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FIRST PHASE COMPREHENSIVE INVESTIGATION REPORT FOR THE COASTAL EL DORADO REFINERY EL DORADO, KANSAS

Consent Order Number - 03-E0021

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1.0 INTRODUCTION

This document presents the results of the first phase of Comprehensive Investigation (CI) activities completed at the Coastal El Dorado Refinery (site) in El Dorado, Kansas. CI activities were presented in the Kansas Department of Health and Environment (KDHE) approved Work Plan as revised in response to the KDHE correspondence dated May 22, 2003, and July 14, 2003, and El Paso Corporation (EPC) correspondence dated June 23, 2003. This first phase CI report is being submitted by EPC on behalf of El Paso Merchant Energy and Petroleum (El Paso) to the KDHE as partial fulfillment of the Consent Order (Order) between KDHE and El Paso, Order Number 03-E0021, dated February 20, 2003. Results of CI activities are presented in the following sections, along with recommendations for the second phase of CI activities.

1.1 PURPOSE OF REPORT

As presented in the Work Plan, site investigation activities required by the Order are to be completed in a phased approach. The purpose of the first phase CI report (report) is to summarize the first phase of site activities and present the rationale, scope, and technical aspects proposed for the second phase of the CI.

1.2 SITE BACKGROUND

1.2.1 Site Description

The El Dorado Refinery is located immediately north of the City of El Dorado in portions of Sections 27, 26, and 34, Township 25 South, Range 5 East, Butler County, Kansas. The site includes the former refinery and the south tank farm area, excluding the adjacent Pester Burn Pond Superfund site. The location of the Facility is shown in **Figure 1-1** and a site map is included as **Figure 1-2**.

1.2.2 Site History

The El Dorado Refinery was constructed in 1917, for the Pester Refining Company (Pester). Fina Oil and Chemical Company (Fina) owned and operated the refinery and surrounding property between 1958 and 1977. In 1977, Pester purchased the property from Fina and continued to operate the refinery until filing Chapter 11 bankruptcy in February 1985. The crude unit and most of the other operational units were shut down in March 1985. In 1986, Coastal Refining Company purchased the refinery, excluding the burn pond, from Pester. In 2001, EPC completed a merger with Coastal Corporation. El Paso currently operates a wastewater treatment facility at the former refinery. An asphalt blending operation is also currently active at the former refinery.

1.2.3 Previous Investigations

Previous investigations at the site, from 1986 to present, were presented in the CI Work Plan and are summarized below:

- **1987 – Sun Belt Environmental Management Site Investigation**

  Fifty-four surface soil samples and 11 subsurface soil samples were collected from various locations at the refinery during this investigation. All samples were analyzed for total metals, phenol, and oil and grease. Elevated lead concentrations were identified in samples collected from the North Refinery Area. This investigation included the installation of fourteen monitoring wells. Groundwater samples were analyzed for total metals and oil and grease concentrations. Surface water and sludge sampling was also conducted in the Pester Burn Pond area.

1.3 REPORT ORGANIZATION

This report presents a description and summary of the first phase of CI activities and provides recommendations for the second phase of activities.

The following sections are included in this report:

Section 2.0 – Physical Characteristics of the Area
Section 3.0 – First Phase of Investigation Activities
Section 4.0 – Results of the First Phase of Investigation Activities
Section 5.0 – Conclusions and Recommendations
Section 6.0 – References

2.0 PHYSICAL CHARACTERISTICS OF THE AREA

2.1 SURFACE FEATURES

The facility is located in the Flint Hills physiographic province. The topography of the region is characterized by gently rolling flat-topped hills, where erosion resistant cherty limestone is present near ground surface. The ground surface at the site slopes gently from the uplands on the west side of the site to the east toward the West Branch of the Walnut River floodplain. The topography of the floodplain is relatively flat. The maximum relief at the site is approximately 50 feet. Ground surface elevations at the site range from approximately 1330 feet National Geodetic Vertical Datum (NGVD) (1929 NGVD) in the uplands on the southwest portion of the site to 1280 feet NGVD along Walnut Creek on the east side of the site.

2.2 METEOROLOGY

Butler County has a continental climate, characterized by large seasonal changes in temperature, moderate winds, and maximum rainfall occurring in the spring and early summer. January is the coldest month of the year, with an average daily maximum temperature of 43.2 degrees Fahrenheit, and July and August are the warmest months, with an average daily maximum temperature of 92.8 degrees Fahrenheit. The annual precipitation averages 32 inches, and 71 percent of the moisture occurs between April and September with peak precipitation in May and June. Winters are dry in Butler County with ten percent of the total annual rainfall occurring between December and February. Showers and thunderstorms during the spring and summer account for much of the annual precipitation. Thunderstorms occasionally produce heavy rain, large hailstorms, strong winds, and tornadoes that are usually local in extent and of short duration, (USDA 1975).

2.3 SURFACE WATER HYDROLOGY

A report from the Kansas Forestry, Fish, and Game Commission (KFGC 1978) indicated that the Walnut River and its tributaries is the dominant river in this area, continuing through Butler and Cowley Counties until it crosses into Oklahoma to its confluence with the Arkansas River. Surface waters of the Walnut River Basin contain elevated amounts of sulfate and chloride from the improper disposal of oil field brine and the dissolution of gypsum in the Whitewater River Basin (USDA 1975). Because of the high concentrations of chloride (3,000 ppm) the Walnut River has not been used as a drinking water source since 1921.

The West Branch Walnut River bounds the site on the east. The streambed is composed of silt, sand, and gravel overlying limestone bedrock, with a bank height of 15 feet (KFGC 1978). The stream bank is wooded from 30 to 80 feet with elm, walnut, and hackberry. Chemical characteristics of the West Branch Walnut River indicate the presence of chlorides, nitrates, sulfates, and calcium. The primary fish in the river are sunfish, bullheads, channel catfish, and carp (KFGC 1978).

2.4 SOILS

The dominant soil type at the El Dorado Refinery is identified as the Labette Series, a well-drained soil developed on gently sloping topography formed from material weathered from limestone and shale (USDA 1975). The Labette Series soils include the Labette silty clay loam (La), Labette-Dwight complex (Ld), and the Labette-Sogan complex (Le). Labette silty clay loam is located in narrow areas adjacent to intermittent drainage ways, and the Labette-Dwight complex is located on broad upland divides. The Labette silty clay loam and Labette-Dwight complex are well-developed soils approximately thirty-eight inches thick. The Labette-Sogan complex is located on narrow upland divides with an A-horizon less than seven inches thick and no B-horizon. Boulder fields and sinkholes are common in these areas. All Labette series soils have rapid runoff and are used for rangeland.

Along the West Branch of the Walnut River are the Norge Series, a deep nearly level to gently sloping reddish brown soil comprised of loamy sediment with a thickness up to 72 inches. Norge series soils are primarily used for agriculture and are characterized by high available water capacity and moderately slow permeability.

2.5 REGIONAL GEOLOGY

The El Dorado Refinery is underlain by bedrock units of the Chase Group, which are composed of layers of limestone, dolomitic limestone, dolomite, cherty limestone, and shale (Aber 1994). This group is characteristic of the Flint Hills Region, which is named for the rolling topography and the chert that is found in the limestone. The uplands around El Dorado consist of the Permian Age Fort Riley Member of the Barnestone Limestone Formation and the Towanda Limestone and Holmesville Shale Members of the Doyle Shale Formation (Zeller 1968). A total of 23 anticlines and synclines with surface expressions have been identified in Butler County. The dominant structural feature in the area is the Nemaha Ridge. Striking northeast to southwest, the Nemaha Ridge extends from southern Nebraska to Central Oklahoma. Large-scale regional tectonic features significantly influence much of the Butler County Area.

Valley sediments consist mainly of clay, silt, sand, and gravel, in which poorly developed paleo-soils are present a few feet below the modern surface (Aber 1991). Modern soils tend to be thick, heavy, and poorly drained in the river valleys, but they tend to be thin, variable, and permeable in the uplands. Sediments deposited in the West Branch Walnut River and its tributaries consist mainly of locally derived material, including pebbles of limestone and chert (Leonard 1972).

2.6 SITE GEOLOGY

Both unconsolidated sediments and bedrock underlie the site. The unconsolidated sediments at the site consist primarily of alluvium associated with the West Branch Walnut River. The alluvium generally consists of silt and clay with some minor amounts of sand and gravel typically found at the base of the alluvium. Monitoring well boring logs for the site generally describe the alluvium as

ranging from silty clay to sandy gravelly clay. Thin sand and gravel lenses were observed at the base of the alluvium in some, but not all, borings completed in the floodplain. The sand and gravel lenses appear to be laterally discontinuous.

A thin veneer of silty clay residuum is present in some but not all areas of the uplands. Aerial photographs indicate that the residuum is very thin or non-existent on the north side of the facility as indicated by the presence of limestone at ground surface. Residuum was encountered in several borings on the west side of the facility at thickness of approximately two to four feet. The maximum thickness of residuum encountered at the site was 17 feet near the southwest facility boundary.

The bedrock unit underlying the majority of the site is the Fort Riley Limestone with an average thickness of 48 feet. The Fort Riley can be divided into three distinct units: Upper Massive, Middle Thin-bedded, and Lower Massive (Barnett et al, 1978). The upper massive ranges in thickness from four to 13.5 feet and is a massive bedded limestone with a chalky to cindery texture. Color is medium gray to yellow gray depending on the degree of weathering. The Middle Thin-bedded unit ranges in thickness from 24 to 35 feet. These beds are generally not permeable and medium gray in color. The Basal Massive unit is approximately 8.5 feet thick, medium gray with no significant porosity. The bottom of the unit contains distinct stylolites and white algae encrusted fossil fragments.

Underlying the Fort Riley Limestone is the Florence Limestone, a major geologic unit forming the escarpment face of the Flint Hills Region. Regionally, the Oketo Shale separates these two limestone units; however, this shale unit is generally reported to be absent in the vicinity of El Dorado and was not encountered during monitoring well installation. The Florence Limestone is described as light tan to gray, cherty limestone with clay zones near the base of the unit. The thickness of the Florence Limestone encountered at the site generally ranges from approximately 29 to 33 feet, as reported in previous investigations. The approximate depth to the Florence Limestone ranges from approximately 55 feet in the alluvium and uplands areas to 90 feet on the south side of the facility property

2.7 REGIONAL HYDROGEOLOGY

A regional aquifer does not underlay the Walnut River Basin (Leonard 1972). Instead, the small, shallow aquifers that do exist are discontinuous horizontally and vertically and are normally subject only to local recharge. These shallow thin aquifers are typically formed as the result of weathered bedrock and/or flood plain deposits. These units are typically not used as a source of groundwater. Groundwater in the Walnut River Basin aquifers contains excessive amounts of sulfate and chloride (USDA 1975). The USGS also notes that concentrations of dissolved solids, nitrate, sulfate, and chloride in most of the sampled groundwater of the Walnut River Basin exceed recommended standards for drinking water.

Twelve water supply wells are reported to exist within approximately one mile of the eastern and southern boundaries of the site. The operational status of these wells is not known and well logs were not available for review. The municipal water supply for the city of El Dorado is obtained from El

Dorado Lake. El Dorado Lake is located approximately 1½ miles east of the site, across West Branch Walnut River.

2.8 SITE HYDROGEOLOGY

The results of previous investigations indicated the three hydrogeologic units in the area of the El Dorado Refinery. These units were identified as the Walnut River Alluvium, Fort Riley Limestone, and Florence Limestone. However, hydraulic testing conducted previously in the area indicates hydraulic communication between the Walnut River Alluvium and the Fort Riley Limestone and the two hydrogeologic units should be treated as a single hydrological unit (URS 2003).

The unconsolidated Walnut River Alluvium extends from the edge of the valley wall east to the West Branch Walnut River where it is present at its greatest thickness. Depth to groundwater within the alluvium typically ranges anywhere from approximately four feet to 16 feet below ground surface (bgs). Based on water levels within wells screened in the alluvium, the groundwater flow direction is to the east from the uplands toward West Branch Walnut River, which acts as a discharge point for groundwater. Recharge to the alluvium, as well as the underlying bedrock, is local and provided by infiltration of precipitation in the uplands to the west of the facility. Flow within the alluvium is primarily through the discontinuous sand and gravel zones.

The uppermost water bearing bedrock unit at the site is the Fort Riley Limestone. Groundwater flow in the Fort Riley Limestone likely occurs through the weathered zone at the top of the unit and through solution enlarged fractures and joints. Groundwater in some portions of the Fort Riley Limestone is reported to be of poor quality due to chloride and sulfate contamination related to oil production in the region. Groundwater flow in Fort Riley Limestone is generally from the uplands to the west of the site and to the east towards Walnut Creek. Depth to groundwater in wells screened in the Fort Riley Limestone ranges from three feet to 22 feet bgs.

Underlying the Fort Riley Limestone is the Florence Limestone. As with groundwater in the Walnut River Alluvium and Fort Riley Limestone, groundwater flow in the Florence Limestone appears to follow the topography with flow from the uplands on the west side of the site to the east towards West Branch Walnut River. This may be related to a north-south trending syncline, which is a localized feature (Barnett et al 1978). A comparison of water level elevations at monitoring well cluster W-15S and W-15D (shallow well screened in Fort Riley Limestone, deep well screened in Florence Limestone) indicates a downward gradient in the uplands area. However, historical groundwater level information for monitoring wells screened in the Florence Limestone have reportedly been at or above the ground surface, indicating that the Florence Limestone is acting under confined or semi-confined conditions.

3.0 FIRST PHASE OF INVESTIGATION ACTIVITIES

The overall objectives of the investigation were to implement a biased sampling program based on site operational history and a review of previous data collected. Data collected during this investigation were used to evaluate the following:

- The extent of potentially impacted areas at the Site;
- Whether additional investigation of soils, surface waters, or sediment is required;
- The potential impacts, if any, to the West Branch Walnut River from the Site from surface water and/or groundwater; and,
- Whether there are offsite impacts that require further investigation.

For the purposes of this investigation the site was divided into six study areas based on historical operations as presented in the Work Plan. Within each of these six areas, locations were identified where impacts to soil, surface water, sediment, and groundwater might likely be found. Sampling was focused at these locations to evaluate the nature of impacts in the area. The first Phase of Investigation activities included the installation of 33 soil borings and 19 monitoring wells, groundwater sampling, collection of surface water and sediment samples, and a seep survey. The following sections present the methodology followed to complete each activity.

3.1 SOIL SAMPLING

3.1.1 Soil Boring Sampling

To evaluate the extent of impacts to soils, 33 soil borings were installed in September 2003. The placement of soil borings was based on the location of historical facility operations. Soil boring locations are presented in **Figure 3-1**. Soil boring logs are included in **Appendix A**. Prior to advancing the borings, Kansas One-Call was contacted to locate any buried utility lines. In addition, the boring locations were cleared by El Paso personnel and verified using a Schonstedt Instruments MSC-51Bx transmitter.

Soil borings were installed utilizing a truck-mounted direct-push drill rig (see photograph logs in **Appendix B**). Prior to sampling all sampling equipment was decontaminated as specified in the Quality Assurance Project Plan (QAPP). A total of 92 soil samples were collected from the 33 soil borings installed. Samples were collected continuously from each boring by pushing or driving a four foot sample barrel to the desired sampling depth or refusal. After retrieving the sample barrel from the boring, the cutting shoe was disconnected from the end of the barrel allowing the removal of the acetate liner with the soil core from the sampler. All visual observations were recorded in a field notebook.

A surface soil interval from zero to six inches below ground surface (bgs) was collected at each soil boring location. Where depth to bedrock was greater than four feet, soil samples were collected from a depth interval of three to four feet bgs. At each soil boring location where the depth to bedrock was

greater than six feet, soil samples were collected from just above the bedrock surface or water table. Soil samples were field screened utilizing a photo ionization detector (PID) for relative volatile organic compounds (VOCs). Prior to field screening, the soil samples were placed in Ziplock® plastic baggies and allowed to equilibrate to atmospheric temperature before measuring the vapor concentrations that partitioned from the soil into the headspace of the baggie.

Samples collected from the zero to six inch depth interval, were analyzed for following:

- Semi-volatile organic compounds (SVOCs) by EPA Method 8270;
- Total metals by EPA Method 6010;
- Total Petroleum Hydrocarbons (TPH) as Gasoline Range Organics (GRO) by EPA Method 8015; and,
- TPH as Diesel Range Organics (DRO) by EPA Method 8015.

All subsurface soil samples collected from greater than 6-inches bgs, were analyzed for the following:

- VOCs by EPA Method 8260;
- Total metals by EPA Method 6010;
- TPH as GRO by EPA Method 8015; and,
- TPH as DRO by EPA Method 8015.

The soil samples were placed in containers provided by Severn Trent Laboratory, Pensacola, Florida (STL-PN). The containers were labeled, logged on the chain-of-custody form, and placed on ice in an insulated container for shipping. Soil samples were shipped overnight to STL-PN for analysis.

Field documentation and chain-of-custody records for each sample were completed as specified in the QAPP. Duplicate samples were obtained at a frequency of one per twenty as required by the QAPP. All duplicate samples were clearly marked with a reference number on the sample containers and chain-of-custody forms, which correspond to the proper identification in the field notebook. Duplicate samples were submitted blind to the laboratory. Rinsate samples were collected at a frequency of one per twenty as required by the QAPP by pouring deionized water over the decontaminated equipment and collecting the water in the appropriate containers.

All reusable drilling equipment and tools were decontaminated prior to commencing work and between borings as specified in the QAPP. Upon completion of sampling activities, each borehole was sealed with hydrated bentonite chips in accordance with KDHE regulations.

3.1.2 Site Reconnaissance

A visual site reconnaissance was completed in an effort to locate the reported buried tank cars. This reconnaissance consisted of a site walk of the specified area and recording any observations that could indicate buried tank cars. No visual evidence of the tank cars was identified at the surface.

3.1.3 Asphalt Pit Area Investigation

In order to better characterize the asphalt pit area, a series of small test pits were completed in and around the asphalt pit. Twelve test pits were excavated using a backhoe to the top of bedrock or until large boulders were encountered. Excavation below the boulders was impossible using the available equipment. Within each test pit, observations were recorded in a field logbook regarding the presence of asphalt in the area. The location of the asphalt pit is included on **Figure 3-1**. No samples were collected or field-screening instrumentation used in this effort.

3.2 MONITORING WELL INSTALLATION

To further evaluate the extent of impacts to groundwater beneath the Site, 19 new monitoring wells were installed between September 9 and September 26, 2003. The primary objective of new well installation was to investigate impacts to the uppermost water-bearing zone. Placement of the wells was based on the location of historical facility operations and the findings of previous investigations identifying areas of potentially impacted groundwater. The potential for off-site impacts and impacts to the West Branch of the Walnut River were also considered during well placement. The majority of the monitoring wells were installed downgradient of potential locations where impacts to groundwater were likely to have occurred. Existing data collected prior to this investigation indicated groundwater flow direction was toward the east to the West Branch Walnut River. **Figure 3-2** identifies the location of the new and existing groundwater monitoring wells. Visual observations were recorded in a field notebook.

Drilling was conducted using a truck mounted drill rig (see photograph log in **Appendix B**). Continuous flight hollow-stem augers were used to drill through the unconsolidated material. Bedrock drilling was accomplished using an air rotary tricone or button bit. Rock cores were collected from monitoring well locations N1-1, N2-1, and N5-3, using a 2-inch diameter, 10-foot long diamond-impregnated coring barrel. Well logs generated from cuttings and core observations are presented in **Appendix A**.

Five cross sections were developed to illustrate the geology across the site, utilizing the data collected during the installation of the monitoring wells and soil borings. A cross section location map is included as **Figure 3-3**. An evaluation of each cross section indicates the following:

- Cross section A-A' (**Figure 3-4**) runs north to south from N1-1 to W-15D, and depicts the change in overburden thickness of the Labette Soil Complex and variability in thickness of the Ft. Riley Limestone across the site.
- Cross section B-B' (**Figure 3-5**) trends west to east from N2-1 to N3-1 and depicts the change in overburden thickness of the Labette-Slogan soil on the crest of the hill to the alluvial Norge Series soil in the river valley. Groundwater elevations posted beside the wells indicate a potential relationship between groundwater flow in the weathered portion of the Ft. Riley Limestone and the overburden at the site.

- Cross section C-C' (**Figure 3-6**) runs northwest to southeast from N2-3 through N3-3. This cross section provides more detail of the increase in thickness of the Norge Series soil and groundwater flow toward the West Branch of the Walnut River.
- Cross section D-D' (**Figure 3-7**) runs west to east across the crest of the hill in Area 4 from N4-4 to N4-2. The overburden thickness of the Labette-Slogan soil on the crest of the hill increases in the Labette-Dwight Series on the level uplands and grades to the Labette Silty Loam. Groundwater elevations posted beside the wells indicate groundwater flow in the top weathered portion of the Ft. Riley Limestone.
- Cross section E-E' (**Figure 3-8**) parallels an intermittent upland-stream that dissects Area 6 from W-16D to W-26 and depicts the increase in the overburden thickness associated with this depositional environment.

Soil samples collected in the overburden were field screened utilizing a PID for relative VOC concentrations. Prior to screening, the samples were placed in Ziplock® plastic baggies and allowed to equilibrate to atmospheric temperature. The vapor concentrations that partitioned from the soil into the headspace of the baggie were then measured. The results from field screening of soil cuttings using a PID are also presented on the well logs in **Appendix A**.

Where the first water bearing zone was identified in very shallow sediments with a saturated thickness above bedrock insufficient to allow for sampling or if the sediment was too shallow to allow proper well construction, monitoring wells were installed in the Fort Riley Limestone unit. To prevent cross-contamination between overlying sediment and the limestone, 6-inch diameter steel casing was installed from the ground surface to two feet into bedrock. The annular space was sealed using high solids bentonite grout.

Borings were extended to a depth of ten feet below the uppermost water table, where possible. Six monitoring wells were completed in the overburden (N2-2, N2-3, N2-4, N2-5, N2-6, and N5-3). Monitoring wells N3-2, N3-3, and N3-4 were installed in the Walnut River Alluvium. Nine monitoring wells (N1-1, N2-2, N4-1, N4-2, N4-3, N4-4, N5-1, N5-2, and N6-1) were double cased and installed across the static water level of the Fort Riley Limestone unit. Monitoring well N3-1 was double-cased and installed within the Florence Limestone unit.

Monitoring wells were constructed using 2-inch diameter schedule-40 flush-joint PVC blank casing and mill slotted screen (0.010-inch slots). To allow for static water level fluctuation the intended screen length was specified in the Work Plan as 15 feet. Ideally, ten feet of screen would be installed below and five feet of screen above the water table. However, to avoid installing screen across potentially separate hydrogeologic units, less than 15 feet of screen was used when installing monitoring wells N2-3, N2-4, N3-1, N3-2, N3-3, N3-4, N4-1, N5-1, N5-2, and N6-1. PVC riser extends to approximately 2.5 feet above the ground surface.

The annular space was backfilled with 10-20-mesh silica sand to two feet above the screened section. A bentonite seal was placed above the filter pack followed by a high solids bentonite grout mixture or bentonite chips to seal the remaining annular space. Wellhead protection was provided by

capping the PVC riser with a locking J-plug and setting a seven-foot locking aboveground protective cover in concrete. Two-foot by two-foot concrete pads with a minimum thickness of four inches were constructed in conjunction with setting the protective cover. Where there was a potential for wellhead damage from facility maintenance traffic orange flags extending seven feet above the ground surface were strapped to the protective covers of the monitoring wells. Monitoring well N2-5 was completed in an active roadway as a flush mount installation.

All down-hole drilling equipment was decontaminated by steam cleaning using an Alconox™ solution and clean water rinse. Decontamination water and water used during the drilling operations was obtained from the City of El Dorado municipal water supply. One water sample was collected from the City of El Dorado municipal water supply (PWS-1) and analyzed in accordance with the work plan for the following:

- VOCs by EPA Method 8260;
- SVOCs by EPA Method 8270;
- Total Metals by EPA Method 6010;
- TPH as GRO by EPA Method 8015; and,
- TPH as DRO by EPA Method 8015.

All decontamination was conducted on the concrete bundle-cleaning pad, which drains to the API separator. Soil cuttings generated during the well installations were placed in DOT approved 55-gallon drums, labeled with the source of the cuttings, and stored on-site temporarily pending disposal.

3.3 MONITORING WELL SAMPLING

3.3.1 Well Development

Following construction, but no sooner than 48 hours after grouting, the wells were developed using a combination of surging and pumping. Pumping was conducted using a submersible pump to remove any sediment or mud that may have been in the well, followed by at least five cycles of surging and pumping, which consisted of 15 surges followed by the removal of one well volume. Water levels and turbidity were measured and recorded prior to development and at the end of each pumping cycle. Development continued until the groundwater visibly cleared and was free of sediment. Water collected during development was discharged to the on-site API separator and waster water treatment system. Well Development Forms are included in **Appendix C**.

3.3.2 Water Level Measurements

On October 7, 2003, groundwater levels were collected from each of the new and existing monitoring wells for depth to LNAPL, depth to static water, and total well depth relative to the top of casing elevation. If the monitoring well was under pressure at the time the well cap was removed it was allowed to stabilize prior to measuring groundwater levels. Prior to collecting groundwater levels, each monitoring well was checked for damage and an air quality reading was collected to monitor the

breathing zone. All measurements and observations were recorded on the Well Gauging Form, presented in **Appendix C**, and all measurements were collected on the same day. Groundwater levels were recorded to the nearest 0.01-foot utilizing an electronic water level indicator. The water level indicator was decontaminated between each well location using Alconox™ and water.

3.3.3 Groundwater Sampling

During the week of October 7, 2003, groundwater samples were collected from 30 of the 33 monitoring wells. Three monitoring wells (N2-5, N2-6, and N6-1) contained light non-aqueous phase liquid (LNAPL) and were not sampled. Monitoring well locations are presented on **Figure 3-2**. Monitoring wells were generally sampled from the least to the most impacted.

Field equipment was properly calibrated according to the standards outlined in the QAPP and decontaminated prior to being placed in the well. Prior to purging and sampling, the height of water column in feet and standing volume in gallons of water based on the water column height and diameter of the well was calculated. All monitoring wells were purged using a submersible pump and tubing. During purging, the purge volume and water quality parameters were recorded to determine when three well volumes had been removed from the well or when the well had stabilized. All measurements were recorded on the Groundwater Sample Collection Field Sheet and are presented in **Appendix C**. All water quality parameters recorded included pH, temperature, conductivity, and oxidation-reduction potential. These parameters were monitored using a YSI GSOMDS and flow-through cell. Dissolved oxygen and turbidity were also recorded but not used as a criterion for well stabilization. Groundwater samples were collected after the water quality parameters taken over three consecutive readings stabilized or three well volumes were removed, unless the well purged dry. Stabilization criterion is presented below:

- pH, stabilization within 0.1 units after three consecutive readings
- Temperature, stabilization within 3 percent after three consecutive readings
- Conductivity, stabilization within 3 percent after three consecutive readings
- Oxidation-reduction potential, stabilization within $\pm$10 millivolts after three consecutive readings
- Dissolved oxygen, not required for determination of well stabilization
- Turbidity, not required for determination of well stabilization

If the well purged dry it was then sampled with a disposable bailer after it had recovered sufficiently for sample collection. Purge water was collected and discharged to the wastewater treatment system through the API separator.

Groundwater samples were collected from each well using disposable bailers. The bailer was drawn from the well to the surface and the contents poured into appropriate laboratory cleaned containers provided by STL-PN. The containers were labeled, logged on the chain-of-custody form, and placed on ice in an insulated container for shipping. Groundwater samples were shipped overnight to STL-

PN for analysis. All groundwater samples collected were analyzed in accordance with the work plan for the following:

- VOCs by EPA Method 8260;
- SVOCs by EPA Method 8270 (collected for analysis from only the new monitoring well);
- Total Metals by EPA Method 6010;
- TPH as GRO by EPA Method 8015; and,
- TPH as DRO by EPA Method 8015.

All field documentation and chain-of-custody records for each sample were completed as specified in the QAPP. Duplicate samples were obtained at a frequency of one per twenty as required by the QAPP. All duplicate samples were clearly marked with a reference number on the sample containers and chain-of-custody forms, which correspond to the proper identification in the field notebook. Duplicate samples were submitted blind to the laboratory. Rinsate samples were collected at a frequency of one per twenty as required by the QAPP by pouring deionized water over the decontaminated equipment and collecting the water in the appropriated containers. Each cooler containing groundwater samples for VOC analysis also contained a trip blank prepared by the laboratory for analysis.

3.4 SURFACE WATER AND SEDIMENT SAMPLING

To evaluate the extent of impacts to surface water and sediment, 11 surface water and nine sediment samples were collected in September 2003. Surface water and sediment sample locations were chosen based on the location of historical waste handling areas. This section presents detailed procedures for the collection of surface water and sediment samples. In order to avoid disturbing sediments in the water and biasing the water sample, surface water samples were collected before sediment samples. Surface scum was avoided when choosing a sample location. Surface water and sediment locations are presented in **Figure 3-9**.

3.4.1 Surface Water Sampling

Visual observations were recorded in a field notebook. Sampling was accomplished by using a dip sampler. All sampling equipment was decontaminated prior to sampling. Samples were collected in laboratory-cleaned containers provided by STL-PN. The sample containers were labeled, logged on the chain-of-custody form, and placed on ice in an insulated container for shipping. Surface water samples were shipped overnight to STL-PN for analysis. All surface water samples collected were analyzed in accordance with the work plan for the following:

- VOCs by EPA Method 8260;
- SVOCs by EPA Method 8270;
- Total Metals by EPA Method 6010;
- TPH as GRO by EPA Method 8015; and,
- TPH as DRO by EPA Method 8015.

All field documentation and chain-of-custody records for each sample were completed as specified in the QAPP. Duplicate samples were obtained at a frequency of one per twenty as required by the QAPP. All duplicate samples were clearly marked with a reference number on the sample containers and chain-of-custody forms, which correspond to the proper identification in the field notebook. Duplicate samples were submitted blind to the laboratory. Rinsate samples were collected at a frequency of one per twenty as required by the QAPP by pouring deionized water over the decontaminated equipment and collecting the water in the appropriated containers. Each cooler containing groundwater samples for VOC analysis also contained a trip blank prepared by the laboratory for analysis.

3.4.2 Sediment Sampling

Sediment samples were collected from the same locations as surface water samples. At two locations, SWS-1 and SWS-5, no water was present and a dry sediment sample was collected. Sediment samples were collected using a decontaminated stainless steel spoon. Each location was flagged and photographed. Visual observations were recorded in a field notebook. Samples were collected from water-sediment interface to a depth of no greater than approximately 12 inches. Samples were collected by pushing the sampler into the sediment at each sample location. If water was present the sample was allowed to drain, and then placed into a stainless steel mixing bowl. The sediment sample was observed to determine approximate water content, and the presence of leaves, rocks, twigs, larger roots, and other undesirable materials. All observations were recorded on the appropriate field form as presented in **Appendix C**. If the water content and/or the amount of undesirable materials appeared excessive, the sample was returned to a location downgradient of the original sampling location, and another sample was collected.
In each location, the sediment for VOC analysis was containerized as soon as possible after collection, and prior to mixing of the sample. For the VOC sample, sediment was transferred from the mixing bowl to the appropriate container as quickly as possible with as little agitation/aeration as practicable using a clean stainless steel spoon or gloved hand. VOC samples were containerized with minimal headspace. Sample collection was documented on a Surface Water/Sediment Collection Field Sheet.

After VOC sample collection the remaining sample was mixed thoroughly in the stainless steel bowl using a stainless steel spoon. All samples were mixed in a manner which limited the introduction of air into the sample as much as practicable (i.e., "stirred" not "whipped"). Larger roots, twigs, leaves, etc. were removed from the sample prior to containerizing.

Samples were collected in laboratory-cleaned containers provided by STL-PN. The sample containers were labeled, logged on the chain-of-custody form, and placed on ice in an insulated container for shipping. Sediment samples were shipped overnight to STL-PN for analysis. All sediment samples collected were analyzed in accordance with the work plan for the following:

- VOCs by EPA Method 8260;
- SVOCs by EPA Method 8270;

- Total Metals by EPA Method 6010;
- TPH as GRO by EPA Method 8015; and,
- TPH as DRO by EPA Method 8015.

All field documentation and chain-of-custody records for each sample were completed as specified in the QAPP. Duplicate samples were obtained at a frequency of one per twenty as required by the QAPP. All duplicate samples were clearly marked with a reference number on the sample containers and chain-of-custody forms, which correspond to the proper identification in the field notebook. Duplicate samples were submitted blind to the laboratory. Rinsate samples were collected at a frequency of one per twenty as required by the QAPP by pouring deionized water over the decontaminated equipment and collecting the water in the appropriated containers. Each cooler containing groundwater samples for VOC analysis also contained a trip blank prepared by the laboratory for analysis.

3.5 SEEP SURVEY

The seep survey was completed on October 23, 2003. The survey began at the Burn Pond interceptor trench and extended to the southern extent of the wastewater ponds. Seeps identified were located with a GPS device. All visual observations were recorded in a field notebook. Water samples were collected from two identified seep locations. Seep sampling locations are presented on **Figure 3-10**. Photographs of potential seep areas are presented in **Appendix B**. All sampling equipment was decontaminated prior to use. Debris in the sampling locations were removed and each seep was allowed to run clear prior to sample collection. Samples were placed in laboratory-cleaned containers provided by STL-PN. Sample containers were labeled, logged on the chain-of-custody form, and placed in an insulated container for shipping. Samples were shipped overnight to STL-PN for analysis. The cooler containing seep samples also contained a trip blank prepared by the laboratory for analysis. Each seep sample analyzed in accordance with the work plan for the following:

- VOCs by EPA Method 8260;
- SVOCs by EPA Method 8270;
- Total Metals by EPA Method 6010;
- TPH as GRO by EPA Method 8015; and,
- TPH as DRO by EPA Method 8015.

3.6 DATA REVIEW, VALIDATION AND VERIFICATION

Laboratory data packages were reviewed for compliance with the criteria specified in the QAPP. The data were reviewed for compliance with each method and the associated QA/QC procedures. The USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Organic and Inorganic

Data Review were used as a supplement to the QAPP and SW-846 guidelines for water and soil samples when appropriate. All data deliverable packages were reviewed for the following:

- correct analytical methodology and proper reporting units;
- compliance with holding times;
- surrogate recoveries within limits;
- matrix spike/matrix spike duplicate within limits;
- laboratory control samples within limits; and,
- method blanks less than reporting limits.

All field QC were reviewed for the compliance with the criteria specified in the QAPP. Rinse and trip blanks were reviewed to determine if they were less than reporting limits. Field duplicates were reviewed to determine if the relative percent difference (RPD) was within acceptable criteria.

As specified in the QAPP, the analytical data generated were reviewed in terms of assessing the overall usability quality of the entire data set. The data were validated in terms of the QA/QC limits specified in the QAPP, the analytical methodologies used, and as calculated by the laboratory. The validation of the QA/QC measures to the QA/QC limits reflects the data precision and/or accuracy.

3.7 INVESTIGATION DERIVED WASTE

Investigation derived waste generated at the site during CI activities included drilling mud, drilling fluids, drill cuttings, purge water, development water, and decontamination fluids. The drilling fluid, purge water, and development water were containerized at the well site and then discharged to the wastewater treatment system. Drill cuttings and drilling mud were collected in DOT approved 55-gallon open topped drums that will be characterized through the collection of representative samples for each waste stream. If the material is determined to be non-hazardous, the material will be placed on the ground near the location where it was generated and the drums will be re-used or recycled

All personal protective equipment (PPE) was bagged and disposed of properly.

4.0 RESULTS OF THE FIRST PHASE OF INVESTIGATION ACTIVITIES

4.1 SOIL SAMPLING

4.1.1 Soil Sampling

Soil samples were collected and analyzed from 33 soil boring locations within six study areas on September 23-26, 2003. Soil boring locations are presented in **Figure 3-1**. Soil sample results for each area were compared to the KDHE Risk-Based Standard Standards for Kansas RSK Manual (KDHE March 2003). Surface soil samples were compared to the Tier II Summary Table non-residential soil pathway standards and to non-residential soil to groundwater protection pathway standards. Subsurface soil samples were compared to the Tier II Summary Table non-residential soil to groundwater protection pathway standards. Results are presented in the following sections by area and are included in **Tables 4-1A** through **4-6B** by area. A concentration map depicting benzene, TPH as GRO, and TPH as DRO concentrations is included as **Figure 4-1**. Complete laboratory reports are included in **Appendix D**.

4.1.1.2 North Refinery - Area 1

Surface and subsurface samples were collected from three borehole locations SB1-1, SB1-2, and SB1-3 within Study Area 1. Benzene was not detected in any of the sample locations during soil sampling activities. Concentrations of toluene, ethylbenzene, and total xylenes were reported in samples collected from Area 1; however, these concentrations did not exceed Risk-Based standards (**Table 4-1A** and **Table 4-1B**).

Detected TPH as GRO concentrations ranged from 4.6 mg/kg to 110 mg/kg. TPH as DRO concentrations ranged from 2.3 mg/kg to 870 mg/kg. Reported concentrations for TPH as GRO and TPH as DRO were not above their respective Risk-Based standards of 150 mg/kg and 15,000 mg/kg.

Antimony, arsenic, barium, beryllium, cadmium, chromium, copper, lead, nickel, thallium, zinc, and mercury were detected in surface and subsurface soil sample locations (**Table 4-1A** and **Table 4-1B**). The Risk-Based standard for arsenic (5.84 mg/kg) was exceeded in all subsurface soil samples collected from Area 1. Sample SB1-2 at 0.5 foot (ft) bgs reported a concentration of chrysene above its Risk-Based standard of 7.8 mg/kg. SVOCs were below detection limits for all samples collected from Area 1, with the exception of SB1-2 at 0.5 ft bgs. Benzo(a)pyrene, benzo(b)fluoranthene and pyrene were detected below Risk-Based standards in sample SB1-2 at 0.5 ft bgs. Benzo(a)pyrene and chrysene were detected above their respective Risk-Based standards of 2,600 mg/kg and 6,400 mg/kg in sample SB1-2 at 0.5 ft bgs.

4.1.1.2 Main Refinery - Area 2

Soil samples were collected from nine borehole locations (SB2-1 through SB2-9) within Study Area 2. Concentrations of benzene were detected above the Risk-Based standard of 0.08 mg/kg in sample locations SB2-4, 6 ft bgs at 0.15 mg/kg; SB2-5, 3.5 and 6.5 ft bgs at 0.77 and 2.5 mg/kg respectively;

SB2-7, 5.5 ft bgs at 0.18 mg/kg; SB2-8, 8 ft bgs at 0.63 mg/kg; and SB2-9, 19 ft bgs at 7.9 mg/kg. Concentrations of 2-butanone, acetone, carbon disulfide, ethylbenzene, toluene, and total xylenes

were detected in soil samples collected from Area 2; however, these concentrations did not exceed Risk-Based standards (**Table 4-2A** and **Table 4-2B**).

Detected TPH as GRO concentrations ranged from 0.31 mg/kg to 2,700 mg/kg. Reported concentrations for TPH as GRO in samples SB2-8, 8 ft bgs at 2,700 mg/kg; SB2-9, 19 ft bgs at 1,500 mg/kg; SB2-7, 5.5 ft bgs at 160 mg/kg; and SB2-5, 6.5 ft bgs at 870 mg/kg were above Risk-Based standards. TPH as DRO concentrations ranged from 0.96 mg/kg to 9,300 mg/kg during the September 2003 sampling event. Reported concentrations for TPH as DRO were not above Risk-Based standards. A concentration map depicting benzene, TPH as GRO, and TPH as DRO concentrations is included as **Figure 4-1**.

Antimony, arsenic, barium, beryllium, cadmium, chromium, copper, lead, nickel, zinc, and mercury were detected in the soil sample locations (SB2-1 through SB2-9) (**Table 4-2A** and **Table 4-2B**). The Risk-Based standard for arsenic was exceeded in soil samples SB2-1, 0.5 and 3.5 ft bgs at 7.7 and 6.7 mg/kg respectively; SB2-2, 0.5 and 7 ft bgs at 6.2 and 7 mg/kg respectively; SB2-3, 0.5, 3.5, and 8.5 ft bgs at 11, 8.2, and 6.3 mg/kg respectively; SB2-4, 0.5 and 6 ft bgs at 8.6 and 6.3 mg/kg respectively; SB2-5, 0.5 and 6.5 ft bgs at 6.6 and 7 mg/kg respectively; SB2-6, 0.5 and 3.5 ft bgs at 8.8 and 11 mg/kg respectively; SB2-7, 0.5 and 3.5 ft bgs at 9.7 and 8.7 mg/kg respectively; and SB2-9, 0.5 ft bgs at 6.5 mg/kg. Various SVOCs were detected in the soil samples collected; however, sample results did not exceed the corresponding Risk-Based standard.

4.1.1.3 Wastewater Pond - Area 3

Soil samples were collected from four borehole locations (SB3-1 through SB3-4) within Study Area 3. Concentrations of benzene were above the Risk-Based standard in sample locations SB3-1, 3.5 ft bgs at 0.092 mg/kg; and SB3-2, 10.5 ft bgs at 0.29 mg/kg (**Table 4-3A** and **Table 4-3B**). Concentrations of 2-butanone, acetone, carbon disulfide, ethylbenzene, toluene and total xylenes were reported in samples collected from Area; however, Risk-Based standards were not exceeded.

Detected TPH as GRO concentrations ranged from 1.7 mg/kg to 860 mg/kg. The reported concentration for TPH as GRO was above its Risk-Based standard in sample SB3-2, 10.5 ft bgs at 860 mg/kg. TPH as DRO concentrations ranged from 1 mg/kg to 110 mg/kg. Reported concentrations for TPH as DRO were not above Risk-Based standards. A benzene, TPH as GRO and TPH as DRO concentration map is included as **Figure 4-1**.

Antimony, arsenic, barium, beryllium, cadmium, chromium, copper, lead, nickel, selenium, zinc, and mercury were detected in the soil sample locations (SB3-1 through SB3-4) (**Table 4-3A** and **Table 4-3B**). The Risk-Based standard for arsenic was exceeded in soil samples SB3-1, 0.5, 3.5 and 18 ft bgs at 7.2, 9.9, and 7.3 mg/kg respectively; SB3-3, 13 ft bgs at 6.2 mg/kg; and SB3-4, 0.5 and 3.5 ft

bgs at 11 and 7.5 mg/kg, respectively. Various SVOCs were detected in the soil samples collected; however, no samples exceeded the corresponding Risk-Based standard.

4.1.1.4 South Refinery - Area 4

Soil samples were collected from nine borehole locations (SB4-1 through SB4-9) within Study Area 4. Benzene was detected above the Risk-Based standard in sample location SB4-1, 19 ft bgs at 0.21 mg/kg (**Table 4-4A** and **Table 4-4B**). 1,1-dichloroethane, 2-butanone, acetone, ethylbenzene, toluene, and total xylenes were reported in samples collected from Area 4. These concentrations did not exceed Risk-Based standards.

Detected TPH as GRO concentrations ranged from 2.7 mg/kg to 330 mg/kg. The reported concentrations for TPH as GRO were above the Risk-Based standard in samples SB4-1, 19 ft bgs at 280 mg/kg and SB4-8, 3.5 ft bgs at 330 mg/kg. TPH as DRO concentrations ranged from 1.2 mg/kg to 710 mg/kg. Reported concentrations for TPH as DRO were not above Risk-Based standards. A benzene, TPH as GRO, and TPH as DRO concentration map is included as **Figure 4-1**.

Antimony, arsenic, barium, beryllium, cadmium, chromium, copper, lead, nickel, selenium, zinc, and mercury were detected in the soil sample locations (SB4-1 through SB4-9) (**Table 4-4A** and **Table 4-4B**). The Risk-Based standard for arsenic was exceeded in soil samples SB4-1, 3.5 ft bgs at 8.3 mg/kg; SB4-2, 0.5 ft bgs at 12 mg/kg; SB4-3, 0.5 ft bgs at 6.4 mg/kg; SB4-4, 0.5 and 3.5 ft bgs at 6.9 and 6.4 mg/kg respectively; SB4-5, 0.5 ft bgs at 7.4 mg/kg; SB4-6, 0.5 ft bgs at 6.1 mg/kg; SB4-8, 0.5 and 3.5 ft bgs at 6 and 6.5 mg/kg respectively; and SB4-9, 0.5 and 3.5 ft bgs at 11 and 6.4 mg/kg. Chrysene and diethylene glycol monobutyl ether were detected in the soil samples collected from Area 4; however, no samples exceeded the corresponding Risk-Based standard.

4.1.1.5 Tank Area #1 - Area 5

Soil samples were collected from five borehole locations (SB5-1 through SB5-5) within Study Area 5. Benzene was not detected in any sample location (**Table 4-5A** and **Table 4-5B**). Acetone and toluene were reported in samples collected from Area 6 below Risk-Based standards.

TPH as GRO was not detected in any sample collected from Area 5. TPH as DRO concentrations ranged from 1.9 mg/kg to 3.7 mg/kg. Reported concentrations for TPH as DRO were not above Risk-Based standards.

Antimony, arsenic, barium, beryllium, cadmium, chromium, copper, lead, nickel, selenium, thallium zinc, and mercury were detected in the soil sample locations (SB5-1 through SB5-5) (**Table 4-5A** and **Table 4-5B**). The Risk-Based standard for arsenic was exceeded in soil samples SB5-1, 0.5 and 3.5 ft bgs at 6.6 and 6.7 mg/kg respectively; SB5-3, 3.5 ft bgs at 13 mg/kg; SB5-4, 0.5, ft bgs at 7.5 mg/kg; and SB5-5, 0.5 and 14 ft bgs at 7.3 and 11 mg/kg, respectively. No SVOCs were detected in the soil samples collected from Area 5.

4.1.1.6 Tank Area #2 - Area 6

Soil samples were collected from three borehole locations (SB6-1 through SB6-3) within Study Area 6. Benzene was not detected in any sample location (**Table 4-6A** and **Table 4-6B**). Acetone and toluene were detected in soil samples collected from Area 6. The Risk-Based standards for acetone and toluene were not exceeded in any of these samples.

TPH as GRO was not detected in any sample collected from Area 6. TPH as DRO concentrations ranged from 1.1 mg/kg to 6.1 mg/kg. Reported concentrations for TPH as DRO were not above Risk-Based standards.

Antimony, arsenic, barium, beryllium, cadmium, chromium, copper, lead, nickel, selenium, zinc, and mercury were detected in the soil sample locations in Area 6 (**Table 4-6A** and **Table 4-6B**). The Risk-Based standard for arsenic (5.84 mg/kg) was exceeded in soil samples SB6-1, 7 ft bgs at 10 mg/kg; SB6-2, 0.5 ft bgs at 6.8 mg/kg; and SB6-3, 0.5 and 3.5 ft bgs at 6.6 and 8.4 mg/kg, respectively. Phenol was detected below its Risk-Based standard and was the only SVOC detected in soil samples collected from Area 6.

4.1.2 Site Reconnaissance

A visual site reconnaissance was completed in an effort to locate the reported buried tank cars. No visual evidence of the buried tank cars could be identified at the surface.

4.1.3 Asphalt Pit Area Investigation

Twelve test pits (TPs) were excavated during this investigation as depicted on **Figure 4-2**. Asphalt was observed at the surface and in the upper layers of the soil (1 to 1.5 feet from the surface) in eight test pits. No asphalt was detected in the soil below the 1.5-foot depth range in any of the test pits. Investigation results are summarized in **Table 4-7**.

A northern boundary was established around the pit using TP-1, TP-2, and TP-3. TP-1, TP-2, and TP-3 were excavated to bedrock (approximately 5, 9, and 9.5 feet below grade, respectively). No asphalt was observed in the test pits (TP-1, TP-2, and TP-3) just north of the former asphalt pit.

A western boundary was established around the pit using TP-4, TP-5, TP-6, TP-7, and TP-8. All western test pits encountered large boulders approximately two to four feet below grade preventing excavation to bedrock. Asphalt was observed at the surface and in the upper layers of the subsurface (1 to 1.5 feet below grade) of test pits TP-4, TP-5, TP-6, and TP-7. No asphalt was observed in TP-8, which is located approximately 230 feet to the west of the edge of the former asphalt pit.

At the southern boundary, asphalt was observed at the surface and in the upper layers of the subsurface (1 to 1.5 feet below grade) in each of the southern test pits (TP-9, TP-10, and TP-11). Bedrock was encountered in these test pits at approximately two to five feet below grade. Further investigation to the south was obstructed by previously excavated soil piles, overhead power lines, and a buried pipeline.

At the eastern boundary, asphalt was observed at the surface and in the upper layers of the subsurface (1 to 1.5 feet below grade) of TP-12. No asphalt was observed in the soil below the 1.5-foot depth range. TP-12 encountered bedrock at approximately two feet below grade. Further investigation to the east would have required excavation inside the refinery boundaries.

All test pits were backfilled with soil from the excavation and were returned to the same pit from which they were removed. GPS coordinates were recorded for each test pit and the former asphalt pit. **Figure 3-1** includes the approximate outline of the former asphalt pit and the approximate location of each test pit excavated. The presence or absence of asphalt is presented in **Figure 4-2**.

4.2 MONITORING WELL SAMPLING

Monitoring well sampling activities were performed during the week of October 6, 2003. Water level measurement data was collected from the 33 new and existing monitoring wells. Depth to water in the wells ranged from 1.45 to 27.07 feet bgs. LNAPL was detected in monitoring wells N2-6 and N6-1. Groundwater elevation data are included in **Table 4-8**. The groundwater flow direction is generally to the east at the site. The groundwater flow map for the shallow monitoring wells is included as **Figure 4-3**.

Groundwater sampling activities were performed during the week of October 6, 2003. Groundwater samples were collected and analyzed from 14 existing and 16 new monitoring wells. Samples were not collected from monitoring wells N2-6 and N6-1 as LNAPL was detected during water level measurement activities. A sample was not collected from N2-5 as a product emulsion was observed during purging activities. Results from groundwater sampling are presented in **Table 4-9**. The following is a summary of results per compound analyzed:

- Benzene was detected in 12 of the 30 monitoring wells with concentrations ranging from 0.25 ug/L to 620 ug/L. The Risk-Based standard of 5.0 ug/L for benzene was exceeded in monitoring wells N2-2, N2-3, N2-4, N3-4, W-22, W-23, W-24 and Fina_MW-38. A benzene concentration map is included as **Figure 4-4**.
- Ethylbenzene was detected in 12 of the 30 monitoring wells with concentrations ranging from 0.21 ug/L to 37 ug/L. The Risk-Based standard of 700 ug/L was not exceeded in any monitoring well.
- Toluene was detected in 14 of the 30 monitoring wells with concentrations ranging from 0.2 ug/L to 19 ug/L. The Risk-Based standard of 1,000 ug/L was not exceeded in any monitoring well.

- Total xylenes were detected in 12 of the 30 monitoring wells with concentrations ranging from 0.58 ug/L to 54 ug/L. The Risk-Based standard of 10,000 ug/L was not exceeded in any monitoring well.
- Acetone (W-01D), bromodichloromethane (N2-1), chlorobenzene (N1-1), chloroform N1-1 and N1-5), dibromochloromethane (N2-1), and methylene chloride (N4-1) were detected in five of the 30 groundwater samples collected during the October sampling event below Risk-Based standards.
- Concentrations of TPH as GRO were detected in 15 of the 30 monitoring wells with concentrations ranging from 0.018 mg/L to 7.7 mg/L. The Risk-based standard of 0.500 mg/L was exceeded in monitoring wells N2-2, N2-3, N2-4, N3-3, N3-4, N5-3, W-22, W-23, W-24, and Fina_MW-38. A TPH as GRO concentration map is included as **Figure 4-5**.
- Concentrations of TPH as DRO (reported on Table 2 as Unknown Hydrocarbons and Hydraulic Fluid Hydrocarbons) were detected in all monitoring well samples with the exception of N5-2 and W-15S with concentrations ranging from 0.032 mg/L to 9.1 mg/L. The Risk-based standard of 0.720 mg/L was exceeded in monitoring wells N2-2, N2-3, N2-4, N3-1, N3-2, N3-3, N3-4, N5-3, W-22, W-24, and Fina_MW-38. A TPH as DRO concentration map is included as **Figure 4-6**.
- Antimony was detected in eight of the 30 monitoring well samples with concentrations ranging from 0.005 mg/L to 0.011 mg/L. Concentrations of antimony were detected above the Risk-Based standard of 0.006 mg/L in monitoring wells W-08, W-15S, W-26, W-29S and W-29D.
- Arsenic was detected in 21 of the 30 monitoring wells sampled with concentrations ranging from 0.004 mg/L to 0.14 mg/L. The Risk-Based standard for arsenic of 0.01 mg/L was exceeded in monitoring wells N2-2, N2-3, N3-2, N3-3, N3-4, N4-2, N4-4, N5-1, N5-3, W-08, W-15S, W-22, W-24, W-26, W-29S, and Fina_MW-38.
- Barium was detected in all of the monitoring wells with concentrations ranging from 0.14 mg/l to 2.6 mg/L. The Risk-Based standard for barium of 2.0 mg/L was exceeded in monitoring wells N2-2 and N5-3.
- Beryllium was detected in 17 of the 30 monitoring wells with concentrations ranging from 0.001 mg/L to 0.016 mg/L. The Risk-Based standard for beryllium of 0.004 mg/L was exceeded in monitoring wells N2-2, N5-3 and W-08.
- Cadmium was detected in 11 of the 30 monitoring wells with concentrations ranging from 0.001 mg/L to 0.011 mg/L. The Risk-Based standard for cadmium of 0.005 was exceeded in monitoring wells N2-2, N5-3, and W-08.
- Chromium was detected in 25 of the 30 monitoring wells with concentrations ranging from 0.002 mg/L to 0.42 mg/L. The Risk-Based standard for chromium of 0.1 mg/L was exceeded in samples collected from monitoring wells N2-2, N3-4, N5-3, and W-08.
- Copper was detected in all monitoring wells, with the exception of W-16S, with concentrations below the Risk-Based standard of 1.3 mg/L.
- Lead was detected in all monitoring wells, with the exception of N1-1 and W-03, with concentrations ranging from 0.002 mg/L to 0.36 mg/L. The Risk-Based standard for lead of 0.015 mg/L was exceeded in N2-2, N1-3, N3-1, N3-3, N3-4, N5-2, W-01D, W-08, W-26, and W-29.

- Mercury was detected in six of the 30 monitoring wells with concentrations below the Risk-Based standard of 0.002 mg/L.
- Nickel was detected in 25 of the 30 monitoring wells with concentrations ranging from 0.003 mg/L to 0.38 mg/L. The Risk-Based standard for nickel of 0.1 mg/L was exceeded in N2-2, N5-3, and W-08.
- Selenium was detected in nine of the 30 monitoring wells with concentrations below the Risk-Based standard of 0.05 mg/L.
- Silver was detected in monitoring well N3-4 with a concentration below the Risk-Based standard of 0.1 mg/L.
- Zinc was detected in all of the monitoring wells with concentrations ranging from 0.008 mg/L to 1.1 mg/L. The Risk-Based standard for zinc of 5 mg/L was not exceeded in any monitoring well.
- 1-methylnaphtahalene, 2-methylnaphthalene, acenephthene, anthracene, benzo(a)anthracene, benzo(a)pyrene, bis(2-ethylhexyl)phthalate, chrysene, dibenzofuran, diethylphthalate, dimethylphthalate, fluoranthene, fluorene, naphthalene, phenanthrene, phenol, and pyrene were detected in several groundwater samples collected during the October sampling event below Risk-Based standards.

Complete laboratory reports are included in **Appendix D**.

4.3 SURFACE WATER AND SEDIMENT SAMPLING

Surface water and sediment sampling activities were performed on September 26 and 28, 2003. Surface water samples were collected from nine locations (SWS-2, SWS-3, SWS-4, SWS-6, SWS-7, SWS-8, SWS-9, SWS-10, and SWS-11) and sediment samples were collected from eleven locations (SWS-1 through SWS-11). The surface water and sediment sampling locations are included as **Figure 3-9**. Results from surface water and sediment sampling are presented in **Table 4-10** and **Table 4-11** respectively.

4.3.1 Surface Water Sampling Results

Benzene was detected in five of the nine sample locations (SWS-02, SWS-06, SWS-07, SWS-08, and SWS-10) ranging in concentration from 0.21 ug/L to 2.3 ug/L (**Table 4-10**). Concentrations of ethylbenzene, total xylenes, TPH as DRO, TPH as GRO, and bis(2-ethylhexyl)phthalate were detected in surface water samples (**Table 4-10**). The Risk-Based standards for VOCs, TPH as GRO, TPH as DRO, and SVOCs were not exceeded in any of the surface water samples.

Barium was detected in all nine surface water sample locations (SWS-2, SWS-3, SWS-4, SWS-6, SWS-7, SWS-8, SWS-9, SWS-10, and SWS-11) ranging from 0.022 mg/L to 0.21 mg/L (**Table 4-10**). The Risk-Based standard for barium of 2.0 mg/L was not exceeded in any of these sample locations. Lead, arsenic, and chromium were detected in two surface water sample locations (SWS-10 at respective concentrations of 0.003 mg/l, 0.004 mg/l, and 0.003 mg/l, and SWS-11 at respective concentrations of 0.015 mg/l, 0.008 mg/l, and 0.005 mg/l). The Risk-Standard for lead of 0.015 mg/L

was exceeded in sample SWS-11. The Risk-Based standard for arsenic was not exceeded in these samples. Antimony was detected in two surface water sample locations (SWS-08 and SWS-11) at respective concentrations of 0.004 mg/L and 0.007 mg/L. The Risk-Standard for antimony of 0.006 mg/L was exceeded in sample SWS-11. Copper was detected in eight of the nine surface water sample locations (SWS-2, SWS-3, SWS-4, SWS-7, SWS-8, SWS-9, SWS-10, and SWS-11) at concentrations ranging from 0.001 mg/L to 0.035 mg/L. The Risk-Based standard for copper was not exceeded in any of these samples. Nickel was detected below its Risk-Based standard of 0.1 mg/l in surface water sample SWS-1 (0.01 mg/l). Selenium was detected in six surface water samples (SWS-03, SWS-04, SWS-06, SWS-09, SWS-10, and SWS-11) ranging from 0.003 mg/l to 0.005 mg/l. Zinc was detected in five surface water samples (SWS-06, SWS-07, SWS-10 and SWS-11) at concentrations ranging from 0.009 mg/l to 0.016 mg/l. The Risk-Based standards for selenium and zinc were not exceeded in any surface water samples.

Complete laboratory reports are included in **Appendix D**.

4.3.2 Sediment Sampling Results

Benzene and acetone were detected in two sample locations, SWS-10 at respective concentrations of 75 ug/kg and 24 ug/kg, and SWS-11 at respective concentrations of 29 ug/kg and 61 ug/kg (**Table 4-11**) during the sediment sampling activities. These concentrations did not exceed the Risk-Based standard. Toluene, ethylbenzene, and total xylenes were detected in one sediment sample location (SWS-11) below their Risk-Based standards. TPH as GRO was detected in two sample locations (SWS-10 and SWS-11) below its Risk-Based standard at respective concentrations of 1.1 mg/kg and 10 mg/kg. TPH as DRO was detected in ten sample locations (SWS-01, SWS-02, SWS-04, SWS-05, SWS-06, SWS-07, SWS-08, SWS-09, SWS-10 and SWS-11) at concentrations ranging from 2.5 mg/kg to 5600 mg/kg. The Risk-Based standard of 15,000 mg/kg was not exceeded in any of these samples.

Arsenic, barium, beryllium, cadmium, chromium, copper, lead, nickel, mercury and zinc were detected in eleven sample locations (SWS-1 through SWS-11) (**Table 4-11**). The Risk-Based standard for arsenic (5.84 mg/kg) was exceeded in each of these samples. The Risk-Based standards for barium, beryllium, cadmium, chromium, copper, lead, nickel, mercury, and zinc were not exceeded in any of these sample locations. Antimony and selenium were detected below their Risk-Based standard in two sampling locations (SWS-10 and SWS-11). Benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, chrysene, fluoranthene, phenanthrene, and pyrene were detected in samples collected during the September 2003 sampling event. The sediment sample collected from SWS-11 at 10,000 mg/kg exceeded the Risk-Based standard for chrysene of 6,400 ug/kg.

Complete laboratory reports are included in **Appendix D**.

4.4 SEEP SURVEY

Seep sampling activities were performed on October 30, 2003. Seep sampling locations are presented on **Figure 3-10**. Results from groundwater sampling are presented in **Table 4-12**. Concentrations of benzene, toluene, ethylbenzene, and total xylenes were detected in seep sample SS-01. Benzene was reported above its Risk-Based standard of 5.0 ug/L in this sample at 120 ug/L. Benzene, toluene, and ethylbenzene were reported in seep sample SS-02 below Risk-Based standards.

TPH as GRO and TPH as DRO were reported in both seep samples. TPH as GRO exceeded the Risk-based standard of 500 ug/L in seep sample SS-02 at 1,800 ug/L. TPH as DRO exceeded the Risk-based standard of 720 ug/L in seep sample SS-01 at 2,200 ug/L.

Antimony, arsenic, barium, and nickel were reported in seep sample SS-01. Arsenic, barium, and nickel were detected in seep sample SS-02. Concentrations of antimony (0.006 mg/L) and arsenic (0.075 mg/L) exceeded their respective Risk-Based standards of 0.006 and 0.01 mg/L in seep sample SS-01.

Phenol, benzyl alcohol, 1-methylnaphthalene, 2-methylnaphthalene, naphthalene, and phenanthrene were reported in seep sample SS-01 and concentrations of benzyl alcohol and 1-methylnaphthalene were reported in seep sample SS-02 below Risk-Based standards.

4.5 DATA REVIEW, VALIDATION AND VERIFICATION

All samples were analyzed using the correct analytical methodology and were analyzed within holding times. All data were reported using the correct method number and reporting units.

In general all samples were properly preserved. However, several samples reported high pH values upon analysis. Samples that were analyzed after the seventh day when pH values were high were N coded as estimated data. Coded data is presented on the attached tables.

Most surrogate recoveries were within laboratory defined QC limits for the method. When surrogate recoveries were high the reported results for the sample were Q coded as estimated data. Where surrogate recoveries were reported low the reporting limits and reported results were K coded as estimated data. If surrogates were outside limits due to dilution the data was not coded. Coded data is presented on the attached tables.

Accuracy criterion was met based on matrix spike/matrix spike duplicate and laboratory control spike percent recovery calculations. However, where the matrix spike/matrix spike duplicate recoveries were reported recoveries outside limits high the reported results in the spiked sample were T coded as estimated data. If the recoveries were outside limits low or the RPD for the matrix spike/matrix spike duplicate was high the reporting limits and reported results were F coded for the spiked sample

as estimated data. Where the laboratory control sample recoveries were out low the reporting limits were L coded as estimated data for all associated samples in the batch.

In general method blanks met the acceptable criteria. Where method blanks had detectable concentrations of contaminants the data was qualified according to CLP guidelines. The procedure states that concentrations in primary samples are evaluated by comparing the reported concentration (if any) to the value of ten times the value reported in the trip blank. The CLP Data Validation Guidance states that if the reported concentration is less than ten times the value of the method blank then the data are qualified by changing the reported results to less than with an elevated reporting limit. The qualified data is included on the associated tables as non-detect with an elevated reporting limit.

Rinse blanks were collected every twenty samples. Trip blanks were submitted with every shipment of water samples to be analyzed for VOCs. Each shipment contained a trip blank as required per the QAPP. Where rinse and trip blanks reported concentrations above the reporting limits the data was qualified according to CLP guidelines. As stated in CLP Data Validation Guidelines, any type of blank including a rinse or trip blank is evaluated the same as a laboratory method blank. The procedure states that concentrations in primary samples are evaluated by comparing the reported concentration (if any) to the value of ten times the value reported in the trip blank. The CLP Data Validation Guidance states that if the reported concentration is less than ten times the value of the rinse or trip blank then the data are qualified by changing the reported results to less than with an elevated reporting limit. The qualified data is included on the associated tables as non-detect with an elevated reporting limit.

Field duplicates were collected every twenty samples. Where field duplicates reported RPD values above the acceptable limits for the method as stipulated in Table 2 of the QAPP the duplicate and associated sample were * coded as estimated data.

The completeness criterion of 90 percent was met because 100 percent of the samples were analyzed and resulted in useable data. The overall QA/QC assessment of the data, based on the data review, indicates no problems exist and that overall data precision and accuracy are acceptable.

4.6 INVESTIGATION DERIVED WASTE

Based on analytical results from soils collected at the site drill cuttings and drilling mud will be placed on the ground within sixty feet of the boring location from which it was removed.

5.0 CONCLUSIONS AND SECOND PHASE RECOMMENDATIONS

All Phase I soil and groundwater sample locations were accurately located and provide the intended delineation information. Based on historical groundwater flow directions and the results of Phase I CI investigation, groundwater flow at the site remains generally to the east toward the West Branch Walnut River. SVOC concentrations were generally not observed in either soil or groundwater samples above Risk-Based standards. Arsenic was observed above Risk-Based standards in many of the soil and sediment samples, however, the range of values is quite narrow and the degree of exceedance is small suggesting that background levels are being observed. Figures 4-1, 4-4, 4-5, and 4-6 show the locations where constituents reportedly exceed the Risk-Based standards. The following bullets present area specific conclusions derived from the Phase I investigation and recommendations for Phase II activities.

- ***North Refinery* - Area 1:** VOC and SVOC concentrations were not observed above Risk-Based standards in the soil or groundwater. Soil analysis indicated that arsenic concentrations were slightly above the Risk-Based standard in all subsurface soil samples collected from Area 1 and may represent background levels in the general area resulting from the historical exploration and production of crude oil. Concentrations of arsenic, antimony, beryllium, cadmium, and chromium in groundwater were also above Risk-Based standards in Area 1, however these exceedances were relatively minor and metals do not appear to present sufficient risk to warrant further investigation. El Paso recommends collecting two upgradient soil samples north and west of the refinery property to establish background concentration for metals in the overburden and the Walnut River Alluvium near the site

- ***Main Refinery* - Area 2:** SVOC concentrations exceeding KDHE Risk-Based standards were not observed in soil or groundwater. Concentrations of benzene, TPH as GRO, and arsenic were above Risk-Based standards in soil and groundwater, and TPH as DRO, beryllium, cadmium, and chromium were reported above Risk-Based standards in groundwater only. LNAPL was present in two monitoring wells, N2-5 and N2-6. Data from the Phase I investigation indicates that groundwater in Area 2 is impacted; however, the extent of the impact has not been determined and should be defined during the Phase II activities. Specifically, an expanded investigation is warranted upgradient of monitoring wells N2-2, N2-3, N2-5, N2-6 and MW-38 and downgradient of monitoring well N2-4 to help define the extent of potential impacts to the groundwater in Area 2.

- ***Wastewater Pond* - Area 3:** SVOC concentrations were not observed in soil or groundwater above Risk-Based standards. Soil and groundwater sampling results in Area 3 reported concentrations of benzene, TPH as GRO, and arsenic above Risk-Based standards. TPH as DRO and chromium were also detected above Risk-Based standards in the groundwater in Area 3. Similar to Area 2, additional delineation is needed to more accurately define the extent of potential impact to groundwater downgradient of

monitoring well N3-3. An additional monitoring well installation is warranted midway between N3-1 and N3-2 to further evaluate impacts to the West Branch Walnut River.

- ***South Refinery* - Area 4:** SVOCs were not observed in soil above Risk-Based standards. Concentrations of benzene, TPH as GRO, and arsenic were reported above Risk-Based standards in the soil in Area 4 Groundwater sampling results reported that VOCs, SVOCs, TPH as GRO, and TPH as DRO were below Risk-Based standards in this area. Arsenic was reported in groundwater above Risk-Based standards, but could potentially be consistent with background levels. Based on the very limited soil impact and the lack of any groundwater sample exceeding the Risk-Based standards, no further action is warranted in Area 4.

- ***Tank Area #1* - Area 5:** VOC and SVOC concentrations were not observed in soil or groundwater above Risk-Based standards in Area 5. Arsenic was the only constituent observed in soil above the Risk-Based standards. TPH as GRO, TPH as DRO, arsenic, barium, beryllium, cadmium, chromium and lead were reported in groundwater above the Risk-Based standards in the sample collected from N5-3. Based on the reported TPH as GRO and DRO levels in N5-3, it will be necessary to define the extent of potential impact to groundwater both up and downgradient of monitoring well N5-3 during the Phase II activities.

- ***Tank Area #2* - Area 6:** Analytical soil results in Area 6 were reported as below Risk-Based standards for all constituents except arsenic. Arsenic and antimony were reported above Risk-Based standards in groundwater in this area. LNAPL was also observed in monitoring well N6-1. Recommended Phase II activities will include further LNAPL delineation and the evaluation of the extent of impact to groundwater both up and downgradient of this monitoring well.

- **Asphalt Pit:** Impacts from the asphalt pit were delineated to the fullest extent possible due to various access limitations including; previously excavated soil piles; overhead power lines; a buried pipeline; and the refinery boundaries. El Paso considers the asphalt pit delineation complete and recommends no further action based on any remaining minimal risk.

- **Surface Water and Sediment Sampling:** Arsenic was the only constituent observed above Risk-Based standards in any sediment sample and may be present at background levels and will be address as in Area 1. Chrysene was detected above the Risk-Based standard in sediment sample SWS-11. Concentrations of lead and antimony were slightly above the Risk-Based standards in surface water sample SWS-11. Based on very limited impact, El Paso recommends no further investigation activities associated with the surface water or sediment.

- **West Branch Walnut River Seeps:** Samples collected from seeps along the West Branch Walnut River reported benzene, TPH as GRO, TPH as DRO, arsenic, and antimony above Risk-Based standards. To determine the possible impact to the West Branch Walnut River, El Paso recommends sampling the river water and analyzing the samples for benzene, ethylbenzene, toluene, xylenes, TPH as GRO, TPH as DRO, arsenic, barium and antimony from four locations both up and downgradient of the Phase I seep sampling locations. El Paso recommends sampling the river water on a quarterly basis to evaluate the potential impact to the river.

- **Quarterly Sampling:** In order to conform to KDHE requirements and to be consistent with the ongoing quarterly sampling program, El Paso recommends that all thirty-three monitoring wells be sampled on a quarterly basis. Any monitoring well containing LNAPL will not be sampled. Groundwater samples would be analyzed for benzene, ethylbenzene, toluene, xylenes, TPH-GRO, TPH-DRO, arsenic, antimony, barium, beryllium, cadmium, chromium and lead.

