7'	4/13/99	1350	SO	✓	✓	✓	2
BH99-1 10'-12'	4/13/99	1358	SO	✓	✓	✓	2

Total Number of Bottles/Containers: 20

Relinquished By	Date	Time	Received By	Date	Time
R. Vance Hall	4/14/99	1600	Joshua D. Webb	4-15-99	0925

Client	Sun Pipe Line Company	Purchase Order Number	
Address	907 S. Detroit	Project Number	SPL99-01
City	Tulsa; State OK; Zip	Project Name	SPL/Lea Truck Station/Lea Co, NM
Phone Number	(918) ; Fax Number (918) 586-6421	Project Location	Lea Truck Station, Lea Co, NM
Project Manager	Scott Christensen	Sampled By	R. Vance Hall

TURNAROUND TIMES	check below	SPECIAL INSTRUCTIONS
Standard - 14-21 days	✓	Send/Fax analyses to: Hall Geological Services, LLC
RUSH (must be approved in advance)		5615 E. 80th Place
<- 48 hours - 2x standard price		Tulsa, OK 74136
3-7 days - 1.5x standard price		Phone (918) 481-5866
TCLP - 1 week rush 1.5x standard price		Fax (918) 492-3184
QC Level none I II III IV (circle one)		Copies of report needed 2

FORM # 12694 Per Sun's contract

WHITE — LAB CANARY — REPORT PINK — CLIENT

CHAIN OF CUSTODY 293

Severn Trent Laboratories
11 East Olive Road • Pensacola, FL 32514
Committed To *Your* Success Tel: (850) 474-1001 • Fax: (850) 474-4789

LAB ACCESSION # 904325

PART 1 - Bottle Shipment Information

CLIENT: | **CLIENT PROJECT NUMBER:**

QUANTITY OF SAMPLE CONTAINERS SHIPPED	PRESERVATIVE							PLASTIC CONTAINERS							GLASS CONTAINERS									NOTES
	H_2SO_4	HNO3	HCL	Zn Acetate	$Na_2S_2O_3$	Unpreserved	NaOH	8 oz.	16 oz.	32 oz.	½ gallon	1 gallon	Whirl-pak	100-ML Cup	120 ml (A)	1 liter (A)	1 liter (C)	40 ml Vial	4 oz. wm	8 oz. wm	16 oz. wm	32 oz. wm	D.I. Trip Blank	

Relinquished By:	Time	Date	Received By:	Time	Date

PART 2 - Sample/Project Information

SAMPLE MATRIX CODES

DW	DRINKING WATER	AI	AIR	SW	SURFACE WATER
WW	WASTEWATER	SO	SOIL	SL	SLUDGE
GW	GROUNDWATER	OI	OIL	ST	STORMWATER

PARAMETERS AND PRESERVATIVES REQUESTED

SAMPLE I.D.	SAMPLE DATE	SAMPLE TIME	MATRIX	TPH-DRO 8015 Mod	TPH-GRO 8021	BTEX 8021	TOTAL # OF BOTTLES
BH99-1 15'-17'	4/13/99	1405	SO	✓	✓	✓	2
BH99-1 20'-22'	4/13/99	1425	SO	✓	✓	✓	2
BH99-1 25'-27'	4/13/99	1444	SO	✓	✓	✓	2
BH99-1 30'-32'	4/13/99	1459	SO	✓	✓	✓	2
MW99-2 1'-2'	4/13/99	1515	SO	✓	✓	✓	2
MW99-2 5.25'-6.4'	4/13/99	1533	SO	✓	✓	✓	2
MW99-2 10'-12'	4/13/99	1546	SO	✓	✓	✓	2
MW99-2 15'-17'	4/13/99	1600	SO	✓	✓	✓	2
MW99-2 20'-21.8'	4/13/99	1614	SO	✓	✓	✓	2
MW99-2 25'-27'	4/13/99	1636	SO	✓	✓	✓	2
						Total Number of Bottles/Containers:	20

Relinquished By	Date	Time	Received By	Date	Time
R. Vance Hall	4/14/99	1600	Joshua D. Wall	4-15-99	0925

Client Sun Pipe Line Company			Purchase Order Number
Address 907 S. Detroit			Project Number SPL99-01
City Tulsa 20-22	State OK	Zip	Project Name SPL/Lea Track Station/Lea Co. NM
Phone Number (918) 586-6394	Fax Number (918) 586-6421		Project Location Lea Track Station Lea Co. NM
Project Manager Scott Christensen			Sampled By R. Vance Hall

TURNAROUND TIMES	check below
Standard - 14-21 days	✓
RUSH (must be approved in advance)	
<- 48 hours - 2x standard price	
3-7 days - 1.5x standard price	
TCLP - 1 week rush 1.5x standard price	
QC Level none I II III IV (circle one)	

SPECIAL INSTRUCTIONS

Send / Fax analyses to: Hall Geological Services LLC
5615 E. 80th Place
Tulsa, OK 74136
Phone (918) 481-5866
Fax (918) 492-3184
Copies of report needed 2

Per Sun's contract

FORM # 12694 WHITE — LAB CANARY — REPORT PINK — CLIENT

CHAIN OF CUSTODY 3 of 3

Severn Trent Laboratories
11 East Olive Road • Pensacola, FL 32514
Committed To *Your* Success Tel: (850) 474-1001 • Fax: (850) 474-4789

LAB ACCESSION # 904325

PART 1 - Bottle Shipment Information

CLIENT:

CLIENT PROJECT NUMBER:

QUANTITY OF SAMPLE CONTAINERS SHIPPED	PRESERVATIVE							PLASTIC CONTAINERS							GLASS CONTAINERS									NOTES
	H_2SO_4	HNO3	HCL	Zn Acetate	$Na_2S_2O_3$	Unpreserved	NaOH	8 oz.	16 oz.	32 oz.	½ gallon	1 gallon	Whirl-pak	100-ML Cup	120 ml (A)	1 liter (A)	1 liter (C)	40 ml Vial	4 oz. wm	8 oz. wm	16 oz. wm	32 oz. wm	D.I. Trip Blank	

Relinquished By:	Time	Date	Received By:	Time	Date

PART 2 - Sample/Project Information

SAMPLE MATRIX CODES

DW DRINKING WATER — AI AIR — SW SURFACE WATER
WW WASTEWATER — SO SOIL — SL SLUDGE
GW GROUNDWATER — OI OIL — ST STORMWATER

PARAMETERS AND PRESERVATIVES REQUESTED

SAMPLE I.D.	SAMPLE DATE	SAMPLE TIME	MATRIX	TPH 8015 Ext	TPH-GRO 8021	BTEX 8021	TOTAL # OF BOTTLES
MW99-2 30'-32'	4/13/99	1654	SO	✓	✓	✓	2
MW99-3 1'-2'	4/13/99	1715	SO	✓	✓	✓	2
MW99-3 5'-7'	4/14/99	1000	SO	✓	✓	✓	2
MW99-3 10'-11.6'	4/14/99	1020	SO	✓	✓	✓	2
MW99-3 15.3-16.7'	4/14/99	1028	SO	✓	✓	✓	2
MW99-3 20'-21.35'	4/14/99	1041	SO	✓	✓	✓	2
MW99-3 25'-26.45	4/14/99	1052	SO	✓	✓	✓	2
MW99-3 30'-31.45'	4/14/99	1118	SO	✓	✓	✓	2

Total Number of Bottles/Containers: 16

Relinquished By	Date	Time	Received By	Date	Time
R. Vance Hall	4/14/99	1600	Joshua S. Wil	4/15/99	0925

Client	Sun Pipe Line Company		Purchase Order Number
Address	907 S. Detroit		Project Number SPL99-01
City	Tulsa	State OK Zip	Project Name SPL/Lea Truck Station/Lea Co., NM
Phone Number	(918) 586-6394	Fax Number (918) 586-6421	Project Location Lea Truck Station, Lea Co. NM
Project Manager	Scott Christensen		Sampled By R. Vance Hall

TURNAROUND TIMES	check below
Standard - 14-21 days	✓
RUSH (must be approved in advance)	
<- 48 hours - 2x standard price	
3-7 days - 1.5x standard price	
TCLP - 1 week rush 1.5x standard price	

QC Level none I II III IV (circle one)

Per Sun's contract

SPECIAL INSTRUCTIONS

Send/Fax analyses to: Hall Geological Services, LLC
5615 E. 80th Place
Tulsa, OK 74136
Phone (918) 481-5866
Fax (918) 492-3184
Copies of report needed 2

FORM # 12694

WHITE — LAB CANARY — REPORT PINK — CLIENT

Committed To *Your* Success

Severn Trent Laboratories
11 East Olive Road
Pensacola FL 32514

Tel: (850) 474-1001
Fax: (850) 478-2671

SIGNATURE PAGE

Reviewed by: _____
STL Project Manager

Client:	SUN PIPE LINE CO. TULSA, OKLAHOMA
Project Name:	SPL/LEA TRUCK STATION/LEA CO., NM
Project Number:	SPL99-01
Project Location:	LEA TRUCK STATION, LEA CO., NM
Accession Number:	904356
Project Manager:	SCOTT CHRISTENSEN
Sampled By:	R. VANCE HALL

Report Summary - By Sample

Project Name: SPL/LEA TRUCK STATION/LEA CO., NM

Sample Number: 1
Date Received: 16-APR-99
Date Sampled: 15-APR-99

Accession Number: 904356
Client Sample Desc: MW99-1
Matrix Code: GW
Dry Weight N/A

	Parameter Name	Result	RL	Unit	Qualifier
BXTP	ETHYLBENZENE	ND	1	UG/L	
BXTP	TOLUENE	ND	5	UG/L	
BXTP	XYLENES (TOTAL)	ND	2	UG/L	
BXTP	BENZENE	ND	1	UG/L	
BXTP	TOTAL PETROLEUM HYDROCARBON	ND	0.10	MG/L	
DROP	TOTAL PETROLEUM HYDROCARBON	ND	100	UG/L	

Report Summary - By Sample

Project Name: SPL/LEA TRUCK STATION/LEA CO., NM

Sample Number: 2
Date Received: 16-APR-99
Date Sampled: 15-APR-99

Accession Number: 904356
Client Sample Desc: MW99-2
Matrix Code: GW
Dry Weight N/A

	Parameter Name	Result	RL	Unit	Qualifier
BXTP	ETHYLBENZENE	1	1	UG/L	
BXTP	TOLUENE	ND	5	UG/L	
BXTP	XYLENES (TOTAL)	5	2	UG/L	
BXTP	BENZENE	1	1	UG/L	
BXTP	TOTAL PETROLEUM HYDROCARBON	ND	0.10	MG/L	
DROP	TOTAL PETROLEUM HYDROCARBON	ND	100	UG/L	

Report Summary - By Sample

Project Name: SPL/LEA TRUCK STATION/LEA CO., NM

Sample Number: 3
Date Received: 16-APR-99
Date Sampled: 15-APR-99

Accession Number: 904356
Client Sample Desc: MW99-3
Matrix Code: GW
Dry Weight N/A

	Parameter Name	Result	RL	Unit	Qualifier
BXTP	ETHYLBENZENE	8	1	UG/L	
BXTP	TOLUENE	ND	5	UG/L	
BXTP	XYLENES (TOTAL)	3	2	UG/L	
BXTP	BENZENE	ND	1	UG/L	
BXTP	TOTAL PETROLEUM HYDROCARBON	0.19	0.10	MG/L	
DROP	TOTAL PETROLEUM HYDROCARBON	ND	100	UG/L	

Committed To Your Success

SEVERN TRENT LABORATORIES, INC. – PENSACOLA, FLORIDA
STATE CERTIFICATIONS

Alabama Department of Environmental Management, Laboratory ID No. 40150 (Drinking Water by Reciprocity with FL)

Arizona Department of Health Services, Lab ID No. AZ0589 (Hazardous Waste & Wastewater)

Arkansas Department of Pollution Control and Ecology, (No Laboratory ID No. assigned by state) (Environmental)

State of California, Department of Health Services, Laboratory ID No. 2338 (Hazardous Waste and Wastewater)

State of Connecticut, Department of Health Services, Connecticut Lab Approval No. PH-0697 (Drinking Water, Hazardous Waste and Wastewater)

Delaware Health & Social Services, Division of Public Health, Laboratory ID No. FL094 (Drinking Water by Reciprocity with FL)

Florida DOH Laboratory ID No. 81142 (Drinking Water), Laboratory ID No. E81010 (Hazardous Waste and Wastewater)

Florida, Radioactive Materials License No. G0733-1

Foreign Soil Permit, Permit No. S-37599

Kansas Department of Health & Environment, Laboratory ID No. E10253 (Wastewater and Hazardous Waste)

Commonwealth of Kentucky, Natural Resources and Environmental Protection Cabinet, Laboratory ID No. 90043 (Drinking Water)

State of Louisiana, DHH, Office of Public Health Division of Laboratories, Laboratory ID No. 98-25 (Drinking Water)

State of Maryland, DH&MH Laboratory ID No. 233 (Drinking Water by Reciprocity with Florida)

Commonwealth of Massachusetts, DEP, Laboratory ID No. M-FL094 (Hazardous Waste and Wastewater)

State of Michigan, Bureau of E&OccH (No Laboratory ID No. assigned by state) (Drinking Water by Reciprocity with Florida)

New Hampshire DES, Laboratory ID No. 250598-A (Wastewater)

State of New Jersey, Department of Environmental Protection & Energy, Laboratory ID No. 49006 (Wastewate and Hazardous Waster)

New York State, Department of Health, Laboratory ID No. 11503 (Wastewater and Solids/Hazardous Waste)

North Carolina Department of Environment, Health, & Natural Resources, Laboratory ID No. 314 (Hazardous Waste and Wastewater)

North Dakota DH&Consol Labs, Laboratory ID No. R-108 (Hazardous Waste and Wastewater by Reciprocity with California)

State of Oklahoma, Oklahoma Department of Environmental Quality, Laboratory ID No. 9810 (Hazardous Waste and Wastewater)

Commonwealth of Pennsylvania, Department of Environmental Resources, Laboratory ID No. 68-467 (Drinking Water)

South Carolina DH&EC, Laboratory ID No. 96026 (Wastewater by Reciprocity with FL and Solids/Hazardous Waste by Reciprocity with CA)

Tennessee Department of Health & Environment, Laboratory ID No. 02907 (Drinking Water)

Tennessee Division of Underground Storage Tanks Approved Laboratory

Virginia Department of General Services, Laboratory ID No. 00008 (Drinking Water by Reciprocity with FL)

State of Washington, Department of Ecology, Laboratory ID No. C282 (Hazardous Waste and Wastewater)

West Virginia Division of Environmental Protection, Office of Water Resources, Laboratory ID No. 136 (Hazardous Waste and Wastewater b Reciprocity with FL)

American Industrial Hygiene Association (AIHA) Accredited Laboratory, Laboratory ID No. 9133

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

Analysis Report

Analysis: DRO\PETRO. HYDROCARBON RANGE C10-C28

Accession:	904356
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO., NM
Project Location:	LEA TRUCK STATION, LEA CO., NM
Department:	SEMI-VOLATILE FUELS

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	904356
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO., NM
Project Location:	LEA TRUCK STATION, LEA CO., NM
Test:	DRO\PETRO. HYDROCARBON RANGE C10-C28
Analysis Method:	DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method:	3510C/SW-846, 3rd Ed, 3rd Update, Dec 1996.
Matrix:	GROUNDWATER
QC Level:	II

Lab Id:	001	Sample Date/Time:	15-APR-99 1522
Client Sample Id:	MW99-1	Received Date:	16-APR-99
Batch: FPW060		Extraction Date:	20-APR-99
Blank: A	Dry Weight %: N/A	Analysis Date:	22-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	UG/L	ND	100	
ORTHO TER PHENYL	%REC/SURR	85	37-140	
ANALYST	INITIALS	LBL		

Comments:

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	904356
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO., NM
Project Location:	LEA TRUCK STATION, LEA CO., NM
Test:	DRO\PETRO. HYDROCARBON RANGE C10-C28
Analysis Method:	DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method:	3510C/SW-846, 3rd Ed, 3rd Update, Dec 1996.
Matrix:	GROUNDWATER
QC Level:	II

Lab Id:	002		Sample Date/Time:	15-APR-99 1545
Client Sample Id:	MW99-2		Received Date:	16-APR-99
Batch: FPW060			Extraction Date:	20-APR-99
Blank: A	Dry Weight %:	N/A	Analysis Date:	22-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	UG/L	ND	100	
ORTHO TER PHENYL	%REC/SURR	77	37-140	
ANALYST	INITIALS	LBL		

Comments:

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	904356
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO., NM
Project Location:	LEA TRUCK STATION, LEA CO., NM
Test:	DRO\PETRO. HYDROCARBON RANGE C10-C28
Analysis Method:	DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method:	3510C/SW-846, 3rd Ed, 3rd Update, Dec 1996.
Matrix:	GROUNDWATER
QC Level:	II

Lab Id:	003	Sample Date/Time:	15-APR-99 1625
Client Sample Id:	MW99-3	Received Date:	16-APR-99
Batch: FPW060		Extraction Date:	20-APR-99
Blank: A	Dry Weight %: N/A	Analysis Date:	23-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	UG/L	ND	100	
ORTHO TER PHENYL	%REC/SURR	75	37-140	
ANALYST	INITIALS	LBL		

Comments:

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

Analysis Report

Analysis: BETX AND TPH C6-C10 RANGE

Accession:	904356
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO., NM
Project Location:	LEA TRUCK STATION, LEA CO., NM
Department:	GC/VOA

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	904356
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO., NM
Project Location:	LEA TRUCK STATION, LEA CO., NM
Test:	BETX AND TPH C6-C10 RANGE
Analysis Method:	8021BMod/8015BMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method:	5030BMod/SW-846, 3rd Edition, Update III, Dec. 1996
Matrix:	GROUNDWATER
QC Level:	II

Lab Id:	001		Sample Date/Time:	15-APR-99 1522
Client Sample Id:	MW99-1		Received Date:	16-APR-99
Batch: ETW056			Extraction Date:	N/A
Blank: B	Dry Weight %:	N/A	Analysis Date:	22-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/L	ND	1	
TOLUENE	UG/L	ND	5	
ETHYLBENZENE	UG/L	ND	1	
XYLENES (TOTAL)	UG/L	ND	2	
TOTAL PETROLEUM HYDROCARBON	MG/L	ND	0.10	
TRIFLUOROTOLUENE (PID)	%REC/SURR	109	84-115	
TRIFLUOROTOLUENE (FID)	%REC/SURR	103	84-115	
ANALYST	INITIALS	SA		

Comments:

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	904356
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO., NM
Project Location:	LEA TRUCK STATION, LEA CO., NM
Test:	BETX AND TPH C6-C10 RANGE
Analysis Method:	8021BMod/8015BMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method:	5030BMod/SW-846, 3rd Edition, Update III, Dec. 1996
Matrix:	GROUNDWATER
QC Level:	II

Lab Id:	002		Sample Date/Time:	15-APR-99 1545
Client Sample Id:	MW99-2		Received Date:	16-APR-99
Batch: ETW058			Extraction Date:	N/A
Blank: A	Dry Weight %:	N/A	Analysis Date:	22-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/L	1	1	
TOLUENE	UG/L	ND	5	
ETHYLBENZENE	UG/L	1	1	
XYLENES (TOTAL)	UG/L	5	2	
TOTAL PETROLEUM HYDROCARBON	MG/L	ND	0.10	
TRIFLUOROTOLUENE (PID)	%REC/SURR	111	84-115	
TRIFLUOROTOLUENE (FID)	%REC/SURR	113	84-115	
ANALYST	INITIALS	SA		

Comments:

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	904356
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO., NM
Project Location:	LEA TRUCK STATION, LEA CO., NM
Test:	BETX AND TPH C6-C10 RANGE
Analysis Method:	8021BMod/8015BMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method:	5030BMod/SW-846, 3rd Edition, Update III, Dec. 1996
Matrix:	GROUNDWATER
QC Level:	II

Lab Id:	003	Sample Date/Time:	15-APR-99 1625
Client Sample Id:	MW99-3	Received Date:	16-APR-99
Batch: ETW058		Extraction Date:	N/A
Blank: A	Dry Weight %: N/A	Analysis Date:	22-APR-99

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/L	ND	1	
TOLUENE	UG/L	ND	5	
ETHYLBENZENE	UG/L	8	1	
XYLENES (TOTAL)	UG/L	3	2	
TOTAL PETROLEUM HYDROCARBON	MG/L	0.19	0.10	
TRIFLUOROTOLUENE (PID)	%REC/SURR	106	84-115	
TRIFLUOROTOLUENE (FID)	%REC/SURR	97	84-115	
ANALYST	INITIALS	SA		

Comments:

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"Method Report Summary"

Accession Number: 904356
Client: SUN PIPE LINE CO.
Project Number: SPL99-01
Project Name: SPL/LEA TRUCK STATION/LEA CO., NM
Project Location: LEA TRUCK STATION, LEA CO., NM
Test: BETX AND TPH C6-C10 RANGE

Client Sample Id:	Parameter:	Unit:	Result:
MW99-2	BENZENE	UG/L	1
	ETHYLBENZENE	UG/L	1
	XYLENES (TOTAL)	UG/L	5
MW99-3	ETHYLBENZENE	UG/L	8
	XYLENES (TOTAL)	UG/L	3
	TOTAL PETROLEUM HYDROCARBON	MG/L	0.19

SEVERN TRENT LABORATORIES, INC. 11 East Olive Rd Pensacola, FL 32514 (850) 474-1001

Data Qualifiers for Final Report

STL-Pensacola Inorganic/Organic and AFCEE Projects (under QAPP)

J4	(For positive results)	Temperature limits exceeded (≤2°C or ≥ 6°C)
J5	(TICs)	The reported value is quantitated as a TIC; therefore, it is estimated
J6	(For positive results)	LCS or Surrogate %R is > upper control limit (UCL) or < lower control limit (LCL)
J7	(For positive results)	The reported value is > the laboratory MDL and < lowest calibration standards; therefore, the quantitation is an estimation.
J (AFCEE description)	The analyte was positively identified, the quantitation is an estimation	
R1	(For nondetects)	Temperature limits exceeded (≤2°C or ≥ 6°C)
R2	Improper preservation, no preservative present in sample upon receipt	
R3	Improper preservation, incorrect preservative present in sample upon receipt	
R4	Holding time exceeded	
R5	Collection requirements not met, improper container used for sample	
R6	LCS or surrogate %R is < LCL and analyte is not detected or surrogate %R is < 10% for detects/nondetects	
R7	Internal standard area outside –50% to +100% of initial calibration midpoint standard.	
R8	Second source calibration verification exceeds acceptance criteria.	
R9	Improper preservation, sample not filtered in the field.	
R (AFCEE description)	The data are unusable due to deficiencies in the ability to analyze the sample and meet QC criteria	
F	< laboratory or AFCEE RL and > laboratory MDL	
F (AFCEE description)	The analyte was positively identified but the associated numerical value is below the AFCEE or lab RL	
U2	< Laboratory MDL (value for result will be the MDL, never below the MDL)	
U (AFCEE description)	The analyte was analyzed for but not detected. The associated numerical value is at or below the MDL	
B (AFCEE description)	The analyte was found in the associated blank, as well as in the sample	
@	Adjusted reporting limit due to sample matrix (dilution prior to digestion and/or analysis)	
+	Elevated reporting limit due to dilution into calibration range	
*	Elevated reporting limit due to matrix interference (dilution prior to digestion and/or analysis)	
#	Elevated reporting limit due to insufficient sample size	
D	Diluted out	
M	A matrix effect was present (sample was analyzed twice to confirm or chromatogram had interfering peaks)	
S	Incorrect sample amount was submitted to the laboratory for analysis	
T	Second-column confirmation exceeded the SW-846 criteria of 40% RPD for this compound.	

ND = Not Detected at or above the STL-Pensacola reporting limit (RL) N/S = Not Submitted N/A = Not Applicable
IDL = Laboratory Instrument Detection Limit MDL = Laboratory Method Detection Limit
RL = Reporting Limit (AFCEE RLs are listed in the AFCEE QAPP)

Any time a sample arrives at the laboratory improperly preserved (at improper pH or temperature) or after holding time has expired or prepared or analyzed after holding time, client must be notified in writing (i.e. case narrative)

Florida Projects Inorganic/Organic
Refer to back side of this page

ICR Projects Inorganic/Organic

A1	Acceptable	R6	Rejected

Examples: ICR Flags
R6 = Laboratory extracted the sample but the refrigerator malfunctioned so the extract became warm and client was notified
R6 = Sample arrived in laboratory in good condition; however, the laboratory did not analyze it within EPA's established holding time limit

CLP and CLP-like Projects: Refer to referenced CLP Statement of Work (SOW) for explanation of data qualifiers

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

Quality Control Report

Analysis: BETX AND TPH C6-C10 RANGE

Accession:	904356
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO., NM
Project Location:	LEA TRUCK STATION, LEA CO., NM
Department:	GC/VOA

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"QC Report"

Title: Water Blank
Batch: ETW056
Analysis Method: 8021BMod/8015BMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method: 5030BMod/SW-846, 3rd Edition, Update III, Dec. 1996

Blank Id: B Date Analyzed: 21-APR-99 Date Extracted: N/A

Parameters:	Units:	Results:	Reporting Limits:
BENZENE	UG/L	ND	1
CHLOROBENZENE	UG/L	ND	1
1,2-DICHLOROBENZENE	UG/L	ND	2
1,3-DICHLOROBENZENE	UG/L	ND	2
1,4-DICHLOROBENZENE	UG/L	ND	2
ETHYLBENZENE	UG/L	ND	1
TOLUENE	UG/L	ND	2
XYLENES (TOTAL)	UG/L	ND	2
METHYL T-BUTYL ETHER	UG/L	ND	5
TOTAL PETROLEUM HYDROCARBON	MG/L	ND	0.10
TRIFLUOROTOLUENE (PID)	%REC/SURR	110	84-115
TRIFLUOROTOLUENE (FID)	%REC/SURR	109	84-115
ANALYST	INITIALS	SA	

Comments:

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"QC Report"

Title: Water Blank
Batch: ETW058
Analysis Method: 8021BMod/8015BMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method: 5030BMod/SW-846, 3rd Edition, Update III, Dec. 1996

Blank Id: A Date Analyzed: 22-APR-99 Date Extracted: N/A

Parameters:	Units:	Results:	Reporting Limits:
BENZENE	UG/L	ND	1
CHLOROBENZENE	UG/L	ND	1
1,2-DICHLOROBENZENE	UG/L	ND	2
1,3-DICHLOROBENZENE	UG/L	ND	2
1,4-DICHLOROBENZENE	UG/L	ND	2
ETHYLBENZENE	UG/L	ND	1
TOLUENE	UG/L	ND	2
XYLENES (TOTAL)	UG/L	ND	2
METHYL T-BUTYL ETHER	UG/L	ND	5
TOTAL PETROLEUM HYDROCARBON	MG/L	ND	0.10
TRIFLUOROTOLUENE (PID)	%REC/SURR	111	84-115
TRIFLUOROTOLUENE (FID)	%REC/SURR	111	84-115
ANALYST	INITIALS	SA	

Comments:

"QC Report"

Title: Water LCS
Batch: ETW056
Analysis Method: 8021BMod/8015BMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method: 5030BMod/SW-846, 3rd Edition, Update III, Dec. 1996

RS Date Analyzed: 20-APR-99 RS Date Extracted: N/A

Parameters:	Spike Added	Sample Conc	RS Conc	RS %Rec	Rec Lmts
BENZENE	50	<1	61	122	72-132
TOLUENE	50	<2	60	120	69-132
TOTAL PETROLEUM HYDROCARBON	950	<100	1180	124	50-150
Surrogates:					
TRIFLUOROTOLUENE (PID)				107	84-115
TRIFLUOROTOLUENE (FID)				106	84-115

Comments:

Notes:
N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT
UG/L = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

"QC Report"

Title: Water LCS
Batch: ETW058
Analysis Method: 8021BMod/8015BMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method: 5030BMod/SW-846, 3rd Edition, Update III, Dec. 1996

RS Date Analyzed: 22-APR-99 RS Date Extracted: N/A

Parameters:	Spike Added	Sample Conc	RS Conc	RS %Rec	Rec Lmts
BENZENE	50	<1	62	124	72-132
TOLUENE	50	<2	61	122	69-132
TOTAL PETROLEUM HYDROCARBON	950	<100	1090	115	50-150
Surrogates:					
TRIFLUOROTOLUENE (PID)				108	84-115
TRIFLUOROTOLUENE (FID)				107	84-115

Comments:

Notes:
N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT
UG/L = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"QC Report"

Title: Water Matrix
Batch: ETW056
Analysis Method: 8021BMod/8015BMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method: 5030BMod/SW-846, 3rd Edition, Update III, Dec. 1996

Dry Weight %: N/A
Sample Spiked: 904330-4

MS Date Analyzed: 21-APR-99
MSD Date Analyzed: 21-APR-99

MS Date Extracted: N/A
MSD Date Extracted: N/A

Parameters:	Spike Added	Sample Conc	MS Conc	MS %Rec	MSD Conc	MSD %Rec	RPD	RPD Lmts	Rec Lmts
BENZENE	50	<1	54	108	56	112	4	14	73-130
TOLUENE	50	<2	52	104	55	110	6	15	71-129
TOTAL PETROLEUM HYDROCARBON	950	<100	903	95	897	94	1	50	50-150
Surrogates:									
TRIFLUOROTOLUENE (PID)				107		113			84-115
TRIFLUOROTOLUENE (FID)				99		104			84-115

Comments:

Notes:
N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT
UG/L = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"QC Report"

Title: Water Matrix
Batch: ETW058
Analysis Method: 8021BMod/8015BMod/SW-846, 3rd Edition, Update III, Dec. 1996
Extraction Method: 5030BMod/SW-846, 3rd Edition, Update III, Dec. 1996

Dry Weight %: N/A
Sample Spiked: 904383-3

MS Date Analyzed: 23-APR-99
MSD Date Analyzed: 23-APR-99

MS Date Extracted: N/A
MSD Date Extracted: N/A

Parameters:	Spike Added	Sample Conc	MS Conc	MS %Rec	MSD Conc	MSD %Rec	RPD	RPD Lmts	Rec Lmts
BENZENE	50	<1	56	112	57	114	2	14	73-130
TOLUENE	50	<2	56	112	56	112	0	15	71-129
TOTAL PETROLEUM HYDROCARBON	950	<100	1030	108	1030	108	0	50	50-150
Surrogates:									
TRIFLUOROTOLUENE (PID)				103		106			84-115
TRIFLUOROTOLUENE (FID)				103		110			84-115

Comments:

Notes:
N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT
UG/L = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

Common notation for Organic reporting

N/A = NOT APPLICABLE
UG/L = PARTS PER BILLION.
UG/KG = PARTS PER BILLION.
MG/KG = PARTS PER MILLION.
MG/M3 = MILLIGRAM PER CUBIC METER
PPMV = PART PER MILLION BY VOLUME
MG/L = PARTS PER MILLION.
ND = NOT DETECTED AT OR ABOVE STL-PENSACOLA REPORTING LIMIT (RL)
< = LESS THAN DETECTION LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.
ORGANIC SOILS ARE REPORTED ON A DRY WEIGHT BASIS.
** COMPOUNDS FLAGGED IN METHOD ARE NOT WITHIN THE FIVE POINT CURVE. THEY ARE SEARCHED FOR QUALITATIVELY.

RECOGNIZED INITIALS:

SK-SHELLEY KEARLEY

SB-SHARON BRADDOCK

SA-SUZANNE ASHMORE

CN-CARL NOBLE

TR-TRACI ROBERTS

DT-DAVID TALLEY

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

Quality Control Report

Analysis: DRO\PETRO. HYDROCARBON RANGE C10-C28

Accession:	904356
Client:	SUN PIPE LINE CO.
Project Number:	SPL99-01
Project Name:	SPL/LEA TRUCK STATION/LEA CO., NM
Project Location:	LEA TRUCK STATION, LEA CO., NM
Department:	SEMI-VOLATILE FUELS

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

Date 23-Apr-99

"QC Report"

Title: Water Blank
Batch: FPW060
Analysis Method: DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method: 3510C/SW-846, 3rd Ed, 3rd Update, Dec 1996.

Blank Id: A Date Analyzed: 22-APR-99 Date Extracted: 20-APR-99

Parameters:	Units:	Results:	Reporting Limits:
TOTAL PETROLEUM HYDROCARBON	UG/L	ND	100
ORTHO TER PHENYL	%REC/SURR	105	37-140
ANALYST	INITIALS	LBL	

Comments:

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"QC Report"

Title: Water LCS
Batch: FPW060
Analysis Method: DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method: 3510C/SW-846, 3rd Ed, 3rd Update, Dec 1996.

RS Date Analyzed: 22-APR-99 RS Date Extracted: 20-APR-99

Parameters:	Spike Added	Sample Conc	RS Conc	RS %Rec	Rec Lmts
TOTAL PETROLEUM HYDROCARBON	12033	<100	12263	102	57-122
Surrogates:					
ORTHO TER PHENYL (OTP)				118	37-140

Comments:

Notes:
N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT
UG/L = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"QC Report"

Title: Water Matrix Spike/Matrix Spike Duplicate
Batch: FPW060
Analysis Method: DRO/8015B(Mod.)/SW 846, 3rd. Ed, Update III, December 1996.
Extraction Method: 3510C/SW-846, 3rd Ed, 3rd Update, Dec 1996.

Dry Weight %: N/A
Sample Spiked: 904356-1

MS Date Analyzed: 22-APR-99
MSD Date Analyzed: 22-APR-99

MS Date Extracted: 20-APR-99
MSD Date Extracted: 20-APR-99

Parameters:	Spike Added	Sample Conc	MS Conc	MS %Rec	MSD Conc	MSD %Rec	RPD	RPD Lmts	Rec Lmts
TOTAL PETROLEUM HYDROCARBON	24066	<100	16768	70	20308	84	18	48	21-144
Surrogates:									
ORTHO TER PHENYL (OTP)				77		91			37-140

Comments:

Notes:
N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT
UG/L = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

Common Notation for Organic Reporting

N/S = NOT SUBMITTED
N/A = NOT APPLICABLE
UG = MICROGRAMS
UG/L = PARTS PER BILLION
UG/KG = PARTS PER BILLION
MG/M3 = MILLIGRAM PER CUBIC METER
PPMV = PART PER MILLION BY VOLUME
MG/KG = PARTS PER MILLION
MG/L = PARTS PER MILLION
< = LESS THAN
ND = NOT DETECTED AT OR ABOVE THE STL-PENSACOLA REPORTING LIMIT (RL).
E = EXCEED THE CALIBRATION CURVE; THEREFORE, RESULTS ARE ESTIMATED.

SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

ORGANIC SOILS ARE REPORTED ON A DRYWEIGHT BASIS.

RPT LMTS = REPORTING LIMITS BASED ON METHOD DETECTION LIMIT STUDIES.

RPD = RELATIVE PERCENT DIFFERENCE (OR DEVIATION)

STL/GC/FID
STL GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH FLAME IONIZATION DETECTOR (FID).

STL/GC/FIX
STL GAS CHROMATOGRAPHIC METHOD FOR ANALYSIS OF FIXED GASES EMPLOYING DIRECT INJECTION ON COLUMN WITH THERMAL CONDUCTIVITY DETECTOR (TCD) AND FLAME IONIZATION DETECTOR (FID).

STL/GC/FPD
STL GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH FLAME PHOTOMETRIC DETECTOR (FPD) IN SULFUR-SPECIFIC MODE.

STL/GC/PID
STL GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH PHOTOIONIZATION DETECTOR (PID).

STL/GC/TCD
STL GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH THERMAL CONDUCTIVITY DETECTOR (TCD).

SW-846 METHOD 9020
PARTICULATE MATTER IS REMOVED BY ALLOWING PARTICULATES TO SETTLE IN THE SAMPLE CONTAINER AND DECANTING THE SUPERNATANT LIQUID. EXCESSIVE PARTICULATES ARE REMOVED BY FILTRATION OF THE SUPERNATANT LIQUID.

RSK 175
SAMPLE PREPARATION AND CALCULATIONS FOR DISSOLVED GAS ANALYSIS IN WATER SAMPLES USING A GC HEADSPACE EQUILIBRATION TECHNIQUE, RSK SOP-175, ROBERT S. KERR ENVIRONMENTAL RESEARCH LABORATORY, USEPA, AUGUST 11, 1994.