6.0 REFERENCES

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Table 4-1A
Surface Soil Analytical Results
Area 1
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 09/23/2003 thru 09/23/2003 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE DATE DEPTH (ft)	SB1-1 09/23/2003 0.50	SB1-2 09/23/2003 0.50	SB1-3 09/23/2003 0.50	KSRBSNRSGP(1)	KSRBSNRSP(2)
Starting Depth	(feet)	0.500	0.500	0.500		
Ending Depth	(feet)	0.500	0.500	0.500		
Benzo(a)anthracene	(mg/kg)	<0.47	4.4	<0.59	35	26
Benzo(a)pyrene	(mg/kg)	<0.47	**3.3**	<0.59	16	2.6
Benzo(b)fluoranthene	(mg/kg)	<0.47	1.7	<0.59	19	19
Chrysene	(mg/kg)	<0.47	**7.8**	<0.59	6.4	6.4
Pyrene	(mg/kg)	<0.47	5.7	<0.59	140	140
Hydrocarbons as GRO (C6-C10)	(mg/kg)	<7	<6.1	110		
Unknown Hydrocarbon	(mg/kg)	[3.4]	870	[2.3]		
Arsenic	(mg/kg)	**11**	7.7	**9.8**	5.84	38
Barium	(mg/kg)	320	230	220		140000
Beryllium	(mg/kg)	1.2	1.2	1.5		4100
Chromium	(mg/kg)	26	26	31		4000
Copper	(mg/kg)	25	16	19		76000
Lead	(mg/kg)	21	15	25		1000
Nickel	(mg/kg)	25	19	23		41000
Zinc	(mg/kg)	56	65	65		610000
Mercury	(mg/kg)	0.051	0.022	0.026		20

(1)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil to Groundwater Pathway
(2)KSRBSNRSP=Kansas Risk-Based Standards Non-Residential Soil Pathway

[x]=Less than Reporting Limit **x**=Greater than Action Level —=Not analyzed

Table 4-1B
Subsurface Soil Analytical Results
Area 1
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 09/23/2003 thru 09/23/2003 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE DATE DEPTH (ft)	SB1-1 09/23/2003 3.50	SB1-2 09/23/2003 3.50	SB1-2 09/23/2003 6.00	SB1-3 09/23/2003 3.50	SB1-3 09/23/2003 8.50	KSRBSNRSGP (1)	KSRBSNRSP (2)
Starting Depth	(feet)	3.500	3.500	6.000	3.500	8.500		
Ending Depth	(feet)	3.500	3.500	6.000	3.500	8.500		
Acetone	(mg/kg)	<0.032	<0.032	[0.0081]	0.05	[0.026]	3.8	6200
Carbon disulfide	(mg/kg)	<0.0064	<0.0065	<0.0072	[0.0012]	0.012	0.45	950
Toluene	(mg/kg)	<0.0064	[0.0019]	<0.0072	[0.0021]	0.016	40	1000
Xylenes, Total	(mg/kg)	<0.013	<0.013	<0.014	0.015	0.02	700	700
Unknown Hydrocarbon	(mg/kg)	[1.4]	[0.98]	[1.7]	630	31		
Arsenic	(mg/kg)	**7.2**	5.1	**19**	**6**	**7.7**	5.84	38
Barium	(mg/kg)	230	180	410	130	190		140000
Beryllium	(mg/kg)	1.3	1.1	1.5	1	1.1		4100
Chromium	(mg/kg)	30	23	40	23	25		4000
Copper	(mg/kg)	21	13	25	13	19		76000
Lead	(mg/kg)	16	13	19	17	23		1000
Nickel	(mg/kg)	31	16	39	15	18		41000
Zinc	(mg/kg)	76	49	66	48	54		610000
Mercury	(mg/kg)	0.033	0.021	0.042	0.022	0.038		20

(1)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil to Groundwater Pathway
(2)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil Pathway

[x]=Less than Reporting Limit **x**=Greater than Action Level ---=Not analyzed

Table 4-2A
Surface Soil Analytical Results
Area 2
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 09/23/2003 thru 09/25/2003 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE DATE DEPTH (ft)	SB2-1 09/23/2003 0.50	SB2-2 09/25/2003 0.50	SB2-3 09/25/2003 0.50	SB2-4 09/25/2003 0.50	KSRBSNRSGP(1)	KSRBSNRSP(2)
Starting Depth	(feet)	0.500	0.500	0.500	0.500		
Ending Depth	(feet)	0.500	0.500	0.500	0.500		
2-Methylnapthalene	(mg/kg)	<0.22	0.43	<2.7	<0.42		
Benzo(a)anthracene	(mg/kg)	1.8	[0.23]	<3.8	[0.12]	35	26
Chrysene	(mg/kg)	3	[0.41]	<3.8	[0.19]	6.4	6.4
Fluoranthene	(mg/kg)	[0.32]	[0.11]	<3.2	0.45	220	220
Phenanthrene	(mg/kg)	1.7	0.85	<2.5	0.51		
Pyrene	(mg/kg)	2.6	[0.35]	<4.1	[0.35]	140	140
Unknown Hydrocarbon	(mg/kg)	190	170	300	9.5		
Arsenic	(mg/kg)	7.7	**6.2**	**11**	**8.6**	5.84	38
Barium	(mg/kg)	170	170	930	180		140000
Beryllium	(mg/kg)	1	1.2	1.2	0.93		4100
Chromium	(mg/kg)	23	22	32	19		4000
Copper	(mg/kg)	15	15	45	42		76000
Lead	(mg/kg)	19	16	68	190		1000
Nickel	(mg/kg)	18	17	25	16		41000
Zinc	(mg/kg)	47	43	85	67T		610000
Mercury	(mg/kg)	0.029	0.017	0.08	0.31		20

T=Estimated due to MS/MSD high % recovery
(1)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil to Groundwater Pathway
(2)KSRBSNRSP=Kansas Risk-Based Standards Non-Residential Soil Pathway

[x]=Less than Reporting Limit x=Greater than Action Level The following qualifier(s) exist: Expert: T —=Not analyzed

Table 4-2A
Surface Soil Analytical Results
Area 2
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 09/23/2003 thru 09/25/2003 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE DATE DEPTH (ft)	SB2-5 09/25/2003 0.50	SB2-6 09/25/2003 0.50	SB2-7 09/25/2003 0.50	SB2-8 09/25/2003 0.50	KSRBSNRSGP(1)	KSRBSNRSP(2)
Starting Depth	(feet)	0.500	0.500	0.500	0.500		
Ending Depth	(feet)	0.500	0.500	0.500	0.500		
2-Methylnapthalene	(mg/kg)	<0.44	<0.4	[0.14]	<0.26		
Benzo(a)anthracene	(mg/kg)	<0.44	<0.4	<0.41	<0.36	35	26
Chrysene	(mg/kg)	<0.44	[0.089]	[0.094]	<0.37	6.4	6.4
Fluoranthene	(mg/kg)	<0.44	[0.08]	<0.41	<0.31	220	220
Phenanthrene	(mg/kg)	<0.44	[0.071]	[0.15]	<0.24		
Pyrene	(mg/kg)	<0.44	[0.091]	[0.21]	<0.39	140	140
Unknown Hydrocarbon	(mg/kg)	38	30	120K	120		
Arsenic	(mg/kg)	**6.6**	**8.8**	**9.7**	5.2	5.84	38
Barium	(mg/kg)	120	140	190	180		140000
Beryllium	(mg/kg)	0.72	0.81	0.74	0.73		4100
Chromium	(mg/kg)	26	27	93	14		4000
Copper	(mg/kg)	20	41	100	11		76000
Lead	(mg/kg)	160	210	700	230		1000
Nickel	(mg/kg)	14	17	41	11		41000
Zinc	(mg/kg)	60	93	130	41		610000
Mercury	(mg/kg)	0.11	1.2	0.62	0.031		20

K=Estimated due to low surrogate recovery
(1)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil to Groundwater Pathway
(2)KSRBSNRSP=Kansas Risk-Based Standards Non-Residential Soil Pathway

[x]=Less than Reporting Limit **x**=Greater than Action Level The following qualifier(s) exist: Expert: K ---=Not analyzed

Table 4-2A
Surface Soil Analytical Results
Area 2
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 09/23/2003 thru 09/25/2003 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE DATE DEPTH (ft)	SB2-9 09/25/2003 0.50	KSRBSNRSGP(1)	KSRBSNRSP(2)
Starting Depth	(feet)	0.500		
Ending Depth	(feet)	0.500		
2-Methylnapthalene	(mg/kg)	<0.42		
Benzo(a)anthracene	(mg/kg)	<0.42	35	26
Chrysene	(mg/kg)	<0.42	6.4	6.4
Fluoranthene	(mg/kg)	<0.42	220	220
Phenanthrene	(mg/kg)	<0.42		
Pyrene	(mg/kg)	<0.42	140	140
Unknown Hydrocarbon	(mg/kg)	10*		
Arsenic	(mg/kg)	**6.5**	5.84	38
Barium	(mg/kg)	150		140000
Beryllium	(mg/kg)	1.1		4100
Chromium	(mg/kg)	22		4000
Copper	(mg/kg)	16		76000
Lead	(mg/kg)	48*		1000
Nickel	(mg/kg)	16		41000
Zinc	(mg/kg)	60		610000
Mercury	(mg/kg)	0.043*		20

*=Estimated due to field duplicate RPD outside of limits
(1)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil to Groundwater Pathway
(2)KSRBSNRSP=Kansas Risk-Based Standards Non-Residential Soil Pathway

x=Greater than Action Level The following qualifier(s) exist: Expert: *
—=Not analyzed

Table 4-2B
Subsurface Soil Analytical Results
Area 2
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 09/23/2003 thru 09/25/2003 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE DATE DEPTH (ft)	SB2-1 09/23/2003 3.50	SB2-2 09/25/2003 3.50	SB2-2 09/25/2003 7.00	SB2-3 09/25/2003 3.50	KSRBSNRSGP (1)	KSRBSNRSP (2)
Starting Depth	(feet)	3.500	3.500	7.000	3.500		
Ending Depth	(feet)	3.500	3.500	7.000	3.500		
Acetone	(mg/kg)	[0.032]	<0.032	0.039	<0.032	3.8	6200
Benzene	(mg/kg)	<0.007	<0.0065	<0.0065	<0.0064	0.08	17
Ethylbenzene	(mg/kg)	<0.007	[0.0025]	0.008	<0.0064	55	650
Toluene	(mg/kg)	<0.007	<0.0065	0.0075	<0.0064	40	1000
Xylenes, Total	(mg/kg)	<0.014	[0.0088]	0.056	<0.013	700	700
Hydrocarbons as GRO (C6-C10)	(mg/kg)	<6.9	20	[2.4]	[0.31]		
Unknown Hydrocarbon	(mg/kg)	<3.5	510	400	93		
Arsenic	(mg/kg)	**6.7**	5.4	**7**	**8.2**	5.84	38
Barium	(mg/kg)	140	150	240	230		140000
Beryllium	(mg/kg)	1.2	0.97	1.3	1.1		4100
Cadmium	(mg/kg)	[0.19]	[0.22]	[0.32]	[0.56]		1000
Chromium	(mg/kg)	26	19	26	24		4000
Copper	(mg/kg)	14	12	15	66		76000
Lead	(mg/kg)	15	13	15	160		1000
Nickel	(mg/kg)	22	14	24	21		41000
Zinc	(mg/kg)	56	38	52	86		610000
Mercury	(mg/kg)	0.023	0.017	0.029	0.072		20

(1)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil to Groundwater Pathway
(2)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil Pathway

[x]=Less than Reporting Limit x=Greater than Action Level ---=Not analyzed

Table 4-2B
Subsurface Soil Analytical Results
Area 2
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 09/23/2003 thru 09/25/2003 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE DATE DEPTH (ft)	SB2-3 09/25/2003 8.50	SB2-4 09/25/2003 3.50	SB2-4 09/25/2003 6.00	SB2-5 09/25/2003 3.50	KSRBSNRSGP (1)	KSRBSNRSP (2)
Starting Depth	(feet)	8.500	3.500	6.000	3.500		
Ending Depth	(feet)	8.500	3.500	6.000	3.500		
Acetone	(mg/kg)	[0.025]	<0.031	0.19	<1.6	3.8	6200
Benzene	(mg/kg)	<0.0062	<0.0062	**0.15**	**0.77**	0.08	17
Ethylbenzene	(mg/kg)	<0.0062	<0.0062	0.71	0.73	55	650
Toluene	(mg/kg)	<0.0062	[0.0037]	[0.012]	[0.13]	40	1000
Xylenes, Total	(mg/kg)	<0.012	[0.0026]	0.66	1.4	700	700
Hydrocarbons as GRO (C6-C10)	(mg/kg)	[0.9]	[2.1]	30	91		
Unknown Hydrocarbon	(mg/kg)	4.1	4.8	1500	89		
Arsenic	(mg/kg)	**6.3**	5.8	**6.3**	4.5	5.84	38
Barium	(mg/kg)	280	170	380	310		140000
Beryllium	(mg/kg)	1.2	1	1.3	1.1		4100
Cadmium	(mg/kg)	[0.28]	[0.25]	[0.19]	[0.15]		1000
Chromium	(mg/kg)	24	21	27	21		4000
Copper	(mg/kg)	15	13	13	15		76000
Lead	(mg/kg)	15	24	18	14		1000
Nickel	(mg/kg)	18	15	28	16		41000
Zinc	(mg/kg)	50	47	51	48		610000
Mercury	(mg/kg)	0.02	0.038	0.02	0.018		20

(1)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil to Groundwater Pathway
(2)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil Pathway

[x]=Less than Reporting Limit **x**=Greater than Action Level ---=Not analyzed

Table 4-2B
Subsurface Soil Analytical Results
Area 2
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 09/23/2003 thru 09/25/2003 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE DATE DEPTH (ft)	SB2-5 09/25/2003 6.50	SB2-6 09/25/2003 3.50	SB2-7 09/25/2003 3.50	SB2-7 09/25/2003 5.50	KSRBSNRSGP (1)	KSRBSNRSP (2)
Starting Depth	(feet)	6.500	3.500	3.500	5.500		
Ending Depth	(feet)	6.500	3.500	3.500	5.500		
Acetone	(mg/kg)	<1.6	<0.029	<0.16	[0.23]	3.8	6200
Benzene	(mg/kg)	**2.5**	<0.0058	[0.027]*	**[0.18]**	0.08	17
Ethylbenzene	(mg/kg)	18	<0.0058	0.49*	1.9	55	650
Toluene	(mg/kg)	2.9	<0.0058	0.64*	2.8	40	1000
Xylenes, Total	(mg/kg)	26	<0.012	3.7	10	700	700
Hydrocarbons as GRO (C6-C10)	(mg/kg)	870	<5.8	140Q	160		
Unknown Hydrocarbon	(mg/kg)	74	8.9	13*Q	9300		
Arsenic	(mg/kg)	**7**	**11**	**8.7**	4.8	5.84	38
Barium	(mg/kg)	240	91	110	140		140000
Beryllium	(mg/kg)	1.3	[0.43]	1.1	0.88		4100
Cadmium	(mg/kg)	[0.48]	1.3	[0.22]*	[0.46]		1000
Chromium	(mg/kg)	24	13	20	16		4000
Copper	(mg/kg)	15	4.3	13	15		76000
Lead	(mg/kg)	19	**11**	73*	260		1000
Nickel	(mg/kg)	41	12	17	15		41000
Zinc	(mg/kg)	50	94	65	100		610000
Mercury	(mg/kg)	0.014	[0.0078]	0.074*	0.14		20

*=Estimated due to field duplicate RPD outside of limits
Q=Estimated due to surrogate recovery outside of limits
(1)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil to Groundwater Pathway
(2)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil Pathway

[x]=Less than Reporting Limit **x**=Greater than Action Level The following qualifier(s) exist: Expert: *, Q ---=Not analyzed

Table 4-2B
Subsurface Soil Analytical Results
Area 2
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 09/23/2003 thru 09/25/2003 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE DATE DEPTH (ft)	SB2-8 09/25/2003 3.50	SB2-8 09/25/2003 8.00	SB2-9 09/25/2003 3.50	SB2-9 09/25/2003 19.00	KSRBSNRSGP (1)	KSRBSNRSP (2)
Starting Depth	(feet)	3.500	8.000	3.500	19.000		
Ending Depth	(feet)	3.500	8.000	3.500	19.000		
Acetone	(mg/kg)	<1.5	<1.6	[0.025]*	<3.4	3.8	6200
Benzene	(mg/kg)	<0.3	**0.63**	0.038*	**7.9**	0.08	17
Ethylbenzene	(mg/kg)	<0.3	[0.17]	0.0065	17	55	650
Toluene	(mg/kg)	<0.3	[0.15]	[0.0016]	4	40	1000
Xylenes, Total	(mg/kg)	<0.61	1.2	[0.0026]	47	700	700
Hydrocarbons as GRO (C6-C10)	(mg/kg)	91	2700	[1.9]*	1500		
Unknown Hydrocarbon	(mg/kg)	290	2300	[0.96]*	110		
Arsenic	(mg/kg)	5	4	3.8	3.6	5.84	38
Barium	(mg/kg)	160	150	220*	110		140000
Beryllium	(mg/kg)	1.1	0.91	1.2	0.78		4100
Cadmium	(mg/kg)	[0.13]	[0.19]	[0.12]	[0.23]		1000
Chromium	(mg/kg)	21	17	22	14		4000
Copper	(mg/kg)	12	10	12	11		76000
Lead	(mg/kg)	12	10	13	13		1000
Nickel	(mg/kg)	18	17	17	15		41000
Zinc	(mg/kg)	44	35	45	42		610000
Mercury	(mg/kg)	0.016	[0.0067]	0.019	0.007		20

*=Estimated due to field duplicate RPD outside of limits

(1)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil to Groundwater Pathway

(2)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil Pathway

[x]=Less than Reporting Limit x=Greater than Action Level The following qualifier(s) exist: Expert: * ---=Not analyzed

Table 4-3A
Surface Soil Analytical Results
Area 3
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 09/23/2003 thru 09/25/2003 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE DATE DEPTH (ft)	SB3-1 09/25/2003 0.50	SB3-2 09/23/2003 0.50	SB3-3 09/23/2003 0.50	SB3-4 09/25/2003 0.50	KSRBSNRSGP(1)	KSRBSNRSP(2)
Starting Depth	(feet)	0.500	0.500	0.500	0.500		
Ending Depth	(feet)	0.500	0.500	0.500	0.500		
Bis(2-ethylhexyl)phthalate(BEHP)	(mg/kg)	0.88	<0.41	<0.44	<4.4	51000	1400
Unknown Hydrocarbon	(mg/kg)	110	[1]	[1.7]	180		
Arsenic	(mg/kg)	**7.2**	4.9	4.8	**11**	5.84	38
Barium	(mg/kg)	160	140	130	150		140000
Beryllium	(mg/kg)	0.83	0.73	0.66	0.69		4100
Chromium	(mg/kg)	110	16	14	190		4000
Copper	(mg/kg)	89	10	11	130		76000
Lead	(mg/kg)	280	15	20	95		1000
Nickel	(mg/kg)	26	12	12	27		41000
Zinc	(mg/kg)	160	37	38	170		610000
Mercury	(mg/kg)	0.46	0.015	0.023	0.34		20

(1)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil to Groundwater Pathway
(2)KSRBSNRSP=Kansas Risk-Based Standards Non-Residential Soil Pathway

[x]=Less than Reporting Limit x=Greater than Action Level ---=Not analyzed

Table 4-3B
Subsurface Soil Analytical Results
Area 3
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 09/23/2003 thru 09/25/2003 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE DATE DEPTH (ft)	SB3-1 09/25/2003 3.50	SB3-1 09/25/2003 18.00	SB3-2 09/23/2003 10.50	SB3-2 09/23/2003 3.50	KSRBSNRSGP (1)	KSRBSNRSP (2)
Starting Depth	(feet)	3.500	18.000	10.500	3.500		
Ending Depth	(feet)	3.500	18.000	10.500	3.500		
Benzene	(mg/kg)	**[0.092]**	<0.0074	**0.29**	<0.0065	0.08	7
Ethylbenzene	(mg/kg)	0.44	<0.0074	0.04	<0.0065	55	650
Toluene	(mg/kg)	[0.2]	[0.0019]	0.06	<0.0065	40	1000
Xylenes, Total	(mg/kg)	1.2	<0.015	0.6	<0.013	700	700
Hydrocarbons as GRO (C6-C10)	(mg/kg)	40	<7.5	860	<6.5		
Unknown Hydrocarbon	(mg/kg)	45	[1.5]	57	<3.3		
Arsenic	(mg/kg)	**9.9**	**7.3**	3.8	3.3	5.84	38
Barium	(mg/kg)	110	470	150	170		140000
Beryllium	(mg/kg)	0.6	0.9	0.71	0.75		4100
Cadmium	(mg/kg)	[0.86]	2.7	[0.22]	[0.28]		1000
Chromium	(mg/kg)	85	27	16	17		4000
Copper	(mg/kg)	89	18	12	12		76000
Lead	(mg/kg)	190	14	10	11		1000
Nickel	(mg/kg)	29	55	13	14		41000
Zinc	(mg/kg)	160	120	42	42		610000
Mercury	(mg/kg)	1.2	0.021	[0.0092]	[0.0089]		20

(1)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil to Groundwater Pathway
(2)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil Pathway

[x]=Less than Reporting Limit **x**=Greater than Action Level ---=Not analyzed

Table 4-3B
Subsurface Soil Analytical Results
Area 3
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 09/23/2003 thru 09/25/2003 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE DATE DEPTH (ft)	SB3-3 09/23/2003 3.50	SB3-3 09/23/2003 13.00	SB3-4 09/25/2003 3.50	SB3-4 09/25/2003 17.00	KSRBSNRSGP (1)	KSRBSNRSP (2)
Starting Depth	(feet)	3.500	13.000	3.500	17.000		
Ending Depth	(feet)	3.500	13.000	3.500	17.000		
Benzene	(mg/kg)	<0.009	<0.0065	<0.0059	<0.0068	0.08	17
Ethylbenzene	(mg/kg)	<0.009	<0.0065	<0.0059	<0.0068	55	650
Toluene	(mg/kg)	[0.0038]	<0.0065	<0.0059	[0.0014]	40	1000
Xylenes, Total	(mg/kg)	<0.018	<0.013	<0.012	<0.014	700	700
Hydrocarbons as GRO (C6-C10)	(mg/kg)	<8.9	<6.5	[1.7]	<6.8		
Unknown Hydrocarbon	(mg/kg)	5.8	3.4	87	[2.2]		
Arsenic	(mg/kg)	5.6	6.2	7.5	4.5	5.84	38
Barium	(mg/kg)	200	340	150	96		140000
Beryllium	(mg/kg)	0.89	0.67	0.78	0.77		4100
Cadmium	(mg/kg)	[0.24]	[0.45]	[0.51]	<1.1		1000
Chromium	(mg/kg)	20	15	67	16		4000
Copper	(mg/kg)	12	8.5	38	8.8		76000
Lead	(mg/kg)	15	20	89	10		1000
Nickel	(mg/kg)	16	17	22	12		41000
Zinc	(mg/kg)	44	30	110	38		610000
Mercury	(mg/kg)	[0.011]	[0.0073]	0.05	[0.0058]		20

(1)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil to Groundwater Pathway
(2)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil Pathway

[x]=Less than Reporting Limit x=Greater than Action Level ---=Not analyzed

Table 4-4A
Surface Soil Analytical Results
Area 4
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 09/24/2003 thru 09/26/2003 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE DATE DEPTH (ft)	SB4-1 09/24/2003 0.50	SB4-2 09/24/2003 0.50	SB4-3 09/24/2003 0.50	SB4-4 09/24/2003 0.50	KSRBSNRSGP(1)	KSRBSNRSP(2)
Starting Depth	(feet)	0.500	0.500	0.500	0.500		
Ending Depth	(feet)	0.500	0.500	0.500	0.500		
Diethylene Glycol Monobutyl Ether	(mg/kg)	<0.48	2.7	<0.44	<0.43		
Unknown Hydrocarbon	(mg/kg)	20	7.1	5	5.5		
Arsenic	(mg/kg)	5.7	**12**	**6.4**	**6.9**	5.84	38
Barium	(mg/kg)	150	130	140	170		140000
Beryllium	(mg/kg)	0.94	1.6	1	1.2		4100
Chromium	(mg/kg)	21	34	23	27		4000
Copper	(mg/kg)	27	30	13	17		76000
Lead	(mg/kg)	120	30	14	14		1000
Nickel	(mg/kg)	17	42	16	20		41000
Zinc	(mg/kg)	56	47	42	53		610000
Mercury	(mg/kg)	0.047	0.036	0.015	0.023		20

(1)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil to Groundwater Pathway
(2)KSRBSNRSP=Kansas Risk-Based Standards Non-Residential Soil Pathway

x=Greater than Action Level ---=Not analyzed

Table 4-4A
Surface Soil Analytical Results
Area 4
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 09/24/2003 thru 09/26/2003 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE	SB4-5	SB4-6	SB4-7	SB4-8		
	DATE	09/24/2003	09/24/2003	09/24/2003	09/26/2003		
	DEPTH (ft)	0.50	0.50	0.50	0.50	KSRBSNRSGP(1)	KSRBSNRSP(2)
Starting Depth	(feet)	0.500	0.500	0.500	0.500		
Ending Depth	(feet)	0.500	0.500	0.500	0.500		
Diethylene Glycol Monobutyl Ether	(mg/kg)	<0.46	<0.44	<0.41	<0.44		
Unknown Hydrocarbon	(mg/kg)	4.3	7.9	[2.3]	9.1		
Arsenic	(mg/kg)	**7.4**	**6.1**	5.3	**6**	5.84	38
Barium	(mg/kg)	130	170	260	120		140000
Beryllium	(mg/kg)	1	1.1	0.95	0.94		4100
Chromium	(mg/kg)	24	47	21	19		4000
Copper	(mg/kg)	15	16	17	13		76000
Lead	(mg/kg)	19	26	24	19		1000
Nickel	(mg/kg)	20	20	20	13		41000
Zinc	(mg/kg)	49	100	83	39		610000
Mercury	(mg/kg)	0.024	0.017	0.027	0.024		20

(1)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil to Groundwater Pathway
(2)KSRBSNRSP=Kansas Risk-Based Standards Non-Residential Soil Pathway

[x]=Less than Reporting Limit **x**=Greater than Action Level —=Not analyzed

Table 4-4A
Surface Soil Analytical Results
Area 4
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 09/24/2003 thru 09/26/2003 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE	SB4-9	KSRBSNRSGP(1)	KSRBSNRSP(2)
	DATE	09/24/2003		
	DEPTH (ft)	0.50		
Starting Depth	(feet)	0.500		
Ending Depth	(feet)	0.500		
Diethylene Glycol Monobutyl Ether	(mg/kg)	<0.11		
Unknown Hydrocarbon	(mg/kg)	190		
Arsenic	(mg/kg)	**11**	5.84	38
Barium	(mg/kg)	150		140000
Beryllium	(mg/kg)	1.1		4100
Chromium	(mg/kg)	24		4000
Copper	(mg/kg)	25		76000
Lead	(mg/kg)	68		1000
Nickel	(mg/kg)	19		41000
Zinc	(mg/kg)	53		610000
Mercury	(mg/kg)	0.035		20

(1)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil to Groundwater Pathway
(2)KSRBSNRSP=Kansas Risk-Based Standards Non-Residential Soil Pathway

x=Greater than Action Level ---=Not analyzed

Table 4-4B
Subsurface Soil Analytical Results
Area 4
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 09/24/2003 thru 09/26/2003 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE DATE DEPTH (ft)	SB4-1 09/24/2003 3.50	SB4-1 09/24/2003 19.00	SB4-2 09/24/2003 3.50	SB4-2 09/24/2003 13.00	KSRBSNRSGP (1)	KSRBSNRSP (2)
Starting Depth	(feet)	3.500	19.000	3.500	13.000		
Ending Depth	(feet)	3.500	19.000	3.500	13.000		
Acetone	(mg/kg)	<0.032	<0.075	[0.0068]	0.076	3.8	6200
Benzene	(mg/kg)	<0.0065	**0.21**	[0.00092]	[0.0053]	0.08	17
Ethylbenzene	(mg/kg)	<0.0065	1.5	<0.0062	[0.0025]	55	650
Toluene	(mg/kg)	<0.0065	0.032	<0.0062	[0.0011]	40	1000
Xylenes, Total	(mg/kg)	<0.013	0.27	<0.012	<0.014	700	700
Hydrocarbons as GRO (C6-C10)	(mg/kg)	[0.32]	280	<6.2	[0.63]		
Unknown Hydrocarbon	(mg/kg)	710	380	[2.8]	<3.5		
Arsenic	(mg/kg)	**8.3**	5.3	5.2	2	5.84	38
Barium	(mg/kg)	150	76	130	100		140000
Beryllium	(mg/kg)	0.99	0.78	0.98	[0.58]		4100
Chromium	(mg/kg)	23	15	19	12		4000
Copper	(mg/kg)	39	13	13	7.6		76000
Lead	(mg/kg)	49	8.7	12	8.7		1000
Nickel	(mg/kg)	15	18	16	12		41000
Zinc	(mg/kg)	61	98	56	51		610000
Mercury	(mg/kg)	0.25	0.023	0.022	<0.011		20

(1)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil to Groundwater Pathway
(2)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil Pathway

[x]=Less than Reporting Limit **x**=Greater than Action Level —=Not analyzed

Table 4-4B
Subsurface Soil Analytical Results
Area 4
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 09/24/2003 thru 09/26/2003 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE DATE DEPTH (ft)	SB4-3 09/24/2003 3.50	SB4-3 09/24/2003 13.50	SB4-4 09/24/2003 3.50	SB4-5 09/24/2003 3.50	KSRBSNRSGP (1)	KSRBSNRSP (2)
Starting Depth	(feet)	3.500	13.500	3.500	3.500		
Ending Depth	(feet)	3.500	13.500	3.500	3.500		
Acetone	(mg/kg)	<0.03	[0.0096]	<0.034	<0.032	3.8	6200
Benzene	(mg/kg)	<0.0059	<0.0068	<0.0068	<0.0064	0.08	17
Ethylbenzene	(mg/kg)	<0.0059	<0.0068	<0.0068	<0.0064	55	650
Toluene	(mg/kg)	<0.0059	[0.0012]	<0.0068	[0.0011]	40	1000
Xylenes, Total	(mg/kg)	<0.012	<0.014	<0.014	<0.013	700	700
Hydrocarbons as GRO (C6-C10)	(mg/kg)	<5.9	<6.8	[0.4]	<6.4		
Unknown Hydrocarbon	(mg/kg)	[2]	<3.5	12	[1.2]		
Arsenic	(mg/kg)	4.5	3.3	6.4	5.8	5.84	38
Barium	(mg/kg)	75	81	250	58		140000
Beryllium	(mg/kg)	0.94	0.91	1.2	1		4100
Chromium	(mg/kg)	19	19	25	26		4000
Copper	(mg/kg)	11	12	14	12		76000
Lead	(mg/kg)	11	8.4	14	13		1000
Nickel	(mg/kg)	15	27	21	23		41000
Zinc	(mg/kg)	48	55	65	64		610000
Mercury	(mg/kg)	0.019	0.016	0.025	0.018		20

(1)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil to Groundwater Pathway
(2)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil Pathway

[x]=Less than Reporting Limit **x**=Greater than Action Level ---=Not analyzed

Table 4-4B
Subsurface Soil Analytical Results
Area 4
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 09/24/2003 thru 09/26/2003 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE DATE DEPTH (ft)	SB4-6 09/24/2003 3.50	SB4-8 09/26/2003 3.50	SB4-9 09/24/2003 3.50	KSRBSNRSGP (1)	KSRBSNRSP (2)
Starting Depth	(feet)	3.500	3.500	3.500		
Ending Depth	(feet)	3.500	3.500	3.500		
Acetone	(mg/kg)	<0.028	<1.6	<0.031	3.8	6200
Benzene	(mg/kg)	<0.0055	<0.32	<0.0062	0.08	17
Ethylbenzene	(mg/kg)	<0.0055	6	<0.0062	55	650
Toluene	(mg/kg)	<0.0055	<0.32	[0.0017]	40	1000
Xylenes, Total	(mg/kg)	<0.011	17	<0.012	700	700
Hydrocarbons as GRO (C6-C10)	(mg/kg)	[0.27]	330Q	[0.69]		
Unknown Hydrocarbon	(mg/kg)	4.7	7.7	4		
Arsenic	(mg/kg)	1.5	**6.5**	**6.4**	5.84	38
Barium	(mg/kg)	51	220	270		140000
Beryllium	(mg/kg)	[0.29]	1.3	1		4100
Chromium	(mg/kg)	9.8	28	22		4000
Copper	(mg/kg)	2.5	14	15		76000
Lead	(mg/kg)	2.2	15	14		1000
Nickel	(mg/kg)	7.7	22	18		41000
Zinc	(mg/kg)	27	59	76		610000
Mercury	(mg/kg)	[0.0054]	0.027	0.024		20

Q=Estimated due to surrogate recovery outside of limits

(1)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil to Groundwater Pathway

(2)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil Pathway

[x]=Less than Reporting Limit x=Greater than Action Level The following qualifier(s) exist: Expert: Q —=Not analyzed

Table 4-5A
Surface Soil Analytical Results
Area 5
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 09/23/2003 thru 09/24/2003 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE DATE DEPTH (ft)	SB5-1 09/23/2003 0.50	SB5-2 09/24/2003 0.50	SB5-4 09/23/2003 0.50	SB5-5 09/23/2003 0.50	KSRBSNRSGP(1)	KSRBSNRSP(2)
Starting Depth	(feet)	0.500	0.500	0.500	0.500		
Ending Depth	(feet)	0.500	0.500	0.500	0.500		
Unknown Hydrocarbon	(mg/kg)	4	<3.5	3.5	[2.3]		
Arsenic	(mg/kg)	**6.6**	5.1	**7.5**	**7.3**	5.84	38
Barium	(mg/kg)	130	57	420	170		140000
Beryllium	(mg/kg)	1.1	1.5	1.1	1.1		4100
Chromium	(mg/kg)	24	32	24	24		4000
Copper	(mg/kg)	13	26	15	15		76000
Lead	(mg/kg)	15	13	22	16		1000
Nickel	(mg/kg)	18	47	20	18		41000
Zinc	(mg/kg)	43	43	51	50		610000
Mercury	(mg/kg)	0.024	0.013	0.026	0.023		20

(1)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil to Groundwater Pathway
(2)KSRBSNRSP=Kansas Risk-Based Standards Non-Residential Soil Pathway

[x]=Less than Reporting Limit **x**=Greater than Action Level —=Not analyzed

Table 4-5B
Subsurface Soil Analytical Results
Area 5
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 09/23/2003 thru 09/24/2003 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE	SB5-1	SB5-3	SB5-4	SB5-4	SB5-5	KSRBSNRSGP (1)	KSRBSNRSP (2)
	DATE	09/23/2003	09/24/2003	09/23/2003	09/23/2003	09/23/2003		
	DEPTH (ft)	3.50	3.50	3.50	6.00	14.00		
Starting Depth	(feet)	3.500	3.500	3.500	6.000	14.000		
Ending Depth	(feet)	3.500	3.500	3.500	6.000	14.000		
Arsenic	(mg/kg)	6.7	13	5.5	1.7	11	5.84	38
Barium	(mg/kg)	60*	96	73	27	130		140000
Beryllium	(mg/kg)	1.2	1.4	1.1	[0.32]	1.1		4100
Chromium	(mg/kg)	27*	27	26	9.7	24		4000
Copper	(mg/kg)	12	18	11	3.4	25		76000
Lead	(mg/kg)	12	14	12	2.3	19		1000
Nickel	(mg/kg)	19	42	21	7.5	30		41000
Zinc	(mg/kg)	45	44	44	9.3	160		610000
Mercury	(mg/kg)	0.017	0.023	0.013	[0.0039]	0.022		20

(1)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil to Groundwater Pathway
(2)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil Pathway

[x]=Less than Reporting Limit *x*=Greater than Action Level The following qualifier(s) exist: Expert: * —=Not analyzed

Table 4-6A
Surface Soil Analytical Results
Area 6
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 09/23/2003 thru 09/23/2003 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE	SB6-1	SB6-2	SB6-3	KSRBSNRSGP(1)	KSRBSNRSP(2)
	DATE	09/23/2003	09/23/2003	09/23/2003		
	DEPTH (ft)	0.50	0.50	0.50		
Starting Depth	(feet)	0.500	0.500	0.500		
Ending Depth	(feet)	0.500	0.500	0.500		
Unknown Hydrocarbon	(mg/kg)	3.7	<3.5	6.1		
Arsenic	(mg/kg)	5.7	**6.8**	**6.6**	5.84	38
Barium	(mg/kg)	100	150	230		140000
Beryllium	(mg/kg)	0.86	1.2	1.1		4100
Chromium	(mg/kg)	19	28	23		4000
Copper	(mg/kg)	11	13	15		76000
Lead	(mg/kg)	14	20	16		1000
Nickel	(mg/kg)	14	24	19		41000
Zinc	(mg/kg)	30	48	43		610000
Mercury	(mg/kg)	0.016	0.017	0.015		20

(1)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil to Groundwater Pathway
(2)KSRBSNRSP=Kansas Risk-Based Standards Non-Residential Soil Pathway

x=Greater than Action Level —=Not analyzed

Table 4-6B
Subsurface Soil Analytical Results
Area 6
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 09/23/2003 thru 09/23/2003 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE DATE DEPTH (ft)	SB6-1 09/23/2003 3.50	SB6-1 09/23/2003 7.00	SB6-3 09/23/2003 3.50	KSRBSNRSGP (1)	KSRBSNRSP (2)
Starting Depth	(feet)	3.500	7.000	3.500		
Ending Depth	(feet)	3.500	7.000	3.500		
Unknown Hydrocarbon	(mg/kg)	[2.8]	[1.1]	4.3		
Arsenic	(mg/kg)	5.3	**10**	**8.4**	5.84	38
Barium	(mg/kg)	200	130	200		140000
Beryllium	(mg/kg)	1	1.4	1.2		4100
Chromium	(mg/kg)	20	29	26		4000
Copper	(mg/kg)	13	26	16		76000
Lead	(mg/kg)	12	18	13		1000
Nickel	(mg/kg)	17	43	22		41000
Zinc	(mg/kg)	51	55	64		610000
Mercury	(mg/kg)	0.017	0.015	0.029		20

(1)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil to Groundwater Pathway
(2)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil Pathway

[x]=Less than Reporting Limit **x**=Greater than Action Level ---=Not analyzed

Table 4-7
Asphalt Pit Investigation Results
El Dorado Refinery
El Dorado, Kansas

Test Pit ID	Depth to Bedrock (feet)	Depth to Boulders (feet)	Asphalt Observed
TP-1	5	---	No
TP-2	9.5	---	No
TP-3	9	---	No
TP-4	---	2	Yes
TP-5	---	2	Yes
TP-6	---	4	Yes
TP-7	---	4	Yes
TP-8	---	1	No
TP-9	2	---	Yes
TP-10	4	---	Yes
TP-11	5	---	Yes
TP-12	2	---	Yes

--- = Not Observed

Table
Groundwater Elevation Data
October 2003
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 10/06/2003 thru 10/06/2003 - Inclusive

GAUGING DATE	WELL ID	TOP OF CASING ELEVATION	DEPTH TO WATER	DEPTH TO LNAPL	LNAPL THICKNESS	CORRECTED DEPTH TO WATER	GROUND WATER ELEVATION	CORRECTED WATER ELEVATION	LNAPL ELEVATION
10/6/2003	FINA_MW-38	1306.26	2.89	---	0.00	NA	1,303.37	---	---
10/6/2003	N1-1	1316.25	13.69	---	0.00	NA	1,302.56	---	---
10/6/2003	N2-1	1334.30	16.83	---	0.00	NA	1,317.47	---	---
10/6/2003	N2-2	1310.32	4.52	---	0.00	NA	1,305.80	---	---
10/6/2003	N2-3	1309.42	5.82	---	0.00	NA	1,303.60	---	---
10/6/2003	N2-4	1302.80	10.20	---	0.00	NA	1,292.60	---	---
10/6/2003	N2-5	1305.19	9.20	---	0.00	NA	1,295.99	---	---
10/6/2003	N2-6	1302.16	13.46	4.44	9.02	6.24	1,288.70	1,295.92	1,297.72
10/6/2003	N3-1	1294.10	1.45	---	0.00	NA	1,292.65	---	---
10/6/2003	N3-2	1290.26	11.82	---	0.00	NA	1,278.44	---	---
10/6/2003	N3-3	1293.08	14.03	---	0.00	NA	1,279.05	---	---
10/6/2003	N3-4	1294.31	5.02	---	0.00	NA	1,289.29	---	---
10/6/2003	N4-1	1310.61	13.91	---	0.00	NA	1,296.70	---	---
10/6/2003	N4-2	1313.50	20.62	---	0.00	NA	1,292.88	---	---

Table 3
Groundwater Elevation Data
October 2003
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 10/06/2003 thru 10/06/2003 - Inclusive

GAUGING DATE	WELL ID	TOP OF CASING ELEVATION	DEPTH TO WATER	DEPTH TO LNAPL	LNAPL THICKNESS	CORRECTED DEPTH TO WATER	GROUND WATER ELEVATION	CORRECTED WATER ELEVATION	LNAPL ELEVATION
10/6/2003	N4-3	1323.34	16.80	---	0.00	NA	1,306.54	---	---
10/6/2003	N4-4	1332.25	15.57	---	0.00	NA	1,316.68	---	---
10/6/2003	N5-1	1311.20	17.87	---	0.00	NA	1,293.33	---	---
10/6/2003	N5-2	1309.77	15.48	---	0.00	NA	1,294.29	---	---
10/6/2003	N5-3	1302.43	8.65	---	0.00	NA	1,293.78	---	---
10/6/2003	N6-1	1313.84	5.77	5.74	0.03	5.75	1,308.07	1,308.09	1,308.10
10/6/2003	W-01D	1292.67	1.72	---	0.00	NA	1,290.95	---	---
10/6/2003	W-01S	1290.15	12.74	---	0.00	NA	1,277.41	---	---
10/6/2003	W-03	1305.68	13.16	---	0.00	NA	1,292.52	---	---
10/6/2003	W-08	1319.90	15.71	---	0.00	NA	1,304.19	---	---
10/6/2003	W-15D	1324.78	27.07	---	0.00	NA	1,297.71	---	---
10/6/2003	W-15S	1323.81	16.99	---	0.00	NA	1,306.82	---	---
10/6/2003	W-16S	1337.41	4.82	---	0.00	NA	1,332.59	---	---
10/6/2003	W-22	1293.94	17.17	---	0.00	NA	1,276.77	---	---

Table 3
Groundwater Elevation Data
October 2003
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 10/06/2003 thru 10/06/2003 - Inclusive

GAUGING DATE	WELL ID	TOP OF CASING ELEVATION	DEPTH TO WATER	DEPTH TO LNAPL	LNAPL THICKNESS	CORRECTED DEPTH TO WATER	GROUND WATER ELEVATION	CORRECTED WATER ELEVATION	LNAPL ELEVATION
10/6/2003	W-23	1304.88	7.12	---	0.00	NA	1,297.76	---	---
10/6/2003	W-24	1306.35	6.89	---	0.00	NA	1,299.46	---	---
10/6/2003	W-26	1298.18	4.09	---	0.00	NA	1,294.09	---	---
10/6/2003	W-29D	1340.93	17.96	---	0.00	NA	1,322.97	---	---
10/6/2003	W-29S	1341.21	14.63	---	0.00	NA	1,326.58	---	---

Table 4-9
Summary of Groundwater Analytical Results
October 2003
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 10/07/2003 thru 10/09/2003 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	FINA_MW-38 10/09/2003	N1-1 10/07/2003	N2-1 10/08/2003	N2-2 10/09/2003	N2-3 10/09/2003	KSRBSNRGP(1)
Benzene	(ug/l)	**230**	<1	<1	**11**	**620**	5
Bromodichloromethane	(ug/l)	<5	<5	1.2	<5	<25	100
Chlorobenzene	(ug/l)	<5	12	<5	<5	<25	100
Chloroform	(ug/l)	<5	[0.52]	2.3	<5	<25	100
Ethylbenzene	(ug/l)	7.6	<5	<5	35	37	700
Toluene	(ug/l)	19	<5	<5	3.8	16	1000
Xylenes, Total	(ug/l)	48	<10	<10	25	54	10000
1-Methylnaphthalene	(ug/l)	—	<10	<10	69	140	
2-methylnaphthalene	(ug/l)	—	<10	<10	91	180	
Bis(2-ethylhexyl)phthalate	(ug/l)	—	<10	<10	<10	[6.4]	400000
Naphthalene	(ug/l)	—	<10	<10	[9.9]	130	350
Phenanthrene	(ug/l)	—	<10	<10	[6.3]	12	
Hydrocarbons as GRO (C6-C10)	(ug/l)	2500	<100	<100	1400N	7700	
Hydraulic Fluid Hydrocarbons	(ug/l)	<100	<100	<100	<100	<100	
Unknown Hydrocarbon	(ug/l)	6900	170	[69]	6100	8200	
Arsenic	(mg/l)	**0.032**	<0.01	<0.01	**0.14**	**0.056**	0.01
Barium	(mg/l)	0.4	0.14	0.21	**2.6**	0.7	2.0
Beryllium	(mg/l)	<0.006	<0.006	<0.006	**0.015**	[0.003]	0.004
Cadmium	(mg/l)	<0.01	<0.01	<0.01	**0.011**	[0.001]	0.005
Chromium	(mg/l)	[0.005]	<0.01	<0.01	**0.27**	0.067	0.1
Copper	(mg/l)	[0.004]	[0.002]	[0.002]	0.28	0.042	1.3

N=Estimated due to high pH
(1)KSRBSNRGP=Kansas Risk-Based Standards Non-Residential Groundwater Pathway

[x]=Less than Reporting Limit **x**=Greater than Action Level The following qualifier(s) exist: Expert: N —=Not analyzed

Table 4-9
Summary of Groundwater Analytical Results
October 2003
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 10/07/2003 thru 10/09/2003 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	FINA_MW-38 10/09/2003	N1-1 10/07/2003	N2-1 10/08/2003	N2-2 10/09/2003	N2-3 10/09/2003	KSRBSNRGP(1)
Lead	(mg/l)	[0.008]	<0.01	[0.002]	**0.36**	**0.043**	0.015
Nickel	(mg/l)	[0.004]	<0.01	<0.01	**0.34**	0.077	0.10
Zinc	(mg/l)	[0.022]	[0.008]	[0.01]	**1**	0.35	5
Mercury	(mg/l)	<0.0002	<0.0002	<0.0002	0.00056	<0.0002	0.002

(1)KSRBSNRGP=Kansas Risk-Based Standards Non-Residential Groundwater Pathway

[x]=Less than Reporting Limit **x**=Greater than Action Level —=Not analyzed

Table 4-9
Summary of Groundwater Analytical Results
October 2003
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 10/07/2003 thru 10/09/2003 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	N2-4 10/09/2003	N3-1 10/09/2003	N3-2 10/09/2003	N3-3 10/08/2003	N3-4 10/09/2003	KSRBSNRGP(1)
Benzene	(ug/l)	**13**	<1	<1	3.7	**20**	5
Bromodichloromethane	(ug/l)	<5	<5	<5	<5	<5	100
Chlorobenzene	(ug/l)	<5	<5	<5	<5	<5	100
Chloroform	(ug/l)	<5	<5	<5	<5	<5	100
Ethylbenzene	(ug/l)	[0.71]	<5	[0.29]	[0.6]	[0.26]	700
Toluene	(ug/l)	3.1	<5	[0.86]	<5	[0.85]	1000
Xylenes, Total	(ug/l)	10	<10	[2.6]	[1.3]	[1.5]	10000
1-Methylnaphthalene	(ug/l)	<10	<10	<10	20	[4.5]	
2-methylnaphthalene	(ug/l)	<10	<10	<10	<10	[1.3]	
Bis(2-ethylhexyl)phthalate	(ug/l)	<10	11*	<10	[0.86]	<10	400000
Naphthalene	(ug/l)	<10	<10	<10	<10	[1.4]	350
Phenanthrene	(ug/l)	<10	<10	<10	[1.2]	<10	
Hydrocarbons as GRO (C6-C10)	(ug/l)	500	220Q	210Q	3300	1700Q	
Hydraulic Fluid Hydrocarbons	(ug/l)	<100	<100	<100	<100	<100	
Unknown Hydrocarbon	(ug/l)	1100	1300*	1800	5500	9100	
Arsenic	(mg/l)	<0.01	<0.01	**0.045**	**0.048**	**0.092**	0.01
Barium	(mg/l)	0.48	0.21	0.59	1.3	0.44	2.0
Beryllium	(mg/l)	<0.006	<0.006	[0.001]	[0.002]	[0.003]	0.004
Cadmium	(mg/l)	<0.01	[0.002]	[0.003]	[0.001]	[0.002]	0.005
Chromium	(mg/l)	[0.004]	0.01	0.017	0.036	**0.1**	0.1
Copper	(mg/l)	[0.003]	[0.009]	[0.009]	[0.019]	0.046	1.3

Q=Estimated due to surrogate recovery outside of limits
(1)KSRBSNRGP=Kansas Risk-Based Standards Non-Residential Groundwater Pathway

[x]=Less than Reporting Limit **x**=Greater than Action Level The following qualifier(s) exist: Expert: *, Q —=Not analyzed

Table 4-9
Summary of Groundwater Analytical Results
October 2003
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 10/07/2003 thru 10/09/2003 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	N2-4 10/09/2003	N3-1 10/09/2003	N3-2 10/09/2003	N3-3 10/08/2003	N3-4 10/09/2003	KSRBSNRGP(1)
Lead	(mg/l)	[0.005]	**0.037**	[0.009]	**0.022**	**0.086**	0.015
Nickel	(mg/l)	0.024	[0.004]	0.017	0.042	0.098	0.10
Zinc	(mg/l)	[0.017]	0.07	0.041	0.2	0.32	5
Mercury	(mg/l)	<0.0002	<0.0002	<0.0002	[0.0001]	[0.00012]	0.002

(1)KSRBSNRGP=Kansas Risk-Based Standards Non-Residential Groundwater Pathway

[x]=Less than Reporting Limit ---=Not analyzed

Table 4-9
Summary of Groundwater Analytical Results
October 2003
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 10/07/2003 thru 10/09/2003 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	N4-1 10/08/2003	N4-2 10/08/2003	N4-3 10/08/2003	N4-4 10/08/2003	N5-1 10/08/2003	KSRBSNRGP(1)
Benzene	(ug/l)	<2	<1	<1	<1	<1	5
Bromodichloromethane	(ug/l)	<10	<5	<5	<5	<5	100
Chlorobenzene	(ug/l)	<10	<5	<5	<5	<5	100
Chloroform	(ug/l)	<10	<5	<5	<5	<5	100
Ethylbenzene	(ug/l)	<10	<5	<5	<5	<5	700
Toluene	(ug/l)	<10	<5	<5	<5	<5	1000
Xylenes, Total	(ug/l)	<20	<10	<10	<10	<10	10000
1-Methylnaphthalene	(ug/l)	<10	<10	<10	<10	<10	
2-methylnaphthalene	(ug/l)	<10	<10	<10	<10	<10	
Bis(2-ethylhexyl)phthalate	(ug/l)	<10	<10	[1.6]	<10	<10	400000
Naphthalene	(ug/l)	<10	<10	<10	<10	<10	350
Phenanthrene	(ug/l)	<10	<10	<10	<10	<10	
Hydrocarbons as GRO (C6-C10)	(ug/l)	250	<100	<100	<100	<100	
Hydraulic Fluid Hydrocarbons	(ug/l)	<100	<100	<100	<100	<100	
Unknown Hydrocarbon	(ug/l)	480	[56]	120	190	[42]	
Arsenic	(mg/l)	[0.004]	**[0.01]**	<0.01	**0.011**	**0.013**	0.01
Barium	(mg/l)	0.33	0.14	0.4	0.33	0.39	2.0
Beryllium	(mg/l)	<0.006	<0.006	<0.006	[0.001]*	[0.002]	0.004
Cadmium	(mg/l)	<0.01	<0.01	<0.01	<0.01	<0.01	0.005
Chromium	(mg/l)	[0.002]	[0.008]	[0.004]	0.02	0.021	0.1
Copper	(mg/l)	[0.002]	[0.004]	[0.003]	[0.012]	[0.015]	1.3

*=Estimated due to field duplicate RPD outside of limits
(1)KSRBSNRGP=Kansas Risk-Based Standards Non-Residential Groundwater Pathway

[x]=Less than Reporting Limit **x**=Greater than Action Level The following qualifier(s) exist: Expert: * ---=Not analyzed

Table 4-9
Summary of Groundwater Analytical Results
October 2003
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 10/07/2003 thru 10/09/2003 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	N4-1 10/08/2003	N4-2 10/08/2003	N4-3 10/08/2003	N4-4 10/08/2003	N5-1 10/08/2003	KSRBSNRGP(1)
Lead	(mg/l)	[0.003]	[0.008]	[0.005]	0.013*	0.014	0.015
Nickel	(mg/l)	[0.003]	0.074	[0.004]	0.026	0.022	0.10
Zinc	(mg/l)	0.27	0.12	0.12	0.15*	0.41	5
Mercury	(mg/l)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.002

*=Estimated due to field duplicate RPD outside of limits
(1)KSRBSNRGP=Kansas Risk-Based Standards Non-Residential Groundwater Pathway

[x]=Less than Reporting Limit The following qualifier(s) exist: Expert: *
---=Not analyzed

Table 4-9
Summary of Groundwater Analytical Results
October 2003
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 10/07/2003 thru 10/09/2003 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	N5-2 10/08/2003	N5-3 10/08/2003	W-01D 10/09/2003	W-01S 10/09/2003	W-03 10/07/2003	KSRBSNRGP(1)
Benzene	(ug/l)	<1	<1	<1	<1	[0.25]	5
Bromodichloromethane	(ug/l)	<5	<5	<5	<5	<5	100
Chlorobenzene	(ug/l)	<5	<5	<5	<5	<5	100
Chloroform	(ug/l)	<5	<5	<5	<5	<5	100
Ethylbenzene	(ug/l)	<5	<5	<5	<5	[0.26]	700
Toluene	(ug/l)	<5	<5	<5	<5	[0.61]	1000
Xylenes, Total	(ug/l)	<10	<10	<10	<10	[1.6]	10000
1-Methylnaphthalene	(ug/l)	<10	<10	---	---	---	
2-methylnaphthalene	(ug/l)	<10	<10	---	---	---	
Bis(2-ethylhexyl)phthalate	(ug/l)	<10	[0.86]	---	---	---	400000
Naphthalene	(ug/l)	<10	<10	---	---	---	350
Phenanthrene	(ug/l)	<10	<10	---	---	---	
Hydrocarbons as GRO (C6-C10)	(ug/l)	<100	2400Q	<100	<100	[24]	
Hydraulic Fluid Hydrocarbons	(ug/l)	<100	2600	<100	<100	<100	
Unknown Hydrocarbon	(ug/l)	<100	<100	120	240	660	
Arsenic	(mg/l)	[0.005]	**0.094**	<0.01	<0.01	<0.01	0.01
Barium	(mg/l)	0.25	**2.2**	0.054	0.35	0.14	2.0
Beryllium	(mg/l)	[0.002]	**0.013**	<0.006	<0.006	[0.001]	0.004
Cadmium	(mg/l)	<0.01	**[0.009]**	<0.01	[0.001]	<0.01	0.005
Chromium	(mg/l)	[0.004]	**0.22**	[0.009]	[0.008]	0.087	0.1
Copper	(mg/l)	[0.007]	0.26	[0.003]	[0.014]	[0.003]	1.3

Q=Estimated due to surrogate recovery outside of limits
(1)KSRBSNRGP=Kansas Risk-Based Standards Non-Residential Groundwater Pathway

[x]=Less than Reporting Limit **x**=Greater than Action Level The following qualifier(s) exist: Expert: Q ---=Not analyzed

Table 4-9
Summary of Groundwater Analytical Results
October 2003
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 10/07/2003 thru 10/09/2003 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	N5-2 10/08/2003	N5-3 10/08/2003	W-01D 10/09/2003	W-01S 10/09/2003	W-03 10/07/2003	KSRBSNRGP(1)
Lead	(mg/l)	**0.015**	**0.2**	**0.02**	[0.009]	<0.01	0.015
Nickel	(mg/l)	[0.003]	**0.3**	<0.01	[0.008]	0.037	0.10
Zinc	(mg/l)	0.38	1.1	[0.016]	[0.024]	[0.015]	5
Mercury	(mg/l)	<0.0002	0.00023	<0.0002	<0.0002	<0.0002	0.002

(1)KSRBSNRGP=Kansas Risk-Based Standards Non-Residential Groundwater Pathway

[x]=Less than Reporting Limit **x**=Greater than Action Level ---=Not analyzed

Table 4-9
Summary of Groundwater Analytical Results
October 2003
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 10/07/2003 thru 10/09/2003 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	W-08 10/07/2003	W-15D 10/07/2003	W-15S 10/07/2003	W-16S 10/08/2003	W-22 10/08/2003	KSRBSNRGP(1)
Benzene	(ug/l)	<1	<1	[0.26]	<1	**130**	5
Bromodichloromethane	(ug/l)	<5	<5	<5	<5	<5	100
Chlorobenzene	(ug/l)	<5	<5	<5	<5	<5	100
Chloroform	(ug/l)	<5	<5	[0.6]	<5	<5	100
Ethylbenzene	(ug/l)	<5	<5	<5	<5	3.1	700
Toluene	(ug/l)	[0.25]	<5	[0.24]	<5	7.4	1000
Xylenes, Total	(ug/l)	<10	<10	<10	<10	18	10000
1-Methylnaphthalene	(ug/l)	—	—	—	—	—	
2-methylnaphthalene	(ug/l)	—	—	—	—	—	
Bis(2-ethylhexyl)phthalate	(ug/l)	—	—	—	—	—	400000
Naphthalene	(ug/l)	—	—	—	—	—	350
Phenanthrene	(ug/l)	—	—	—	—	—	
Hydrocarbons as GRO (C6-C10)	(ug/l)	<100	<100	<100	[18]	2000	
Hydraulic Fluid Hydrocarbons	(ug/l)	<100	<100	<100	<100	<100	
Unknown Hydrocarbon	(ug/l)	[69]	430	<100	[32]	1600	
Arsenic	(mg/l)	**0.13**	[0.008]	**0.011**	<0.01	**0.1**	0.01
Barium	(mg/l)	1.9	0.39	0.21	0.094	0.46	2.0
Beryllium	(mg/l)	**0.016**	[0.001]	[0.002]	<0.006	[0.001]	0.004
Cadmium	(mg/l)	**[0.007]**	<0.01	<0.01	<0.01	<0.01	0.005
Chromium	(mg/l)	**0.42**	<0.01	0.033	<0.01	0.013	0.1
Copper	(mg/l)	0.82	[0.004]	0.025	<0.02	0.042	1.3

(1)KSRBSNRGP=Kansas Risk-Based Standards Non-Residential Groundwater Pathway

[x]=Less than Reporting Limit **x**=Greater than Action Level —=Not analyzed

Table 4-9
Summary of Groundwater Analytical Results
October 2003
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 10/07/2003 thru 10/09/2003 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	W-08 10/07/2003	W-15D 10/07/2003	W-15S 10/07/2003	W-16S 10/08/2003	W-22 10/08/2003	KSRBSNRGP(1)
Lead	(mg/l)	**1.1**	<0.01	0.011	[0.002]	0.014	0.015
Nickel	(mg/l)	**0.38**	0.01	0.036	<0.01	0.026	0.10
Zinc	(mg/l)	0.96	0.1	0.041	0.25	0.32	5
Mercury	(mg/l)	0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.002

(1)KSRBSNRGP=Kansas Risk-Based Standards Non-Residential Groundwater Pathway

x=Greater than Action Level ---=Not analyzed

Table 4-9
Summary of Groundwater Analytical Results
October 2003
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 10/07/2003 thru 10/09/2003 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	W-23 10/09/2003	W-24 10/09/2003	W-26 10/07/2003	W-29D 10/07/2003	W-29S 10/07/2003	KSRBSNRGP(1)
Benzene	(ug/l)	**11**	**120**	[0.36]	<1	<1	5
Bromodichloromethane	(ug/l)	<5	<5	<5	<5	<5	100
Chlorobenzene	(ug/l)	<5	<5	<5	<5	<5	100
Chloroform	(ug/l)	<5	<5	<5	<5	<5	100
Ethylbenzene	(ug/l)	2.4	12	[0.21]	<5	<5	700
Toluene	(ug/l)	1.3	7.2	1	<5	[0.2]	1000
Xylenes, Total	(ug/l)	4.4	22	[0.58]	<10	<10	10000
1-Methylnaphthalene	(ug/l)	—	—	—	—	—	
2-methylnaphthalene	(ug/l)	—	—	—	—	—	
Bis(2-ethylhexyl)phthalate	(ug/l)	—	—	—	—	—	400000
Naphthalene	(ug/l)	—	—	—	—	—	350
Phenanthrene	(ug/l)	—	—	—	—	—	
Hydrocarbons as GRO (C6-C10)	(ug/l)	960Q	3100	<100	<100	<100	
Hydraulic Fluid Hydrocarbons	(ug/l)	<100	<100	<100	<100	<100	
Unknown Hydrocarbon	(ug/l)	440	3400	450	380	250	
Arsenic	(mg/l)	[0.006]	**0.016**	**0.048**	[0.004]	**0.023**	0.01
Barium	(mg/l)	0.4	0.25	1.8	0.23	0.56	2.0
Beryllium	(mg/l)	<0.006	<0.006	[0.002]	[0.001]	[0.003]	0.004
Cadmium	(mg/l)	<0.01	<0.01	[0.001]	<0.01	[0.001]	0.005
Chromium	(mg/l)	0.028	<0.01	0.03	0.01	0.073	0.1
Copper	(mg/l)	[0.019]	[0.001]	[0.013]	[0.004]	0.044	1.3

Q=Estimated due to surrogate recovery outside of limits
(1)KSRBSNRGP=Kansas Risk-Based Standards Non-Residential Groundwater Pathway

[x]=Less than Reporting Limit **x**=Greater than Action Level The following qualifier(s) exist: Expert: Q —=Not analyzed

Table 4-9
Summary of Groundwater Analytical Results
October 2003
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 10/07/2003 thru 10/09/2003 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE	W-23	W-24	W-26	W-29D	W-29S	
	DATE	10/09/2003	10/09/2003	10/07/2003	10/07/2003	10/07/2003	KSRBSNRGP(1)
Lead	(mg/l)	[0.009]	[0.003]	**0.015**	[0.004]	**0.042**	0.015
Nickel	(mg/l)	0.012	<0.01	0.028	[0.007]	0.066	0.10
Zinc	(mg/l)	0.067	[0.013]	0.048	[0.027]	0.14	5
Mercury	(mg/l)	<0.0002	<0.0002	<0.0002	<0.0002	[0.000073]	0.002

(1)KSRBSNRGP=Kansas Risk-Based Standards Non-Residential Groundwater Pathway

[x]=Less than Reporting Limit ---=Not analyzed

Table 4-10
Summary of Surface Water Analytical Results
October 2003
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 09/26/2003 thru 09/28/2003 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	SWS-02 09/26/2003	SWS-03 09/26/2003	SWS-04 09/26/2003	SWS-06 09/26/2003	SWS-07 09/26/2003	SWQS	KSRBSNRGP
Benzene	(ug/l)	2.3	<1	<1	[0.34]	[0.21]	1.2	5
Unknown Hydrocarbon	(ug/l)	<100	<100	<100	<100	360	---	720
Barium	(mg/l)	0.17	0.17	0.17	0.2	0.21	2.0	2.0
Copper	(mg/l)	[0.001]	[0.002]	[0.002]	<0.02	[0.002]	0.00516	1.3
Lead	(mg/l)	<0.01	<0.01	<0.01	<0.01	<0.01	0.00132	0.015

[x]=Less than Reporting Limit
x=Greater than Action Level
---=No Standard
KSRBSNRGP = Kansas Risk-Based Standard Non-Residential to Groundwater Pathway
SWQS = Surface Water Quality Standard
EPA ESL = Environmental Protection Agency Environmental Screening Level

Table 4-10
Summary of Surface Water Analytical Results
October 2003
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 09/26/2003 thru 09/28/2003 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	SWS-08 09/26/2003	SWS-09 09/28/2003	SWS-10 09/28/2003	SWS-11 09/28/2003	SWQS	KSRBSNRGP
Benzene	(ug/l)	[0.23]	<1	[0.91]	<1	1.2	5
Unknown Hydrocarbon	(ug/l)	<100	<100	<100	<100	---	720
Barium	(mg/l)	0.18	0.2	0.12	0.022	2.0	2.0
Copper	(mg/l)	[0.001]	[0.001]	[0.003]	**0.035**	0.00516	1.3
Lead	(mg/l)	<0.01	<0.01	[0.003]	**0.015**	0.00132	0.015

[x]=Less than Reporting Limit
x=Greater than Action Level
---=No Standard
KSRBSNRGP = Kansas Risk-Based Standard Non-Residential to Groundwater Pathway
SWQS = Surface Water Quality Standard
EPA ESL = Environmental Protection Agency Environmental Screening Level

Table 4-11
Sediment Analytical Results

El Dorado Refinery
El Dorado, Kansas

PERIOD: From 09/26/2003 thru 09/28/2003 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE DATE DEPTH (ft)	SWS-01 09/26/2003 0.50	SWS-02 09/26/2003 0.50	SWS-03 09/26/2003 0.50	SWS-04 09/26/2003 0.50	KSRBSNRSGP(1)	KSRBSNRSP(2)
Starting Depth	(feet)	0.500	0.500	0.500	0.500		
Ending Depth	(feet)	0.500	0.500	0.500	0.500		
Benzene	(mg/kg)	<0.0065	<0.0074	<0.0064	<0.007	0.08	17
Toluene	(mg/kg)	<0.0065	<0.0074	<0.0064	<0.007	40	1000
Xylene (total)	(mg/kg)	<0.013	<0.015	<0.013	<0.014	700	700
Pyrene	(mg/kg)	<0.27	<0.3	<0.42	[0.13]	140	140
Unknown Hydrocarbon	(mg/kg)	25	22	<3.2	23		
Arsenic	(mg/kg)	7.2	8.8	6.7	8.3	5.84	38
Barium	(mg/kg)	210F	110	320	210		140000
Beryllium	(mg/kg)	0.97	0.69	1.1	1.1		4100
Chromium	(mg/kg)	28	17	22	24		4000
Copper	(mg/kg)	16	9.6	14	16		76000
Lead	(mg/kg)	85	22	27	61		1000
Nickel	(mg/kg)	16	14	17	19		41000
Zinc	(mg/kg)	80	100	51	74		610000
Mercury	(mg/kg)	0.048	0.014	0.015*	0.019		20

*=Estimated due to field duplicate RPD outside of limits
F=Estimated due to MS/MSD % RPD high
(1)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil to Groundwater Pathway
(2)KSRBSNRSP=Kansas Risk-Based Standards Non-Residential Soil Pathway

[x]=Less than Reporting Limit x=Greater than Action Level The following qualifier(s) exist: Expert: F, * ---=Not analyzed

Table 4-11
Sediment Analytical Results

El Dorado Refinery
El Dorado, Kansas

PERIOD: From 09/26/2003 thru 09/28/2003 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE DATE DEPTH (ft)	SWS-05 09/26/2003 0.50	SWS-06 09/26/2003 0.50	SWS-07 09/26/2003 0.50	SWS-08 09/26/2003 0.50	KSRBSNRSGP(1)	KSRBSNRSP(2)
Starting Depth	(feet)	0.500	0.500	0.500	0.500		
Ending Depth	(feet)	0.500	0.500	0.500	0.500		
Benzene	(mg/kg)	<0.007	<0.0072	<0.0074	<0.0076	0.08	17
Toluene	(mg/kg)	<0.007	<0.0072	<0.0074	<0.0076	40	1000
Xylene (total)	(mg/kg)	<0.014	<0.014	<0.015	<0.015	700	700
Pyrene	(mg/kg)	<0.46	<0.47	<0.48	<0.5	140	140
Unknown Hydrocarbon	(mg/kg)	6.1	7.8	[2.5]	4.8		
Arsenic	(mg/kg)	**8.9**	**7.7**	**5.9**	**6.3**	5.84	38
Barium	(mg/kg)	250	180	170	170		140000
Beryllium	(mg/kg)	1.3	0.91	1	0.93		4100
Chromium	(mg/kg)	31	17	21	19		4000
Copper	(mg/kg)	19	12	13	12		76000
Lead	(mg/kg)	100	25	24	20		1000
Nickel	(mg/kg)	21	18	19	17		41000
Zinc	(mg/kg)	93	37	52	53		610000
Mercury	(mg/kg)	[0.0093]	0.015	[0.0096]	[0.012]		20

(1)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil to Groundwater Pathway
(2)KSRBSNRSP=Kansas Risk-Based Standards Non-Residential Soil Pathway

[x]=Less than Reporting Limit **x**=Greater than Action Level ---=Not analyzed

Table 4-11
Sediment Analytical Results

El Dorado Refinery
El Dorado, Kansas

PERIOD: From 09/26/2003 thru 09/28/2003 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE	SWS-09	SWS-10	SWS-11	KSRBSNRSGP(1)	KSRBSNRSP(2)
	DATE	09/28/2003	09/28/2003	09/28/2003		
	DEPTH (ft)	0.50	0.50	0.50		
Starting Depth	(feet)	0.500	0.500	0.500		
Ending Depth	(feet)	0.500	0.500	0.500		
Benzene	(mg/kg)	<0.0064	0.075	[0.029]	0.08	17
Toluene	(mg/kg)	<0.0064	<0.01	0.12	40	1000
Xylene (total)	(mg/kg)	<0.013	<0.021	0.069	700	700
Pyrene	(mg/kg)	<0.42	[1]	60	140	140
Unknown Hydrocarbon	(mg/kg)	27	250	5600		
Arsenic	(mg/kg)	7.4	**10**	**12**	5.84	38
Barium	(mg/kg)	160	210	310		140000
Beryllium	(mg/kg)	0.92	1.2	1.2		4100
Chromium	(mg/kg)	19	66	250		4000
Copper	(mg/kg)	11	66	1900		76000
Lead	(mg/kg)	24	680	250		1000
Nickel	(mg/kg)	16	24	25		41000
Zinc	(mg/kg)	49	270	290		610000
Mercury	(mg/kg)	0.013	1.6	0.38		20

F=Estimated due to MS/MSD % RPD high
(1)KSRBSNRSGP=Kansas Risk-Based Standards Non-Residential Soil to Groundwater Pathway
(2)KSRBSNRSP=Kansas Risk-Based Standards Non-Residential Soil Pathway

[x]=Less than Reporting Limit **x**=Greater than Action Level —=Not analyzed

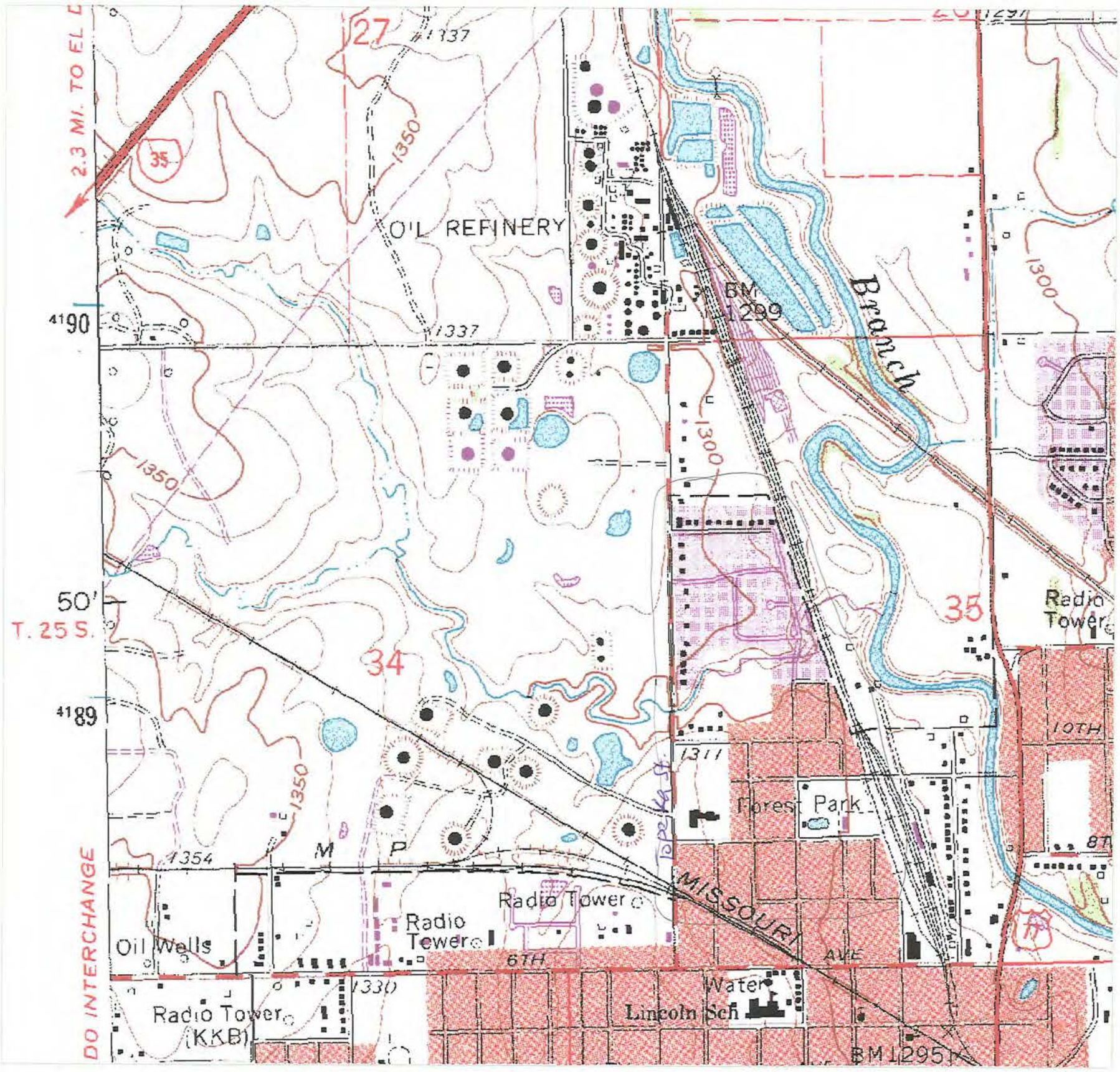
Table 4-12
Summary of Seep Analytical Results
October 2003
El Dorado Refinery
El Dorado, Kansas

PERIOD: From 10/30/03 thru 10/30/2003 - Inclusive
Sample Type: Water

CONSTITUENT	SITE DATE	SS-01 10/30/2003	SS-02 10/30/2003	SWQS	KSRBSNRGP	KSRBSRGP	EPA ESL
Antimony	(mg/l)	**[~0.006~]**	<0.1	0.006	0.006	0.006	--
Arsenic	(mg/l)	**~0.075~**	[0.008]	0.018	0.01	0.01	--
Barium	(mg/l)	**~0.45~**	**~0.34~**	2.0	2.0	2.0	--
Nickel	(mg/l)	[0.006]	[0.008]	0.029	0.10	0.10	--
Benzene	(ug/l)	**~120~**	[0.81]	1.2	5	5	--
Ethylbenzene	(ug/l)	1.5	[0.22]	700	700	700	--
Toluene	(ug/l)	4.7	[0.2]	1000	1000	1000	--
Xylenes, Total	(ug/l)	20	<10	10000	10000	10000	--
Hydrocarbons as GRO (C6-C10)	(ug/l)	130	**~1800~**	NA	500	500	--
Unknown Hydrocarbon	(ug/l)	**~2200~**	130	NA	720	500	--
1-Methylnaphthalene	(ug/l)	35	[1.8]	NA	NA	NA	NA
2-methylnaphthalene	(ug/l)	17	<10	NA	NA	NA	330
Benzyl alcohol	(ug/l)	[2.0]	[1.1]	NA	NA	NA	8.6
Naphthalene	(ug/l)	[0.78]	<10	620	350	100	--
Phenanthrene	(ug/l)	[1.1]	<10	6.3	NA	NA	--
Phenol	(ug/l)	12	<10	2560	58000	9000	--

[x] = Less than Reporting Limit greater than method detection limit (MDL)
--- = Not Required Surface Water Quality Standard (SWQS) applies.
~x~ = Greater than Action Level
NA = Not Applicaple
Constituents not listed are below the MDL.
KSRBSNRGP = Kansas Risk-Based Standard Non-residential Groundwater Pathway
KSRBSRGP = Kansas Risk-Based Standard Residential Groundwater Pathway
EPA ESL = Environmental Protection Agency Ecological Screening Levels

FIGURES



- water usage / water rights
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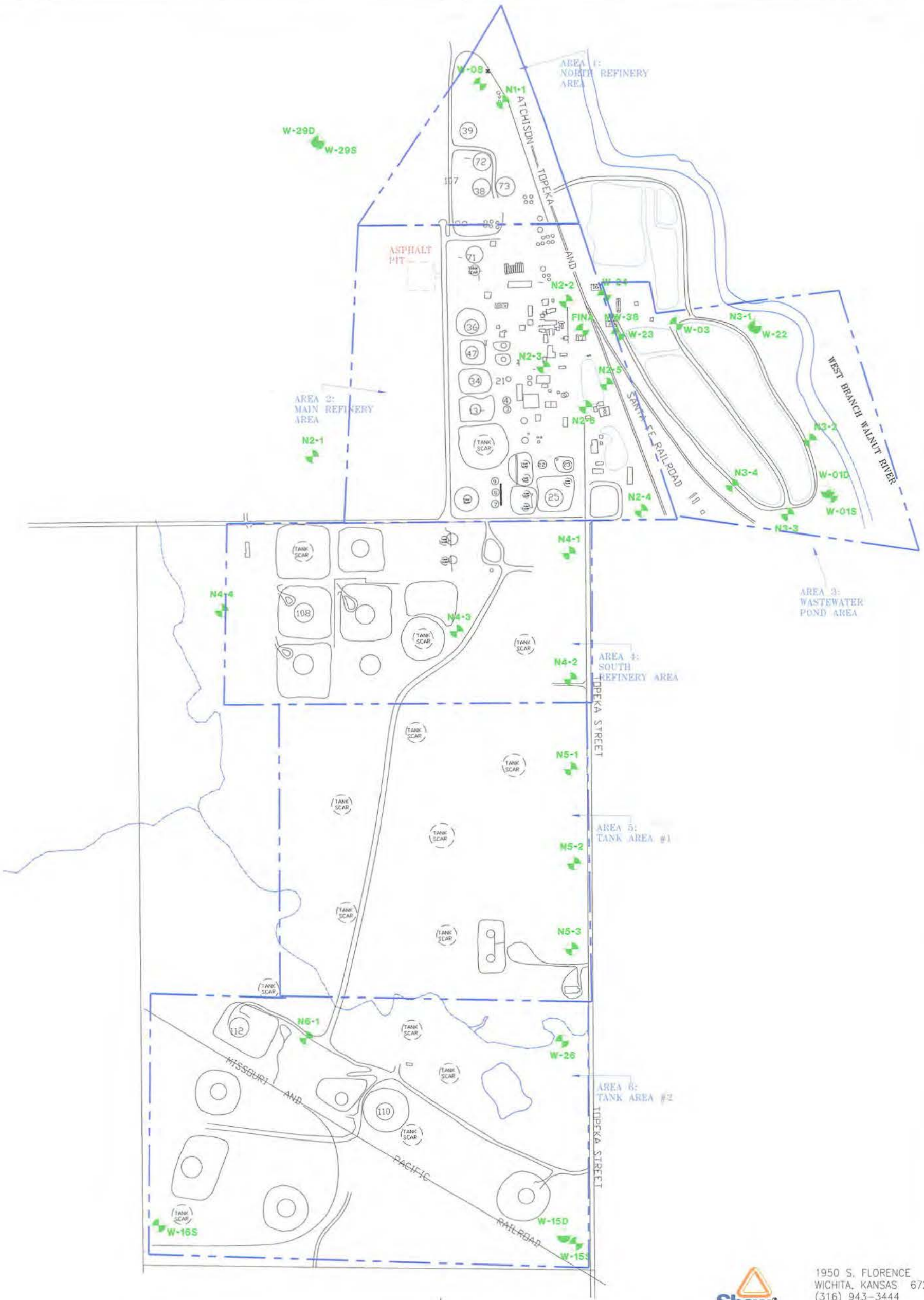
N

0 1,000 2,000
SCALE FEET

REV. NO.:	DRAWING DATE: 11/26/03	ACAD FILE: NEW2	
SITE LOCATION MAP			
CLIENT: EL PASO CORPORATION			PM: LH
LOCATION: EL DORADO, KANSAS			PE/RG:
DESIGNED:	DETAILED: JD	PROJECT NO.: 831825	FIGURE: **1-1**



LEGEND

DEEP MONITORING WELL

SHALLOW MONITORING WELL

N

0 600 1200

SCALE FEET

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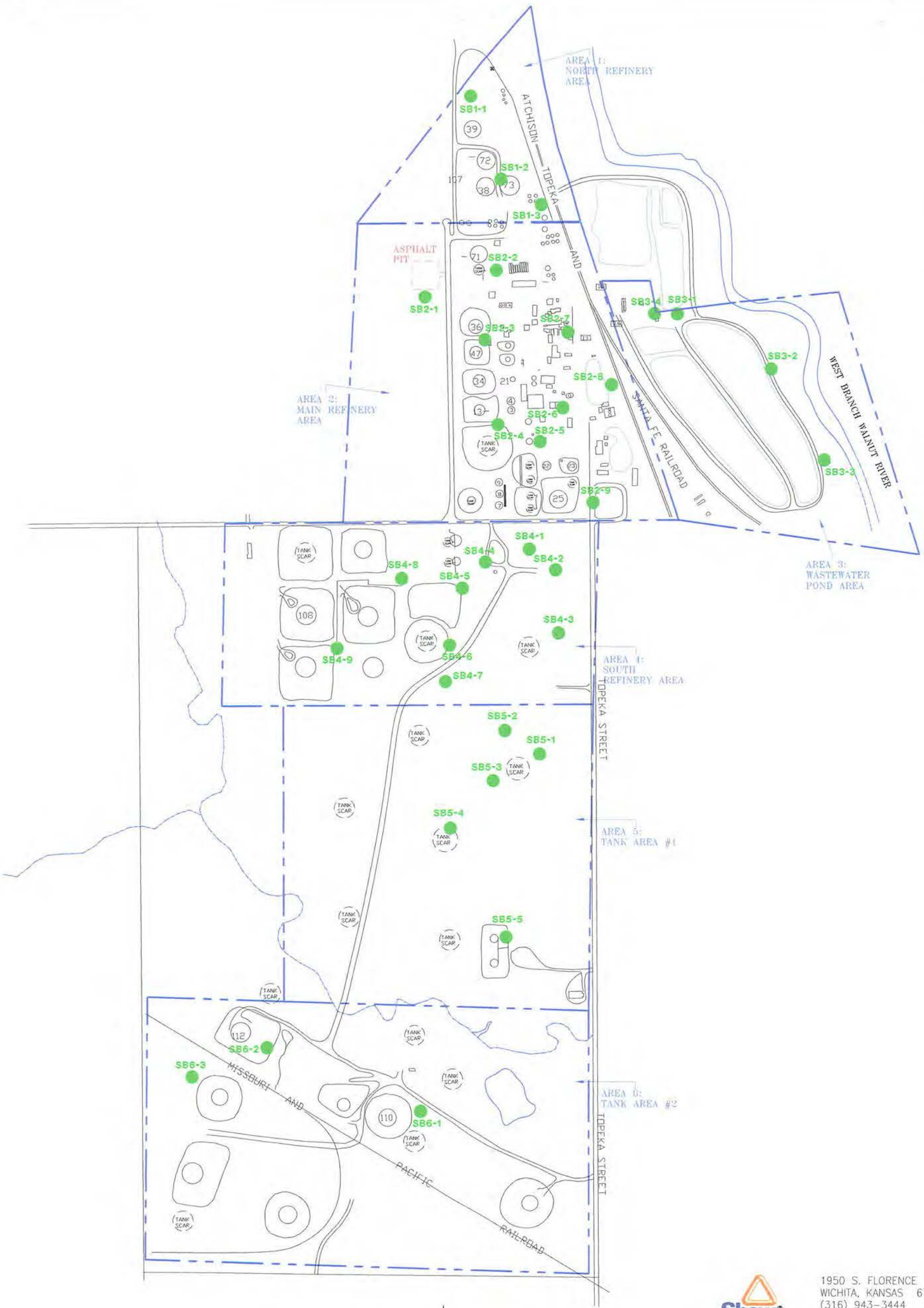
REV. NO.:	DRAWING DATE: 11/24/03	ACAD FILE: Figure 1-2 Site Map	
SITE MAP			
CLIENT: EL PASO CORPORATION			PM: LH
LOCATION: EL DORADO, KANSAS			PE/RG:
DESIGNED:	DETAILED: JD	PROJECT NO.: 100078	FIGURE: **1-2**



LEGEND

● SOIL BORING

N

0 600 1200

SCALE FEET

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REV. NO.:	DRAWING DATE: 11/24/03	ACAD FILE: FIGURE 3-1	
SOIL BORING LOCATION MAP			
CLIENT: EL PASO COPORATION			PM: LH
LOCATION: EL DORADO, KANSAS			PE/RG:
DESIGNED:	DETAILED: JD	PROJECT NO.: 100078	FIGURE: **3-1**