STL-PN USES THE MOST CURRENT PROMULGATED METHODS CONTAINED IN THE REFERENCE MANUALS.

SW = STEVE WILHITE
RW = RITA WINGO
KS = KENDALL SMITH
LBL = LISA BIZZELL-LOWE
LP = LEVERNE PETERSON
PLD = PAULA DOUGHTY
DK = DARLENE KINCHEN
BT = BECKY TREMMEL
HAH = HOLLIE HOFFMAN
HC = HOLLY CHANCE

Severn Trent Laboratories of Florida
PROJECT SAMPLE INSPECTION FORM

Lab Accession #: 904356 Date Received: 4-16-99

1.	Was there a Chain of Custody?	(Yes)	No*		8.	Were samples checked for preservative? *(Check pH of all H_2O requiring preservative (STL-PN SOP 917) except VOA vials that require zero headspace)**	(Yes)	No*	N/A
2.	Was Chain of Custody properly filled out and relinquished?	(Yes)	No*		9.	Is there sufficient volume for analysis requested?	(Yes)	No*	N/A *(Can)*
3.	Were samples received cold? (Criteria: 2° - 6°C: STL-SOP 1055)	(Yes)	No*	N/A	10.	Were samples received within Holding Time? (REFER TO STL-SOP 1040)	(Yes)	No*	
4.	Were all samples properly labeled and identified?	(Yes)	No*		11.	Is Headspace visible > ¼" in diameter in VOA vials?* If any headspace is evident, comment in out-of-control section.	Yes*	(No)	N/A
5.	Did samples require splitting? Req By: PM Client Other*	Yes*	(No)		12.	If sent, were matrix spike bottles returned?	Yes	No*	(N/A)
6.	Were samples received in proper containers for analysis requested?	(Yes)	No*		13.	Was Project Manager notified of problems? (initials:_____)	Yes	No*	(N/A)
7.	Were all sample containers received intact?	(Yes)	No*						

Airbill Number(s): A 310 185 612 5 **Shipped By:** UPS

Cooler Number(s): THEIRS **Shipping Charges:** N/A

Cooler Weight(s): 43 LBS. **Cooler Temp(s) (°C):** 2.0°C ACKS

(LIST THERMOMETER NUMBER(S) FOR VERIFICATION)

Out of Control Events and Inspection Comments:

(USE BACK OF PSIF FOR ADDITIONAL NOTES AND COMMENTS)

Inspected By: JDW **Date:** 4-16-99 **Logged By:** JDW **Date:** 4-16-99

* *Note all Out-of-Control and/or questionable events on Comment Section of this form.*

◆ *Note who requested the splitting of samples on the Comment Section of this form.*

+ *All preservatives for the State of North Carolina, the State of New York, and other requested samples are to be recorded on the sheet provided to record pH results (STL-SOP 938).*

* *According to EPA, ¼" of headspace is allowed in 40 ml vials requiring volatile analysis, however, STL makes it policy to record any headspace as out-of-control (STL-SOP 938).*

CHAIN OF CUSTODY

Severn Trent Laboratories
11 East Olive Road • Pensacola, FL 32514
Committed To Your Success Tel: (850) 474-1001 • Fax: (850) 474-4789

LAB ACCESSION # 904356

PART 1 - Bottle Shipment Information

CLIENT:	CLIENT PROJECT NUMBER:

QUANTITY OF SAMPLE CONTAINERS SHIPPED	PRESERVATIVE							PLASTIC CONTAINERS							GLASS CONTAINERS									NOTES
	H_2SO_4	HNO3	HCL	Zn Acetate	$Na_2S_2O_3$	Unpreserved	NaOH	8 oz.	16 oz.	32 oz.	½ gallon	1 gallon	Whirl-pak	100-ML Cup	120 ml (A)	1 liter (A)	1 liter (C)	40 ml Vial	4 oz. wm	8 oz. wm	16 oz. wm	32 oz. wm	D.I. Trip Blank	

Relinquished By:	Time	Date	Received By:	Time	Date

PART 2 - Sample/Project Information

SAMPLE MATRIX CODES

DW DRINKING WATER — AI AIR — SW SURFACE WATER
WW WASTEWATER — SO SOIL — SL SLUDGE
GW GROUNDWATER — OI OIL — ST STORMWATER

CST

PARAMETERS AND PRESERVATIVES REQUESTED

SAMPLE ID.	SAMPLE DATE	SAMPLE TIME	MATRIX	TPH-DRO (EPA Mod.)	TPH-GRO 8015	BTEX 8021	TOTAL # OF BOTTLES
MW99-1	4/15/99	1522	GW	✓	✓	✓	5
MW99-2	4/15/99	1545	GW	✓	✓	✓	5
MW99-3	4/15/99	1625	GW	✓	✓	✓	5

Total Number of Bottles/Containers:

Relinquished By	Date	Time	Received By	Date	Time
R. Vance Hall	4/15/99	1735 CST	Joshua D. Webb	4-16-99	0930

Client	Sun Pipe Line Company			Purchase Order Number	
Address	907 S. Detroit			Project Number	SPL99-01
City	Tulsa	State	OK	Zip	Project Name	SPL/Lea Truck Station/Lea Co., NM
Phone Number	(918) 586-6394	Fax Number	(918) 586-6421	Project Location	Lea Truck Station, Lea Co., NM
Project Manager	Scott Christensen			Sampled By	R. Vance Hall

TURNAROUND TIMES	check below
Standard - 14-21 days	✓
RUSH (must be approved in advance)	
<- 48 hours - 2x standard price	
3-7 days - 1.5x standard price	
TCLP - 1 week rush 1.5x standard price	
QC Level none I/ II III IV (circle one)	

Per Sun's contract

SPECIAL INSTRUCTIONS

Send/Fax analyses to: Hall Geological Services, LLC
5615 E. 80th Place
Tulsa, OK 74136
Phone (918) 481-5866
(918) 492-3184
Copies of report needed 2

FORM # 12694

WHITE – LAB CANARY – REPORT PINK – CLIENT

WATER WELL RECORDS SEARCH RESULTS

C001	Site ID (station number)	323253103162101
C002	Type of site	W
C003	Record classification	U
C004	Source agency code	USGS
C005	Project number	463527100
C006	District code	35
C007	State code	35
C008	County code	025
C009	Latitude	323250
C010	Longitude	1031620
C011	Lat-long accuracy code	T
C012	Local well number	20S.37E.20.43131
C013	Land-net location	NWSWSES20 T20S R37E
C016	Altitude of land surface	3515.00
C020	Hydrologic unit code	12080003
C022	Altitude Datum	NGVD29
C023	Primary use of site	W
C024	Primary use of water	S
C028	Depth of well	40
C032	Record ready for web flag	N
C035	Method Lat/Long Determined	M
C036	Lat/Long Datum	NAD27
C039	National Water Use code	LV
C040	Date site record last updated	19920319000000
C061	User ID of person creating record	nwis
C062	User ID of person updating record	nwis
C303	Date site record created	19790907000000
C712	Data availability in other Ground Water files	NYNNNYNNNNNNNNNNNN
C714	Aquifer code	110AVMB
C802	Station-type codes	NNNNNYNNNNNNNNNNNN
C803	Agency use of site code	A
C815	Locator sequence number	01
C900	Station name	20S.37E.20.43131
C909	Latitude in Decimal Degrees	32.5480576
C910	Longitude in Decimal Degrees	103.272499
C161	Owner	THURLAND, DELLA
C433	User ID of person creating record	nwis
C434	Date record created	19981127000000
C435	User ID of person updating record	nwis
C718	Sequence number for OWNR subrecord of MISC file	1
C768	Record type for OWNR subrecord of MISC file	OWNR
C769	Last update for OWNR subrecord of MISC file	19920319000000
C860	Record ready for web flag	Y
C190	Other identifier	10444
C191	Assignor of other identifier	OMNIANA
C436	User ID of person creating record	nwis
C437	Date record created	19981127000000
C438	User ID of person updating record	nwis
C736	Sequence number for OTID subrecord of MISC file	1
C770	Record type for OTID subrecord of MISC file	OTID
C771	Last update for OTID subrecord of MISC file	19920319000000
C861	Record ready for web flag	Y
C115	Begin year of data collection	1954
C117	Source agency for network data	USGS
C451	User ID of person creating record	nwis
C452	Date record created	19981127000000
C453	User ID of person updating record	nwis
C706	Network data type -miscellaneous	WL

C730	Sequence number for SPEC subrecord of MISC file	1
C780	Record type for NETW subrecord of MISC file	NETW
C781	Last update for NETW subrecord of MISC file	19860421000000
C866	Record ready for web flag	Y
C185	Remarks -misc	USED STOCK WELL WITH 12 IN. CSG & WINDMILL.
C311	Sequence number for RMKS subrecord of MISC file	1
C463	User ID of person creating record	nwis
C464	Date record created	19981127000000
C465	User ID of person updating record	nwis
C788	Record type for RMKS subrecord of MISC file	RMKS
C789	Last update for RMKS subrecord of MISC file	19920319000000
C870	Record ready for web flag	Y
C185	Remarks -misc	Omni Conversion early 1992
C311	Sequence number for RMKS subrecord of MISC file	2
C463	User ID of person creating record	nwis
C464	Date record created	19981127000000
C465	User ID of person updating record	nwis
C788	Record type for RMKS subrecord of MISC file	RMKS
C789	Last update for RMKS subrecord of MISC file	19920319000000
C870	Record ready for web flag	Y
C235	Water-level measurement date	19540326
C236	Date accuracy code -wl	D
C237	Water level	24.47
C238	Water-level status	R
C276	Accuracy code	2
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19610228
C236	Date accuracy code -wl	D
C237	Water level	38.45
C238	Water-level status	P
C276	Accuracy code	2
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19660303
C236	Date accuracy code -wl	D
C237	Water level	27.41
C238	Water-level status	R
C276	Accuracy code	2
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19680410
C236	Date accuracy code -wl	D
C237	Water level	23.90
C238	Water-level status	R
C276	Accuracy code	2
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis

C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19710114
C236	Date accuracy code -wl	D
C237	Water level	23.33
C276	Accuracy code	2
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19760204
C236	Date accuracy code -wl	D
C237	Water level	21.50
C276	Accuracy code	2
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19810212
C236	Date accuracy code -wl	D
C237	Water level	22.56
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19860325
C236	Date accuracy code -wl	D
C237	Water level	22.53
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19910129
C236	Date accuracy code -wl	D
C237	Water level	22.27
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19960131
C236	Date accuracy code -wl	D
C237	Water level	22.86
C239	Water-level method	S
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C001	Site ID (station number)	323248103154901
C002	Type of site	W
C003	Record classification	U
C004	Source agency code	USGS

C005	Project number	463527100
C006	District code	35
C007	State code	35
C008	County code	025
C009	Latitude	323250
C010	Longitude	1031550
C011	Lat-long accuracy code	T
C012	Local well number	20S.37E.21.333141
C013	Land-net location	SWSWSWS21 T20S R37E
C016	Altitude of land surface	3509.00
C020	Hydrologic unit code	13070007
C022	Altitude Datum	NGVD29
C023	Primary use of site	U
C024	Primary use of water	U
C032	Record ready for web flag	N
C035	Method Lat/Long Determined	M
C036	Lat/Long Datum	NAD27
C040	Date site record last updated	19920319000000
C061	User ID of person creating record	nwis
C062	User ID of person updating record	nwis
C303	Date site record created	19790907000000
C712	Data availability in other Ground Water files	NYNNNYNNNNNNNNNNNNN
C714	Aquifer code	110AVMB
C802	Station-type codes	NNNNNYNNNNNNNNNNNNN
C803	Agency use of site code	A
C815	Locator sequence number	01
C900	Station name	20S.37E.21.333141
C909	Latitude in Decimal Degrees	32.5466652
C910	Longitude in Decimal Degrees	103.263611
C161	Owner	THURLAND, DELLA
C433	User ID of person creating record	nwis
C434	Date record created	19981127000000
C435	User ID of person updating record	nwis
C718	Sequence number for OWNR subrecord of MISC file	1
C768	Record type for OWNR subrecord of MISC file	OWNR
C769	Last update for OWNR subrecord of MISC file	19920319000000
C860	Record ready for web flag	Y
C190	Other identifier	11256
C191	Assignor of other identifier	OMNIANA
C436	User ID of person creating record	nwis
C437	Date record created	19981127000000
C438	User ID of person updating record	nwis
C736	Sequence number for OTID subrecord of MISC file	1
C770	Record type for OTID subrecord of MISC file	OTID
C771	Last update for OTID subrecord of MISC file	19920319000000
C861	Record ready for web flag	Y
C115	Begin year of data collection	1961
C117	Source agency for network data	USGS
C451	User ID of person creating record	nwis
C452	Date record created	19981127000000
C453	User ID of person updating record	nwis
C706	Network data type -miscellaneous	WL
C730	Sequence number for SPEC subrecord of MISC file	1
C780	Record type for NETW subrecord of MISC file	NETW
C781	Last update for NETW subrecord of MISC file	19860421000000
C866	Record ready for web flag	Y
C185	Remarks -misc	UNUSED WELL WITH 6 IN. TIN CSG & WINDMILL.
C311	Sequence number for RMKS subrecord of MISC file	1

C463	User ID of person creating record	nwis
C464	Date record created	19981127000000
C465	User ID of person updating record	nwis
C788	Record type for RMKS subrecord of MISC file	RMKS
C789	Last update for RMKS subrecord of MISC file	19920319000000
C870	Record ready for web flag	Y
C185	Remarks -misc	Omni Conversion early 1992
C311	Sequence number for RMKS subrecord of MISC file	2
C463	User ID of person creating record	nwis
C464	Date record created	19981127000000
C465	User ID of person updating record	nwis
C788	Record type for RMKS subrecord of MISC file	RMKS
C789	Last update for RMKS subrecord of MISC file	19920319000000
C870	Record ready for web flag	Y
C235	Water-level measurement date	19610301
C236	Date accuracy code -wl	D
C237	Water level	29.90
C238	Water-level status	R
C276	Accuracy code	2
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19710115
C236	Date accuracy code -wl	D
C237	Water level	23.54
C276	Accuracy code	2
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19760127
C236	Date accuracy code -wl	D
C237	Water level	21.03
C276	Accuracy code	2
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19810212
C236	Date accuracy code -wl	D
C237	Water level	22.37
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19860325
C236	Date accuracy code -wl	D
C237	Water level	21.98
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y

C235	Water-level measurement date	19910129
C236	Date accuracy code -wl	D
C237	Water level	22.13
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C001	Site ID (station number)	323256103150301
C002	Type of site	W
C003	Record classification	U
C004	Source agency code	USGS
C005	Project number	463527100
C006	District code	35
C007	State code	35
C008	County code	025
C009	Latitude	323300
C010	Longitude	1031500
C011	Lat-long accuracy code	T
C012	Local well number	20S.37E.21.44112
C013	Land-net location	NWSESES21 T20S R37E
C016	Altitude of land surface	3511.00
C020	Hydrologic unit code	13070007
C022	Altitude Datum	NGVD29
C023	Primary use of site	U
C024	Primary use of water	U
C032	Record ready for web flag	N
C035	Method Lat/Long Determined	M
C036	Lat/Long Datum	NAD27
C040	Date site record last updated	19920319000000
C061	User ID of person creating record	nwis
C062	User ID of person updating record	nwis
C303	Date site record created	19790907000000
C712	Data availability in other Ground Water files	NYNNNYNNNNNNNNNNNNN
C714	Aquifer code	110AVMB
C802	Station-type codes	NNNNNYNNNNNNNNNNNNN
C803	Agency use of site code	A
C815	Locator sequence number	01
C900	Station name	20S.37E.21.44112
C909	Latitude in Decimal Degrees	32.5488892
C910	Longitude in Decimal Degrees	103.250832
C161	Owner	WALKER, W.B.
C433	User ID of person creating record	nwis
C434	Date record created	19981127000000
C435	User ID of person updating record	nwis
C718	Sequence number for OWNR subrecord of MISC file	1
C768	Record type for OWNR subrecord of MISC file	OWNR
C769	Last update for OWNR subrecord of MISC file	19920319000000
C860	Record ready for web flag	Y
C190	Other identifier	10445
C191	Assignor of other identifier	OMNIANA
C436	User ID of person creating record	nwis
C437	Date record created	19981127000000
C438	User ID of person updating record	nwis
C736	Sequence number for OTID subrecord of MISC file	1
C770	Record type for OTID subrecord of MISC file	OTID
C771	Last update for OTID subrecord of MISC file	19920319000000

C861	Record ready for web flag	Y
C115	Begin year of data collection	1954
C116	End year of data collection	1966
C117	Source agency for network data	USGS
C451	User ID of person creating record	nwis
C452	Date record created	19981127000000
C453	User ID of person updating record	nwis
C706	Network data type -miscellaneous	WL
C730	Sequence number for SPEC subrecord of MISC file	1
C780	Record type for NETW subrecord of MISC file	NETW
C781	Last update for NETW subrecord of MISC file	19860421000000
C866	Record ready for web flag	Y
C185	Remarks -misc	UNUSED WINDMILL WELL. OBSTRUCTION, 1971.
C311	Sequence number for RMKS subrecord of MISC file	1
C463	User ID of person creating record	nwis
C464	Date record created	19981127000000
C465	User ID of person updating record	nwis
C788	Record type for RMKS subrecord of MISC file	RMKS
C789	Last update for RMKS subrecord of MISC file	19920319000000
C870	Record ready for web flag	Y
C185	Remarks -misc	Omni Conversion early 1992
C311	Sequence number for RMKS subrecord of MISC file	2
C463	User ID of person creating record	nwis
C464	Date record created	19981127000000
C465	User ID of person updating record	nwis
C788	Record type for RMKS subrecord of MISC file	RMKS
C789	Last update for RMKS subrecord of MISC file	19920319000000
C870	Record ready for web flag	Y
C235	Water-level measurement date	19540326
C236	Date accuracy code -wl	D
C237	Water level	42.78
C276	Accuracy code	2
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19610228
C236	Date accuracy code -wl	D
C237	Water level	42.04
C276	Accuracy code	2
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19660303
C236	Date accuracy code -wl	D
C237	Water level	44.52
C276	Accuracy code	2
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y

C001	Site ID (station number)	323255103150301
C002	Type of site	W
C003	Record classification	U
C004	Source agency code	USGS
C005	Project number	463527100
C006	District code	35
C007	State code	35
C008	County code	025
C009	Latitude	323300
C010	Longitude	1031500
C011	Lat-long accuracy code	T
C012	Local well number	20S.37E.21.441123
C013	Land-net location	NWSESES21 T20S R37E
C016	Altitude of land surface	3508.50
C020	Hydrologic unit code	13070007
C022	Altitude Datum	NGVD29
C023	Primary use of site	W
C024	Primary use of water	U
C032	Record ready for web flag	N
C035	Method Lat/Long Determined	M
C036	Lat/Long Datum	NAD27
C040	Date site record last updated	19920319000000
C061	User ID of person creating record	nwis
C062	User ID of person updating record	nwis
C303	Date site record created	19790907000000
C712	Data availability in other Ground Water files	NYNNNYNNNNNNNNNNNNN
C714	Aquifer code	110AVMB
C802	Station-type codes	NNNNNYNNNNNNNNNNNNN
C803	Agency use of site code	A
C815	Locator sequence number	01
C900	Station name	20S.37E.21.441123
C909	Latitude in Decimal Degrees	32.5486107
C910	Longitude in Decimal Degrees	103.250832
C161	Owner	WALKER, W.B.
C433	User ID of person creating record	nwis
C434	Date record created	19981127000000
C435	User ID of person updating record	nwis
C718	Sequence number for OWNR subrecord of MISC file	1
C768	Record type for OWNR subrecord of MISC file	OWNR
C769	Last update for OWNR subrecord of MISC file	19920319000000
C860	Record ready for web flag	Y
C190	Other identifier	10446
C191	Assignor of other identifier	OMNIANA
C436	User ID of person creating record	nwis
C437	Date record created	19981127000000
C438	User ID of person updating record	nwis
C736	Sequence number for OTID subrecord of MISC file	1
C770	Record type for OTID subrecord of MISC file	OTID
C771	Last update for OTID subrecord of MISC file	19920319000000
C861	Record ready for web flag	Y
C115	Begin year of data collection	1968
C117	Source agency for network data	USGS
C451	User ID of person creating record	nwis
C452	Date record created	19981127000000
C453	User ID of person updating record	nwis
C706	Network data type -miscellaneous	WL
C730	Sequence number for SPEC subrecord of MISC file	1
C780	Record type for NETW subrecord of MISC file	NETW

C781	Last update for NETW subrecord of MISC file	19860421000000
C866	Record ready for web flag	Y
C185	Remarks -misc	OPEN CASED HOLE DIAM. 6 INCH. OBSTRUCTION, 1
C311	Sequence number for RMKS subrecord of MISC file	1
C463	User ID of person creating record	nwis
C464	Date record created	19981127000000
C465	User ID of person updating record	nwis
C788	Record type for RMKS subrecord of MISC file	RMKS
C789	Last update for RMKS subrecord of MISC file	19920319000000
C870	Record ready for web flag	Y
C185	Remarks -misc	981.
C311	Sequence number for RMKS subrecord of MISC file	2
C463	User ID of person creating record	nwis
C464	Date record created	19981127000000
C465	User ID of person updating record	nwis
C788	Record type for RMKS subrecord of MISC file	RMKS
C789	Last update for RMKS subrecord of MISC file	19920319000000
C870	Record ready for web flag	Y
C185	Remarks -misc	Omni Conversion early 1992
C311	Sequence number for RMKS subrecord of MISC file	3
C463	User ID of person creating record	nwis
C464	Date record created	19981127000000
C465	User ID of person updating record	nwis
C788	Record type for RMKS subrecord of MISC file	RMKS
C789	Last update for RMKS subrecord of MISC file	19920319000000
C870	Record ready for web flag	Y
C235	Water-level measurement date	19680410
C236	Date accuracy code -wl	D
C237	Water level	41.68
C276	Accuracy code	2
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19710118
C236	Date accuracy code -wl	D
C237	Water level	40.72
C276	Accuracy code	2
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19760204
C236	Date accuracy code -wl	D
C237	Water level	39.68
C276	Accuracy code	2
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C001	Site ID (station number)	323231103152401
C002	Type of site	W
C003	Record classification	U
C004	Source agency code	USGS

C005	Project number	463527100
C006	District code	35
C007	State code	35
C008	County code	025
C009	Latitude	323230
C010	Longitude	1031520
C011	Lat-long accuracy code	T
C012	Local well number	20S.37E.28.12443
C013	Land-net location	SENENWS28 T20S R37E
C016	Altitude of land surface	3499.00
C020	Hydrologic unit code	13070007
C022	Altitude Datum	NGVD29
C023	Primary use of site	U
C024	Primary use of water	U
C028	Depth of well	60
C032	Record ready for web flag	N
C035	Method Lat/Long Determined	M
C036	Lat/Long Datum	NAD27
C040	Date site record last updated	19920319000000
C061	User ID of person creating record	nwis
C062	User ID of person updating record	nwis
C303	Date site record created	19790907000000
C712	Data availability in other Ground Water files	NYNNNYNNNNNNNNNNNNN
C714	Aquifer code	110AVMB
C802	Station-type codes	NNNNNYNNNNNNNNNNNNN
C803	Agency use of site code	A
C815	Locator sequence number	01
C900	Station name	20S.37E.28.12443
C909	Latitude in Decimal Degrees	32.5419464
C910	Longitude in Decimal Degrees	103.256668
C161	Owner	GULF OIL CORP.
C433	User ID of person creating record	nwis
C434	Date record created	19981127000000
C435	User ID of person updating record	nwis
C718	Sequence number for OWNR subrecord of MISC file	1
C768	Record type for OWNR subrecord of MISC file	OWNR
C769	Last update for OWNR subrecord of MISC file	19920319000000
C860	Record ready for web flag	Y
C190	Other identifier	13144
C191	Assignor of other identifier	OMNIANA
C436	User ID of person creating record	nwis
C437	Date record created	19981127000000
C438	User ID of person updating record	nwis
C736	Sequence number for OTID subrecord of MISC file	1
C770	Record type for OTID subrecord of MISC file	OTID
C771	Last update for OTID subrecord of MISC file	19920319000000
C861	Record ready for web flag	Y
C115	Begin year of data collection	1954
C116	End year of data collection	1968
C117	Source agency for network data	USGS
C451	User ID of person creating record	nwis
C452	Date record created	19981127000000
C453	User ID of person updating record	nwis
C706	Network data type -miscellaneous	WL
C730	Sequence number for SPEC subrecord of MISC file	1
C780	Record type for NETW subrecord of MISC file	NETW
C781	Last update for NETW subrecord of MISC file	19860421000000
C866	Record ready for web flag	Y

C185	Remarks -misc	UNUSED WELL DIAM. 7 IN., UNEQUIPPED.
C311	Sequence number for RMKS subrecord of MISC file	1
C463	User ID of person creating record	nwis
C464	Date record created	19981127000000
C465	User ID of person updating record	nwis
C788	Record type for RMKS subrecord of MISC file	RMKS
C789	Last update for RMKS subrecord of MISC file	19920319000000
C870	Record ready for web flag	Y
C185	Remarks -misc	Omni Conversion early 1992
C311	Sequence number for RMKS subrecord of MISC file	2
C463	User ID of person creating record	nwis
C464	Date record created	19981127000000
C465	User ID of person updating record	nwis
C788	Record type for RMKS subrecord of MISC file	RMKS
C789	Last update for RMKS subrecord of MISC file	19920319000000
C870	Record ready for web flag	Y
C235	Water-level measurement date	19540326
C236	Date accuracy code -wl	D
C237	Water level	29.34
C276	Accuracy code	2
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19670919
C236	Date accuracy code -wl	D
C237	Water level	28.69
C276	Accuracy code	2
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19680410
C236	Date accuracy code -wl	D
C237	Water level	28.91
C276	Accuracy code	2
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C001	Site ID (station number)	323221103145701
C002	Type of site	W
C003	Record classification	U
C004	Source agency code	USGS
C005	Project number	463527100
C006	District code	35
C007	State code	35
C008	County code	025
C009	Latitude	323220
C010	Longitude	1031500
C011	Lat-long accuracy code	T
C012	Local well number	20S.37E.28.24413
C013	Land-net location	SESENES28 T20S R37E
C016	Altitude of land surface	3481.50

C020	Hydrologic unit code	13070007
C022	Altitude Datum	NGVD29
C023	Primary use of site	W
C024	Primary use of water	S
C032	Record ready for web flag	N
C035	Method Lat/Long Determined	M
C036	Lat/Long Datum	NAD27
C039	National Water Use code	LV
C040	Date site record last updated	19920319000000
C061	User ID of person creating record	nwis
C062	User ID of person updating record	nwis
C303	Date site record created	19790907000000
C712	Data availability in other Ground Water files	NYNNNYNNNNNNNNNNNNN
C714	Aquifer code	110AVMB
C802	Station-type codes	NNNNNYNNNNNNNNNNNNN
C803	Agency use of site code	A
C815	Locator sequence number	01
C900	Station name	20S.37E.28.24413
C909	Latitude in Decimal Degrees	32.5391655
C910	Longitude in Decimal Degrees	103.249168
C161	Owner	THURLAND, DELLA
C433	User ID of person creating record	nwis
C434	Date record created	19981127000000
C435	User ID of person updating record	nwis
C718	Sequence number for OWNR subrecord of MISC file	1
C768	Record type for OWNR subrecord of MISC file	OWNR
C769	Last update for OWNR subrecord of MISC file	19920319000000
C860	Record ready for web flag	Y
C190	Other identifier	11257
C191	Assignor of other identifier	OMNIANA
C436	User ID of person creating record	nwis
C437	Date record created	19981127000000
C438	User ID of person updating record	nwis
C736	Sequence number for OTID subrecord of MISC file	1
C770	Record type for OTID subrecord of MISC file	OTID
C771	Last update for OTID subrecord of MISC file	19920319000000
C861	Record ready for web flag	Y
C115	Begin year of data collection	1954
C117	Source agency for network data	USGS
C451	User ID of person creating record	nwis
C452	Date record created	19981127000000
C453	User ID of person updating record	nwis
C706	Network data type -miscellaneous	WL
C730	Sequence number for SPEC subrecord of MISC file	1
C780	Record type for NETW subrecord of MISC file	NETW
C781	Last update for NETW subrecord of MISC file	19860421000000
C866	Record ready for web flag	Y
C185	Remarks -misc	USED STOCK WELL WITH 6 IN. CSG & WINDMILL.
C311	Sequence number for RMKS subrecord of MISC file	1
C463	User ID of person creating record	nwis
C464	Date record created	19981127000000
C465	User ID of person updating record	nwis
C788	Record type for RMKS subrecord of MISC file	RMKS
C789	Last update for RMKS subrecord of MISC file	19920319000000
C870	Record ready for web flag	Y
C185	Remarks -misc	Omni Conversion early 1992
C311	Sequence number for RMKS subrecord of MISC file	2
C463	User ID of person creating record	nwis

C464	Date record created	19981127000000
C465	User ID of person updating record	nwis
C788	Record type for RMKS subrecord of MISC file	RMKS
C789	Last update for RMKS subrecord of MISC file	19920319000000
C870	Record ready for web flag	Y
C235	Water-level measurement date	19540326
C236	Date accuracy code -wl	D
C237	Water level	38.38
C238	Water-level status	R
C276	Accuracy code	2
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19610228
C236	Date accuracy code -wl	D
C237	Water level	36.60
C276	Accuracy code	2
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19660303
C236	Date accuracy code -wl	D
C237	Water level	39.71
C238	Water-level status	R
C276	Accuracy code	2
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19710115
C236	Date accuracy code -wl	D
C237	Water level	38.77
C238	Water-level status	R
C276	Accuracy code	2
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19760204
C236	Date accuracy code -wl	D
C237	Water level	35.94
C276	Accuracy code	2
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19810211
C236	Date accuracy code -wl	D
C237	Water level	36.15
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000

C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19860327
C236	Date accuracy code -wl	D
C237	Water level	35.70
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19910125
C236	Date accuracy code -wl	D
C237	Water level	36.30
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19960123
C236	Date accuracy code -wl	D
C237	Water level	36.24
C239	Water-level method	S
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C001	Site ID (station number)	323238103164701
C002	Type of site	W
C003	Record classification	U
C004	Source agency code	USGS
C005	Project number	463527100
C006	District code	35
C007	State code	35
C008	County code	025
C009	Latitude	323240
C010	Longitude	1031650
C011	Lat-long accuracy code	T
C012	Local well number	20S.37E.29.111441
C013	Land-net location	NWNWNWS29 T20S R37E
C016	Altitude of land surface	3519.00
C020	Hydrologic unit code	13070007
C022	Altitude Datum	NGVD29
C023	Primary use of site	U
C024	Primary use of water	U
C032	Record ready for web flag	N
C035	Method Lat/Long Determined	M
C036	Lat/Long Datum	NAD27
C040	Date site record last updated	19920319000000
C061	User ID of person creating record	nwis
C062	User ID of person updating record	nwis
C303	Date site record created	19790907000000
C712	Data availability in other Ground Water files	NYNNNYNNNNNNNNNNNNN
C714	Aquifer code	110AVMB
C802	Station-type codes	NNNNNYNNNNNNNNNNNNN
C803	Agency use of site code	A

C815	Locator sequence number	01
C900	Station name	20S.37E.29.111441
C909	Latitude in Decimal Degrees	32.5438881
C910	Longitude in Decimal Degrees	103.279724
C161	Owner	MID CONTINENT PET CORP
C433	User ID of person creating record	nwis
C434	Date record created	19981127000000
C435	User ID of person updating record	nwis
C718	Sequence number for OWNR subrecord of MISC file	1
C768	Record type for OWNR subrecord of MISC file	OWNR
C769	Last update for OWNR subrecord of MISC file	19920319000000
C860	Record ready for web flag	Y
C190	Other identifier	13027
C191	Assignor of other identifier	OMNIANA
C436	User ID of person creating record	nwis
C437	Date record created	19981127000000
C438	User ID of person updating record	nwis
C736	Sequence number for OTID subrecord of MISC file	1
C770	Record type for OTID subrecord of MISC file	OTID
C771	Last update for OTID subrecord of MISC file	19920319000000
C861	Record ready for web flag	Y
C115	Begin year of data collection	1954
C116	End year of data collection	1954
C117	Source agency for network data	USGS
C451	User ID of person creating record	nwis
C452	Date record created	19981127000000
C453	User ID of person updating record	nwis
C706	Network data type -miscellaneous	WL
C730	Sequence number for SPEC subrecord of MISC file	1
C780	Record type for NETW subrecord of MISC file	NETW
C781	Last update for NETW subrecord of MISC file	19860421000000
C866	Record ready for web flag	Y
C185	Remarks -misc	UNUSED OWD WELL WITH 7 IN. CSG, UNEQUIPPED.
C311	Sequence number for RMKS subrecord of MISC file	1
C463	User ID of person creating record	nwis
C464	Date record created	19981127000000
C465	User ID of person updating record	nwis
C788	Record type for RMKS subrecord of MISC file	RMKS
C789	Last update for RMKS subrecord of MISC file	19920319000000
C870	Record ready for web flag	Y
C185	Remarks -misc	CAPPED BY 1968.
C311	Sequence number for RMKS subrecord of MISC file	2
C463	User ID of person creating record	nwis
C464	Date record created	19981127000000
C465	User ID of person updating record	nwis
C788	Record type for RMKS subrecord of MISC file	RMKS
C789	Last update for RMKS subrecord of MISC file	19920319000000
C870	Record ready for web flag	Y
C185	Remarks -misc	Omni Conversion early 1992
C311	Sequence number for RMKS subrecord of MISC file	3
C463	User ID of person creating record	nwis
C464	Date record created	19981127000000
C465	User ID of person updating record	nwis
C788	Record type for RMKS subrecord of MISC file	RMKS
C789	Last update for RMKS subrecord of MISC file	19920319000000
C870	Record ready for web flag	Y
C235	Water-level measurement date	19540325
C236	Date accuracy code -wl	D

C237	Water level	43.77
C276	Accuracy code	2
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C001	Site ID (station number)	323151103162501
C002	Type of site	W
C003	Record classification	U
C004	Source agency code	USGS
C005	Project number	463527100
C006	District code	35
C007	State code	35
C008	County code	025
C009	Latitude	323150
C010	Longitude	1031630
C011	Lat-long accuracy code	T
C012	Local well number	20S.37E.29.34443
C013	Land-net location	SESESWS29 T20S R37E
C016	Altitude of land surface	3526.00
C020	Hydrologic unit code	13070007
C022	Altitude Datum	NGVD29
C023	Primary use of site	W
C024	Primary use of water	S
C032	Record ready for web flag	N
C035	Method Lat/Long Determined	M
C036	Lat/Long Datum	NAD27
C039	National Water Use code	LV
C040	Date site record last updated	19920319000000
C061	User ID of person creating record	nwis
C062	User ID of person updating record	nwis
C303	Date site record created	19790907000000
C712	Data availability in other Ground Water files	NYNNNYNNNNNNNNNNNNN
C714	Aquifer code	110AVMB
C802	Station-type codes	NNNNNYNNNNNNNNNNNNN
C803	Agency use of site code	A
C815	Locator sequence number	01
C900	Station name	20S.37E.29.34443
C909	Latitude in Decimal Degrees	32.5308304
C910	Longitude in Decimal Degrees	103.273605
C161	Owner	THURLAND, DELLA
C433	User ID of person creating record	nwis
C434	Date record created	19981127000000
C435	User ID of person updating record	nwis
C718	Sequence number for OWNR subrecord of MISC file	1
C768	Record type for OWNR subrecord of MISC file	OWNR
C769	Last update for OWNR subrecord of MISC file	19920319000000
C860	Record ready for web flag	Y
C190	Other identifier	10447
C191	Assignor of other identifier	OMNIANA
C436	User ID of person creating record	nwis
C437	Date record created	19981127000000
C438	User ID of person updating record	nwis
C736	Sequence number for OTID subrecord of MISC file	1
C770	Record type for OTID subrecord of MISC file	OTID
C771	Last update for OTID subrecord of MISC file	19920319000000