LEGEND

DEEP MONITORING WELL

SHALLOW MONITORING WELL

N

0 600 1200

SCALE FEET

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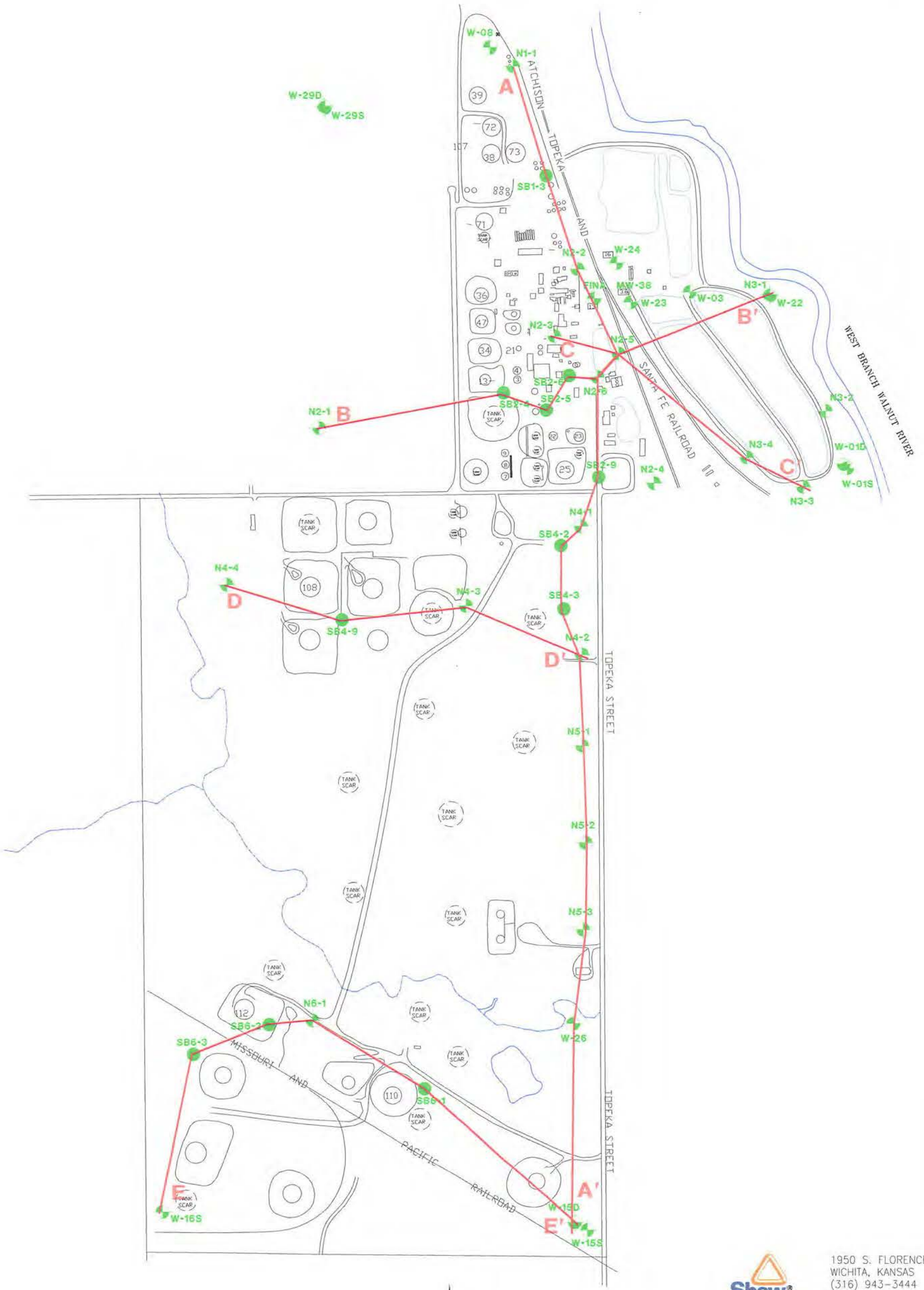
REV. NO.:	DRAWING DATE: 11/24/03	ACAD FILE: Figure 3-2	
MONITORING WELL LOCATION MAP			
CLIENT: EL PASO CORPORATION			PM: LH
LOCATION: EL DORADO, KANSAS			PE/RG:
DESIGNED:	DETAILED: JD	PROJECT NO.: 100078	FIGURE: 3-2



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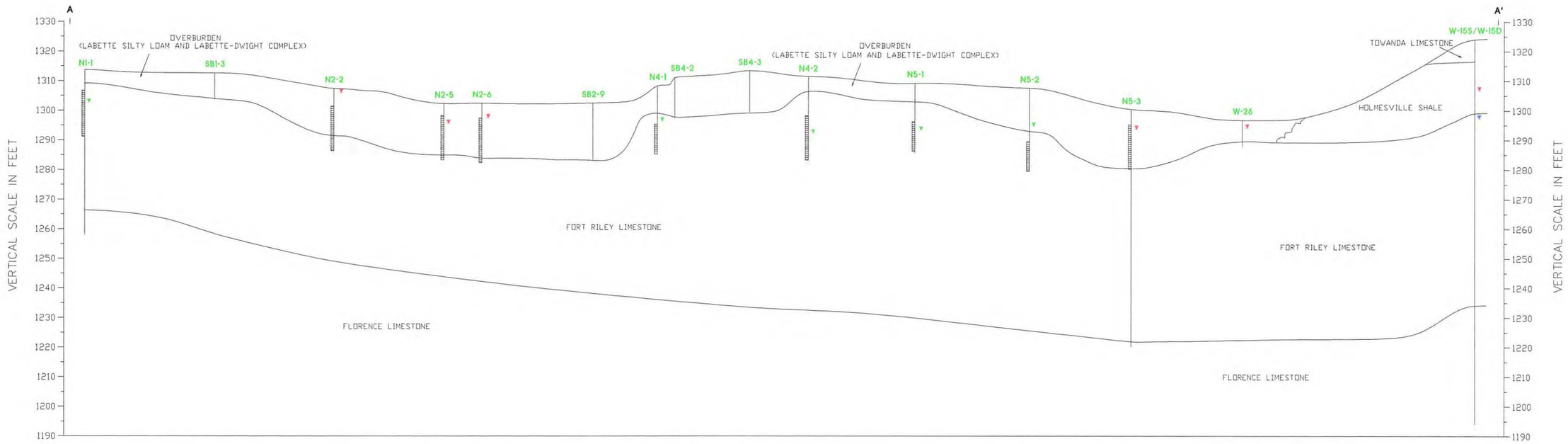
LEGEND

- DEEP MONITORING WELL
- SHALLOW MONITORING WELL
- SOIL BORING

N

0 600 1200
SCALE FEET

REV. NO.:	DRAWING DATE: 01/22/04	ACAD FILE: CROSSSECTIONLOCMAP	
CROSS SECTION LOCATION MAP			
CLIENT: EL PASO CORPORATION			PM: LH
LOCATION: EL DORADO, KANSAS			PE/RG:
DESIGNED:	DETAILED: SH	PROJECT NO.: 100078	FIGURE: 3-3



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TITLE: **CROSS SECTION A-A'**

EL PASO CORPORATION
EL DORADO,KANSAS

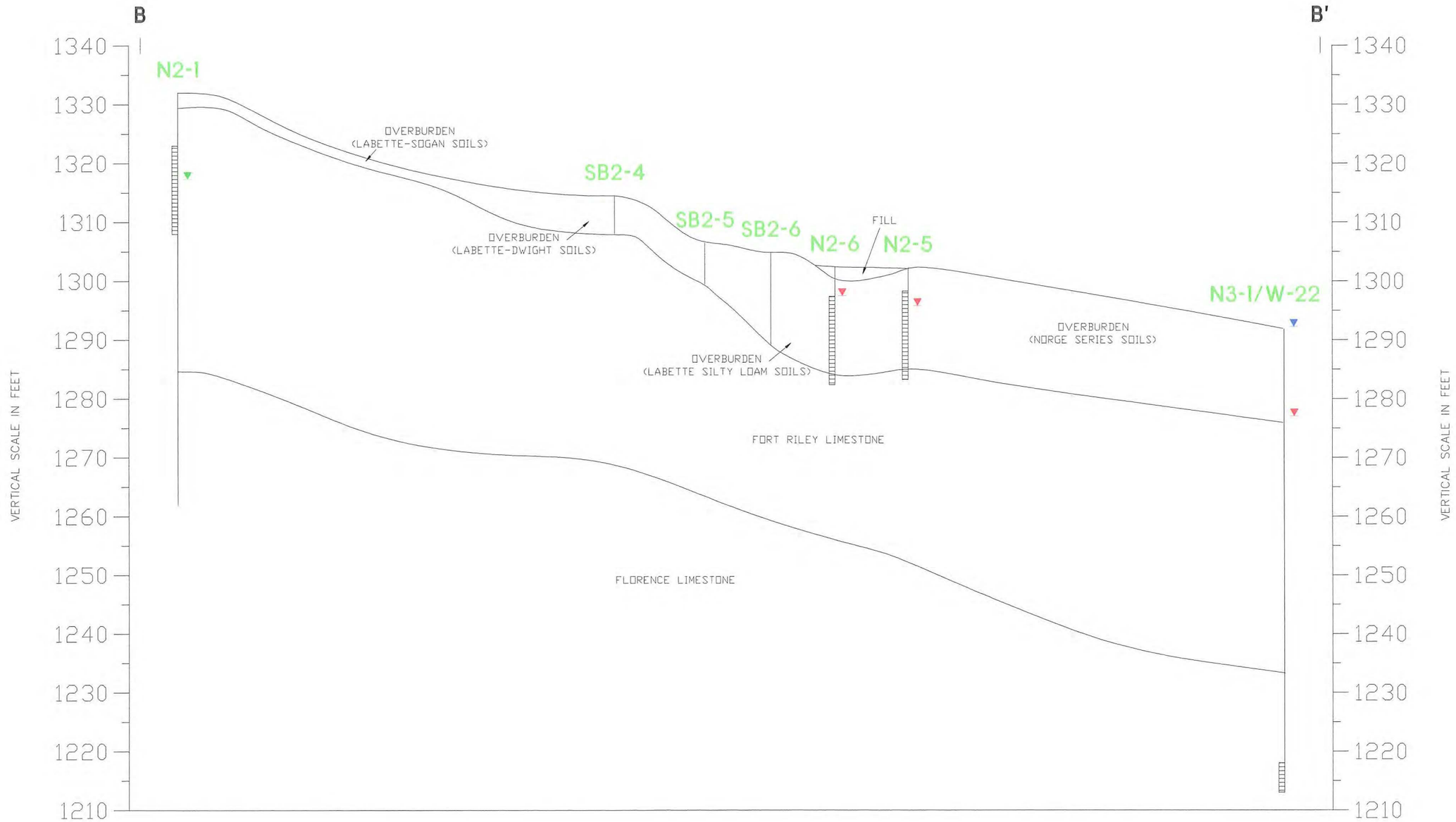
WATER ELEVATION DATA OVERBURDEN
WATER ELEVATION DATA FORT RILEY
WATER ELEVATION DATA FLORENCE
WELL SCREEN

HORIZONTAL SCALE:
0 300 600
FEET

DWN: SH	DES.: DW
FILE NAME: TB&B SECTION AA	APPD: DW
DATE: 01/22/04	REV.: 1

PROJECT NO.: 100078

FIGURE NO.: 3-4



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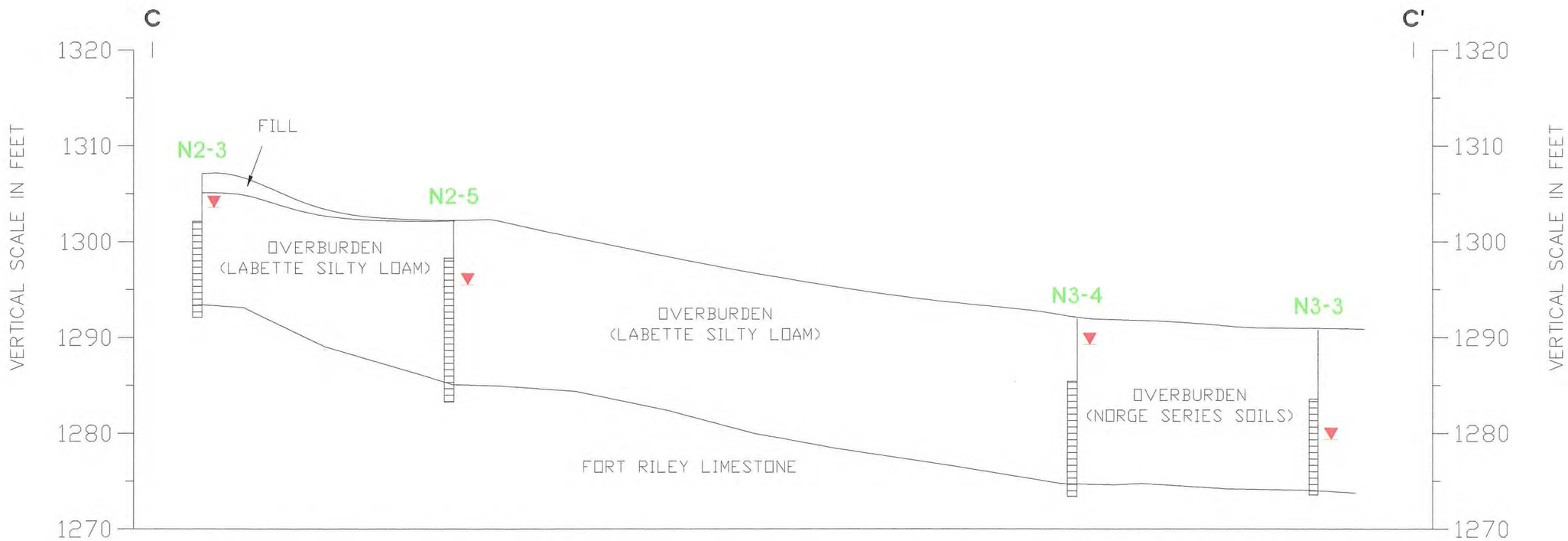
TITLE: **CROSS SECTION B-B'**
EL PASO CORPORATION
COASTAL REFINERY
EL DORADO,KANSAS

WATER ELEVATION DATA OVERBURDEN
WATER ELEVATION DATA FORT RILEY
WATER ELEVATION DATA FLORENCE
WELL SCREEN

HORIZONTAL SCALE:
0 150 300
FEET

DWN: SH	DES.: DW	PROJECT NO.: 100078
FILE NAME: SECTION BB	APPD: DW	FIGURE NO.: 3-5
DATE: 01/22/04	REV.: 1	



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TITLE: **CROSS SECTION C-C'**
EL PASO CORPORATION
EL DORADO,KANSAS

▼ WATER ELEVATION DATA OVERBURDEN

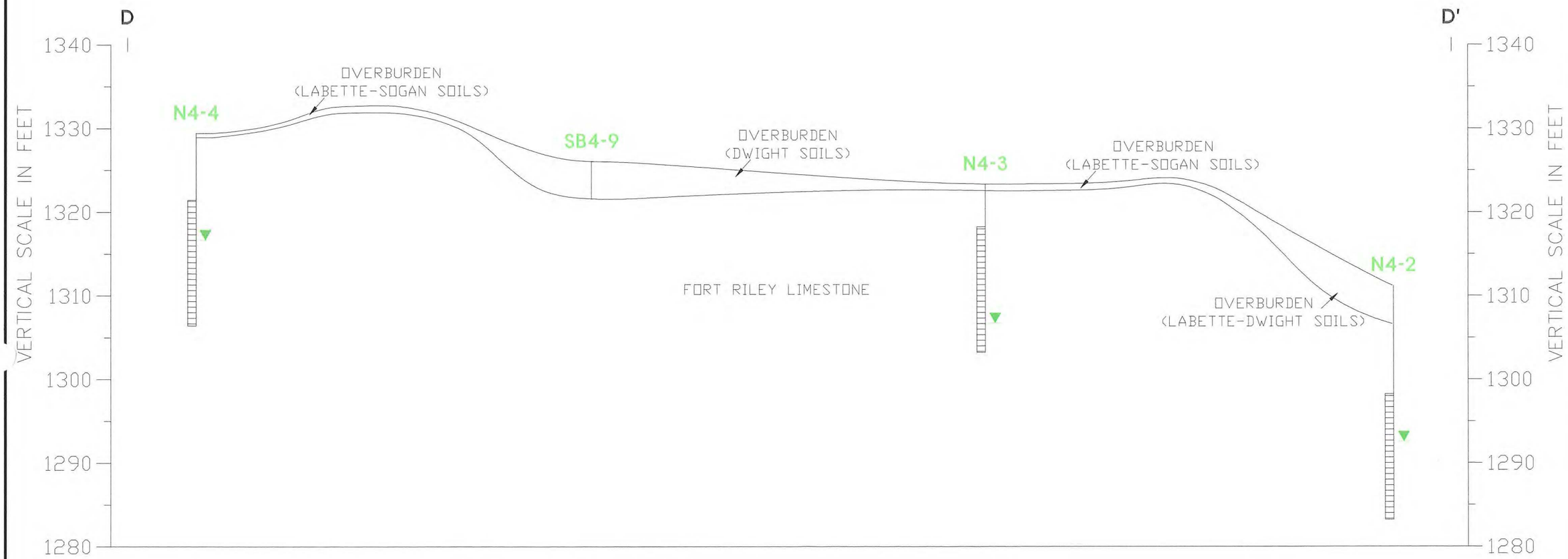
WELL SCREEN

HORIZONTAL SCALE:
0 100 200
FEET

DWN: SH	DES.: DW
FILE NAME: TB&B SECTION CC	APPD: DW
DATE: 01/22/04	REV.: 1

PROJECT NO.: 100078

FIGURE NO.: 3-6



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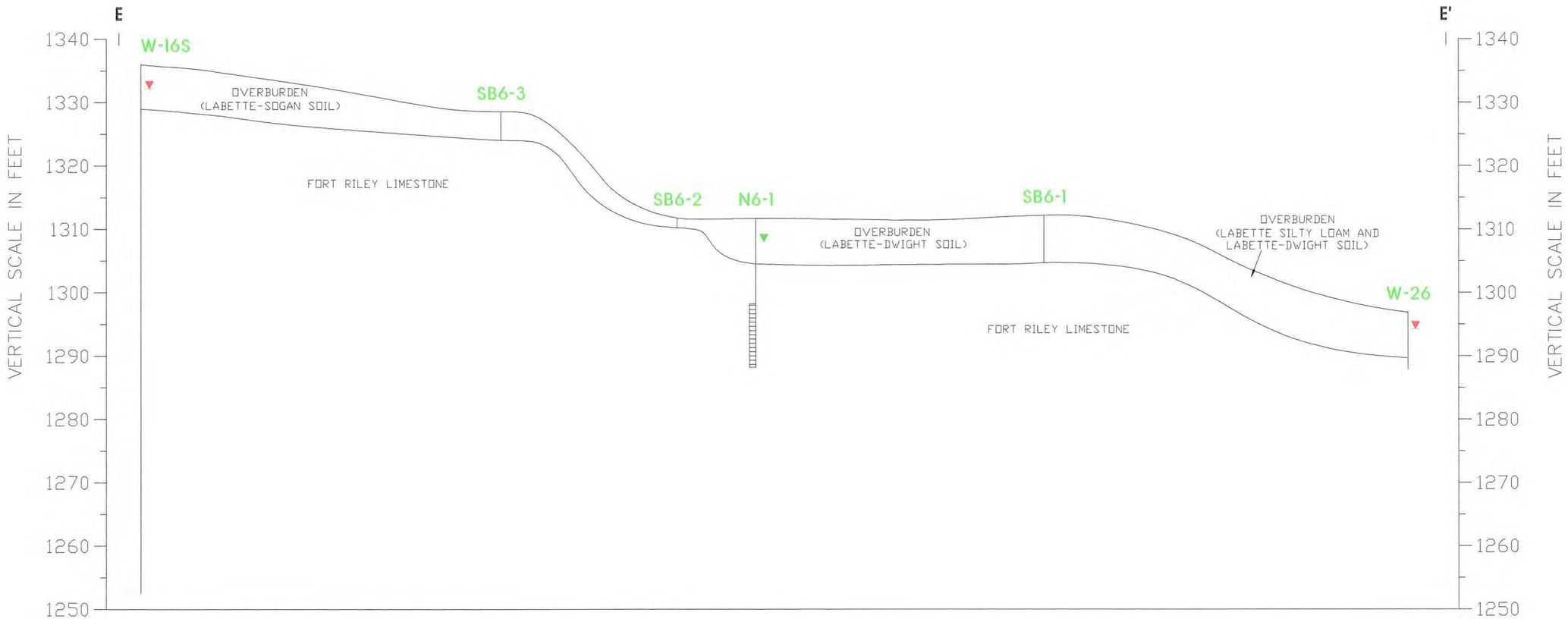
TITLE: **CROSS SECTION D-D'**
EL PASO CORPORATION
EL DORADO,KANSAS

▼ WATER ELEVATION DATA FORT RILEY

WELL SCREEN

HORIZONTAL SCALE:
0 100 200
FEET

DWN: SH	DES.: DW	PROJECT NO.: 100078
FILE NAME: TB&B SECTION DD	APPD: DW	FIGURE NO.: 3-7
DATE: 01/22/04	REV.: 1	



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TITLE: **CROSS SECTION E-E'**

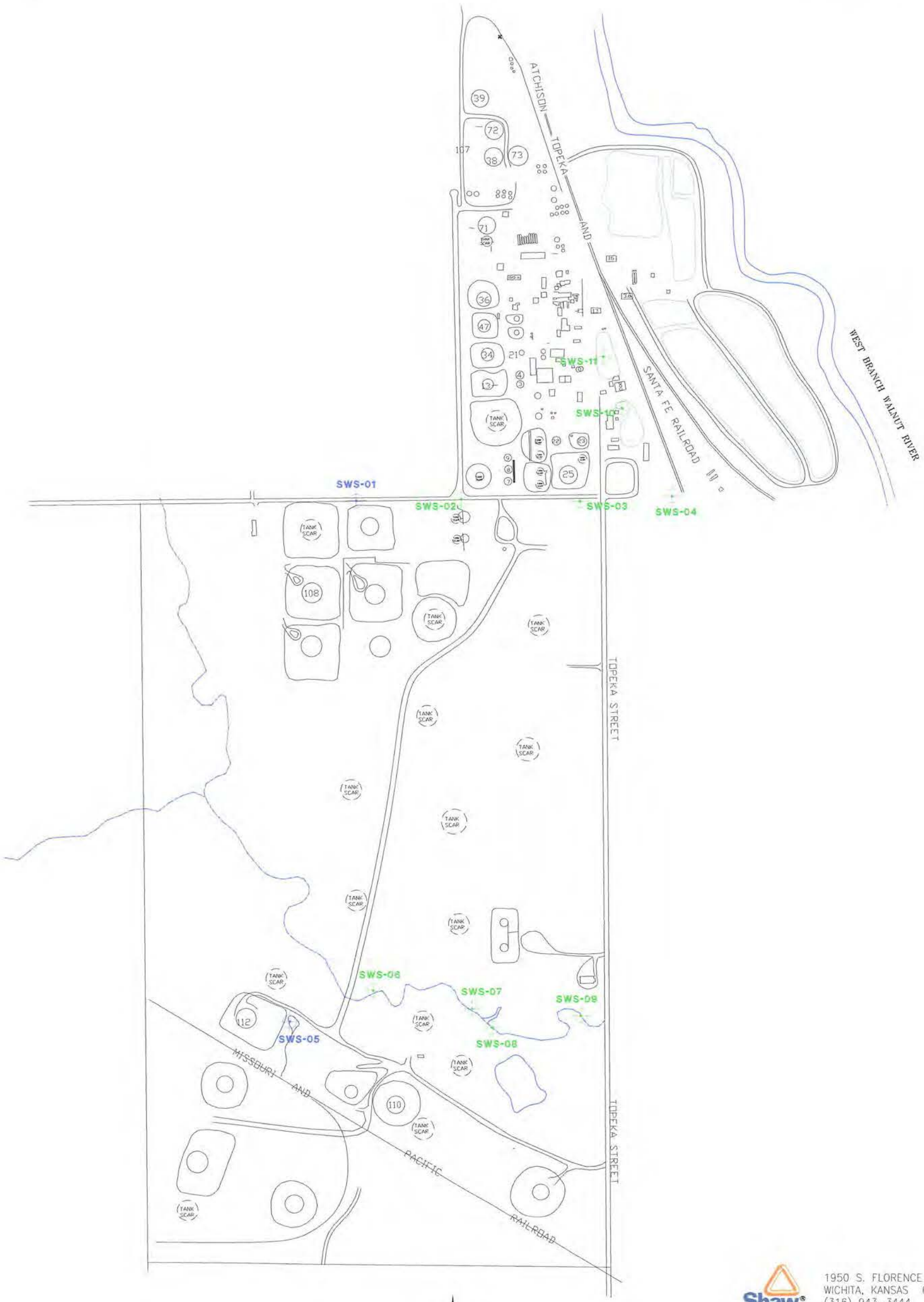
EL PASO CORPORATION
EL DORADO,KANSAS

▼ WATER ELEVATION DATA OVERBURDEN
▼ WATER ELEVATION DATA FORT RILEY
WELL SCREEN

HORIZONTAL SCALE:
0 150 300
FEET

NOTE: W-16S depicts the geology collected during the installation of W-16D. The water elevation represented above is from W-16S.

DWN: SH	DES.: DW	PROJECT NO.: 100078
FILE NAME: SECTION EE	APPD: DW	FIGURE NO.: 3-8
DATE: 01/22/04	REV.: 1	



LEGEND

- SURFACE WATER AND SEDIMENT SAMPLE LOCATION
- SEDIMENT SAMPLE LOCATION

N

0 600 1200
SCALE FEET

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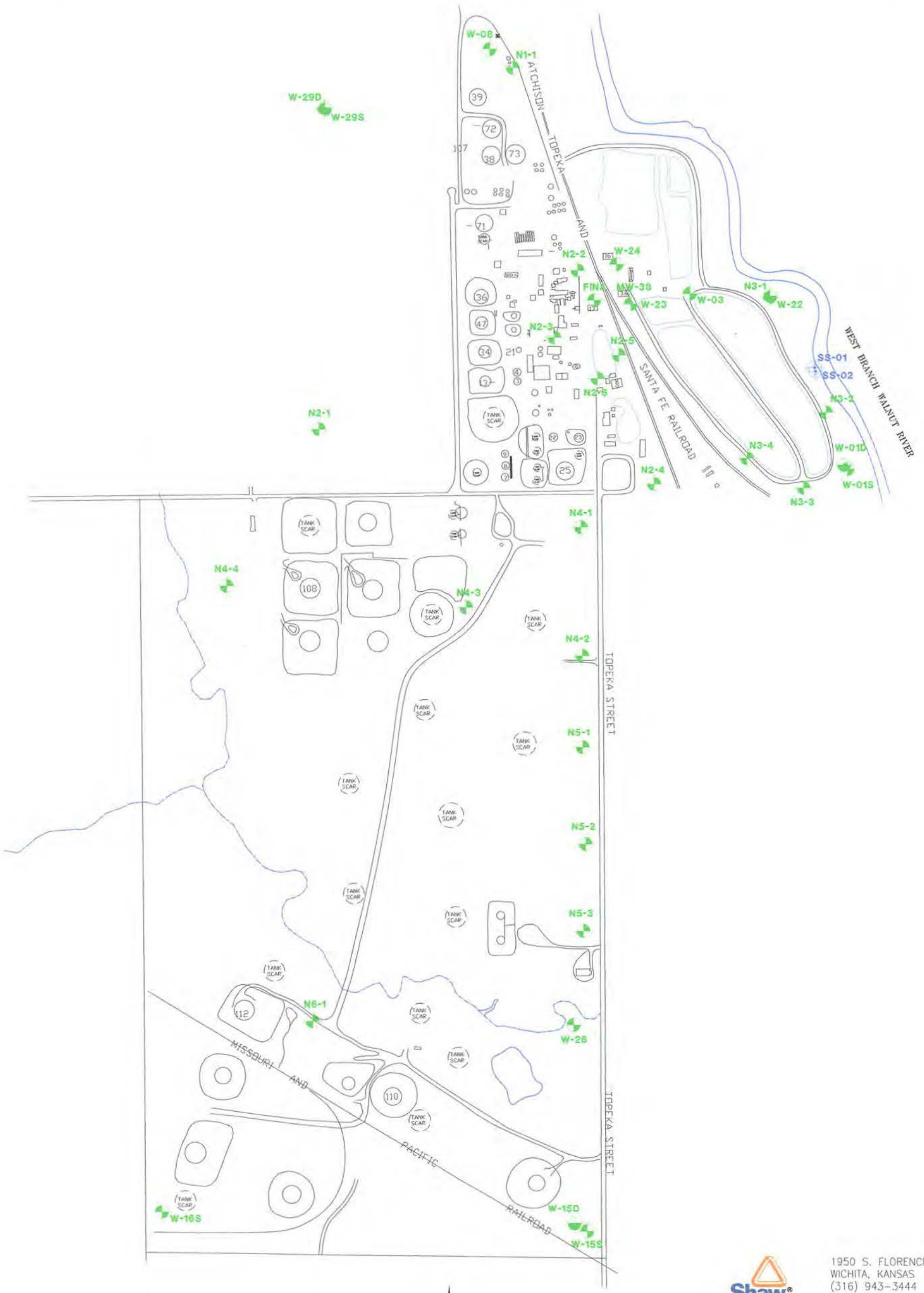
REV. NO.:	DRAWING DATE: 11/24/03	ACAD FILE: Figure 3-9	
SEDIMENT AND SURFACE WATER LOCATION MAP			
CLIENT: EL PASO CORPORATION			PM: LH
LOCATION: EL DORADO, KANSAS			PE/RG:
DESIGNED:	DETAILED: JD	PROJECT NO.: 100078	FIGURE: 3-9



LEGEND

- DEEP MONITORING WELL
- SHALLOW MONITORING WELL
- SEEP SAMPLE LOCATION

N

0 600 1200

SCALE FEET

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REV. NO.:	DRAWING DATE: 12/09/03	ACAD FILE: Figure 3-10	
SEEP SAMPLING LOCATION MAP			
CLIENT: EL PASO CORPORATION			PM: LH
LOCATION: EL DORADO, KANSAS			PE/RG:
DESIGNED:	DETAILED: JD	PROJECT NO.: 100078	FIGURE: **3-10**

SB1-1	0.5'	3.5'
Benzene	---	<0.0064
TPH GRO	<7	<6.3
TPH DRO	3.4	1.4

SB1-2	0.5'	3.5'	6'
Benzene	---	<0.0065	<0.0072
TPH GRO	<6.1	<6.5	<7.2
TPH DRO	870	0.98	1.7

SB1-3	0.5'	3.5'	8.5'
Benzene	---	<0.0062	0.0013
TPH GRO	110	4.6	<7.6
TPH DRO	2.3	630	31

SB3-1	0.5'	3.5'	18'
Benzene	---	0.092	<0.0074
TPH GRO	<6.2	40	<7.5
TPH DRO	110	45	1.5

SB3-2	0.5'	3.5'	10.5'
Benzene	---	<0.0065	0.29
TPH GRO	<6.1	<6.5	860
TPH DRO	1	<3.3	57

SB3-3	0.5'	3.5'	13'
Benzene	---	<0.009	<0.0065
TPH GRO	<6.6	<8.9	<6.5
TPH DRO	1.7	5.8	3.4

SB3-4	0.5'	3.5'	17'
Benzene	---	<0.0059	<0.0068
TPH GRO	<5.8	1.7	<6.8
TPH DRO	180	87	2.2

SB2-1	0.5'	3.5'
Benzene	---	<0.007
TPH GRO	<8.2	<6.9
TPH DRO	190	<3.5

SB2-2	0.5'	3.5'	7'
Benzene	---	<0.0065	<0.0065
TPH GRO	1.5	20	2.4
TPH DRO	170	510	400

SB2-3	0.5'	3.5'	8.5'
Benzene	---	<0.0064	<0.0062
TPH GRO	<6	0.31	0.9
TPH DRO	300	93	4.1

SB2-4	0.5'	3.5'	6'
Benzene	---	<0.0062	0.15
TPH GRO	<6.3	2.1	30
TPH DRO	9.5	4.8	1500

SB2-5	0.5'	3.5'	6.5'
Benzene	---	0.77	2.5
TPH GRO	<6.6	91	870
TPH DRO	38	89	74

SB2-6	0.5'	3.5'
Benzene	---	<0.0058
TPH GRO	1.1	<5.8
TPH DRO	30	8.9

SB2-7	0.5'	3.5'	5.5'
Benzene	---	0.027	0.18
TPH GRO	<6.1	140	160
TPH DRO	120	13	9300

SB2-8	0.5'	3.5'	8'
Benzene	---	<0.3	0.63
TPH GRO	<5.8	91	2700
TPH DRO	120	290	2300

SB2-9	0.5'	3.5'	19'
Benzene	---	0.038	7.9
TPH GRO	<6.5	1.9	1500
TPH DRO	10	0.96	110

SB4-1	0.5'	3.5'	19'
Benzene	---	<0.0065	0.21
TPH GRO	<6.4	0.32	280
TPH DRO	20	710	380

SB4-2	0.5'	3.5'	13'
Benzene	---	0.00092	0.0053
TPH GRO	<0.37	<6.2	0.63
TPH DRO	7.1	[2.8]	<3.5

SB4-3	0.5'	3.5'	13.5'
Benzene	---	<0.0059	<0.0068
TPH GRO	<6.7	<5.9	<6.8
TPH DRO	5	2	<3.5

SB4-4	0.5'	3.5'
Benzene	---	<0.0068
TPH GRO	<6.7	0.4
TPH DRO	5.5	12

SB4-5	0.5'	3.5'
Benzene	---	<0.0064
TPH GRO	<6.9	<6.4
TPH DRO	4.3	1.2

SB4-6	0.5'	3.5'
Benzene	---	<0.0055
TPH GRO	<6.8	0.27
TPH DRO	7.9	4.7

SB4-7	0.5'
Benzene	---
TPH GRO	<6.2
TPH DRO	2.3

SB4-8	0.5'	3.5'
Benzene	---	<0.32
TPH GRO	<6.7	330
TPH DRO	9.1	7.7

SB4-9	0.5'	3.5'
Benzene	---	<0.0062
TPH GRO	<7.1	0.69
TPH DRO	190	4

SB5-1	0.5'	3.5'
Benzene	---	<0.006
TPH GRO	<0.63	<6
TPH DRO	4	2.5

SB5-2	0.5'
Benzene	---
TPH GRO	<0.38
TPH DRO	<3.5

SB5-3	3.5'
Benzene	<0.006
TPH GRO	<6
TPH DRO	<3

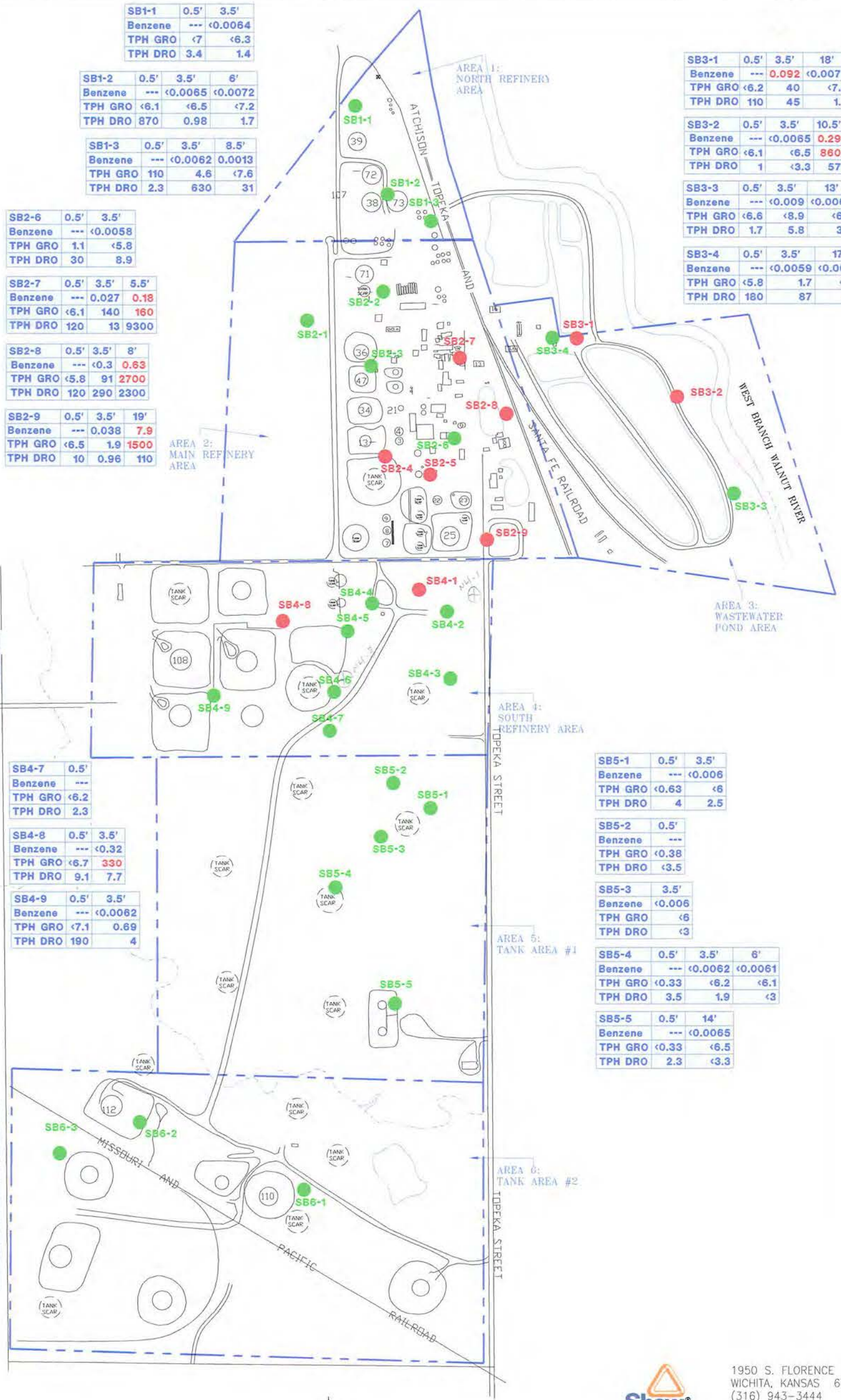
SB5-4	0.5'	3.5'	6'
Benzene	---	<0.0062	<0.0061
TPH GRO	<0.33	<6.2	<6.1
TPH DRO	3.5	1.9	<3

SB5-5	0.5'	14'
Benzene	---	<0.0065
TPH GRO	<0.33	<6.5
TPH DRO	2.3	<3.3

SB6-1	0.5'	3.5'	7'
Benzene	---	<0.0064	<0.0065
TPH GRO	<6.9	<6.4	<6.5
TPH DRO	3.7	2.8	1.1

SB6-2	0.5'
Benzene	---
TPH GRO	<7.1
TPH DRO	<3.5

SB6-3	0.5'	3.5'
Benzene	---	<0.0066
TPH GRO	<6.6	<6.7
TPH DRO	6.1	4.3



LEGEND

- SOIL BORING
- INDICATES CONCENTRATION ABOVE RISK-BASED STANDARD
- --- NOT ANALYZED

CONCENTRATIONS IN MG/KG

N

0 600 1200
SCALE FEET

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REV. NO.:	DRAWING DATE: 11/26/03	ACAD FILE: Figure 4-1

BENZENE, TPH as GRO, AND TPH as DRO SOIL CONCENTRATION MAP

CLIENT: EL PASO CORPORATION			PM: LH
LOCATION: EL DORADO, KANSAS			PE/RG:
DESIGNED:	DETAILED: JD	PROJECT NO.: 100078	FIGURE: 4-1

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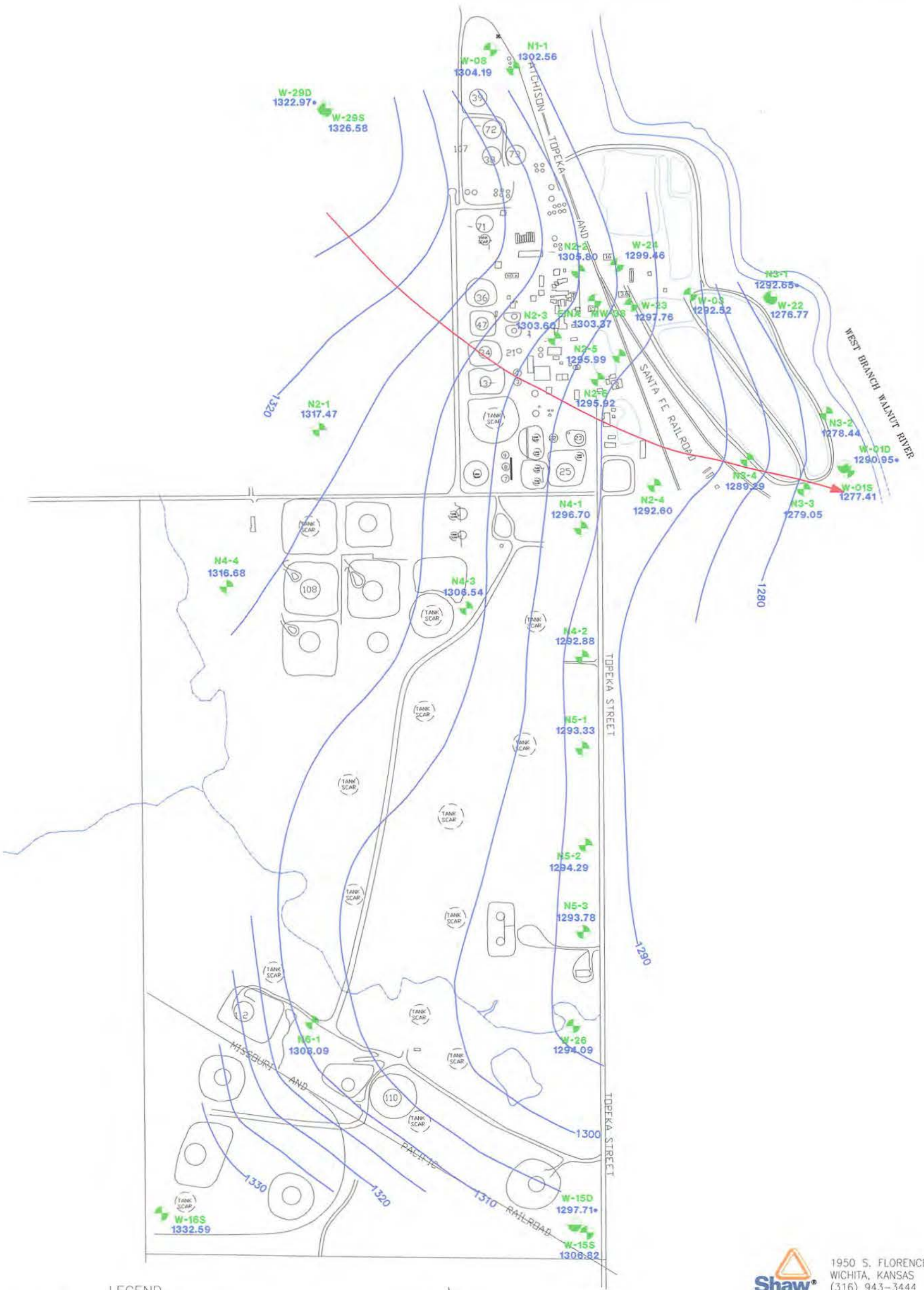
REV. NO.:	DRAWING DATE: 11/24/03	ACAD FILE: base1103	
ASPHALT PIT MAP			
CLIENT: EL PASO CORPORATION			PM: LH
LOCATION: EL DORADO, KANSAS			PE/RG:
DESIGNED:	DETAILED: JD	PROJECT NO.: 831825	FIGURE: 4-2



LEGEND

- DEEP MONITORING WELL
- SHALLOW MONITORING WELL
- 1332.59 GROUNDWATER ELEVATION (FT)
- 1332.59• POSTED VALUE ONLY NOT USED IN CONTOURING
- 1300.00 --- GROUNDWATER CONTOUR INTERVAL (FT)
- APPARENT GROUNDWATER FLOW DIRECTION

CONTOUR INTERVAL = 10.0' 5.0

N

0 600 1200
SCALE FEET

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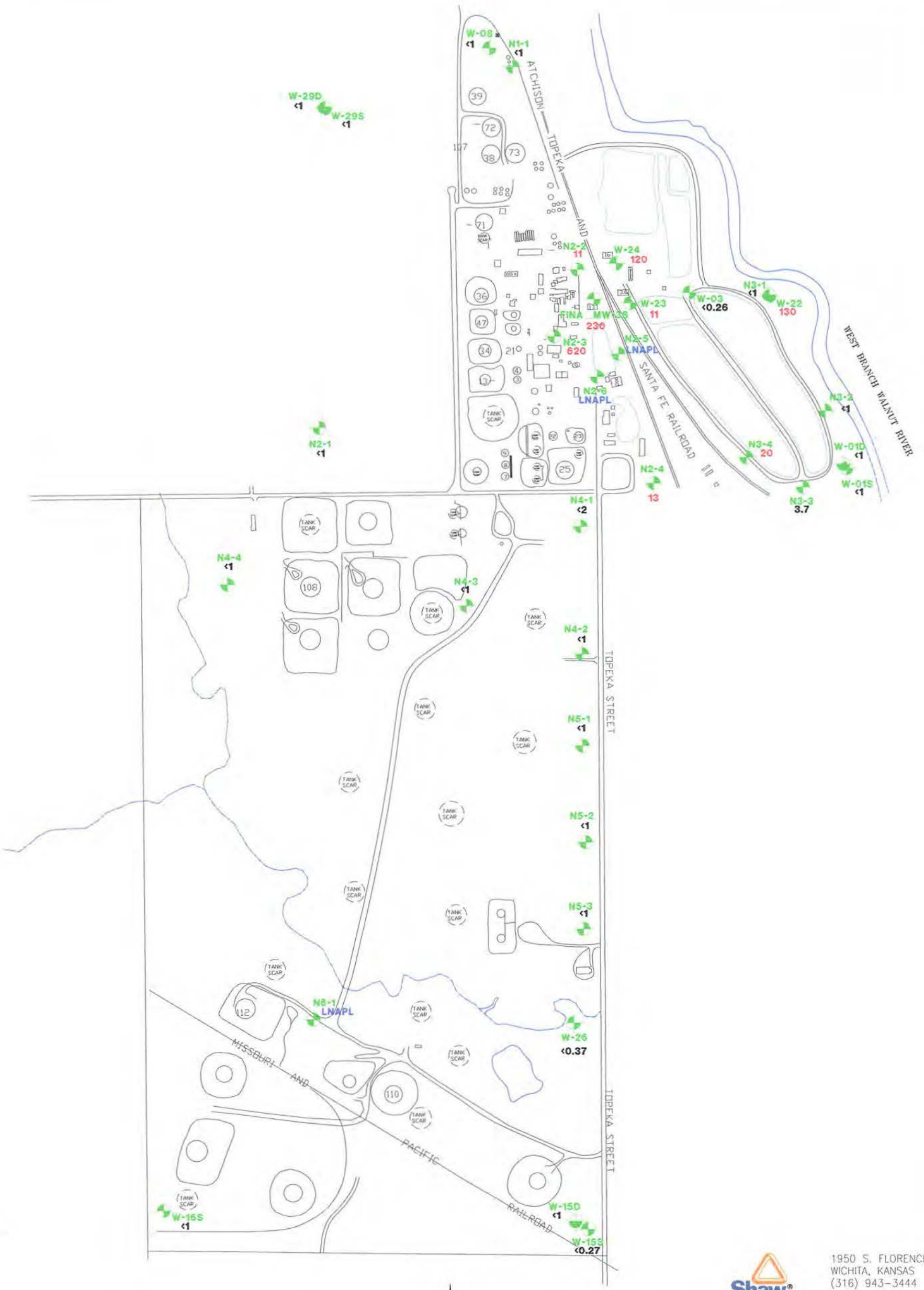
REV. NO.:	DRAWING DATE: 11/24/03	ACAD FILE: Figure 4-3	
SHALLOW POTENTIOMETRIC SURFACE MAP OCTOBER 2003			
CLIENT: EL PASO CORPORATION			PM: LH
LOCATION: EL DORADO, KANSAS			PE/RG:
DESIGNED:	DETAILED: JD	PROJECT NO.: 100078	FIGURE: **4-3**



LEGEND

- DEEP MONITORING WELL
- SHALLOW MONITORING WELL
- <1.0 BENZENE CONCENTRATION (ug/L) BELOW RISK-BASED STANDARD OF 5 ug/L
- <1.0 BENZENE CONCENTRATION (ug/L) ABOVE RISK-BASED STANDARD OF 5 ug/L
- LNAPL NOT SAMPLED LNAPL PRESENT

N

0 600 1200
SCALE FEET

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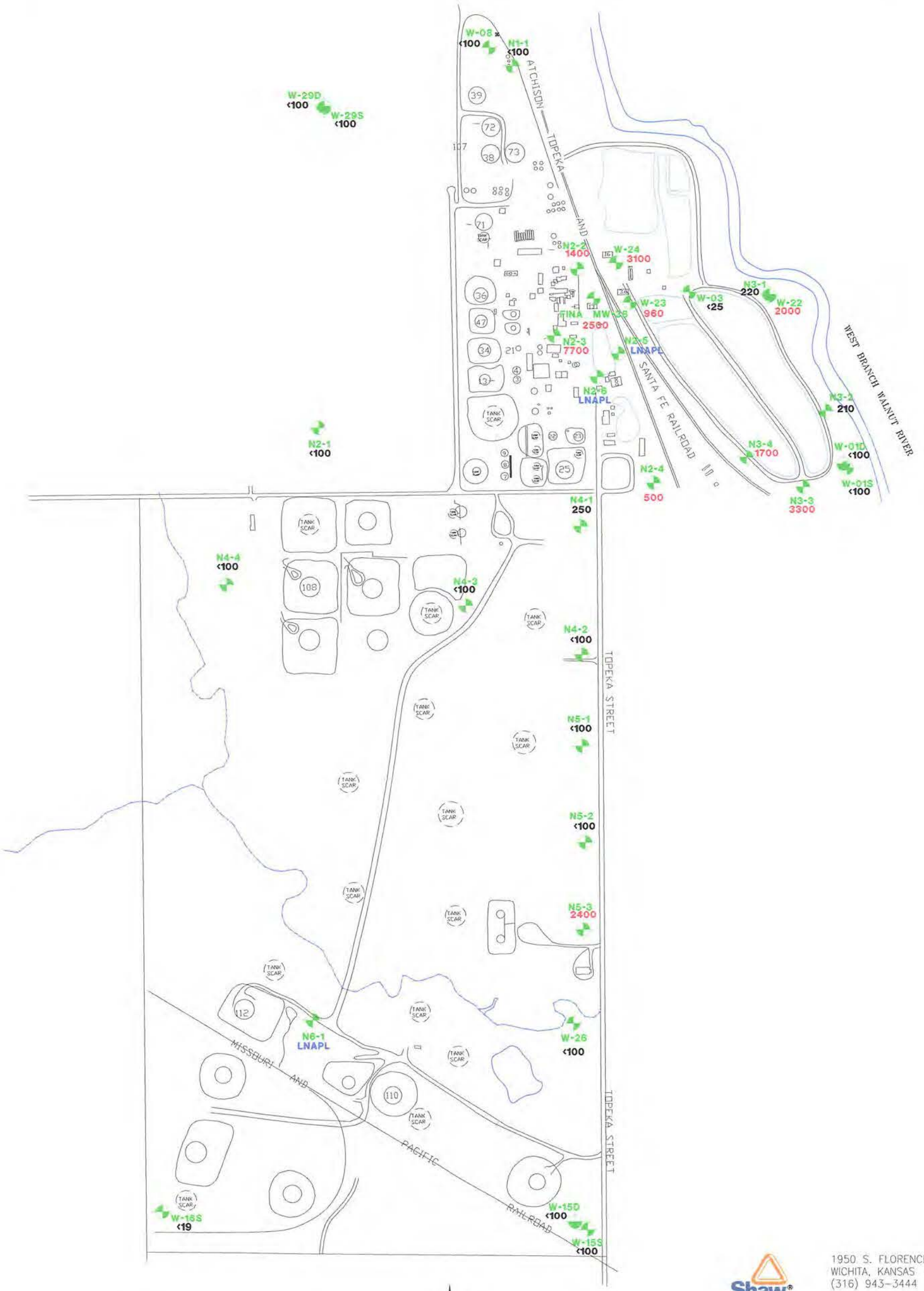
REV. NO.:	DRAWING DATE: 11/24/03	ACAD FILE: Figure 4-4	
BENZENE GROUNDWATER CONCENTRATION MAP			
CLIENT: EL PASO COPORATION			PM: LH
LOCATION: EL DORADO, KANSAS			PE/RG:
DESIGNED:	DETAILED: JD	PROJECT NO.: 831825	FIGURE: 4-4



LEGEND

- DEEP MONITORING WELL
- SHALLOW MONITORING WELL
- <100 TPH GRO CONCENTRATION (ug/L) BELOW RISK-BASED STANDARD OF 500 ug/L
- <100 TPH GRO CONCENTRATION (ug/L) ABOVE RISK-BASED STANDARD OF 500 ug/L
- LNAPL NOT SAMPLED LNAPL PRESENT

0 600 1200
SCALE FEET

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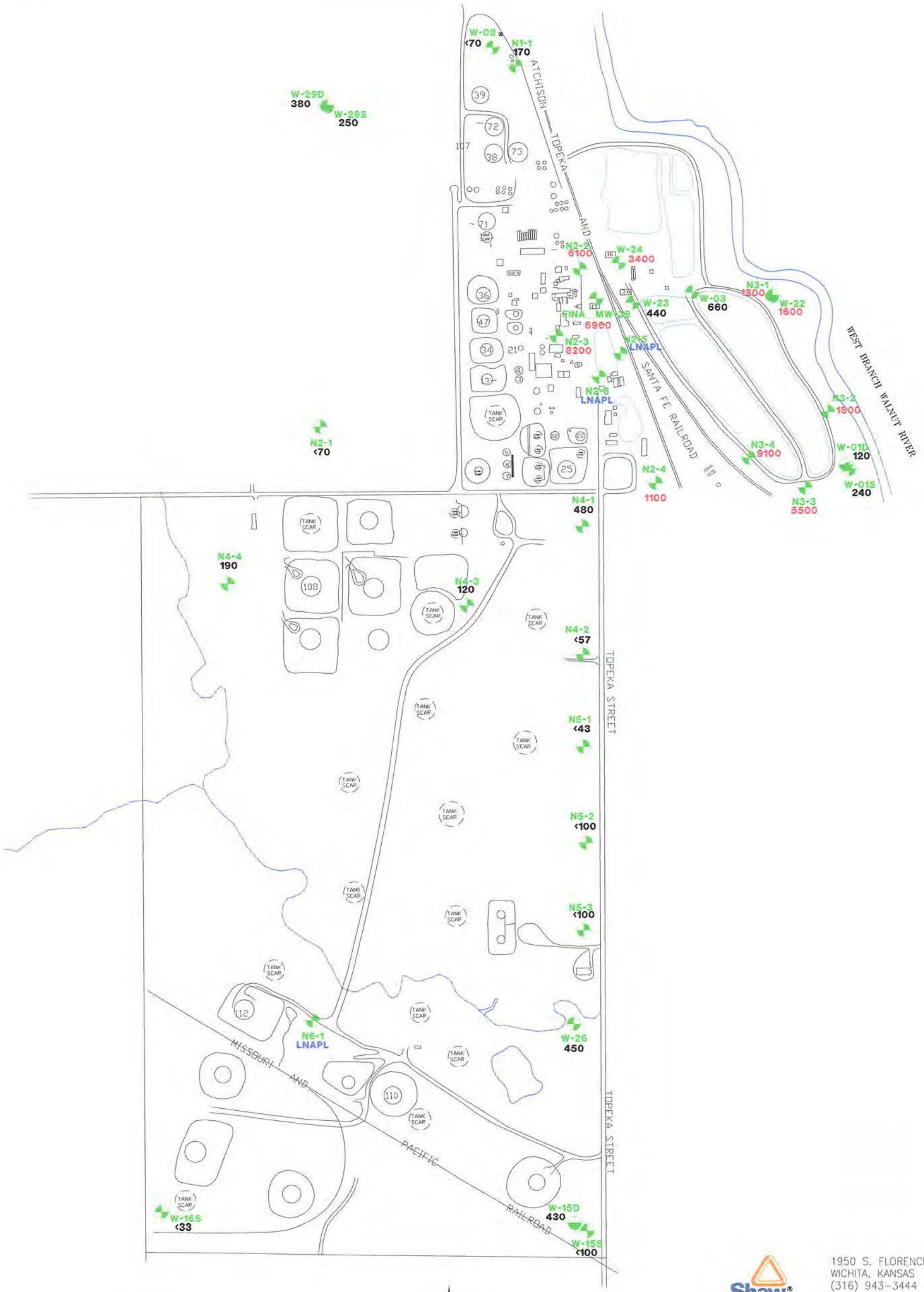
REV. NO.:	DRAWING DATE: 11/24/03	ACAD FILE: Figure 4-5	
TPH GRO GROUNDWATER CONCENTRATION MAP			
CLIENT: EL PASO COPORATION			PM: LH
LOCATION: EL DORADO, KANSAS			PE/RG:
DESIGNED:	DETAILED: JD	PROJECT NO.: 100078	FIGURE: 4-5



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LEGEND

- DEEP MONITORING WELL
- SHALLOW MONITORING WELL
- <100 TPH DRO CONCENTRATION (ug/L) BELOW RISK-BASED STANDARD OF 720 ug/L
- <100 TPH DRO CONCENTRATION (ug/L) ABOVE RISK-BASED STANDARD OF 720 ug/L
- LNAPL NOT SAMPLED LNAPL PRESENT

N

0 600 1200
SCALE FEET

REV. NO.:	DRAWING DATE: 11/24/03	ACAD FILE: Figure 4-6	
TPH DRO GROUNDWATER CONCENTRATION MAP			
CLIENT: EL PASO COPORATION			PM: LH
LOCATION: EL DORADO, KANSAS			PE/RG:
DESIGNED:	DETAILED: JD	PROJECT NO.: 100078	FIGURE: 4-6

APPENDIX A

DRILLING LOGS

Table A-1
Well Completion Information
El Dorado Refinery
El Dorado, Kansas

MONITORING WELL ID	SURVEY COORDINATES EASTING (feet)	NORTING (feet)	GROUND SURFACE ELEVATION (feet)	TOP OF CASING ELEVATION (feet)	DRILLING DATE	DRILLING METHOD	WELL DEPTH (feet bgs)	TOTAL DEPTH (feet bgs)	CASING DIAMETER (inches)	SCREENS INTERVAL (feet bgs)	TYPE OF COMPLETION (feet)
FINA_MW-38*	1786229.86	1744575.31	1304.34	1306.26	NA	NA	16	NA	2	NA	Overburden
N1-1	1785744.49	1745964.19	1313.68	1316.25	9/9/2003	Mud Rotary	22.5	55.5	2	7.0-22.5	Fort Riley Limestone
N2-1	1784592.77	1743805.37	1331.99	1334.30	9/13/2003	Mud Rotary	24	70	2	9.0-24.0	Fort Riley Limestone
N2-2	1786130.69	1744752.31	1307.42	1310.32	9/24/2003	Hollow Stem Auger	21	21	2	6.0-21.0	Overburden
N2-3	1785992.66	1744352.21	1307.11	1309.42	9/24/2003	Hollow Stem Auger	15	15	2	5.0-15.0	Overburden
N2-4	1786585.96	1743475.54	1300.56	1302.80	9/14/2003	HSA/Air Rotary	26	26	2	15.0-26.0	Fort Riley Limestone
N2-5	1786375.69	1744247.42	1302.29	1305.19	9/25/2003	Hollow Stem Auger	19	19	2	14.0-19.0	Overburden
N2-6	1786248.97	1744108.24	1302.39	1302.16	9/25/2003	Hollow Stem Auger	20	20	2	5.0-20.0	Overburden
N3-1	1787271.67	1744600.61	1291.83	1294.10	9/15/2003	HSA/Air Rotary	78.8	78.8	2	73.8-78.8	Florence Limestone
N3-2	1787606.40	1743905.27	1287.71	1290.26	9/24/2003	Hollow Stem Auger	16	16	2	6.0-16.0	Overburden
N3-3	1787473.30	1743452.08	1290.81	1293.08	9/26/2003	Hollow Stem Auger	17.25	17.25	2	7.25-17.25	Overburden
N3-4	1787137.35	1743629.31	1291.93	1294.31	9/26/2003	Hollow Stem Auger	18.5	18.5	2	6.5-18.5	Overburden
N4-1	1786150.26	1743217.68	1308.29	1310.61	9/15/2003	HSA/Air Rotary	23	23	2	13.0-23.0	Fort Riley Limestone
N4-2	1786157.50	1742451.31	1311.22	1313.50	9/26/2003	HSA/Air Rotary	28	28	2	13.0-28.0	Fort Riley Limestone
N4-3	1785467.50	1742741.67	1323.34	1323.34	9/14/2003	Air Rotary	20.1	20.1	2	5.1-20.1	Fort Riley Limestone
N4-4	1784042.94	1742868.32	1329.42	1332.25	9/26/2003	Air Rotary	23	23	2	8.0-23.0	Fort Riley Limestone
N5-1	1786159.81	1741905.91	1309.24	1311.20	9/16/2003	HSA/Air Rotary	23	23.5	2	13.0-23.0	Fort Riley Limestone
N5-2	1786178.39	1741324.75	1307.52	1309.77	9/26/2003	Air Rotary	28	28	2	18.0-28.0	Fort Riley Limestone
N5-3	1786165.65	1740806.20	1300.22	1302.43	9/14/2003	Hollow Stem Auger	20	20	2	5.0-20.0	Overburden
N6-1	1784555.11	1740265.15	1311.72	1313.84	9/23/2003	HSA/Air Rotary	23.5	23.5	2	13.5-23.5	Fort Riley Limestone
W-01D	1787714.04	1743588.97	1288.01	1292.67	12/2/1986	NA	87	94	4	67.0-87.0	Florence Limestone
W-01S	1787733.75	1743563.49	1287.23	1290.15	11/24/1986	NA	17	17	4	9.0-17.0	Overburden
W-03	1786798.22	1744614.32	1303.85	1305.68	12/1/1986	NA	18	20.3	4	8.0-18.0	Overburden
W-08	1785607.59	1746074.57	1316.99	1319.90	12/19/1986	NA	20	20	4	10.0-20.0	Fort Riley Limestone
W-15D	1786116.48	1739057.45	1324.16	1324.78	10/26/1986	NA	130	130	4	NA	Florence Limestone
W-15S	1786190.69	1739011.20	1321.93	1323.81	12/3/1986	NA	21	22	4	11.0-21.0	Fort Riley Limestone
W-16S	1783660.77	1739122.28	1335.97	1337.41	11/24/1986	NA	17	17	4	9.0-17.0	Fort Riley Limestone
W-22	1787274.25	1744592.88	1292.09	1293.94	10/28/1996	NA	16.5	16.5	4	6.5-16.5	Overburden
W-23	1786447.34	1744552.83	1302.72	1304.88	11/26/1986	NA	16.3	16.3	4	6.3-16.3	Overburden
W-24	1786362.29	1744789.04	1304.12	1306.35	11/26/1986	NA	16.3	16.5	4	11.5-16.5	Overburden
W-26	1786107.23	1740245.53	1296.85	1298.18	12/3/1986	NA	9	9	4	6.0-8.5	Fort Riley Limestone
W-29D	1784620.12	1745725.31	1339.15	1340.93	12/6/1986	NA	83	85	4	63-83	Florence Limestone
W-29S	1784626.93	1745716.57	1339.16	1341.21	12/6/1986	NA	22.5	22.5	4	15-22.5	Fort Riley Limestone

* = No Well Log Available

HSA = Hollow Stem Auger

NA = Information Not Available on Well Log

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DRILLING LOG

Project Name: El Paso El Dorado Refinery	X Coordinate: 1785744.49
ject Number: 100078	Y Coordinate: 1745964.19
Location: El Dorado, Kansas	Static Water Level: 13.69'
Logged By: McPhee	Measuring Point: 1316.25'
Drilling Company: Aquadrill	Total Depth: 55.50'
Drilling Method: Mud Rotary	Borehole Dia.:

Site Id: N1-1

Date Started: 09/09/03

Blank Casing:
type: dia: 2.00in fm: -2.5' to: 7.00'

Screens:
type: Slotted size: 0.010in dia: 2.00in
fm: 7.00' to: 22.50'

Annular Fill:
type: Cement fm: 0.00' to: 3.50'
type: Bentonite fm: 3.50' to: 6.50'
type: Sand Pack fm: 6.50' to: 22.50'
type: Bentonite fm: 22.50' to: 55.50'

Completed Depth: 22.50'

Remarks: RDQ: 52% - 6.3-10.5', 52% - 10.5-15.5', 25% - 15.5-19.5', 66% - 19.5-20.5', 75% - 25.5-30.5', 100% - 30.5-40.5', Cored from 6.3-55.5'. 12" borehole from 0-6.5', 6" borehole from 6.5-22.5', 2" borehole from 22.5-55.5'.

Depth (ft)	Well Completion	Water Level	% Recovery	PID (ppm)	Sample Interval	Soil Code	Graphic Log	Description
						FL		0-1' FILL.
2						ML		1-2.5' clayey SILT, dark brown, moist, soft, organic.
				0.0				2.5-3' clayey SILT, red brown, slightly moist, stiff.
4						MH/CH		3-4.5' SILT and CLAY, red, moist, stiff to very stiff, (weathered shale).
								TOP OF FORT RILEY @ 4.5'
								4.5-6' LIMESTONE, grayish yellow (5Y 8.4), hard, slightly moist to dry, slightly weathered.
6								6-12.7' LIMESTONE, grayish yellow, with light yellow clay, weathered, wet, multiple solution channels, vuggy, slight iron precipitate, silts and clays at solution channels, thinly bedded, moderately soft.
8			90					
				0.4				
10								
12			93	0.0				12.7-14.7' LIMESTONE, white to yellow gray, moderately strong, thinly bedded, slightly moist to dry, significantly less solutioning.
14								
						LS		14.7-16.9' LIMESTONE, grayish yellow, wet, soft, very weathered, increase in grain size, solution channels present, clay at fractures and solution channels, rip-up clasts present, fractured to very fractured, thinly bedded.
16								
			100					16.9-18.2' LIMESTONE, grayish yellow, moderately soft, very thinly bedded, slightly moist to dry, less solution channels.
18								18.2-22' LIMESTONE, medium gray, strong, dry, very thinly bedded, some wavy bedding, not weathered, little solutioning.
20								
2			100	0.0				22-22.5' LIMESTONE, medium gray to dark gray, wet within solution channels and along fractures, dry in massive areas, very thinly bedded, fractured, strong.
								22.5-27.7' Same as above without water or solution channels.

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DRILLING LOG

Site Id: N1-1

Project Name: El Paso El Dorado Refinery

Depth	Well Completion	Water Level	% Recovery	PID (ppm)	Sample No.	Soil Code	Graphic Log	Description
26								
28								27.7-30' LIMESTONE, dark gray to light gray, wet within solution channels, dry elsewhere, only larger grain sand materials remain within solution channels, very thinly bedded, moderately strong to strong, very fossiliferous.
30								30-39' LIMESTONE, medium gray, strong, dry, less fossils, little solution channels, little fractures, very thinly bedded.
32			100					
34								
36								
38				0.0		LS		
40								39-47.7' LIMESTONE, medium gray, strong, solution cracks, thinly bedded as opposed to very thinly bedded, fossiliferous, little fractures, some as 27.7' to 30', water within solution cracks, less solution channels below 40', large vertical fracture at 43' to 43.6'.
42								
44								
46			98					TOP OF FLORENCE LIMESTONE @ 47.7'
48								47.7-55.5' LIMESTONE, grayish yellow, with light bluish gray chert nodules, strong, dry, little fracturing, no solution cavities, thinly to moderately bedded.
50								
52								
54								
56								END OF EXPLORATION @ 55.5'
58								

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DRILLING LOG

Project Name: El Paso El Dorado Refinery	X Coordinate: 1784592.77
Project Number: 100078	Y Coordinate: 1743805.37
Location: El Dorado, Kansas	Static Water Level: 16.83'
Logged By: McPhee	Measuring Point: 1334.30'
Drilling Company: Aquadrill	Total Depth: 70.00'
Drilling Method: Mud Rotary	Borehole Dia.:

Remarks: RDQ: 15% - 2.5-18.3', 80% - 15-25', 90% - 25-35', 90% - 35-45', 90% - 45-55', 80% - 55-65'. Cored from 5-70'. 12" borehole from 0-5', 6" borehole from 5-24.5', 2" borehole from 5-70'.

Site Id: N2-1

Date Started: 09/13/03

Blank Casing:
type: dia: 2.00in fm: -2.4' to: 9.00'

Screens:
type: Slotted size: 0.010in dia: 2.00in
fm: 9.00' to: 24.00'

Annular Fill:
type: Cement fm: 0.00' to: 5.00'
type: Bentonite fm: 5.00' to: 7.00'
type: Sand Pack fm: 7.00' to: 24.00'
type: Bentonite fm: 24.00' to: 70.00'

Completed Depth: 24.50'

Depth (ft)	Well Completion	Water Level	% Recovery	PID (ppm)	Sample Interval	Soil Code	Graphic Log	Description
				0.0		ML		0-0.5' clayey SILT, dark brown, very organic, very moist, soft.
						CL		0.5-2.5' silty CLAY, red brown, moist, stiff.
2			100	0.8				TOP OF FORT RILEY @ 2.5' 2.5-8.5' weathered LIMESTONE, yellow gray, soft, moist, very argillaceous where it is intact has multiple solution channels, vuggy.
4								
6								
8								8.5-12.5' LIMESTONE, grayish yellow, fractured, strong, calcium deposits, thin bedded, little solutioning.
10			80					
12				0.5				12.5-18.3' LIMESTONE, grayish yellow, highly fractured, multiple solution channels, slightly vuggy, moderately strong, thin bedded, argillaceous.
14						LS		
16		▼						
18								18.3-21.8' LIMESTONE, grayish yellow, fractured to moderately fractured, strong, thin bedded, slight solutioning.
20								
?			100	0.9				21.8-33' LIMESTONE, medium gray/medium light gray, thinly to very thinly bedded, strong, fractured to moderately fractured, several stylites present, very fossiliferous from 30.7' to 32.5'.

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DRILLING LOG

Site Id: N2-1

Project Name: El Paso El Dorado Refinery

Dept	Well Completion	Water Level	% Recovery	PID (ppm)	Sample No.	Soil Code	Graphic Log	Description
26								
28								
30								
32								
34								33-55.8' Same as above, medium gray/light medium gray, less fractured, thinly to very thinly bedded, strong, very little solutioning, fossiliferous at 32.6' to algae encrusted fossils at 49.6' to 53.2', stylite below 45', major stylite at 54'.
36								
38								
40								
42								
44			100					
46								
48								
50								
52								
54								
[illegible]								TOP OF FLORENCE @ 55.8' 55.8-70' LIMESTONE, grayish yellow, thinly bedded, fractured to moderately fractured, blue gray chert nodules, stylitic, strong, slightly argillaceous some weathered areas, grayish yellow to white.
58								

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DRILLING LOG

Site Id: N2-1

Project Name: El Paso El Dorado Refinery

Dept.	Well Completion	Water Level	% Recovery	PID (ppm)	Sample No.	Soil Code	Graphic Log	Description
58								
60								
62			100					
64						LS		
66								
68								
70								END OF EXPLORATION @ 70'
72								
74								
76								
78								
80								
82								
84								
86								
88								
90								

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DRILLING LOG

Project Name: El Paso El Dorado Refinery	X Coordinate: 1786130.69
Project Number: 100078	Y Coordinate: 1744752.31
Location: El Dorado, Kansas	Static Water Level: 4.52'
Logged By: D. White	Measuring Point: 1310.32'
Drilling Company: Aquadrill	Total Depth: 21.00'
Drilling Method: Hollow Stem Auger	Borehole Dia.: 7.75in
Remarks:	

Site Id: N2-2

Date Started: 09/24/03

Blank Casing:
type: dia: 2.00in fm: -2.5' to: 6.00'

Screens:
type: Slotted size: 0.010in dia: 2.00in
fm: 6.00' to: 21.00'

Annular Fill:
type: Cement fm: 0.00' to: 2.00'
type: Bentonite Pellets fm: 2.00' to: 4.50'
type: Sand Pack fm: 4.50' to: 21.00'

Completed Depth: 21.00'

Depth (ft)	Well Completion	Water Level	% Recovery	PID (ppm)	Sample Interval	Soil Code	Graphic Log	Description
								0-0.5' A-B Base rock, limestone gravel. 0.5-3' FILL, sand and clay, dark brown.
2				7.3		FL		
						CL		3-4.1' lean CLAY, dark brown, limestone gravel at 4'.
4		▼		69.5				4.1-6' clayey SILT, dark brown, stained, soft, wet.
				75.0		ML		
6								6-9.5' lean CLAY, olive gray, stiff, medium plastic, odor, iron staining at 8.5'.
				79.3				
8								
				146		CL		9.5-13.5' lean CLAY, red brown, silty, stiff, medium plastic, with limestone fragments.
10								
				121				
12								
				136				
14								13.5-16' weathered LIMESTONE and CLAY, wet, olive gray clay with yellow gray limestone.
						LS/CH		
16								TOP OF FORT RILEY @ 16' 16-21' weathered LIMESTONE, yellow gray, argillaceous.
18						LS		
20								
22								END OF EXPLORATION @ 21'

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DRILLING LOG

Project Name: El Paso El Dorado Refinery	X Coordinate: 1785992.66
Project Number: 100078	Y Coordinate: 1744352.21
Location: El Dorado, Kansas	Static Water Level: 5.82'
Logged By: D. White	Measuring Point: 1309.42'
Drilling Company: Aquadrill	Total Depth: 15.00'
Drilling Method: Hollow Stem Auger	Borehole Dia.: 7.75in
Remarks:	

Site Id: N2-3

Date Started: 09/24/03

Blank Casing:
type: dia: 2.00in fm: -2.5' to: 5.00'

Screens:
type: Slotted size: 0.010in dia: 2.00in
fm: 5.00' to: 15.00'

Annular Fill:
type: Cemetn fm: 0.00' to: 2.00'
type: Bentonite Pellets fm: 2.00' to: 4.50'
type: Sand Pack fm: 4.50' to: 15.00'

Completed Depth: 15.00'

Depth (ft)	Well Completion	Water Level	% Recovery	PID (ppm)	Sample Interval	Soil Code	Graphic Log	Description
						FL		0-1.5' A-B Base rock, limestone gravel.
2						LS		1.5-2' LIMESTONE, yellow brown, wet.
				2000+		MH		2-3.25' SILT, dark brown, soft, wet to moist with depth, non-plastic, odor.
4								3.25-5.75' lean CLAY, red brown, silty, boxey texture, odor.
6		▼				CL		5.75-9.1' lean CLAY, olive gray with black mottling, stiff to hard, medium plastic, odor.
				589				
8								
10								9.1-14' weathered LIMESTONE and CLAY, wet at 9.1', olive gray clay with yellow gray limestone, some chert at 13', stiff, limestone, subround.
12						LS/CH		
14						LS		TOP OF FORT RILEY @ 14' 14-15' weathered LIMESTONE, yellow gray, argillaceous, with olive gray silt.
16								END OF EXPLORATION @ 15'
18								
20								
22								

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DRILLING LOG

Project Name: El Paso El Dorado Refinery	X Coordinate: 1786585.96
ject Number: 100078	Y Coordinate: 1743475.54
Location: El Dorado, Kansas	Static Water Level: 10.20'
Logged By: D. White	Measuring Point: 1302.80'
Drilling Company: Aquadrill	Total Depth: 26.00'
Drilling Method: Air Rotary/HSA	Borehole Dia.:

Remarks: 12" borehole from 0-13', 6" borehole from 13-26'

Site Id: N2-4

Date Started: 09/13/03

Blank Casing:
type: dia: 2.00in fm: 0.0' to: 15.00'

Screens:
type: Slotted size: 0.010in dia: 2.00in
fm: 15.00' to: 26.00'

Annular Fill:
type: Grout fm: 0.00' to: 12.00'
type: Bentonite fm: 12.00' to: 14.50'
type: Sand Pack fm: 14.50' to: 26.00'

Completed Depth: 26.00'

Depth (ft)	Well Completion	Water Level	% Recovery	PID (ppm)	Sample Interval	Soil Code	Graphic Log	Description
						GP		0-0.25' limestone GRAVEL.
						CL		0.25-1.0' lean CLAY, dark gray, silty, wet, some roots.
						CH		1.0-1.75' CLAY, red brown, with silt, medium plastic, wet.
2						FL		1.75-2' Concrete rubble with red/brown clay/silt.
								2-4' lean CLAY, olive gray, with limestone fragments, medium plastic, moist, medium stiff, limestone > 1".
4								4-6' Same as above.
						CL		
6								6-8' lean CLAY, yellow brown, silty, medium stiff, wet, water coming to the hole at approximately 4'.
8								8-11' lean CLAY, red brown, stiff, medium plastic.
10		▼				CH		
								11-12' lean CLAY, red brown, with limestone gravel, odor at contact with limestone.
12								TOP OF FORT RILEY @ 12'
								12-14' LIMESTONE, light yellow gray, soft to moderately soft, moderately strong at 13.75'.
14								14-21' LIMESTONE, yellow gray, softer at 16' to 17', with odor, less dust from 17'-21'.
16								
18						LS		
20								
2								21-26' LIMESTONE, medium gray, horder (strong), less dust at 23' and 24.5'.