C861	Record ready for web flag	Y
C115	Begin year of data collection	1966
C117	Source agency for network data	USGS
C451	*User ID of person creating record*	*nwis*
C452	Date record created	19981127000000
C453	User ID of person updating record	nwis
C706	Network data type -miscellaneous	WL
C730	Sequence number for SPEC subrecord of MISC file	1
C780	Record type for NETW subrecord of MISC file	NETW
C781	Last update for NETW subrecord of MISC file	19860421000000
C866	Record ready for web flag	Y
C185	Remarks -misc	USED STOCK WELL WITH WINDMILL.
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C788	Record type for RMKS subrecord of MISC file	RMKS
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C870	Record ready for web flag	Y
C185	Remarks -misc	Omni Conversion early 1992
C311	Sequence number for RMKS subrecord of MISC file	2
C463	User ID of person creating record	nwis
C464	Date record created	19981127000000
C465	User ID of person updating record	nwis
C788	Record type for RMKS subrecord of MISC file	RMKS
C789	Last update for RMKS subrecord of MISC file	19920319000000
C870	Record ready for web flag	Y
C235	Water-level measurement date	19660309
C236	Date accuracy code -wl	D
C237	Water level	8.80
C276	Accuracy code	2
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19680410
C236	Date accuracy code -wl	D
C237	Water level	22.92
C276	Accuracy code	2
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19710115
C236	Date accuracy code -wl	D
C237	Water level	35.91
C276	Accuracy code	2
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19760123
C236	Date accuracy code -wl	D
C237	Water level	80.84
C276	Accuracy code	2

C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19760204
C236	Date accuracy code -wl	D
C237	Water level	79.54
C276	Accuracy code	2
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19810211
C236	Date accuracy code -wl	D
C237	Water level	106.92
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19860325
C236	Date accuracy code -wl	D
C237	Water level	108.53
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y
C235	Water-level measurement date	19910125
C236	Date accuracy code -wl	D
C237	Water level	108.58
C427	User ID of person creating record	nwis
C428	Date record created	19981127000000
C429	User ID of person updating record	nwis
C710	Date record updated	00000000000000
C858	Record ready for web flag	Y

W

N

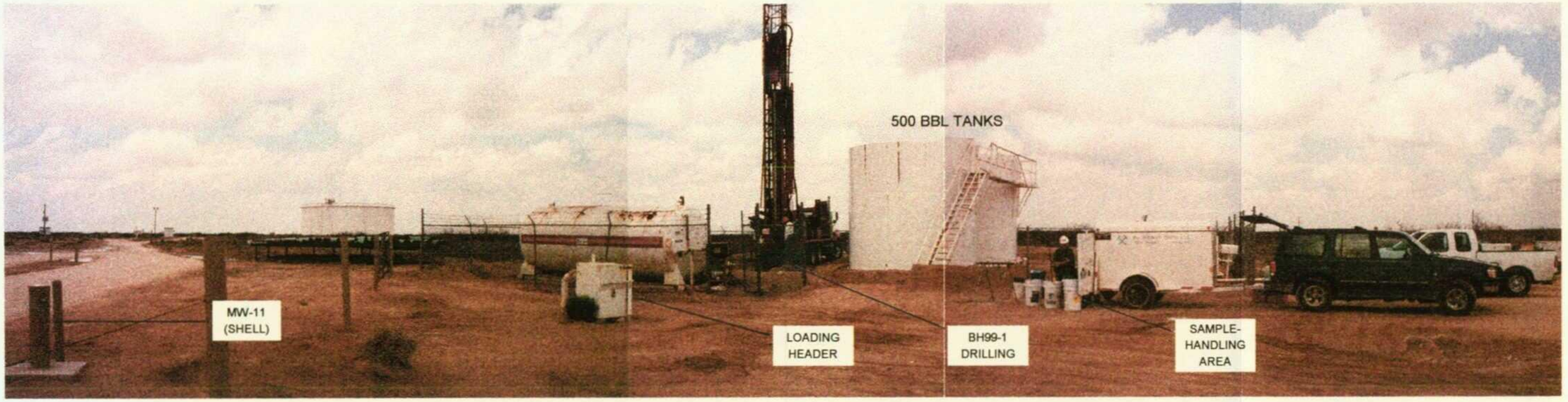


PLATE 1-A - PANORAMA OF SUNOCO, INC. (R&M) LEA STATION

S

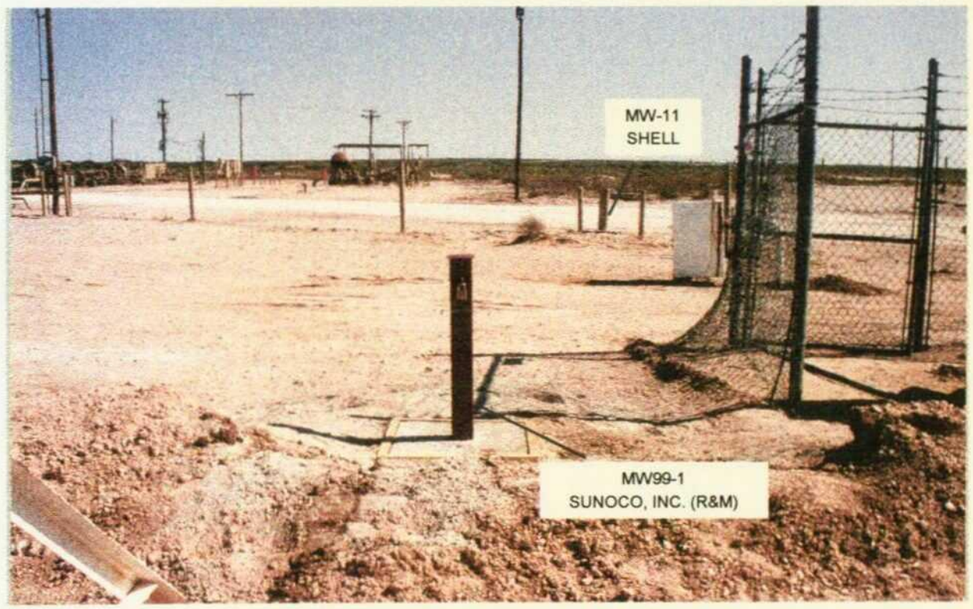


PLATE 1-B - MW99-1 SHOWING TYPICAL WELL CONSTRUCTION

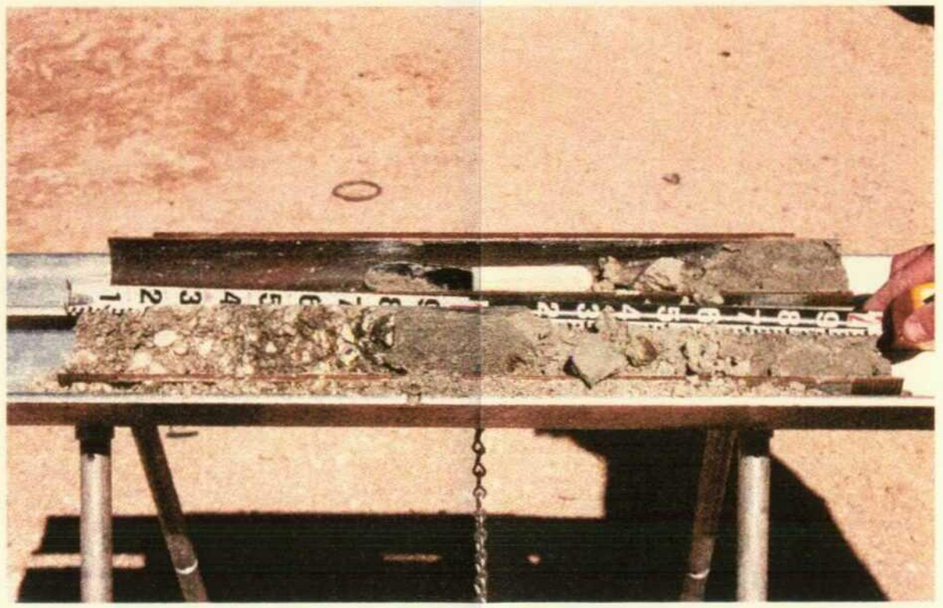


PLATE 1-C - SILT LOAM WITH CALICHE FORMING
(WHITE NODULES)

SW

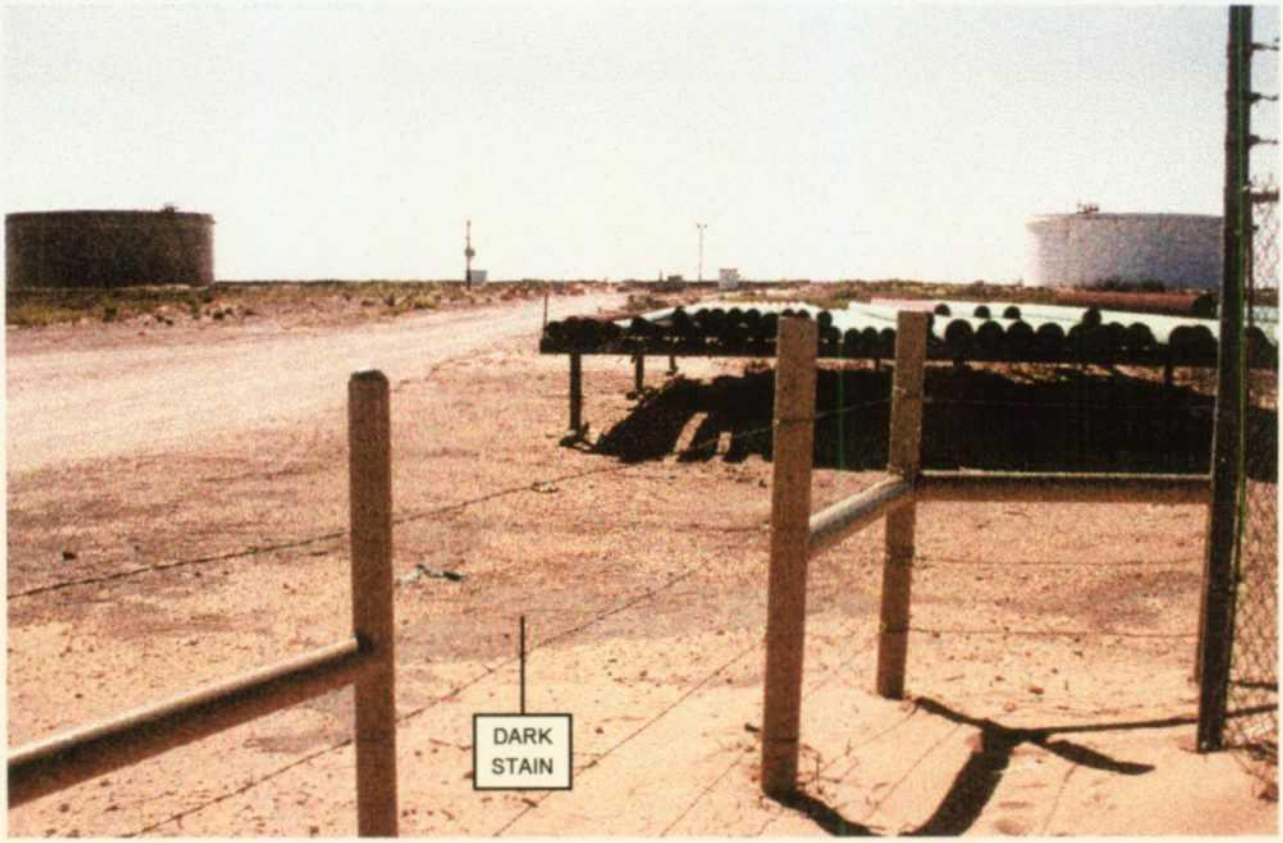


PLATE 2-A - OIL-ENCRUSTED SOIL TO WEST AND SOUTHWEST OF SUNOCO, INC. (R&M) LEA STATION

W

PLATE 2-B - VALVE (SLOW OIL DRIP) TO NORTHEAST OF SUNOCO, INC. (R&M) LEA STATION

HALL GEOLOGICAL SERVICES, LLC
5615 E. 80th Place
Tulsa, OK 74136
(918) 438-9255 FAX: (918) 438-9226

BOREHOLE / WELL INFORMATION AND EXPLANATION

BOREHOLE / WELL NUMBER: BH99-1

PROJECT NO: SPL99-01

PROJECT NAME: SPL / Lea Truck Station / Lea Co., NM

CLIENT PROJECT NO: N/A

FACILITY ID NO: N/A

DRILLING CONTRACTOR / DRILLER: Eades Drilling and Pump Service / Fred Root

DRILLED: April 13, 1999

DRILL RIG: air rotary

TOTAL DEPTH BOREHOLE / WELL: 32'

SAMPLING EQUIP: Pitcher sampler w/ 2'x2" split spoon

PLUGGED: 4/15/99

PLUGGING MATERIALS:

WEATHER: cool, windy

GEOLOGIST: R. Vance Hall, CPG 4530

DEPTH TO WATER / HOURS: 28' (GL) moist

USGS 7½' QUAD: Monument South, NM

ADDRESS: South of Monument, Lea Co., NM

LOCATION: NW/4 SEC 28 T20S R37E

PROPERTY OWNER: Sunoco, Inc. (R&M)

ELEVATION (GL/TOC): 3503.40' / NA

MEASURED / SURVEYED LOCATION:

564600.308' (Northing)

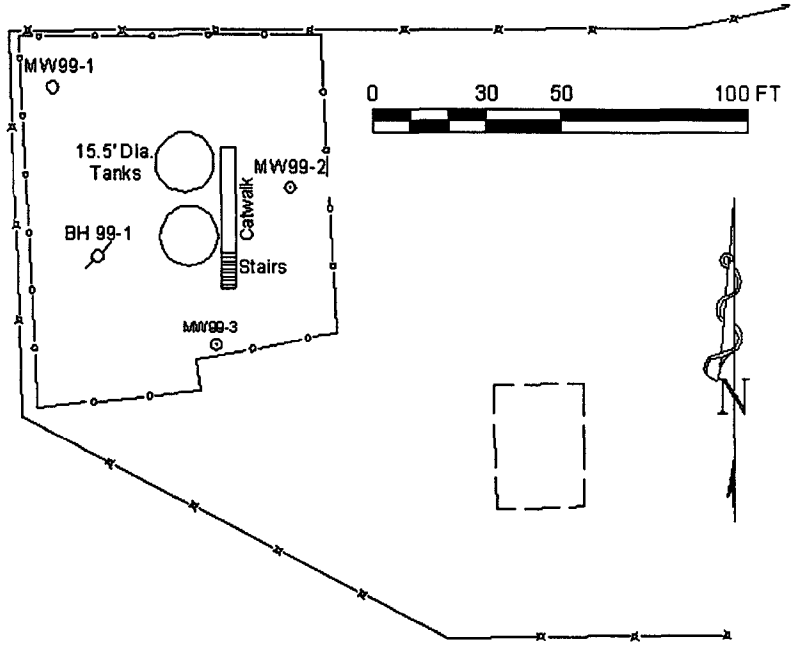
872423.544' (Easting)

Surveyed by Basin Surveys, NM RPS #7977

Coord. are NAD 83 (92), Elev. are NAVD 88

NM State Plane East Zone

LOCATION MAP



COMPLETION SYMBOLS

- CLEAN SOIL
- CEMENT
- BENTONITE
- GRAN BENTONITE
- SAND
- PEA GRAVEL

SOIL SYMBOLS

- CLAY
- SILT
- SAND
- GRAVEL
- CALICHE
- ORGANIC SOIL

LITHOLOGIC SYMBOLS

- CLAYSTONE
- MUDSTONE
- SHALE
- SILTSTONE
- SANDSTONE
- CONGLOMERATE

HALL GEOLOGICAL SERVICES, LLC

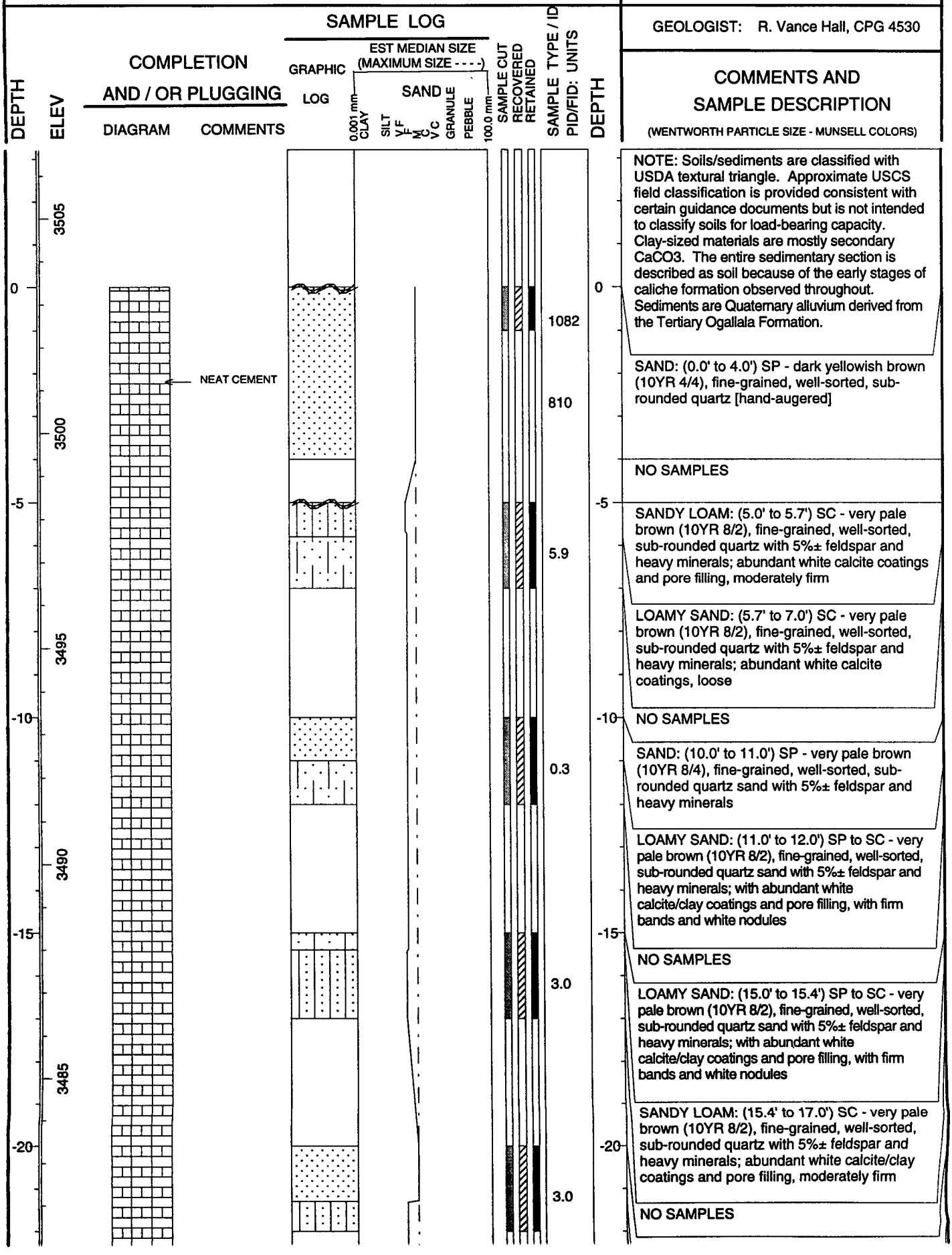
5615 E. 80th Place, Tulsa, Oklahoma 74136

PROJECT NAME (NUMBER): SPL / Lea Truck Station / Lea Co., NM

BOREHOLE / WELL NO.

BH99-1

GEOLOGIST: R. Vance Hall, CPG 4530



COMMENTS AND SAMPLE DESCRIPTION

(WENTWORTH PARTICLE SIZE - MUNSELL COLORS)

NOTE: Soils/sediments are classified with USDA textural triangle. Approximate USCS field classification is provided consistent with certain guidance documents but is not intended to classify soils for load-bearing capacity. Clay-sized materials are mostly secondary CaCO3. The entire sedimentary section is described as soil because of the early stages of caliche formation observed throughout. Sediments are Quaternary alluvium derived from the Tertiary Ogallala Formation.

SAND: (0.0' to 4.0') SP - dark yellowish brown (10YR 4/4), fine-grained, well-sorted, sub-rounded quartz [hand-augered]

NO SAMPLES

SANDY LOAM: (5.0' to 5.7') SC - very pale brown (10YR 8/2), fine-grained, well-sorted, sub-rounded quartz with 5%± feldspar and heavy minerals; abundant white calcite coatings and pore filling, moderately firm

LOAMY SAND: (5.7' to 7.0') SC - very pale brown (10YR 8/2), fine-grained, well-sorted, sub-rounded quartz with 5%± feldspar and heavy minerals; abundant white calcite coatings, loose

NO SAMPLES

SAND: (10.0' to 11.0') SP - very pale brown (10YR 8/4), fine-grained, well-sorted, sub-rounded quartz sand with 5%± feldspar and heavy minerals

LOAMY SAND: (11.0' to 12.0') SP to SC - very pale brown (10YR 8/2), fine-grained, well-sorted, sub-rounded quartz sand with 5%± feldspar and heavy minerals; with abundant white calcite/clay coatings and pore filling, with firm bands and white nodules

NO SAMPLES

LOAMY SAND: (15.0' to 15.4') SP to SC - very pale brown (10YR 8/2), fine-grained, well-sorted, sub-rounded quartz sand with 5%± feldspar and heavy minerals; with abundant white calcite/clay coatings and pore filling, with firm bands and white nodules

SANDY LOAM: (15.4' to 17.0') SC - very pale brown (10YR 8/2), fine-grained, well-sorted, sub-rounded quartz with 5%± feldspar and heavy minerals; abundant white calcite/clay coatings and pore filling, moderately firm

NO SAMPLES

HALL GEOLOGICAL SERVICES, LLC

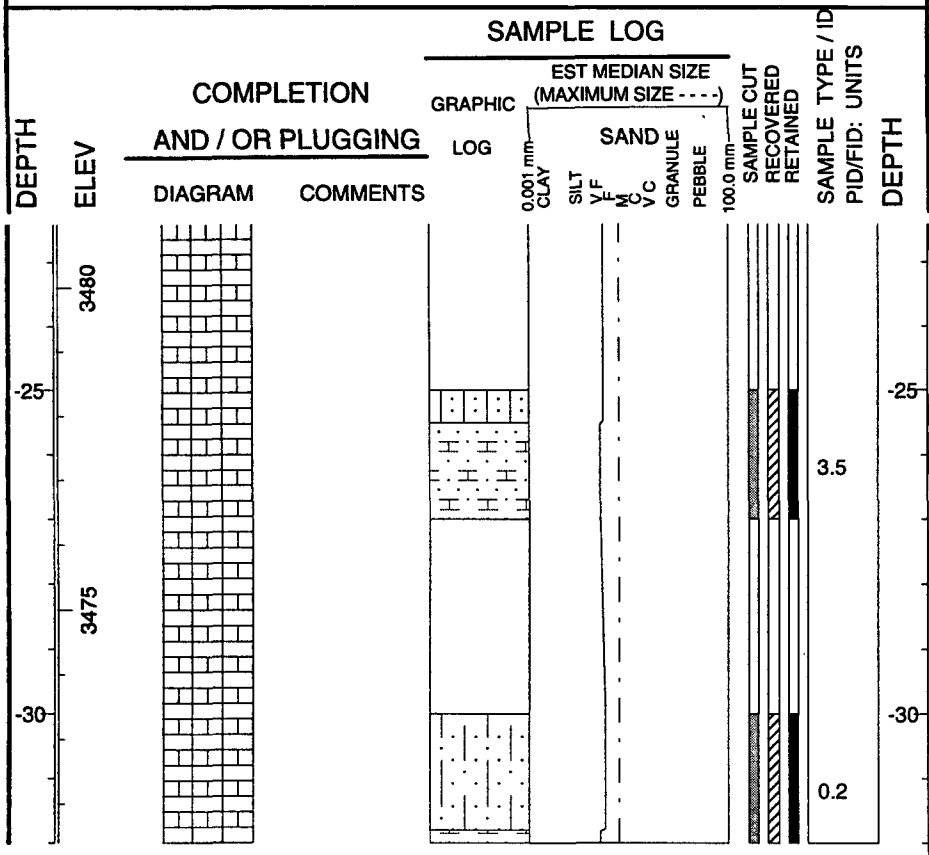
5615 E. 80th Place, Tulsa, Oklahoma 74136

PROJECT NAME (NUMBER): SPL / Lea Truck Station / Lea Co., NM

BOREHOLE / WELL NO.

BH99-1

GEOLOGIST: R. Vance Hall, CPG 4530



COMMENTS AND SAMPLE DESCRIPTION

(WENTWORTH PARTICLE SIZE - MUNSELL COLORS)

SAND: (20.0' to 21.3') SP - very pale brown (10YR 8/4), fine-grained, well-sorted, sub-rounded quartz sand with trace feldspar and heavy minerals, sparse white calcite/clay coatings, loose

SANDY LOAM: early CALICHE (21.3' to 22.0') SC - very pale brown (10YR 8/2), fine-grained, well-sorted, sub-rounded quartz with 5%± feldspar and heavy minerals; abundant white calcite/clay coatings and pore filling, white and yellow calcite/clay nodules

NO SAMPLES

SANDY LOAM: early CALICHE (25.0' to 25.5') SC - very pale brown (10YR 8/2), fine-grained, well-sorted, sub-rounded quartz with 5%± feldspar and heavy minerals; abundant white calcite/clay coatings and pore filling, white and yellow calcite/clay nodules

CALICHE: LOAM: (25.5' to 27.0') SC to SM - very pale brown (10YR 7/3), fine-grained quartz sand; with white fine- to medium- crystalline gypsum (?) lathes and abundant calcareous clay

NO SAMPLES

LOAMY SAND: early CALICHE: (30.0' to 31.8') SC - very pale brown (10YR 8/2), fine grained quartz sand with abundant calcareous clay

CALICHE: LOAM: (31.8' to 32.0') SC to SM - very pale brown (10YR 7/3), silt to fine-grained quartz sand, poorly sorted, with abundant calcareous clay

HALL GEOLOGICAL SERVICES, LLC
5615 E. 80th Place
Tulsa, OK 74136
(918) 438-9255 FAX: (918) 438-9226

BOREHOLE / WELL INFORMATION AND EXPLANATION

BOREHOLE / WELL NUMBER: MW99-1

PROJECT NO: SPL99-01

PROJECT NAME: SPL / Lea Truck Station / Lea Co., NM

CLIENT PROJECT NO: N/A

FACILITY ID NO: N/A

DRILLING CONTRACTOR / DRILLER: Eades Drilling and Pump Service / Fred Root

DRILLED: April 13, 1999

DRILL RIG: air rotary

TOTAL DEPTH BOREHOLE / WELL: 41' / 40.84' (GL)

SAMPLING EQUIP: Pitcher sampler w/ 2'x2" split spoon

PLUGGED:

PLUGGING MATERIALS:

WEATHER: cool, windy

GEOLOGIST: R. Vance Hall, CPG 4530

DEPTH TO WATER / HOURS: 32.91' (TOC) / 21 hrs

USGS 7½' QUAD: Monument South, NM

ADDRESS: South of Monument, Lea Co., NM

LOCATION: NW/4 SEC 28 T20S R37E

PROPERTY OWNER: Sunoco, Inc. (R&M)

ELEVATION (GL/TOC): 3504.03' / 3506.99'

MEASURED / SURVEYED LOCATION:

564641.899' (Northing)

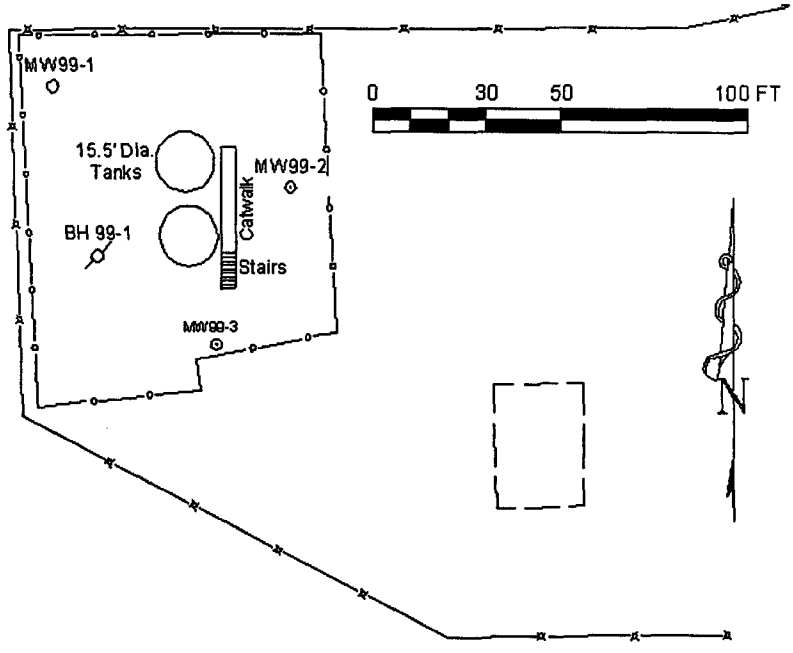
872409.023' (Easting)

Surveyed by Basin Surveys, NM RPS #7977

Coord. are NAD 83 (92), Elev. are NAVD 88

NM State Plane East Zone

LOCATION MAP



COMPLETION SYMBOLS

	CLEAN SOIL
	CEMENT
	BENTONITE
	GRAN BENTONITE
	SAND
	PEA GRAVEL

SOIL SYMBOLS

	CLAY
	SILT
	SAND
	GRAVEL
	CALICHE
	ORGANIC SOIL

LITHOLOGIC SYMBOLS

	CLAYSTONE
	MUDSTONE
	SHALE
	SILTSTONE
	SANDSTONE
	CONGLOMERATE

HALL GEOLOGICAL SERVICES, LLC

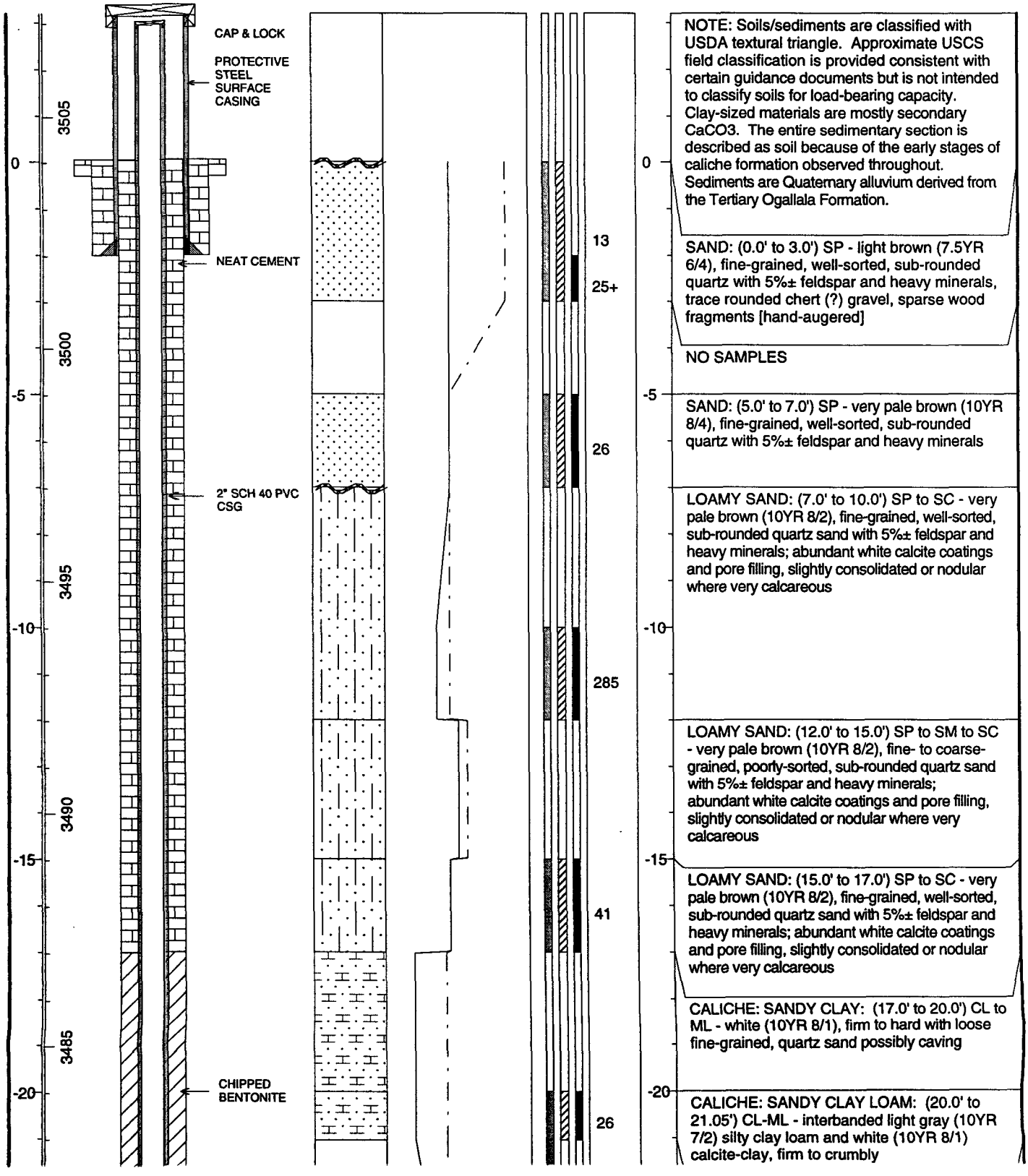
http://www.hgs-llc.com

PROJECT NAME (NUMBER): SPL / Lea Truck Station / Lea Co., NM

BOREHOLE / WELL NO.

MW99-1

GEOLOGIST: R. Vance Hall, CPG 4530



COMMENTS AND SAMPLE DESCRIPTION

(WENTWORTH PARTICLE SIZE - MUNSELL COLORS)

NOTE: Soils/sediments are classified with USDA textural triangle. Approximate USCS field classification is provided consistent with certain guidance documents but is not intended to classify soils for load-bearing capacity. Clay-sized materials are mostly secondary CaCO3. The entire sedimentary section is described as soil because of the early stages of caliche formation observed throughout. Sediments are Quaternary alluvium derived from the Tertiary Ogallala Formation.