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DRILLING LOG

Site Id: N2-4

Project Name: El Paso El Dorado Refinery

Depth	Well Completion	Water Level	% Recovery	PID (ppm)	Sample No.	Soil Code	Graphic Log	Description
26								END OF EXPLORATION @ 26'
28								
30								
32								
34								
36								
38								
40								
42								
44								
46								
48								
50								
52								
54								
56								
58								

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DRILLING LOG

Project Name: El Paso El Dorado Refinery	X Coordinate: 1786375.69
roject Number: 100078	Y Coordinate: 1744247.42
Location: El Dorado, Kansas	Static Water Level: 9.20'
Logged By: D. White	Measuring Point: 1305.19'
Drilling Company: Aquadrill	Total Depth: 19.00'
Drilling Method: Hollow Stem Auger	Borehole Dia.: 7.75in
Remarks:	

Site Id: N2-5

Date Started: 09/25/03

Blank Casing:
type: dia: 2.00in fm: -2.5' to: 4.00'

Screens:
type: Slotted size: 0.010in dia: 2.00in
fm: 4.00' to: 19.00'

Annular Fill:
type: Cement fm: 0.00' to: 1.00'
type: Bentonite Pellets fm: 1.00' to: 3.00'
type: Sand Pack fm: 3.00' to: 19.00'

Completed Depth: 19.00'

Depth (ft)	Well Completion	Water Level	% Recovery	PID (ppm)	Sample Interval	Soil Code	Graphic Log	Description
						MH		0-1.5' SILT, yellow brown to dark brown, soft, stained, non-plastic.
2				0.0		CL		1.5-5.5' lean CLAY, red brown, stiff, medium plastic, moist, stained.
4								
6								5.5-17.5' clayey SILT, red brown, blocky texture, wet, staining, slightly plastic, moist, wet at 8.5' with fluid at 8.5', soft.
8				277				
10								
12				2000+		ML		
14								
16								
18						LS		TOP OF FORT RILEY @ 17.5' 17.5-19' weathered LIMESTONE, and gray green clay, saturated, plastic, wet, hard at 18.75'.
20								END OF EXPLORATION @ 19'
22								

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DRILLING LOG

Project Name: El Paso El Dorado Refinery	X Coordinate: 1786248.97
Project Number:	Y Coordinate: 1744108.24
Location: El Dorado, Kansas	Static Water Level: 13.46'
Logged By: D. White	Measuring Point: 1302.16'
Drilling Company: Aquadrill	Total Depth: 20.00'
Drilling Method: Hollow Stem Auger	Borehole Dia.: 7.75in
Remarks:	

Site Id: N2-6

Date Started: 09/25/03

Blank Casing:
type: dia: 2.00in fm: 0.0' to: 5.00'

Screens:
type: Slotted size: 0.010in dia: 2.00in
fm: 5.00' to: 20.00'

Annular Fill:
type: Cement fm: 0.00' to: 2.00'
type: Bentonite Pellets fm: 2.00' to: 3.00'
type: Sand Pack fm: 3.00' to: 20.00'

Completed Depth: 20.00'

Depth (ft)	Well Completion	Water Level	% Recovery	PID (ppm)	Sample Interval	Soil Code	Graphic Log	Description
						FL		0-0.67' Road base. 0.67-2.25' CLAY, red brown, with limestone gravel, fill, stiff.
2				47.5				2.25-5.25' SILT, dark brown with staining at 4.75', black, odor, sheen on Shelby tube.
4						MH		
6								5.25-18.5' lean CLAY, to silt and clay, red brown, stiff, medium plastic, with staining, odor, wet at 14.5', strong odor, with chert and limestone gravel at 16.5-18.5'.
8				1365				
10								
12				2000+		CL		
14								
16								
18								TOP OF FORT RILEY @ 18.5' 18.5-20' weathered LIMESTONE, olive gray, soft, saturated, separate phase.
20						LS		
22								END OF EXPLORATION @ 20'

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DRILLING LOG

Project Name: El Paso El Dorado Refinery	X Coordinate: 1787271.67
ject Number: 100078	Y Coordinate: 1744600.61
Location: El Dorado, Kansas	Static Water Level: 1.45'
Logged By: White/McPhee	Measuring Point: 1294.10'
Drilling Company: Aquadrill	Total Depth: 78.80'
Drilling Method: Air Rotary/HSA	Borehole Dia.:

Remarks: 12" borehole from 0-18', 6" borehole from 18-78.8'

Site Id: N3-1

Date Started: 09/15/03

Blank Casing:
type: dia: 2.00in fm: -2.5' to: 73.80'

Screens:
type: Slotted size: 0.010in dia: 2.00in
fm: 73.80' to: 78.80'

Annular Fill:
type: Grout fm: 0.00' to: 72.30'
type: Sand Pack fm: 72.30' to: 78.80'

Completed Depth: 78.80'

Depth (ft)	Well Completion	Water Level	% Recovery	PID (ppm)	Sample Interval	Soil Code	Graphic Log	Description
			50					0-1.8' silty CLAY/silt and clay, brown, dark brown, moist to very maist, stiff, organic. 1.8-7.5' silty CLAY/clay and silt, red brown, moist, stiff, slightly organic.
2				0.0				
4								
6			0					
8						CL		7.5-16' silty CLAY, black, dark gray, very moist, heavy staining, strong petroleum odor, soft.
				96.2				
10								
12			100					
				950				
14								
				2000+				
16								TOP OF FORT RILEY @ 16' 16-18.5' LIMESTONE, grayish yellow.
18								18.5-23' LIMESTONE, medium gray, wet, strong odor.
20						LS		
2								23-29' argilloceous LIMESTONE, medium gray, less strong odor than above.

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DRILLING LOG

Site Id: N3-1

Project Name: El Paso El Dorado Refinery

Dept.	Well Completion	Water Level	% Recovery	PID (ppm)	Sample No.	Soil Code	Graphic Log	Description
26								
28								
30								29–31' argillaceous LIMESTONE, medium gray, dusty at 29.5'.
32								31–31.75' more argillaceous LIMESTONE, darker medium gray. 31.75–33' LIMESTONE, light gray, harder.
34								33–33.75' LIMESTONE, medium to dark gray, strong. 33.75–35' LIMESTONE, medium gray, hard, crystalline.
36								35–36' argillaceous LIMESTONE, medium gray, strong odor. 36–37' LIMESTONE, medium gray, hard.
38								37–38' argillaceous LIMESTONE, light gray, softer. 38–39' same as above.
40						LS		39–40' argillaceous LIMESTONE, light to medium gray, dry. 40–41.5' argillaceous LIMESTONE, medium gray, dusty.
42								41.5–42' LIMESTONE, medium gray, softer. 42–42.5' LIMESTONE, wet, several thin zones. 42.5–44.75' LIMESTONE, dusty.
44								
46								44.75–45.75' argillaceous LIMESTONE, medium gray, dusty. 45.75–48' same as above.
48								48–49.75' argillaceous LIMESTONE, medium to dark gray.
50								49.75–51.5' argillaceous LIMESTONE, medium gray, very dusty.
52								51.5–58.5' argillaceous LIMESTONE, medium gray, damp.
54								
58								

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DRILLING LOG

Site Id: N3-1

Project Name: El Paso El Dorado Refinery

Depth	Well Completion	Water Level	% Recovery	PID (ppm)	Sample No.	Soil Code	Graphic Log	Description
58								
60						LS		TOP OF FLORENCE LIMESTONE @ 58.5' 58.5-62' LIMESTONE, medium blue gray, very powdery return.
62								62-68' No return.
64								
66								
68								68-78.8' LIMESTONE, medium blue gray, moist, soft from 74-76'.
70								
72								
74						LS		
76								
78								
80								END OF EXPLORATION @ 78.8'
82								
84								
86								
88								
90								
92								

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DRILLING LOG

Project Name: El Paso El Dorado Refinery	X Coordinate: 1787606.40
roject Number: 100078	Y Coordinate: 1743905.27
Location: El Dorado, Kansas	Static Water Level: 11.82'
Logged By: D. White	Measuring Point: 1290.26'
Drilling Company: Aquadrill	Total Depth: 16.00'
Drilling Method: Hollow Stem Auger	Borehole Dia.: 7.75in
Remarks:	

Site Id: N3-2

Date Started: 09/24/03

Blank Casing:
type: dia: 2.00in fm: -2.5' to: 6.00'

Screens:
type: Slotted size: 0.010in dia: 2.00in
fm: 6.00' to: 16.00'

Annular Fill:
type: Cement fm: 0.00' to: 2.00'
type: Bentonite fm: 2.00' to: 4.00'
type: Sand Pack fm: 4.00' to: 16.00'

Completed Depth: 16.00'

Depth (ft)	Well Completion	Water Level	% Recovery	PID (ppm)	Sample Interval	Soil Code	Graphic Log	Description
						FL		0-1.5' Topsoil, dark brown, silty loam, moist
2								1.5-7.12' SILT, with trace clay, dark red brown grading to red brown at 2.5'
4						ML		
6								
8						CL		7.12-10.5' lean CLAY, red brown with gray, wet at 9.75', medium plastic.
10								
12		▼				MH		10.5-13.5' SILT, medium brown with gray, wet, odor, non-plastic, roots.
14						LS		TOP OF FORT RILEY @ 13.5' 13.5-16' weathered LIMESTONE, yellow gray, gritty texture.
16								
18								END OF EXPLORATION @ 16'
20								
22								

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DRILLING LOG

Project Name: El Paso El Dorado Refinery	X Coordinate: 1787473.30
Project Number: 100078	Y Coordinate: 1743452.08
Location: El Dorado, Kansas	Static Water Level: 14.03'
Logged By: D. White	Measuring Point: 1293.08'
Drilling Company: Aquadrill	Total Depth: 17.25'
Drilling Method: Hollow Stem Auger	Borehole Dia.: 7.75in
Remarks:	

Site Id: N3-3

Date Started: 09/26/03

Blank Casing:
type: dia: 2.00in fm: -2.5' to: 7.25'

Screens:
type: Slotted size: 0.010in dia: 2.00in
fm: 7.25' to: 17.25'

Annular Fill:
type: Cement fm: 0.00' to: 4.00'
type: Bentonite Pellets fm: 4.00' to: 5.50'
type: Sand Pack fm: 5.50' to: 17.25'

Completed Depth: 17.25'

Depth (ft)	Well Completion	Water Level	% Recovery	PID (ppm)	Sample Interval	Soil Code	Graphic Log	Description
						MH		0-1.75' SILT, dark brown, organic, rich, soft, non-plastic.
2			100	0.0				1.75-5.25' lean CLAY, silty, red brown, stiff, medium plastic, moist.
4						CL		
6								5.25-14.5' CLAY and SILT, red brown, stiff, dry, boxey texture, slightly plastic to medium plastic.
8			100	0.0				
10						CH/MH		
12			100	0.8				
14		▼						14.5-17' CLAY and LIMESTONE, olive gray, stained, odor, saturated.
16			100	56		CH/LS		
						LS		TOP OF FORT RILEY @ 17' 17-17.25' LIMESTONE, yellow gray, hard.
18								END OF EXPLORATION @ 17.25'
20								
22								

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DRILLING LOG

Project Name: El Paso El Dorado Refinery	X Coordinate: 1787137.35
roject Number: 100078	Y Coordinate: 1743629.31
Location: El Dorado, Kansas	Static Water Level: 5.02'
Logged By: D. White	Measuring Point: 1294.31'
Drilling Company: Aquadrill	Total Depth: 18.50'
Drilling Method: Hollow Stem Auger	Borehole Dia.: 7.75in
Remarks:	

Site Id: N3-4

Date Started: 09/26/03

Blank Casing:
type: dia: 2.00in fm: -2.5' to: 6.50'

Screens:
type: Slotted size: 0.010in dia: 2.00in
fm: 6.50' to: 18.50'

Annular Fill:
type: Cement fm: 0.00' to: 2.00'
type: Bentonite Pellets fm: 2.00' to: 5.00'
type: Sand Pack fm: 5.00' to: 18.50'

Completed Depth: 18.50'

Depth (ft)	Well Completion	Water Level	% Recovery	PID (ppm)	Sample Interval	Soil Code	Graphic Log	Description
						ML		0-0.75' sandy SILT, topsoil, wet.
2			100	0.0		MH		0.75-2.5' SILT, dark brown, moist, soft, non-plastic.
4		▼						2.5-5.5' lean CLAY, silty, red brown, silt content increases at 4.25 to 4.5', with roots, stiff, medium plastic.
6								5.5-13' lean CLAY, less silt, dark red brown, with black mottling, stiff, plastic, with desercation cracks at 9', saturated.
8				0.0		CL		
10								
12								
14								13-16.25' fat CLAY, olive gray, hard, plastic, moist.
16						CH		16.25-17.5' CLAY, olive, and yellow gray limestone fragments, odor, stained.
18						LS		TOP OF FORT RILEY @ 17.5' 17.5-18.5' LIMESTONE, yellow brown, hard at 18.5', saturated.
20								END OF EXPLORATION @ 18.5'
22								

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DRILLING LOG

Project Name: El Paso El Dorado Refinery	X Coordinate: 1786150.26
ject Number: 100078	Y Coordinate: 1743217.68
Location: El Dorado, Kansas	Static Water Level: 13.91'
Logged By: White/McPhee	Measuring Point: 1310.61'
Drilling Company: Aquadrill	Total Depth: 23.00'
Drilling Method: HSA/Air Rotary	Borehole Dia.:

Remarks: 7.75" borehole from 0-10', 6" borehole from 10-22'

Site Id: N4-1

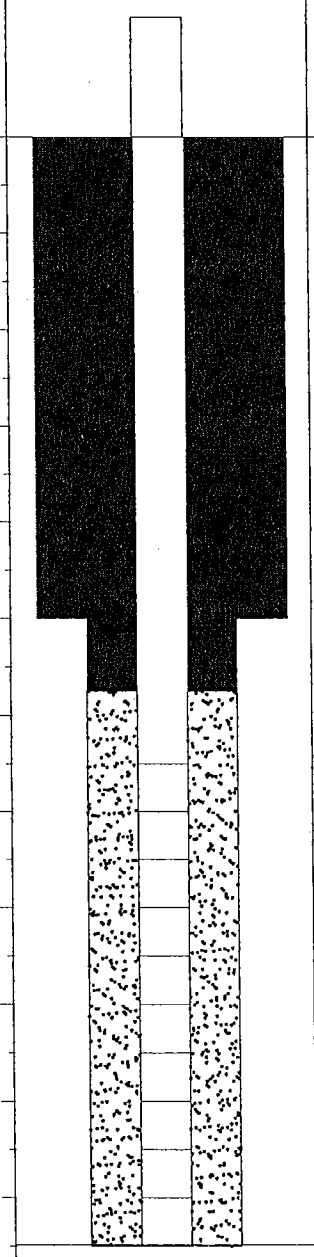
Date Started: 09/15/03

Blank Casing:
type: dia: 2.00in fm: -2.5' to: 13.00'

Screens:
type: Slotted size: 0.010in dia: 2.00in
fm: 13.00' to: 23.00'

Annular Fill:
type: Bentonite Pellets fm: 0.00' to: 4.00'
type: Bentonite fm: 4.00' to: 11.50'
type: Sand Pack fm: 11.50' to: 23.00'

Completed Depth: 23.00'

Depth (ft)	Well Completion	Water Level	% Recovery	PID (ppm)	Sample Interval	Soil Code	Graphic Log	Description
2								0-1.2' silty CLAY, dark brown, organic, very moist to moist, soft. 1.2-9' silty CLAY, red brown, slightly moist, stiff.
4				0.0		CL		
6			100					
8				0.0				TOP OF FORT RILEY @ 9' 9-9.5' weathered LIMESTONE, grayish yellow, very stiff, moist. 9.5-13.75' argillaceous LIMESTONE, yellow gray, strong, moist.
10								
12								
14								13.75-18' argillaceous LIMESTONE, yellow gray, wet.
16						LS		
18								18-20' LIMESTONE, yellow gray, wet.
20								20-20.8' some as above. 20.8-21.5' LIMESTONE, medium gray.
2								21.5-22' same as above.
								END OF EXPLORATION @ 23'

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DRILLING LOG

Project Name: El Paso El Dorado Refinery	X Coordinate: 1786157.50
Project Number: 100078	Y Coordinate: 1742451.31
Location: El Dorado, Kansas	Static Water Level: 20.62'
Logged By: White/McPhee	Measuring Point: 1313.50'
Drilling Company: Aquadrill	Total Depth: 28.00'
Drilling Method: Air Rotary/HSA	Borehole Dia.: 6.00in

Remarks: 7.75" borehole from 0–10.5', 6" borehole from 10.5–28'

Site Id: N4-2

Date Started: 09/26/03

Blank Casing:
type: dia: 2.00in fm: -2.5' to: 13.00'

Screens:
type: Slotted size: 0.010in dia: 2.00in
fm: 13.00' to: 28.00'

Annular Fill:
type: Cement fm: 0.00' to: 2.00'
type: Bentonite Pellets fm: 2.00' to: 11.25'
type: Sand Pack fm: 11.25' to: 28.00'

Completed Depth: 28.00'

Depth (ft)	Well Completion	Water Level	% Recovery	PID (ppm)	Sample Interval	Soil Code	Graphic Log	Description
			100					0–1.7' silty to very silty CLAY, dark brown, very moist, organic, soft to stiff.
2				0.0		CL		1.7–4.7' silty CLAY, brown, red brown, moist, stiff to very stiff, slightly organic at top.
4				0.0				TOP OF FORT RILEY @ 4.7'
6								4.7–8.5' weathered LIMESTONE, grayish yellow, very moist, soft.
8								8.5–11' LIMESTONE, grayish yellow, strong, slightly moist, orgillaceous.
10								
12								11–27.8' LIMESTONE, yellow gray, rotten, with little structure, very soft, saturated.
14						LS		
16								
18								
20		▼						
22								

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DRILLING LOG

Site Id: N4-2

Project Name: El Paso El Dorado Refinery

Depth	Well Completion	Water Level	% Recovery	PID (ppm)	Sample No.	Soil Code	Graphic Log	Description
26								
28								27.8–28' LIMESTONE, medium gray, harder, water increases with recovery.
								END OF EXPLORATION @ 28'
30								
32								
34								
36								
38								
40								
42								
44								
46								
48								
50								
52								
54								

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DRILLING LOG

Project Name: El Paso El Dorado Refinery	X Coordinate: 1785467.50
Project Number: 100078	Y Coordinate: 1742741.67
Location: El Dorado, Kansas	Static Water Level: 16.80'
Logged By: D. White	Measuring Point: 1323.34'
Drilling Company: Aquadrill	Total Depth: 20.10'
Drilling Method: Air Rotary	Borehole Dia.:

Remarks: 12" borehole from 0-3', 6" borehole from 3-20.1'

Site Id: N4-3

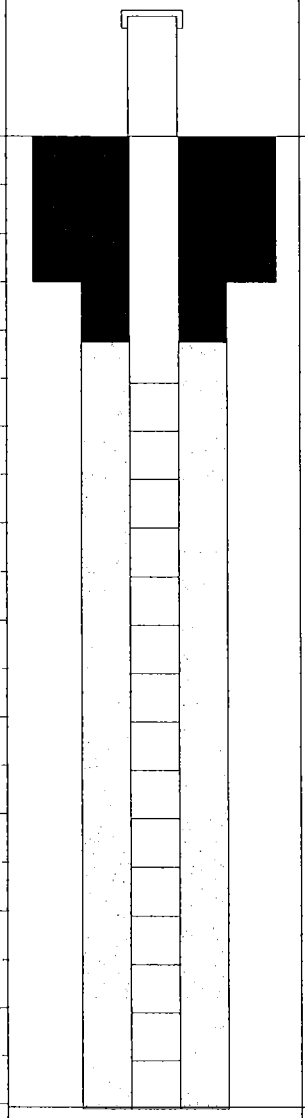
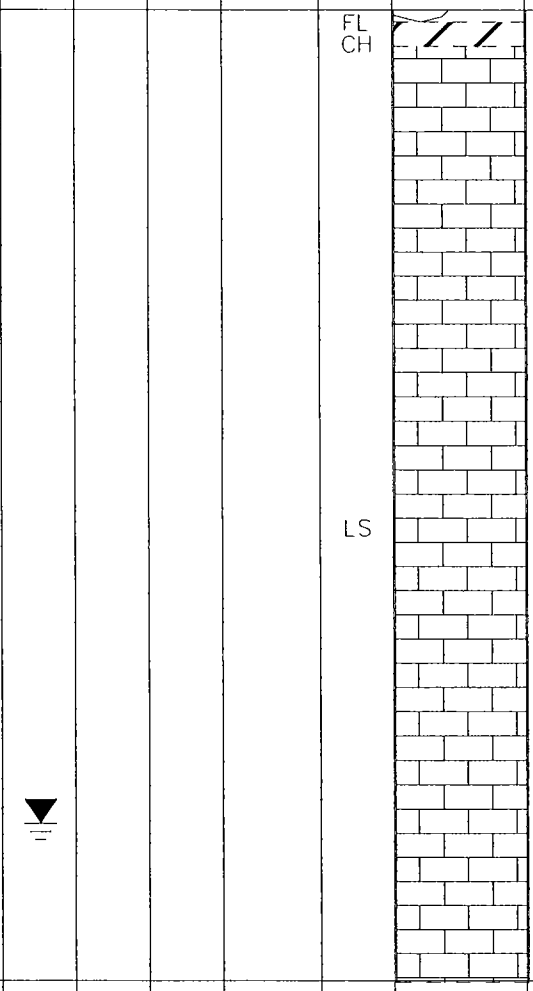
Date Started: 09/14/03

Blank Casing:
type: dia: 2.00in fm: -2.5' to: 5.10'

Screens:
type: Slotted size: 0.010in dia: 2.00in
fm: 5.10' to: 20.10'

Annular Fill:
type: Cement fm: 0.00' to: 3.00'
type: Bentonite Pellets fm: 3.00' to: 4.25'
type: Sand Pack fm: 4.25' to: 20.10'

Completed Depth: 20.10'

Depth (ft)	Well Completion	Water Level	% Recovery	PID (ppm)	Sample Interval	Soil Code	Graphic Log	Description
0–20.1						FL CH LS		0-0.25' Topsoil, loam, dark brown, moist, silty. 0.25-0.75' lean CLAY, red brown, medium stiff, medium plastic. TOP OF FORT RILEY @ 0.75' 0.75-20.1' LIMESTONE, yellow gray, agrelious, soft at 7' to 7.5', odor at 8.25', less dust, harder at 11', less yellow, dusty at 13.75', hard, light yellow gray, soft at 15.5' less dust, wet at 18.25' to 18.9', harder at 19'.
20–22								END OF EXPLORATION @ 20.1'

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DRILLING LOG

Project Name: El Paso El Dorado Refinery	X Coordinate: 1784042.94
Project Number: 100078	Y Coordinate: 1742868.32
Location: El Dorado, Kansas	Static Water Level: 15.57'
Logged By: D. White	Measuring Point: 1332.25'
Drilling Company: Aquadrill	Total Depth: 23.00'
Drilling Method: Air Rotary	Borehole Dia.: 6.00in

Remarks:

Site Id: N4-4

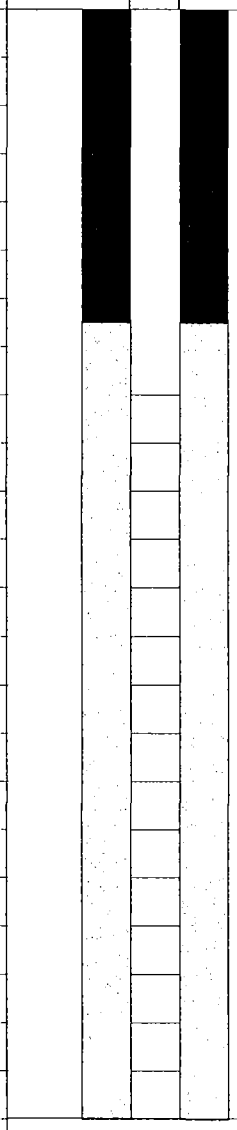
Date Started: 09/26/03

Blank Casing:
type: dia: 2.00in fm: -2.5' to: 8.00'

Screens:
type: Slotted size: 0.010in dia: 2.00in
fm: 8.00' to: 23.00'

Annular Fill:
type: Cement fm: 0.00' to: 2.00'
type: Bentonite Pellets fm: 2.00' to: 6.50'
type: Sand Pack fm: 6.50' to: 23.00'

Completed Depth: 23.00'

Depth (ft)	Well Completion	Water Level	% Recovery	PID (ppm)	Sample Interval	Soil Code	Graphic Log	Description
						FL LS		0-0.5' Topsoil, dork brown. TOP OF FORT RILEY @ 0.5' 0.5-23' LIMESTONE, yellow gray, dusty, dry, argillaceous, white and gray flecks at 9', some gray limestone at 16.5', then back to yellow gray at 18', clay, wet to 18.25', medium gray at 23'.
								END OF EXPLORATION @ 23'

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DRILLING LOG

Project Name: El Paso El Dorado Refinery	X Coordinate: 1786159.81
ject Number: 100078	Y Coordinate: 1741905.91
Location: El Dorado, Kansas	Static Water Level: 17.87'
Logged By: McPhee	Measuring Point: 1311.20'
Drilling Company: Aquadrill	Total Depth: 23.50'
Drilling Method: Air Rotary/HSA	Borehole Dia.:

Remarks: 7.75" borehole from 0-10.5', 6" borehole from 10.5-23.5'

Site Id: N5-1

Date Started: 09/16/03

Blank Casing:
type: dia: 2.00in fm: -2.5' to: 13.00'

Screens:
type: Slotted size: 0.010in dia: 2.00in
fm: 13.00' to: 23.00'

Annular Fill:
type: Cement fm: 0.00' to: 0.50'
type: Bentonite fm: 0.50' to: 11.50'
type: Sand Pack fm: 11.50' to: 23.50'

Completed Depth: 23.50'

Depth (ft)	Well Completion	Water Level	% Recovery	PID (ppm)	Sample Interval	Soil Code	Graphic Log	Description
			100					0-2.2' silty to very silty CLAY, dark brown, moist to very moist, soft, very organic.
2				1.1		CL		2.2-6.3' silty CLAY, red brown, moist, stiff.
4								
6				1.1				TOP OF FORT RILEY @ 6.3'
				0.7				6.3-8.7' weathered LIMESTONE, grayish yellow, olive gray near soil interface, soft, very moist, agriliceous.
8								8.7-14' LIMESTONE, grayish yellow, moderately strong, agriliceous, moist.
10						LS		
12								
14								14-17.5' CLAY, red brown, residuum, wet, very soft.
16						CH		
18								17.5-20' LIMESTONE, grayish yellow, moderately strong, agriliceous, moist.
20						LS		20-23.5' Same as above but wet and softer.
2								

END OF EXPLORATION @ 23.5'

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DRILLING LOG

Project Name: El Paso El Dorado Refinery	X Coordinate: 1786178.39
Project Number: 100078	Y Coordinate: 1741324.75
Location: El Dorado, Kansas	Static Water Level: 15.48'
Logged By: D. White	Measuring Point: 1309.77'
Drilling Company: Aquadrill	Total Depth: 28.00'
Drilling Method: Air Rotary/HSA	Borehole Dia.:

Remarks: 7.75" borehole from 0-16', 6" borehole from 16-28'

Site Id: N5-2

Date Started: 09/25/03

Blank Casing:
type: dia: 2.00in fm: -2.5' to: 18.00'

Screens:
type: Slotted size: 0.010in dia: 2.00in
fm: 18.00' to: 28.00'

Annular Fill:
type: Cement fm: 0.00' to: 2.00'
type: Bentonite Pellets fm: 2.00' to: 17.00'
type: Sand Pack fm: 17.00' to: 28.00'

Completed Depth: 28.00'

Depth (ft)	Well Completion	Water Level	% Recovery	PID (ppm)	Sample Interval	Soil Code	Graphic Log	Description
						FL		0-1.5' silty CLAY, dark brown, topsoil, silty loam, moist.
2				0.0				1.5-14' lean CLAY, silty, red brown, with black mottling, stiff, medium plastic, moist, limestone fragments from 8.75-11'.
4								
6				0.3				
8						CL		
10								
12				0.0				
14								14-14.75' lean CLAY, yellow red brown, with limestone fragments, wet. TOP OF FORT RILEY @ 14.75'
16		▼						14.75-15.8' LIMESTONE, yellow gray, hard. 15.8-28' LIMESTONE, yellow gray, saturated, gray green lean clay, soft approximately 3", medium gray at 27.5'.
18								
20						LS		
2								

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DRILLING LOG

Site Id: N5-2

Project Name: El Paso El Dorado Refinery

Depth	Well Completion	Water Level	% Recovery	PID (ppm)	Sample No.	Soil Code	Graphic Log	Description
26						LS		
28								END OF EXPLORATION @ 28'
30								
32								
34								
36								
38								
40								
42								
44								
46								
48								
50								
52								
54								

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DRILLING LOG

Project Name: El Paso El Dorado Refinery	X Coordinate: 1786165.65
Project Number: 100078	Y Coordinate: 1740806.20
Location: El Dorado, Kansas	Static Water Level:
Logged By: McPhee	Measuring Point: 1300.22'
Drilling Company: Aquadrill	Total Depth: 80.00'
Drilling Method: Mud Rotary/HSA	Borehole Dia.:

Remarks: RDQ: 65% - 23-30', 95% - 30-40', 95% - 40-50', 95% - 55-62', 90% - 62-70'. Cored from 23-80'. 7.75" borehole from 0-20', 2" borehole from 20-80

Site Id: N5-3 CORE

Date Started: 09/14/03

Blank Casing:
type: dia: 2.00in fm: -2.5' to: 5.00'

Screens:
type: size: dia:
fm: to:

Annular Fill:
type: Bentonite fm: 0.00' to: 80.00'

Completed Depth: 80.00'

Depth (ft)	Well Completion	Water Level	% Recovery	PID (ppm)	Sample Interval	Soil Code	Graphic Log	Description
						ML		0-1.2' clayey SILT, dark brown, organic, moist to very moist, soft.
2						CL		1.2-11' silty CLAY, red brown, moist, soft.
4								
6								
8								
10								
12								11-13.8' silty CLAY, light brown, diesel type odor at approximately 11'-14', very moist to 12.4', wet wet below 12.4', stiff, saturated.
								13.8-19.8' gravelly, silty CLAY, stiff, wet, limestone gravels, strong diesel odor.
14								
16								
18								
								TOP OF FORT RILEY @ 19.8'
20						LS		19.8-20.3' highly weathered LIMESTONE, grayish yellow, wet, very stiff.
								20.3-23' weathered LIMESTONE, grayish yellow, very stiff, wet.
2								
								23-27.9' LIMESTONE, grayish yellow, moderately strong, argillaceous, fractured, solution channels to approximately 26' bgs, thin bedded.

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DRILLING LOG

Site Id: N5-3 CORE

Project Name: El Paso El Dorado Refinery

Depth	Well Completion	Water Level	% Recovery	PID (ppm)	Sample No.	Soil Code	Graphic Log	Description
26								
28								27.9–76.6' LIMESTONE, medium blue gray, moderat fractured, thin bedded to very thin bedded, solution channels at interface between yellow and gray limestones, moderately strong to strong, argillaceous at fractures, fossiliferous beds throughout, large solution cavity at 49.5', algae encrusted fossils at 52.5', slightly stylitic at approximately 51' bgs, more pronounced stylites below 59', becoming grayish yellow at 70.4', with blue gray chert, interbedded medium blu gray beds
30								
32								
34								
36								
38						LS		
40								
42								
44								
46								
48								
50								
52								
54								
56								
58								

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DRILLING LOG

Site Id: N5-3 CORE

Project Name: El Paso El Dorado Refinery

Depth	Well Completion	Water Level	% Recovery	PID (ppm)	Sample No.	Soil Code	Graphic Log	Description
60								
62								
64								
66								
68								
70								
72								
74						LS		
76								
78								TOP OF FLORENCE LIMESTONE @ 76.6' 76.6-78.2' weathered LIMESTONE, grayish yellow, light olive gray, solution channels, vuggy, moderately strong. 78.2-80' LIMESTONE, light olive gray, medium light gray, strong, blue gray chert nodules, few solution channels, fractured.
80								END OF EXPLORATION @ 80'
82								
84								
86								
88								

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DRILLING LOG

Project Name: El Paso El Dorado Refinery	X Coordinate: 1784555.11
Project Number: 100078	Y Coordinate: 1740265.15
Location: El Dorado, Kansas	Static Water Level: 5.77'
Logged By: D. White	Measuring Point: 1313.84'
Drilling Company: Aquadrill	Total Depth: 23.50'
Drilling Method: Air Rotary/HSA	Borehole Dia.:

Remarks: 7.75" borehole from 0-9', 6" borehole from 9-23.5'

Site Id: N6-1

Date Started: 09/23/03

Blank Casing:
type: dia: 2.00in fm: -2.5' to: 13.50'

Screens:
type: Slotted size: 0.010in dia: 2.00in
fm: 13.50' to: 23.50'

Annular Fill:
type: Cement fm: 0.00' to: 3.00'
type: Bentonite Pellets fm: 3.00' to: 11.25'
type: Sand Pack fm: 11.25' to: 23.50'

Completed Depth: 23.50'

Depth (ft)	Well Completion	Water Level	% Recovery	PID (ppm)	Sample Interval	Soil Code	Graphic Log	Description
						FL		0-0.5' Topsoil, dark brown, silty loam.
2								0.5-1.25' lean CLAY, silty, with limestone fragments approximately 3/4" thick, red brown, non-plastic, moist.
				20.1		CL		1.25-4.75' lean CLAY, yellow brown, stiff, medium plastic, moist, blocky texture with manganese concretions.
4								
6		▼				CH		4.75-7.25' CLAY, red brown, stiff, plastic, odor, with black concretions.
				263				TOP OF FORT RILEY @ 7.25'
8								7.25-8' weothered LIMESTONE, with fragments, soft, granulor texture, strong.
								8-18.25' LIMESTONE, yellow gray, cinder texture, argillaceous, wet.
10								
12								
14								
16						LS		
18								18.25-23.5' LIMESTONE, gray, argillaceous, dusty, wet ot 20', hole making good water at 22.5'.
20								
2								
								END OF EXPLORATION @ 23.5'

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DRILLING LOG

Site Id: SB1-1

Date Started: 09/23/03

Project Name: El Paso El Dorado Refinery	Remarks:
Project Number: 100078	
Location: El Dorado, Kansas	Drilling Company: Aquadrill
Logged By: T. Glindeman	Drilling Method: Mobile 57
X Coordinate: 1785524.96	Borehole Dia.: 2.00in
Y Coordinate: 1745987.13	Total Depth: 4.50'

Depth (ft)	% Recovery	PID (ppm)	Sample No.	Water Level	Soil Code	Graphic Log	Description
	100	0.0					0-4.5' CLAY, dark brown, moist, very plastic, no odor, moist.
2					CH		
		0.0					
4							
							TOP OF FORT RILEY @ 4.5'
6							
8							
10							
12							
14							
16							
18							
20							
22							

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DRILLING LOG

Site Id: SB1-2

Date Started: 09/23/03

Project Name: El Paso El Dorado Refinery	Remarks:
Project Number: 100078	
Location: El Dorado, Kansas	Drilling Company: Aquadrill
Logged By: T. Glindeman	Drilling Method: Mobile 57
X Coordinate: 1785707.80	Borehole Dia.: 2.00in
Y Coordinate: 1745487.44	Total Depth: 6.50'

Depth (ft)	% Recovery	PID (ppm)	Sample No.	Water Level	Soil Code	Graphic Log	Description
2	100	1.6			CH		0-5' CLAY, brown, wet, very plastic, no odor.
4							
6		1.3			CL LS		5-6' silty CLAY, light brown, plastic, no odor. 6-6.5' weathered LIMESTONE.
8							TOP OF FORT RILEY @ 6.5'
10							
12							
14							
16							
18							
20							
22							

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DRILLING LOG

Site Id: SB1-3

Date Started: 09/23/03

Project Name: El Paso El Dorado Refinery	Remarks:
Project Number: 100078	
Location: El Dorado, Kansas	Drilling Company: Aquadrill
Logged By: T. Glindeman	Drilling Method: Mobile 57
X Coordinate: 1785951.29	Borehole Dia.: 2.00in
Y Coordinate: 1745334.30	Total Depth: 9.00'

Depth (ft)	% Recovery	PID (ppm)	Sample No.	Water Level	Soil Code	Graphic Log	Description
2							0-1.5' CLAY, dark brown, wet, very plastic, no odor. 1.5-4.5' CLAY, dark gray/black, wet, very plastic, slight petroleum odor.
4	100	1.4			CH		4.5-9' CLAY, dark gray/black, wet, very plastic, slight petroleum odor.
6							
8		2.0					
10							TOP OF FORT RILEY @ 9'
12							
14							
16							
18							
20							
22							

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DRILLING LOG

Site Id: SB2-1

Date Started: 09/23/03

Project Name: El Paso El Dorado Refinery	Remarks:
Project Number: 100078	
Location: El Dorado, Kansas	Drilling Company: Aquadrill
Logged By: T. Glindeman	Drilling Method: Mobile 57
X Coordinate: 1785253.44	Borehole Dia.: 2.00in
Y Coordinate: 1744775.37	Total Depth: 4.50'

Depth (ft)	% Recovery	PID (ppm)	Sample No.	Water Level	Soil Code	Graphic Log	Description
		0.4					0-2.5' CLAY, brown, moist, very plastic, no odor.
2	100				CH		2.5-4' same as above.
4					LS		4-4.5' LIMESTONE.
							TOP OF FORT RILEY @ 4.5'
6							
8							
10							
12							
14							
16							
18							
20							
22							

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DRILLING LOG

Site Id: SB2-2

Date Started: 09/25/03

Project Name: El Paso El Dorado Refinery	Remarks:
Project Number: 100078	
Location: El Dorado, Kansas	Drilling Company: Aquadrill
Logged By: T. Glindeman	Drilling Method: Mobile 57
X Coordinate: 1785681.41	Borehole Dia.: 2.00in
Y Coordinate: 1744938.04	Total Depth: 7.70'

Depth (ft)	% Recovery	PID (ppm)	Sample No.	Water Level	Soil Code	Graphic Log	Description
		1.8					0-4' CLAY, brown, gray, moist, very plastic, petroleum odor.
2	50						
		1.2			CH		4-7.5' same as above.
4							
	100						
6							
		0.7			LS		7.5-7.7' LIMESTONE.
8							TOP OF FORT RILEY @ 7.7'
10							
12							
14							
16							
18							
20							
22							

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DRILLING LOG

Site Id: SB2-3

Date Started: 09/25/03

Project Name: El Paso El Dorado Refinery	Remarks:
Project Number: 100078	
Location: El Dorado, Kansas	Drilling Company: Aquadrill
Logged By: T. Glindeman	Drilling Method: Mobile 57
X Coordinate: 1785613.76	Borehole Dia.: 2.00in
Y Coordinate: 1744517.13	Total Depth: 9.00'

Depth (ft)	% Recovery	PID (ppm)	Sample No.	Water Level	Soil Code	Graphic Log	Description
		2.2			MH		0-1' SILT, brown, moist, plastic, no odor.
2							1-4.5' CLAY, brown, moist, very plastic, no odor.
4	100	0.0			CH		4.5-9' same as above.
6							
8		0.6					
10							TOP OF FORT RILEY @ 9'
12							
14							
16							
18							
20							
22							

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DRILLING LOG

Site Id: SB2-4

Date Started: 09/25/03

Project Name: El Paso El Dorado Refinery	Remarks:
Project Number: 100078	
Location: El Dorado, Kansas	Drilling Company: Aquadrill
Logged By: T. Glindeman	Drilling Method: Mobile 57
X Coordinate: 1785692.44	Borehole Dia.: 2.00in
Y Coordinate: 1744005.09	Total Depth: 6.50'

Depth (ft)	% Recovery	PID (ppm)	Sample No.	Water Level	Soil Code	Graphic Log	Description
		7.8					0-4' SILT, brown, with clay, moist, very plastic, no odor.
2					MH		
	100	3.0					
4							4-6.5' CLAY, brown, moist, very plastic, strong petroleum odor.
					CH		
6		32.0					
8							TOP OF FORT RILEY @ 6.5'
10							
12							
14							
16							
18							
20							
22							

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DRILLING LOG

Site Id: SB2-5

Date Started: 09/25/03

Project Name: El Paso El Dorado Refinery	Remarks:
Project Number: 100078	
Location: El Dorado, Kansas	Drilling Company: Aquadrill
Logged By: T. Glindeman	Drilling Method: Mobile 57
X Coordinate: 1785945.61	Borehole Dia.: 2.00in
Y Coordinate: 1743902.23	Total Depth: 7.00'

Depth (ft)	% Recovery	PID (ppm)	Sample No.	Water Level	Soil Code	Graphic Log	Description
		59.6					0-4' CLAY, brown, moist, very plastic, petroleum odor.
2							
	100	338			CH		4-7' same as above.
4							
6		736					
8							TOP OF FORT RILEY @ 7'
10							
12							
14							
16							
18							
20							
22							

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DRILLING LOG

Site Id: SB2-6

Date Started: 09/25/03

Project Name: El Paso El Dorado Refinery	Remarks:
Project Number: 100078	
Location: El Dorado, Kansas	Drilling Company: Aquadrill
Logged By: T. Glindeman	Drilling Method: Mobile 57
X Coordinate: 1786082.71	Borehole Dia.: 2.00in
Y Coordinate: 1744107.28	Total Depth: 15.80'

Depth (ft)	% Recovery	PID (ppm)	Sample No.	Water Level	Soil Code	Graphic Log	Description
	50	0.0					0-2' CLAY, brown, moist, no odor.
2							2-5' CLAY, light brown, moist, plastic, with gravel, no odor.
	50						
4							
6	20				CH		5-8' CLAY, dark brown/black, moist, with gravel, plastic, strong petroleum odor.
8							8-11' CLAY, dark black, product, saturated, with gravel.
10							
12	5				LS		11-14' weathered LIMESTONE, black, product, wet, with gravel, petroleum odor.
14	10				CH		14-15.8' CLAY, brown, with gray at 14.5', moist, plastic, petroleum odor, sheen.
16							TOP OF FORT RILEY @ 15.8'
18							
20							
22							

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DRILLING LOG

Site Id: SB2-7

Date Started: 09/25/03

Project Name: El Paso El Dorado Refinery	Remarks:
Project Number: 100078	
Location: El Dorado, Kansas	Drilling Company: Aquadrill
Logged By: T. Glindeman	Drilling Method: Mobile 57
X Coordinate: 1786113.01	Borehole Dia.: 2.00in
Y Coordinate: 1744562.66	Total Depth: 6.00'

Depth (ft)	% Recovery	PID (ppm)	Sample No.	Water Level	Soil Code	Graphic Log	Description
		0.4					0-2' CLAY, dark brown, moist, plastic, no odor.
2	100				CH		2-4' CLAY, black, moist, very plastic, strong petroleum odor, moist.
4		21.1					4-6' CLAY, black, moist, very plastic, strong petroleum odor, moist.
6		75.0					
							TOP OF FORT RILEY @ 6'
8							
10							
12							
14							
16							
18							
20							
22							

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DRILLING LOG

Site Id: SB2-9

Date Started: 09/25/03

Project Name: El Paso El Dorado Refinery	Remarks:
Project Number: 100078	
Location: El Dorado, Kansas	Drilling Company: Aquadrill
Logged By: T. Glindeman	Drilling Method: Mobile 57
X Coordinate: 1786264.96	Borehole Dia.: 2.00in
Y Coordinate: 1743534.91	Total Depth: 19.50'

Depth (ft)	% Recovery	PID (ppm)	Sample No.	Water Level	Soil Code	Graphic Log	Description
		5.1					0-4' CLAY, dark brown, moist, very plastic, no odor.
2							
4		11.8					4-9' same as above, petroleum odor starting at 7.5-9'.
6							
8							
10	100				CH		9-14' same as above, petroleum odor.
12							
14							14-18' same as above, strong petroleum odor.
16							
18							18-19' CLAY, light gray, moist, plastic, petroleum odor.
		545					19-19.5' CLAY, light gray/brown, free product, saturated at 19.25'.
20							TOP OF FORT RILEY @ 19.5'
22							

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DRILLING LOG

Site Id: SB3-1

Date Started: 09/25/03

Project Name: El Paso El Dorado Refinery	Remarks:
Project Number: 100078	
Location: El Dorado, Kansas	Drilling Company: Aquadrill
Logged By: T. Glindeman	Drilling Method: Mobile 57
X Coordinate: 1786771.09	Borehole Dia.: 2.00in
Y Coordinate: 1744674.74	Total Depth: 19.00'

Depth (ft)	% Recovery	PID (ppm)	Sample No.	Water Level	Soil Code	Graphic Log	Description
	100				MH		0-2' SILT, dark brown, with clay, moist, very plastic, no odor.
2							2-5' CLAY, dark brown, moist, very plastic, petroleum odor.
	50	8.2					
4							5-8' same as above, dark gray at 7.5-8'.
6	10						
8	50						8-9' CLAY, dark gray, moist, plastic, petroleum odor. 9-11' CLAY, dark brown, moist, very plastic, no odor.
10					CH		11-14' same as above.
12							
14	100						14-16' same as above.
16							16-17' CLAY, dark brown/gray, with gravel, moist, plastic, petroleum odor. 17-18' CLAY, black, moist, with gravel, very plastic, strong petroleum odors.
18		20.3					18-19' same as above, saturated, sheen.
20							TOP OF FORT RILEY @ 19'
22							

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DRILLING LOG

Site Id: SB3-2

Date Started: 09/23/03

Project Name: El Paso El Dorado Refinery	Remarks:
Project Number: 100078	
Location: El Dorado, Kansas	Drilling Company: Aquadrill
Logged By: T. Glindeman	Drilling Method: Mobile 57
X Coordinate: 1787335.68	Borehole Dia.: 2.00in
Y Coordinate: 1744341.60	Total Depth: 11.00'

Depth (ft)	% Recovery	PID (ppm)	Sample No.	Water Level	Soil Code	Graphic Log	Description
		0.1					0-4' CLAY, brown, moist, very plastic, no odor.
2							
		1.3					4-11' CLAY, light gray, moist, very plastic, no odor, saturated at 11'.
4							
6	100				CH		
8							
10							
12							TOP OF FORT RILEY @ 11'
14							
16							
18							
20							
22							

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DRILLING LOG

Site Id: SB3-3

Date Started: 09/23/03

Project Name: El Paso El Dorado Refinery	Remarks:
Project Number: 100078	
Location: El Dorado, Kansas	Drilling Company: Aquadrill
Logged By: T. Glindeman	Drilling Method: Mobile 57
X Coordinate: 1787654.95	Borehole Dia.: 2.00in
Y Coordinate: 1743792.15	Total Depth: 13.00'

Depth (ft)	% Recovery	PID (ppm)	Sample No.	Water Level	Soil Code	Graphic Log	Description
		0.1					0-4' SILT, brown, with clay, moist, plastic, no odor.
2							
		0.0					
4							4-9' same as above.
6	100				MH		
8							
							9-12' same as above.
10							
12		0.3					12-13' CLAY, light gray, petroleum odor, small angular gravel.
14							TOP OF FORT RILEY @ 13'
16							
18							
20							
22							

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DRILLING LOG

Site Id: SB3-4

Date Started: 09/25/03

Project Name: El Paso El Dorado Refinery	Remarks:
Project Number: 100078	
Location: El Dorado, Kansas	Drilling Company: Aquadrill
Logged By: T. Glindeman	Drilling Method: Mobile 57
X Coordinate: 1786633.98	Borehole Dia.: 2.00in
Y Coordinate: 1744676.62	Total Depth: 19.00'

Depth (ft)	% Recovery	PID (ppm)	Sample No.	Water Level	Soil Code	Graphic Log	Description
							0-2' CLAY, dark brown, moist, very plastic, no odor.
2							2-5' same as above.
4							
6							5-8' CLAY, dark brown/gray, moist, very plastic, no odor.
8	75						8-14' CLAY, dark brown, moist, very plastic, no odor.
10					CH		
12							
14							14-15' same as above.
16							15-17' CLAY, black, with subangular gravel, petroleum odor.
18		9.7					17-19' CLAY, dark black, saturated, very plastic, with gravel, strong petroleum odor.
20							TOP OF FORT RILEY @ 19'
22							

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DRILLING LOG

Site Id: SB4-1

Date Started: 09/24/03

Project Name: El Paso El Dorado Refinery	Remarks:
Project Number: 100078	
Location: El Dorado, Kansas	Drilling Company: Aquadrill
Logged By: T. Glindeman	Drilling Method: Mobile 57
X Coordinate: 1785882.49	Borehole Dia.: 2.00in
Y Coordinate: 1743252.03	Total Depth: 20.00'

Depth (ft)	% Recovery	PID (ppm)	Sample No.	Water Level	Soil Code	Graphic Log	Description
		0.4					0-5' CLAY, dark brown, moist, no odor.
2							
		21.1					
4							5-11' same as above.
6							
8							
10	100				CH		
							11-17' CLAY, light gray/brown, moist, very plastic, no odor, slight petroleum odor at 17'.
12							
14							
16							
							17-20' same as above, petroleum odor, gravel at 20' bgs.
18							
		96.9					
20							TOP OF FORT RILEY @ 20'
22							

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DRILLING LOG

Site Id: SB4-2

Date Started: 09/24/03

Project Name: El Paso El Dorado Refinery	Remarks:
Project Number: 100078	
Location: El Dorado, Kansas	Drilling Company: Aquadrill
Logged By: T. Glindeman	Drilling Method: Mobile 57
X Coordinate: 1786040.63	Borehole Dia.: 2.00in
Y Coordinate: 1743126.81	Total Depth: 13.50'

Depth (ft)	% Recovery	PID (ppm)	Sample No.	Water Level	Soil Code	Graphic Log	Description
		0.2					0-3' CLAY, dark brown, moist, very plastic, no odor.
2							
							3-4' CLAY, red/brown, stiff.
4		0.5					4-9' CLAY, dark brown, moist, no odor, very stiff at 7.5', residum (weathered shale).
6	100				CH		
8							
							9-11' CLAY, medium brown, moist, very plastic, no odor.
10							
							11-13.5' CLAY, light brown/gray, moist, gravel at 13', no odor.
12							
		15.0					
14							TOP OF FORT RILEY @ 13.5'
16							
18							
20							
22							

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DRILLING LOG

Site Id: SB4-3

Date Started: 09/24/03

Project Name: El Paso El Dorado Refinery	Remarks:
Project Number: 100078	
Location: El Dorado, Kansas	Drilling Company: Aquadrill
Logged By: T. Glindeman	Drilling Method: Mobile 57
X Coordinate: 1786058.40	Borehole Dia.: 2.00in
Y Coordinate: 1742747.43	Total Depth: 14.00'

Depth (ft)	% Recovery	PID (ppm)	Sample No.	Water Level	Soil Code	Graphic Log	Description
		0.0					0-8' CLAY, brown.
2							
		0.0					
4							
6					CH		
	100						
8							8-12' same as above.
10							
12							12-14' CLAY, light brown, with subangular gravel at 10.5', residum.
14		0.0					
							TOP OF FORT RILEY @ 14'
16							
18							
20							
22							

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DRILLING LOG

Site Id: SB4-4

Date Started: 09/24/03

Project Name: El Paso El Dorado Refinery	Remarks:
Project Number: 100078	
Location: El Dorado, Kansas	Drilling Company: Aquadrill
Logged By: T. Glindeman	Drilling Method: Mobile 57
X Coordinate: 1785617.97	Borehole Dia.: 2.00in
Y Coordinate: 1743173.76	Total Depth: 4.00'

Depth (ft)	% Recovery	PID (ppm)	Sample No.	Water Level	Soil Code	Graphic Log	Description
2	100	0.0			CH		0-3' CLAY, brown, moist, very plastic, no odor. 3-4' weathered CLAY, light brown, slightly moist, with subrounded gravel, no odor.
4							TOP OF FORT RILEY @ 4'
6							
8							
10							
12							
14							
16							
18							
20							
22							

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DRILLING LOG

Site Id: SB4-5

Date Started: 09/24/03

Project Name: El Paso El Dorado Refinery	Remarks:
Project Number: 100078	
Location: El Dorado, Kansas	Drilling Company: Aquadrill
Logged By: T. Glindeman	Drilling Method: Mobile 57
X Coordinate: 1785479.68	Borehole Dia.: 2.00in
Y Coordinate: 1743016.35	Total Depth: 3.00'

Depth (ft)	% Recovery	PID (ppm)	Sample No.	Water Level	Soil Code	Graphic Log	Description
2	100	0.7			CH		0-3' CLAY, brown, moist, very plastic, no odor.
4							TOP OF FORT RILEY @ 3'
6							
8							
10							
12							
14							
16							
18							
20							
22							

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DRILLING LOG

Site Id: SB4-6

Date Started: 09/24/03

Project Name: El Paso El Dorado Refinery	Remarks:
Project Number: 100078	
Location: El Dorado, Kansas	Drilling Company: Aquadrill
Logged By: T. Glindeman	Drilling Method: Mobile 57
X Coordinate: 1785403.05	Borehole Dia.: 2.00in
Y Coordinate: 1742673.43	Total Depth: 5.00'

Depth (ft)	% Recovery	PID (ppm)	Sample No.	Water Level	Soil Code	Graphic Log	Description
		1.9			CH		0-2' CLAY, dark brown, slightly moist, very plastic, no odor.
2	100	2.1			LS		2-5' weathered LIMESTONE, light brown, dry, slightly plastic, no odor.
4							
6							TOP OF FORT RILEY @ 5'
8							
10							
12							
14							
16							
18							
20							
22							

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DRILLING LOG

Site Id: SB4-7

Date Started: 09/24/03

Project Name: El Paso El Dorado Refinery	Remarks:
Project Number: 100078	
Location: El Dorado, Kansas	Drilling Company: Aquadrill
Logged By: T. Glindeman	Drilling Method: Mobile 57
X Coordinate: 1785378.38	Borehole Dia.: 2.00in
Y Coordinate: 1742452.95	Total Depth: 2.50'

Depth (ft)	% Recovery	PID (ppm)	Sample No.	Water Level	Soil Code	Graphic Log	Description
2	100	0.0			CH		0-2.5' CLAY, brown, very plastic, no odor, organics.
4							TOP OF FORT RILEY @ 2.5'
6							
8							
10							
12							
14							
16							
18							
20							
22							

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DRILLING LOG

Site Id: SB4-8

Date Started: 09/26/03

Project Name: El Paso El Dorado Refinery	Remarks:
Project Number: 100078	
Location: El Dorado, Kansas	Drilling Company: Aquadrill
Logged By: T. Glindeman	Drilling Method: Mobile 57
X Coordinate: 1785114.81	Borehole Dia.: 2.00in
Y Coordinate: 1743074.43	Total Depth: 4.70'

Depth (ft)	% Recovery	PID (ppm)	Sample No.	Water Level	Soil Code	Graphic Log	Description
		0.0					0-4' CLAY, brown, with silt, moist, very plastic, petroleum odor at 3-4'.
2	100				CH		
4	4	2.6					4-4.7' CLAY, brown, same as above.
6							TOP OF FORT RILEY @ 4.7'
8							
10							
12							
14							
16							
18							
20							
22							

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DRILLING LOG

Site Id: SB4-9

Date Started: 09/24/03

Project Name: El Paso El Dorado Refinery	Remarks:
Project Number: 100078	
Location: El Dorado, Kansas	Drilling Company: Aquadrill
Logged By: T. Glindeman	Drilling Method: Mobile 57
X Coordinate: 1784725.41	Borehole Dia.: 2.00in
Y Coordinate: 1742652.71	Total Depth: 4.50'

Depth (ft)	% Recovery	PID (ppm)	Sample No.	Water Level	Soil Code	Graphic Log	Description
		0.8					0-2' CLAY, dark brown, moist, plastic, no odor.
2	100				CH		2-4.5' same as above.
4		1.8					
6							TOP OF FORT RILEY @ 4.5'
8							
10							
12							
14							
16							
18							
20							
22							

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DRILLING LOG

Site Id: SB5-1

Date Started: 09/23/03

Project Name: El Paso El Dorado Refinery	Remarks:
Project Number: 100078	
Location: El Dorado, Kansas	Drilling Company: Aquadrill
Logged By: T. Glindeman	Drilling Method: Mobile 57
X Coordinate: 1785944.86	Borehole Dia.: 2.00in
Y Coordinate: 1742016.36	Total Depth: 4.50'

Depth (ft)	% Recovery	PID (ppm)	Sample No.	Water Level	Soil Code	Graphic Log	Description
2 4	100				MH/CH		0-4.5' SILT and CLAY, brown, very plastic near 0-2', stiff at 2-4', no odor.
6 8 10 12 14 16 18 20 22							TOP OF FORT RILEY @ 4.5'

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DRILLING LOG

Site Id: SB5-2

Date Started: 09/24/03

Project Name: El Paso El Dorado Refinery	Remarks:
Project Number: 100078	
Location: El Dorado, Kansas	Drilling Company: Aquadrill
Logged By: T. Glindeman	Drilling Method: Mobile 57
X Coordinate: 1785736.04	Borehole Dia.: 2.00in
Y Coordinate: 1742157.63	Total Depth: 1.00'

Depth (ft)	% Recovery	PID (ppm)	Sample No.	Water Level	Soil Code	Graphic Log	Description
	100	0.0			CH		0-1' CLAY, brown, moist, very plastic, no odor.
2							TOP OF FORT RILEY @ 1'
4							
6							
8							
10							
12							
14							
16							
18							
20							
22							

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DRILLING LOG

Site Id: SB5-3

Date Started: 09/24/03

Project Name: El Paso El Dorado Refinery	Remarks:
Project Number: 100078	
Location: El Dorado, Kansas	Drilling Company: Aquadrill
Logged By: T. Glindeman	Drilling Method: Mobile 57
X Coordinate: 1785665.63	Borehole Dia.: 2.00in
Y Coordinate: 1741855.44	Total Depth: 4.50'

Depth (ft)	% Recovery	PID (ppm)	Sample No.	Water Level	Soil Code	Graphic Log	Description
		0.0					0-4.5' CLAY, brown, moist, very plastic, no odor.
2	100				CH		
4		0.0					
							TOP OF FORT RILEY @ 4.5'
6							
8							
10							
12							
14							
16							
18							
20							
22							

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DRILLING LOG

Site Id: SB5-4

Date Started: 09/29/03

Project Name: El Paso El Dorado Refinery	Remarks:
Project Number: 100078	
Location: El Dorado, Kansas	Drilling Company: Aquadrill
Logged By: T. Glindeman	Drilling Method: Mobile 57
X Coordinate: 1785409.39	Borehole Dia.: 2.00in
Y Coordinate: 1741565.00	Total Depth: 6.20'

Depth (ft)	% Recovery	PID (ppm)	Sample No.	Water Level	Soil Code	Graphic Log	Description
2, 4, 6	100				CH		0-6.2' CLAY, brown, with organics, very plastic, no odor.
8, 10, 12, 14, 16, 18, 20, 22							TOP OF FORT RILEY @ 6.2'

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DRILLING LOG

Site Id: SB5-5

Date Started: 09/23/03

Project Name: El Paso El Dorado Refinery	Remarks:
Project Number: 100078	
Location: El Dorado, Kansas	Drilling Company: Aquadrill
Logged By: T. Glindeman	Drilling Method: Mobile 57
X Coordinate: 1785744.75	Borehole Dia.: 2.00in
Y Coordinate: 1740907.49	Total Depth: 14.50'

Depth (ft)	% Recovery	PID (ppm)	Sample No.	Water Level	Soil Code	Graphic Log	Description
		0.0			MH		0–2' SILT, brown, organics, moist, slightly plastic, no odor.
2							2–8' CLAY, brown/red, moist, very hard, plastic, no odor.
4		0.3					
6	100						
8					CH		8–11' same as above.
10							
12							11–14' same as above.
14		0.7					
							TOP OF FORT RILEY @ 14'
16							
18							
20							
22							

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DRILLING LOG

Site Id: SB6-1

Date Started: 09/23/03

Project Name: El Paso El Dorado Refinery	Remarks:
Project Number: 100078	
Location: El Dorado, Kansas	Drilling Company: Aquadrill
Logged By: T. Glindeman	Drilling Method: Mobile 57
X Coordinate: 1785231.27	Borehole Dia.: 2.00in
Y Coordinate: 1739855.88	Total Depth: 7.50'

Depth (ft)	% Recovery	PID (ppm)	Sample No.	Water Level	Soil Code	Graphic Log	Description
		0.4			MH		0-1.5' SILT, brown, plastic, no odor, organics.
2							1.5-6.5' CLAY, dark brown/red, very plastic, no odor.
4	100	0.6			CH		
6		0.5					6.5-7.5' CLAY, light brown, very plastic, weathered limestone.
8							TOP OF FORT RILEY @ 7.5'
10							
12							
14							
16							
18							
20							
22							

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DRILLING LOG

Site Id: SB6-2

Date Started: 09/23/03

Project Name: El Paso El Dorado Refinery	Remarks:
Project Number: 100078	
Location: El Dorado, Kansas	Drilling Company: Aquadrill
Logged By: T. Glindeman	Drilling Method: Mobile 57
X Coordinate: 1784306.63	Borehole Dia.: 2.00in
Y Coordinate: 1740237.55	Total Depth: 1.50'

Depth (ft)	% Recovery	PID (ppm)	Sample No.	Water Level	Soil Code	Graphic Log	Description
	100	1.2			CH		0-1.5' CLAY, brown, very plastic, no odor.
2							TOP OF FORT RILEY @ 1.5'
4							
6							
8							
10							
12							
14							
16							
18							
20							
22							

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DRILLING LOG

Site Id: SB6-3

Date Started: 09/23/03

Project Name: El Paso El Dorado Refinery	Remarks:
Project Number: 100078	
Location: El Dorado, Kansas	Drilling Company: Aquadrill
Logged By: T. Glindeman	Drilling Method: Mobile 57
X Coordinate: 1783855.13	Borehole Dia.: 2.00in
Y Coordinate: 1740061.25	Total Depth: 4.50'

Depth (ft)	% Recovery	PID (ppm)	Sample No.	Water Level	Soil Code	Graphic Log	Description
2	100	0.8			CH		0-4.5' CLAY, brown, moist, very plastic, organics from 0-0.5'.
4		0.3					
6							TOP OF FORT RILEY @ 4.5'
8							
10							
12							
14							
16							
18							
20							
22							

APPENDIX B

PHOTOGRAPH LOGS

Shaw Environmental, Inc.
Photographic Record

Client: El Paso Corporation **Project Number:** 100078

Site Name: El Dorado Refinery **Site Location:** El Dorado, Kansas

Photographer:
Stephanie Harden

Date:
September 13, 2003

Direction:
East

Comments:
Air rotary at N2-4

Photographer:
Stephanie Harden

Date:
September 15, 2003

Direction:
North

Comments:
Deconning drilling equipment at the bundle pad

Shaw Environmental, Inc.
Photographic Record

Client: El Paso Corporation **Project Number:** 100078

Site Name: El Dorado Refinery **Site Location:** El Dorado, Kansas

Photographer:
Stephanie Harden

Date:
September 24, 2003

Direction:
North

Comments:
Direct push boring installation of SB4-3

Photographer:
Stephanie Schauer-KDHE

Date:
October 30, 2003

Direction:
West

Comments:
Potential seep area

Shaw Environmental, Inc.
Photographic Record

Client: El Paso Corporation **Project Number:** 100078

Site Name: El Dorado Refinery **Site Location:** El Dorado, Kansas

Photographer:
Stephanie Schauer-KDHE

Date:
October 30, 2003

Direction:
West

Comments:

Potential seep area

APPENDIX C

FIELD FORMS

WELL DEVELOPMENT DATA SHEET

SITE NAME: EL DORADO REFINERY WELL NUMBER: N2-1

PROJECT NUMBER: 24732 DATE: 9/26/03

:20 - 11:50 TOTAL DEPTH OF WELL: 27.06'

1:50 - 2:05 DEPTH TO WATER (measured from MP): 16.79

:15 - 5:20 1 WELL VOLUME: _____ 2-INCHWELL: 0.17 x 10.27 (water column, ft) = 1.74 Gallons

4-INCHWELL: 0.66 x _____ (water column, ft) = _____ Gallons

NO. OF CASING VOLUMES TO BE REMOVED: _____

_____ x _____ = _____ Total Number of Gallons to be Removed
volumes 1 casing vol.

METHOD OF WELL DEVELOPMENT: ~~12 volt~~ ~~BAILER~~ 12 volt SUBPUMP, BAILER

DATE	TIME	VOLUME REMOVED	Ph	TEMP.	COND.	ORP	TURBIDITY	COMMENTS
9/27/03	11:34	2.0	WENT	DRY			62	CLEAR
9/27/03	11:40	3.5	"	"			53	CLEAR
"	2:05	5.5	"				56	CLEAR
"	5:15	6.5	"	"			~	CLEAR

COMMENTS:

BACK @ 1:50 USING STAINLESS STEEL BAILER TO DEVELOP WELL. PUMP PUMPS TO FAST, SURGE NOT POSSIBLE

9-28-03 bailed 2.5 gal slightly cloudy S.H.
1.5 gal " cloudy 458 turb. SH

9-29-03 DTW-19.22 0830-0845
2 gal v. lt milky tan = 1000 DRY

515 - 145

WELL DEVELOPMENT DATA SHEET

SITE NAME: EL DORADO REFINERY WELL NUMBER: N2-2

PROJECT NUMBER: 24732 DATE: 9-28-03

TOTAL DEPTH OF WELL: 20.16 (50ft)

DEPTH TO WATER (measured from MP): 4.34

1 WELL VOLUME: 1 2-INCHWELL: 0.17 x 15.82 (water column, ft) = 2.7 Gallons

4-INCHWELL: 0.66 x — (water column, ft) = — Gallons

NO. OF CASING VOLUMES TO BE REMOVED: 5

5 (# volumes) x 2.7 (1 casing vol.) = 13.5 Total Number of Gallons to be Removed

METHOD OF WELL DEVELOPMENT: 15 surges : 1 well volume - 5 cycles

DATE	TIME	VOLUME REMOVED	Ph	TEMP.	COND.	ORP	TURBIDITY	COMMENTS
9/28	1515	Ø	NA based on well information from drilling					silty tan
		2					—	lt silty tan
		5					—	milky tan
		~~25~~ 15						~~clear~~ milky tan
		25						cloudy
		30						clear

COMMENTS:

D. Moore ; S. Harden developing
strong odor
Water warm initially
able to hear water entering screen
pump dry switched to smaller tubing

Complete @ 1415 DTW = 6.08 ; rising
DTB = 23.85 (hard)

315-1500

WELL DEVELOPMENT DATA SHEET

SITE NAME: EL DORADO REFINERY WELL NUMBER: N2-3

PROJECT NUMBER: 24732 DATE: 9-28-03

TOTAL DEPTH OF WELL: 16.20 (soft)

DEPTH TO WATER (measured from MP): 6.24

1 WELL VOLUME: 1 2-INCHWELL: 0.17 x 9.96 (water column, ft) = 1.7 Gallons

4-INCHWELL: 0.66 x — (water column, ft) = — Gallons

NO. OF CASING VOLUMES TO BE REMOVED: 5

5 (# volumes) x 1.7 (1 casing vol.) = 8.5 Total Number of Gallons to be Removed

METHOD OF WELL DEVELOPMENT: 15 surges : 1 well volume (5 cycles)

DATE	TIME	VOLUME REMOVED	Ph	TEMP.	COND.	ORP	TURBIDITY	COMMENTS
9/28	1330	0	NA				None - will be recorded based on strong odor in well will make observations	silty brown gray
	1340	40						silty brown
	1355	50						milky T
	1400	55						cloudy
	1420	80						milky ta
	1500	165						cle

COMMENTS:

D. Moore : S. Harden

strong odor in well

Completed @ 1500

DTW = 8.55

DTB = 17.38 (hard)

WELL DEVELOPMENT DATA SHEET

30 ~~1:40~~ 1:30
10 :25
25 - 5:40

SITE NAME: EL DORADO REFINERY WELL NUMBER: N2-4

PROJECT NUMBER: 24732 DATE: 9/26/03

TOTAL DEPTH OF WELL: 27.95

DEPTH TO WATER (measured from MP): 10.24'

1 WELL VOLUME: _____ 2-INCHWELL: 0.17 x 17.71 (water column, ft) = 3.0 Gallons

4-INCHWELL: 0.66 x _____ (water column, ft) = _____ Gallons

NO. OF CASING VOLUMES TO BE REMOVED: _____

_____ x _____ = _____ Total Number of Gallons to be Removed
volumes 1 casing vol.

METHOD OF WELL DEVELOPMENT: 12 volt. SUB PUMP

DATE	TIME	VOLUME REMOVED	Ph	TEMP.	COND.	ORP	TURBIDITY	COMMENTS
9/27/03	1:13	2		26.3'			128	NO ODOR CLEAR
"	1:16	6		26' (DRY @ 7.0 GAL)			124	CLEAR
"	~~BAC~~ 2:25	7					-	CLEAR
"	5:35	9					91	CLEAR

COMMENTS:

BACK @ 2:10 TO PUMP

Pumped 9-28-03 5.5 gal clear 0815 completed 0830
1 gal clear 1200 complete 1210
turbidity =

DTW = 24.01 DTB = 27.90
hard bottom

WELL DEVELOPMENT DATA SHEET

SITE NAME: EL DORADO REFINERY WELL NUMBER: N2-5

PROJECT NUMBER: 24732 DATE: 9/28/03

TOTAL DEPTH OF WELL: 22.25 (Soft)

DEPTH TO WATER (measured from MP): DTP = 9.33 DTW = 9.34

1 WELL VOLUME: 1 2-INCHWELL: 0.17 x 12.91 (water column, ft) = 2.2 Gallons

4-INCHWELL: 0.66 x ___ (water column, ft) = ___ Gallons

NO. OF CASING VOLUMES TO BE REMOVED: 5

5 x 2.2 = 11 Total Number of Gallons to be Removed

volumes 1 casing vol.

METHOD OF WELL DEVELOPMENT: 15 surges ; 1 well volume - 5 cycles

DATE	TIME	VOLUME REMOVED	Ph	TEMP.	COND.	ORP	TURBIDITY	COMMENTS
9/28	1720	Ø	NA					milky brown
		1						"
		20					NONE WHEN NEW	milky tan
		25						cloudy tan
		30						cloudy
	1800	36						clear

COMMENTS: Jay ; Ed ; Todd ; Stephanie Developing well

Strong odor - oil on IP

Completed @ 1800 DTW = 11.5

DTB = 22.24 (hard)

620-1715

WELL DEVELOPMENT DATA SHEET

SITE NAME: EL DORADO REFINERY WELL NUMBER: N2-6

PROJECT NUMBER: 24732 DATE: 9-28-03

TOTAL DEPTH OF WELL: 19.31 (soft)

DEPTH TO WATER (measured from MP): DTP = 4.51 DTW 11.92

1 WELL VOLUME: 1 2-INCHWELL: 0.17 x 14.8 (water column, ft) = 25 Gallons

4-INCHWELL: 0.66 x — (water column, ft) = — Gallons

NO. OF CASING VOLUMES TO BE REMOVED: 5

5 (# volumes) x 2.5 (1 casing vol.) = 12.5 Total Number of Gallons to be Removed

METHOD OF WELL DEVELOPMENT: 15 surges ; 1 well volume - 5 cycles

DATE	TIME	VOLUME REMOVED	Ph	TEMP.	COND.	ORP	TURBIDITY	COMMENTS
9/28	1620	Ø	Na based on oil on IP					black
		15	when gauging					oily brown
		35						"

COMMENTS:

D. Moore ; S. Harden

oil on well

called Lynn develop until bottom solid

Complete @ 1715

DTB 19.96

WELL DEVELOPMENT DATA SHEET

15 - 3:45

SITE NAME: EL DORADO REFINERY WELL NUMBER: N3-1

PROJECT NUMBER: 24732 DATE: 9/27/03

TOTAL DEPTH OF WELL: 82.15

DEPTH TO WATER (measured from MP): 1.63'

1 WELL VOLUME: _____ 2-INCHWELL: 0.17 x 80.52' = 13.7 Gallons
water column, ft

4-INCHWELL: 0.66 x _____ = _____ Gallons
water column, ft

NO. OF CASING VOLUMES TO BE REMOVED: _____

_____ x _____ = _____ Total Number of Gallons to be Removed
volumes 1 casing vol.

METHOD OF WELL DEVELOPMENT: 12 Volt. SUB PUMP

DATE	TIME	VOLUME REMOVED	Ph	TEMP.	COND.	ORP	TURBIDITY	COMMENTS
9/27/03	3:00	15 GAL					39.47	CLEAR
"	3:15	30 GAL					13.55	CLEAR
"	3:25	40 GAL					0.0	CLEAR
"	3:35	55 GAL					144	CLEAR
"	3:45	65 GAL					11.43	
			SWL @ 2.45'					

COMMENTS:

WELL DEVELOPMENT DATA SHEET

10 :55

SITE NAME: EL DORADO REFINERY WELL NUMBER: N3-2

PROJECT NUMBER: 24732 DATE: 9/27/03

TOTAL DEPTH OF WELL: 18.10'

DEPTH TO WATER (measured from MP): 11.75

1 WELL VOLUME: _____ 2-INCHWELL: 0.17 x 6.35' (water column, ft) = 1.0 Gallons

4-INCHWELL: 0.66 x _____ (water column, ft) = _____ Gallons

NO. OF CASING VOLUMES TO BE REMOVED: _____

_____ x _____ = _____ Total Number of Gallons to be Removed
volumes 1 casing vol.

METHOD OF WELL DEVELOPMENT: BAILER

DATE	TIME	VOLUME REMOVED	Ph	TEMP.	COND.	ORP	TURBIDITY	COMMENTS
9/27/03	4:15	5					>1000	DK GREY,
"	4:30	10					—	LIGHT GREY
"	4:55	15					—	LIGHT GREY, NOT CLEAR!!
9/29	1220	1					1000	Cloudy (odor)
	1230	6	pumped dry				325	"

COMMENTS:

USING BAILER B/C PUMP ~~DOES~~ WILL PUMP DRY

9-29-03 S. Harden : D. Moore 0905 - 0955

√ DTW = 11.78 Ø Milky gray 1000

15 gal " " >1000

20 gal " " "

1215 pumped well DTW = 11.82 DTB = 18.31 (hard)

Complete @ 1230 DTW = 17.[illegible] (RISING) DTB = 18.31 (hard)

WELL DEVELOPMENT DATA SHEET

SITE NAME: EL DORADO REFINERY WELL NUMBER: N3-3

PROJECT NUMBER: 24732 DATE: 9/29/03

TOTAL DEPTH OF WELL: 19 (soft/murky)

DEPTH TO WATER (measured from MP): 14.07

1 WELL VOLUME: 1 2-INCHWELL: 0.17 x 4.93 = 1 Gallons
water column, ft

4-INCHWELL: 0.66 x — = — Gallons
water column, ft

NO. OF CASING VOLUMES TO BE REMOVED: 5

5 x 1 = 5 Total Number of Gallons to be Removed
volumes 1 casing vol.

METHOD OF WELL DEVELOPMENT: surging ; well volume (min 5)

DATE	TIME	VOLUME REMOVED	Ph	TEMP.	COND.	ORP	TURBIDITY	COMMENTS
9/29	0957	1	NA				NA	Black
	1000	2					"	"
	1200	3					"	dk. blackish gray
	1300	5					426	H gray
	1315	6					342	v. H gray to clear

pumped dry each 4th

COMMENTS:

D. Moore ; S. Harden developing
Sam Burris stopped @ 10

@ 1200 Ed Van Buren ; S. Harden developing

strong odor ; no turbidity reading collected for Black water

Completed @ 1315 TD = 19.43 solid
DTW = 14.40 and rising

WELL DEVELOPMENT DATA SHEET

SITE NAME: EL DORADO REFINERY WELL NUMBER: N3-4

PROJECT NUMBER: 24732 DATE: 9/29/03

TOTAL DEPTH OF WELL: 20.81 (Soft)

DEPTH TO WATER (measured from MP): 5.16

1 WELL VOLUME: 1 2-INCHWELL: 0.17 x 15.67 = 2.7 Gallons
water column, ft

4-INCHWELL: 0.66 x _____ = _____ Gallons
water column, ft

NO. OF CASING VOLUMES TO BE REMOVED: 5

5 x 2.7 = 13.3 Total Number of Gallons to be Removed
volumes 1 casing vol.

METHOD OF WELL DEVELOPMENT: 15 surges ; 1 well volume

DATE	TIME	VOLUME REMOVED	Ph	TEMP.	COND.	ORP	TURBIDITY	COMMENTS
9/29	1030	0	NA				7/1000	chocolate
	1040	5					"	brownish gray
	1045	10					"	"
	1050	15					1000	dk silty tan
	1100	20					1000	"
	1110	25					1000	silty tan
	1130	35					1000	V. cloudy
	1135	37					369	clear

COMMENTS:

D. Moore & S. Harden the Ed VanDuran

Strong odor in well

Completed @ 1135 DTW=15 ; rising
DTB = 20.92 (hard)

WELL DEVELOPMENT DATA SHEET

SITE NAME: EL DORADO REFINERY WELL NUMBER: N4-1

PROJECT NUMBER: 24732 DATE: 9-26-03

TOTAL DEPTH OF WELL: 25.38 (solid)

DEPTH TO WATER (measured from MP): 13.83

1 WELL VOLUME: 1 2-INCHWELL: 0.17 x 11.56 = 1.965 Gallons
water column, ft

4-INCHWELL: 0.66 x — = — Gallons
water column, ft

NO. OF CASING VOLUMES TO BE REMOVED: 5 ~~10~~ (if possible)

5 ~~10~~ x 1.965 = ~~19.65~~ 9.8 Total Number of Gallons to be Removed
volumes 1 casing vol.