SAND: (0.0' to 3.0') SP - light brown (7.5YR 6/4), fine-grained, well-sorted, sub-rounded quartz with 5%± feldspar and heavy minerals, trace rounded chert (?) gravel, sparse wood fragments [hand-augered]

NO SAMPLES

SAND: (5.0' to 7.0') SP - very pale brown (10YR 8/4), fine-grained, well-sorted, sub-rounded quartz with 5%± feldspar and heavy minerals

LOAMY SAND: (7.0' to 10.0') SP to SC - very pale brown (10YR 8/2), fine-grained, well-sorted, sub-rounded quartz sand with 5%± feldspar and heavy minerals; abundant white calcite coatings and pore filling, slightly consolidated or nodular where very calcareous

LOAMY SAND: (12.0' to 15.0') SP to SM to SC - very pale brown (10YR 8/2), fine- to coarse-grained, poorly-sorted, sub-rounded quartz sand with 5%± feldspar and heavy minerals; abundant white calcite coatings and pore filling, slightly consolidated or nodular where very calcareous

LOAMY SAND: (15.0' to 17.0') SP to SC - very pale brown (10YR 8/2), fine-grained, well-sorted, sub-rounded quartz sand with 5%± feldspar and heavy minerals; abundant white calcite coatings and pore filling, slightly consolidated or nodular where very calcareous

CALICHE: SANDY CLAY: (17.0' to 20.0') CL to ML - white (10YR 8/1), firm to hard with loose fine-grained, quartz sand possibly caving

CALICHE: SANDY CLAY LOAM: (20.0' to 21.05') CL-ML - interbanded light gray (10YR 7/2) silty clay loam and white (10YR 8/1) calcite-clay, firm to crumbly

HALL GEOLOGICAL SERVICES, LLC

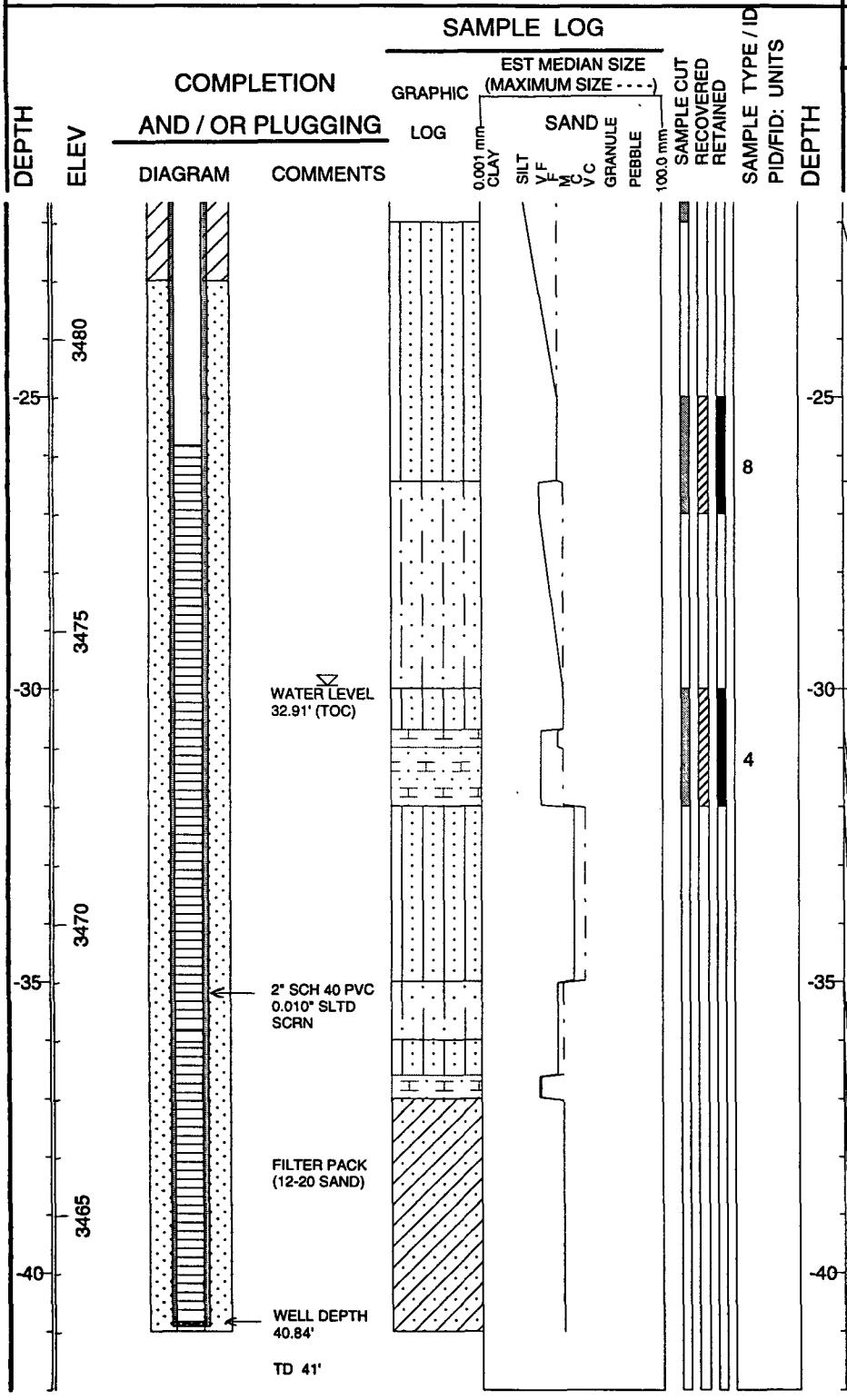
http://www.hgs-llc.com

PROJECT NAME (NUMBER): SPL / Lea Truck Station / Lea Co., NM

BOREHOLE / WELL NO.

MW99-1

GEOLOGIST: R. Vance Hall, CPG 4530



COMMENTS AND SAMPLE DESCRIPTION

(WENTWORTH PARTICLE SIZE - MUNSELL COLORS)

NO RECOVERY

SANDY LOAM: early CALICHE: (22.0' to 26.45') SM - very pale brown (10YR 8/2), very fine- to fine-grained, moderately well-sorted, sub-rounded quartz sand; very calcareous, firm to crumbly, nodular in part, sparse purple-stained specs 2mm dia

LOAMY SAND: (26.45' to 30.0') SP to SC - very pale brown (10YR 8/2), fine-grained, well-sorted, sub-rounded quartz sand with 5%± feldspar and heavy minerals; abundant white calcite coatings and pore filling, slightly consolidated or nodular where very calcareous

SANDY LOAM: early CALICHE: (30.0' to 30.7') SP to SC - very pale brown (10YR 7/3), fine-grained, well-sorted, sub-rounded quartz sand with 5%± feldspar and heavy minerals; very calcareous

CALICHE: SANDY CLAY: (30.7' to 31.0') CL - very pale brown (10YR 8/2), moderately firm

CALICHE: SANDY CLAY LOAM: (31.0' to 32.0') CL to SC - very pale brown (10YR 8/2), clay (calcareous) loam grading to very sandy clay (calcareous) loam, moderately firm

SANDY LOAM: (32.0' to 35.0') SC - pinkish white (5YR 8/2), poorly sorted mostly fine-grained with some medium- and coarse-grained sand, sub-rounded, with white calcareous coatings and pore fillings; loose with nodular clumps in part

LOAMY SAND: (35.0' to 36.0') SM - pinkish white (2.5YR 8/2), very fine- to fine-grained, moderately well-sorted, sub-rounded quartz sand with 5%± feldspar and heavy minerals; slightly calcareous with white calcite coatings

SANDY LOAM: early CALICHE: (36.0' to 36.6') SP to SC - light brownish gray (10YR 6/2), moderately well sorted, very fine- to fine-grained sand, sub-rounded, with white calcareous coatings and pore fillings; firm to crumbly

CALICHE: SANDY CLAY LOAM (36.6' to 37.0') CL - light greenish gray (8/10Y), very firm, silty

SANDY CLAY LOAM: early CALICHE: (37.0' to 41.0') SC - white (10YR 8/1) to very pale brown (10YR 7/4), moderately well sorted, very fine- to fine-grained sand, sub-rounded, with pervasive white calcareous coatings and pore fillings; firm to crumbly, nodular in part

HALL GEOLOGICAL SERVICES, LLC
5615 E. 80th Place
Tulsa, OK 74136
(918) 438-9255 FAX: (918) 438-9226

BOREHOLE / WELL INFORMATION AND EXPLANATION

BOREHOLE / WELL NUMBER: MW99-2

PROJECT NO: SPL99-01

PROJECT NAME: SPL / Lea Truck Station / Lea Co., NM

CLIENT PROJECT NO: N/A

FACILITY ID NO: N/A

DRILLING CONTRACTOR / DRILLER: Eades Drilling and Pump Service / Fred Root

DRILLED: April 13, 1999

DRILL RIG: air rotary

TOTAL DEPTH BOREHOLE / WELL: 41' / 40.93' (GL)

SAMPLING EQUIP: Pitcher sampler w/ 2'x2" split spoon

PLUGGED:

PLUGGING MATERIALS:

WEATHER: cool, windy

GEOLOGIST: R. Vance Hall, CPG 4530

DEPTH TO WATER / HOURS: 33.10' (TOC) / 21 hrs

USGS 7½' QUAD: Monument South, NM

ADDRESS: South of Monument, Lea Co., NM

LOCATION: NW/4 SEC 28 T20S R37E

PROPERTY OWNER: Sunoco, Inc. (R&M)

ELEVATION (GL/TOC): 3503.50' / 3506.67'

MEASURED / SURVEYED LOCATION:

564615.660' (Northing)

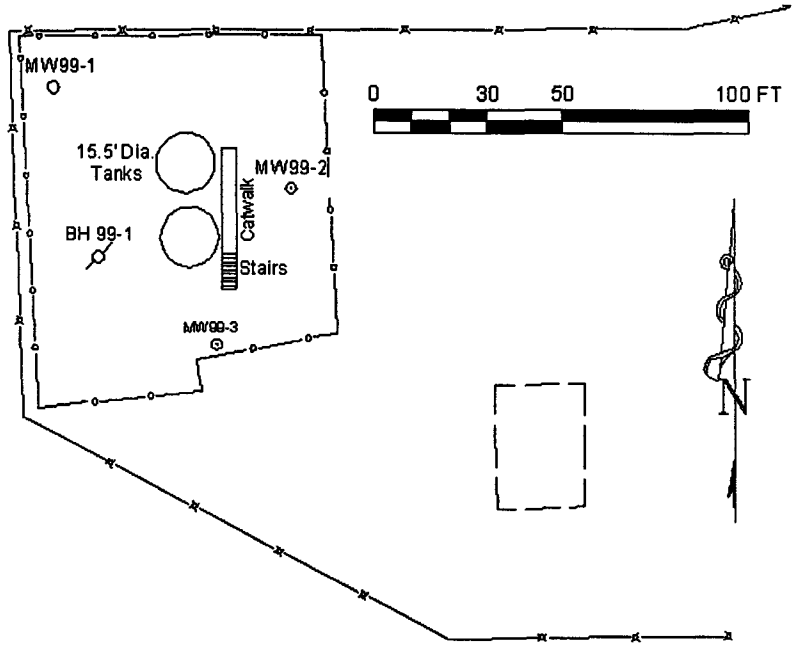
872472.356' (Easting)

Surveyed by Basin Surveys, NM RPS #7977

Coord. are NAD 83 (92), Elev. are NAVD 88

NM State Plane East Zone

LOCATION MAP



COMPLETION SYMBOLS

- CLEAN SOIL
- CEMENT
- BENTONITE
- GRAN BENTONITE
- SAND
- PEA GRAVEL

SOIL SYMBOLS

- CLAY
- SILT
- SAND
- GRAVEL
- CALICHE
- ORGANIC SOIL

LITHOLOGIC SYMBOLS

- CLAYSTONE
- MUDSTONE
- SHALE
- SILTSTONE
- SANDSTONE
- CONGLOMERATE

HALL GEOLOGICAL SERVICES, LLC

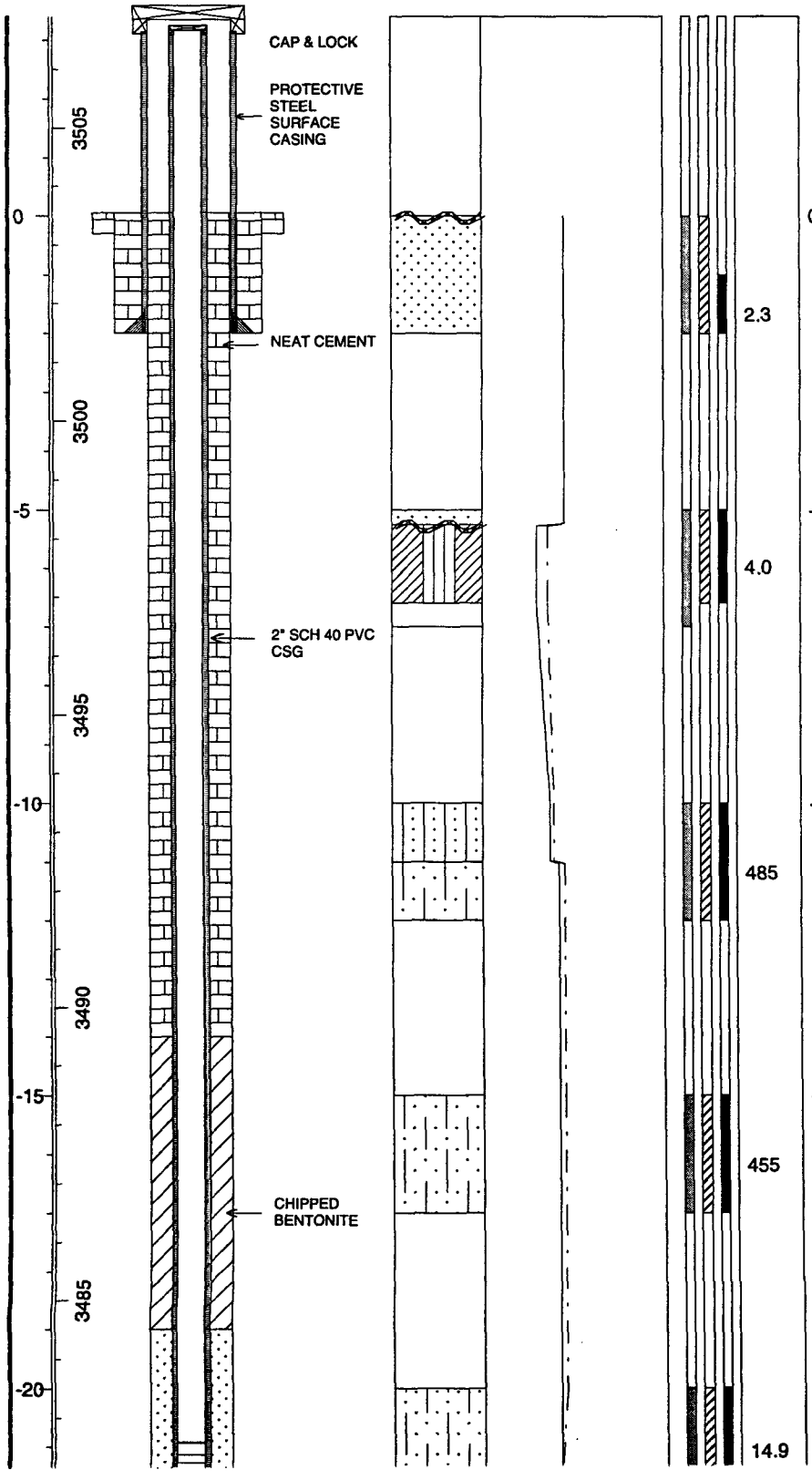
http://www.hgs-llc.com

PROJECT NAME (NUMBER): SPL / Lea Truck Station / Lea Co., NM

BOREHOLE / WELL NO.

MW99-2

GEOLOGIST: R. Vance Hall, CPG 4530



COMMENTS AND SAMPLE DESCRIPTION

(WENTWORTH PARTICLE SIZE - MUNSELL COLORS)

NOTE: Soils/sediments are classified with USDA textural triangle. Approximate USCS field classification is provided consistent with certain guidance documents but is not intended to classify soils for load-bearing capacity. Clay-sized materials are mostly secondary CaCO3. The entire sedimentary section is described as soil because of the early stages of caliche formation observed throughout. Sediments are Quaternary alluvium derived from the Tertiary Ogallala Formation.

SAND: (0.0' to 2.0') SP - light brown (10YR 4/4), fine-grained, well-sorted, sub-rounded quartz with 5%± feldspar and heavy minerals, stained; thin red clay band @ 0.5' to 0.6' [hand-augered]

NO SAMPLES

SAND: (5.0' to 5.25') SP - as above, but sand grains are 10YR 4/4 and 10YR 7/4

SILTY CLAY LOAM: early CALICHE (5.25' to 6.6') CL to ML - light gray to very pale brown (10YR 7/2 to 7/3), moderately firm

NO RECOVERY

NO SAMPLES

SANDY LOAM: early CALICHE (10.0' to 11.0') SC to ML - white to very pale brown (10YR 8/1 to 7/3), slightly banded and mottled, more calcite/clay and firmer where banded

LOAMY SAND: early CALICHE (11.0' to 12.0') SP to SM to SC - light gray to very pale brown (10YR 7/2 to 7/4), fine-grained, with sparse calcite/clay nodules

NO SAMPLES

LOAMY SAND: early CALICHE (15.0' to 17.0') SP to SC - light gray to very pale brown (10YR 7/2 to 7/4), fine-grained, well-sorted, sub-rounded quartz sand with 5%± feldspar and heavy minerals; abundant white calcite coatings and pore filling, with sparse calcite/clay nodules

NO SAMPLES

LOAMY SAND: early CALICHE (20.0' to 21.5') SP to SC - light gray to very pale brown (10YR 7/2 to 7/4), fine-grained, well-sorted, sub-

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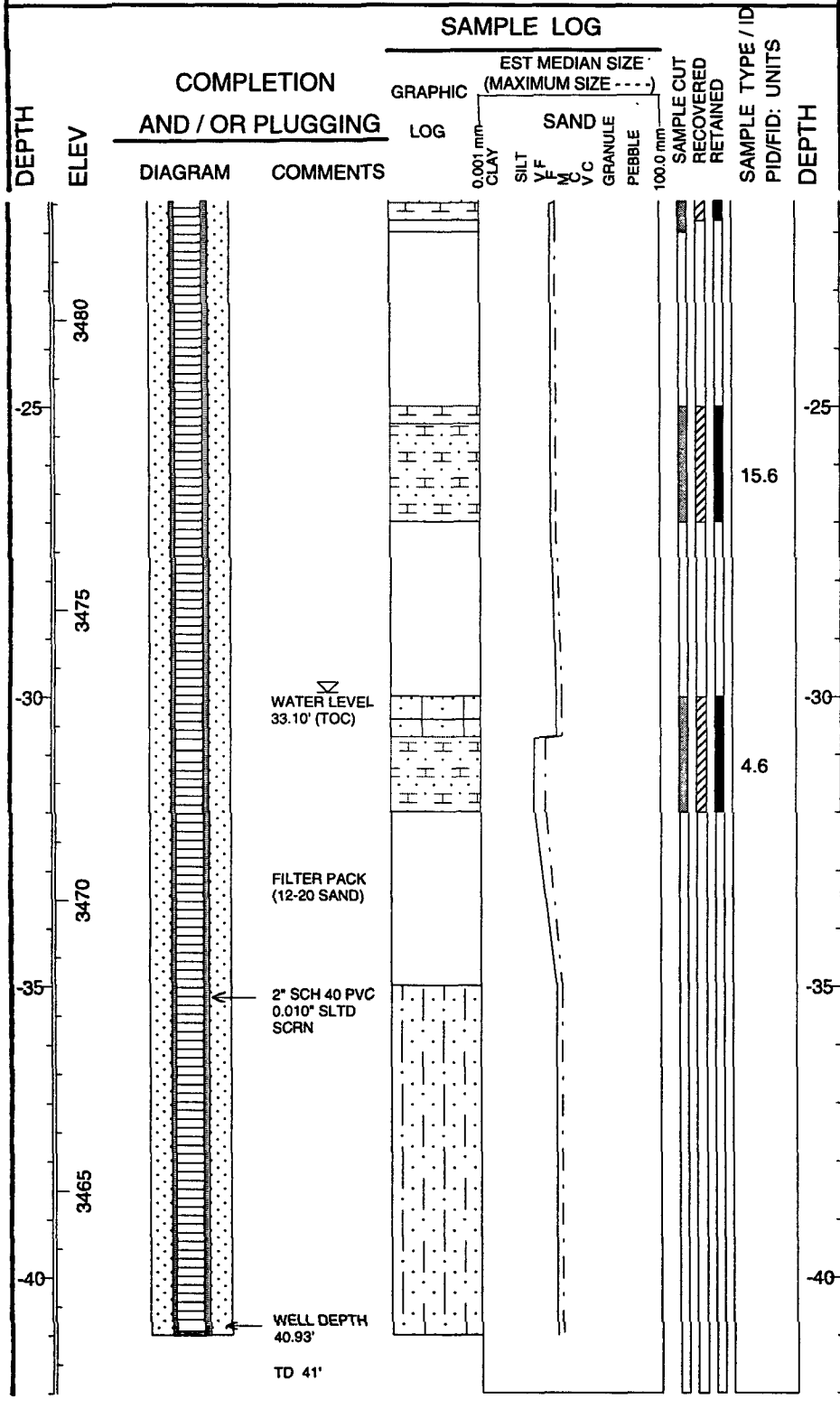