METHOD OF WELL DEVELOPMENT: 15 surges : 1 volume

DATE	TIME	VOLUME REMOVED	Ph	TEMP.	COND.	ORP	TURBIDITY	COMMENTS
9/26	1630	0	NA				446	milky tan
	1700	1					625	clear
	1710	1.5					536	clear
9/27	0810	0.25					195	clear
	0820	2					219	cloudy
	0830	5					660	cloudy

COMMENTS:

9/26 - S. Harden ; D. Moore developing wells

recalibrated turbidity mtr
well pumped dry each cycle.
let well set overnight after 3 cycles

9/27 S. Harden ; D. Moore ; Todd Glindeman
calibrated mtr
completed @ 0835 well pumped dry
DTW @ completion 24.20'
TD @ " 25.38 (solid)

915-1000

WELL DEVELOPMENT DATA SHEET

SITE NAME: EL DORADO REFINERY WELL NUMBER: N4-2

PROJECT NUMBER: 24732 DATE: 9-28-03

TOTAL DEPTH OF WELL: 30.44 (solid)

DEPTH TO WATER (measured from MP): 20.95

1 WELL VOLUME: 1 2-INCHWELL: 0.17 x 9.49 (water column, ft) = 1.61 Gallons

4-INCHWELL: 0.66 x — (water column, ft) = — Gallons

NO. OF CASING VOLUMES TO BE REMOVED: 5

5 (# volumes) x 1.61 (1 casing vol.) = 8.1 Total Number of Gallons to be Removed

METHOD OF WELL DEVELOPMENT: 15 surges ; 1 well volume (5 times)

DATE	TIME	VOLUME REMOVED	Ph	TEMP.	COND.	ORP	TURBIDITY	COMMENTS
09/28	0915	0	NA				1000	milky brown
	0920	1.7					1000	milky brown
	0930	7					1000	milky tan
	0940	10					1000	cloudy
	0945	17					320	clear to cloudy
	0950	20					385	Cloudy to clear
	1000	23					113	clear

COMMENTS:

S. Harden ; D. Moore

calibrated mtr @ 0912 recalibrated 0930
calibrate good √ calibration @ 0940 red 0 as should

Good well lots of water

complete @ 1000

WELL DEVELOPMENT DATA SHEET

SITE NAME: EL DORADO REFINERY WELL NUMBER: N4-3

PROJECT NUMBER: 24732 DATE: 9/27/03

TOTAL DEPTH OF WELL: 22.41'

DEPTH TO WATER (measured from MP): 15.56'

1 WELL VOLUME: _____ 2-INCHWELL: 0.17 x 6.85' (water column, ft) = 1.16 Gallons

4-INCHWELL: 0.66 x _____ (water column, ft) = _____ Gallons

NO. OF CASING VOLUMES TO BE REMOVED: _____

_____ x _____ = _____ Total Number of Gallons to be Removed
volumes 1 casing vol.

METHOD OF WELL DEVELOPMENT: 12 volt. SUB. PUMP, BAILER

DATE	TIME	VOLUME REMOVED	Ph	TEMP.	COND.	ORP	TURBIDITY	COMMENTS
9/27/03	9:24	0.25	15.56'				1,000	LIGHT BROWN
"	9:26	2.0					1,000	" (DRY)
"	11:10	2.0	19.10'				1,000	CLEAR
"	1:30	3.5		MILKY COLOR			–	METER NOT WORKING
"	5:00	4.5		MILKY COLOR			–	WON'T CALIBRATE MILKY

COMMENTS:

9:35 WELL DRY AFTER 2 WELL VOL. MOVING TO NEXT WELL
BACK @ 1:35, USING BAILERS B/C PUMP WON'T PUMP ENOUGH
TO SURGE

Bailed 9-28-03 2gal - milky
1gal - Cloudy
9-29-03 DTW = 16.91 creamy tan 1000
@1240 bailed DTW=19.95 TD=22.95 milky tan
removed 2gal - dry

WELL DEVELOPMENT DATA SHEET

SITE NAME: EL DORADO REFINERY WELL NUMBER: N4-4

PROJECT NUMBER: 24732 DATE: 9/29/03

TOTAL DEPTH OF WELL: 26.48 (solid/semi)

DEPTH TO WATER (measured from MP): 15.63

1 WELL VOLUME: 1 2-INCHWELL: 0.17 x 10.85 = 1.8 Gallons
water column, ft

4-INCHWELL: 0.66 x ____ = ____ Gallons
water column, ft

NO. OF CASING VOLUMES TO BE REMOVED: 5

5 x 1.8 = 9 Total Number of Gallons to be Removed
volumes 1 casing vol.

METHOD OF WELL DEVELOPMENT: 15 surges ; 1 well volume - 5 cycles

DATE	TIME	VOLUME REMOVED	Ph	TEMP.	COND.	ORP	TURBIDITY	COMMENTS
9/29	0740	0	NA				1000	milky tan
	0745	5					1000	milky tan
	0756	10					527	v. lt milky tan
	0805	20					204	cloudy
	0810	25					219	cloudy
	0825	27					94	clear

COMMENTS:
calibrated turbidity mtr
D. Moore ; S. Harden developing

completed @ 0815 DTW=15.68
DTB=25.54 (solid)

WELL DEVELOPMENT DATA SHEET

SITE NAME: EL DORADO REFINERY WELL NUMBER: N5-1

PROJECT NUMBER: 24732 DATE: 9-26-03

TOTAL DEPTH OF WELL: 25.51 (soft)

DEPTH TO WATER (measured from MP): 18.29

1 WELL VOLUME: 1 2-INCHWELL: 0.17 x 7.22 (water column, ft) = 3.6 Gallons

4-INCHWELL: 0.66 x — (water column, ft) = — Gallons

NO. OF CASING VOLUMES TO BE REMOVED: ~~10~~ 5

5 ~~10~~ (# volumes) x 3.6 (1 casing vol.) = 3.6 ~~36~~ 18 Total Number of Gallons to be Removed

METHOD OF WELL DEVELOPMENT: 15 surges ; 1 well volume 5 cycles

DATE	TIME	VOLUME REMOVED	Ph	TEMP.	COND.	ORP	TURBIDITY	COMMENTS
9/26	1500	0	NA				99	milky tan
	1545	10					1000	"
	1600	12					967	"
	1605	14					891	H. milky tan
	1615	15					478	V. H. milky tan
	1617	15.5					138	Clear
9/27	0845	0					751	milky tan
	0855	4					104	Clear

COMMENTS:

D. Moore ; S. Harden developing wells

- Began @ 1500 pumped dry 3 times in 45 min 10 gal removed ; pumped dry 2 more times. will leave overnight ; check tomorrow for recovery

complete @ 1617

9-27-03 D. Moore, S. Harden ; T. Glindeman

well pumped dry again

Completed @ 0900

DTW = 22.72 DTB = 25.53 (hard) @ completion

ST ET
D10 – 1050

WELL DEVELOPMENT DATA SHEET

SITE NAME: EL DORADO REFINERY WELL NUMBER: N5-2

PROJECT NUMBER: 24732 DATE:

TOTAL DEPTH OF WELL: 30.34 (solid)

DEPTH TO WATER (measured from MP): 15.65

1 WELL VOLUME: 1 2-INCHWELL: 0.17 x 14.69 (water column, ft) = 2.5 Gallons

4-INCHWELL: 0.66 x — (water column, ft) = — Gallons

NO. OF CASING VOLUMES TO BE REMOVED: 5

5 (# volumes) x 2.5 (1 casing vol.) = 12.5 Total Number of Gallons to be Removed

METHOD OF WELL DEVELOPMENT: 15 surges & 1 well volume (5 cycles)

DATE	TIME	VOLUME REMOVED	Ph	TEMP.	COND.	ORP	TURBIDITY	COMMENTS
9/28	1015	0	NA				1000	milky tan
		7					1000	"
		15					147	clear
		20					164	clear
		22					192	clear
		25					177	clear
		30					106	clear

COMMENTS:

D. Moore ; S. Harden

Good well lots of water

odor

completed @ 1050

DTW = 15.62

DTB = 30.3

WELL DEVELOPMENT DATA SHEET

SITE NAME: EL DORADO REFINERY WELL NUMBER: N5-3

PROJECT NUMBER: 24732 DATE: 9-26-03

TOTAL DEPTH OF WELL: 22.5 (soft)

DEPTH TO WATER (measured from MP): 8.47

1 WELL VOLUME: 1 2-INCHWELL: 0.17 x 14.03 (water column, ft) = 2.385 Gallons

4-INCHWELL: 0.66 x — (water column, ft) = ~~119~~ — Gallons

NO. OF CASING VOLUMES TO BE REMOVED:

5 (# volumes) x 2.385 (1 casing vol.) = 11.925 Total Number of Gallons to be Removed

METHOD OF WELL DEVELOPMENT: 15 surges; 1 well volume 5 times

DATE	TIME	VOLUME REMOVED	Ph	TEMP.	COND.	ORP	TURBIDITY	COMMENTS
9/26	1300	0	NA				OOR*	brown silty
	1320	20					367	brownish tan
	1340	30					379	tan
	1400	40					339	lt. tan
	1435	50					249	v. lt. tan
	1445	60					309	clear

COMMENTS: * out of range

S. Harden; D. Moore developing wells

calibrated meter w/ D. White

ODOR noted in water

Completed @ 1445

DTW = 15.41 TD = 22.88 (solid)

WELL DEVELOPMENT DATA SHEET

SITE NAME: EL DORADO REFINERY WELL NUMBER: N6-1

PROJECT NUMBER: 24732 DATE: 9/26/03

TOTAL DEPTH OF WELL: 25.52'

DEPTH TO WATER (measured from MP): 6.60 F.P. NO H_2O ENTIRE COLUMN F.P.?

1 WELL VOLUME: _____ 2-INCHWELL: 0.17 x 18.92 (water column, ft) = 3.2 Gallons

4-INCHWELL: 0.66 x _____ (water column, ft) = _____ Gallons

NO. OF CASING VOLUMES TO BE REMOVED: _____

_____ x _____ = _____ Total Number of Gallons to be Removed
volumes 1 casing vol.

METHOD OF WELL DEVELOPMENT: 12 V. SUB. PUMP

DATE	TIME	VOLUME REMOVED	Ph	TEMP.	COND.	ORP	TURBIDITY	COMMENTS
9/27/03	9:45	1.5						L. BROWN
"	10:00	15	(SWL @ ~13')					CLEAR
	10:05	17	(" @ ~14)				712	CLOUDY
	10:10	20	(" @ ~17)				~~631~~ 756	"
	10:20	30	(SWL @ ~16)				631	"
	10:30	35	(" @ ~16)				216	CLEAR
	10:40	40					ERROR	CLEAR
							↳ ERI ON METER	

COMMENTS:

PET ODOR, F.P. IN WELL ∴ NOT COLLECTING TURBIDITY READINGS

METER DBL TOWES THE WHOLE WAY DOWN.

SURGED 15 TIMES FOR EACH WELL VOLUME

Shaw Environmental & Inf. ucture, Inc. - Wichita, Kansas
Well Gauging Form

Site Name: El Dorado | Project #: 831825 | Task#: 01
Weather: Sunny | Temperature: 70°

All Monitoring Wells must be gauged in the following order:

Well ID	Depth to Product	Depth to Water	Total Depth of Well	Measured Depth to Bottom	Saturated Thickness (DTB-DTW)	Casing Volume	Single Purge Volume (ST*CV)	Calculated Purge Amount (SPV*3)	Date/Time of Measurement	PID	Comment
W-3		13.116		20.00	6.84	0.66	4.51	13.54	10/16/03@1038	0.0	
W-8		15.71		23.02	7.31	0.66	4.82	14.47	10/6/03@1051	0.0	
N1-1		13.69		25.16	11.47 ~~15.5~~	0.17	1.95	5.85	10/6/03@1056	0.0	
W-29D		17.96		80.75	62.79	0.66	41.44	124.32	10/6/03@1105	0.0	
W-29S		14.63		24.90	~~8~~ 10.27	0.66	6.78	20.33	10/6/03@1103	0.0	
N2-1	~~16.82~~	16.83		27.10	10.27	0.17	~~6.7~~ 1.74	5.24	10/6/03@1116	0.0	No Odor
N4-4		15.57		26.66	11.09	0.17	1.89	5.66	10/6/03@1138	0.5	
W-16S		4.82		21.40	16.58	0.66	10.94	32.83	10/6/03@1252	0.0	
W-15S		16.99		22.95	5.96	0.66	3.93	11.80	10/6/03@1309	0.0	
W-15D		27.07		122.18	95.11	0.66	57.07	171.19	10/16/03@1301	0.0	
W-26		4.09		10.74	6.65	0.66	4.39	13.17	10/16/03@1317	0.0	
N4-1		13.91		25.44	11.53	0.17	1.96	5.88	10/16/03 @1326	0.0	16.92 product → no equipment needed
N4-2		20.62		30.59	9.97	0.17	1.69	5.08	10/16/03@1338	0.0	
N5-1		17.87		25.58	7.71	0.17	1.31	3.93	10/16/03@1344	0.0	
N5-2		15.48		30.50	15.02	0.17	2.55	7.66	10/16/03@1350	0.0	
N3-1		1.45		81.26	79.81	0.17	13.57	40.70	10/16/03@1409	1st 185, 2nd 44.6	
N3-2		11.82		18.41	6.59	0.17	1.12	3.36	10/16/03@1415	36.5	Odor
W-1D		1.72		93.79	92.07	0.66	60.77	182.3	10/16/03@1421	0.0	
W-1S		12.74		20.01	7.27	0.66	4.79	14.39	10/16/03@1427	0.0	
N3-3		14.03		19.51	5.48	0.17	0.93	2.79	10/16/03@14~~40~~ 34	328	
W-22		17.17		18.90	1.73	0.66	1.14	3.43	10/16/03@1440	0.0	
N3-4		5.02		20.99	15.97	0.17	2.71	8.14	10/16/03@1448	446	Odor

	DTP	DTW		DTB	ST		IPV	CPA		PID
W-23		7.12		18.74	11.62	0.66	7.67	23.01	10/6/03@ 1456	0.0
W-24		6.89		19.14	12.25	0.66	8.09	24.26	10/6/03@ 1500	3.0
N5-3		8.65		22.97	14.32	0.17	2.43	7.30	10/6/03@ 1507	381 Odor
N4-3		16.80		22.55	5.75	0.17	0.98	2.93	10/6/03@ 1516	0.0
N6-1	5.74	5.77				0.17			10/6/03@ 1533	759 pressurized water level ↑
N2-4		10.20		28.02	17.82	0.17	3.03	9.09	10/6/03@ 1543	715
N2-2		4.52		23.96	19.44	0.17	3.30	9.91	10/6/03@ 1550	733 Warm H_2O
N2-3		5.82		17.48	11.66	0.17	1.98	5.95	10/6/03@ 1557	166
FINA/MW-38		2.89		15.99	13.10	0.17	2.23	6.68	10/6/03@ 1601	13.5
N2-5		9.20		22.33	13.13	0.17	2.23	6.69	10/6/03@ 1608	1393
N2-6	4.44	13.46				0.17			10/6/03@ 1619	664
									@	

Comments: N2-1 product not present - bailer used - none found - equipment error

PID collected after cap removed

Personnel: (Print Name) Amber Lancaster Signature: Amber L. Lancaster

Personnel: (Print Name) Signature:

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Shaw Environmental & Inf. ucture, Inc. - Wichita, Kansas
Well Gauging Form

Site Name: El Dorado | Project #: 831825 | Task#: 01

Weather: Sunny | Temperature: 70°

All Monitoring Wells must be gauged in the following order:

Well ID	Depth to Product	Depth to Water	Total Depth of Well	Measured Depth to Bottom	Saturated Thickness (DTB-DTW)	Casing Volume	Single Purge Volume (ST*CV)	Calculated Purge Amount (SPV*3)	Date/Time of Measurement	PID	Comment
W-3		13.16		20.00	6.84	0.66	4.51	13.54	10/6/03@ 1038	0.0	
W-8		15.71		23.02	7.31	0.66	4.82	14.47	10/6/03@ 1051	0.0	
N1-1		13.69		25.16	11.47 ~~15.5~~	0.17	1.95	5.85	10/6/03@ 1056	0.0	
W-29D		17.96		80.75	62.79	0.66	41.44	124.32	10/6/03@ 1105	0.0	
W-29S		14.63		24.90	~~8~~ 10.27	0.66	6.78	20.33	10/6/03@ 1103	0.0	
N2-1	~~16.82~~	16.83		27.10	10.27	0.17	~~6.7~~ 1.74	5.24	10/6/03@ 1116	0.0	No Odor
N4-4		15.57		26.66	11.09	0.17	1.89	5.66	10/6/03@ 1138	0.5	
W-16S		4.82		21.40	16.58	0.66	10.94	32.83	10/6/03@ 1252	0.0	
W-15S		16.99		22.95	5.96	0.66	3.93	11.80	10/6/03@ 1309	0.0	
W-15D		27.07		122.18	95.11	0.66	57.07	171.19	10/6/03@ 1301	0.0	
W-26		4.09		10.74	6.65	0.66	4.39	13.17	10/6/03@ 1317	0.0	
N4-1		13.91		25.44	11.53	0.17	1.96	5.88	10/6/03 @ 1326	0.0	16.92 product → no equipment used
N4-2		20.62		30.59	9.97	0.17	1.69	5.08	10/6/03@ 1338	0.0	
N5-1		17.87		25.58	7.71	0.17	1.31	3.93	10/6/03@ 1344	0.0	
N5-2		15.48		30.50	15.02	0.17	2.55	7.66	10/6/03@ 1350	0.0	
N3-1		1.45		81.26	79.81	0.17	13.57	40.70	10/6/03@ 1409	1st 185, 2nd 44.6	
N3-2		11.82		18.41	6.59	0.17	1.12	3.36	10/6/03@ 1415	36.5	Odor
W-1D		1.72		93.79	92.07	0.66	60.77	182.3	10/6/03@ 1421	0.0	
W-1S		12.74		20.01	7.27	0.66	4.79	14.39	10/6/03@ 1427	0.0	
N3-3		14.03		19.51	5.48	0.17	0.93	2.79	10/6/03@ 14~~40~~ 34	328	
W-22		17.17		18.90	1.73	0.66	1.14	3.43	10/6/03@ 1440	0.0	
N3-4		5.02		20.99	15.97	0.17	2.71	8.14	10/6/03@ 1448	446	Odor

	DTP	DTW		DTB	ST		IPV	CPA		PID
W-23		7.12		18.74	11.62	0.66	7.67	23.01	10/6/03@ 1456	0.0
W-24		6.89		19.14	12.25	0.66	8.09	24.26	10/6/03@ 1500	3.0
N5-3		8.65		22.97	14.32	0.17	2.43	7.30	10/6/03@ 1507	381 Odor
N4-3		16.80		22.55	5.75	0.17	0.98	2.93	10/6/03@ 1516	0.0
N6-1	5.74	5.77				0.17			10/6/03@ 1533	759 pressurized water level ↑
N2-4		10.20		28.02	17.82	0.17	3.03	9.09	10/6/03@ 1543	715
N2-2		4.52		23.96	19.44	0.17	3.30	9.91	10/6/03@ 1550	733 Warm H_2O
N2-3		5.82		17.48	11.66	0.17	1.98	5.95	10/6/03@ 1557	166
FINA/MW-38		2.89		15.99	13.10	0.17	2.23	6.68	10/6/03@ 1601	13.5
N2-5		9.20		22.33	13.13	0.17	2.23	6.69	10/6/03@ 1608	1393
N2-6	4.44	13.46				0.17			10/6/03@ 1619	664
									@	

Comments: N2-1 product not present - bailer used - none found - equipment error

PID collected after cap removed

Personnel: (Print Name) Amber Lancaster Signature: Amber L. Lancaster

Personnel: (Print Name) Signature:

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SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: W-3 PERSONNEL: McPhee
LeMaster

LOCATION DESCRIPTION: W-3

SAMPLE MEDIA (circle one) (GROUNDWATER) SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER:

WATER DEPTH (FEET, below MP) 13.16

COLLECTION: YR: 2003 MONTH: 10 DAY: 07 TIME: 1135 METHOD: Bailer-grab

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
VOA	HCL	TPH OA-1 (gasoline)
1L Amber	HCL	TPH OA-2 (extractable)
Plastic	HNO_3	TOTAL PP METALS (6010B)
VOA	HCL	VOCs (8260B)
not collected → 1L Amber	None	SVOCs (8270)

not collected → this well

FIELD ANALYSES:

TEMPERATURE, °C: 19.65 DATE: 10-7-03

SAMPLE pH: 6.70 TIME: 1115

TURBIDITY: off scale APPEARANCE: grayish-black

CONDUCTIVITY: 103.2 ODOR: Sulfur

COMMENTS: ORP: -54.2 DO-5.59

DEVELOPMENT/PURGING:

DATE: 10-7-03 CASING DIAMETER: 4"

WATER LEVEL BEFORE: 13.16 WELL DEPTH (SOUNDED): TD. 20.00

WATER LEVEL AFTER: 13.25 TIME STARTED: 1109

EST. VOLUME REMOVED: Pumped Dry ~1gal TIME COMPLETED: 1113

PID/~~OVA~~, BACKGROUND: 0.0 METHOD: Grundfos pump

PID/~~OVA~~, WELL HEAD: 0.0 PID/~~OVA~~, BREATHING ZONE 0.0

COMMENTS:

Calculated PV: 13.54

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: W#8 PERSONNEL: LeMaster
Matt McPhee

LOCATION DESCRIPTION: W#8

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES NO SPLIT SAMPLE NUMBER:

WATER DEPTH (FEET, below MP) 15.71

COLLECTION: YR: 2003 MONTH: 10 DAY: 07 TIME: 1320 METHOD: Bailer grab

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
VOA	HCL	TPH OA-1 (gasoline)
1 L Amber	HCL	TPH OA-2 (extractable)
Plastic	HNO_3	TOTAL PP METALS (6010B)
VOA	HCL	VOCs (8260B)
NA	NA	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: 20.25 DATE: 10-7-03

SAMPLE pH: 7.54 TIME: 1312

TURBIDITY: 520 APPEARANCE: ~~NO~~ rust color

CONDUCTIVITY: 1.857 ODOR: No distinct odor

COMMENTS: ORP - -75.2 DO - 4.03

DEVELOPMENT/PURGING:

DATE: 10-7-03 CASING DIAMETER: 4"

WATER LEVEL BEFORE: 15.71 WELL DEPTH (SOUNDED): TD - 23.02

WATER LEVEL AFTER: 22.15 TIME STARTED: 1305

EST. VOLUME REMOVED: 10 TIME COMPLETED: 1311

PID/~~OVA,~~ BACKGROUND: 0.0 METHOD: Grundfos pump

PID/~~OVA~~, WELL HEAD: 0.0 PID/~~OVA, B~~REATHING ZONE 0.0

COMMENTS:

CPV - 14.47

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: ~~24732~~ 100078

SAMPLE NUMBER: N1-1 PERSONNEL: LeMaster

M. McPhee

LOCATION DESCRIPTION: N1-1

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES NO SPLIT SAMPLE NUMBER:

WATER DEPTH (FEET, below MP) 13.69

COLLECTION: YR: 2003 MONTH: 10 DAY: 07 TIME: 1355 METHOD: Bailer-grab

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
VOA	HCL	TPH OA-1 (gasoline)
1L Amber	HCL	TPH OA-2 (extractable)
500mL Plastic	HNO_3	TOTAL PP METALS (6010B)
VOA	HCL	VOCs (8260B)
1 L Amber	None	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: 23.14 DATE: 10-7-03

SAMPLE pH: 7.77 TIME: 1351

TURBIDITY: 282 APPEARANCE: Cloudy, slightly milky

CONDUCTIVITY: 0.968 ODOR: None

COMMENTS: ORP: -62.8 DO: 6.10

DEVELOPMENT/PURGING:

DATE: 10-7-03 CASING DIAMETER: 2"

WATER LEVEL BEFORE: 13.69 WELL DEPTH (SOUNDED): TP 25.16

WATER LEVEL AFTER: 17.30 TIME STARTED: 1348

EST. VOLUME REMOVED: 3 pumped dry TIME COMPLETED: 1350

PID/~~OVA,~~ BACKGROUND: 0.0 METHOD: Grundfos pump

PID/~~OVA,~~ WELL HEAD: 0.0 PID/~~OVA,~~ BREATHING ZONE 0.0

COMMENTS:

CPV-5.85

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: ~~24732~~ 100078

SAMPLE NUMBER: W#29S PERSONNEL: M. McPhee
A. LeMaster

LOCATION DESCRIPTION: W#29S

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES NO SPLIT SAMPLE NUMBER:

WATER DEPTH (FEET, below MP) 14.63

COLLECTION: YR: 2003 MONTH: 10 DAY: 07 TIME: 1430 METHOD: Bailer-grab

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
VOA	HCL	TPH OA-1 (gasoline)
1L Amber	HCL	TPH OA-2 (extractable)
500mL Plastic	HNO_3	TOTAL PP METALS (6010B)
VOA	HCL	VOCs (8260B)
		SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: 17.01 DATE: 10-7-03

SAMPLE pH: 7.88 TIME: 1421

TURBIDITY: 18.11 APPEARANCE: clear

CONDUCTIVITY: 0.735 ODOR: None

COMMENTS: DO = 4.45 ORP: -101.3

DEVELOPMENT/PURGING:

DATE: 10-7-03 CASING DIAMETER: 4"

WATER LEVEL BEFORE: 14.63 WELL DEPTH (SOUNDED): TD = 24.90

WATER LEVEL AFTER: 23.6 TIME STARTED: 1418

EST. VOLUME REMOVED: 9 pumped dry TIME COMPLETED: 1422

PID/~~OVA,~~ BACKGROUND: 0.0 METHOD: Grundfos pump

PID/~~OVA,~~ WELL HEAD: 0.0 PID/~~OVA,~~ BREATHING ZONE 0.0

COMMENTS: CPV = 20.33

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: W#29D PERSONNEL: M. McPhee
Amber LeMaster

LOCATION DESCRIPTION: W#29D

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES NO SPLIT SAMPLE NUMBER:

WATER DEPTH (FEET, below MP) 17.96

COLLECTION: YR: 2003 MONTH: 10 DAY: 07 TIME: 1500 METHOD: Bailer-grab

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
VOA	HCL	TPH OA-1 (gasoline)
1 L Amber	HCL	TPH OA-2 (extractable)
500ml plastic	HNO_3	TOTAL PP METALS (6010B)
VOA	HCL	VOCs (8260B)
		SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: 16.04 DATE: 10-7-03

SAMPLE pH: 7.99 TIME: 1445

TURBIDITY: 0.0 APPEARANCE: slightly cloudy

CONDUCTIVITY: 0.814 ODOR: None

COMMENTS: ORP = 168.1 DO = 1.49

DEVELOPMENT/PURGING:

DATE: 10-7-03 CASING DIAMETER: 4"

WATER LEVEL BEFORE: 17.96 WELL DEPTH (SOUNDED): TD = 80.75

WATER LEVEL AFTER: 68.50 TIME STARTED: 1430

EST. VOLUME REMOVED: Dry @ 65 gal TIME COMPLETED: 1452

PID/~~OVA~~, BACKGROUND: 0.0 METHOD: Grundfos pump

PID/~~OVA~~, WELL HEAD: 0.0 PID/~~OVA~~, BREATHING ZONE 0.0

COMMENTS: CPV = 124.32

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: ~~24732~~ 100078

SAMPLE NUMBER: WH26 PERSONNEL: M. McPhee
A. LeMaster

LOCATION DESCRIPTION: WH26

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES NO SPLIT SAMPLE NUMBER:

WATER DEPTH (FEET, below MP) 4.09

COLLECTION: YR: 2003 MONTH: 10 DAY: 07 TIME: 1610 METHOD: Bailer-grab

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
VOA	HCL	TPH OA-1 (gasoline)
1 L Amber	HCL	TPH OA-2 (extractable)
500mL Plastic	HNO_3	TOTAL PP METALS (6010B)
VOA	HCL	VOCs (8260B)
		SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: 18.29 DATE: 10-7-03

SAMPLE pH: 7.91 TIME: 1600

TURBIDITY: 54 APPEARANCE: Rust colored

CONDUCTIVITY: 1.02 ODOR: swampy smell

COMMENTS: DO = 2.66 ORP = -144.4

DEVELOPMENT/PURGING:

DATE: 10-7-03 CASING DIAMETER: 4"

WATER LEVEL BEFORE: 4.09 WELL DEPTH (SOUNDED): 10.74

WATER LEVEL AFTER: 9.00 TIME STARTED: 1555

EST. VOLUME REMOVED: 7 dry @ TIME COMPLETED: 1559

PID/~~OVA~~, BACKGROUND: 0.0 METHOD: Grundfos pump

PID/~~OVA~~, WELL HEAD: 0.0 PID/~~OVA~~, BREATHING ZONE 0.0

COMMENTS: CPV = 13.17

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: ~~24732~~ 100078

SAMPLE NUMBER: W#15S PERSONNEL: M McPhee

A. LuMaster

LOCATION DESCRIPTION: W#15S

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES NO SPLIT SAMPLE NUMBER:

WATER DEPTH (FEET, below MP) 16.99

COLLECTION: YR: 2003 MONTH: 10 DAY: 07 TIME: 1640 METHOD: Bailer-graft

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
VOA	HCL	TPH OA-1 (gasoline)
1L Amber	HCL	TPH OA-2 (extractable)
500mL plastic	HNO_3	TOTAL PP METALS (6010B)
VOA	HCL	VOCs (8260B)
		SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: 16.32 DATE: 10-7-03

SAMPLE pH: 7.33 TIME: 1629

TURBIDITY: 91 APPEARANCE: Cloudy, gray → clearer

CONDUCTIVITY: 0.987 ODOR: None

COMMENTS: DO = 5.42 ORP = 51.2

DEVELOPMENT/PURGING:

DATE: 10-7-03 CASING DIAMETER: 4"

WATER LEVEL BEFORE: 16.99 WELL DEPTH (SOUNDED): TD = 22.95

WATER LEVEL AFTER: TIME STARTED: 1627

EST. VOLUME REMOVED: 12 TIME COMPLETED: 1631

PID/~~OVA~~ BACKGROUND: 0.0 METHOD: Grundfos pump

PID/~~OVA~~ WELL HEAD: 0.0 PID/~~OVA~~ BREATHING ZONE 0.0

COMMENTS: CPV = 11.80

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: ~~24732~~) 00078

SAMPLE NUMBER: W#15D PERSONNEL: M. McPhee

A. LeMaster

LOCATION DESCRIPTION: W#15D

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES NO SPLIT SAMPLE NUMBER:

WATER DEPTH (FEET, below MP) 27.07

COLLECTION: YR: 2003 MONTH: 10 DAY: 07 TIME: 1720 METHOD: Bailer-grab

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
VOA	HCL	TPH OA-1 (gasoline)
1 L Amber	HCL	TPH OA-2 (extractable)
500mL Plastic	HNO_3	TOTAL PP METALS (6010B)
VOA	HCL	VOCs (8260B)
		SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: 15.94 DATE: 10-7-03

SAMPLE pH: 7.00 TIME: 1715

TURBIDITY: 0 APPEARANCE: clear

CONDUCTIVITY: 3230 ODOR: None

COMMENTS: ORP = -72.2

DO: 0.40

DEVELOPMENT/PURGING:

DATE: 10-7-03 CASING DIAMETER: 4"

WATER LEVEL BEFORE: 27.07 WELL DEPTH (SOUNDED): TD: 122.18

WATER LEVEL AFTER: 27.35 TIME STARTED: 1643

EST. VOLUME REMOVED: 175 TIME COMPLETED: 1715

PID/~~OVA~~ BACKGROUND: 0.0 METHOD: Grundfos pump

PID/~~OVA~~, WELL HEAD: 0.0 PID/~~OVA~~, BREATHING ZONE 0.0

COMMENTS: CPV = 171.19

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: ~~24732~~ 100078

SAMPLE NUMBER: N2-1 PERSONNEL: Amber LeMaster, Matt McPhee

LOCATION DESCRIPTION: N2-1

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES NO SPLIT SAMPLE NUMBER:

WATER DEPTH (FEET, below MP) 16.83

COLLECTION: YR: 2003 MONTH: 10 DAY: 08 TIME: 0840 METHOD: Bailer-grab

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
VOA	HCL	TPH OA-1 (gasoline)
1L Amber	HCL	TPH OA-2 (extractable)
500 mL Plastic	HNO_3	TOTAL PP METALS (6010B)
VOA	HCL	VOCs (8260B)
1L Amber	None	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: 15.78 DATE: 10-8-03

SAMPLE pH: 7.38 TIME: 0904

TURBIDITY: 434 APPEARANCE: light brown

CONDUCTIVITY: 0.752 ODOR: None

COMMENTS: DO: 7.12
ORP: 54.4

DEVELOPMENT/PURGING:

DATE: 10-7-03 CASING DIAMETER: 2"

WATER LEVEL BEFORE: 16.83 WELL DEPTH (SOUNDED): TD= ~~27.10~~ 25.16

WATER LEVEL ~~AFTER~~ @sampling: 17.15 TIME STARTED: 0915

EST. VOLUME REMOVED: 4 gal TIME COMPLETED: 0930

PID/~~OVA~~, BACKGROUND: 0.0 METHOD: Hand bailed

PID/~~OVA~~, WELL HEAD: 0.0 PID/~~OVA~~, BREATHING ZONE: 0.0

COMMENTS: CPV = 5.24

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: ~~24732~~ 100078

SAMPLE NUMBER: N4-3 PERSONNEL: Amber LeMaster
Matt McPhee

LOCATION DESCRIPTION: N4-3

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES NO SPLIT SAMPLE NUMBER:

WATER DEPTH (FEET, below MP) 16.80

COLLECTION: YR: 2003 MONTH: 10 DAY: 08 TIME: 0920 METHOD: Bailer-grab

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
NOA	HCL	TPH OA-1 (gasoline)
1 L Amber	HCL	TPH OA-2 (extractable)
500mL plastic	HNO_3	TOTAL PP METALS (6010B)
VOA	HCL	VOCs (8260B)
1 L Amber	None	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: 16.72 DATE: 10-8-03

SAMPLE pH: 7.29 TIME: 0922

TURBIDITY: 332 APPEARANCE: cloudy

CONDUCTIVITY: 0.939 ODOR: None

COMMENTS: ORP= 88.1
DO= 6.65

DEVELOPMENT/PURGING:

DATE: 10-7-03 CASING DIAMETER: 2"

WATER LEVEL BEFORE: 16.80 WELL DEPTH (SOUNDED): TD=22.55

WATER LEVEL ~~AFTER~~ @sampling: 17.41 TIME STARTED: 0947

EST. VOLUME REMOVED: 1.5gal TIME COMPLETED: 0956

PID/~~OVA~~, BACKGROUND: 0.0 METHOD: Hand-bailed

PID/~~OVA~~, WELL HEAD: 0.0 PID/~~OVA~~, BREATHING ZONE 0.0

COMMENTS: CPV= 2.93

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: ~~24732~~ 100078

SAMPLE NUMBER: N3-3 PERSONNEL: M. McPhee
A. LeMaster

LOCATION DESCRIPTION: N3-3

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES NO SPLIT SAMPLE NUMBER:

WATER DEPTH (FEET, below MP) 14.03

COLLECTION: YR: 2003 MONTH: 10 DAY: 08 TIME: 1005 METHOD: Bailer-grab

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
VOA	HCL	TPH OA-1 (gasoline)
1L Amber	HCL	TPH OA-2 (extractable)
500mL plastic	HNO_3	TOTAL PP METALS (6010B)
VOA	HCL	VOCs (8260B)
1L Amber	None	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: 15.43 DATE: 10-8-03

SAMPLE pH: 7.23 TIME: 1001

TURBIDITY: off scale APPEARANCE: Sheen, black

CONDUCTIVITY: 1.285 ODOR: Strong hydrocarbon odor

COMMENTS: DO = 3.30
ORP: -98.4

DEVELOPMENT/PURGING:

DATE: 10-8-03 CASING DIAMETER: 2"

WATER LEVEL BEFORE: 14.03 WELL DEPTH (SOUNDED): TD = 19.51

WATER LEVEL AFTER: 14.00 TIME STARTED: 0947

EST. VOLUME REMOVED: 3 gal. TIME COMPLETED: 0953

PID/~~OVA~~, BACKGROUND: 0.0 METHOD: Hand bailed

PID/~~OVA~~, WELL HEAD: 328 PID/~~OVA~~, BREATHING ZONE 0.0

COMMENTS: CPV = 2.79

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: ~~24732~~ 100078

SAMPLE NUMBER: W-22 PERSONNEL: Amber LeMaster, Matt McPhee

LOCATION DESCRIPTION: W-22

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES NO SPLIT SAMPLE NUMBER:

WATER DEPTH (FEET, below MP) 17.17

COLLECTION: YR: 2003 MONTH: 10 DAY: 08 TIME: 1024 METHOD: Bailer-grab

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
VOA	HCL	TPH OA-1 (gasoline)
1L Amber	HCL	TPH OA-2 (extractable)
500mL plastic	HNO_3	TOTAL PP METALS (6010B)
VOA	HCL	VOCs (8260B)
		SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: 17.08 DATE: 10-7-03

SAMPLE pH: 7.01 TIME: 1028

TURBIDITY: 340 APPEARANCE: Sheen, slight

CONDUCTIVITY: 1460 µS/cm³ ODOR: Strong hydrocarbon odor, sewer odor

COMMENTS: ORP = -32.9 DO = 3.43 mg/L TDS = 0.948 g/L

DEVELOPMENT/PURGING:

DATE: 10-7-03 CASING DIAMETER: 4"

WATER LEVEL BEFORE: 17.17 WELL DEPTH (SOUNDED): TD = 18.90

WATER LEVEL ~~AFTER~~ @sampling 17.20 TIME STARTED: 1018

EST. VOLUME REMOVED: 1 gal. TIME COMPLETED: 1026

PID/~~OVA~~, BACKGROUND: 0.0 METHOD: Hand-bailed

PID/~~OVA~~, WELL HEAD: 0.0 PID/~~OVA~~, BREATHING ZONE 0.0

COMMENTS: well baled dry, sheen noted in purge water

CPV = 3.43

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: ~~24732~~ 100078

SAMPLE NUMBER: N4-4 PERSONNEL: M. McPhee
A. LeMaster

LOCATION DESCRIPTION: N4-4

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES ~~NO~~ SPLIT SAMPLE NUMBER: Duplicate A, Rinse Blank

WATER DEPTH (FEET, below MP) 15.57

COLLECTION: YR: 2003 MONTH: 10 DAY: 08 TIME: 1106 METHOD:

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
VOA	HCL	TPH OA-1 (gasoline)
1L Amber	HCL	TPH OA-2 (extractable)
500mL plastic	HNO_3	TOTAL PP METALS (6010B)
VOA	HCL	VOCs (8260B)
1L Amber	None	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: 16.21 DATE: 10-8-03

SAMPLE pH: 7.06 TIME: 1100

TURBIDITY: 89 APPEARANCE: cloudy - slight

CONDUCTIVITY: 0.927 ODOR: None

COMMENTS: ORP: -82.1
DO: 3.24

DEVELOPMENT/PURGING:

DATE: 10-8-03 CASING DIAMETER: 2"

WATER LEVEL BEFORE: 15.57 WELL DEPTH (SOUNDED): TD=26.66

WATER LEVEL AFTER: 16.82 TIME STARTED: 1059

EST. VOLUME REMOVED: 6 TIME COMPLETED: 1105

PID/~~OVA,~~ BACKGROUND: 0.0 METHOD: Grundfos pump

PID/~~OVA,~~ WELL HEAD: 0.5 PID/~~OVA,~~ BREATHING ZONE 0.0

COMMENTS: CPV=5.66

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: ~~24732~~ 100078

SAMPLE NUMBER: W#16S PERSONNEL: M. McPhee
A. LeMaster

LOCATION DESCRIPTION: W#16S

SAMPLE MEDIA (circle one) (GROUNDWATER) SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER:

WATER DEPTH (FEET, below MP) 4.82

COLLECTION: YR: 2003 MONTH: 10 DAY: 08 TIME: 1315 METHOD: Bailer-grab

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
VOA	HCL	TPH OA-1 (gasoline)
1 L Amber	HCL	TPH OA-2 (extractable)
500mL plastic	HNO_3	TOTAL PP METALS (6010B)
VOA	HCL	VOCs (8260B)
		SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: 17.11 DATE: 10-8-03

SAMPLE pH: 7.13 TIME: 1312

TURBIDITY: 232 APPEARANCE: clear

CONDUCTIVITY: 1346 ODOR: None

COMMENTS: ORP: -28.5
DO: 2.93

DEVELOPMENT/PURGING:

DATE: 10-8-03 CASING DIAMETER: 4"

WATER LEVEL BEFORE: 4.82 WELL DEPTH (SOUNDED): TD=21.40

WATER LEVEL AFTER: 14.00 TIME STARTED: 1304

EST. VOLUME REMOVED: dry@ 15gal TIME COMPLETED: 1312

PID/~~OVA~~, BACKGROUND: 0.0 METHOD: Grundfos pump

PID/~~OVA~~, WELL HEAD: 0.0 PID/~~OVA~~, BREATHING ZONE 0.0

COMMENTS: CPV=32.83

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: ~~24732~~ 100078

SAMPLE NUMBER: N4-1 PERSONNEL: M. McPhee

LOCATION DESCRIPTION: N4-1

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES NO SPLIT SAMPLE NUMBER:

WATER DEPTH (FEET, below MP) 13.91

COLLECTION: YR: 2003 MONTH: 10 DAY: 08 TIME: 1350 METHOD: Bailer-grab

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
VOA	HCL	TPH OA-1 (gasoline)
1L Amber	HCL	TPH OA-2 (extractable)
500mL plastic	HNO_3	TOTAL PP METALS (6010B)
VOA	HCL	VOCs (8260B)
1L Amber	None	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: 18.16 DATE: 10-8-03

SAMPLE pH: 7.17 TIME: 1345

TURBIDITY: 868 APPEARANCE: ~~colo~~ clear

CONDUCTIVITY: 1,144 ODOR: none

COMMENTS: ORP: 60.0

DO. 5.9

DEVELOPMENT/PURGING:

DATE: 10-8-03 CASING DIAMETER: 2"

WATER LEVEL BEFORE: 13.91 WELL DEPTH (SOUNDED): TD = 25.44

WATER LEVEL AFTER: 15.00 TIME STARTED: 1340

EST. VOLUME REMOVED: Dry @ 3.0 TIME COMPLETED: 1342

PID/~~OVA~~, BACKGROUND: 0.0 METHOD: Grundfos pump

PID/~~OVA~~, WELL HEAD: 0.0 PID/~~OVA~~, BREATHING ZONE 0.0

COMMENTS: CPV = 5.88

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: ~~24732~~ 00078

SAMPLE NUMBER: N4-2 PERSONNEL: M. McPhee
A. LeMaster

LOCATION DESCRIPTION: N4-2

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES NO SPLIT SAMPLE NUMBER:

WATER DEPTH (FEET, below MP) 20.62

COLLECTION: YR: 2003 MONTH: 10 DAY: 08 TIME: 1410 METHOD: Bailer-grab

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
VOA	HCL	TPH OA-1 (gasoline)
1L Amber	HCL	TPH OA-2 (extractable)
500mL plastic	HNO3	TOTAL PP METALS (6010B)
VOA	HCL	VOCs (8260B)
1L Amber	None	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: 15.28 DATE: 10-8-03

SAMPLE pH: 7.26 TIME: 1406

TURBIDITY: 0.0 APPEARANCE: Clear, yellowish

CONDUCTIVITY: 2908 ODOR: No odor

COMMENTS: ORP: 9.0
DO: 11.7

DEVELOPMENT/PURGING:

DATE: 10-8-03 CASING DIAMETER: 2"

WATER LEVEL BEFORE: 20.62 WELL DEPTH (SOUNDED): 30.59

WATER LEVEL AFTER: 22.00 TIME STARTED: 1404

EST. VOLUME REMOVED: 6 TIME COMPLETED: 1407

PID/~~OVA~~, BACKGROUND: 0.0 METHOD: Grundfos pump

PID/~~OVA~~, WELL HEAD: 0.0 PID/~~OVA~~, BREATHING ZONE 0.0

COMMENTS: CPV = 5.08

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: ~~24732~~ 100078

SAMPLE NUMBER: NS-1 PERSONNEL: M. McPhee
A. LeMaster

LOCATION DESCRIPTION: NS-1

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES NO SPLIT SAMPLE NUMBER:

WATER DEPTH (FEET, below MP) 17.87

COLLECTION: YR: 2003 MONTH: 10 DAY: 08 TIME: 1440 METHOD: Bailer-grab

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
VOA	HCL	TPH OA-1 (gasoline)
1L Amber	HCL	TPH OA-2 (extractable)
500mL plastic	HNO_3	TOTAL PP METALS (6010B)
VOA	HCL	VOCs (8260B)
1L Amber	None	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: DATE: 10-8-03

SAMPLE pH: TIME: 1432

TURBIDITY: APPEARANCE: light yellow/clear

CONDUCTIVITY: ODOR: None

COMMENTS: unable to gather readings

DEVELOPMENT/PURGING:

DATE: 10-8-03 CASING DIAMETER: 2"

WATER LEVEL BEFORE: 17.87 WELL DEPTH (SOUNDED): TD=25.58

WATER LEVEL AFTER: 20.00 TIME STARTED: 1432

EST. VOLUME REMOVED: Dry@3gal TIME COMPLETED: 1435

PID/~~OVA~~, BACKGROUND: 0.0 METHOD: Grundfos pump

PID/~~OVA~~, WELL HEAD: 0.0 PID/~~OVA~~, BREATHING ZONE 0.0

COMMENTS: CPV= 3.93

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: ~~24732~~ 100078

SAMPLE NUMBER: NS-2 PERSONNEL: M. McPhee

A. LaMaster

LOCATION DESCRIPTION: NS-2

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES NO SPLIT SAMPLE NUMBER:

WATER DEPTH (FEET, below MP) 15.48

COLLECTION: YR: 2003 MONTH: 10 DAY: 08 TIME: 1500 METHOD:

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
NOA	HCL	TPH OA-1 (gasoline)
1 L Amber	HCL	TPH OA-2 (extractable)
500mL plastic	HNO_3	TOTAL PP METALS (6010B)
NOA	HCL	VOCs (8260B)
1 L Amber	None	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: 15.58 DATE: 10-8-03

SAMPLE pH: 7.26 TIME: 1432

TURBIDITY: 0.0 APPEARANCE: Milky water → clear

CONDUCTIVITY: 3024 ODOR: Slight odor

COMMENTS: DO: 3.42
ORP: -14.9

DEVELOPMENT/PURGING:

DATE: 10-8-03 CASING DIAMETER: 2"

WATER LEVEL BEFORE: 15.48 WELL DEPTH (SOUNDED): TD - 30.50

WATER LEVEL AFTER: 15.50 TIME STARTED: 1450

EST. VOLUME REMOVED: Dry @ 5gal TIME COMPLETED: 1453

PID/~~OVA,~~ BACKGROUND: 0.0 METHOD: Grundfos pump

PID/~~OVA,~~ WELL HEAD: 0.0 PID/OVA, BREATHING ZONE 0.0

COMMENTS: CPV = 7.666

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: ~~24732~~ 100078

SAMPLE NUMBER: N5-3 PERSONNEL: M. McPhee
A. LeMaster

LOCATION DESCRIPTION: N5-3

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES NO SPLIT SAMPLE NUMBER:

WATER DEPTH (FEET, below MP) 8.65

COLLECTION: YR: 2003 MONTH: 10 DAY: 08 TIME: 1530 METHOD: Bailer-grab

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
VOA	HCL	TPH OA-1 (gasoline)
1 L Amber	HCL	TPH OA-2 (extractable)
500mL plastic	HNO_3	TOTAL PP METALS (6010B)
VOA	HCL	VOCs (8260B)
1 L Amber	None	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: 17.70 DATE: 10-8-03

SAMPLE pH: 7.21 TIME: 1521

TURBIDITY: 15 APPEARANCE: Slight sheen, cloudy

CONDUCTIVITY: 2423 ODOR: Strong hydrocarbon odor

COMMENTS: DO: 1.21 ↳ s
ORP: -28.3

DEVELOPMENT/PURGING:

DATE: 10-8-03 CASING DIAMETER: 2"

WATER LEVEL BEFORE: 8.65 WELL DEPTH (SOUNDED): TD 22.97

WATER LEVEL AFTER: 15.50 TIME STARTED: 1523

EST. VOLUME REMOVED: Dry @ 5 gal TIME COMPLETED: 1526

PID/~~OVA,~~ BACKGROUND: 0.0 METHOD: Grundfos pump

PID/~~OVA,~~ WELL HEAD: 381 PID/~~OVA,~~ BREATHING ZONE 0.0

COMMENTS: CPV = 7.30

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: ~~24732~~ 100078

SAMPLE NUMBER: W#23 PERSONNEL: A. LeMaster
M. McPhee

LOCATION DESCRIPTION: W#23

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES NO SPLIT SAMPLE NUMBER:

WATER DEPTH (FEET, below MP) 7.12

COLLECTION: YR: 2003 MONTH: 10 DAY: 09 TIME: 0930 METHOD: Bailer-grab

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
NOA	HCL	TPH OA-1 (gasoline)
1L Amber	HCL	TPH OA-2 (extractable)
500mL plastic	HNO_3	TOTAL PP METALS (6010B)
VOA	HCL	VOCs (8260B)
		SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: 19.56 DATE: 10-9-03

SAMPLE pH: 6.95 TIME: 0921

TURBIDITY: 0.0 APPEARANCE: yellowish clear

CONDUCTIVITY: 1.079 ODOR: Slight hydrocarbon odor

COMMENTS: DO: 3.35
ORP: -7.9

DEVELOPMENT/PURGING:

DATE: 10-9-03 CASING DIAMETER: 4"

WATER LEVEL BEFORE: 7.12 WELL DEPTH (SOUNDED): TD = 18.74

WATER LEVEL AFTER: 6.00 TIME STARTED: 0915

EST. VOLUME REMOVED: Dry @ 12 TIME COMPLETED: 0919

PID/~~OVA,~~ BACKGROUND: 0.0 METHOD: Grundfos pump

PID/~~OVA,~~ WELL HEAD: 0.0 PID/~~OVA,~~ BREATHING ZONE 0.0

COMMENTS: CPV = 23.01

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: ~~24732~~ 100078

SAMPLE NUMBER: N3-4 PERSONNEL: M. McPhee
A. LeMaster

LOCATION DESCRIPTION: N3-4

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES NO SPLIT SAMPLE NUMBER: MS/MSD collected

WATER DEPTH (FEET, below MP) 5.02

COLLECTION: YR: 2003 MONTH: 10 DAY: 09 TIME: 0955 METHOD: Bailer

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
VOA	HCL	TPH OA-1 (gasoline)
1 L Amber	HCL	TPH OA-2 (extractable)
500mL plastic	HNO_3	TOTAL PP METALS (6010B)
VOA	HCL	VOCs (8260B)
1L Amber	None	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: 18.26 DATE: 10-9-03

SAMPLE pH: 6.35 TIME: 0951

TURBIDITY: 0.0 APPEARANCE: Gray, cloudy

CONDUCTIVITY: 4.342 ODOR: small hydrocarbon odor

COMMENTS: DO: 5.24
ORP: -81.7

DEVELOPMENT/PURGING:

DATE: 10-9-03 CASING DIAMETER: 2"

WATER LEVEL BEFORE: 5.02 WELL DEPTH (SOUNDED): TD=20.99

WATER LEVEL AFTER: 9.00 TIME STARTED: 0948

EST. VOLUME REMOVED: 0.4005 gal TIME COMPLETED: 0951

PID/~~OVA,~~ BACKGROUND: 0.0 METHOD: Grundfos pump

PID/~~OVA,~~ WELL HEAD: 2146 PID/OVA, BREATHING ZONE 0.0

COMMENTS: CPV=8.14

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: ~~24732~~ 100078

SAMPLE NUMBER: W#24 PERSONNEL: M. McPhee
A. Master

LOCATION DESCRIPTION: W#24

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES NO SPLIT SAMPLE NUMBER:

WATER DEPTH (FEET, below MP) 6.89

COLLECTION: YR: 2003 MONTH: 10 DAY: 09 TIME: 1100 METHOD: Bailer-grab

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
VOA	HCL	TPH OA-1 (gasoline)
1. L Amber	HCL	TPH OA-2 (extractable)
500mL Plastic	HNO_3	TOTAL PP METALS (6010B)
VOA	HCL	VOCs (8260B)
	None	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: 20.43 DATE: 10-9-03

SAMPLE pH: 6.95 TIME: 1044

TURBIDITY: 50 APPEARANCE: clear

CONDUCTIVITY: 1.259 ODOR: slight hydrocarbon odor

COMMENTS: DO: 1.37
ORP: -194.8

DEVELOPMENT/PURGING:

DATE: 10-9-03 CASING DIAMETER: 4"

WATER LEVEL BEFORE: 6.89 WELL DEPTH (SOUNDED): TD=19.14

WATER LEVEL AFTER: 7.00 TIME STARTED: 1034

EST. VOLUME REMOVED: 25gal TIME COMPLETED: 1044

PID/~~OVA~~, BACKGROUND: 0.0 METHOD: Grundfos pump

PID/~~OVA~~, WELL HEAD: 3.0 PID/~~OVA~~, BREATHING ZONE 0.0

COMMENTS: CPV= 23.01

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: ~~24732~~ 100078

SAMPLE NUMBER: W#1S PERSONNEL: M McPhee
A. LeMaster

LOCATION DESCRIPTION: W#1S

SAMPLE MEDIA (circle one) (GROUNDWATER) SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER:

WATER DEPTH (FEET, below MP) 12.74

COLLECTION: YR: 2003 MONTH: 10 DAY: 09 TIME: 1230 METHOD: Bailer-grab

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
VOA	HCL	TPH OA-1 (gasoline)
1L Amber	HCL	TPH OA-2 (extractable)
500mL plastic	HNO_3	TOTAL PP METALS (6010B)
VOA	HCL	VOCs (8260B)
		SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: 18.76 DATE: 10-9-03

SAMPLE pH: 7.04 TIME: 1224

TURBIDITY: 70 APPEARANCE: clear

CONDUCTIVITY: 1135 ODOR: slight

COMMENTS: DO: 3.42
ORP: -99.6

DEVELOPMENT/PURGING:

DATE: 10-9-03 CASING DIAMETER: 4"

WATER LEVEL BEFORE: 12.74 WELL DEPTH (SOUNDED): TD=20.01

WATER LEVEL AFTER: 9.50 TIME STARTED: 1220

EST. VOLUME REMOVED: 15 TIME COMPLETED: 1223

PID/~~OVA,~~ BACKGROUND: 0.0 METHOD: Grundfos pump

PID/~~OVA,~~ WELL HEAD: 0.0 PID/~~OVA,~~ BREATHING ZONE 0.0

COMMENTS: CPV=14.39

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: ~~24732~~ 100078

SAMPLE NUMBER: W#1D PERSONNEL: A. LeMaster

M. McPhee

LOCATION DESCRIPTION: W#1D

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES NO SPLIT SAMPLE NUMBER:

WATER DEPTH (FEET, below MP) 1.72

COLLECTION: YR: 2003 MONTH: 10 DAY: 09 TIME: 1300 METHOD: Bailer-grab

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
VOA	HCL	TPH OA-1 (gasoline)
1L Amber	HNO3	TPH OA-2 (extractable)
500ml plastic	HCL	TOTAL PP METALS (6010B)
VOA	HCL	VOCs (8260B)
		SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: 15.33 DATE: 10-9-03

SAMPLE pH: 7.46 TIME: 1252

TURBIDITY: 2.3 APPEARANCE: Slight cloudiness

CONDUCTIVITY: 1.582 ODOR: Slight odor

COMMENTS: DO: 0.33

ORP: -241.7

DEVELOPMENT/PURGING:

DATE: 10-9-03 CASING DIAMETER: 4"

WATER LEVEL BEFORE: 1.72 WELL DEPTH (SOUNDED): TD=122.18

WATER LEVEL AFTER: 2.5 TIME STARTED: 1237

EST. VOLUME REMOVED: Stable@100 TIME COMPLETED: 1255

PID/OVA, BACKGROUND: 0.0 METHOD: Grundfos pump

PID/OVA, WELL HEAD: 0.0 PID/OVA, BREATHING ZONE 0.0

COMMENTS: CPV= 171.19

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: ~~24732~~

SAMPLE NUMBER: N3-2 PERSONNEL: M. McPhee
A. LeMaster

LOCATION DESCRIPTION: N3-2

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES NO SPLIT SAMPLE NUMBER:

WATER DEPTH (FEET, below MP) 11.82

COLLECTION: YR: 2003 MONTH: 10 DAY: 09 TIME: 1325 METHOD: Bailer-grab

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
VOA	HCL	TPH OA-1 (gasoline)
1L Amber	HCL	TPH OA-2 (extractable)
500ml plastic	HNO_3	TOTAL PP METALS (6010B)
VOA	HCL	VOCs (8260B)
1L Amber	None	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: 18.82 DATE: 10-9-03

SAMPLE pH: 7.23 TIME: ~~1211~~ 1318

TURBIDITY: 50 APPEARANCE: Cloudy - gray

CONDUCTIVITY: 1.391 ODOR: slight odor

COMMENTS: DO: 3.85
ORP: -87.6

DEVELOPMENT/PURGING:

DATE: 10-9-03 CASING DIAMETER: 2"

WATER LEVEL BEFORE: 11.82 WELL DEPTH (SOUNDED): TD=18.41

WATER LEVEL AFTER: 9.00 TIME STARTED: 1318

EST. VOLUME REMOVED: 4 gal TIME COMPLETED: 1319

PID/~~OVA~~, BACKGROUND: 0.0 METHOD: Grundfos pump

PID/~~OVA~~, WELL HEAD: 36.5 PID/~~OVA~~, BREATHING ZONE 0.0

COMMENTS: CPV= 3.36

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: ~~24732~~ 100078

SAMPLE NUMBER: N3-1 PERSONNEL: M. McPhee
A. Wellmaster

LOCATION DESCRIPTION: N3-1

SAMPLE MEDIA (circle one) (GROUNDWATER) SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) (YES) NO SPLIT SAMPLE NUMBER: Dup B & Rinse Blank 2

WATER DEPTH (FEET, below MP) 1.45

COLLECTION: YR: 2003 MONTH: 10 DAY: 09 TIME: 1410 METHOD: Bailer-grab

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
VOA	HCL	TPH OA-1 (gasoline)
1L Amber	HCL	TPH OA-2 (extractable)
500mL plastic	HNO_3	TOTAL PP METALS (6010B)
VOA	HCL	VOCs (8260B)
1L Amber	None	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: 15.80 DATE: 10-9-03

SAMPLE pH: 7.99 TIME: 1406

TURBIDITY: 1.0 APPEARANCE: grayish clear

CONDUCTIVITY: 2808 ODOR: slight odor

COMMENTS: ORP: -230.9
DO: 0.40

DEVELOPMENT/PURGING:

DATE: 10-9-03 CASING DIAMETER: 2"

WATER LEVEL BEFORE: 1.45 WELL DEPTH (SOUNDED): TD=81.26

WATER LEVEL AFTER: 1.95 TIME STARTED: 1355

EST. VOLUME REMOVED: 450 gal TIME COMPLETED: 1406

PID/~~OVA~~, BACKGROUND: 0.0 METHOD: Grundfos pump

PID/~~OVA~~, WELL HEAD: 185 PID/~~OVA~~, BREATHING ZONE 0.0

COMMENTS: CPV = 40.70

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: ~~24732~~ 100078

SAMPLE NUMBER: FINA/MW-38 PERSONNEL: M. McPhee
A. LeMaster

LOCATION DESCRIPTION: FINA/MW-38 FINA WELL – MW-38

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES NO SPLIT SAMPLE NUMBER:

WATER DEPTH (FEET, below MP) 2.89

COLLECTION: YR: 2003 MONTH: 10 DAY: 09 TIME: 1505 METHOD: Bailer-grab

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
VOA	HCL	TPH OA-1 (gasoline)
1L Amber	HCL	TPH OA-2 (extractable)
500mL plastic	HNO_3	TOTAL PP METALS (6010B)
VOA	HCL	VOCs (8260B)
		SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: 20.38 DATE: 10-9-03

SAMPLE pH: 7.19 TIME: 1458

TURBIDITY: 480 APPEARANCE: grayish, cloudy

CONDUCTIVITY: 2.214 ODOR: Strong hydrocarbon

COMMENTS: DO: 0.81
ORP: -189.9

DEVELOPMENT/PURGING:

DATE: 10-9-03 CASING DIAMETER: 2"

WATER LEVEL BEFORE: 2.89 WELL DEPTH (SOUNDED): TD=15.99

WATER LEVEL AFTER: 3.00 TIME STARTED: 1453

EST. VOLUME REMOVED: 8.0 TIME COMPLETED: 1458

PID/~~OVA~~, BACKGROUND: 0.0 METHOD: Grundfos pump

PID/~~OVA,~~ WELL HEAD: 13.5 PID/~~OVA,~~ BREATHING ZONE 0.0

COMMENTS: CPV= 6.68

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: N2-3 PERSONNEL: M. McPhee
A. LeMaster

LOCATION DESCRIPTION: N2-3

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES NO SPLIT SAMPLE NUMBER:

WATER DEPTH (FEET, below MP) 5.82

COLLECTION: YR: 2003 MONTH: 10 DAY: 09 TIME: 1530 METHOD: bailer-grab

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
VOA	HCL	TPH OA-1 (gasoline)
1 L Amber	HCL	TPH OA-2 (extractable)
500mL plastic	HNO_3	TOTAL PP METALS (6010B)
1 L Amber	HCL	VOCs (8260B)
VOA	None	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: 21.50 DATE: 10-9-03

SAMPLE pH: 7.08 TIME: 1525

TURBIDITY: off scale APPEARANCE: cloudy, grayish-brown

CONDUCTIVITY: 1.561 ODOR: strong odor

COMMENTS: DO: 2.84
ORP: -140.2

DEVELOPMENT/PURGING:

DATE: 10-9-03 CASING DIAMETER: 2"

WATER LEVEL BEFORE: 5.82 WELL DEPTH (SOUNDED): TD=17.48

WATER LEVEL AFTER: 6.00 TIME STARTED: 1522

EST. VOLUME REMOVED: 6 gal TIME COMPLETED: 1524

PID/~~OVA,~~ BACKGROUND: 0.0 METHOD: Grundfos pump

PID/~~OVA,~~ WELL HEAD: 166 PID/~~OVA,~~ BREATHING ZONE 0.0

COMMENTS: CPV=5.95

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: ~~24732~~ 100078

SAMPLE NUMBER: N2-2 PERSONNEL: M. McPhee
A. le Master

LOCATION DESCRIPTION: N2-2

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES NO SPLIT SAMPLE NUMBER:

WATER DEPTH (FEET, below MP) 4.52

COLLECTION: YR: 2003 MONTH: 10 DAY: 09 TIME: 1555 METHOD: Bailer-grab

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
VOA	HCL	TPH OA-1 (gasoline)
1 L Amber	HCL	TPH OA-2 (extractable)
500mL plastic	HNO_3	TOTAL PP METALS (6010B)
VOA	HCL	VOCs (8260B)
1 L Amber	None	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: 35.22 DATE: 10-9-03

SAMPLE pH: 7.05 TIME: 1549

TURBIDITY: off scale APPEARANCE: light yellow, cloudy

CONDUCTIVITY: 1.165 ODOR: strong odor

COMMENTS: DO: 1.23
ORP: -147.1

DEVELOPMENT/PURGING:

DATE: 10-9-03 CASING DIAMETER: 2"

WATER LEVEL BEFORE: 4.52 WELL DEPTH (SOUNDED): TD-23.96

WATER LEVEL AFTER: 5.00 TIME STARTED: 1546

EST. VOLUME REMOVED: Dry @ 5gal TIME COMPLETED: 1548

PID/~~OVA~~, BACKGROUND: 0.0 METHOD: Grundfos pump

PID/~~OVA~~, WELL HEAD: 733 PID/~~OVA~~, BREATHING ZONE 0.0

COMMENTS: CPV = ~~733~~ 9.91

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: N2-4 PERSONNEL: M. McPhee
A. LaMaster

LOCATION DESCRIPTION: N2-4

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES NO SPLIT SAMPLE NUMBER:

WATER DEPTH (FEET, below MP) 10.20

COLLECTION: YR: 2003 MONTH: 10 DAY: 09 TIME: 1630 METHOD: Bailer-grab

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
VOA	HCL	TPH OA-1 (gasoline)
1L Amber	HCL	TPH OA-2 (extractable)
500mL plastic	HNO_3	TOTAL PP METALS (6010B)
VOA	HCL	VOCs (8260B)
1.L Amber	None	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: 20.19 DATE: 10-9-03

SAMPLE pH: 6.98 TIME: 1621

TURBIDITY: off scale APPEARANCE: Clear

CONDUCTIVITY: 1375 ODOR: Slight

COMMENTS: ORP = -72.5
DO = 3.52

DEVELOPMENT/PURGING:

DATE: 10-9-03 CASING DIAMETER: 2"

WATER LEVEL BEFORE: 10.20 WELL DEPTH (SOUNDED): TD = 28.02

WATER LEVEL AFTER: 22.00 TIME STARTED: 1417

EST. VOLUME REMOVED: Dry @ 5gal TIME COMPLETED: 1419

PID/~~OVA~~, BACKGROUND: 0.0 METHOD: Grundfos pump

PID/~~OVA~~, WELL HEAD: 715 PID/OVA, BREATHING ZONE 0.0

COMMENTS: CPV = 9.09

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: N2-5 PERSONNEL: M. McPhee
A. LeMaster

LOCATION DESCRIPTION: N2-5

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER: _____

SAMPLE SPLIT (circle one) YES NO SPLIT SAMPLE NUMBER: _____

WATER DEPTH (FEET, below MP) 9.20

COLLECTION: YR: 2003 MONTH: 10 DAY: 09 TIME: _____ METHOD: _____

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
VOA	HCL	TPH OA-1 (gasoline)
1L Amber	HCL	TPH OA-2 (extractable)
500mL plastic	HNO_3	TOTAL PP METALS (6010B)
VOA	HCL	VOCs (8260B)
1L Amber	None	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: _____ DATE: _____

SAMPLE pH: _____ TIME: _____

TURBIDITY: _____ APPEARANCE: _____

CONDUCTIVITY: _____ ODOR: _____

COMMENTS: _____

DEVELOPMENT/PURGING:

DATE: 10-9-03 CASING DIAMETER: 2"

WATER LEVEL BEFORE: 9.20 WELL DEPTH (SOUNDED): TD=22.33

WATER LEVEL AFTER: _____ TIME STARTED: _____

EST. VOLUME REMOVED: NA TIME COMPLETED: _____

PID/~~OVA~~, BACKGROUND: 0.0 METHOD: _____

PID/~~OVA~~, WELL HEAD: 1393 PID/~~OVA, B~~REATHING ZONE 0.0

COMMENTS: CPV=6.69

Not Sampled - upon bailing significant amount of product in bailer - layer in bucket, ~0.01" of product

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SB1-1 PERSONNEL: TSG

LOCATION DESCRIPTION: AREA 1 NEAR FLARE

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: _____

SAMPLE DEPTH (FEET, bgs) 0.5, 3.5

COLLECTION: YEAR: 2003 MONTH: 09 DAY: 23 TIME: _____

SAMPLING METHOD: DIRECT PUSH

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5' @ 8:55	
3.5' @ 9:30	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (1 2 oz.)	NONE	SVOCS, METALS, TPH-G, TPH-E
0.5 (16 oz.)	↓	SVOCS, ↓ ↓ ↓
3.5 (2 2 oz.)	↓	VOCS ↓ ↓ ↓
3.5 (1 16 oz.)	↓	↓

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SB1-2 PERSONNEL: TSG

LOCATION DESCRIPTION: B/W TANK 72+73

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: —

SAMPLE DEPTH (FEET, bgs) 0.5, 3.5, 6.0

COLLECTION: YEAR: 2003 MONTH: 09 DAY: 23 TIME:

SAMPLING METHOD: DIRECT PUSH

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5 @ 9:40	
3.5 @ 9:45	
6.0 @ 9:55	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 oz.)	NONE	SVOCS (METALS, TPH-G, TPH-E
0.5 (16 oz)	↓	" " " "
3.5 (2 2oz)	↓	VOCS, METALS, TPH-G, TPH-E
3.5 (16 oz)	↓	↓ ↓ ↓ ↓
6.0 (2 2oz)	↓	↓
6.0 (16 oz)	↓	↓

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SB-1-3 PERSONNEL: TSG

LOCATION DESCRIPTION: SE OF TANK 73

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: _____

SAMPLE DEPTH (FEET, bgs) 0.5, 3.5, 9.0

COLLECTION: YEAR: 2003 MONTH: 09 DAY: 23 TIME: _____

SAMPLING METHOD: DIRECT PUSH

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5 @ 10:20	
3.5 @ 10:25	
9.0 @ 10:30	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (1 2oz)	NONE	SVOCS, METALS, TPH-G, TPH-E
0.5 (16 oz)	↓	SVOCS,
3.5 (2 2oz)	↓	VOCS
3.5 (1 16 oz)	↓	↓
9.0 (2 2oz.)	↓	↓
9.0 (1 16 oz)	↓	↓

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SB2-1 PERSONNEL: TSG

LOCATION DESCRIPTION: NEAR FORMER ASPHALT PIT

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: —

SAMPLE DEPTH (FEET, bgs) 0.5, 3.5

COLLECTION: YEAR: 2003 MONTH: 09 DAY: 23 TIME:

SAMPLING METHOD:

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5 @ 11:25	
3.5 @ 11:30	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 oz.)	NONE	SVOCS, METALS, TPH-G, TPH-E
0.5 (16 oz.)	↓	SVOCS, VOCS ↓ ↓ ↓
3.5 (2 oz.)	↓	↓
3.5 (16 oz.)	↓	↓

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SB3-2 PERSONNEL: TSG

LOCATION DESCRIPTION: N. OF W-01D

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: _____

SAMPLE DEPTH (FEET, bgs) 0.5, 3.5, 10.5

COLLECTION: YEAR: 2003 MONTH: 09 DAY: 23 TIME: _____

SAMPLING METHOD: DIRECT PUSH

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5 @ 12:45	
3.5 @ 12:50	
10.5 @ 12:15	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (1 2 oz)	NONE	SVOCS, METALS, TPH-G, TPH-E
0.5 (16 oz)	↓	SVOCS ↓
3.5 (2 2oz.)	↓	VOCS ↓
3.5 (16 oz)	↓	↓
11.0 2 (2oz.)	↓	↓
11.0 (1 16oz.)	↓	↓

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SB3-3 PERSONNEL: TSG

LOCATION DESCRIPTION: S. OF N3-1

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: _____

SAMPLE DEPTH (FEET, bgs) 0.5, 3.5, 12.0

COLLECTION: YEAR: 2003 MONTH: 09 DAY: 23 TIME: _____

SAMPLING METHOD: DIRECT PUSH

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5 @ 1:10	
3.5 @ 1:15	
12.0 @ 1:20	

SAMPLE CONTAINER.	PRESERVATIVE	ANALYSES REQUESTED			
0.5 (1 2oz.)	NONE	SVOCS, METALS, TPH-G, TPH-E			
0.5 (16 oz.)		SVOCS			
3.5 (2 2oz.)		VOCS			
3.5 (16 oz)					
12.0 (2 2oz.)					
12.0 (16 oz.)					

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SB6-3 PERSONNEL: TSG

GPS011200830923-63-

LOCATION DESCRIPTION: IN FORMER LANDFARM

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: —

SAMPLE DEPTH (FEET, bgs) 0.5, 3.5

COLLECTION: YEAR: 2003 MONTH: 09 DAY: 23 TIME:

SAMPLING METHOD: DIRECT PUSH

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5 @ 2:25	
3.5 @ 2:30	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 oz.)	NONE	SVOCS, METALS, TPH-G, TPH-E
0.5 (16 oz.)	↓	SVOCS ↓ ↓ ↓
3.5 (2-2oz.)	↓	VOCS ↓ ↓ ↓ ↓
3.5 (16 oz.)	↓	↓ ↓ ↓ ↓

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SB6-1 PERSONNEL: TSG

GPS01L20030923-61

LOCATION DESCRIPTION: NEXT TO TANK 110

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: _____

SAMPLE DEPTH (FEET, bgs) 0.5, 3.5, 7.0

COLLECTION: YEAR: 2003 MONTH: 09 DAY: 23 TIME: _____

SAMPLING METHOD: _____

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5 @ 2:50	
3.5 @ 2:55	
7.0 @ 3:00	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 oz.)	NONE	SVOCS, METALS, TPH-G, TPH-E
0.5 (16 oz)	↓	SVOCS, ↓ ↓ ↓
3.5 (2 2oz.)	↓	VOCS ↓ ↓ ↓ ↓
3.5 (16 oz.)	↓	↓ ↓ ↓ ↓
7.0 (2 2oz)	↓	↓ ↓ ↓ ↓
7.0 (16 oz)	↓	↓ ↓ ↓ ↓

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SB6-2 PERSONNEL: TSG

GPS01120030923-62

LOCATION DESCRIPTION: NEXT TO TANK 112

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: _____

SAMPLE DEPTH (FEET, bgs) 0.5

COLLECTION: YEAR: 2003 MONTH: 09 DAY: 23 TIME: _____

SAMPLING METHOD: _____

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5 @ 3:52	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 oz)	NONE	SVOCS, METALS, TPH-G, TPH-E
0.5 (16 oz)	"	" " " "

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SB5-5 PERSONNEL: TSG

GPS01L20030923-55

LOCATION DESCRIPTION: WEST OF N5-3

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: _____

SAMPLE DEPTH (FEET, bgs) 0.5, 3.5, 14

COLLECTION: YEAR: 2003 MONTH: 09 DAY: 23 TIME: _____

SAMPLING METHOD: DIRECT PUSH

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5 @ 4:20	
3.5 @ 4:25	
14 @ 4:35	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (1 2oz)	NONE	SVOCS METALS, TPH-G, TPH-E
0.5 (16 oz)	↓	SVOCS ↓ ↓ ↓
3.5 (2 2oz)	↓	VOCS ↓ ↓ ↓
3.5 (16 oz)	↓	↓ ↓ ↓ ↓
14 (2 2oz)	↓	↓ ↓ ↓ ↓
14 (16 oz)	↓	↓ ↓ ↓ ↓

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SB5-1 PERSONNEL: TSG

GPS01L20030923-51

LOCATION DESCRIPTION: WEST OF NS-1

SAMPLE SPLIT (circle one) (YES) NO SPLIT SAMPLE NUMBER: DUPLICATE-1
DUPLICATE-2

SAMPLE DEPTH (FEET, bgs) 0.5, 3.5

COLLECTION: YEAR: 2003 MONTH: 09 DAY: 23 TIME:

SAMPLING METHOD: DIRECT PUSH

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5	(DUPLICATE-1) @ 5:50
3.5	(DUPLICATE-2) @ 5:55

	SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
UPLICATE-1)	0.5 (2 oz.)	NONE	SVOCS METALS, TPH-G, TPH-E
")	0.5 (16 oz)	↓	SVOCS ↓ ↓ ↓
UPLICATE-2)	3.5 (2 oz)	↓	VOCS ↓ ↓ ↓
")	3.5 (16 oz)	↓	VOCS ↓ ↓ ↓

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SB5-4 PERSONNEL: TSG

GPS011200309 23-54

LOCATION DESCRIPTION: WEST OF N5-2

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER:

SAMPLE DEPTH (FEET, bgs) 0.5, 3.5, 6.0

COLLECTION: YEAR: 2003 MONTH: 09 DAY: 23 TIME:

SAMPLING METHOD: DIRECT PUSH

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5 @ 6:10	
3.5 @ 6:15	
6.0 @ 6:20	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 oz)	NONE	SVOCS, METALS, TPH-G, TPH-E
0.5 (16 oz)		SVOCS
3.5 (2 2oz)		VOCS
3.5 (16 oz)		
6.0 (2 2oz)		
6.0 (16 oz)		

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SB4-7 PERSONNEL: TSG

GPS011200809 24-47

LOCATION DESCRIPTION:

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER:

SAMPLE DEPTH (FEET, bgs) 0.5

COLLECTION: YEAR: 2003 MONTH: 09 DAY: 24 TIME:

SAMPLING METHOD: DIRECT PUSH

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5 @ 7:55	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 oz.)	NONE	SVOCS METALS, TPH-G, TPH-E
0.5 (16 oz.)	↓	" " " "

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SB5-3 PERSONNEL: TSG

GPSOIL20030924-53

LOCATION DESCRIPTION:

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER:

SAMPLE DEPTH (FEET, bgs) 0.5, 3.5

COLLECTION: YEAR: 2003 MONTH: 09 DAY: 24 TIME:

SAMPLING METHOD: DIRECT PUSH

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5 @ 8:20	
3.5 @ 8:25	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 oz.)	NONE	SVOCS METALS, TPH-G, TPH-E
0.5 (16 oz.)	↓	SVOCS ↓ ↓ ↓
3.5 (2 2oz.)	↓	VOCS ↓ ↓ ↓
3.5 (16 oz.)	↓	" ↓ ↓ ↓

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SB5-2 PERSONNEL: TSG

GPSOIL20030924-52

LOCATION DESCRIPTION:

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER:

SAMPLE DEPTH (FEET, bgs) 0.5

COLLECTION: YEAR: 2003 MONTH: 09 DAY: 24 TIME:

SAMPLING METHOD: DIRECT PUSH

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5 @ 8:30	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 oz.)	NONE	SVOCS, METALS, TPH-G, TPH-E
0.5 (16 oz.)	"	" " " "

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SB4-3 PERSONNEL: TSG

GPS01L20030924-43

LOCATION DESCRIPTION:

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER:

SAMPLE DEPTH (FEET, bgs) 0.5, 3.5, 13.5

COLLECTION: YEAR: 2003 MONTH: 09 DAY: 24 TIME:

SAMPLING METHOD:

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5 @ 9:10	
3.5 @ 9:16	
13.5 @ 9:55	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED			
0.5 (2 oz.)	NONE	SVOCS	METALS,	TPH-G,	TPH-E
0.5 (16 oz.)		"			
3.5 (2 oz.)		VOCS			
3.5 (16 oz.)					
13.5 (2-2 oz.)					
13.5 (16 oz.)					

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SB4-2 PERSONNEL: TSG

GPSOIL20030924-A2

LOCATION DESCRIPTION:

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER:

SAMPLE DEPTH (FEET, bgs) 0.5, 3.5, 13

COLLECTION: YEAR: 2003 MONTH: 09 DAY: 24 TIME:

SAMPLING METHOD: DIRECT PUSH

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5 @ 10:10	
3.5 @ 10:15	
13.0 @ 10:30	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 oz.)	NONE	SVOCS METALS, TPH-G, TPH-E
0.5 (16 oz.)	↓	" ↓ ↓ ↓
3.5 (2 2oz.)	↓	VOCS ↓ ↓ ↓
3.5 (16 oz)	↓	↓ ↓ ↓
13.0 (2 2oz.)	↓	↓ ↓ ↓
13.0 (16 oz.)	↓	↓ ↓ ↓

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SBH-4-1 PERSONNEL: TSG

GPS011-200309 2A-41

LOCATION DESCRIPTION:

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: –

SAMPLE DEPTH (FEET, bgs) 0.5, 3.5, 19.0

COLLECTION: YEAR: 2003 MONTH: 09 DAY: 24 TIME:

SAMPLING METHOD:

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5 @ 11:10	
3.5 @ 11:15	
19.0 @ 11:50	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 oz.)	NONE	SVOCS, METALS, TPH-G, TPH-E
0.5 (16 oz.)	↓	" ↓ ↓ ↓
3.5 (2-2oz)		VOCS
3.5 (16 oz)		↓
19.0 (2-2oz)		
19.0 (16 oz)		

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SBA-6 PERSONNEL: TSG

GPSOIL20030924-46

LOCATION DESCRIPTION:

SAMPLE SPLIT (circle one) YES NO SPLIT SAMPLE NUMBER:

SAMPLE DEPTH (FEET, bgs) 0.5, 3.5

COLLECTION: YEAR: 2003 MONTH: 9 DAY: 24 TIME:

SAMPLING METHOD:

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5 @ 2:10	
3.5 @ 2:15	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 oz.)	NONE	SVOCS METALS, TPH-G, TPH-E
0.5 (16 oz.)	↓	SVOCS ↓ ↓ ↓
3.5 (2 oz)	↓	VOCS ↓ ↓ ↓
3.5 (16 oz)	↓	" ↓ ↓ ↓

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SB4-4 PERSONNEL: TSG

GPS01L2003 0924-44

LOCATION DESCRIPTION:

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: —

SAMPLE DEPTH (FEET, bgs) 0.5, 3.5

COLLECTION: YEAR: 2003 MONTH: 9 DAY: 24 TIME:

SAMPLING METHOD:

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5 @ 2:30	
3.5 @ 2:35	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 oz)	NONE	SVOCS METALS, TPH-G, TPH-E
0.5 (16 oz)	↓	" ↓ ↓ ↓
3.5 (2 2 oz)	↓	VOCS ↓ ↓ ↓
3.5 (16 oz)	↓	" ↓ ↓ ↓

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SB4-9 PERSONNEL: TSG

GPS01L20030924-49

LOCATION DESCRIPTION:

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: —

SAMPLE DEPTH (FEET, bgs) 0.5, 3.5

COLLECTION: YEAR: 2003 MONTH: 9 DAY: 24 TIME:

SAMPLING METHOD: DIRECT PUSH

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5 @ 2:55	
3.5 @ 3:00	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 oz.)	NONE	SVOCS METALS, TPH-G, TPH-E
0.5 (16 oz.)	↓	" ↓ ↓ ↓
3.5 (2 2oz)	↓	VOCS
3.5 (16 oz)	↓	"

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SB4-5 PERSONNEL: TSG

GPSOIL20030972A-45

LOCATION DESCRIPTION:

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: –

SAMPLE DEPTH (FEET, bgs) 0.5, 3.0

COLLECTION: YEAR: 2003 MONTH: 9 DAY: 24 TIME: –

SAMPLING METHOD: DIRECT PUSH

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5 @ 5:00	
3.0 @ 5:05	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 oz)	NONE	SVOCS METALS, TPH-G, TPH-E
0.5 (16 oz.)	↓	" ↓ ↓ ↓
3.0 (2 2oz)		VOCS
3.0 (16 oz)		"

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SB3-4 PERSONNEL: TSO

GPS01L20030925-34

LOCATION DESCRIPTION:

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER:

SAMPLE DEPTH (FEET, bgs) 0.5, 3.5, 17

COLLECTION: YEAR: 2003 MONTH: 9 DAY: 25 TIME:

SAMPLING METHOD: DIRECT PUSH

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5 @ 8:25	
3.5 @ 8:30	
17.0 @ 8:55	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 oz.)	NONE	SVOCS, METALS, TPH-G, TPH-E
0.5 (16 oz)	↓	" ↓ ↓ ↓
3.5 (2 2oz)	↓	VOCS ↓ ↓ ↓
3.5 (16 oz)	↓	↓ ↓ ↓ ↓
17.0 (2 2oz)	↓	↓ ↓ ↓ ↓
17.0 (16 oz)	↓	↓ ↓ ↓ ↓

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SB3-1 PERSONNEL: TSG

GPSOIL20030925-31

LOCATION DESCRIPTION:

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER:

SAMPLE DEPTH (FEET, bgs) 0.5, 3.5, 18

COLLECTION: YEAR: 2003 MONTH: 9 DAY: 25 TIME:

SAMPLING METHOD:

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5 @ 9:25	
3.5 @ 9:30	
18.0 @ 9:45	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 oz)	NONE	SVOCS METALS, TPH-G, TPH-E
0.5 (16 oz)	↓	" ↓ ↓ ↓
3.5 (2 2oz)	↓	VOCS ↓ ↓ ↓
3.5 (16 oz)	↓	↓ ↓ ↓ ↓
18 (2 2oz)	↓	↓ ↓ ↓ ↓
18 (16 oz)	↓	↓ ↓ ↓ ↓

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SB2-9 PERSONNEL: TSG

GPS01L20030925-29

LOCATION DESCRIPTION:

SAMPLE SPLIT (circle one) (YES) NO SPLIT SAMPLE NUMBER: DUPLICATE-3, DUPLICATE-1

SAMPLE DEPTH (FEET, bgs) 0.5 (~~0.0~~), 3.5, 19'

COLLECTION: YEAR: 2003 MONTH: 9 DAY: 25 TIME:

SAMPLING METHOD:

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5 (DUPLICATE-4)	@ 10:25
3.5 (DUPLICATE-3)	@ 10:30
19.0'	@ 10:55

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2oz)	NONE	SVOCS METALS, TPH-G, TPH-E
0.5 (16oz)	↓	" ↓ ↓ ↓
3.5 (2 2oz.)	↓	VOCS ↓ ↓ ↓
3.5 (16 oz)	↓	↓ ↓ ↓ ↓
19.0 (2-2oz.)	↓	↓ ↓ ↓ ↓
19.0 (16 oz)	↓	↓ ↓ ↓ ↓

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SB2-5 PERSONNEL: TSG

GPSOIL20030925-25

LOCATION DESCRIPTION:

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: —

SAMPLE DEPTH (FEET, bgs) 0.5, 3.5, 6.5

COLLECTION: YEAR: 2003 MONTH: 9 DAY: 25 TIME:

SAMPLING METHOD:

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5 @ 11:25	
3.5 @ 11:30	
6.5 @ 11:35	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 oz)	NONE	SVOCS METALS, TPH-G, TPH-E
0.5 (16 oz)	↓	" ↓ ↓ ↓
3.5 (2 2oz)	↓	VOCS ↓
3.5 (16 oz)	↓	↓
6.5 (2 2oz)	↓	↓
6.5 (16 oz)	↓	↓

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SB2-4 PERSONNEL: TSG

OPSOIL20030925-24

LOCATION DESCRIPTION:

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER:

SAMPLE DEPTH (FEET, bgs) 0.5, 3.5, 6.0

COLLECTION: YEAR: 2003 MONTH: 9 DAY: 25 TIME:

SAMPLING METHOD: DIRECT PUSH

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5 @ 1:55	
3.5 @ 2:00	
6.0 @ 2:05	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 oz.)	NONE	SVOCS METALS, TPH-G, TPH-E
0.5 (16 oz.)		"
3.5 (2 2oz.)		VOCS
3.5 (16 oz.)		
6.0 (2 2oz.)		
6.0 (16 oz)		

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SB2-3 PERSONNEL: TSG

OPSOIL200309 25-23

LOCATION DESCRIPTION:

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER:

SAMPLE DEPTH (FEET, bgs) 0.5, 3.5, 8.5

COLLECTION: YEAR: 2003 MONTH: 9 DAY: 25 TIME:

SAMPLING METHOD: DIRECT PUSH

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5 @ 2:35	
3.5 @ 2:40	
8.5 @ 2:45	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2oz.)	NONE	SVOCS METALS, TPH-G, TPH-E
8.5 (16 oz.)	↓	" ↓ ↓ ↓
3.5 (2-2oz.)	↓	VOCS ↓ ↓ ↓
3.5 (16 oz)	↓	↓ ↓ ↓ ↓
8.5 (2-2oz.)	↓	↓ ↓ ↓ ↓
8.5 (16 oz.)	↓	↓ ↓ ↓ ↓

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SB2-2 PERSONNEL: TSG

GP301L20030925-22

LOCATION DESCRIPTION:

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: —

SAMPLE DEPTH (FEET, bgs) 0.5, 3.5, 7.0

COLLECTION: YEAR: 2003 MONTH: 9 DAY: 25 TIME:

SAMPLING METHOD: DIRECT PUSH

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5 @ 3:25	
3.5 @ 3:30	
7.0 @ 3:40	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 oz)	NONE	SVOCS METALS, TPH-G, TPH-E
0.5 (16 oz)	↓	" ↓ ↓ ↓
3.5 (2 2oz.)	↓	VOCS ↓ ↓ ↓
3.5 (16 oz.)	↓	↓ ↓ ↓ ↓
7.0 (2 2oz.)	↓	↓ ↓ ↓ ↓
7.0 (16 oz.)	↓	↓ ↓ ↓ ↓

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SB2-6 PERSONNEL: TSG

GPS011.20030925-26

LOCATION DESCRIPTION:

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: —

SAMPLE DEPTH (FEET, bgs) 0.5, 3.5

COLLECTION: YEAR: 2003 MONTH: 9 DAY: 25 TIME:

SAMPLING METHOD: DIRECT PUSH

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5 @ 4:10	
3.5 @ 4:15	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 oz.)	NONE	SVOCS METALS, TPH-G, TPH-E
0.5 (16 oz.)	↓	" ↓ ↓ ↓
3.5 (2 2oz.)	↓	VOCS ↓
3.5 (16 oz.)	↓	" ↓

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SB2-7 PERSONNEL: TSG

GPS01L20030925-27

LOCATION DESCRIPTION:

SAMPLE SPLIT (circle one) (YES) NO SPLIT SAMPLE NUMBER: DUPLICATE-5

SAMPLE DEPTH (FEET, bgs) 0.5, 3.5, 5.5

COLLECTION: YEAR: 2003 MONTH: 9 DAY: 25 TIME:

SAMPLING METHOD: DIRECT PUSH

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5 @ 5:20	
3.5 (DUPLICATE-5) @ 5:25	
5.5 @ 5:30	

	SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
	0.5 (2 oz.)	NONE	SVOCS METALS, TPH-G, TPH-E
	0.5 (16 oz)	↓	" ↓ ↓ ↓
x2	3.5 (2 2oz.)	↓	VOCs ↓
x2	3.5 (16 oz.)	↓	↓
	5.5 (2 2oz.)	↓	↓
	5.5 (16 oz.)	↓	↓

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SB4-8 PERSONNEL: TSG

GPSOIL20030926-48

LOCATION DESCRIPTION:

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: —

SAMPLE DEPTH (FEET, bgs) 0.5, 3.5

COLLECTION: YEAR: 2003 MONTH: 9 DAY: 26 TIME:

SAMPLING METHOD: DIRECT PUSH

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5 @ 8:15	
3.5 @ 8:20	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 oz.)	NONE	SVOCS METALS, TPH-G, TPH-E
0.5 (16 oz.)	↓	" ↓ ↓ ↓
3.5 (2 2oz.)	↓	VOCS ↓ ↓ ↓
3.5 (16 oz)	↓	" ↓ ↓ ↓

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SB2-8 PERSONNEL: DENNIS WHITE

GPSOIL2003 0925-28

LOCATION DESCRIPTION:

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: —

SAMPLE DEPTH (FEET, bgs) 0.5, 3.5, 8

COLLECTION: YEAR: 2003 MONTH: 9 DAY: 25 TIME:

SAMPLING METHOD: SPLIT SPOON

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5 @ 1345	
3.5 @ 1350	
8 @ 1400	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED			
0.5 (2 oz)	NONE	SVOCS	METALS,	TPH-G,	TPH-E
0.5 (16 oz)	↓	"	↓	↓	↓
3.5 (2 2oz)	↓	VOCS	↓	↓	↓
3.5 (16 oz)	↓	↓	↓	↓	↓
8 (2 2oz.)	↓	↓	↓	↓	↓
8 (16 oz)	↓	↓	↓	↓	↓

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SWS01L20030926-1-0.5 PERSONNEL: TSG

LOCATION DESCRIPTION: SWS-1

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: _____

SAMPLE DEPTH (FEET, bgs) 0.5'

COLLECTION: YEAR: 2003 MONTH: 9 DAY: 26 TIME: 9:15

SAMPLING METHOD: _____

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5 @	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 2oz, 16 oz.)	NONE	SVOCS, VOCS, METALS, TPH-G, TPH-E

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SWSOIL20030926-2-0.5 PERSONNEL: TSG

LOCATION DESCRIPTION: SWS-2

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: —

SAMPLE DEPTH (FEET, bgs) 0.5'

COLLECTION: YEAR: 2003 MONTH: 9 DAY: 26 TIME: 9:20

SAMPLING METHOD:

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 2oz, 16 oz)	NONE	SVOCS, VOCS, METALS, TPH-G, TPH-E

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SWS SOIL 20030926-3-0.5 PERSONNEL: TSG

LOCATION DESCRIPTION: SWS-3

SAMPLE SPLIT (circle one) (YES) NO SPLIT SAMPLE NUMBER: SW DUPLICATE-1

SAMPLE DEPTH (FEET, bgs) 0.5'

COLLECTION: YEAR: 2003 MONTH: 9 DAY: 26 TIME: 10:20

SAMPLING METHOD:

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 2oz., 16 oz.)	NONE	SVOCS, VOCS, METALS, TPH-G, TPH-E

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SWSOIL20030926-4-0.5 PERSONNEL: TSG

LOCATION DESCRIPTION: SWS-4

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: —

SAMPLE DEPTH (FEET, bgs) 0.5

COLLECTION: YEAR: 2003 MONTH: 9 DAY: 26 TIME: 11:05

SAMPLING METHOD:

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 2oz, 16oz.)	NONE	SVOCS, VOCS, METALS, TPH-G, TPH-E

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SWSOIL20030926-5-0.5 PERSONNEL: TSG

LOCATION DESCRIPTION: SWS-5

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: —

SAMPLE DEPTH (FEET, bgs) 0.5

COLLECTION: YEAR: 2003 MONTH: 9 DAY: 26 TIME: 12:30

SAMPLING METHOD:

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 2oz, 1 6oz)	NONE	SVOCS, VOCS, METALS, TPH-G, TPH-E

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SWSOIL20030926-6-0.5 PERSONNEL: TSG

LOCATION DESCRIPTION: SWS-6

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: _____

SAMPLE DEPTH (FEET, bgs) 0.5

COLLECTION: YEAR: 2003 MONTH: 9 DAY: 26 TIME: 1:00

SAMPLING METHOD: _____

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 2oz, 1 8oz)	NONE	SVOCS, VOCS, METALS, TPH-G, TPH-d

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SWSOIL20030926-7-0.5 PERSONNEL: TSG

LOCATION DESCRIPTION: SWS-7

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: —

SAMPLE DEPTH (FEET, bgs) 0.5

COLLECTION: YEAR: 2003 MONTH: 9 DAY: 26 TIME: 1:30

SAMPLING METHOD:

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 2oz, 1 6oz)	NONE	SVOCS, VOCS, METALS, TPH-G, TPH-E

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SWSOIL20030926-8-0.5 PERSONNEL: TSC

LOCATION DESCRIPTION: SWS-8

SAMPLE SPLIT (circle one) (YES) NO SPLIT SAMPLE NUMBER: SWDUPLICATE-2

SAMPLE DEPTH (FEET, bgs) 0.5

COLLECTION: YEAR: 2003 MONTH: 9 DAY: 26 TIME: 2:40

SAMPLING METHOD:

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5	(DUPLICATE COLLECTED)

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 2oz, 16 oz)	NONE	SVOCS, VOCS, METALS, TPH-G, TPH-E
DUP (" ")	"	" " " " "

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SWS01L20030928-9-05 PERSONNEL: TSC

LOCATION DESCRIPTION: SWS-9

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: —

SAMPLE DEPTH (FEET, bgs) 0.5

COLLECTION: YEAR: 2003 MONTH: 9 DAY: 28 TIME: 8:45

SAMPLING METHOD:

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 2oz, 16 oz)	NONE	SVOCS, VOCS, METALS, TPH-G, TPH-E

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SWSOIL20030928-10-0.5 PERSONNEL: TSCO

LOCATION DESCRIPTION: SWS-10

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: —

SAMPLE DEPTH (FEET, bgs) 0.5

COLLECTION: YEAR: 2003 MONTH: 9 DAY: 28 TIME: 9:40

SAMPLING METHOD:

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 2oz, 1 6oz)	NONE	SVOCS, VOCS, METALS, TPH-G, TPH-E

NOTES/SKETCH MAP

SOIL SAMPLE COLLECTION FIELD SHEET

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SWSOIL20030928-11-0.5 PERSONNEL: TSG

LOCATION DESCRIPTION: SWS-11

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: —

SAMPLE DEPTH (FEET, bgs) 0.5

COLLECTION: YEAR: 2003 MONTH: 9 DAY: 28 TIME: 10:40

SAMPLING METHOD:

SOIL DESCRIPTION:

DEPTH	DESCRIPTION
0.5	

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
0.5 (2 2oz, 16 oz)	NONE	SVOCS, VOCS, METALS, TPH-G, TPH-E

NOTES/SKETCH MAP

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: PWS-1 PERSONNEL: TSG

LOCATION DESCRIPTION: DECON H_2O

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER: DECON H_2O (CITY)

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: —

WATER DEPTH (FEET, below MP) —

COLLECTION: YR: 2003 MONTH: 9 DAY: 24 TIME: 1:30 METHOD:

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
3 VOAS	HCl	TPH OA-1 (gasoline)
AMBER	HCl	TPH OA-2 (extractable)
PLASTIC	HNO_3	TOTAL PP METALS (6010B)
3 VOAS	HCl	VOCs (8260B)
AMBER	NA	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: DATE:

SAMPLE pH: TIME:

TURBIDITY: APPEARANCE:

CONDUCTIVITY: ODOR:

COMMENTS:

DEVELOPMENT/PURGING:

DATE: CASING DIAMETER:

WATER LEVEL BEFORE: WELL DEPTH (SOUNDED):

WATER LEVEL AFTER: TIME STARTED:

EST. VOLUME REMOVED: TIME COMPLETED:

PID/OVA, BACKGROUND: METHOD:

PID/OVA, WELL HEAD: PID/OVA, BREATHING ZONE

COMMENTS:

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: EQUIP BLANK PERSONNEL: TSG

LOCATION DESCRIPTION: EQUIPMENT BLANK

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER: DECON. H_2O (CITY)

SAMPLE SPLIT (circle one) YES NO SPLIT SAMPLE NUMBER: _____

WATER DEPTH (FEET, below MP) NA

COLLECTION: YR: 2003 MONTH: 9 DAY: 24 TIME: 7:30 METHOD: _____

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
EQUIP BLANK 3 VOAS	HCL	TPH OA-1 (gasoline)
AMBER	HCL	TPH OA-2 (extractable)
PLASTIC	HNO_3	TOTAL PP METALS (6010B)
3 VOAS	HCL	VOCs (8260B)
AMBER	NA	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: _____ DATE: _____

SAMPLE pH: _____ TIME: _____

TURBIDITY: _____ APPEARANCE: _____

CONDUCTIVITY: _____ ODOR: _____

COMMENTS: _____

DEVELOPMENT/PURGING:

DATE: _____ CASING DIAMETER: _____

WATER LEVEL BEFORE: _____ WELL DEPTH (SOUNDED): _____

WATER LEVEL AFTER: _____ TIME STARTED: _____

EST. VOLUME REMOVED: _____ TIME COMPLETED: _____

PID/OVA, BACKGROUND: _____ METHOD: _____

PID/OVA, WELL HEAD: _____ PID/OVA, BREATHING ZONE _____

COMMENTS: _____

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: EQUIP BLANK-2 PERSONNEL: TSG

LOCATION DESCRIPTION: EQUIP. BLANK

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER: DECON H_2O (CITY)

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: —

WATER DEPTH (FEET, below MP) —

COLLECTION: YR: 2003 MONTH: 9 DAY: 24 TIME: 1:45 METHOD: —

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
3 VOAS	HCl	TPH OA-1 (gasoline)
AMBER	HCl	TPH OA-2 (extractable)
PLASTIC	HNO_3	TOTAL PP METALS (6010B)
3 VOAS	HCl	VOCs (8260B)
AMBER	NA	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: _____ DATE: _____

SAMPLE pH: _____ TIME: _____

TURBIDITY: _____ APPEARANCE: _____

CONDUCTIVITY: _____ ODOR: _____

COMMENTS: _____

DEVELOPMENT/PURGING:

DATE: _____ CASING DIAMETER: _____

WATER LEVEL BEFORE: _____ WELL DEPTH (SOUNDED): _____

WATER LEVEL AFTER: _____ TIME STARTED: _____

EST. VOLUME REMOVED: _____ TIME COMPLETED: _____

PID/OVA, BACKGROUND: _____ METHOD: _____

PID/OVA, WELL HEAD: _____ PID/OVA, BREATHING ZONE _____

COMMENTS: _____

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: EQUIPBLANK-3 PERSONNEL: TSG

LOCATION DESCRIPTION: D.I. H_2O

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER: D.I. H_2O

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: _____

WATER DEPTH (FEET, below MP) —

COLLECTION: YR: 2003 MONTH: 9 DAY: 25 TIME: 5:00 METHOD: –

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
3 VOAS	HCl	TPH OA-1 (gasoline)
AMBER	HCl	TPH OA-2 (extractable)
PLASTIC	HNO_3	TOTAL PP METALS (6010B)
3 VOAS	HCl	VOCs (8260B)
AMBER	NA	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: _____ DATE: _____

SAMPLE pH: _____ TIME: _____

TURBIDITY: _____ APPEARANCE: _____

CONDUCTIVITY: _____ ODOR: _____

COMMENTS: _____

DEVELOPMENT/PURGING:

DATE: _____ CASING DIAMETER: _____

WATER LEVEL BEFORE: _____ WELL DEPTH (SOUNDED): _____

WATER LEVEL AFTER: _____ TIME STARTED: _____

EST. VOLUME REMOVED: _____ TIME COMPLETED: _____

PID/OVA, BACKGROUND: _____ METHOD: _____

PID/OVA, WELL HEAD: _____ PID/OVA, BREATHING ZONE _____

COMMENTS: _____

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SWSH2O20030926-2 PERSONNEL: TSG

LOCATION DESCRIPTION: SWS-2

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER:

WATER DEPTH (FEET, below MP) —

COLLECTION: YR: 2003 MONTH: 9 DAY: 26 TIME: 9:15 METHOD: DIP

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
3 VOAS	HCl	TPH OA-1 (gasoline)
AMBER	HCl	TPH OA-2 (extractable)
PLASTIC	HNO_3	TOTAL PP METALS (6010B)
3 VOAS	HCl	VOCs (8260B)
AMBER	NA	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: DATE:

SAMPLE pH: TIME:

TURBIDITY: APPEARANCE:

CONDUCTIVITY: ODOR:

COMMENTS:

DEVELOPMENT/PURGING:

DATE: CASING DIAMETER:

WATER LEVEL BEFORE: WELL DEPTH (SOUNDED):

WATER LEVEL AFTER: TIME STARTED:

EST. VOLUME REMOVED: TIME COMPLETED:

PID/OVA, BACKGROUND: METHOD:

PID/OVA, WELL HEAD: PID/OVA, BREATHING ZONE

COMMENTS:

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SWH20200030926-3 (SWS-3) PERSONNEL: TSG

LOCATION DESCRIPTION: SWS-3

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES NO SPLIT SAMPLE NUMBER: SWDUPLICATE-1

WATER DEPTH (FEET, below MP) —

COLLECTION: YR: 2003 MONTH: 9 DAY: 26 TIME: 10:15 METHOD: DIP

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
3 VOAS	HCl	TPH OA-1 (gasoline)
AMBER	HCl	TPH OA-2 (extractable)
PLASTIC	HNO_3	TOTAL PP METALS (6010B)
3 VOAS	HCl	VOCs (8260B)
AMBER	—	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: DATE:

SAMPLE pH: TIME:

TURBIDITY: APPEARANCE:

CONDUCTIVITY: ODOR:

COMMENTS:

DEVELOPMENT/PURGING:

DATE: CASING DIAMETER:

WATER LEVEL BEFORE: WELL DEPTH (SOUNDED):

WATER LEVEL AFTER: TIME STARTED:

EST. VOLUME REMOVED: TIME COMPLETED:

PID/OVA, BACKGROUND: METHOD:

PID/OVA, WELL HEAD: PID/OVA, BREATHING ZONE

COMMENTS:

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SWH2020030926-4 PERSONNEL: TSG

LOCATION DESCRIPTION: SWS-4

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER:

WATER DEPTH (FEET, below MP) –

COLLECTION: YR: 2003 MONTH: 9 DAY: 26 TIME: 11:00 METHOD: DIP

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
3 VOAS	HCl	TPH OA-1 (gasoline)
AMBER	HCl	TPH OA-2 (extractable)
PLASTIC	HNO_3	TOTAL PP METALS (6010B)
3 VOAS	HCl	VOCs (8260B)
AMBER	–	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: DATE:

SAMPLE pH: TIME:

TURBIDITY: APPEARANCE:

CONDUCTIVITY: ODOR:

COMMENTS:

DEVELOPMENT/PURGING:

DATE: CASING DIAMETER:

WATER LEVEL BEFORE: WELL DEPTH (SOUNDED):

WATER LEVEL AFTER: TIME STARTED:

EST. VOLUME REMOVED: TIME COMPLETED:

PID/OVA, BACKGROUND: METHOD:

PID/OVA, WELL HEAD: PID/OVA, BREATHING ZONE

COMMENTS:

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SWH2O2003 0926-6 PERSONNEL: TSG

LOCATION DESCRIPTION: SWS-6

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER: _____

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: –

WATER DEPTH (FEET, below MP) –

COLLECTION: YR: 2003 MONTH: 9 DAY: 26 TIME: 12:55 METHOD: DIP

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
3 VOAS	HCl	TPH OA-1 (gasoline)
AMBER	HCl	TPH OA-2 (extractable)
PLASTIC	HNO_3	TOTAL PP METALS (6010B)
3 VOAS	HCl	VOCs (8260B)
AMBER	–	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: _____ DATE: _____

SAMPLE pH: _____ TIME: _____

TURBIDITY: _____ APPEARANCE: _____

CONDUCTIVITY: _____ ODOR: _____

COMMENTS: _____

DEVELOPMENT/PURGING:

DATE: _____ CASING DIAMETER: _____

WATER LEVEL BEFORE: _____ WELL DEPTH (SOUNDED): _____

WATER LEVEL AFTER: _____ TIME STARTED: _____

EST. VOLUME REMOVED: _____ TIME COMPLETED: _____

PID/OVA, BACKGROUND: _____ METHOD: _____

PID/OVA, WELL HEAD: _____ PID/OVA, BREATHING ZONE _____

COMMENTS: _____

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SWH2O2003 0926-7 PERSONNEL: TSG

LOCATION DESCRIPTION: SWS-7

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER: _____

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: —

WATER DEPTH (FEET, below MP) —

COLLECTION: YR: 2003 MONTH: 9 DAY: 26 TIME: 1:25 METHOD: DIP

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
3 VOAS	HCl	TPH OA-1 (gasoline)
AMBER	HCl	TPH OA-2 (extractable)
PLASTIC	HNO_3	TOTAL PP METALS (6010B)
3 VOAS	HCl	VOCs (8260B)
AMBER	—	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: _____ DATE: _____

SAMPLE pH: _____ TIME: _____

TURBIDITY: _____ APPEARANCE: _____

CONDUCTIVITY: _____ ODOR: _____

COMMENTS: _____

DEVELOPMENT/PURGING:

DATE: _____ CASING DIAMETER: _____

WATER LEVEL BEFORE: _____ WELL DEPTH (SOUNDED): _____

WATER LEVEL AFTER: _____ TIME STARTED: _____

EST. VOLUME REMOVED: _____ TIME COMPLETED: _____

PID/OVA, BACKGROUND: _____ METHOD: _____

PID/OVA, WELL HEAD: _____ PID/OVA, BREATHING ZONE _____

COMMENTS: _____

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SWH2O20030926-8 PERSONNEL: TSG

LOCATION DESCRIPTION: SWS-8

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) (YES) NO SPLIT SAMPLE NUMBER: SW DUPLICATE-2

WATER DEPTH (FEET, below MP) —

COLLECTION: YR: 2003 MONTH: 9 DAY: 26 TIME: 2:30 METHOD: DIP

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
3 VOAS	HCl	TPH OA-1 (gasoline)
AMBER	HCl	TPH OA-2 (extractable)
PLASTIC	HNO_3^-	TOTAL PP METALS (6010B)
3 VOAS	HCl	VOCs (8260B)
AMBER	—	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: DATE:

SAMPLE pH: TIME:

TURBIDITY: APPEARANCE:

CONDUCTIVITY: ODOR:

COMMENTS:

DEVELOPMENT/PURGING:

DATE: CASING DIAMETER:

WATER LEVEL BEFORE: WELL DEPTH (SOUNDED):

WATER LEVEL AFTER: TIME STARTED:

EST. VOLUME REMOVED: TIME COMPLETED:

PID/OVA, BACKGROUND: METHOD:

PID/OVA, WELL HEAD: PID/OVA, BREATHING ZONE

COMMENTS:

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SWH20200309 28-9 PERSONNEL: TSG

LOCATION DESCRIPTION: SWS-9

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER: _____

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: —

WATER DEPTH (FEET, below MP) —

COLLECTION: YR: 2003 MONTH: 9 DAY: 28 TIME: 8:35 METHOD: PID

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
3 VOAS	HCL	TPH OA-1 (gasoline)
AMBER	HCL	TPH OA-2 (extractable)
PLASTIC	HNO_3	TOTAL PP METALS (6010B)
3 VOAS	HCL	VOCs (8260B)
AMBER	—	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: _____ DATE: _____

SAMPLE pH: _____ TIME: _____

TURBIDITY: _____ APPEARANCE: _____

CONDUCTIVITY: _____ ODOR: _____

COMMENTS: _____

DEVELOPMENT/PURGING:

DATE: _____ CASING DIAMETER: _____

WATER LEVEL BEFORE: _____ WELL DEPTH (SOUNDED): _____

WATER LEVEL AFTER: _____ TIME STARTED: _____

EST. VOLUME REMOVED: _____ TIME COMPLETED: _____

PID/OVA, BACKGROUND: _____ METHOD: _____

PID/OVA, WELL HEAD: _____ PID/OVA, BREATHING ZONE _____

COMMENTS: _____

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SWH2O20030928-10 PERSONNEL: TSC

LOCATION DESCRIPTION: SWS-10

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER:

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: —

WATER DEPTH (FEET, below MP) —

COLLECTION: YR: 2003 MONTH: 9 DAY: 28 TIME: 9:30 METHOD: DIP

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
3 VOAS	HCl	TPH OA-1 (gasoline)
AMBER	HCl	TPH OA-2 (extractable)
PLASTIC	HNO_3^-	TOTAL PP METALS (6010B)
3 VOAS	HCl	VOCs (8260B)
AMBER	—	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: DATE:

SAMPLE pH: TIME:

TURBIDITY: APPEARANCE:

CONDUCTIVITY: ODOR:

COMMENTS:

DEVELOPMENT/PURGING:

DATE: CASING DIAMETER:

WATER LEVEL BEFORE: WELL DEPTH (SOUNDED):

WATER LEVEL AFTER: TIME STARTED:

EST. VOLUME REMOVED: TIME COMPLETED:

PID/OVA, BACKGROUND: METHOD:

PID/OVA, WELL HEAD: PID/OVA, BREATHING ZONE

COMMENTS:

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SWH2020030928-11 PERSONNEL: TSG

LOCATION DESCRIPTION: SWS-11

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER: ____

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: —

WATER DEPTH (FEET, below MP) —

COLLECTION: YR: 2003 MONTH: 9 DAY: 28 TIME: 10:30 METHOD: DIP

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
3 VOAS	HCl	TPH OA-1 (gasoline)
AMBER	HCl	TPH OA-2 (extractable)
PLASTIC	HNO_3	TOTAL PP METALS (6010B)
3 VOAS	HCl	VOCs (8260B)
AMBER	—	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: ____ DATE: ____

SAMPLE pH: ____ TIME: ____

TURBIDITY: ____ APPEARANCE: ____

CONDUCTIVITY: ____ ODOR: ____

COMMENTS: ____

DEVELOPMENT/PURGING:

DATE: ____ CASING DIAMETER: ____

WATER LEVEL BEFORE: ____ WELL DEPTH (SOUNDED): ____

WATER LEVEL AFTER: ____ TIME STARTED: ____

EST. VOLUME REMOVED: ____ TIME COMPLETED: ____

PID/OVA, BACKGROUND: ____ METHOD: ____

PID/OVA, WELL HEAD: ____ PID/OVA, BREATHING ZONE ____

COMMENTS: ____

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SWEQUIPBLANK-1 PERSONNEL: TSG

LOCATION DESCRIPTION: _____

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER: D.I. H_2O

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: —

WATER DEPTH (FEET, below MP) —

COLLECTION: YR: 2003 MONTH: 9 DAY: 26 TIME: 11:20 METHOD: RINSE

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
3 VOAS	HCl	TPH OA-1 (gasoline)
AMBER	HCl	TPH OA-2 (extractable)
PLASTIC	HNO_3	TOTAL PP METALS (6010B)
3 VOAS	HCl	VOCs (8260B)
AMBER	—	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: _____ DATE: _____

SAMPLE pH: _____ TIME: _____

TURBIDITY: _____ APPEARANCE: _____

CONDUCTIVITY: _____ ODOR: _____

COMMENTS: _____

DEVELOPMENT/PURGING:

DATE: _____ CASING DIAMETER: _____

WATER LEVEL BEFORE: _____ WELL DEPTH (SOUNDED): _____

WATER LEVEL AFTER: _____ TIME STARTED: _____

EST. VOLUME REMOVED: _____ TIME COMPLETED: _____

PID/OVA, BACKGROUND: _____ METHOD: _____

PID/OVA, WELL HEAD: _____ PID/OVA, BREATHING ZONE _____

COMMENTS: _____

SAMPLE COLLECTION FIELD SHEET – WATER SAMPLES

SITE NAME: EL DORADO REFINERY PROJECT NUMBER: 24732

SAMPLE NUMBER: SWEQUIPBLANK-2 PERSONNEL: STEPHANIE (SHAW)

LOCATION DESCRIPTION: RINSE SAMPLE

SAMPLE MEDIA (circle one) GROUNDWATER SURFACE WATER OTHER: D.I. H_2O

SAMPLE SPLIT (circle one) YES (NO) SPLIT SAMPLE NUMBER: —

WATER DEPTH (FEET, below MP) —

COLLECTION: YR: 2003 MONTH: 9 DAY: 29 TIME: 2:20 METHOD: RINSE

SAMPLE CONTAINER	PRESERVATIVE	ANALYSES REQUESTED
3 VOAS	HCl	TPH OA-1 (gasoline)
AMBER	HCl	TPH OA-2 (extractable)
PLASTIC	HNO_3	TOTAL PP METALS (6010B)
3 VOAS	HCl	VOCs (8260B)
AMBER	—	SVOCs (8270)

FIELD ANALYSES:

TEMPERATURE, °C: _____ DATE: _____

SAMPLE pH: _____ TIME: _____

TURBIDITY: _____ APPEARANCE: _____

CONDUCTIVITY: _____ ODOR: _____

COMMENTS: _____

DEVELOPMENT/PURGING:

DATE: _____ CASING DIAMETER: _____

WATER LEVEL BEFORE: _____ WELL DEPTH (SOUNDED): _____

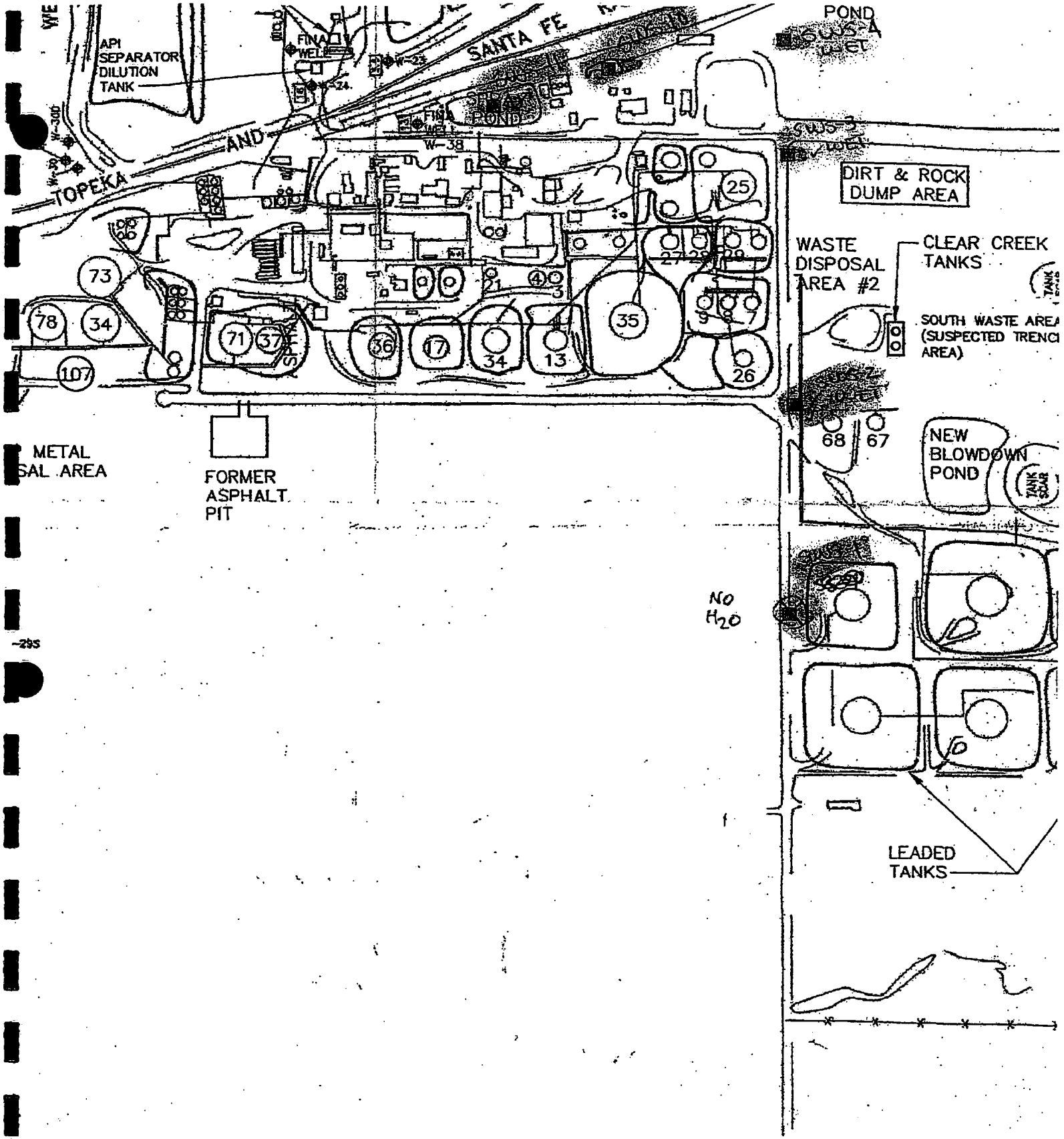
WATER LEVEL AFTER: _____ TIME STARTED: _____

EST. VOLUME REMOVED: _____ TIME COMPLETED: _____

PID/OVA, BACKGROUND: _____ METHOD: _____

PID/OVA, WELL HEAD: _____ PID/OVA, BREATHING ZONE _____

COMMENTS: _____



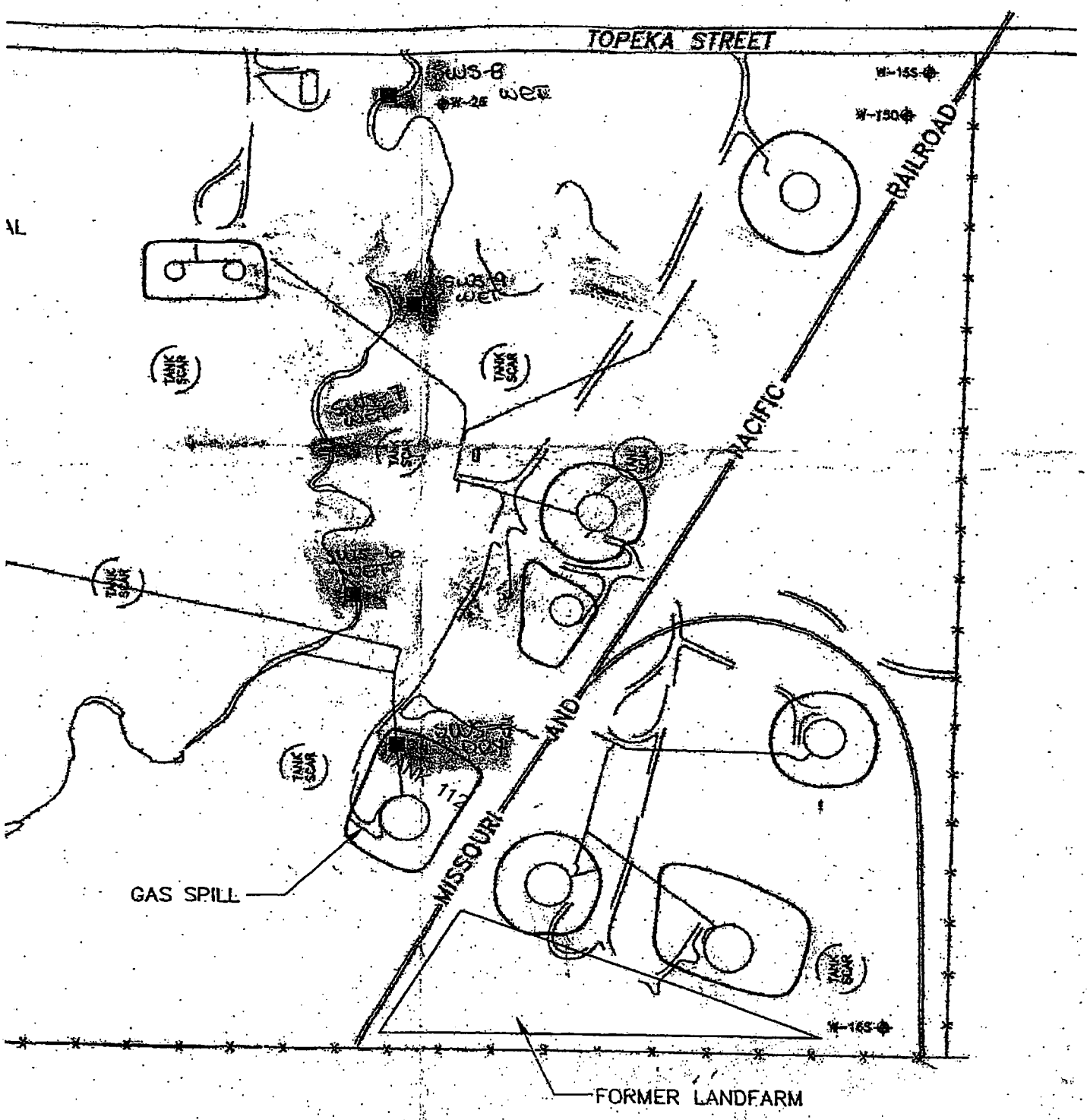
GEND:

W-16S MONITORING WELL LOCATION

SURFACE WATER/SEDIMENT SAMPLING LOCATIONS

EXISTING TANK LOCATION

FORMER TANK LOCATION



URS

10975 El Monte, Suite 100
Overland Park, Kansas 66211

CLIENT: EL PASO CORPORATION

LOCATION: EL DORADO, KANSAS

TITLE: SURFACE WATER & SEDIMENT SAMPLE

(117) S.Harden 9/29/03 100078

El Paso El Dorado Refinery

Talked to Doug about moving remaining drums to bundle pad he will take care of

Set up on N3-3 to pump again

completed @ 1315

drillers packing up

met to pack water samples tel drillers offsite

OFFSITE 1500

S. Harden 100078 10/30/03 (118)

El Paso El Dorado Refinery

0830 on-site met Lynn Hanelicek, Stephanie Schauer on-site @ 0845

0915 went through safety orientation safety meeting met Reed

0945 started walk upstream location 1352' 1464394 2E 4189458N

#1 seep sampling location SS01-103003 @ 1130

1356' 1468878 6E 4190361N

sampled for 8015 GRO/DRO 6010 8270 8260

completed @ 1200

ORIGINAL

(119) S. Harden 100078

10/30/03 El Dorado Refinery

SS02 sampled South of

SS01 14688795E 4190359N

~~1299'~~ 338'

sampled for SVOC VOCs

DRO GRO Metals

Completed @ 1230

N END 14688878E

4190391N

Broke for lunch

~~N END 14688781E/4190360N~~

Seep 1 S end 14688787E/4190388N

Seep 2 S end 14688797E

4190357N

N end 14688794

4190361N

Seep 3 N. END 14688800E/4190361N

S END 14688816E/4190336N

Seep 4 14688827E/4190323N

14688852E/4190287N

Possible termination of seeping @ 14688806E

El Dorado Refinery (120)

10/30/03 100078

End of Survey 14688895E

4190178N

No indication of fouling/seeping in this area.

N3-2 14688852E/4190278N

SB3-2 14688768E/4190417N

N3-1 14688749/4190495N

Start of seep investigation

14688680E/4190536N

same location as waste water pond outfall to River

End survey @ 300

Shaw Environmental - Wichita, Kansas

Site Visit Form

ORIGINAL

Site Name: ElDorado Project #: 100078 Task #: 102

Weather: Sunny Temperature: 70° F

Time	Notes
0900	left for site
0945	arrived @ site, wait for Carlson
	vinyl Doug Varner
	meet w/ Doug Carlson, left him a key to return to Doug
1030	Off site
	called Doug to schedule training for S. Schaner
	next Thursday. ok.

Comments:

Personnel (Print Name): S. Harden Signature: [signature] Date: 10/23/03

Personnel (Print Name): Signature: Date:

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S' w Environmental - Wichita, Kansas

ORIGINAL

Site Visit Form

Site Name: El Dorado Project #: 100078 Task #: 101

Weather: Temperature: F

Time	Notes
0900	Meet utilities on-site to clear locations
	KNAB - CLEAR SSCGB - BILL SWAFFORD clear
	?? Shell - Clayton Hill 3233645 Williams - Bill HAWYERS clear
	MIDAM. - WES clear
	locating
	Sam getting API Separator specs
	= Shane, 402-619-0717 GPS on-site clear
	(SBC/KGS)
	- SBC on-site ph# 3235582 clear
	name Russ Smith
OFF-SITE	1030
	SAM'S CELL # (316) 3779250

Comments:

Personnel (Print Name): Stephanie Harden Signature: [signature] Date: 9-3-03

Personnel (Print Name): Signature: Date:

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Page __ of __

Updated 7/1: #3350589
Update 9/29

Meet on site
Wed @ 9am
3rd
Update 12M

UTILITY LOCATION REQUEST FORM

1-800-344-7233 or in Wichita at 687-2470

IT Corporation ID # 29634 Ticket ID#: 3310559 #3323156

Date: 8 28 03 Time: 3:30 AM-PM Person Calling: S. Harden
Duration of Work: 3 weeks Type of Work: Drilling

Work Being Done for: El Paso Corporation

Job Name and Number: El Dorado Refinery

County: Butler City: El Dorado

Township: 25S Range: 5E Section: 26 34 27 QTR: SW W SE

Locations: On What street, how far and in what direction from nearest cross street, on what side of street? Or street address.
1mi South

Jim Berg 323-3400 ext

Company	Gas KGS	Tele. SBC	Water City of ED	~~Swr.~~ US Sprint	Cable Cox	Other KANEB	Other Westar
Date/Time	Will meet on site						
Marks Completed				call out to compliance 9/3			
No Conflict	X	X	Clear		Clear	X	X
No Facilities							
Person Calling	Shane GPS	Russ Smith	Zechel Judy	Central Location			Shane GPS
Phone #	402619 0717	3235582	321 9100	1800 877 2000	~~2624270~~		402619 0717
Comments				1800 344-7233			

SHELL
will not meet on site
Clear 8/29/03
Dayton Hill 331645

Mid Am
Meet on
Wes Lashers 620 242 349
Clear NE

1-800-521-0579
Call Friday

OVER →

Shaw Environmental - Wichita, Kansas

Site Visit Form

ORIGINAL

Site Name: El Paso/El Dorado Project #: 100078 Task #: 103

Weather: Sunny Temperature: 65 F

Time	Notes 10-7-03
0840	Arrival at site
	Meet Matt McPhee of B&Caldwell @ site
	Tailgate safety meeting
0900	Proceed to wells that need hand bailed due to lack of water recovery
0915	Arrive @ N2-1 - hand bail while Matt calibrates YSI
	unable to calibrate DO
0939	Contact US environmental rental to find out how to calibrate
0940	Arrive @ N4-3 - hand bail dry while Matt speaks w/
1000	Figure out calibrating problem
1015	At W#22 to hand bail
1030	Back up to trailer begin sampling
1130	Call Stephanie & Lynn to check in - need more labels
	Continue sampling - samples collected @ stability of 3 well
1730	Final sample of day collected
	Matt McPhee of B&C went to Wichita to pack and ship samples @ UPS by 7
1740	Emptied trailer - checked out
1755	Offsite

Comments:

Personnel (Print Name): Amber LeMaster Signature: Amber L. LeMaster Date: 10-7-03

Personnel (Print Name): Signature: Date:

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Shaw Environmental - Wichita, Kansas

Site Visit Form

Site Name: El Paso/El Dorado Project #: 100078 Task #: 103

Weather: Sunny Temperature: 65 F

Time	Notes 10-6-03
1000	arrival onsite to gauge wells
	Gauged wells in order from cleanest to dirtiest based on previous lab data and observations during drilling of new wells
1020	complete gauging
1030	offsite

Comments:

Personnel (Print Name): Amber LeMaster Signature: Amber L. LeMaster Date: 10-8-03

Personnel (Print Name): Signature: Date:

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Shaw Environmental - Wichita, Kansas

Site Visit Form

Site Name: El Paso/El Dorado Project #: 100078 Task #: 03

Weather: Cloudy Temperature: 65 F

Time	Notes
0815	Arrival onsite - prep for day
0830	Head to wells hand bailed 10-7-03
0840	Sample N2-1
	calibrate YSI collect readings
0920	Sample N4-3
1005	Bailed & sampled N3-3
1300	Begins a slight rain - contact Stephanie
1400	Light rain continues
1430	Stop for brief period of hard rain
1600	Rain very hard - unable to use pump
	Called Stephanie - decide to head back will figure out where we are at and what needs done
1630	Office

Comments:

Personnel (Print Name): Amber LeMaster Signature: Amber LeMaster Date: 10-9-

Personnel (Print Name): Signature: Date:

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Shaw Environmental - Wichita, Kansas

Site Visit Form

Site Name: El Paso / El Dorado Project #: 100078 Task #: 107

Weather: Partly cloudy Temperature: 65 F

Time	Notes
0815	arrival onsite Check road near river - should be able to access
0840	Get trailer to begin sampling - starting not along river to allow area near river to drain more & possibly dry
0955	Sampled N3-4 - collected MS/MSD
1410	Sample N3-1, collected Duplicate B & Rinse 2
1630	At N2-5 bailed one bailer - full of suspended product bailed more - decided too much product to sample
1645	emptied trailer, got extra containers,
1720	Offsite

Comments:

Personnel (Print Name): Amber L. LeMaster Signature: Amber L. LeMaster Date: 10-9-03

Personnel (Print Name): Signature: Date:

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BORING LOG SB4-5 [redacted]

SHEET 1 OF 1

PROJECT NO. 24732	
PROJECT NAME: EL DORADO REFINERY	DATE: 9/24/03
PROJECT LOCATION: ELDORADO, KANSAS	RIG:
LOGGED BY: TSG / DRILLED BY: AQUADRILL, INC.	WATER ENTERS:
SURFACE ELEVATION: / ELEVATION DATUM:	

DEPTH	SAMPLE TYPE	SAMPLE REC	SAMPLE RESIST	DESCRIPTION	U.S.C.	NOTES AND OBSERVATIONS
		100%	3.0'	0-3.0 BROWN CLAY VERY PLASTIC, NO ODOR. MOIST	--	Bolt @ 3.0
						0.5' ⇒ 0.7 ppm
5						
10						
15						
20						
25						
30						

BORING LOG SB3-4

SHEET 1 OF 1

PROJECT NAME: EL DORADO REFINERY	PROJECT NO. 24732
PROJECT LOCATION: ELDORADO, KANSAS	DATE: 9/25/03
LOGGED BY:	RIG:
DRILLED BY: AQUADRILL, INC.	WATER ENTERS:
SURFACE ELEVATION:	ELEVATION DATUM:

DEPTH	SAMPLE TYPE	SAMPLE REC	SAMPLE RESIST	DESCRIPTION	U.S.C.	NOTES AND OBSERVATIONS
				0-2 DK. BROWN CLAY, MOIST NO ODOR VERY PLASTIC	--	BOH @ 19'
						H_2O @ 17.5
		75%		2-5' SAME		
				5-8' DK BROWN/GREY CLAY MOIST, NO ODOR, VERY PLASTIC		0.5' ⇒ NM 3.5' ⇒ NM 17' ⇒ 9.7 ppm
5						
				8-14 DK BROWN CLAY, MOIST NO ODOR, VERY PLASTIC		
				14-15 SAME		
			15			
10				15-17 BLACK CLAY, GRAVELS (SUBANGULAR) PET. ODOR		SAMPLED @ 17'
				17-19 DK BLACK CLAY W/ GRAVELS, SAT. W/ H_2O. VERY PLASTIC STRONG PET. ODOR		
15						
20						
25						
30						

BORING LOG

SB3-1

SHEET 1 OF 1

PROJECT NAME: EL DORADO REFINERY	PROJECT NO. 24732
PROJECT LOCATION: ELDORADO, KANSAS	DATE: 9/25/03
LOGGED BY: DRILLED BY: AQUADRILL, INC.	RIG:
SURFACE ELEVATION: ELEVATION DATUM:	WATER ENTERS:

DEPTH	SAMPLE TYPE	SAMPLE REC	SAMPLE RESIST	DESCRIPTION	U.S.C.	NOTES AND OBSERVATIONS
		100		0-2 BROWN DARK SILT W/ CLAY, MOIST NO ODOR VERY PLASTIC	--	BOH @ 19'
		50%		2-5 DK BROWN CLAY, PET. ODOR, MOIST, VERY PLASTIC		0.5' ⇒ NM 3.5' ⇒ 8.2 18' ⇒ 20.3
5		10%		5-8 SAME DK GREY @ 7.5-8		
		50%		8-11 8-9 ~~SAME~~ DK GREY PET. ODOR PLASTIC MOIST.		
				9-11 DK BROWN CLAY, NO ODOR VERY PLASTIC, MOIST		
10		100%		11-14 SAME		
			16	14-16 SAME		
		↓		16-17 DK BROWN / GREY CLAY W/ GRAVELS PET ODOR. PLASTIC MOIST		
15				17-18 BLACK CLAY MOIST W/ GRAVELS. VERY PLASTIC STRONG PET. ODORS		
20				18-19 ~~SAME~~ SAME BUT SATURATED SHEEN		
25						
30						

BORING LOG SB2-9

SHEET 1 OF 1

PROJECT NAME: EL DORADO REFINERY	PROJECT NO. 24732
PROJECT LOCATION: ELDORADO, KANSAS	DATE: 9/25/03
LOGGED BY:	DRILLED BY: AQUADRILL, INC.	RIG:
SURFACE ELEVATION:	ELEVATION DATUM:	WATER ENTERS:

DEPTH	SAMPLE TYPE	SAMPLE REC	SAMPLE RESIST	DESCRIPTION	U.S.C.	NOTES AND OBSERVATIONS
		100%	19.5'	0-4' DK BROWN CLAY, MOIST NO ODOR. VERY PLASTIC		BOH @ 19.5'
				4'-9' SAME PET. ODOR STARTING @ 7.5'-9'		* DUPLICATE-3 COLLECTED @ 3.5' INTERAL FOR VOCs etc.
5				9-14 SAME PET. ODOR		* DUPLICATE-4 collected @ 0.5 INTERVAL FOR SVOCs etc.
				14-18 SAME STRONG PET ODOR		
				18-19 LIGHT GRAY CLAY. PLASTIC, PET. ODOR MOIST		0.5' ⇒ 5.1 ppm
10				19-19.5 LIGHT GRAY/BROWN CLAY. F.P. SAT. @ 19.25'		3.5' ⇒ 11.8 ppm
						19' ⇒ 545 ppm
15						
20						
25						
30						

BORING LOG

SB2-5

SHEET 1 OF 1

PROJECT NAME: EL DORADO REFINERY	PROJECT NO. 24732
PROJECT LOCATION: ELDORADO, KANSAS	DATE: 9/25/03
LOGGED BY: DRILLED BY: AQUADRILL, INC.	RIG:
SURFACE ELEVATION: ELEVATION DATUM:	WATER ENTERS:

DEPTH	SAMPLE TYPE	SAMPLE REC	SAMPLE RESIST	DESCRIPTION	U.S.C.	NOTES AND OBSERVATIONS
		100%	7'	0-4 BROWN CLAY, MOIST VERY PLASTIC DET. ODOR	--	BOH @ 7.0
				4-7 SAME		0.5' ⇒ 59.6 ppm 3.5' ⇒ 338 ppm 6.5' ⇒ 736 ppm
5						
10						
15						
20						
25						
30						

BORING LOG

SB2-4

SHEET 1 OF 1

PROJECT NAME: EL DORADO REFINERY	PROJECT NO. 24732
PROJECT LOCATION: ELDORADO, KANSAS	DATE: 9/25/03
LOGGED BY:	RIG:
DRILLED BY: AQUADRILL, INC.	WATER ENTERS:
SURFACE ELEVATION: ELEVATION DATUM:	

DEPTH	SAMPLE TYPE	SAMPLE REC	SAMPLE RESIST	DESCRIPTION	U.S.C.	NOTES AND OBSERVATIONS
		100%	6.5'		--	Bott @ 6.5
				0-4 BROWN SILT W/ CLAY MOIST NO ODOR, VERY PLASTC		0.5 ⇒ 7.8 ppm
				4-6.5 BROWN CLAY STRONG PET ODOR, VERY PLASTIC MOIST		3.5' ⇒ 3.0 ppm
5						6.0' ⇒ 32.0 ppm
10						
15						
20						
25						
30						

BORING LOG

SB2-3

SHEET 1 OF 1

PROJECT NAME: EL DORADO REFINERY	PROJECT NO. 24732
PROJECT LOCATION: ELDORADO, KANSAS	DATE: 9/25/03
LOGGED BY:	RIG:
DRILLED BY: AQUADRILL, INC.	WATER ENTERS:
SURFACE ELEVATION:	ELEVATION DATUM:

DEPTH	SAMPLE TYPE	SAMPLE REC	SAMPLE RESIST	DESCRIPTION	U.S.C.	NOTES AND OBSERVATIONS
		100%	9'	0-1' SILT BROWN MOIST PLASTIC NO ODOR	--	BOH @ 9.0
				1-4.5' BROWN CLAY, VERY PLASTIC, NO ODOR MOIST		0.5' ⇒ 2.2ppm 3.5' ⇒ 0.0 ppm
5				4.5-9 SAME		8.5' ⇒ 0.6ppm
10						
15						
20						
25						
30						

BORING LOG

SB2-2

SHEET 1 OF 1

PROJECT NAME: EL DORADO REFINERY	PROJECT NO. 24732
PROJECT LOCATION: ELDORADO, KANSAS	DATE: 9/25/03
LOGGED BY:	RIG:
DRILLED BY: AQUADRILL, INC.	WATER ENTERS:
SURFACE ELEVATION:	ELEVATION DATUM:

DEPTH	SAMPLE TYPE	SAMPLE REC	SAMPLE RESIST	DESCRIPTION	U.S.C.	NOTES AND OBSERVATIONS
		50%		0-4' BROWN CLAY, GREY MOIST, VERY PLASTIC PET. ODOR	--	Bott @ 7.7'
		100%	7.5	4-7.5 SAME		0.5' ⇒ 1.8 ppm
						3.5' ⇒ 1.2 ppm
5						7.0' ⇒ 0.7 ppm
10						
15						
20						
25						
30						

BORING LOG

SB2-6

SHEET 1 OF 1

PROJECT NAME: EL DORADO REFINERY	PROJECT NO. 24732
PROJECT LOCATION: ELDORADO, KANSAS	DATE: 9/25/03
LOGGED BY: DRILLED BY: AQUADRILL, INC.	RIG:
SURFACE ELEVATION: ELEVATION DATUM:	WATER ENTERS:

DEPTH	SAMPLE TYPE	SAMPLE REC	SAMPLE RESIST	DESCRIPTION	U.S.C.	NOTES AND OBSERVATIONS
						BOH @ 15.8'
		50%		0-2 BROWN CLAY MOIST NO ODOR	--	0.5' → 0.0
		50%		2-5 BROWN, LIGHT, CLAY W/ GRAVELS NO ODOR MOIST, PLASTIC		3.5 → NA
5		90%		5-8 DK. BROWN/BLACK MOIST W/ GRAVELS STRONG PET. ODOR PLASTIC		* NOT ENOUGH FOR SAMPLE
				8-11 FREE PRODUCT SAT. DK BLACK W/ GRAVELS		
10		5%		11-14 WEATHERED LIMESTONE BLACK F.P. WET W/ GRAVELS, PET ODOR		
		10%		14-15.8 BROWN CLAY W/ GREY @ 14.5 PLASTIC PET. ODOR MOIST. SHEEN		
15						
20						
25						
30						

BORING LOG

SB2-7

SHEET 1 OF 1

PROJECT NAME: EL DORADO REFINERY	PROJECT NO. 24732
PROJECT LOCATION: ELDORADO, KANSAS	DATE: 9/25/03
LOGGED BY:	RIG:
DRILLED BY: AQUADRILL, INC.	WATER ENTERS:
SURFACE ELEVATION:	ELEVATION DATUM:

DEPTH	SAMPLE TYPE	SAMPLE REC	SAMPLE RESIST	DESCRIPTION	U.S.C.	NOTES AND OBSERVATIONS
		100%	6'	0-2 DK BROWN CLAY PLASTIC NO ODOR MOIST	--	Bott @ 6.0
				2-4 BLACK CLAY MOIST STRONG PET, ODOR VERY PLASTIC		0.5' ⇒ 0.4 ppm
						3.5' ⇒ 21.1 ppm
5				4-6 BLACK CLAY MOIST STRONG PET ODOR VERY PLASTIC		5.5' ⇒ 75.0
						* DUPLICATE-5 COLLECTED @ THE 3.5' INTERVAL FOR VOCs etc.
10						
15						
20						
25						
30						

BORING LOG

SBA-8

SHEET 1 OF 1

PROJECT NAME: EL DORADO REFINERY	PROJECT NO. 24732
PROJECT LOCATION: ELDORADO, KANSAS	DATE: 9/26/03
LOGGED BY:	DRILLED BY: AQUADRILL, INC.	RIG:
SURFACE ELEVATION:	ELEVATION DATUM:	WATER ENTERS:

DEPTH	SAMPLE TYPE	SAMPLE REC	SAMPLE RESIST	DESCRIPTION	U.S.C.	NOTES AND OBSERVATIONS
		100%		0-4' BROWN CLAY W/ SILT MOIST, VERY PLASTIC, PET. ODOR @ 3.0-4.0	--	BOH @ 4.7'
						0.5' ⇒ 0.0 ppm
						3.5' ⇒ 2.6 ppm
5		5%	4.5	4-4.7 BROWN CLAY, SAME		
10						
15						
20						
25						
30						

Chain Custody Record

STL4124-400 (12/02)

TRENT STL
Severn Trent Laboratories, Inc.

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

Client: El Paso	Project Manager: Bob Norris	Date: 9-23-03	Chain of Custody Number: 06391
Address:	Telephone Number (Area Code)/Fax Number: 303 839 5421	Lab Number: C309620	Page 1 of 2
City: Colorado Springs; State: CO; Zip Code:	Site Contact: S. Harden	Lab Contact: M. Popes	
Project Name and Location (State): El Paso El Dorado Refinery	Carrier/Waybill Number: 1ZX178X9221025 60084		
Contract/Purchase Order/Quote No.			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	None	METALS (6010B)	TPH-GAS (OA-1)	TPH-EXT (OA-2)	VOCS (8260B)	SVOCS (8270)	Total	Special Instructions/ Conditions of Receipt
GPS01L20030923-11-0.5	9/23/03	8:55				X							X	X	X	X	X	X	1	
GPS01L20030923-11-3.5	↓	9:30				↓							↓	X	X	X	X		7	
GPS01L20030923-12-0.5	↓	9:40				↓							↓	X	X	X		X	2	
GPS01L20030923-12-3.5	↓	9:45				↓							↓	X	X	X	X		8	
GPS01L20030923-12-6.0	↓	9:55				↓							↓	X	X	X	X		9	
GPS01L20030923-13-0.5	↓	10:20				↓							↓	X	X	X		X	3	
GPS01L20030923-13-3.5	↓	10:25				↓							↓	X	X	X	X		10	
GPS01L20030923-13-8.5	↓	10:30				↓							↓	X	X	X	X		11	
GPS01L20030923-21-0.5'	↓	11:25				↓							↓	X	X	X		X	4	
GPS01L20030923-21-3.5	↓	11:30				↓							↓	X	X	X	X		12	
GPS01L20030923-32-0.5	↓	12:45				↓							↓	X	X	X		X	5	
GPS01L20030923-32-3.5	↓	12:50				↓							↓	X	X	X	X		13	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard

QC Requirements (Specify): level II

	Date	Time		Date	Time
1. Relinquished By: Todd S. [illegible]	9/23/03	1300	1. Received By: [illegible]	9/23/03	1730
2. Relinquished By: [illegible]	9/23/03	1830	2. Received By: UPS	9/23/03	1830
3. Relinquished By:			3. Received By: Mark Swafford	9/24/03	950

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

STL4124-400(12/02)

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

Client: El Paso	Project Manager: Bob Norris	Date: 9/23/03	Chain of Custody Number: 06392
Address:	Telephone Number (Area Code)/Fax Number: 303 239 5421	Lab Number: C309620	Page 2 of 2
City: Colorado Springs; State: CO; Zip Code:	Site Contact: S. Harden	Lab Contact: M. Pope	
Project Name and Location (State): El Paso El Dorado Refinery	Carrier/Waybill Number: 1Z X17 8X9 22 1025 6084		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	None	METALS (6010B)	TPH-GAS (OA-1)	TPH-EXT (OA-2)	VOCs (8260B)	SVOCs (8270)								Special Instructions/ Conditions of Receipt
GPSOIL20030923-32-10.5	9/23/03	12:15				X							X	X	X	X	X									19
GPSOIL20030923-33-0.5		1:10												X	X	X		X								6
GPSOIL20030923-33-3.5		1:15												X	X	X	X									15
GPSOIL20030923-33-13		1:20												X	X	X	X									16

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown

Sample Disposal: [ ] Return To Client [X] Disposal By Lab [ ] Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: [ ] 24 Hours [ ] 48 Hours [ ] 7 Days [ ] 14 Days [ ] 21 Days [X] Other Standard

QC Requirements (Specify): Level II

1. Relinquished By: Todd S. Stewart	Date: 9/23/03	Time: 1300	1. Received By: [signature]	Date: 9/23/03	Time: 1300
2. Relinquished By: [signature]	Date: 9/23/03	Time: 1830	2. Received By: UPS	Date: 9/23/03	Time: 1830
3. Relinquished By:	Date:	Time:	3. Received By: Mark Sanford	Date: 9/24/03	Time: 950

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain Custody Record

STL4124-400 (12/02)

TRENT STL
Severn Trent Laboratories, Inc.

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

Client: El Paso	Project Manager: Bob Norris	Date: 9-24-03	Chain of Custody Number: 06393
Address: —	Telephone Number (Area Code) / Fax Number: 303 229 5421	Lab Number:	Page 1 of 1
City: Colorado Springs; State: CO; Zip Code: —	Site Contact: Gilmden	Lab Contact: M. Hope	
Project Name and Location (State): El Dorado Refinery	Carrier/Waybill Number: 1Z X178X922 1025 6119		
Contract/Purchase Order/Quote No.			

Analysis (Attach list if more space is needed)

Special Instructions/ Conditions of Receipt

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	NaOH/ZnAc	None	metals (Cu, Pb, Zn)	TPH-GRO (MA-1)	TPH-DRO (MA-2)	VOCs (SW846)	SVOCs (SW846)							
GPSOIL20030923-51-0.5	9/23/03	5:50				X							X	X	X	X		X							
GPSOIL20030923-51-3.5		5:55												X	X	X	X								
GPSOIL20030923-54-0.5		6:10												X	X	X		X							
GPSOIL20030923-54-3.5		6:15												X	X	X	X								
GPSOIL20030923-54-6.0		6:20												X	X	X	X								
GPSOIL20030923-55-0.5		4:24												X	X	X		X							
GPSOIL20030923-55-3.5		4:25												X	X	X	X								
GPSOIL20030923-55-1A		4:35												X	X	X	X								
GPSOIL20030923-61-0.5		2:50												X	X	X		X							
GPSOIL20030923-61-3.5		2:55												X	X	X	X								
GPSOIL20030923-61-7.0		3:00												X	X	X	X								
GPSOIL20030923-62-0.5		3:52												X	X	X		X							

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other ____

QC Requirements (Specify)

1. Relinquished By: [signature]	Date: 9/24/03	Time: 1200	1. Received By: [signature]	Date: 9/24/03	Time: 1200
2. Relinquished By: [signature]	Date: 9/24/03	Time: 1700	2. Received By: UPS	Date: 9/24/03	Time: 1700
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

Chain of Custody Record

STL4124-400(12/02)

SEVERN TRENT STL
Severn Trent Laboratories, Inc.

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

Client: El Paso	Project Manager: Bob Norris	Date: 9-24-03	Chain of Custody Number: 06394
Address:	Telephone Number (Area Code)/Fax Number: 303-229-6821	Lab Number:	Page ____ of ____
City: Colorado Springs; State: KS; Zip Code:	Site Contact: S. Harden	Lab Contact: M. Pope	
Project Name and Location (State): El Dorado Refinery	Carrier/Waybill Number: 12X17 8X9 22 1035 4100		
Contract/Purchase Order/Quote No.			

Analysis (Attach list if more space is needed): DRO (8015B), TEPH-GC/MS (MA-EPH), VOCs (8260B), SVOCs (8270C)

Special Instructions/Conditions of Receipt

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil	Other	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	None	DRO (8015B)	TEPH-GC/MS (MA-EPH)	VOCs (8260B)	SVOCs (8270C)
GPSOIL2003 0923-03-0.5	9/23/03	2:25				X							X	X	X	X	X
GPSOIL2003 0923-03-3.5	↓	2:30												X	X	X	X
DUPLICATE-1	↓	—												X	X	X	X
DUPLICATE-2	↓	—												X	X	X	X
EQUIP BLANK	9/24/03	7:30		X					X	X				X	X	X	X
~~EQUIP-1~~	~~9/24/03~~	~~1:30~~													X	X	X
EQUIP BLANK-2	9/24/03	1:45											X		X		X

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other ____

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: Todd S. Schneider	9/24/03	1350	1. Received By: [illegible]	9/24/03	1350
2. Relinquished By: [illegible]	9/24/03	1700	2. Received By: UPS	9/24/03	1700
3. Relinquished By			3. Received By		

Comments

Chain Custody Record

STL4124-400(12/02)

TRENT STL
Severn Trent Laboratories, Inc.

STL Pensac
3355 McLemore Drive
Pensacola, FL 32514

Client: El Paso	Project Manager: Bob Norris	Date: 9-24-03	Chain of Custody Number: 06395
Address: —	Telephone Number (Area Code)/Fax Number: 303 829 5421	Lab Number:	Page 1 of 1
City: Colorado Springs; State: CO; Zip Code:	Site Contact: S. Harden	Lab Contact: M. Pope	Analysis (Attach list if more space is needed)
Project Name and Location (State): El Dorado Refinery	Carrier/Waybill Number: 12X178X922 1025 1092		
Contract/Purchase Order/Quote No.			

Special Instructions/Conditions of Receipt

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil	Unpres.	HCL	HNO3	H2SO4	NaOH	ZnAc/NaOH	NaHSO4	Metals (6010B)	TCLP Metals (1311/6010B)	TPH-GRO (8015B)	TPH-DRO (8015B)	VOCs (8260B)	SVOCs (8270C)
GPSOIL20030924-47-0.5	9/24/03	7:55				X							X	X	X	X	X		X
GPSOIL20030924-53-0.5		8:20												X	X	X	X		X
GPSOIL20030924-53-3.5		8:25												X	X	X	X	X	
GPSOIL20030924-52-0.5		8:30												X	X	X			X
GPSOIL20030924-43-0.5		9:10												X	X	X			X
GPSOIL20030924-43-3.5		9:16												X	X	X		X	
GPSOIL20030924-43-13.5		9:55												X	X	X		X	
GPSOIL20030924-42-0.5		10:10												X	X	X			X
GPSOIL20030924-42-3.5		10:15												X	X	X		X	
GPSOIL20030924-42-13		10:30												X	X	X		X	
~~GPSOIL20030924~~ TSO																			
~~GPSOIL20030924~~ TSO																			

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard

QC Requirements (Specify): Level II

1. Relinquished By: [signature]	Date: 9/24/03	Time: 1200	1. Received By: [signature]	Date: 9/24/03	Time: 1200
2. Relinquished By: [signature]	Date: 9/24/03	Time: 1700	2. Received By: UPS	Date: 9/24/03	Time: 1700
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

Chain of Custody Record

STL4124-400 (12/02)

SEVERN TRENT STL
Severn Trent Laboratories, Inc.

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

Client: EI PASO	Project Manager: Phil Norris	Date: 9-24-03	Chain of Custody Number: 06398
Address: —	Telephone Number (Area Code)/Fax Number:	Lab Number:	Page ___ of ___
City: Colorado Springs; State: CO; Zip Code: —	Site Contact: S. Harden	Lab Contact:	Analysis (Attach list if more space is needed):
Project Name and Location (State): El Paso El Dorado Refinery	Carrier/Waybill Number: 1EX175X923112851 6		
Contract/Purchase Order/Quote No.			

Special Instructions/Conditions of Receipt

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed	Soil	Unpres	HCl	HNO3	NaOH	ZnAc/NaOH	NA	TPH (8015)	BTEX (8260)	TPH (8260)	VOCs (8260)	SVOCs (8270)							
GPSOIL20030924-41-0.5	9/24/03	11:10				X						X	X	X	X		X							
GPSOIL20030924-41-3.5		11:15											X	X	X	X								
GPSOIL20030924-41-19		11:50											X	X	X	X								
GPSOIL20030924-46-0.5		2:10											X	X	X		X							
GPSOIL20030924-46-3.5		2:15											X	X	X	X								
GPSOIL20030924-44-0.5		2:30											X	X	X		X							
GPSOIL20030924-44-3.5		2:35											X	X	X	X								
GPSOIL20030924-49-0.5		2:55											X	X	X		X							
GPSOIL20030924-49-3.5		3:00											X	X	X	X								
GPSOIL20030924-45-0.5		5:00											X	X	X		X							
GPSOIL20030924-45-3.5		5:05				X							X	X	X	X								

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard

QC Requirements (Specify): Level II

	Date	Time		Date	Time
1. Relinquished By: Todd S. Hamaker	9/24/03	1745	1. Received By: UPS		
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

[redacted] E[redacted]NK [redacted]on[redacted]03[redacted]/N[redacted]S [redacted]LE[redacted]

Chain Custody Record

STL4124-400 (12/02)

TRENT STL
Severn Trent Laboratories, Inc.

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

Client: El Paso	Project Manager: Bob Norris	Date: 9-25-03	Chain of Custody Number: 06390
Address:	Telephone Number (Area Code) / Fax Number: 303 289 5421	Lab Number:	Page 1 of 1
City: Eldorado Springs; State: CO; Zip Code:	Site Contact: S. Harden	Lab Contact: M. Pope	
Project Name and Location (State): El Paso El Dorado Facility	Carrier/Waybill Number: 12X78X922 1025 1075		
Contract/Purchase Order/Quote No.:			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	NaOH	METALS (6010B)	TPH-G (8015)	TPH-E (8015)	VOCS (8260)	SVOCS (8270)								Special Instructions/ Conditions of Receipt
CPSOIL20030925-34-0.5	9/25/03	8:25				X							X	X	X	X	X	X								
CPSOIL20030925-34-3.5		8:30												X	X	X	X									
CPSOIL20030925-34-17		8:55												X	X	X	X									
CPSOIL20030925-31-0.5		9:25												X	X	X		X								
CPSOIL20030925-31-3.5		9:30												X	X	X	X									
CPSOIL20030925-31-18		9:45												X	X	X	X									
CPSOIL20030925-29-0.5		10:25												X	X	X		X								
CPSOIL20030925-29-3.5		10:30												X	X	X	X									
CPSOIL20030925-29-19		10:55												X	X	X	X									
CPSOIL20030925-25-0.5		11:25												X	X	X		X								
CPSOIL20030925-25-3.5		11:30												X	X	X	X									
CPSOIL20030925-25-6.5		11:35												X	X	X	X									

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other ____

QC Requirements (Specify):

1. Relinquished By: [signature]	Date: 9/25/03	Time: 1300	Received By: [signature]	Date: 9/25/03	Time: 1300
2. Relinquished By: [signature]	Date: 9/25/03	Time: 1800	2. Received By: [signature]	Date: 9/25/03	Time: 1800
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments: Part of above samples in cooler 2 of 2; Chain in cooler 1 of 2

Chain of Custody Record

STL4124-400 (12/02)

SEVERN TRENT STL
Severn Trent Laboratories, Inc.

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

Client	Project Manager	Date	Chain of Custody Number 06397
Address	Telephone Number (Area Code)/Fax Number	Lab Number	Page ____ of ____
City / State / Zip Code	Site Contact / Lab Contact	Analysis (Attach list if more space is needed)	
Project Name and Location (State)	Carrier/Waybill Number		Special Instructions/ Conditions of Receipt
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil		Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	NA	MTBE/BTEX	TPH-D	TPH-G	VOCs	SVOCs								
DUPLICATE-2	9/25/03	–				X								X	X	X	X	X	X								
DUPLICATE-4		–													X	X	X		X								
DUPLICATE-5		–													X	X	X	X									
GPSOIL20030925-24-0.5		1:55													X	X	X		X								
GPSOIL20030925-24-3.5		2:00													X	X	X	X									
GPSOIL20030925-24-6.0		2:05													X	X	X	X									
GPSOIL20030925-23-0.5		2:35													X	X	X		X								
GPSOIL20030925-23-3.5		2:40													X	X	X	X									
GPSOIL20030925-23-8.5		2:45													X	X	X	X	X								
GPSOIL20030925-22-0.5		3:25													X	X	X		X								
GPSOIL20030925-22-3.5		3:30													X	X	X	X									
GPSOIL20030925-22-7.0		3:40																									

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other ____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Todd S. Blanchard	9/26/03	5:00	1. Received By: UPS	9/26/03	5:05
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments
SAMPLES IN COOLERS A1 + A2 [redacted] FOR FL [redacted] RECOVERY

Chain of Custody Record

STL4124-400(12/02)

TRENT STL
Severn Trent Laboratories, Inc.