COMMENTS AND SAMPLE DESCRIPTION

(WENTWORTH PARTICLE SIZE - MUNSELL COLORS)

rounded quartz sand with 5%± feldspar and heavy minerals; abundant white calcite coatings and pore filling, with sparse calcite/clay nodules

CALICHE: SANDY LOAM (21.5' to 21.8') SW to SC - white (10YR 7/3), fine-grained to very fine-grained mostly quartz sand with abundant calcite/clay coatings and pore filling, with very sparse black streaks

NO RECOVERY

NO SAMPLES

CALICHE: SANDY LOAM (25.0' to 25.3') as above, moist, balling up

CALICHE: SANDY LOAM (25.3' to 27.0') as above, but firmer and with dark brown mottles, sparse black streaks and blebs, and with slight HC odor @ 26.3' to 26.6'

NO SAMPLES

LOAMY SAND: (30.0' to 30.4') SP - light gray (2.5Y 7/1), fine-grained, well-sorted, sub-rounded quartz with 5%± feldspar and heavy minerals, loose

LOAMY SAND: (30.4' to 30.7') as above with gray calcite/clay nodules

CALICHE: LOAM to CLAY LOAM: (30.7' to 32.0') CL to SC - pale yellow (2.5Y 8/2), very fine-grained sand to silt with abundant calcite/clay, moderately firm

NO SAMPLES

LOAMY SAND: (35.0' to 41') SC - pale yellow (2.5Y 8/3), fine-grained, well-sorted, with abundant calcite/clay coatings and pore filling

HALL GEOLOGICAL SERVICES, LLC
5615 E. 80th Place
Tulsa, OK 74136
(918) 438-9255 FAX: (918) 438-9226

BOREHOLE / WELL INFORMATION AND EXPLANATION

BOREHOLE / WELL NUMBER: MW99-3

PROJECT NO: SPL99-01

PROJECT NAME: SPL / Lea Truck Station / Lea Co., NM

CLIENT PROJECT NO: N/A

FACILITY ID NO: N/A

DRILLING CONTRACTOR / DRILLER: Eades Drilling and Pump Service / Fred Root

DRILLED: April 13, 1999

DRILL RIG: air rotary

TOTAL DEPTH BOREHOLE / WELL: 41' / 41.16' (GL)

SAMPLING EQUIP: Pitcher sampler w/ 2'x2" split spoon

PLUGGED:

PLUGGING MATERIALS:

WEATHER: cool, windy

GEOLOGIST: R. Vance Hall, CPG 4530

DEPTH TO WATER / HOURS: 33.06' (TOC) / 21 hrs

USGS 7½' QUAD: Monument South, NM

ADDRESS: South of Monument, Lea Co., NM

LOCATION: NW/4 SEC 28 T20S R37E

PROPERTY OWNER: Sunoco, Inc. (R&M)

ELEVATION (GL/TOC): 3504.10' / 3506.59'

MEASURED / SURVEYED LOCATION:

564575.030' (Northing)

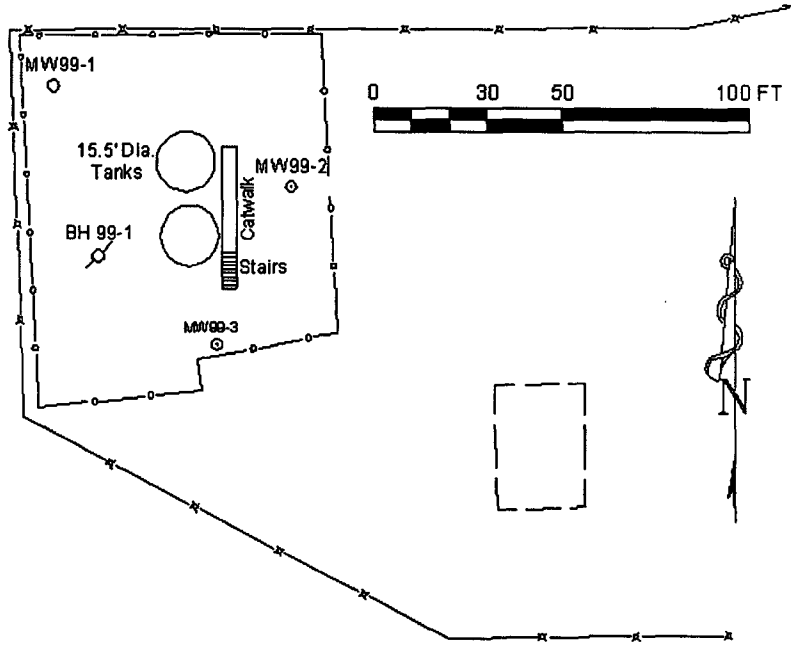
872452.787' (Easting)

Surveyed by Basin Surveys, NM RPS #7977

Coord. are NAD 83 (92), Elev. are NAVD 88

NM State Plane East Zone

LOCATION MAP



COMPLETION SYMBOLS

- CLEAN SOIL
- CEMENT
- BENTONITE
- GRAN BENTONITE
- SAND
- PEA GRAVEL

SOIL SYMBOLS

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- SILT
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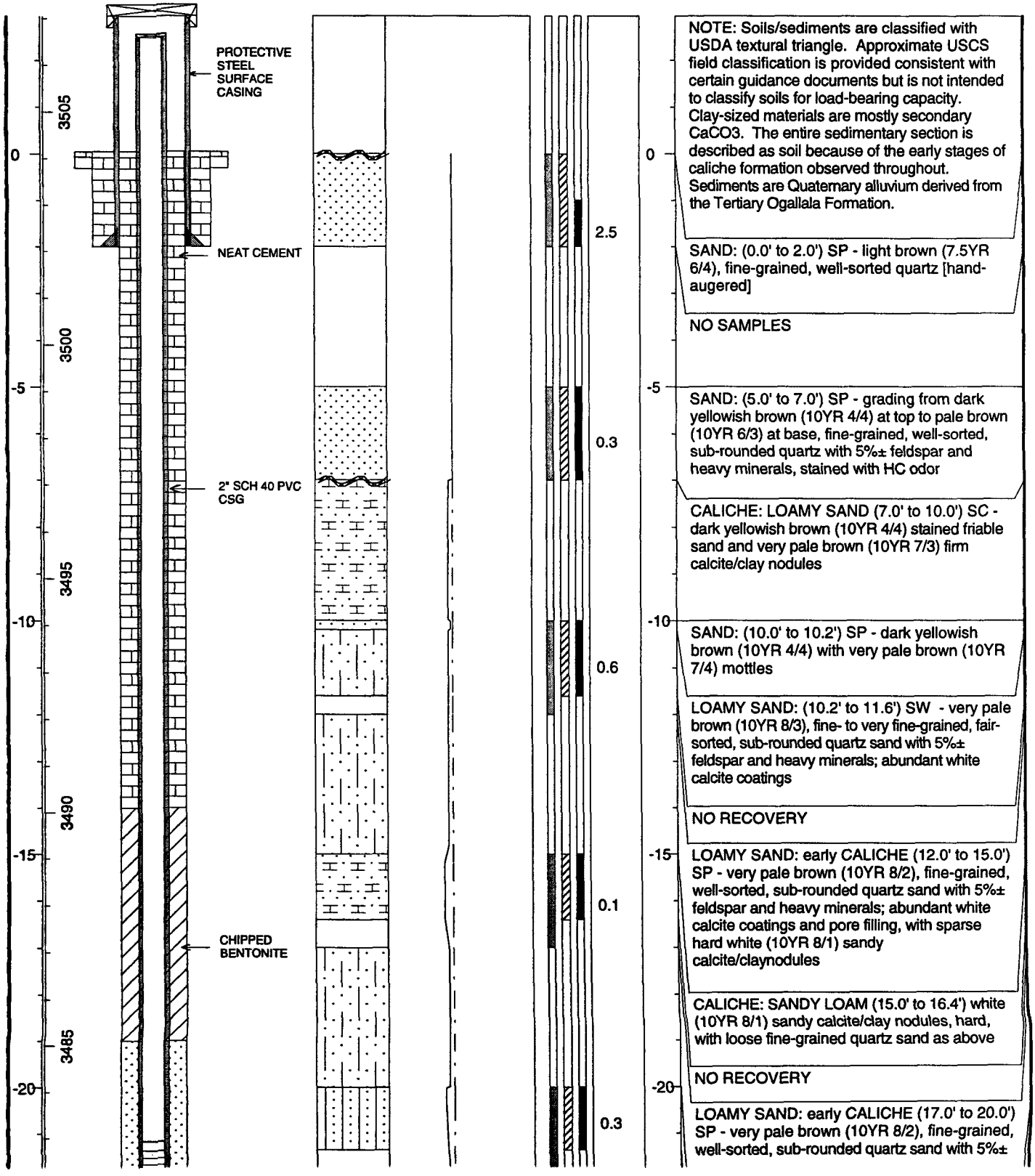

COMMENTS AND SAMPLE DESCRIPTION

(WENTWORTH PARTICLE SIZE - MUNSELL COLORS)

NOTE: Soils/sediments are classified with USDA textural triangle. Approximate USCS field classification is provided consistent with certain guidance documents but is not intended to classify soils for load-bearing capacity. Clay-sized materials are mostly secondary CaCO3. The entire sedimentary section is described as soil because of the early stages of caliche formation observed throughout. Sediments are Quaternary alluvium derived from the Tertiary Ogallala Formation.

SAND: (0.0' to 2.0') SP - light brown (7.5YR 6/4), fine-grained, well-sorted quartz [hand-augered]

NO SAMPLES

SAND: (5.0' to 7.0') SP - grading from dark yellowish brown (10YR 4/4) at top to pale brown (10YR 6/3) at base, fine-grained, well-sorted, sub-rounded quartz with 5%± feldspar and heavy minerals, stained with HC odor

CALICHE: LOAMY SAND (7.0' to 10.0') SC - dark yellowish brown (10YR 4/4) stained friable sand and very pale brown (10YR 7/3) firm calcite/clay nodules

SAND: (10.0' to 10.2') SP - dark yellowish brown (10YR 4/4) with very pale brown (10YR 7/4) mottles

LOAMY SAND: (10.2' to 11.6') SW - very pale brown (10YR 8/3), fine- to very fine-grained, fair-sorted, sub-rounded quartz sand with 5%± feldspar and heavy minerals; abundant white calcite coatings

NO RECOVERY

LOAMY SAND: early CALICHE (12.0' to 15.0') SP - very pale brown (10YR 8/2), fine-grained, well-sorted, sub-rounded quartz sand with 5%± feldspar and heavy minerals; abundant white calcite coatings and pore filling, with sparse hard white (10YR 8/1) sandy calcite/claynodules

CALICHE: SANDY LOAM (15.0' to 16.4') white (10YR 8/1) sandy calcite/clay nodules, hard, with loose fine-grained quartz sand as above

NO RECOVERY

LOAMY SAND: early CALICHE (17.0' to 20.0') SP - very pale brown (10YR 8/2), fine-grained, well-sorted, sub-rounded quartz sand with 5%±

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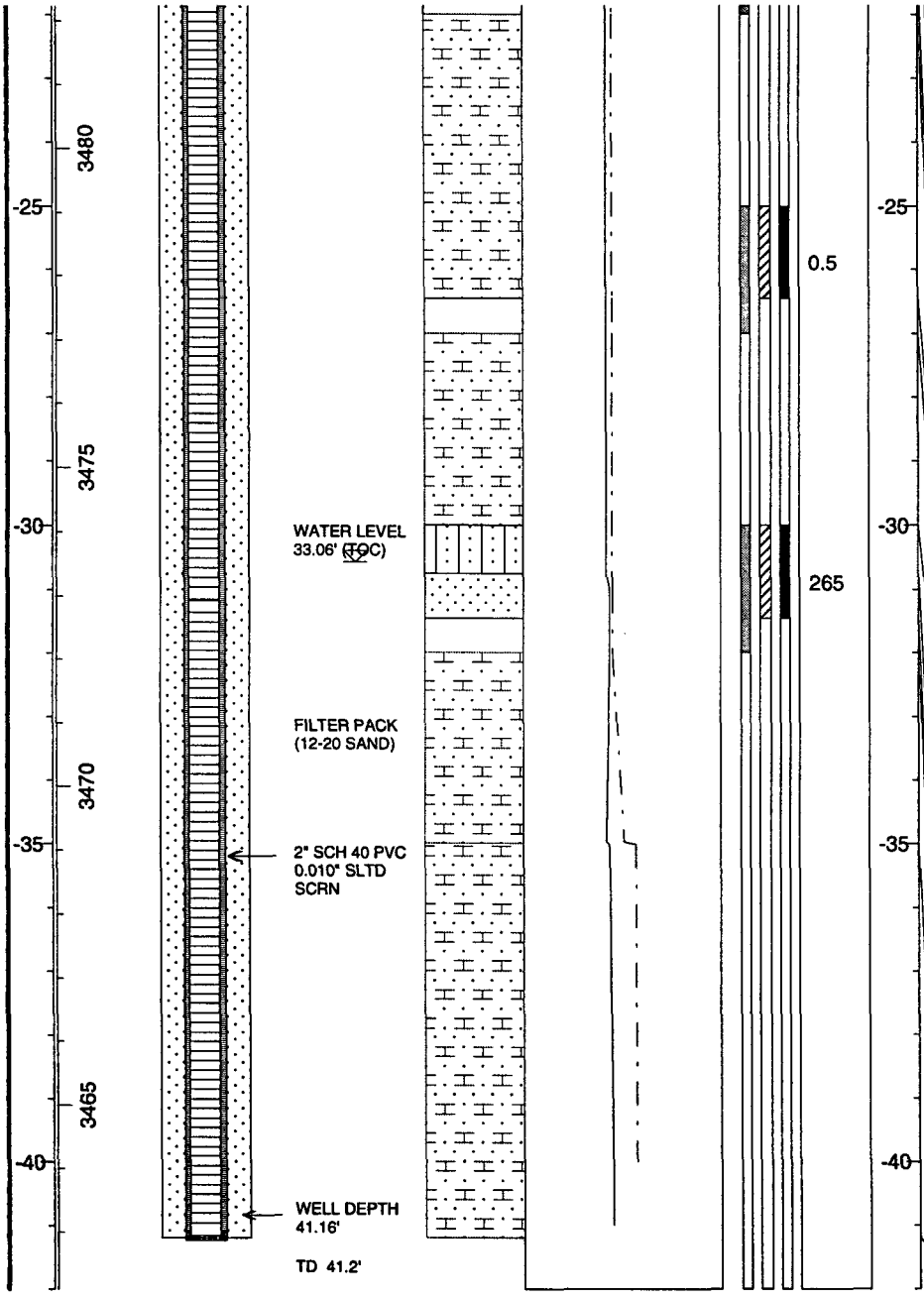
BOREHOLE / WELL NO.

MW99-3

GEOLOGIST: R. Vance Hall, CPG 4530



COMMENTS AND SAMPLE DESCRIPTION

(WENTWORTH PARTICLE SIZE - MUNSELL COLORS)

feldspar and heavy minerals; abundant white calcite coatings and pore filling, with sparse hard white (10YR 8/1) sandy calcite/claynodules

SANDY LOAM: early CALICHE (20.0' to 20.35') SP - pale yellow (2.5Y 8/2), fine-grained, well-sorted, sub-rounded quartz sand with 5%± feldspar and heavy minerals; abundant white calcite coatings and pore filling

NO RECOVERY

CALICHE: SANDY LOAM (22.0' to 26.45') white to pale yellow (5Y 8/1 to 5Y 7/4) sandy calcite/clay nodules, hard, with loose fine-grained quartz sand as above

NO RECOVERY

CALICHE: SANDY LOAM (27.0' to 30.0') white to pale yellow to very pale brown (5Y 8/1 to 5Y 7/4 to 10YR 7/3) sandy calcite/clay nodules, hard, poss slightly stained where pale brown, with loose fine-grained quartz sand as above

SANDY LOAM: early CALICHE: (30.0' to 30.75') SP to SC - light gray (10YR 7/2), fine-grained, well-sorted, sub-rounded quartz sand with 5%± feldspar and heavy minerals; abundant nodules of sandy calcite/clay; black streaks, HC odor

SAND: (30.7' to 31.0') SP -light greenish gray (8/5 BG), very fine- to fine-grained

NO RECOVERY

CALICHE: SANDY LOAM (32.0' to 35.0') SC - white to pale yellow (5Y 8/1 to 5Y 7/4) sandy calcite/clay nodules, hard with loose fine-grained quartz sand as above, but with more orange sand grains

CALICHE: SANDY LOAM (35.0' to 41.0') SC - white to pale yellow (5Y 8/1 to 5Y 7/4) sandy calcite/clay nodules, hard with loose fine- to coarse-grained quartz sand with 5%± feldspar and heavy minerals