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

Client	Project Manager	Date	Chain of Custody Number 06398
Address	Telephone Number (Area Code)/Fax Number	Lab Number	Page ____ of ____
City / State / Zip Code	Site Contact / Lab Contact	Analysis (Attach list if more space is needed)	
Project Name and Location (State)	Carrier/Waybill Number		Special Instructions/ Conditions of Receipt
Contract/Purchase Order/Quote No.	Matrix / Containers & Preservatives		

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	HAc	METALS	TPH-G	TPH-E	VOCs	SVOCs
OPSOIL20030925-26-0.5	9/25/03	4:10				X							X	X	X	X		X
OPSOIL20030925-26-3.5	↓	4:15				↓							↓	X	X	X	X	
OPSOIL20030925-27-0.5		5:20												X	X	X		X
OPSOIL20030925-27-3.5		5:30												X	X	X	X	
OPSOIL20030926-48-0.5	9/26/03	8:15												X	X	X		X
OPSOIL20030926-48-3.5	"	8:20				↓							↓	X	X	X	X	
OPSOIL20030925-27-3.5	9/25/03	5:25				X							X	X	X	X	X	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other ____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	9/26/03	5:00	1. Received By: [signature]	9/26/03	5:05
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments
SAMPLES IN COOLERS A1 + A2 / SAME FILLING FOR EL DORADO REFINERY

Chain of Custody Record

STL4124-400 (12/02)

TRENT STL
Severn Trent Laboratories, Inc.

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

Client: El Paso	Project Manager: Bob Norris	Date: 9-25-03	Chain of Custody Number: 05836
Address:	Telephone Number (Area Code)/Fax Number: 303 2395221	Lab Number:	Page 1 of 1
City: Colorado Springs; State: CO; Zip Code: —	Site Contact: S. Harden; Lab Contact: M. Pope	Analysis (Attach list if more space is needed):	
Project Name and Location (State): El Paso El Dorado Refinery	Carrier/Waybill Number: TZ 178X922402540		
Contract/Purchase Order/Quote No.			Special Instructions/ Conditions of Receipt

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sludge	Soil	Unpres.	HCl	HNO3	H2SO4	NaOH	ZnAc/NaOH	Petroleum Hydrocarbons (8015) + Pb	TPH (8015)	TPH (8015)	VOCs (8260)	SVOCs (8270)							
PWS-1	9/24/03	1330		X			X			X			X	X	X	X	X							
GPSOIL20030925-28-0.5	9/25/03	1345				X	X						X	X	X		X							
GPSOIL20030925-28-3.5	↓	1350				X	X						X	X	X	X								
GPSOIL 20030925-28-8	↓	1400				X	X						X	X	X	X								

Possible Hazard Identification: ☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard

QC Requirements (Specify):

1. Relinquished By: [signature]	Date: 9/25/03	Time: 1800	1. Received By: DPS	Date: 9/25/03	Time: 1800
2. Relinquished By:	Date:	Time:	2. Received By:	Date:	Time:
3. Relinquished By:	Date:	Time:	3. Received By:	Date:	Time:

Comments: One samples from cooler 1 COC 026390

Chain of Custody Record

STL4124-400(12/02)

TRENT STL
Severn Trent Laboratories, Inc.

STL-Pensac
3355 McLemore Drive
Pensacola, FL 32514

Client	Project Manager		Date	Chain of Custody Number 06441
Address	Telephone Number (Area Code)/Fax Number		Lab Number	Page ____ of ____
City / State / Zip Code	Site Contact	Lab Contact	Analysis (Attach list if more space is needed)	
Project Name and Location (State)	Carrier/Waybill Number			
Contract/Purchase Order/Quote No.				Special Instructions/ Conditions of Receipt

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil		Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	DI	METALS	TPH-G	TPH-E	BTEX	SVOCS							
SWSOIL20030926-1-0.5	9/26/03	9:15				X								X	X	X	X	X	X							
SWSOIL20030926-2-0.5		9:20				X								X												
SWH2O20030926-2		9:15		X						X	X			X												
SWSOIL20030926-3 0.5		10:20				X								X												
SWH2O20030926-3		10:15		X						X	X			X												
SWSOIL20030926-4-0.5		11:05				X								X												
SWH2O20030926-4		11:00		X						X	X			X												
SWDUPLICATE-1		—				X								X												
SWDUPLICATE-1		—		X						X	X			X	X	X	X	X	X							

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other ____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By [signature]	9/26/03	5:05	1. Received By UPS	9/26/03	5:10
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments
SAME BILLING FOR ELDORADO REFINERY

Chain of Custody Record

STL4124-400(12/02)

STL TRENT
Severn Trent Laboratories, Inc.

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

Client	Project Manager	Date	Chain of Custody Number 06400
Address	Telephone Number (Area Code)/Fax Number	Lab Number	Page ____ of ____
City / State / Zip Code	Site Contact	Lab Contact	Analysis (Attach list if more space is needed)
Project Name and Location (State)	Carrier/Waybill Number		
Contract/Purchase Order/Quote No.			Special Instructions/ Conditions of Receipt

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed	Soil	Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	NA	METALS	TPH-O	TPH-E	VOCS	SVOCS						
SWSOIL20030926-5-0.5	9/26/03	12:30				X							X	X	X	X	X	X						
SWSOIL20030926-6-0.5		1:00				X							X											
SWH2O20030926-6		12:55		X					X	X			X											
SWSOIL20030926-7-0.5		1:30				X							X											
SWH2O20030926-7		1:25		X					X	X			X											
SWSOIL20030926-8-0.5		2:40				X							X											
SWH2O20030926-8		2:30		X					X	X			X											
SWDUPLICATE-2		—				X							X											
SWDUPLKATE-2		—		X					X	X			X	↓	↓	↓	↓	↓						

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other ____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Todd S. [illegible]	9/26/03		1. Received By: UPS	9/26/02	5:05
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments
SAMPLES IN COOLERS B1 + B2 / SAME [illegible] FIELD [illegible] REVIEW

Chain of Custody Record

STL4124-400(12/02)

TRENT STL
Severn Trent Laboratories, Inc.

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

Client	Project Manager	Date	Chain of Custody Number 06399
Address	Telephone Number (Area Code)/Fax Number	Lab Number	Page ____ of ____
City / State / Zip Code	Site Contact / Lab Contact	Analysis (Attach list if more space is needed)	
Project Name and Location (State)	Carrier/Waybill Number		
Contract/Purchase Order/Quote No.			Special Instructions/ Conditions of Receipt

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	NONE	METALS	TPH-G	TPH-E	VOCS	SVOCS						
EQUIPBLANK-3	9/25/03	5:00		X					X	X			X	X	X	X	X	X						
SWEQUIPBLANK-1	9/26/03	11:20		X					X	X			X	X	X	X	X	X						

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other ____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Todd S. Blendlinger	9/26/03		1. Received By: UPS	9/26/03	5:05
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments
SAMPLES IN COOLERS B1 + B2 / SAME BILLING FOR ELDORADO REFINERY

Chain of Custody Record

STL4124-400 (12/02)

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

Client: El Paso	Project Manager: Bob Norris	Date: 9/29/03	Chain of Custody Number: 06443
Address: —	Telephone Number (Area Code)/Fax Number	Lab Number	Page 1 of 1
City: Colorado Springs, State: CO, Zip Code: —	Site Contact: S. Harden	Lab Contact: M. Pope	
Project Name and Location (State): El Paso El Dorado Refinery	Carrier/Waybill Number: 1Z X178X922 1026 1336		
Contract/Purchase Order/Quote No.: —			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	NA	METALS	TPH-G	TPH-E	VOCS	SVOCS
SWSOIL20030928-9-0.5	9/28/03	8:45				X							X	X	X	X	X	X
~~SWH2O20030928-9~~ ~~SWSOIL20030928-9~~ TSW		8:35		X					X	X			X					
SWSOIL20030928-10-0.5		9:40				X							X					
SWH2O20030928-10		9:30		X					X	X			X					
SWSOIL20030928-11-0.5		10:40				X							X					
SWH2O20030928-11		10:30		X					X	X			X					
SWEQUIABLANK-2	9/29	1420		X					X	X			X	X	X	X	X	X

Analysis (Attach list if more space is needed)

Special Instructions/ Conditions of Receipt

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other ____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Todd S. [illegible]	9/28/03	6:00	1. Received By: [illegible]	9/28/03	6:00pm
2. Relinquished By: [illegible]	9/29/03	1800	2. Received By: UPS	9/29/03	1800
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments: [illegible]

APPENDIX D

LABORATORY REPORTS

SEVERN TRENT STL

L Pensacola 3355 McLemore Drive - Pensacola FL 32514 Telephone:(850) 474-1001 Fax:(850) 478-2671

Analytical Report

For: Mr. Chris Miller
El Paso Energy Corporation
P.O. Box 2511
Houston, TX 77252-2511
CC: Lynn Hanzlicek (Shaw, KS)

Order Number: C309620
SDG Number: EPC01
Client Project ID:
Project: EL PASO-EL DORADO, KS
Report Date: 10/28/2003
Sampled By: Client
Sample Received Date: 09/24/2003
Requisition Number:
Purchase Order: C-STL1-ELDORADO-001

Melissa L. Pope, Project Manager
mpope@stl-inc.com

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Sample Summary

Order: C309620
Date Received: 09/24/2003

Client: El Paso Energy Corporation
Project: EL PASO-EL DORADO, KS

Client Sample ID	Lab Sample ID	Matrix	Date Sampled
GPSOIL20030923-11-0.5	C309620*1	Solid	09/23/2003 08:55
GPSOIL20030923-12-0.5	C309620*2	Solid	09/23/2003 09:40
GPSOIL20030923-13-0.5	C309620*3	Solid	09/23/2003 10:20
GPSOIL20030923-21-0.5'	C309620*4	Solid	09/23/2003 11:25
GPSOIL20030923-32-0.5	C309620*5	Solid	09/23/2003 12:45
GPSOIL20030923-33-0.5	C309620*6	Solid	09/23/2003 13:10
GPSOIL20030923-11-3.5	C309620*7	Solid	09/23/2003 09:30
GPSOIL20030923-12-3.5	C309620*8	Solid	09/23/2003 09:45
GPSOIL20030923-12-6.0	C309620*9	Solid	09/23/2003 09:55
GPSOIL20030923-13-3.5	C309620*10	Solid	09/23/2003 10:25
GPSOIL20030923-13-8.5	C309620*11	Solid	09/23/2003 10:30
GPSOIL20030923-21-3.5	C309620*12	Solid	09/23/2003 11:30
GPSOIL20030923-32-3.5	C309620*13	Solid	09/23/2003 12:50
GPSOIL20030923-32-10.5	C309620*14	Solid	09/23/2003 12:15
GPSOIL20030923-33-3.5	C309620*15	Solid	09/23/2003 13:15
GPSOIL20030923-33-13	C309620*16	Solid	09/23/2003 13:20

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09620-1	GPSOIL20030923-11-0.5	Solid	09/24/03	09/23/03 08:55	EPC01
09620-2	GPSOIL20030923-12-0.5	Solid	09/24/03	09/23/03 09:40	EPC01
09620-3	GPSOIL20030923-13-0.5	Solid	09/24/03	09/23/03 10:20	EPC01
09620-4	GPSOIL20030923-21-0.5'	Solid	09/24/03	09/23/03 11:25	EPC01
09620-5	GPSOIL20030923-32-0.5	Solid	09/24/03	09/23/03 12:45	EPC01

Lab Sample IDs

Parameter	Units	09620-1	09620-2	09620-3	09620-4	09620-5
Metals (6010B)						
Antimony	mg/kg dw	1.0J	0.78J	<17	<11	<11
Arsenic	mg/kg dw	11	7.7	9.8	7.7	4.9
Barium	mg/kg dw	320B	230B	220B	170B	140B
Beryllium	mg/kg dw	1.2	1.2	1.5	1.0	0.73
Cadmium	mg/kg dw	0.29J	<1.1	0.26J	0.21J	0.26J
Chromium	mg/kg dw	26	26	31	23	16
Copper	mg/kg dw	25	16	19	15	10
Lead	mg/kg dw	21	15	25	19	15
Nickel	mg/kg dw	25	19	23	18	12
Selenium	mg/kg dw	<2.6	<2.3	<3.4	<2.3	<2.2
Silver	mg/kg dw	<1.3	<1.1	<1.7	<1.1	<1.1
Thallium	mg/kg dw	0.76J	<2.3	<3.4	<2.3	<2.2
	mg/kg dw	56	65	65	47	37
Percent Solids		71	82	56	62	82
Dilution Factor		1	1	1	1	1
Prep Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Prep Time		14:08	14:08	14:08	14:08	14:08
Analysis Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Analysis Time		19:18	19:24	18:51	19:29	19:46
Batch ID		PS193	PS193	PS193	PS193	PS193
Prep Method		3050B	3050B	3050B	3050B	3050B
Analyst		GSP	GSP	GSP	GSP	GSP
Quantitation Factor		129.2157	112.9178	170.0680	113.5847	109.8660
Mercury (7471A)						
Mercury	mg/kg dw	0.051	0.022	0.026	0.029	0.015
Percent Solids		71	82	56	62	82
Dilution Factor		1	1	1	1	1
Prep Date		10/02/03	10/02/03	10/02/03	10/02/03	10/02/03
Prep Time		14:45	14:45	14:45	14:45	14:45
Analysis Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Analysis Time		09:33	09:34	09:36	09:42	09:43
Batch ID		HGS051	HGS051	HGS051	HGS051	HGS051
Prep Method		7471A	7471A	7471A	7471A	7471A
Analyst		JDE	JDE	JDE	JDE	JDE
Quantitation Factor		57.1426	50.4264	73.6316	65.6185	48.8900

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09620-1	GPSOIL20030923-11-0.5	Solid	09/24/03	09/23/03 08:55	EPC01
09620-2	GPSOIL20030923-12-0.5	Solid	09/24/03	09/23/03 09:40	EPC01
09620-3	GPSOIL20030923-13-0.5	Solid	09/24/03	09/23/03 10:20	EPC01
09620-4	GPSOIL20030923-21-0.5'	Solid	09/24/03	09/23/03 11:25	EPC01
09620-5	GPSOIL20030923-32-0.5	Solid	09/24/03	09/23/03 12:45	EPC01

Parameter	Units	Lab Sample IDs 09620-1	09620-2	09620-3	09620-4	09620-5
Gasoline Range Organics (8015M)						
Hydrocarbons as GRO (C6-C10)	mg/kg dw	<7.0	<6.1	110	<8.2	<6.1
Surrogate - a,a,a-Trifluorotoluene *	%	85 %	92 %	83 %	88 %	88 %
Percent Solids		71	82	56	62	82
Dilution Factor		50	50	100	50	50
Prep Date		09/29/03	09/29/03	09/29/03	09/29/03	09/29/03
Prep Time		15:30	15:30	15:30	15:30	15:30
Analysis Date		09/30/03	09/30/03	10/01/03	10/01/03	10/01/03
Analysis Time		20:32	04:31	00:42	01:45	02:48
Batch ID		EXT095A	EXT095A	EXT095A	EXT095A	EXT095A
Prep Method		5035/5030B	5035/5030B	5035/5030B	5035/5030B	5035/5030B
Analyst		CN	CN	CN	CN	CN
Quantitation Factor		70.4	61.0	179	82.0	61.0
Diesel Range Organics (8015M)						
Mineral Spirits	mg/kg dw	<3.5	<61	<4.5	<80	<3.0
Kerosene	mg/kg dw	<3.5	<61	<4.5	<80	<3.0
Diesel	mg/kg dw	<3.5	<61	<4.5	<80	<3.0
Fuel Oil	mg/kg dw	<3.5	<61	<4.5	<80	<3.0
Motor oil (10W-40)	mg/kg dw	<3.5	<61	<4.5	<80	<3.0
Hydraulic Fluid Hydrocarbons	mg/kg dw	<3.5	<61	<4.5	<80	<3.0
Unknown Hydrocarbon	mg/kg dw	3.4J	870	2.3J	190	1.0J
Surrogate - o-Terphenyl *	%	111 %	8 %D	109 %	8 %D	99 %
Percent Solids		71	82	56	62	82
Dilution Factor		1	20	1	20	1
Prep Date		09/25/03	09/25/03	09/25/03	09/25/03	09/25/03
Prep Time		09:50	09:50	09:50	09:50	09:50
Analysis Date		09/26/03	09/26/03	09/26/03	09/26/03	09/26/03
Analysis Time		05:43	06:02	06:20	06:39	06:58
Batch ID		FPS199	FPS199	FPS199	FPS199	FPS199
Prep Method		3550B	3550B	3550B	3550B	3550B
Analyst		IE	IE	IE	IE	IE
Quantitation Factor		1.4	24.2	1.8	31.9	1.2

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09620-1	GPSOIL20030923-11-0.5	Solid	09/24/03	09/23/03 08:55	EPC01
09620-2	GPSOIL20030923-12-0.5	Solid	09/24/03	09/23/03 09:40	EPC01
09620-3	GPSOIL20030923-13-0.5	Solid	09/24/03	09/23/03 10:20	EPC01
09620-4	GPSOIL20030923-21-0.5'	Solid	09/24/03	09/23/03 11:25	EPC01
09620-5	GPSOIL20030923-32-0.5	Solid	09/24/03	09/23/03 12:45	EPC01

Parameter	Units	Lab Sample IDs 09620-1	09620-2	09620-3	09620-4	09620-5
Semivolatile Organic Compounds (8270C)						
Benzoic acid	ug/kg dw	<2300	<430	<2900	<570	<2000
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	ug/kg dw	<470	<190	<590	<250	<410
2-Chlorophenol	ug/kg dw	<470	<140	<590	<190	<410
2,4-Dichlorophenol	ug/kg dw	<470	<170	<590	<220	<410
2,6-Dichlorophenol	ug/kg dw	<470	<150	<590	<200	<410
2,4-Dimethylphenol	ug/kg dw	<470	<290	<590	<390	<410
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	ug/kg dw	<2300	<130	<2900	<170	<2000
2,4-Dinitrophenol	ug/kg dw	<2300	<180	<2900	<240	<2000
2-Methylphenol (o-Cresol)	ug/kg dw	<470	<160	<590	<210	<410
3-Methylphenol/4-Methylphenol %p-Cresol)	ug/kg dw	<470	<160	<590	<210	<410
crophenol (o-Nitrophenol)	ug/kg dw	<470	<140	<590	<180	<410
4-Nitrophenol (p-Nitrophenol)	ug/kg dw	<2300	<160	<2900	<220	<2000
Pentachlorophenol	ug/kg dw	<2300	<170	<2900	<230	<2000
Phenol	ug/kg dw	<470	<160	<590	<210	<410
2,3,4,6-Tetrachlorophenol	ug/kg dw	<470	<150	<590	<200	<410
2,4,5-Trichlorophenol	ug/kg dw	<2300	<150	<2900	<190	<2000
2,4,6-Trichlorophenol	ug/kg dw	<470	<130	<590	<170	<410
Acenaphthene	ug/kg dw	<470	<120	<590	<160	<410
Acenaphthylene	ug/kg dw	<470	<160	<590	<220	<410
Acetophenone	ug/kg dw	<470	<160	<590	<210	<410
4-Aminobiphenyl	ug/kg dw	<470	<340	<590	<450	<410
Aniline	ug/kg dw	<470	<440	<590	<590	<410
Anthracene	ug/kg dw	<470	220J	<590	<190	<410
Benzidine	ug/kg dw	<2300	<3400	<2900	<4500	<2000
Benzo(a)anthracene	ug/kg dw	<470	4400	<590	1800	<410
Benzo(b)fluoranthene	ug/kg dw	<470	1700	<590	710J	<410
Benzo(k)fluoranthene	ug/kg dw	<470	<290	<590	<390	<410
Benzo(g,h,i)perylene	ug/kg dw	<470	440J	<590	260J	<410
Benzo(a)pyrene	ug/kg dw	<470	3300	<590	1300J	<410

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09620-1	GPSOIL20030923-11-0.5	Solid	09/24/03	09/23/03 08:55	EPC01
09620-2	GPSOIL20030923-12-0.5	Solid	09/24/03	09/23/03 09:40	EPC01
09620-3	GPSOIL20030923-13-0.5	Solid	09/24/03	09/23/03 10:20	EPC01
09620-4	GPSOIL20030923-21-0.5'	Solid	09/24/03	09/23/03 11:25	EPC01
09620-5	GPSOIL20030923-32-0.5	Solid	09/24/03	09/23/03 12:45	EPC01

Parameter	Units	Lab Sample IDs 09620-1	09620-2	09620-3	09620-4	09620-5
Semivolatile Organic Compounds (8270C)						
Benzyl alcohol	ug/kg dw	<470	<120	<590	<160	<410
4-Bromophenylphenyl ether	ug/kg dw	<470	<160	<590	<210	<410
Butylbenzylphthalate	ug/kg dw	<470	<240	<590	<320	<410
Carbazole	ug/kg dw	<470	<200	<590	<260	<410
4-Chloroaniline (p-Chloroaniline)	ug/kg dw	<470	<190	<590	<250	<410
bis(2-Chloroethoxy)methane	ug/kg dw	<470	<120	<590	<160	<410
bis(2-Chloroethyl)ether	ug/kg dw	<470	<160	<590	<210	<410
bis(2-Chloroisopropyl) ether	ug/kg dw	<470	<190	<590	<240	<410
1-Chloronaphthalene	ug/kg dw	<470	<140	<590	<180	<410
2-Chloronaphthalene	ug/kg dw	<470	<170	<590	<230	<410
4-Chlorophenylphenyl ether	ug/kg dw	<470	<170	<590	<220	<410
Chrysene	ug/kg dw	<470	7800	<590	3000	<410
Dibenz(a,j)acridine	ug/kg dw	<470	<280	<590	<360	<410
Dibenzo(a,h)anthracene	ug/kg dw	<470	<200	<590	<270	<410
Dibenzofuran	ug/kg dw	<470	<130	<590	<170	<410
Di-n-butylphthalate	ug/kg dw	<470	<230	<590	<300	<410
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/kg dw	<470	<150	<590	<200	<410
1,3-Dichlorobenzene (m-Dichlorobenzene)	ug/kg dw	<470	<150	<590	<190	<410
1,4-Dichlorobenzene (p-Dichlorobenzene)	ug/kg dw	<470	<160	<590	<220	<410
3,3'-Dichlorobenzidine	ug/kg dw	<2300	<190	<2900	<250	<2000
Diethylene Glycol Monobutyl Ether	ug/kg dw	<470	<140	<590	<180	<410
Diethylphthalate	ug/kg dw	<470	<150	<590	<200	<410
p-(Dimethylamino)azobenzene	ug/kg dw	<470	<190	<590	<250	<410
7,12-Dimethylbenz(a)anthracene	ug/kg dw	<470	<280	<590	<370	<410
alpha,alpha-Dimethylphenethylamine	ug/kg dw	<470	<1200	<590	<1600	<410
Dimethylphthalate	ug/kg dw	<470	<150	<590	<200	<410

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09620-1	GPSOIL20030923-11-0.5	Solid	09/24/03	09/23/03 08:55	EPC01
09620-2	GPSOIL20030923-12-0.5	Solid	09/24/03	09/23/03 09:40	EPC01
09620-3	GPSOIL20030923-13-0.5	Solid	09/24/03	09/23/03 10:20	EPC01
09620-4	GPSOIL20030923-21-0.5'	Solid	09/24/03	09/23/03 11:25	EPC01
09620-5	GPSOIL20030923-32-0.5	Solid	09/24/03	09/23/03 12:45	EPC01

Parameter	Units	Lab Sample IDs 09620-1	09620-2	09620-3	09620-4	09620-5
Semivolatile Organic Compounds (8270C)						
2,4-Dinitrotoluene	ug/kg dw	<470	<170	<590	<230	<410
2,6-Dinitrotoluene	ug/kg dw	<470	<140	<590	<190	<410
Di-n-octylphthalate	ug/kg dw	<470	<240	<590	<310	<410
1,2-Diphenylhydrazine	ug/kg dw	<470	<160	<590	<210	<410
bis(2-Ethylhexyl)phthalate	ug/kg dw	<470	<280	<590	<370	<410
Ethyl methanesulfonate	ug/kg dw	<470	<150	<590	<200	<410
Fluoranthene	ug/kg dw	<470	750J	<590	320J	<410
Fluorene	ug/kg dw	<470	<170	<590	<220	<410
Hexachlorobenzene	ug/kg dw	<470	<140	<590	<190	<410
Hexachlorobutadiene	ug/kg dw	<470	<140	<590	<190	<410
Hexachlorocyclopentadiene	ug/kg dw	<470	<51	<590	<67	<410
Hexachloroethane	ug/kg dw	<470	<140	<590	<190	<410
Indeno(1,2,3-cd)pyrene	ug/kg dw	<470	<200	<590	<270	<410
Isophorone	ug/kg dw	<470	<160	<590	<210	<410
3-Methylcholanthrene	ug/kg dw	<470	<190	<590	<250	<410
Methyl methanesulfonate	ug/kg dw	<470	<100	<590	<130	<410
1-Methylnaphthalene	ug/kg dw	<470	<160	<590	<210	<410
2-Methylnaphthalene	ug/kg dw	<470	<160	<590	<220	<410
Naphthalene	ug/kg dw	<470	<140	<590	<180	<410
1-Naphthylamine	ug/kg dw	<470	<300	<590	<400	<410
2-Naphthylamine	ug/kg dw	<470	<260	<590	<350	<410
2-Nitroaniline (o-Nitroaniline)	ug/kg dw	<470	<180	<590	<240	<410
3-Nitroaniline (m-Nitroaniline)	ug/kg dw	<470	<180	<590	<240	<410
4-Nitroaniline (p-Nitroaniline)	ug/kg dw	<470	<190	<590	<250	<410
Nitrobenzene	ug/kg dw	<470	<160	<590	<220	<410
N-Nitrosodi-n-butylamine	ug/kg dw	<470	<190	<590	<250	<410
N-Nitrosodimethylamine	ug/kg dw	<470	<150	<590	<190	<410
N-Nitrosodiphenylamine	ug/kg dw	<470	<160	<590	<220	<410
n-Nitrosodi-n-propylamine	ug/kg dw	<470	<160	<590	<210	<410

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09620-1	GPSOIL20030923-11-0.5	Solid	09/24/03	09/23/03 08:55	EPC01
09620-2	GPSOIL20030923-12-0.5	Solid	09/24/03	09/23/03 09:40	EPC01
09620-3	GPSOIL20030923-13-0.5	Solid	09/24/03	09/23/03 10:20	EPC01
09620-4	GPSOIL20030923-21-0.5'	Solid	09/24/03	09/23/03 11:25	EPC01
09620-5	GPSOIL20030923-32-0.5	Solid	09/24/03	09/23/03 12:45	EPC01

Parameter	Units	Lab Sample IDs 09620-1	09620-2	09620-3	09620-4	09620-5
Semivolatile Organic Compounds (8270C)						
N-Nitrosopiperidine	ug/kg dw	<470	<170	<590	<230	<410
Pentachlorobenzene	ug/kg dw	<470	<150	<590	<190	<410
Pentachloronitrobenzene	ug/kg dw	<470	<160	<590	<220	<410
Phenacetin	ug/kg dw	<470	<230	<590	<300	<410
Phenanthrene	ug/kg dw	<470	210J	<590	1700	<410
2-Picoline	ug/kg dw	<470	<700	<590	<920	<410
Pronamide	ug/kg dw	<470	<240	<590	<320	<410
Pyrene	ug/kg dw	<470	5700	<590	2600	<410
Pyridine	ug/kg dw	<470	<1100	<590	<1500	<410
1,2,4,5-Tetrachlorobenzene	ug/kg dw	<470	<120	<590	<160	<410
1,2,4-Trichlorobenzene	ug/kg dw	<470	<150	<590	<200	<410
Surrogate - 2-Fluorobiphenyl *	%	64 %	70 %	74 %	81 %	68 %
Surrogate - 2-Fluorophenol *	%	56 %	60 %	64 %	84 %	59 %
Surrogate - Nitrobenzene - d5 *	%	58 %	62 %	66 %	83 %	66 %
Surrogate - Phenol-d5 *	%	65 %	66 %	69 %	90 %	68 %
Surrogate - Terphenyl-d14 *	%	101 %	74 %	101 %	91 %	96 %
Surrogate - 2,4,6-Tribromophenol *	%	88 %	71 %	91 %	92 %	88 %
Percent Solids		71	82	56	62	82
Dilution Factor		1	3	1	3	1
Prep Date		09/26/03	09/26/03	09/26/03	09/26/03	09/26/03
Prep Time		09:15	09:15	09:15	09:15	09:15
Analysis Date		09/28/03	09/28/03	09/29/03	09/28/03	09/29/03
Analysis Time		15:24	23:01	18:08	23:38	16:52
Batch ID		ALS063	ALS063	ALS063	ALS063	ALS063
Prep Method		3550B	3550B	3550B	3550B	3550B
Analyst		RDW	RDW	RDW	RDW	RDW
Quantitation Factor		46.70	121.14	58.57	159.75	40.54

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09620-6	GPSOIL20030923-33-0.5	Solid	09/24/03	09/23/03 13:10	EPC01

Parameter	Units	Lab Sample IDs 09620-6
Metals (6010B)		
Antimony	mg/kg dw	<8.1
Arsenic	mg/kg dw	4.8
Barium	mg/kg dw	130B
Beryllium	mg/kg dw	0.66
Cadmium	mg/kg dw	0.29J
Chromium	mg/kg dw	14
Copper	mg/kg dw	11
Lead	mg/kg dw	20
Nickel	mg/kg dw	12
Selenium	mg/kg dw	<1.6
Silver	mg/kg dw	<0.81
Thallium	mg/kg dw	<1.6
Zinc	mg/kg dw	38
Percent Solids		76
Dilution Factor		1
Prep Date		10/01/03
Time		14:08
Analysis Date		10/03/03
Analysis Time		19:51
Batch ID		PS193
Prep Method		3050B
Analyst		GSP
Quantitation Factor		80.7233
Mercury (7471A)		
Mercury	mg/kg dw	0.023
Percent Solids		76
Dilution Factor		1
Prep Date		10/02/03
Prep Time		14:45
Analysis Date		10/03/03
Analysis Time		09:49
Batch ID		HGS051
Prep Method		7471A
Analyst		JDE
Quantitation Factor		51.7701

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09620-6	GPSOIL20030923-33-0.5	Solid	09/24/03	09/23/03 13:10	EPC01

Parameter	Units	Lab Sample IDs 09620-6
Gasoline Range Organics (8015M)		
Hydrocarbons as GRO (C6-C10)	mg/kg dw	<6.6
Surrogate - a,a,a-Trifluorotoluene *	%	83 %
Percent Solids		76
Dilution Factor		50
Prep Date		09/29/03
Prep Time		15:30
Analysis Date		10/01/03
Analysis Time		03:50
Batch ID		EXT095A
Prep Method		5035/5030B
Analyst		CN
Quantitation Factor		65.8
Diesel Range Organics (8015M)		
Mineral Spirits	mg/kg dw	<3.3
Kerosene	mg/kg dw	<3.3
Diesel	mg/kg dw	<3.3
Fuel Oil	mg/kg dw	<3.3
Motor oil (10W-40)	mg/kg dw	<3.3
Hydraulic Fluid Hydrocarbons	mg/kg dw	<3.3
Unknown Hydrocarbon	mg/kg dw	1.7J
Surrogate - o-Terphenyl *	%	115 %
Percent Solids		76
Dilution Factor		1
Prep Date		09/25/03
Prep Time		09:50
Analysis Date		09/26/03
Analysis Time		07:16
Batch ID		FPS199
Prep Method		3550B
Analyst		IE
Quantitation Factor		1.3

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09620-6	GPSOIL20030923-33-0.5	Solid	09/24/03	09/23/03 13:10	EPC01

Parameter	Units	Lab Sample IDs 09620-6
Semivolatile Organic Compounds (8270C)		
Benzoic acid	ug/kg dw	<2200
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	ug/kg dw	<440
2-Chlorophenol	ug/kg dw	<440
2,4-Dichlorophenol	ug/kg dw	<440
2,6-Dichlorophenol	ug/kg dw	<440
2,4-Dimethylphenol	ug/kg dw	<440
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	ug/kg dw	<2200
2,4-Dinitrophenol	ug/kg dw	<2200
2-Methylphenol (o-Cresol)	ug/kg dw	<440
3-Methylphenol/4-Methylphenol (m&p-Cresol)	ug/kg dw	<440
2-Nitrophenol (o-Nitrophenol)	ug/kg dw	<440
4-Nitrophenol (p-Nitrophenol)	ug/kg dw	<2200
Pentachlorophenol	ug/kg dw	<2200
ol	ug/kg dw	<440
4,6-Tetrachlorophenol	ug/kg dw	<440
2,4,5-Trichlorophenol	ug/kg dw	<2200
2,4,6-Trichlorophenol	ug/kg dw	<440
Acenaphthene	ug/kg dw	<440
Acenaphthylene	ug/kg dw	<440
Acetophenone	ug/kg dw	<440
4-Aminobiphenyl	ug/kg dw	<440
Aniline	ug/kg dw	<440
Anthracene	ug/kg dw	<440
Benzidine	ug/kg dw	<2200
Benzo(a)anthracene	ug/kg dw	<440
Benzo(b)fluoranthene	ug/kg dw	<440
Benzo(k)fluoranthene	ug/kg dw	<440
Benzo(g,h,i)perylene	ug/kg dw	<440
Benzo(a)pyrene	ug/kg dw	<440
Benzyl alcohol	ug/kg dw	<440
4-Bromophenylphenyl ether	ug/kg dw	<440
Butylbenzylphthalate	ug/kg dw	<440
Carbazole	ug/kg dw	<440

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09620-6	GPSOIL20030923-33-0.5	Solid	09/24/03	09/23/03 13:10	EPC01

Parameter	Units	Lab Sample IDs 09620-6
Semivolatile Organic Compounds (8270C)		
4-Chloroaniline (p-Chloroaniline)	ug/kg dw	<440
bis(2-Chloroethoxy)methane	ug/kg dw	<440
bis(2-Chloroethyl)ether	ug/kg dw	<440
bis(2-Chloroisopropyl) ether	ug/kg dw	<440
1-Chloronaphthalene	ug/kg dw	<440
2-Chloronaphthalene	ug/kg dw	<440
4-Chlorophenylphenyl ether	ug/kg dw	<440
Chrysene	ug/kg dw	<440
Dibenz(a,j)acridine	ug/kg dw	<440
Dibenzo(a,h)anthracene	ug/kg dw	<440
Dibenzofuran	ug/kg dw	<440
Di-n-butylphthalate	ug/kg dw	<440
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/kg dw	<440
1,3-Dichlorobenzene (m-Dichlorobenzene)	ug/kg dw	<440
1,4-Dichlorobenzene (p-Dichlorobenzene)	ug/kg dw	<440
3,3'-Dichlorobenzidine	ug/kg dw	<2200
Diethylene Glycol Monobutyl Ether	ug/kg dw	<440
Diethylphthalate	ug/kg dw	<440
p-(Dimethylamino)azobenzene	ug/kg dw	<440
7,12-Dimethylbenz(a)anthracene	ug/kg dw	<440
alpha,alpha-Dimethylphenethylamine	ug/kg dw	<440
Dimethylphthalate	ug/kg dw	<440
2,4-Dinitrotoluene	ug/kg dw	<440
2,6-Dinitrotoluene	ug/kg dw	<440
Di-n-octylphthalate	ug/kg dw	<440
1,2-Diphenylhydrazine	ug/kg dw	<440
bis(2-Ethylhexyl)phthalate	ug/kg dw	<440
Ethyl methanesulfonate	ug/kg dw	<440
Fluoranthene	ug/kg dw	<440
Fluorene	ug/kg dw	<440

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09620-6	GPSOIL20030923-33-0.5	Solid	09/24/03	09/23/03 13:10	EPC01

Parameter	Units	Lab Sample IDs 09620-6
Semivolatile Organic Compounds (8270C)		
Hexachlorobenzene	ug/kg dw	<440
Hexachlorobutadiene	ug/kg dw	<440
Hexachlorocyclopentadiene	ug/kg dw	<440
Hexachloroethane	ug/kg dw	<440
Indeno(1,2,3-cd)pyrene	ug/kg dw	<440
Isophorone	ug/kg dw	<440
3-Methylcholanthrene	ug/kg dw	<440
Methyl methanesulfonate	ug/kg dw	<440
1-Methylnaphthalene	ug/kg dw	<440
2-Methylnaphthalene	ug/kg dw	<440
Naphthalene	ug/kg dw	<440
1-Naphthylamine	ug/kg dw	<440
2-Naphthylamine	ug/kg dw	<440
2-Nitroaniline (o-Nitroaniline)	ug/kg dw	<440
3-Nitroaniline (m-Nitroaniline)	ug/kg dw	<440
4-Nitroaniline (p-Nitroaniline)	ug/kg dw	<440
Nitrobenzene	ug/kg dw	<440
N-Nitrosodi-n-butylamine	ug/kg dw	<440
N-Nitrosodimethylamine	ug/kg dw	<440
N-Nitrosodiphenylamine	ug/kg dw	<440
n-Nitrosodi-n-propylamine	ug/kg dw	<440
N-Nitrosopiperidine	ug/kg dw	<440
Pentachlorobenzene	ug/kg dw	<440
Pentachloronitrobenzene	ug/kg dw	<440
Phenacetin	ug/kg dw	<440
Phenanthrene	ug/kg dw	<440
2-Picoline	ug/kg dw	<440
Pronamide	ug/kg dw	<440
Pyrene	ug/kg dw	<440
Pyridine	ug/kg dw	<440
1,2,4,5-Tetrachlorobenzene	ug/kg dw	<440
1,2,4-Trichlorobenzene	ug/kg dw	<440
Surrogate - 2-Fluorobiphenyl *	%	72 %

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09620-6	GPSOIL20030923-33-0.5	Solid	09/24/03	09/23/03 13:10	EPC01

Parameter	Units	Lab Sample IDs 09620-6
Semivolatile Organic Compounds (8270C)		
Surrogate - 2-Fluorophenol *	%	71 %
Surrogate - Nitrobenzene - d5 *	%	71 %
Surrogate - Phenol-d5 *	%	78 %
Surrogate - Terphenyl-d14 *	%	96 %
Surrogate - 2,4,6-Tribromophenol *	%	89 %
Percent Solids		76
Dilution Factor		1
Prep Date		09/26/03
Prep Time		09:15
Analysis Date		09/29/03
Analysis Time		17:30
Batch ID		ALS063
Prep Method		3550B
Analyst		RDW
Quantitation Factor		43.57

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09620-7	GPSOIL20030923-11-3.5	Solid	09/24/03	09/23/03 09:30	EPC01
09620-8	GPSOIL20030923-12-3.5	Solid	09/24/03	09/23/03 09:45	EPC01
09620-9	GPSOIL20030923-12-6.0	Solid	09/24/03	09/23/03 09:55	EPC01
09620-10	GPSOIL20030923-13-3.5	Solid	09/24/03	09/23/03 10:25	EPC01
09620-11	GPSOIL20030923-13-8.5	Solid	09/24/03	09/23/03 10:30	EPC01

Parameter	Units	Lab Sample IDs 09620-7	09620-8	09620-9	09620-10	09620-11
Metals (6010B)						
Antimony	mg/kg dw	0.76J	<9.1	0.71J	<9.8	<11
Arsenic	mg/kg dw	7.2	5.1	19	6.0	7.7
Barium	mg/kg dw	230B	180B	410B	130B	190B
Beryllium	mg/kg dw	1.3	1.1	1.5	1.0	1.1
Cadmium	mg/kg dw	0.18J	0.14J	0.37J	0.15J	0.27J
Chromium	mg/kg dw	30	23	40	23	25
Copper	mg/kg dw	21	13	25	13	19
Lead	mg/kg dw	16	13	19	17	23
Nickel	mg/kg dw	31	16	39	15	18
Selenium	mg/kg dw	<2.5	<1.8	<2.2	0.33J	<2.3
Silver	mg/kg dw	<1.2	<0.91	<1.1	<0.98	<1.1
Thallium	mg/kg dw	0.43J	<1.8	0.55J	<2.0	<2.3
Z[illegible]	mg/kg dw	76	49	66	48	54
[illegible]nt Solids		79	77	69	81	66
Dilution Factor		1	1	1	1	1
Prep Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Prep Time		14:08	14:08	14:08	14:08	14:08
Analysis Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Analysis Time		19:57	20:03	20:08	20:14	20:19
Batch ID		PS193	PS193	PS193	PS193	PS193
Prep Method		3050B	3050B	3050B	3050B	3050B
Analyst		GSP	GSP	GSP	GSP	GSP
Quantitation Factor		124.1003	90.8183	111.4827	97.9816	113.9212
Mercury (7471A)						
Mercury	mg/kg dw	0.033	0.021	0.042	0.022	0.038
Percent Solids		79	77	69	81	66
Dilution Factor		1	1	1	1	1
Prep Date		10/02/03	10/02/03	10/02/03	10/02/03	10/02/03
Prep Time		14:45	14:45	14:45	14:45	14:45
Analysis Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Analysis Time		09:50	09:52	09:54	09:55	09:57
Batch ID		HGS051	HGS051	HGS051	HGS051	HGS051
Prep Method		7471A	7471A	7471A	7471A	7471A
Analyst		JDE	JDE	JDE	JDE	JDE
Quantitation Factor		52.2722	54.0135	60.1459	48.7509	60.0964

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09620-7	GPSOIL20030923-11-3.5	Solid	09/24/03	09/23/03 09:30	EPC01
09620-8	GPSOIL20030923-12-3.5	Solid	09/24/03	09/23/03 09:45	EPC01
09620-9	GPSOIL20030923-12-6.0	Solid	09/24/03	09/23/03 09:55	EPC01
09620-10	GPSOIL20030923-13-3.5	Solid	09/24/03	09/23/03 10:25	EPC01
09620-11	GPSOIL20030923-13-8.5	Solid	09/24/03	09/23/03 10:30	EPC01

Parameter	Units	Lab Sample IDs 09620-7	09620-8	09620-9	09620-10	09620-11
Gasoline Range Organics (8015M)						
Hydrocarbons as GRO (C6-C10)	mg/kg dw	<6.3	<6.5	<7.2	4.6J	<7.6
Surrogate - a,a,a-Trifluorotoluene *	%	89 %	85 %	82 %	92 %	98 %
Percent Solids		79	77	69	81	66
Dilution Factor		50	50	50	50	50
Prep Date		09/29/03	09/29/03	09/29/03	09/29/03	09/29/03
Prep Time		15:30	15:30	15:30	15:30	15:30
Analysis Date		10/01/03	10/01/03	09/30/03	09/30/03	09/30/03
Analysis Time		04:53	05:55	16:33	17:27	18:20
Batch ID		EXT095A	EXT095A	EXT095A	EXT095A	EXT095A
Prep Method		5035/5030B	5035/5030B	5035/5030B	5035/5030B	5035/5030B
Analyst		CN	CN	CN	CN	CN
Quantitation Factor		63.3	64.9	72.5	61.7	75.8
Diesel Range Organics (8015M)						
Mineral Spirits	mg/kg dw	<3.0	<3.3	<3.5	<3.0	<3.8
Kerosene	mg/kg dw	<3.0	<3.3	<3.5	<3.0	<3.8
Diesel	mg/kg dw	<3.0	<3.3	<3.5	<3.0	<3.8
Fuel Oil	mg/kg dw	<3.0	<3.3	<3.5	<3.0	<3.8
Motor oil (10W-40)	mg/kg dw	<3.0	<3.3	<3.5	<3.0	<3.8
Hydraulic Fluid Hydrocarbons	mg/kg dw	<3.0	<3.3	<3.5	<3.0	<3.8
Unknown Hydrocarbon	mg/kg dw	1.4J	0.98J	1.7J	630	31
Surrogate - o-Terphenyl *	%	103 %	110 %	116 %	117 %	108 %
Percent Solids		79	77	69	81	66
Dilution Factor		1	1	1	1	1
Prep Date		09/25/03	09/25/03	09/25/03	09/25/03	09/25/03
Prep Time		09:50	09:50	09:50	09:50	09:50
Analysis Date		09/26/03	09/26/03	09/26/03	09/26/03	09/26/03
Analysis Time		07:53	08:12	08:31	08:49	09:08
Batch ID		FPS199	FPS199	FPS199	FPS199	FPS199
Prep Method		3550B	3550B	3550B	3550B	3550B
Analyst		IE	IE	IE	IE	IE
Quantitation Factor		1.2	1.3	1.4	1.2	1.5

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09620-7	GPSOIL20030923-11-3.5	Solid	09/24/03	09/23/03 09:30	EPC01
09620-8	GPSOIL20030923-12-3.5	Solid	09/24/03	09/23/03 09:45	EPC01
09620-9	GPSOIL20030923-12-6.0	Solid	09/24/03	09/23/03 09:55	EPC01
09620-10	GPSOIL20030923-13-3.5	Solid	09/24/03	09/23/03 10:25	EPC01
09620-11	GPSOIL20030923-13-8.5	Solid	09/24/03	09/23/03 10:30	EPC01

Parameter	Units	Lab Sample IDs 09620-7	09620-8	09620-9	09620-10	09620-11
Volatile Organic Compounds (8260B)						
Chloromethane	ug/kg dw	<6.4	<6.5	<7.2	<6.2	<7.6
Bromomethane (Methyl bromide)	ug/kg dw	<6.4	<6.5	<7.2	<6.2	<7.6
Vinyl chloride	ug/kg dw	<6.4	<6.5	<7.2	<6.2	<7.6
Chloroethane	ug/kg dw	<6.4	<6.5	<7.2	<6.2	<7.6
Methylene chloride (Dichloromethane)	ug/kg dw	<6.4	<6.5	<7.2	<6.2	<7.6
Acetone	ug/kg dw	<32	<32	8.1J	50	26J
Carbon disulfide	ug/kg dw	<6.4	<6.5	<7.2	1.2J	12
1,1-Dichloroethene	ug/kg dw	<6.4	<6.5	<7.2	<6.2	<7.6
1,1-Dichloroethane	ug/kg dw	<6.4	<6.5	<7.2	<6.2	<7.6
Cis/Trans-1,2-Dichloroethene	ug/kg dw	<6.4	<6.5	<7.2	<6.2	<7.6
cis-1,2-Dichloroethene	ug/kg dw	<6.4	<6.5	<7.2	<6.2	<7.6
Chloroform	ug/kg dw	<6.4	<6.5	<7.2	<6.2	<7.6
1,2-Dichloroethane	ug/kg dw	<6.4	<6.5	<7.2	<6.2	<7.6
2-Butanone (MEK)	ug/kg dw	<32	<32	<36	17J	6.0J
1,1,1-Trichloroethane	ug/kg dw	<6.4	<6.5	<7.2	<6.2	<7.6
Carbon tetrachloride	ug/kg dw	<6.4	<6.5	<7.2	<6.2	<7.6
Vinyl acetate	ug/kg dw	<32	<32	<36	<31	<38
Bromodichloromethane	ug/kg dw	<6.4	<6.5	<7.2	<6.2	<7.6
1,2-Dichloropropane	ug/kg dw	<6.4	<6.5	<7.2	<6.2	<7.6
cis-1,3-Dichloropropene	ug/kg dw	<6.4	<6.5	<7.2	<6.2	<7.6
Trichloroethene	ug/kg dw	<6.4	<6.5	<7.2	<6.2	<7.6
Dibromochloromethane	ug/kg dw	<6.4	<6.5	<7.2	<6.2	<7.6
1,1,2-Trichloroethane	ug/kg dw	<6.4	<6.5	<7.2	<6.2	<7.6
Benzene	ug/kg dw	<6.4	<6.5	<7.2	<6.2	1.3J
trans-1,3-Dichloropropene	ug/kg dw	<6.4	<6.5	<7.2	<6.2	<7.6
Bromoform	ug/kg dw	<6.4	<6.5	<7.2	<6.2	<7.6
4-Methyl-2-pentanone (MIBK)	ug/kg dw	<32	<32	<36	<31	<38
2-Hexanone	ug/kg dw	<32	<32	<36	<31	<38
Tetrachloroethene	ug/kg dw	<6.4	<6.5	<7.2	<6.2	<7.6
1,1,2,2-Tetrachloroethane	ug/kg dw	<6.4	<6.5	<7.2	<6.2	<7.6
Toluene	ug/kg dw	<6.4	1.9J	<7.2	2.1J	16

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09620-7	GPSOIL20030923-11-3.5	Solid	09/24/03	09/23/03 09:30	EPC01
09620-8	GPSOIL20030923-12-3.5	Solid	09/24/03	09/23/03 09:45	EPC01
09620-9	GPSOIL20030923-12-6.0	Solid	09/24/03	09/23/03 09:55	EPC01
09620-10	GPSOIL20030923-13-3.5	Solid	09/24/03	09/23/03 10:25	EPC01
09620-11	GPSOIL20030923-13-8.5	Solid	09/24/03	09/23/03 10:30	EPC01

		Lab Sample IDs				
Parameter	Units	09620-7	09620-8	09620-9	09620-10	09620-11
Volatile Organic Compounds (8260B)						
Chlorobenzene	ug/kg dw	<6.4	<6.5	<7.2	<6.2	<7.6
Ethylbenzene	ug/kg dw	<6.4	<6.5	<7.2	1.4J	<7.6
Styrene	ug/kg dw	<6.4	<6.5	<7.2	<6.2	<7.6
Xylenes, Total	ug/kg dw	<13	<13	<14	15	20
Surrogate - Dibromofluoromethane *	%	117 %	115 %	114 %	114 %	113 %
Surrogate - Toluene-d8 *	%	96 %	101 %	101 %	96 %	99 %
Surrogate - 4-Bromofluorobenzene *	%	84 %	96 %	99 %	84 %	99 %
Percent Solids		79	77	69	81	66
Dilution Factor		1	1	1	1	1
Prep Date		09/28/03	09/28/03	09/28/03	09/28/03	09/28/03
Prep Time		13:11	14:22	14:57	15:33	16:09
Analysis Date		09/28/03	09/28/03	09/28/03	09/28/03	09/28/03
Analysis Time		13:11	14:22	14:57	15:33	16:09
Batch ID		KAS164	KAS164	KAS164	KAS164	KAS164
Prep Method		5030B	5030B	5030B	5030B	5030B
Analyst		DWB	DWB	DWB	DWB	DWB
Quantitation Factor		1.27	1.3	1.45	1.23	1.52

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09620-12	GPSOIL20030923-21-3.5	Solid	09/24/03	09/23/03 11:30	EPC01
09620-13	GPSOIL20030923-32-3.5	Solid	09/24/03	09/23/03 12:50	EPC01
09620-14	GPSOIL20030923-32-10.5	Solid	09/24/03	09/23/03 12:15	EPC01
09620-15	GPSOIL20030923-33-3.5	Solid	09/24/03	09/23/03 13:15	EPC01
09620-16	GPSOIL20030923-33-13	Solid	09/24/03	09/23/03 13:20	EPC01

Parameter	Units	Lab Sample IDs 09620-12	09620-13	09620-14	09620-15	09620-16
Metals (6010B)						
Antimony	mg/kg dw	<11	<11	<9.4	<11	<7.4
Arsenic	mg/kg dw	6.7	3.3	3.8	5.6	6.2
Barium	mg/kg dw	140B	170B	150B	200B	340B
Beryllium	mg/kg dw	1.2	0.75	0.71	0.89	0.67
Cadmium	mg/kg dw	0.19J	0.28J	0.22J	0.24J	0.45J
Chromium	mg/kg dw	26	17	16	20	15
Copper	mg/kg dw	14	12	12	12	8.5
Lead	mg/kg dw	15	11	10	15	20
Nickel	mg/kg dw	22	14	13	16	17
Selenium	mg/kg dw	<2.2	<2.2	<1.9	0.40J	0.25J
Silver	mg/kg dw	<1.1	<1.1	<0.94	<1.1	<0.74
Thallium	mg/kg dw	<2.2	<2.2	<1.9	<2.2	<1.5
[illegible]	mg/kg dw	56	42	42	44	30
[illegible]ent Solids		72	77	87	56	77
Dilution Factor		1	1	1	1	1
Prep Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Prep Time		14:08	14:08	14:08	14:08	14:08
Analysis Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Analysis Time		20:25	20:30	20:36	20:52	20:58
Batch ID		PS193	PS193	PS193	PS193	PS193
Prep Method		3050B	3050B	3050B	3050B	3050B
Analyst		GSP	GSP	GSP	GSP	GSP
Quantitation Factor		108.5069	111.0001	94.2152	111.6071	73.7898
Mercury (7471A)						
Mercury	mg/kg dw	0.023	0.0089J	0.0092J	0.011J	0.0073J
Percent Solids		72	77	87	56	77
Dilution Factor		1	1	1	1	1
Prep Date		10/02/03	10/02/03	10/02/03	10/02/03	10/02/03
Prep Time		14:45	14:45	14:45	14:45	14:45
Analysis Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Analysis Time		09:59	10:01	10:02	10:04	10:09
Batch ID		HGS051	HGS051	HGS051	HGS051	HGS051
Prep Method		7471A	7471A	7471A	7471A	7471A
Analyst		JDE	JDE	JDE	JDE	JDE
Quantitation Factor		55.5023	53.5856	47.4577	73.6073	53.6033

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09620-12	GPSOIL20030923-21-3.5	Solid	09/24/03	09/23/03 11:30	EPC01
09620-13	GPSOIL20030923-32-3.5	Solid	09/24/03	09/23/03 12:50	EPC01
09620-14	GPSOIL20030923-32-10.5	Solid	09/24/03	09/23/03 12:15	EPC01
09620-15	GPSOIL20030923-33-3.5	Solid	09/24/03	09/23/03 13:15	EPC01
09620-16	GPSOIL20030923-33-13	Solid	09/24/03	09/23/03 13:20	EPC01

Parameter	Units	Lab Sample IDs 09620-12	09620-13	09620-14	09620-15	09620-16
Gasoline Range Organics (8015M)						
Hydrocarbons as GRO (C6-C10)	mg/kg dw	<6.9	<6.5	860	<8.9	<6.5
Surrogate - a,a,a-Trifluorotoluene *	%	94 %	93 %	0 %N/C	97 %	100 %
Percent Solids		72	77	87	56	77
Dilution Factor		50	50	500	50	50
Prep Date		09/29/03	09/29/03	09/29/03	09/29/03	09/29/03
Prep Time		15:30	15:30	15:30	15:30	15:30
Analysis Date		09/30/03	09/30/03	10/01/03	09/30/03	09/30/03
Analysis Time		19:14	20:07	12:39	21:54	21:54
Batch ID		EXT095A	EXT095A	EXT095A	EXT095A	EXT095A
Prep Method		5035/5030B	5035/5030B	5035/5030B	5035/5030B	5035/5030B
Analyst		CN	CN	CN	CN	CN
Quantitation Factor		69.4	64.9	575	89.3	64.9
Diesel Range Organics (8015M)						
Mineral Spirits	mg/kg dw	<3.5	<3.3	<2.8	<4.5	<3.3
Kerosene	mg/kg dw	<3.5	<3.3	<2.8	<4.5	<3.3
Diesel	mg/kg dw	<3.5	<3.3	<2.8	<4.5	<3.3
Fuel Oil	mg/kg dw	<3.5	<3.3	<2.8	<4.5	<3.3
Motor oil (10W-40)	mg/kg dw	<3.5	<3.3	<2.8	<4.5	<3.3
Hydraulic Fluid Hydrocarbons	mg/kg dw	<3.5	<3.3	<2.8	<4.5	<3.3
Unknown Hydrocarbon	mg/kg dw	<3.5	<3.3	57	5.8	3.4
Surrogate - o-Terphenyl *	%	104 %	89 %	103 %	99 %	109 %
Percent Solids		72	77	87	56	77
Dilution Factor		1	1	1	1	1
Prep Date		09/25/03	09/25/03	09/25/03	09/25/03	09/25/03
Prep Time		09:50	09:50	09:50	09:50	09:50
Analysis Date		09/26/03	09/26/03	09/26/03	09/26/03	09/26/03
Analysis Time		09:26	09:45	10:04	10:22	10:41
Batch ID		FPS199	FPS199	FPS199	FPS199	FPS199
Prep Method		3550B	3550B	3550B	3550B	3550B
Analyst		IE	IE	IE	IE	IE
Quantitation Factor		1.4	1.3	1.1	1.8	1.3

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09620-12	GPSOIL20030923-21-3.5	Solid	09/24/03	09/23/03 11:30	EPC01
09620-13	GPSOIL20030923-32-3.5	Solid	09/24/03	09/23/03 12:50	EPC01
09620-14	GPSOIL20030923-32-10.5	Solid	09/24/03	09/23/03 12:15	EPC01
09620-15	GPSOIL20030923-33-3.5	Solid	09/24/03	09/23/03 13:15	EPC01
09620-16	GPSOIL20030923-33-13	Solid	09/24/03	09/23/03 13:20	EPC01

Parameter	Units	Lab Sample IDs 09620-12	09620-13	09620-14	09620-15	09620-16
Volatile Organic Compounds (8260B)						
Chloromethane	ug/kg dw	<7.0	<6.5	<32	<9.0	<6.5
Bromomethane (Methyl bromide)	ug/kg dw	<7.0	<6.5	<32	<9.0	<6.5
Vinyl chloride	ug/kg dw	<7.0	<6.5	<32	<9.0	<6.5
Chloroethane	ug/kg dw	<7.0	<6.5	<32	<9.0	<6.5
Methylene chloride (Dichloromethane)	ug/kg dw	<7.0	<6.5	<32	<9.0	<6.5
Acetone	ug/kg dw	32J	<32	<160	<45	<32
Carbon disulfide	ug/kg dw	2.4J	<6.5	<32	<9.0	<6.5
1,1-Dichloroethene	ug/kg dw	<7.0	<6.5	<32	<9.0	<6.5
1,1-Dichloroethane	ug/kg dw	<7.0	<6.5	<32	<9.0	<6.5
Cis/Trans-1,2-Dichloroethene	ug/kg dw	<7.0	<6.5	<32	<9.0	<6.5
cis-1,2-Dichloroethene	ug/kg dw	<7.0	<6.5	<32	<9.0	<6.5
Chloroform	ug/kg dw	<7.0	<6.5	<32	<9.0	<6.5
1,2-Dichloroethane	ug/kg dw	<7.0	<6.5	<32	<9.0	<6.5
2-Butanone (MEK)	ug/kg dw	5.8J	<32	<160	<45	<32
1,1,1-Trichloroethane	ug/kg dw	<7.0	<6.5	<32	<9.0	<6.5
Carbon tetrachloride	ug/kg dw	<7.0	<6.5	<32	<9.0	<6.5
Vinyl acetate	ug/kg dw	<35	<32	<160	<45	<32
Bromodichloromethane	ug/kg dw	<7.0	<6.5	<32	<9.0	<6.5
1,2-Dichloropropane	ug/kg dw	<7.0	<6.5	<32	<9.0	<6.5
cis-1,3-Dichloropropene	ug/kg dw	<7.0	<6.5	<32	<9.0	<6.5
Trichloroethene	ug/kg dw	<7.0	<6.5	<32	<9.0	<6.5
Dibromochloromethane	ug/kg dw	<7.0	<6.5	<32	<9.0	<6.5
1,1,2-Trichloroethane	ug/kg dw	<7.0	<6.5	<32	<9.0	<6.5
Benzene	ug/kg dw	<7.0	<6.5	290	<9.0	<6.5
trans-1,3-Dichloropropene	ug/kg dw	<7.0	<6.5	<32	<9.0	<6.5
Bromoform	ug/kg dw	<7.0	<6.5	<32	<9.0	<6.5
4-Methyl-2-pentanone (MIBK)	ug/kg dw	<35	<32	<160	<45	<32
2-Hexanone	ug/kg dw	<35	<32	<160	<45	<32
Tetrachloroethene	ug/kg dw	<7.0	<6.5	<32	<9.0	<6.5
1,1,2,2-Tetrachloroethane	ug/kg dw	<7.0	<6.5	<32	<9.0	<6.5
Toluene	ug/kg dw	<7.0	<6.5	60	3.8J	<6.5

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09620-12	GPSOIL20030923-21-3.5	Solid	09/24/03	09/23/03 11:30	EPC01
09620-13	GPSOIL20030923-32-3.5	Solid	09/24/03	09/23/03 12:50	EPC01
09620-14	GPSOIL20030923-32-10.5	Solid	09/24/03	09/23/03 12:15	EPC01
09620-15	GPSOIL20030923-33-3.5	Solid	09/24/03	09/23/03 13:15	EPC01
09620-16	GPSOIL20030923-33-13	Solid	09/24/03	09/23/03 13:20	EPC01

Parameter	Units	Lab Sample IDs 09620-12	09620-13	09620-14	09620-15	09620-16
Volatile Organic Compounds (8260B)						
Chlorobenzene	ug/kg dw	<7.0	<6.5	<32	<9.0	<6.5
Ethylbenzene	ug/kg dw	<7.0	<6.5	40	<9.0	<6.5
Styrene	ug/kg dw	<7.0	<6.5	<32	<9.0	<6.5
Xylenes, Total	ug/kg dw	<14	<13	600	<18	<13
Surrogate - Dibromofluoromethane *	%	114 %	116 %	84 %	114 %	115 %
Surrogate - Toluene-d8 *	%	100 %	100 %	89 %	96 %	98 %
Surrogate - 4-Bromofluorobenzene *	%	98 %	97 %	115 %	83 %	100 %
Percent Solids		72	77	87	56	77
Dilution Factor		1	1	5	1	1
Prep Date		09/28/03	09/28/03	09/28/03	09/28/03	09/28/03
Prep Time		16:44	17:20	17:55	18:31	19:06
Analysis Date		09/28/03	09/28/03	09/28/03	09/28/03	09/28/03
Analysis Time		16:44	17:20	17:55	18:31	19:06
Batch ID		KAS164	KAS164	KAS164	KAS164	KAS164
Prep Method		5030B	5030B	5030B	5030B	5030B
Analyst		DWB	DWB	DWB	DWB	DWB
Quantitation Factor		1.39	1.3	6.49	1.79	1.3

[redacted]

Chain of Custody Record

STL4124-400 (12/02)

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

Client: El Paso	Project Manager: Bob Norris	Date: 9-23-03	Chain of Custody Number: 06391
Address:	Telephone Number (Area Code)/Fax Number: 303 839 5421	Lab Number: C309620	Page 1 of 2
City: Colorado Springs; State: CO; Zip Code:	Site Contact: S. Harden	Lab Contact: M. Pope	
Project Name and Location (State): El Paso El Dorado Refinery	Carrier/Waybill Number: 1ZX178X9221025 60084		
Contract/Purchase Order/Quote No.:			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	None	METALS (6010B)	TPH-GAS (OA-1)	TPH-EXT (OA-2)	VOCs (8260B)	SVOCs (8270)								Special Instructions/ Conditions of Receipt
GP501L20030923-11-0.5	9/23/03	8:55				X							X	X	X	X	X	X								1
GP501L20030923-11-3.5		9:30												X	X	X	X									7
GP501L20030923-12-0.5		9:40												X	X	X		X								2
GP501L20030923-12-3.5		9:45												X	X	X	X									8
GP501L20030923-12-6.0		9:55												X	X	X	X									9
GP501L20030923-13-0.5		10:20												X	X	X		X								3
GP501L20030923-13-3.5		10:25												X	X	X	X									10
GP501L20030923-13-8.5		10:30												X	X	X	X									11
GP501L20030923-21-0.5'		11:25												X	X	X		X								4
GP501L20030923-21-3.5		11:30												X	X	X	X									12
GP501L20030923-32-0.5		12:45												X	X	X		X								5
GP501L20030923-32-3.5		12:50												X	X	X	X									13

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard

QC Requirements (Specify): Level II

	Date	Time		Date	Time
1. Relinquished By: Todd S. [illegible]	9/23/03	1300	1. Received By: [illegible]	9/23/03	1730
2. Relinquished By: [illegible]	9/23/03	1830	2. Received By: UPS	9/23/03	1830
3. Relinquished By:			3. Received By: Mark Swafford	9/24/03	950

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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[redacted]

Chain of Custody Record

STL4124-400 (12/02)

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

Client: El Paso	Project Manager: Bob Norris	Date: 9/23/03	Chain of Custody Number: 06392
Address:	Telephone Number (Area Code)/Fax Number: 303 239 5421	Lab Number: C309620	Page 2 of 2
City: Colorado Springs; State: CO; Zip Code:	Site Contact: S. Harden	Lab Contact: M. Pope	
Project Name and Location (State): El Paso El Dorado Refinery	Carrier/Waybill Number: 1Z X17 8X9 22 1025 6084		
Contract/Purchase Order/Quote No.:			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil		Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	None	METALS (6010B)	TPH-GAS (OA-1)	TPH-EXT (OA-2)	VOCs (8260B)	SVOCs (8270)								Special Instructions/ Conditions of Receipt
GPS01L20030923-32-10.5	9/23/03	12:15				X								X	X	X	X	X									14
GPS01L20030923-33-0.5		1:10													X	X	X		X								6
GPS01L20030923-33-3.5		1:15													X	X	X	X									15
GPS01L20030923-33-13		1:20													X	X	X	X									16

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown

Sample Disposal: [ ] Return To Client [X] Disposal By Lab [ ] Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: [ ] 24 Hours [ ] 48 Hours [ ] 7 Days [ ] 14 Days [ ] 21 Days [X] Other Standard

QC Requirements (Specify): Level II

1. Relinquished By: Todd S. Sheehan	Date: 9/23/03	Time: 1300	1. Received By: [signature]	Date: 9/23/03	Time: 1300
2. Relinquished By: [signature]	Date: 9/23/03	Time: 1830	2. Received By: UPS	Date: 9/23/03	Time: 1830
3. Relinquished By:	Date:	Time:	3. Received By: Mark Swafford	Date: 9/24/03	Time: 950

Comments:

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

EL PASO-EL DORADO SDG#C30EPC01

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SEVERN TRENT STL

L Pensacola 3355 McLemore Drive - Pensacola FL 32514 Telephone:(850) 474-1001 Fax:(850) 478-2671

Analytical Report

For: Mr. Chris Miller
El Paso Energy Corporation
P.O. Box 2511
Houston, TX 77252-2511
CC: Lynn Hanzlicek (Shaw, KS)

Order Number: C309678
SDG Number: EPC02
Client Project ID:
Project: EL PASO-EL DORADO REFINERY
Report Date: 10/28/2003
Sampled By: Client
Sample Received Date: 09/25/2003
Requisition Number:
Purchase Order: C-STL1-ELDORADO-001
Revised Date: 11/20/2003

Melissa L Pope

Melissa L. Pope, Project Manager
mpope@stl-inc.com

The test results in this report meet all NELAP requirements for parameters for which ccreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Sample Summary

Order: C309678
Date Received: 09/25/2003

Client: El Paso Energy Corporation
Project: EL PASO-EL DORADO REFINERY

Client Sample ID	Lab Sample ID	Matrix	Date Sampled
GPSOIL20030923-51-0.5	C309678*1	Solid	09/23/2003 05:50
GPSOIL20030923-54-0.5	C309678*2	Solid	09/23/2003 06:10
GPSOIL20030923-55-0.5	C309678*3	Solid	09/23/2003 04:20
GPSOIL20030923-61-0.5'	C309678*4	Solid	09/23/2003 02:50
GPSOIL20030923-62-0.5	C309678*5	Solid	09/23/2003 03:52
GPSOIL20030924-47-0.5	C309678*6	Solid	09/24/2003 07:55
GPSOIL20030924-53-0.5	C309678*7	Solid	09/24/2003 08:20
GPSOIL20030924-52-0.5	C309678*8	Solid	09/24/2003 08:30
GPSOIL20030924-43-0.5	C309678*9	Solid	09/24/2003 09:10
GPSOIL20030924-42-0.5	C309678*10	Solid	09/24/2003 10:10
GPSOIL20030924-41-0.5	C309678*11	Solid	09/24/2003 11:10
GPSOIL20030924-46-0.5	C309678*12	Solid	09/24/2003 14:10
GPSOIL20030924-44-0.5	C309678*13	Solid	09/24/2003 14:30
GPSOIL20030924-49-0.5	C309678*14	Solid	09/24/2003 14:55
GPSOIL20030924-45-0.5	C309678*15	Solid	09/24/2003 17:00
GPSOIL20030924-63-0.5	C309678*16	Solid	09/23/2003 14:25
DUPLICATE 1	C309678*17	Solid	09/23/2003
GPSOIL20030923-51-3.5	C309678*18	Solid	09/23/2003 05:55
GPSOIL20030923-54-3.5	C309678*19	Solid	09/23/2003 06:15
GPSOIL20030923-54-6.0	C309678*20	Solid	09/23/2003 06:20
GPSOIL20030923-55-3.5	C309678*21	Solid	09/23/2003 04:25
GPSOIL20030923-55-1A	C309678*22	Solid	09/23/2003 04:35
GPSOIL20030923-61-3.5	C309678*23	Solid	09/23/2003 02:55
GPSOIL20030923-61-7.0	C309678*24	Solid	09/23/2003 03:00
GPSOIL20030924-53-3.5	C309678*25	Solid	09/24/2003 08:25
GPSOIL20030924-43-3.5	C309678*26	Solid	09/24/2003 09:16
GPSOIL20030924-43-13.5	C309678*27	Solid	09/24/2003 09:55
GPSOIL20030924-42-3.5	C309678*28	Solid	09/24/2003 10:15
GPSOIL20030924-42-13	C309678*29	Solid	09/24/2003 10:30
GPSOIL20030924-41-3.5	C309678*30	Solid	09/24/2003 11:15
GPSOIL20030924-41-19	C309678*31	Solid	09/24/2003 11:50
GPSOIL20030924-46-3.5	C309678*32	Solid	09/24/2003 14:15
GPSOIL20030924-44-3.5	C309678*33	Solid	09/24/2003 14:35
GPSOIL20030924-49-3.5	C309678*34	Solid	09/24/2003 15:00
GPSOIL20030924-45-3.5	C309678*35	Solid	09/24/2003 17:05
GPSOIL20030923-63-3.5	C309678*36	Solid	09/23/2003 14:30
DUPLICATE-2	C309678*37	Solid	09/23/2003
Equipment Blank	C309678*38	Liquid	09/24/2003 07:30
Equipment Blank	C309678*39	Liquid	09/24/2003 13:45

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-1	GPSOIL20030923-51-0.5 SB5-1 (0.5)	Solid	09/25/03	09/23/03 05:50	EPC02
09678-2	GPSOIL20030923-54-0.5 SB5-4 (0.5)	Solid	09/25/03	09/23/03 06:10	EPC02
09678-3	GPSOIL20030923-55-0.5 SB5-5 (0.5)	Solid	09/25/03	09/23/03 04:20	EPC02
09678-4	GPSOIL20030923-61-0.5'	Solid	09/25/03	09/23/03 02:50	EPC02
09678-5	GPSOIL20030923-62-0.5	Solid	09/25/03	09/23/03 03:52	EPC02

Parameter	Units	Lab Sample IDs 09678-1	09678-2	09678-3	09678-4	09678-5
		SB5-1	SB5-4	SB5-5		
Metals (6010B)						
Antimony	mg/kg dw	0.63J	<13	<11	<9.6	0.60J
Arsenic	mg/kg dw	6.6	7.5	7.3	5.7	6.8
Barium	mg/kg dw	130B	420B	170B	100B	150B
Beryllium	mg/kg dw	1.1	1.1	1.1	0.86	1.2
Cadmium	mg/kg dw	0.23J	0.24J	0.15J	0.12J	0.24J
Chromium	mg/kg dw	24	24	24	19	28
Copper	mg/kg dw	13	15	15	11	13
Lead	mg/kg dw	15	22	16	14	20
Nickel	mg/kg dw	18	20	18	14	24
Selenium	mg/kg dw	<2.3	0.58J	0.40J	0.33J	<2.6
Silver	mg/kg dw	<1.2	<1.3	<1.1	<0.96	<1.3
Thallium	mg/kg dw	<2.3	<2.5	<2.3	<1.9	<2.6
Zinc	mg/kg dw	43	51	50	30	48
Percent Solids		76	74	74	72	70
Dilution Factor		1	1	1	1	1
Prep Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Prep Time		13:51	13:51	13:51	13:51	13:51
Analysis Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Analysis Time		21:14	21:42	21:59	22:04	22:10
Batch ID		PS194	PS194	PS194	PS194	PS194
Prep Method		3050B	3050B	3050B	3050B	3050B
Analyst		GSP	GSP	GSP	GSP	GSP
Quantitation Factor		116.4415	127.4860	112.6126	96.4506	131.0616
Mercury (7471A)						
Mercury	mg/kg dw	0.024	0.026	0.023	0.016	0.017
Percent Solids		76	74	74	72	70
Dilution Factor		1	1	1	1	1
Prep Date		10/02/03	10/02/03	10/02/03	10/02/03	10/02/03
Prep Time		14:45	14:45	14:45	14:45	14:45
Analysis Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Analysis Time		10:40	10:42	10:43	10:45	10:47
Batch ID		HGS052	HGS052	HGS052	HGS052	HGS052
Prep Method		7471A	7471A	7471A	7471A	7471A
Analyst		JDE	JDE	JDE	JDE	JDE
Quantitation Factor		54.3894	53.4131	55.5563	56.9964	58.2900

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-1	GPSOIL20030923-51-0.5	Solid	09/25/03	09/23/03 05:50	EPC02
09678-2	GPSOIL20030923-54-0.5	Solid	09/25/03	09/23/03 06:10	EPC02
09678-3	GPSOIL20030923-55-0.5	Solid	09/25/03	09/23/03 04:20	EPC02
09678-4	GPSOIL20030923-61-0.5'	Solid	09/25/03	09/23/03 02:50	EPC02
09678-5	GPSOIL20030923-62-0.5	Solid	09/25/03	09/23/03 03:52	EPC02

Parameter	Units	Lab Sample IDs 09678-1	09678-2	09678-3	09678-4	09678-5
		SB5-1	SB5-4	SB5-5		
Gasoline Range Organics (8015M)						
Hydrocarbons as GRO (C6-C10)	mg/kg dw	0.63JB	0.33JB	0.33JB	<6.9	<7.1
Surrogate - a,a,a-Trifluorotoluene *	%	104 %	95 %	95 %	88 %	91 %
Percent Solids		76	74	74	72	70
Dilution Factor		50	50	50	50	50
Prep Date		09/30/03	09/30/03	09/30/03	09/30/03	09/30/03
Prep Time		14:15	14:15	14:15	14:15	14:15
Analysis Date		09/30/03	09/30/03	09/30/03	10/01/03	10/01/03
Analysis Time		18:26	19:21	23:57	00:52	01:47
Batch ID		EXT096A	EXT096A	EXT096A	EXT096A	EXT096A
Prep Method		5035/5030B	5035/5030B	5035/5030B	5035/5030B	5035/5030B
Analyst		SB	SB	SB	SB	SB
Quantitation Factor		65.8	67.6	67.6	69.4	71.4
Diesel Range Organics (8015M)						
Mineral Spirits	mg/kg dw	<3.3	<3.5	<3.5	<3.5	<3.5
Kerosene	mg/kg dw	<3.3	<3.5	<3.5	<3.5	<3.5
Diesel	mg/kg dw	<3.3	<3.5	<3.5	<3.5	<3.5
Fuel Oil	mg/kg dw	<3.3	<3.5	<3.5	<3.5	<3.5
Motor oil (10W-40)	mg/kg dw	<3.3	<3.5	<3.5	<3.5	<3.5
Hydraulic Fluid Hydrocarbons	mg/kg dw	<3.3	<3.5	<3.5	<3.5	<3.5
Unknown Hydrocarbon	mg/kg dw	4.0	3.5	2.3J	3.7	<3.5
Surrogate - o-Terphenyl *	%	122 %	121 %	108 %	115 %	76 %
Percent Solids		76	74	74	72	70
Dilution Factor		1	1	1	1	1
Prep Date		09/30/03	09/30/03	09/30/03	09/30/03	09/30/03
Prep Time		09:30	09:30	09:30	09:30	09:30
Analysis Date		09/30/03	09/30/03	09/30/03	09/30/03	09/30/03
Analysis Time		16:30	16:49	17:07	17:26	17:44
Batch ID		FPS205	FPS205	FPS205	FPS205	FPS205
Prep Method		3550B	3550B	3550B	3550B	3550B
Analyst		IE	IE	IE	IE	IE
Quantitation Factor		1.3	1.4	1.4	1.4	1.4

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-1	GPSOIL20030923-51-0.5	Solid	09/25/03	09/23/03 05:50	EPC02
09678-2	GPSOIL20030923-54-0.5	Solid	09/25/03	09/23/03 06:10	EPC02
09678-3	GPSOIL20030923-55-0.5	Solid	09/25/03	09/23/03 04:20	EPC02
09678-4	GPSOIL20030923-61-0.5'	Solid	09/25/03	09/23/03 02:50	EPC02
09678-5	GPSOIL20030923-62-0.5	Solid	09/25/03	09/23/03 03:52	EPC02

Lab Sample IDs

Parameter	Units	09678-1	09678-2	09678-3	09678-4	09678-5
		SB6-1	SB6-4	SB6-6		
Semivolatile Organic Compounds (8270C)						
Benzoic acid	ug/kg dw	<2200	<2200	<2200	<2300	<2400
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	ug/kg dw	<430	<450	<450	<460	<480
2-Chlorophenol	ug/kg dw	<430	<450	<450	<460	<480
2,4-Dichlorophenol	ug/kg dw	<430	<450	<450	<460	<480
2,6-Dichlorophenol	ug/kg dw	<430	<450	<450	<460	<480
2,4-Dimethylphenol	ug/kg dw	<430	<450	<450	<460	<480
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	ug/kg dw	<2200	<2200	<2200	<2300	<2400
2,4-Dinitrophenol	ug/kg dw	<2200	<2200	<2200	<2300	<2400
2-Methylphenol (o-Cresol)	ug/kg dw	<430	<450	<450	<460	<480
3-Methylphenol/4-Methylphenol (m&p-Cresol)	ug/kg dw	<430	<450	<450	<460	<480
[illegible]rophenol (o-Nitrophenol)	ug/kg dw	<430	<450	<450	<460	<480
4-Nitrophenol (p-Nitrophenol)	ug/kg dw	<2200	<2200	<2200	<2300	<2400
Pentachlorophenol	ug/kg dw	<2200	<2200	<2200	<2300	<2400
Phenol	ug/kg dw	<430	<450	<450	<460	<480
2,3,4,6-Tetrachlorophenol	ug/kg dw	<430	<450	<450	<460	<480
2,4,5-Trichlorophenol	ug/kg dw	<2200	<2200	<2200	<2300	<2400
2,4,6-Trichlorophenol	ug/kg dw	<430	<450	<450	<460	<480
Acenaphthene	ug/kg dw	<430	<450	<450	<460	<480
Acenaphthylene	ug/kg dw	<430	<450	<450	<460	<480
Acetophenone	ug/kg dw	<430	<450	<450	<460	<480
4-Aminobiphenyl	ug/kg dw	<430	<450	<450	<460	<480
Aniline	ug/kg dw	<430	<450	<450	<460	<480
Anthracene	ug/kg dw	<430	<450	<450	<460	<480
Benzidine	ug/kg dw	<2200	<2200	<2200	<2300	<2400
Benzo(a)anthracene	ug/kg dw	<430	<450	<450	<460	<480
Benzo(b)fluoranthene	ug/kg dw	<430	<450	<450	<460	<480
Benzo(k)fluoranthene	ug/kg dw	<430	<450	<450	<460	<480
Benzo(g,h,i)perylene	ug/kg dw	<430	<450	<450	<460	<480
Benzo(a)pyrene	ug/kg dw	<430	<450	<450	<460	<480

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-1	GPSOIL20030923-51-0.5	Solid	09/25/03	09/23/03 05:50	EPC02
09678-2	GPSOIL20030923-54-0.5	Solid	09/25/03	09/23/03 06:10	EPC02
09678-3	GPSOIL20030923-55-0.5	Solid	09/25/03	09/23/03 04:20	EPC02
09678-4	GPSOIL20030923-61-0.5'	Solid	09/25/03	09/23/03 02:50	EPC02
09678-5	GPSOIL20030923-62-0.5	Solid	09/25/03	09/23/03 03:52	EPC02

Parameter	Units	Lab Sample IDs 09678-1	09678-2	09678-3	09678-4	09678-5
		SB5-1	SB5-4	SB5-5		
Semivolatile Organic Compounds (8270C)						
Benzyl alcohol	ug/kg dw	<430	<450	<450	<460	<480
4-Bromophenylphenyl ether	ug/kg dw	<430	<450	<450	<460	<480
Butylbenzylphthalate	ug/kg dw	<430	<450	<450	<460	<480
Carbazole	ug/kg dw	<430	<450	<450	<460	<480
4-Chloroaniline (p-Chloroaniline)	ug/kg dw	<430	<450	<450	<460	<480
bis(2-Chloroethoxy)methane	ug/kg dw	<430	<450	<450	<460	<480
bis(2-Chloroethyl)ether	ug/kg dw	<430	<450	<450	<460	<480
bis(2-Chloroisopropyl) ether	ug/kg dw	<430	<450	<450	<460	<480
1-Chloronaphthalene	ug/kg dw	<430	<450	<450	<460	<480
2-Chloronaphthalene	ug/kg dw	<430	<450	<450	<460	<480
4-Chlorophenylphenyl ether	ug/kg dw	<430	<450	<450	<460	<480
Chrysene	ug/kg dw	<430	<450	<450	<460	<480
Dibenz(a,j)acridine	ug/kg dw	<430	<450	<450	<460	<480
Dibenzo(a,h)anthracene	ug/kg dw	<430	<450	<450	<460	<480
Dibenzofuran	ug/kg dw	<430	<450	<450	<460	<480
Di-n-butylphthalate	ug/kg dw	<430	<450	<450	<460	<480
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/kg dw	<430	<450	<450	<460	<480
1,3-Dichlorobenzene (m-Dichlorobenzene)	ug/kg dw	<430	<450	<450	<460	<480
1,4-Dichlorobenzene (p-Dichlorobenzene)	ug/kg dw	<430	<450	<450	<460	<480
3,3'-Dichlorobenzidine	ug/kg dw	<2200	<2200	<2200	<2300	<2400
Diethylene Glycol Monobutyl Ether	ug/kg dw	<430	<450	<450	<460	<480
Diethylphthalate	ug/kg dw	<430	<450	<450	<460	<480
p-(Dimethylamino)azobenzene	ug/kg dw	<430	<450	<450	<460	<480
7,12-Dimethylbenz(a)anthracene	ug/kg dw	<430	<450	<450	<460	<480
alpha,alpha-Dimethylphenethylamine	ug/kg dw	<430	<450	<450	<460	<480
Dimethylphthalate	ug/kg dw	<430	<450	<450	<460	<480

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-1	GPSOIL20030923-51-0.5	Solid	09/25/03	09/23/03 05:50	EPC02
09678-2	GPSOIL20030923-54-0.5	Solid	09/25/03	09/23/03 06:10	EPC02
09678-3	GPSOIL20030923-55-0.5	Solid	09/25/03	09/23/03 04:20	EPC02
09678-4	GPSOIL20030923-61-0.5'	Solid	09/25/03	09/23/03 02:50	EPC02
09678-5	GPSOIL20030923-62-0.5	Solid	09/25/03	09/23/03 03:52	EPC02

Parameter	Units	Lab Sample IDs 09678-1	09678-2	09678-3	09678-4	09678-5
		SB5-1	SB5-4	SB5-5		
Semivolatile Organic Compounds (8270C)						
2,4-Dinitrotoluene	ug/kg dw	<430	<450	<450	<460	<480
2,6-Dinitrotoluene	ug/kg dw	<430	<450	<450	<460	<480
Di-n-octylphthalate	ug/kg dw	<430	<450	<450	<460	<480
1,2-Diphenylhydrazine	ug/kg dw	<430	<450	<450	<460	<480
bis(2-Ethylhexyl)phthalate	ug/kg dw	<430	<450	<450	<460	<480
Ethyl methanesulfonate	ug/kg dw	<430	<450	<450	<460	<480
Fluoranthene	ug/kg dw	<430	<450	<450	<460	<480
Fluorene	ug/kg dw	<430	<450	<450	<460	<480
Hexachlorobenzene	ug/kg dw	<430	<450	<450	<460	<480
Hexachlorobutadiene	ug/kg dw	<430	<450	<450	<460	<480
Hexachlorocyclopentadiene	ug/kg dw	<430	<450	<450	<460	<480
Hexachloroethane	ug/kg dw	<430	<450	<450	<460	<480
Indeno(1,2,3-cd)pyrene	ug/kg dw	<430	<450	<450	<460	<480
Isophorone	ug/kg dw	<430	<450	<450	<460	<480
3-Methylcholanthrene	ug/kg dw	<430	<450	<450	<460	<480
Methyl methanesulfonate	ug/kg dw	<430	<450	<450	<460	<480
1-Methylnaphthalene	ug/kg dw	<430	<450	<450	<460	<480
2-Methylnaphthalene	ug/kg dw	<430	<450	<450	<460	<480
Naphthalene	ug/kg dw	<430	<450	<450	<460	<480
1-Naphthylamine	ug/kg dw	<430	<450	<450	<460	<480
2-Naphthylamine	ug/kg dw	<430	<450	<450	<460	<480
2-Nitroaniline (o-Nitroaniline)	ug/kg dw	<430	<450	<450	<460	<480
3-Nitroaniline (m-Nitroaniline)	ug/kg dw	<430	<450	<450	<460	<480
4-Nitroaniline (p-Nitroaniline)	ug/kg dw	<430	<450	<450	<460	<480
Nitrobenzene	ug/kg dw	<430	<450	<450	<460	<480
N-Nitrosodi-n-butylamine	ug/kg dw	<430	<450	<450	<460	<480
N-Nitrosodimethylamine	ug/kg dw	<430	<450	<450	<460	<480
N-Nitrosodiphenylamine	ug/kg dw	<430	<450	<450	<460	<480
n-Nitrosodi-n-propylamine	ug/kg dw	<430	<450	<450	<460	<480

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-1	GPSOIL20030923-51-0.5	Solid	09/25/03	09/23/03 05:50	EPC02
09678-2	GPSOIL20030923-54-0.5	Solid	09/25/03	09/23/03 06:10	EPC02
09678-3	GPSOIL20030923-55-0.5	Solid	09/25/03	09/23/03 04:20	EPC02
09678-4	GPSOIL20030923-61-0.5'	Solid	09/25/03	09/23/03 02:50	EPC02
09678-5	GPSOIL20030923-62-0.5	Solid	09/25/03	09/23/03 03:52	EPC02

Parameter	Units	Lab Sample IDs 09678-1	09678-2	09678-3	09678-4	09678-5
		SB5-1	SB5-4	SB5-5		
Semivolatile Organic Compounds (8270C)						
N-Nitrosopiperidine	ug/kg dw	<430	<450	<450	<460	<480
Pentachlorobenzene	ug/kg dw	<430	<450	<450	<460	<480
Pentachloronitrobenzene	ug/kg dw	<430	<450	<450	<460	<480
Phenacetin	ug/kg dw	<430	<450	<450	<460	<480
Phenanthrene	ug/kg dw	<430	<450	<450	<460	<480
2-Picoline	ug/kg dw	<430	<450	<450	<460	<480
Pronamide	ug/kg dw	<430	<450	<450	<460	<480
Pyrene	ug/kg dw	<430	<450	<450	<460	<480
Pyridine	ug/kg dw	<430	<450	<450	<460	<480
1,2,4,5-Tetrachlorobenzene	ug/kg dw	<430	<450	<450	<460	<480
1,2,4-Trichlorobenzene	ug/kg dw	<430	<450	<450	<460	<480
Surrogate - 2-Fluorobiphenyl *	%	47 %	46 %	56 %	48 %	49 %
Surrogate - 2-Fluorophenol *	%	45 %	46 %	52 %	44 %	46 %
Surrogate - Nitrobenzene - d5 *	%	44 %	45 %	55 %	47 %	49 %
Surrogate - Phenol-d5 *	%	50 %	48 %	57 %	49 %	52 %
Surrogate - Terphenyl-d14 *	%	59 %	56 %	69 %	57 %	58 %
Surrogate - 2,4,6-Tribromophenol *	%	64 %	62 %	76 %	64 %	67 %
Percent Solids		76	74	74	72	70
Dilution Factor		1	1	1	1	1
Prep Date		10/03/03	09/30/03	10/03/03	10/03/03	10/03/03
Prep Time		09:50	11:10	09:50	09:50	09:50
Analysis Date		10/04/03	10/01/03	10/04/03	10/04/03	10/04/03
Analysis Time		14:30	19:51	15:06	15:42	16:18
Batch ID		ALS070	ALS066	ALS070	ALS070	ALS070
Prep Method		3550B	3550B	3550B	3550B	3550B
Analyst		RDW	RDW	RDW	RDW	RDW
Quantitation Factor		43.28	44.84	44.76	46.14	47.62

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-6	GPSOIL20030924-47-0.5	Solid	09/25/03	09/24/03 07:55	EPC02
09678-7	GPSOIL20030924-53-0.5 SB5-3 (0.5')	Solid	09/25/03	09/24/03 08:20	EPC02
09678-8	GPSOIL20030924-52-0.5 SB5-2 (0.5')	Solid	09/25/03	09/24/03 08:30	EPC02
09678-9	GPSOIL20030924-43-0.5	Solid	09/25/03	09/24/03 09:10	EPC02
09678-10	GPSOIL20030924-42-0.5	Solid	09/25/03	09/24/03 10:10	EPC02

Lab Sample IDs

Parameter	Units	09678-6	09678-7	09678-8	09678-9	09678-10
			SB5-3	SB5-2		
Metals (6010B)						
Antimony	mg/kg dw	0.62J	<12	<13	<9.9	0.69J
Arsenic	mg/kg dw	5.3	6.8	5.1	6.4	12
Barium	mg/kg dw	260B	240B	57B	140B	130B
Beryllium	mg/kg dw	0.95	1.2	1.5	1.0	1.6
Cadmium	mg/kg dw	0.43J	0.14J	0.16J	0.10J	0.20J
Chromium	mg/kg dw	21	25	32	23	34
Copper	mg/kg dw	17	13	26	13	30
Lead	mg/kg dw	24	14	13	14	30
Nickel	mg/kg dw	20	19	47	16	42
Selenium	mg/kg dw	<2.0	<2.4	<2.5	<2.0	<1.9
Silver	mg/kg dw	<1.0	<1.2	<1.3	<0.99	<0.96
Thallium	mg/kg dw	<2.0	<2.4	0.48J	<2.0	<1.9
Zinc	mg/kg dw	83	47	43	42	47
Percent Solids		80	75	72	75	74
Dilution Factor		1	1	1	1	1
Prep Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Prep Time		13:51	13:51	13:51	13:51	13:51
Analysis Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Analysis Time		22:15	22:21	22:26	22:32	22:37
Batch ID		PS194	PS194	PS194	PS194	PS194
Prep Method		3050B	3050B	3050B	3050B	3050B
Analyst		GSP	GSP	GSP	GSP	GSP
Quantitation Factor		102.4590	121.2121	127.4210	98.7654	95.8405
Mercury (7471A)						
Mercury	mg/kg dw	0.027	0.019	0.013	0.015	0.036
Percent Solids		80	75	72	75	74
Dilution Factor		1	1	1	1	1
Prep Date		10/02/03	10/02/03	10/02/03	10/02/03	10/02/03
Prep Time		14:45	14:45	14:45	14:45	14:45
Analysis Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Analysis Time		10:49	10:50	10:56	10:57	10:59
Batch ID		HGS052	HGS052	HGS052	HGS052	HGS052
Prep Method		7471A	7471A	7471A	7471A	7471A
Analyst		JDE	JDE	JDE	JDE	JDE
Quantitation Factor		48.4196	52.8849	57.2690	52.9017	53.5655

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-6	GPSOIL20030924-47-0.5	Solid	09/25/03	09/24/03 07:55	EPC02
09678-7	GPSOIL20030924-53-0.5 SB5-3 (0.5')	Solid	09/25/03	09/24/03 08:20	EPC02
09678-8	GPSOIL20030924-52-0.5 SB5-2 (0.5')	Solid	09/25/03	09/24/03 08:30	EPC02
09678-9	GPSOIL20030924-43-0.5	Solid	09/25/03	09/24/03 09:10	EPC02
09678-10	GPSOIL20030924-42-0.5	Solid	09/25/03	09/24/03 10:10	EPC02

Parameter	Units	Lab Sample IDs 09678-6	09678-7	09678-8	09678-9	09678-10
			SB5-3	SB5-2		
Gasoline Range Organics (8015M)						
Hydrocarbons as GRO (C6-C10)	mg/kg dw	<6.2	<6.7	0.38JB	<6.7	0.37JB
Surrogate - a,a,a-Trifluorotoluene *	%	87 %	94 %	108 %	94 %	110 %
Percent Solids		80	75	72	75	74
Dilution Factor		50	50	50	50	50
Prep Date		09/30/03	09/30/03	09/30/03	09/30/03	09/30/03
Prep Time		14:15	14:15	14:15	14:15	14:15
Analysis Date		10/01/03	10/01/03	10/01/03	09/30/03	09/30/03
Analysis Time		02:42	03:38	04:33	20:16	23:41
Batch ID		EXT096A	EXT096A	EXT096A	EXT096A	EXT096A
Prep Method		5035/5030B	5035/5030B	5035/5030B	5035/5030B	5035/5030B
Analyst		SB	SB	SB	SB	CN
Quantitation Factor		62.5	66.7	69.4	66.7	67.6
Diesel Range Organics (8015M)						
Mineral Spirits	mg/kg dw	<3.3	<3.3	<3.5	<3.3	<3.5
Kerosene	mg/kg dw	<3.3	<3.3	<3.5	<3.3	<3.5
Diesel	mg/kg dw	<3.3	<3.3	<3.5	<3.3	<3.5
Fuel Oil	mg/kg dw	<3.3	<3.3	<3.5	<3.3	<3.5
Motor oil (10W-40)	mg/kg dw	<3.3	<3.3	<3.5	<3.3	<3.5
Hydraulic Fluid Hydrocarbons	mg/kg dw	<3.3	<3.3	<3.5	<3.3	<3.5
Unknown Hydrocarbon	mg/kg dw	2.3J	2.9J	<3.5	5.0	7.1
Surrogate - o-Terphenyl *	%	90 %	99 %	96 %	96 %	100 %
Percent Solids		80	75	72	75	74
Dilution Factor		1	1	1	1	1
Prep Date		09/30/03	09/30/03	09/30/03	09/30/03	09/30/03
Prep Time		09:30	09:30	09:30	09:30	09:30
Analysis Date		09/30/03	09/30/03	09/30/03	09/30/03	09/30/03
Analysis Time		18:03	18:40	18:59	19:17	19:36
Batch ID		FPS205	FPS205	FPS205	FPS205	FPS205
Prep Method		3550B	3550B	3550B	3550B	3550B
Analyst		IE	IE	IE	IE	IE
Quantitation Factor		1.3	1.3	1.4	1.3	1.4

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-6	GPSOIL20030924-47-0.5	Solid	09/25/03	09/24/03 07:55	EPC02
09678-7	GPSOIL20030924-53-0.5 SB5-3 (0.5')	Solid	09/25/03	09/24/03 08:20	EPC02
09678-8	GPSOIL20030924-52-0.5 SB5-2 (0.5')	Solid	09/25/03	09/24/03 08:30	EPC02
09678-9	GPSOIL20030924-43-0.5	Solid	09/25/03	09/24/03 09:10	EPC02
09678-10	GPSOIL20030924-42-0.5	Solid	09/25/03	09/24/03 10:10	EPC02

Lab Sample IDs

Parameter	Units	09678-6	09678-7	09678-8	09678-9	09678-10
			SB5-3	SB5-2		
Semivolatile Organic Compounds (8270C)						
Benzoic acid	ug/kg dw	<2100	<2200	<2300	<2200	<320
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	ug/kg dw	<410	<440	<460	<440	<140
2-Chlorophenol	ug/kg dw	<410	<440	<460	<440	<100
2,4-Dichlorophenol	ug/kg dw	<410	<440	<460	<440	<120
2,6-Dichlorophenol	ug/kg dw	<410	<440	<460	<440	<110
2,4-Dimethylphenol	ug/kg dw	<410	<440	<460	<440	<220
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	ug/kg dw	<2100	<2200	<2300	<2200	<96
2,4-Dinitrophenol	ug/kg dw	<2100	<2200	<2300	<2200	<130
2-Methylphenol (o-Cresol)	ug/kg dw	<410	<440	<460	<440	<120
3-Methylphenol/4-Methylphenol (m&p-Cresol)	ug/kg dw	<410	<440	<460	<440	<120
2-Nitrophenol (o-Nitrophenol)	ug/kg dw	<410	<440	<460	<440	<100
4-Nitrophenol (p-Nitrophenol)	ug/kg dw	<2100	<2200	<2300	<2200	<120
Pentachlorophenol	ug/kg dw	<2100	<2200	<2300	<2200	<130
Phenol	ug/kg dw	<410	<440	<460	<440	<120
2,3,4,6-Tetrachlorophenol	ug/kg dw	<410	<440	<460	<440	<110
2,4,5-Trichlorophenol	ug/kg dw	<2100	<2200	<2300	<2200	<110
2,4,6-Trichlorophenol	ug/kg dw	<410	<440	<460	<440	<94
Acenaphthene	ug/kg dw	<410	<440	<460	<440	<91
Acenaphthylene	ug/kg dw	<410	<440	<460	<440	<120
Acetophenone	ug/kg dw	<410	<440	<460	<440	<120
4-Aminobiphenyl	ug/kg dw	<410	<440	<460	<440	<250
Aniline	ug/kg dw	<410	<440	<460	<440	<330
Anthracene	ug/kg dw	<410	<440	<460	<440	<110
Benzidine	ug/kg dw	<2100	<2200	<2300	<2200	<2500
Benzo(a)anthracene	ug/kg dw	<410	<440	<460	<440	<170
Benzo(b)fluoranthene	ug/kg dw	<410	<440	<460	<440	<180
Benzo(k)fluoranthene	ug/kg dw	<410	<440	<460	<440	<220
Benzo(g,h,i)perylene	ug/kg dw	<410	<440	<460	<440	<130
Benzo(a)pyrene	ug/kg dw	<410	<440	<460	<440	<170

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-6	GPSOIL20030924-47-0.5	Solid	09/25/03	09/24/03 07:55	EPC02
09678-7	GPSOIL20030924-53-0.5 SB5-3 (0.5')	Solid	09/25/03	09/24/03 08:20	EPC02
09678-8	GPSOIL20030924-52-0.5 SB5-2 (0.5')	Solid	09/25/03	09/24/03 08:30	EPC02
09678-9	GPSOIL20030924-43-0.5	Solid	09/25/03	09/24/03 09:10	EPC02
09678-10	GPSOIL20030924-42-0.5	Solid	09/25/03	09/24/03 10:10	EPC02

Parameter	Units	Lab Sample IDs 09678-6	09678-7	09678-8	09678-9	09678-10
			SB5-3	SB5-2		
Semivolatile Organic Compounds (8270C)						
Benzyl alcohol	ug/kg dw	<410	<440	<460	<440	<91
4-Bromophenylphenyl ether	ug/kg dw	<410	<440	<460	<440	<120
Butylbenzylphthalate	ug/kg dw	<410	<440	<460	<440	<180
Carbazole	ug/kg dw	<410	<440	<460	<440	<140
4-Chloroaniline (p-Chloroaniline)	ug/kg dw	<410	<440	<460	<440	<140
bis(2-Chloroethoxy)methane	ug/kg dw	<410	<440	<460	<440	<91
bis(2-Chloroethyl)ether	ug/kg dw	<410	<440	<460	<440	<120
bis(2-Chloroisopropyl) ether	ug/kg dw	<410	<440	<460	<440	<140
1-Chloronaphthalene	ug/kg dw	<410	<440	<460	<440	<100
2-Chloronaphthalene	ug/kg dw	<410	<440	<460	<440	<130
4-Chlorophenylphenyl ether	ug/kg dw	<410	<440	<460	<440	<120
Chrysene	ug/kg dw	<410	<440	<460	<440	180J
Dibenz(a,j)acridine	ug/kg dw	<410	<440	<460	<440	<200
Dibenzo(a,h)anthracene	ug/kg dw	<410	<440	<460	<440	<96
Dibenzofuran	ug/kg dw	<410	<440	<460	<440	<96
Di-n-butylphthalate	ug/kg dw	<410	<440	<460	<440	<170
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/kg dw	<410	<440	<460	<440	<110
1,3-Dichlorobenzene (m-Dichlorobenzene)	ug/kg dw	<410	<440	<460	<440	<110
1,4-Dichlorobenzene (p-Dichlorobenzene)	ug/kg dw	<410	<440	<460	<440	<120
3,3'-Dichlorobenzidine	ug/kg dw	<2100	<2200	<2300	<2200	<140
Diethylene Glycol Monobutyl Ether	ug/kg dw	<410	<440	<460	<440	2700
Diethylphthalate	ug/kg dw	<410	<440	<460	<440	<110
p-(Dimethylamino)azobenzene	ug/kg dw	<410	<440	<460	<440	<140
7,12-Dimethylbenz(a)anthracene	ug/kg dw	<410	<440	<460	<440	<210
alpha,alpha-Dimethylphenethylamine	ug/kg dw	<410	<440	<460	<440	<880
Dimethylphthalate	ug/kg dw	<410	<440	<460	<440	<110

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-6	GPSOIL20030924-47-0.5	Solid	09/25/03	09/24/03 07:55	EPC02
09678-7	GPSOIL20030924-53-0.5 SB5-3 (0.5')	Solid	09/25/03	09/24/03 08:20	EPC02
09678-8	GPSOIL20030924-52-0.5 SB5-2 (0.5')	Solid	09/25/03	09/24/03 08:30	EPC02
09678-9	GPSOIL20030924-43-0.5	Solid	09/25/03	09/24/03 09:10	EPC02
09678-10	GPSOIL20030924-42-0.5	Solid	09/25/03	09/24/03 10:10	EPC02

Parameter	Units	Lab Sample IDs 09678-6	09678-7	09678-8	09678-9	09678-10
			SB5-3	SB5-2		
Semivolatile Organic Compounds (8270C)						
2,4-Dinitrotoluene	ug/kg dw	<410	<440	<460	<440	<130
2,6-Dinitrotoluene	ug/kg dw	<410	<440	<460	<440	<100
Di-n-octylphthalate	ug/kg dw	<410	<440	<460	<440	<170
1,2-Diphenylhydrazine	ug/kg dw	<410	<440	<460	<440	<120
bis(2-Ethylhexyl)phthalate	ug/kg dw	<410	<440	<460	<440	<210
Ethyl methanesulfonate	ug/kg dw	<410	<440	<460	<440	<110
Fluoranthene	ug/kg dw	<410	<440	<460	<440	<140
Fluorene	ug/kg dw	<410	<440	<460	<440	<120
Hexachlorobenzene	ug/kg dw	<410	<440	<460	<440	<100
Hexachlorobutadiene	ug/kg dw	<410	<440	<460	<440	<100
Hexachlorocyclopentadiene	ug/kg dw	<410	<440	<460	<440	<37
Hexachloroethane	ug/kg dw	<410	<440	<460	<440	<100
Indeno(1,2,3-cd)pyrene	ug/kg dw	<410	<440	<460	<440	<150
Isophorone	ug/kg dw	<410	<440	<460	<440	<120
3-Methylcholanthrene	ug/kg dw	<410	<440	<460	<440	<140
Methyl methanesulfonate	ug/kg dw	<410	<440	<460	<440	<75
1-Methylnaphthalene	ug/kg dw	<410	<440	<460	<440	<120
2-Methylnaphthalene	ug/kg dw	<410	<440	<460	<440	<120
Naphthalene	ug/kg dw	<410	<440	<460	<440	<100
1-Naphthylamine	ug/kg dw	<410	<440	<460	<440	<220
2-Naphthylamine	ug/kg dw	<410	<440	<460	<440	<190
2-Nitroaniline (o-Nitroaniline)	ug/kg dw	<410	<440	<460	<440	<130
3-Nitroaniline (m-Nitroaniline)	ug/kg dw	<410	<440	<460	<440	<130
4-Nitroaniline (p-Nitroaniline)	ug/kg dw	<410	<440	<460	<440	<140
Nitrobenzene	ug/kg dw	<410	<440	<460	<440	<120
N-Nitrosodi-n-butylamine	ug/kg dw	<410	<440	<460	<440	<140
N-Nitrosodimethylamine	ug/kg dw	<410	<440	<460	<440	<110
N-Nitrosodiphenylamine	ug/kg dw	<410	<440	<460	<440	<120
n-Nitrosodi-n-propylamine	ug/kg dw	<410	<440	<460	<440	<120

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-6	GPSOIL20030924-47-0.5	Solid	09/25/03	09/24/03 07:55	EPC02
09678-7	GPSOIL20030924-53-0.5 SB5-3 (0.5')	Solid	09/25/03	09/24/03 08:20	EPC02
09678-8	GPSOIL20030924-52-0.5 SB5-2 (0.5')	Solid	09/25/03	09/24/03 08:30	EPC02
09678-9	GPSOIL20030924-43-0.5	Solid	09/25/03	09/24/03 09:10	EPC02
09678-10	GPSOIL20030924-42-0.5	Solid	09/25/03	09/24/03 10:10	EPC02

Parameter	Units	Lab Sample IDs 09678-6	09678-7	09678-8	09678-9	09678-10
Semivolatile Organic Compounds (8270C)						
N-Nitrosopiperidine	ug/kg dw	<410	<440	<460	<440	<130
Pentachlorobenzene	ug/kg dw	<410	<440	<460	<440	<110
Pentachloronitrobenzene	ug/kg dw	<410	<440	<460	<440	<120
Phenacetin	ug/kg dw	<410	<440	<460	<440	<170
Phenanthrene	ug/kg dw	<410	<440	<460	<440	<120
2-Picoline	ug/kg dw	<410	<440	<460	<440	<510
Pronamide	ug/kg dw	<410	<440	<460	<440	<180
Pyrene	ug/kg dw	<410	<440	<460	<440	<180
Pyridine	ug/kg dw	<410	<440	<460	<440	<820
1,2,4,5-Tetrachlorobenzene	ug/kg dw	<410	<440	<460	<440	<88
1,2,4-Trichlorobenzene	ug/kg dw	<410	<440	<460	<440	<110
Surrogate - 2-Fluorobiphenyl *	%	56 %	65 %	50 %	58 %	46 %
Surrogate - 2-Fluorophenol *	%	51 %	60 %	43 %	54 %	44 %
Surrogate - Nitrobenzene - d5 *	%	54 %	65 %	50 %	57 %	41 %
Surrogate - Phenol-d5 *	%	58 %	66 %	51 %	60 %	49 %
Surrogate - Terphenyl-d14 *	%	71 %	77 %	59 %	72 %	55 %
Surrogate - 2,4,6-Tribromophenol *	%	81 %	86 %	61 %	82 %	58 %
Percent Solids		80	75	72	75	74
Dilution Factor		1	1	1	1	2
Prep Date		10/03/03	10/03/03	10/03/03	10/03/03	09/30/03
Prep Time		09:50	09:50	09:50	09:50	11:10
Analysis Date		10/04/03	10/04/03	10/04/03	10/04/03	10/02/03
Analysis Time		16:53	17:29	18:05	18:41	02:24
Batch ID		ALS070	ALS070	ALS070	ALS070	ALS066
Prep Method		3550B	3550B	3550B	3550B	3550B
Analyst		RDW	RDW	RDW	RDW	RDW
Quantitation Factor		41.43	44.43	46.22	44.18	89.14

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-11	GPSOIL20030924-41-0.5	Solid	09/25/03	09/24/03 11:10	EPC02
09678-12	GPSOIL20030924-46-0.5	Solid	09/25/03	09/24/03 14:10	EPC02
09678-13	GPSOIL20030924-44-0.5	Solid	09/25/03	09/24/03 14:30	EPC02
09678-14	GPSOIL20030924-49-0.5	Solid	09/25/03	09/24/03 14:55	EPC02
09678-15	GPSOIL20030924-45-0.5	Solid	09/25/03	09/24/03 17:00	EPC02

Parameter	Units	Lab Sample IDs 09678-11	09678-12	09678-13	09678-14	09678-15
Metals (6010B)						
Antimony	mg/kg dw	<13	0.79J	0.61J	<10	<9.6
Arsenic	mg/kg dw	5.7	6.1	6.9	11	7.4
Barium	mg/kg dw	150B	170B	170B	150B	130B
Beryllium	mg/kg dw	0.94	1.1	1.2	1.1	1.0
Cadmium	mg/kg dw	0.27J	0.36J	0.15J	0.25J	0.25J
Chromium	mg/kg dw	21	47	27	24	24
Copper	mg/kg dw	27	16	17	25	15
Lead	mg/kg dw	120	26	14	68	19
Nickel	mg/kg dw	17	20	20	19	20
Selenium	mg/kg dw	<2.5	<2.3	0.48J	<2.0	0.53J
Silver	mg/kg dw	<1.3	<1.1	<1.2	<1.0	<0.96
Thallium	mg/kg dw	<2.5	<2.3	<2.5	<2.0	<1.9
Zinc	mg/kg dw	56	100	53	53	49
Percent Solids		78	74	75	70	72
Dilution Factor		1	1	1	1	1
Prep Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Prep Time		13:51	13:51	13:51	13:51	13:51
Analysis Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Analysis Time		22:43	22:48	23:05	23:10	23:16
Batch ID		PS194	PS194	PS194	PS194	PS194
Prep Method		3050B	3050B	3050B	3050B	3050B
Analyst		GSP	GSP	GSP	GSP	GSP
Quantitation Factor		125.6913	112.6126	124.6106	101.3171	96.4506
Mercury (7471A)						
Mercury	mg/kg dw	0.047	0.017	0.023	0.035	0.024
Percent Solids		78	74	75	70	72
Dilution Factor		1	1	1	1	1
Prep Date		10/02/03	10/02/03	10/02/03	10/02/03	10/02/03
Prep Time		14:45	14:45	14:45	14:45	14:45
Analysis Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Analysis Time		11:01	11:02	11:04	11:06	11:08
Batch ID		HGS052	HGS052	HGS052	HGS052	HGS052
Prep Method		7471A	7471A	7471A	7471A	7471A
Analyst		JDE	JDE	JDE	JDE	JDE
Quantitation Factor		51.2493	53.6080	52.8430	57.7527	56.4222

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-11	GPSOIL20030924-41-0.5	Solid	09/25/03	09/24/03 11:10	EPC02
09678-12	GPSOIL20030924-46-0.5	Solid	09/25/03	09/24/03 14:10	EPC02
09678-13	GPSOIL20030924-44-0.5	Solid	09/25/03	09/24/03 14:30	EPC02
09678-14	GPSOIL20030924-49-0.5	Solid	09/25/03	09/24/03 14:55	EPC02
09678-15	GPSOIL20030924-45-0.5	Solid	09/25/03	09/24/03 17:00	EPC02

Parameter	Units	Lab Sample IDs 09678-11	09678-12	09678-13	09678-14	09678-15
Gasoline Range Organics (8015M)						
Hydrocarbons as GRO (C6-C10)	mg/kg dw	<6.4	<6.8	<6.7	<7.1	<6.9
Surrogate - a,a,a-Trifluorotoluene *	%	113 %	104 %	107 %	112 %	92 %
Percent Solids		78	74	75	70	72
Dilution Factor		50	50	50	50	50
Prep Date		09/30/03	09/30/03	09/30/03	09/30/03	09/30/03
Prep Time		14:15	14:15	14:15	14:15	14:15
Analysis Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Analysis Time		02:21	03:14	04:07	05:00	09:25
Batch ID		EXT096A	EXT096A	EXT096A	EXT096A	EXT096A
Prep Method		5035/5030B	5035/5030B	5035/5030B	5035/5030B	5035/5030B
Analyst		CN	CN	CN	CN	SB
Quantitation Factor		64.1	67.6	66.7	71.4	69.4
Diesel Range Organics (8015M)						
Mineral Spirits	mg/kg dw	<3.3	<3.5	<3.3	<3.5	<3.5
Kerosene	mg/kg dw	<3.3	<3.5	<3.3	<3.5	<3.5
Diesel	mg/kg dw	<3.3	<3.5	<3.3	<3.5	<3.5
Fuel Oil	mg/kg dw	<3.3	<3.5	<3.3	<3.5	<3.5
Motor oil (10W-40)	mg/kg dw	<3.3	<3.5	<3.3	<3.5	<3.5
Hydraulic Fluid Hydrocarbons	mg/kg dw	<3.3	<3.5	<3.3	<3.5	<3.5
Unknown Hydrocarbon	mg/kg dw	20	7.9	5.5	190	4.3
Surrogate - o-Terphenyl *	%	111 %	107 %	107 %	113 %	96 %
Percent Solids		78	74	75	70	72
Dilution Factor		1	1	1	1	1
Prep Date		09/30/03	09/30/03	09/30/03	09/30/03	09/30/03
Prep Time		09:30	09:30	09:30	09:30	09:30
Analysis Date		09/30/03	09/30/03	09/30/03	09/30/03	09/30/03
Analysis Time		19:54	20:12	20:31	20:49	21:08
Batch ID		FPS205	FPS205	FPS205	FPS205	FPS205
Prep Method		3550B	3550B	3550B	3550B	3550B
Analyst		IE	IE	IE	IE	IE
Quantitation Factor		1.3	1.4	1.3	1.4	1.4

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-11	GPSOIL20030924-41-0.5	Solid	09/25/03	09/24/03 11:10	EPC02
09678-12	GPSOIL20030924-46-0.5	Solid	09/25/03	09/24/03 14:10	EPC02
09678-13	GPSOIL20030924-44-0.5	Solid	09/25/03	09/24/03 14:30	EPC02
09678-14	GPSOIL20030924-49-0.5	Solid	09/25/03	09/24/03 14:55	EPC02
09678-15	GPSOIL20030924-45-0.5	Solid	09/25/03	09/24/03 17:00	EPC02

Parameter	Units	Lab Sample IDs 09678-11	09678-12	09678-13	09678-14	09678-15
Semivolatile Organic Compounds (8270C)						
Benzoic acid	ug/kg dw	<1500	<2200	<2200	<340	<2300
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	ug/kg dw	<650	<440	<430	<150	<460
2-Chlorophenol	ug/kg dw	<490	<440	<430	<110	<460
2,4-Dichlorophenol	ug/kg dw	<580	<440	<430	<130	<460
2,6-Dichlorophenol	ug/kg dw	<510	<440	<430	<120	<460
2,4-Dimethylphenol	ug/kg dw	<1000	<440	<430	<230	<460
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	ug/kg dw	<450	<2200	<2200	<100	<2300
2,4-Dinitrophenol	ug/kg dw	<610	<2200	<2200	<140	<2300
2-Methylphenol (o-Cresol)	ug/kg dw	<550	<440	<430	<130	<460
3-Methylphenol/4-Methylphenol (m&p-Cresol)	ug/kg dw	<540	<440	<430	<120	<460
:rophenol (o-Nitrophenol)	ug/kg dw	<480	<440	<430	<110	<460
4-Nitrophenol (p-Nitrophenol)	ug/kg dw	<560	<2200	<2200	<130	<2300
Pentachlorophenol	ug/kg dw	<600	<2200	<2200	<140	<2300
Phenol	ug/kg dw	<550	<440	<430	<130	<460
2,3,4,6-Tetrachlorophenol	ug/kg dw	<530	<440	<430	<120	<460
2,4,5-Trichlorophenol	ug/kg dw	<500	<2200	<2200	<110	<2300
2,4,6-Trichlorophenol	ug/kg dw	<440	<440	<430	<99	<460
Acenaphthene	ug/kg dw	<430	<440	<430	<97	<460
Acenaphthylene	ug/kg dw	<560	<440	<430	<130	<460
Acetophenone	ug/kg dw	<550	<440	<430	<130	<460
4-Aminobiphenyl	ug/kg dw	<1200	<440	<430	<260	<460
Aniline	ug/kg dw	<1500	<440	<430	<350	<460
Anthracene	ug/kg dw	<500	<440	<430	<110	<460
Benzidine	ug/kg dw	<12000	<2200	<2200	<2700	<2300
Benzo(a)anthracene	ug/kg dw	<800	<440	<430	<180	<460
Benzo(b)fluoranthene	ug/kg dw	<840	<440	<430	<190	<460
Benzo(k)fluoranthene	ug/kg dw	<1000	<440	<430	<230	<460
Benzo(g,h,i)perylene	ug/kg dw	<630	<440	<430	<140	<460
Benzo(a)pyrene	ug/kg dw	<780	<440	<430	<180	<460

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-11	GPSOIL20030924-41-0.5	Solid	09/25/03	09/24/03 11:10	EPC02
09678-12	GPSOIL20030924-46-0.5	Solid	09/25/03	09/24/03 14:10	EPC02
09678-13	GPSOIL20030924-44-0.5	Solid	09/25/03	09/24/03 14:30	EPC02
09678-14	GPSOIL20030924-49-0.5	Solid	09/25/03	09/24/03 14:55	EPC02
09678-15	GPSOIL20030924-45-0.5	Solid	09/25/03	09/24/03 17:00	EPC02

Parameter	Units	Lab Sample IDs 09678-11	09678-12	09678-13	09678-14	09678-15
Semivolatile Organic Compounds (8270C)						
Benzyl alcohol	ug/kg dw	<430	<440	<430	<97	<460
4-Bromophenylphenyl ether	ug/kg dw	<550	<440	<430	<130	<460
Butylbenzylphthalate	ug/kg dw	<840	<440	<430	<190	<460
Carbazole	ug/kg dw	<680	<440	<430	<150	<460
4-Chloroaniline (p-Chloroaniline)	ug/kg dw	<650	<440	<430	<150	<460
bis(2-Chloroethoxy)methane	ug/kg dw	<430	<440	<430	<97	<460
bis(2-Chloroethyl)ether	ug/kg dw	<550	<440	<430	<130	<460
bis(2-Chloroisopropyl) ether	ug/kg dw	<640	<440	<430	<140	<460
1-Chloronaphthalene	ug/kg dw	<480	<440	<430	<110	<460
2-Chloronaphthalene	ug/kg dw	<600	<440	<430	<140	<460
4-Chlorophenylphenyl ether	ug/kg dw	<580	<440	<430	<130	<460
Chrysene	ug/kg dw	<810	<440	<430	<180	<460
Dibenz(a,j)acridine	ug/kg dw	<950	<440	<430	<220	<460
Dibenzo(a,h)anthracene	ug/kg dw	<450	<440	<430	<100	<460
Dibenzofuran	ug/kg dw	<450	<440	<430	<100	<460
Di-n-butylphthalate	ug/kg dw	<780	<440	<430	<180	<460
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/kg dw	<510	<440	<430	<120	<460
1,3-Dichlorobenzene (m-Dichlorobenzene)	ug/kg dw	<500	<440	<430	<110	<460
1,4-Dichlorobenzene (p-Dichlorobenzene)	ug/kg dw	<560	<440	<430	<130	<460
3,3'-Dichlorobenzidine	ug/kg dw	<660	<2200	<2200	<150	<2300
Diethylene Glycol Monobutyl Ether	ug/kg dw	<480	<440	<430	<110	<460
Diethylphthalate	ug/kg dw	<530	<440	<430	<120	<460
p-(Dimethylamino)azobenzene	ug/kg dw	<650	<440	<430	<150	<460
7,12-Dimethylbenz(a)anthracene	ug/kg dw	<980	<440	<430	<220	<460
alpha,alpha-Dimethylphenethylamine	ug/kg dw	<4100	<440	<430	<940	<460
Dimethylphthalate	ug/kg dw	<510	<440	<430	<120	<460

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-11	GPSOIL20030924-41-0.5	Solid	09/25/03	09/24/03 11:10	EPC02
09678-12	GPSOIL20030924-46-0.5	Solid	09/25/03	09/24/03 14:10	EPC02
09678-13	GPSOIL20030924-44-0.5	Solid	09/25/03	09/24/03 14:30	EPC02
09678-14	GPSOIL20030924-49-0.5	Solid	09/25/03	09/24/03 14:55	EPC02
09678-15	GPSOIL20030924-45-0.5	Solid	09/25/03	09/24/03 17:00	EPC02

Parameter	Units	Lab Sample IDs 09678-11	09678-12	09678-13	09678-14	09678-15
Semivolatile Organic Compounds (8270C)						
2,4-Dinitrotoluene	ug/kg dw	<590	<440	<430	<130	<460
2,6-Dinitrotoluene	ug/kg dw	<490	<440	<430	<110	<460
Di-n-octylphthalate	ug/kg dw	<810	<440	<430	<180	<460
1,2-Diphenylhydrazine	ug/kg dw	<550	<440	<430	<130	<460
bis(2-Ethylhexyl)phthalate	ug/kg dw	<980	<440	<430	<220	<460
Ethyl methanesulfonate	ug/kg dw	<510	<440	<430	<120	<460
Fluoranthene	ug/kg dw	<680	<440	<430	<150	<460
Fluorene	ug/kg dw	<580	<440	<430	<130	<460
Hexachlorobenzene	ug/kg dw	<490	<440	<430	<110	<460
Hexachlorobutadiene	ug/kg dw	<490	<440	<430	<110	<460
Hexachlorocyclopentadiene	ug/kg dw	<180	<440	<430	<40	<460
Hexachloroethane	ug/kg dw	<490	<440	<430	<110	<460
Indeno(1,2,3-cd)pyrene	ug/kg dw	<700	<440	<430	<160	<460
Isophorone	ug/kg dw	<540	<440	<430	<120	<460
3-Methylcholanthrene	ug/kg dw	<650	<440	<430	<150	<460
Methyl methanesulfonate	ug/kg dw	<350	<440	<430	<80	<460
1-Methylnaphthalene	ug/kg dw	<540	<440	<430	<120	<460
2-Methylnaphthalene	ug/kg dw	<560	<440	<430	<130	<460
Naphthalene	ug/kg dw	<480	<440	<430	<110	<460
1-Naphthylamine	ug/kg dw	<1000	<440	<430	<240	<460
2-Naphthylamine	ug/kg dw	<900	<440	<430	<200	<460
2-Nitroaniline (o-Nitroaniline)	ug/kg dw	<610	<440	<430	<140	<460
3-Nitroaniline (m-Nitroaniline)	ug/kg dw	<610	<440	<430	<140	<460
4-Nitroaniline (p-Nitroaniline)	ug/kg dw	<660	<440	<430	<150	<460
Nitrobenzene	ug/kg dw	<560	<440	<430	<130	<460
N-Nitrosodi-n-butylamine	ug/kg dw	<650	<440	<430	<150	<460
N-Nitrosodimethylamine	ug/kg dw	<500	<440	<430	<110	<460
N-Nitrosodiphenylamine	ug/kg dw	<560	<440	<430	<130	<460
n-Nitrosodi-n-propylamine	ug/kg dw	<540	<440	<430	<120	<460

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-11	GPSOIL20030924-41-0.5	Solid	09/25/03	09/24/03 11:10	EPC02
09678-12	GPSOIL20030924-46-0.5	Solid	09/25/03	09/24/03 14:10	EPC02
09678-13	GPSOIL20030924-44-0.5	Solid	09/25/03	09/24/03 14:30	EPC02
09678-14	GPSOIL20030924-49-0.5	Solid	09/25/03	09/24/03 14:55	EPC02
09678-15	GPSOIL20030924-45-0.5	Solid	09/25/03	09/24/03 17:00	EPC02

Parameter	Units	Lab Sample IDs 09678-11	09678-12	09678-13	09678-14	09678-15
Semivolatile Organic Compounds (8270C)						
N-Nitrosopiperidine	ug/kg dw	<600	<440	<430	<140	<460
Pentachlorobenzene	ug/kg dw	<500	<440	<430	<110	<460
Pentachloronitrobenzene	ug/kg dw	<560	<440	<430	<130	<460
Phenacetin	ug/kg dw	<780	<440	<430	<180	<460
Phenanthrene	ug/kg dw	<540	<440	<430	<120	<460
2-Picoline	ug/kg dw	<2400	<440	<430	<550	<460
Pronamide	ug/kg dw	<840	<440	<430	<190	<460
Pyrene	ug/kg dw	<860	<440	<430	<200	<460
Pyridine	ug/kg dw	<3800	<440	<430	<870	<460
1,2,4,5-Tetrachlorobenzene	ug/kg dw	<410	<440	<430	<94	<460
1,2,4-Trichlorobenzene	ug/kg dw	<530	<440	<430	<120	<460
Surrogate - 2-Fluorobiphenyl *	%	46 %	47 %	55 %	59 %	53 %
Surrogate - 2-Fluorophenol *	%	42 %	44 %	49 %	47 %	51 %
Surrogate - Nitrobenzene - d5 *	%	38 %	45 %	53 %	51 %	53 %
Surrogate - Phenol-d5 *	%	41 %	48 %	55 %	55 %	57 %
Surrogate - Terphenyl-d14 *	%	62 %	53 %	68 %	80 %	65 %
Surrogate - 2,4,6-Tribromophenol *	%	58 %	59 %	75 %	84 %	75 %
Percent Solids		78	74	75	70	72
Dilution Factor		10	1	1	2	1
Prep Date		09/30/03	09/30/03	10/03/03	10/03/03	10/03/03
Prep Time		11:10	11:10	09:50	09:50	09:50
Analysis Date		10/02/03	10/02/03	10/04/03	10/04/03	10/04/03
Analysis Time		02:59	00:37	19:17	22:51	19:53
Batch ID		ALS066	ALS066	ALS070	ALS070	ALS070
Prep Method		3550B	3550B	3550B	3550B	3550B
Analyst		RDW	RDW	RDW	RDW	RDW
Quantitation Factor		417.20	44.21	43.49	94.64	46.13

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-16	GPSOIL20030924-63-0.5	Solid	09/25/03	09/23/03 14:25	EPC02
09678-17	DUPLICATE 1	Solid	09/25/03	09/23/03	EPC02

Parameter	Units	Lab Sample IDs 09678-16	09678-17
Metals (6010B)			
Antimony	mg/kg dw	<8.8	<9.9
Arsenic	mg/kg dw	6.6	6.2
Barium	mg/kg dw	230B	140B
Beryllium	mg/kg dw	1.1	1.2
Cadmium	mg/kg dw	0.19J	0.15J
Chromium	mg/kg dw	23	24
Copper	mg/kg dw	15	14
Lead	mg/kg dw	16	14
Nickel	mg/kg dw	19	20
Selenium	mg/kg dw	<1.8	<2.0
Silver	mg/kg dw	<0.88	<0.99
Thallium	mg/kg dw	<1.8	<2.0
Zinc	mg/kg dw	43	46
Percent Solids		76	75
Dilution Factor		1	1
Prep Date		10/01/03	10/01/03
Time		13:51	13:51
Analysis Date		10/03/03	10/03/03
Analysis Time		23:22	23:27
Batch ID		PS194	PS194
Prep Method		3050B	3050B
Analyst		GSP	GSP
Quantitation Factor		88.3080	98.7654
Mercury (7471A)			
Mercury	mg/kg dw	0.015	0.019
Percent Solids		76	75
Dilution Factor		1	1
Prep Date		10/02/03	10/02/03
Prep Time		14:45	14:45
Analysis Date		10/03/03	10/03/03
Analysis Time		11:09	11:11
Batch ID		HGS052	HGS052
Prep Method		7471A	7471A
Analyst		JDE	JDE
Quantitation Factor		53.3140	53.8155

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-16	GPSOIL20030924-63-0.5	Solid	09/25/03	09/23/03 14:25	EPC02
09678-17	DUPLICATE 1	Solid	09/25/03	09/23/03	EPC02

Parameter	Units	Lab Sample IDs 09678-16	09678-17
Gasoline Range Organics (8015M)			
Hydrocarbons as GRO (C6-C10)	mg/kg dw	<6.6	0.90JB
Surrogate - a,a,a-Trifluorotoluene *	%	90 %	92 %
Percent Solids		76	75
Dilution Factor		50	50
Prep Date		09/30/03	09/30/03
Prep Time		14:15	14:15
Analysis Date		10/01/03	10/01/03
Analysis Time		10:20	11:15
Batch ID		EXT096A	EXT096A
Prep Method		5035/5030B	5035/5030B
Analyst		SB	SB
Quantitation Factor		65.8	66.7
Diesel Range Organics (8015M)			
Mineral Spirits	mg/kg dw	<3.3	<3.3
Kerosene	mg/kg dw	<3.3	<3.3
Diesel	mg/kg dw	<3.3	<3.3
Fuel Oil	mg/kg dw	<3.3	<3.3
Motor oil (10W-40)	mg/kg dw	<3.3	<3.3
Hydraulic Fluid Hydrocarbons	mg/kg dw	<3.3	<3.3
Unknown Hydrocarbon	mg/kg dw	6.1	<3.3
Surrogate - o-Terphenyl *	%	85 %	101 %
Percent Solids		76	75
Dilution Factor		1	1
Prep Date		09/30/03	09/30/03
Prep Time		09:30	09:30
Analysis Date		09/30/03	09/30/03
Analysis Time		21:26	22:03
Batch ID		FPS205	FPS205
Prep Method		3550B	3550B
Analyst		IE	IE
Quantitation Factor		1.3	1.3

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-16	GPSOIL20030924-63-0.5	Solid	09/25/03	09/23/03 14:25	EPC02
09678-17	DUPLICATE 1	Solid	09/25/03	09/23/03	EPC02

Parameter	Units	Lab Sample IDs 09678-16	09678-17
Semivolatile Organic Compounds (8270C)			
Benzoic acid	ug/kg dw	<2200	<2200
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	ug/kg dw	<430	<440
2-Chlorophenol	ug/kg dw	<430	<440
2,4-Dichlorophenol	ug/kg dw	<430	<440
2,6-Dichlorophenol	ug/kg dw	<430	<440
2,4-Dimethylphenol	ug/kg dw	<430	<440
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	ug/kg dw	<2200	<2200
2,4-Dinitrophenol	ug/kg dw	<2200	<2200
2-Methylphenol (o-Cresol)	ug/kg dw	66J	<440
3-Methylphenol/4-Methylphenol (m&p-Cresol)	ug/kg dw	250J	<440
2-Nitrophenol (o-Nitrophenol)	ug/kg dw	<430	<440
4-Nitrophenol (p-Nitrophenol)	ug/kg dw	<2200	<2200
Pentachlorophenol	ug/kg dw	<2200	<2200
[illegible]l	ug/kg dw	66J	<440
2,[illegible],4,6-Tetrachlorophenol	ug/kg dw	<430	<440
2,4,5-Trichlorophenol	ug/kg dw	<2200	<2200
2,4,6-Trichlorophenol	ug/kg dw	<430	<440
Acenaphthene	ug/kg dw	<430	<440
Acenaphthylene	ug/kg dw	<430	<440
Acetophenone	ug/kg dw	<430	<440
4-Aminobiphenyl	ug/kg dw	<430	<440
Aniline	ug/kg dw	<430	<440
Anthracene	ug/kg dw	<430	<440
Benzidine	ug/kg dw	<2200	<2200
Benzo(a)anthracene	ug/kg dw	<430	<440
Benzo(b)fluoranthene	ug/kg dw	<430	<440
Benzo(k)fluoranthene	ug/kg dw	<430	<440
Benzo(g,h,i)perylene	ug/kg dw	<430	<440
Benzo(a)pyrene	ug/kg dw	<430	<440
Benzyl alcohol	ug/kg dw	<430	<440
4-Bromophenylphenyl ether	ug/kg dw	<430	<440
Butylbenzylphthalate	ug/kg dw	<430	<440

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-16	GPSOIL20030924-63-0.5	Solid	09/25/03	09/23/03 14:25	EPC02
09678-17	DUPLICATE 1	Solid	09/25/03	09/23/03	EPC02

Parameter	Units	Lab Sample IDs 09678-16	09678-17
Semivolatile Organic Compounds (8270C)			
Carbazole	ug/kg dw	<430	<440
4-Chloroaniline (p-Chloroaniline)	ug/kg dw	<430	<440
bis(2-Chloroethoxy)methane	ug/kg dw	<430	<440
bis(2-Chloroethyl)ether	ug/kg dw	<430	<440
bis(2-Chloroisopropyl) ether	ug/kg dw	<430	<440
1-Chloronaphthalene	ug/kg dw	<430	<440
2-Chloronaphthalene	ug/kg dw	<430	<440
4-Chlorophenylphenyl ether	ug/kg dw	<430	<440
Chrysene	ug/kg dw	<430	<440
Dibenz(a,j)acridine	ug/kg dw	<430	<440
Dibenzo(a,h)anthracene	ug/kg dw	<430	<440
Dibenzofuran	ug/kg dw	<430	<440
Di-n-butylphthalate	ug/kg dw	<430	<440
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/kg dw	<430	<440
1,3-Dichlorobenzene (m-Dichlorobenzene)	ug/kg dw	<430	<440
1,4-Dichlorobenzene (p-Dichlorobenzene)	ug/kg dw	<430	<440
3,3'-Dichlorobenzidine	ug/kg dw	<2200	<2200
Diethylene Glycol Monobutyl Ether	ug/kg dw	<430	<440
Diethylphthalate	ug/kg dw	<430	<440
p-(Dimethylamino)azobenzene	ug/kg dw	<430	<440
7,12-Dimethylbenz(a)anthracene	ug/kg dw	<430	<440
alpha,alpha-Dimethylphenethylamine	ug/kg dw	<430	<440
Dimethylphthalate	ug/kg dw	<430	<440
2,4-Dinitrotoluene	ug/kg dw	<430	<440
2,6-Dinitrotoluene	ug/kg dw	<430	<440
Di-n-octylphthalate	ug/kg dw	<430	<440
1,2-Diphenylhydrazine	ug/kg dw	<430	<440
bis(2-Ethylhexyl)phthalate	ug/kg dw	<430	<440
Ethyl methanesulfonate	ug/kg dw	<430	<440

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-16	GPSOIL20030924-63-0.5	Solid	09/25/03	09/23/03 14:25	EPC02
09678-17	DUPLICATE 1	Solid	09/25/03	09/23/03	EPC02

Parameter	Units	Lab Sample IDs 09678-16	09678-17
Semivolatile Organic Compounds (8270C)			
Fluoranthene	ug/kg dw	<430	<440
Fluorene	ug/kg dw	<430	<440
Hexachlorobenzene	ug/kg dw	<430	<440
Hexachlorobutadiene	ug/kg dw	<430	<440
Hexachlorocyclopentadiene	ug/kg dw	<430	<440
Hexachloroethane	ug/kg dw	<430	<440
Indeno(1,2,3-cd)pyrene	ug/kg dw	<430	<440
Isophorone	ug/kg dw	<430	<440
3-Methylcholanthrene	ug/kg dw	<430	<440
Methyl methanesulfonate	ug/kg dw	<430	<440
1-Methylnaphthalene	ug/kg dw	<430	<440
2-Methylnaphthalene	ug/kg dw	<430	<440
Naphthalene	ug/kg dw	<430	<440
1-Naphthylamine	ug/kg dw	<430	<440
2-Naphthylamine	ug/kg dw	<430	<440
2-Nitroaniline (o-Nitroaniline)	ug/kg dw	<430	<440
3-Nitroaniline (m-Nitroaniline)	ug/kg dw	<430	<440
4-Nitroaniline (p-Nitroaniline)	ug/kg dw	<430	<440
Nitrobenzene	ug/kg dw	<430	<440
N-Nitrosodi-n-butylamine	ug/kg dw	<430	<440
N-Nitrosodimethylamine	ug/kg dw	<430	<440
N-Nitrosodiphenylamine	ug/kg dw	<430	<440
n-Nitrosodi-n-propylamine	ug/kg dw	<430	<440
N-Nitrosopiperidine	ug/kg dw	<430	<440
Pentachlorobenzene	ug/kg dw	<430	<440
Pentachloronitrobenzene	ug/kg dw	<430	<440
Phenacetin	ug/kg dw	<430	<440
Phenanthrene	ug/kg dw	<430	<440
2-Picoline	ug/kg dw	<430	<440
Pronamide	ug/kg dw	<430	<440
Pyrene	ug/kg dw	<430	<440
Pyridine	ug/kg dw	<430	<440

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-16	GPSOIL20030924-63-0.5	Solid	09/25/03	09/23/03 14:25	EPC02
09678-17	DUPLICATE 1	Solid	09/25/03	09/23/03	EPC02

Parameter	Units	Lab Sample IDs 09678-16	09678-17
Semivolatile Organic Compounds (8270C)			
1,2,4,5-Tetrachlorobenzene	ug/kg dw	<430	<440
1,2,4-Trichlorobenzene	ug/kg dw	<430	<440
Surrogate - 2-Fluorobiphenyl *	%	61 %	50 %
Surrogate - 2-Fluorophenol *	%	53 %	50 %
Surrogate - Nitrobenzene - d5 *	%	59 %	50 %
Surrogate - Phenol-d5 *	%	61 %	53 %
Surrogate - Terphenyl-d14 *	%	71 %	64 %
Surrogate - 2,4,6-Tribromophenol *	%	80 %	68 %
Percent Solids		76	75
Dilution Factor		1	1
Prep Date		10/03/03	09/30/03
Prep Time		09:50	11:10
Analysis Date		10/04/03	10/02/03
Analysis Time		20:29	23:48
Batch ID		ALS070	ALS066
Prep Method		3550B	3550B
Analyst		RDW	RDW
Quantitation Factor		43.31	43.99

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-18	GPSOIL20030923-51-3.5 SB5-1 (3.5')	Solid	09/25/03	09/23/03 05:55	EPC02
09678-19	GPSOIL20030923-54-3.5 SB5-4 (3.5')	Solid	09/25/03	09/23/03 06:15	EPC02
09678-20	GPSOIL20030923-54-6.0 SB 5-4 (6.0')	Solid	09/25/03	09/23/03 06:20	EPC02
09678-21	GPSOIL20030923-55-3.5 SB 5-5 (3.5')	Solid	09/25/03	09/23/03 04:25	EPC02
09678-22	GPSOIL20030923-55-1A SB 5-5 (14')	Solid	09/25/03	09/23/03 04:35	EPC02

Parameter	Units	Lab Sample IDs 09678-18	09678-19	09678-20	09678-21	09678-22
		SB5-1 (3.5')	SB5-4 (3.5')	SB5-4 (6.0')	SB5-5 (3.5')	SB5-5 (14')
Metals (6010B)						
Antimony	mg/kg dw	<10	0.36J	<10	0.72J	0.69J
Arsenic	mg/kg dw	6.7	5.5	1.7	3.6	11
Barium	mg/kg dw	60B	73B	27B	140B	130B
Beryllium	mg/kg dw	1.2	1.1	0.32J	0.91	1.1
Cadmium	mg/kg dw	0.15J	0.14J	0.14J	<0.93	0.24J
Chromium	mg/kg dw	27	26	9.7	20	24
Copper	mg/kg dw	12	11	3.4	9.5	25
Lead	mg/kg dw	12	12	2.3	7.2	19
Nickel	mg/kg dw	19	21	7.5	14	30
Selenium	mg/kg dw	<2.1	<1.7	<2.1	<1.9	<2.2
Silver	mg/kg dw	<1.0	<0.87	<1.0	<0.93	<1.1
Thallium	mg/kg dw	<2.1	<1.7	<2.1	<1.9	<2.2
Zinc	mg/kg dw	45	44	9.3	55	160
Percent Solids		83	81	82	82	77
Dilution Factor		1	1	1	1	1
Prep Date		10/01/03	10/01/03	10/01/03	10/03/03	10/03/03
Prep Time		13:51	13:51	13:51	13:39	13:39
Analysis Date		10/03/03	10/03/03	10/03/03	10/04/03	10/04/03
Analysis Time		23:33	23:38	23:44	00:39	00:45
Batch ID		PS194	PS194	PS194	PS199	PS199
Prep Method		3050B	3050B	3050B	3050B	3050B
Analyst		GSP	GSP	GSP	GSP	GSP
Quantitation Factor		102.9760	86.9414	104.2318	93.0925	109.1346
Mercury (7471A)						
Mercury	mg/kg dw	0.017	0.013	0.0039J	0.013	0.022
Percent Solids		83	81	82	82	77
Dilution Factor		1	1	1	1	1
Prep Date		10/02/03	10/02/03	10/02/03	10/03/03	10/03/03
Prep Time		14:45	14:45	14:45	17:15	17:15
Analysis Date		10/03/03	10/03/03	10/03/03	10/05/03	10/05/03
Analysis Time		11:16	11:21	11:23	10:36	10:38
Batch ID		HGS052	HGS052	HGS052	HGS053	HGS053
Prep Method		7471A	7471A	7471A	7471A	7471A
Analyst		JDE	JDE	JDE	JDE	JDE
Quantitation Factor		50.1340	49.8453	49.7354	47.5777	51.8319

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-18	GPSOIL20030923-51-3.5 SB5-1	Solid	09/25/03	09/23/03 05:55	EPC02
09678-19	GPSOIL20030923-54-3.5 SB5-4	Solid	09/25/03	09/23/03 06:15	EPC02
09678-20	GPSOIL20030923-54-6.0 SB5-4	Solid	09/25/03	09/23/03 06:20	EPC02
09678-21	GPSOIL20030923-55-3.5 SB5-5	Solid	09/25/03	09/23/03 04:25	EPC02
09678-22	GPSOIL20030923-55-1A SB5-5	Solid	09/25/03	09/23/03 04:35	EPC02

Parameter	Units	Lab Sample IDs 09678-18	09678-19	09678-20	09678-21	09678-22
		SB5-1 (3.5')	SB5-4 (3.5')	SB5-4 (6.0')	SB5-5 (3.5')	SB5-5 (3.5')
Gasoline Range Organics (8015M)						
Hydrocarbons as GRO (C6-C10)	mg/kg dw	<6.0	<6.2	<6.1	0.40J	<6.5
Surrogate - a,a,a-Trifluorotoluene *	%	101 %	96 %	98 %	99 %	103 %
Percent Solids		83	81	82	82	77
Dilution Factor		50	50	50	50	50
Prep Date		09/30/03	09/30/03	09/30/03	10/01/03	10/01/03
Prep Time		14:15	14:15	14:15	13:30	13:30
Analysis Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Analysis Time		12:11	13:25	14:20	15:55	16:50
Batch ID		EXT096A	EXT096A	EXT096A	EXT097A	EXT097A
Prep Method		5035/5030B	5035/5030B	5035/5030B	5035/5030B	5035/5030B
Analyst		SB	SB	SB	SB	SB
Quantitation Factor		60.2	61.7	61.0	61.0	64.9
Diesel Range Organics (8015M)						
Mineral Spirits	mg/kg dw	<3.0	<3.0	<3.0	<3.0	<3.3
Kerosene	mg/kg dw	<3.0	<3.0	<3.0	<3.0	<3.3
Diesel	mg/kg dw	<3.0	<3.0	<3.0	<3.0	<3.3
Fuel Oil	mg/kg dw	<3.0	<3.0	<3.0	<3.0	<3.3
Motor oil (10W-40)	mg/kg dw	<3.0	<3.0	<3.0	<3.0	<3.3
Hydraulic Fluid Hydrocarbons	mg/kg dw	<3.0	<3.0	<3.0	<3.0	<3.3
Unknown Hydrocarbon	mg/kg dw	2.5J	1.9J	<3.0	3.2	<3.3
Surrogate - o-Terphenyl *	%	119 %	117 %	107 %	108 %	99 %
Percent Solids		83	81	82	82	77
Dilution Factor		1	1	1	1	1
Prep Date		09/30/03	09/30/03	09/30/03	09/30/03	09/30/03
Prep Time		09:30	11:05	11:05	11:05	11:05
Analysis Date		09/30/03	10/01/03	10/01/03	10/01/03	10/01/03
Analysis Time		22:22	00:31	00:50	01:27	01:45
Batch ID		FPS205	FPS204	FPS204	FPS204	FPS204
Prep Method		3550B	3550B	3550B	3550B	3550B
Analyst		IE	IE	IE	IE	IE
Quantitation Factor		1.2	1.2	1.2	1.2	1.3

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-18	GPSOIL20030923-51-3.5 SB5-1	Solid	09/25/03	09/23/03 05:55	EPC02
09678-19	GPSOIL20030923-54-3.5 SB5-4	Solid	09/25/03	09/23/03 06:15	EPC02
09678-20	GPSOIL20030923-54-6.0 SB5-4	Solid	09/25/03	09/23/03 06:20	EPC02
09678-21	GPSOIL20030923-55-3.5 SB 5-5	Solid	09/25/03	09/23/03 04:25	EPC02
09678-22	GPSOIL20030923-55-1A SB5-5	Solid	09/25/03	09/23/03 04:35	EPC02

Parameter	Units	Lab Sample IDs 09678-18	09678-19	09678-20	09678-21	09678-22
Volatile Organic Compounds (8260B)						
Chloromethane	ug/kg dw	<6.0	<6.2	<6.1	<6.1	<6.5
Bromomethane (Methyl bromide)	ug/kg dw	<6.0	<6.2	<6.1	<6.1	<6.5
Vinyl chloride	ug/kg dw	<6.0	<6.2	<6.1	<6.1	<6.5
Chloroethane	ug/kg dw	<6.0	<6.2	<6.1	<6.1	<6.5
Methylene chloride (Dichloromethane)	ug/kg dw	<6.0	<6.2	<6.1	<6.1	<6.5
Acetone	ug/kg dw	<30	<31	6.6J	<30	9.8J
Carbon disulfide	ug/kg dw	<6.0	<6.2	<6.1	<6.1	<6.5
1,1-Dichloroethene	ug/kg dw	<6.0	<6.2	<6.1	<6.1	<6.5
1,1-Dichloroethane	ug/kg dw	<6.0	<6.2	<6.1	<6.1	<6.5
Cis/Trans-1,2-Dichloroethene	ug/kg dw	<6.0	<6.2	<6.1	<6.1	<6.5
cis-1,2-Dichloroethene	ug/kg dw	<6.0	<6.2	<6.1	<6.1	<6.5
Chloroform	ug/kg dw	<6.0	<6.2	<6.1	<6.1	<6.5
Dichloroethane	ug/kg dw	<6.0	<6.2	<6.1	<6.1	<6.5
2-Butanone (MEK)	ug/kg dw	<30	<31	<30	<30	<32
1,1,1-Trichloroethane	ug/kg dw	<6.0	<6.2	<6.1	<6.1	<6.5
Carbon tetrachloride	ug/kg dw	<6.0	<6.2	<6.1	<6.1	<6.5
Vinyl acetate	ug/kg dw	<30	<31	<30	<30	<32
Bromodichloromethane	ug/kg dw	<6.0	<6.2	<6.1	<6.1	<6.5
1,2-Dichloropropane	ug/kg dw	<6.0	<6.2	<6.1	<6.1	<6.5
cis-1,3-Dichloropropene	ug/kg dw	<6.0	<6.2	<6.1	<6.1	<6.5
Trichloroethene	ug/kg dw	<6.0	<6.2	<6.1	<6.1	<6.5
Dibromochloromethane	ug/kg dw	<6.0	<6.2	<6.1	<6.1	<6.5
1,1,2-Trichloroethane	ug/kg dw	<6.0	<6.2	<6.1	<6.1	<6.5
Benzene	ug/kg dw	<6.0	<6.2	<6.1	<6.1	<6.5
trans-1,3-Dichloropropene	ug/kg dw	<6.0	<6.2	<6.1	<6.1	<6.5
Bromoform	ug/kg dw	<6.0	<6.2	<6.1	<6.1	<6.5
4-Methyl-2-pentanone (MIBK)	ug/kg dw	<30	<31	<30	<30	<32
2-Hexanone	ug/kg dw	<30	<31	<30	<30	<32
Tetrachloroethene	ug/kg dw	<6.0	<6.2	<6.1	<6.1	<6.5
1,1,2,2-Tetrachloroethane	ug/kg dw	<6.0	<6.2	<6.1	<6.1	<6.5
Toluene	ug/kg dw	<6.0	<6.2	<6.1	<6.1	<6.5

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-18	GPSOIL20030923-51-3.5 SB5-1	Solid	09/25/03	09/23/03 05:55	EPC02
09678-19	GPSOIL20030923-54-3.5 SB5-4	Solid	09/25/03	09/23/03 06:15	EPC02
09678-20	GPSOIL20030923-54-6.0 SB5-4	Solid	09/25/03	09/23/03 06:20	EPC02
09678-21	GPSOIL20030923-55-3.5 SB5-5	Solid	09/25/03	09/23/03 04:25	EPC02
09678-22	GPSOIL20030923-55-1A SB5-5	Solid	09/25/03	09/23/03 04:35	EPC02

Parameter	Units	Lab Sample IDs 09678-18	09678-19	09678-20	09678-21	09678-22
Volatile Organic Compounds (8260B)						
Chlorobenzene	ug/kg dw	<6.0	<6.2	<6.1	<6.1	<6.5
Ethylbenzene	ug/kg dw	<6.0	<6.2	<6.1	<6.1	<6.5
Styrene	ug/kg dw	<6.0	<6.2	<6.1	<6.1	<6.5
Xylenes, Total	ug/kg dw	<12	<12	<12	<12	<13
Surrogate - Dibromofluoromethane *	%	106 %	117 %	115 %	113 %	116 %
Surrogate - Toluene-d8 *	%	100 %	99 %	100 %	99 %	100 %
Surrogate - 4-Bromofluorobenzene *	%	97 %	97 %	98 %	95 %	100 %
Percent Solids		83	81	82	82	77
Dilution Factor		1	1	1	1	1
Prep Date		09/28/03	09/28/03	09/28/03	09/28/03	09/28/03
Prep Time		19:42	20:17	20:53	21:28	22:04
Analysis Date		09/28/03	09/28/03	09/28/03	09/28/03	09/28/03
Analysis Time		19:42	20:17	20:53	21:28	22:04
Batch ID		KAS164	KAS164	KAS164	KAS164	KAS164
Prep Method		5030B	5030B	5030B	5030B	5030B
Analyst		DWB	DWB	DWB	DWB	DWB
Quantitation Factor		1.2	1.23	1.22	1.22	1.3

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-23	GPSOIL20030923-61-3.5	Solid	09/25/03	09/23/03 02:55	EPC02
09678-24	GPSOIL20030923-61-7.0	Solid	09/25/03	09/23/03 03:00	EPC02
09678-25	GPSOIL20030924-53-3.5 SB5-3 (3,5')	Solid	09/25/03	09/24/03 08:25	EPC02
09678-26	GPSOIL20030924-43-3.5	Solid	09/25/03	09/24/03 09:16	EPC02
09678-27	GPSOIL20030924-43-13.5	Solid	09/25/03	09/24/03 09:55	EPC02

Parameter	Units	Lab Sample IDs 09678-23	09678-24	09678-25 SB5-3	09678-26	09678-27
Metals (6010B)						
Antimony	mg/kg dw	<9.0	0.61J	0.42J	<9.5	<12
Arsenic	mg/kg dw	5.3	10	13	4.5	3.3
Barium	mg/kg dw	200B	130B	96B	75B	81B
Beryllium	mg/kg dw	1.0	1.4	1.4	0.94	0.91
Cadmium	mg/kg dw	0.12J	0.17J	0.12J	0.15J	0.18J
Chromium	mg/kg dw	20	29	27	19	19
Copper	mg/kg dw	13	26	18	11	12
Lead	mg/kg dw	12	18	14	11	8.4
Nickel	mg/kg dw	17	43	42	15	27
Selenium	mg/kg dw	<1.8	<2.3	<1.6	<1.9	<2.3
Silver	mg/kg dw	<0.90	<1.1	<0.80	<0.95	<1.2
Thallium	mg/kg dw	<1.8	<2.3	<1.6	<1.9	<2.3
Z[illegible]	mg/kg dw	51	55	44	48	55
[illegible]nt Solids		78	77	84	85	74
Dilution Factor		1	1	1	1	1
Prep Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Prep Time		13:39	13:39	13:39	13:39	13:39
Analysis Date		10/04/03	10/04/03	10/04/03	10/04/03	10/04/03
Analysis Time		00:50	00:56	01:01	01:18	01:23
Batch ID		PS199	PS199	PS199	PS199	PS199
Prep Method		3050B	3050B	3050B	3050B	3050B
Analyst		GSP	GSP	GSP	GSP	GSP
Quantitation Factor		90.2853	113.9212	80.4376	94.8767	115.5001
Mercury (7471A)						
Mercury	mg/kg dw	0.017	0.015	0.023	0.019	0.016
Percent Solids		78	77	84	85	74
Dilution Factor		1	1	1	1	1
Prep Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Prep Time		17:15	17:15	17:15	17:15	17:15
Analysis Date		10/05/03	10/05/03	10/05/03	10/05/03	10/05/03
Analysis Time		10:40	10:41	10:43	10:45	10:47
Batch ID		HGS053	HGS053	HGS053	HGS053	HGS053
Prep Method		7471A	7471A	7471A	7471A	7471A
Analyst		JDE	JDE	JDE	JDE	JDE
Quantitation Factor		51.4715	52.8615	47.1513	48.5343	55.0763

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-23	GPSOIL20030923-61-3.5	Solid	09/25/03	09/23/03 02:55	EPC02
09678-24	GPSOIL20030923-61-7.0	Solid	09/25/03	09/23/03 03:00	EPC02
09678-25	GPSOIL20030924-53-3.5 SB5-3(3.5')	Solid	09/25/03	09/24/03 08:25	EPC02
09678-26	GPSOIL20030924-43-3.5	Solid	09/25/03	09/24/03 09:16	EPC02
09678-27	GPSOIL20030924-43-13.5	Solid	09/25/03	09/24/03 09:55	EPC02

Parameter	Units	Lab Sample IDs 09678-23	09678-24	09678-25 SB6-3	09678-26	09678-27
Gasoline Range Organics (8015M)						
Hydrocarbons as GRO (C6-C10)	mg/kg dw	<6.4	<6.5	<6.0	<5.9	<6.8
Surrogate - a,a,a-Trifluorotoluene *	%	96 %	91 %	98 %	102 %	102 %
Percent Solids		78	77	84	85	74
Dilution Factor		50	50	50	50	50
Prep Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Prep Time		13:30	13:30	13:30	13:30	13:30
Analysis Date		10/01/03	10/01/03	10/02/03	10/02/03	10/02/03
Analysis Time		17:45	23:16	00:11	01:07	02:02
Batch ID		EXT097A	EXT097A	EXT097A	EXT097A	EXT097A
Prep Method		5035/5030B	5035/5030B	5035/5030B	5035/5030B	5035/5030B
Analyst		SB	SB	SB	SB	SB
Quantitation Factor		64.1	64.9	59.5	58.8	67.6
Diesel Range Organics (8015M)						
Mineral Spirits	mg/kg dw	<3.3	<3.3	<3.0	<3.0	<3.5
Kerosene	mg/kg dw	<3.3	<3.3	<3.0	<3.0	<3.5
Diesel	mg/kg dw	<3.3	<3.3	<3.0	<3.0	<3.5
Fuel Oil	mg/kg dw	<3.3	<3.3	<3.0	<3.0	<3.5
Motor oil (10W-40)	mg/kg dw	<3.3	<3.3	<3.0	<3.0	<3.5
Hydraulic Fluid Hydrocarbons	mg/kg dw	<3.3	<3.3	<3.0	<3.0	<3.5
Unknown Hydrocarbon	mg/kg dw	2.8J	1.1J	<3.0	2.0J	<3.5
Surrogate - o-Terphenyl *	%	103 %	110 %	95 %	95 %	97 %
Percent Solids		78	77	84	85	74
Dilution Factor		1	1	1	1	1
Prep Date		09/30/03	09/30/03	09/30/03	09/30/03	09/30/03
Prep Time		11:05	11:05	11:05	11:05	11:05
Analysis Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Analysis Time		02:04	02:22	02:41	02:59	03:18
Batch ID		FPS204	FPS204	FPS204	FPS204	FPS204
Prep Method		3550B	3550B	3550B	3550B	3550B
Analyst		IE	IE	IE	IE	IE
Quantitation Factor		1.3	1.3	1.2	1.2	1.4

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-23	GPSOIL20030923-61-3.5	Solid	09/25/03	09/23/03 02:55	EPC02
09678-24	GPSOIL20030923-61-7.0	Solid	09/25/03	09/23/03 03:00	EPC02
09678-25	GPSOIL20030924-53-3.5 SB 5-3 (3.5')	Solid	09/25/03	09/24/03 08:25	EPC02
09678-26	GPSOIL20030924-43-3.5	Solid	09/25/03	09/24/03 09:16	EPC02
09678-27	GPSOIL20030924-43-13.5	Solid	09/25/03	09/24/03 09:55	EPC02

Parameter	Units	Lab Sample IDs 09678-23	09678-24	09678-25 SB5-3	09678-26	09678-27
Volatile Organic Compounds (8260B)						
Chloromethane	ug/kg dw	<6.4	<6.5	<6.0	<5.9	<6.8
Bromomethane (Methyl bromide)	ug/kg dw	<6.4	<6.5	<6.0	<5.9	<6.8
Vinyl chloride	ug/kg dw	<6.4	<6.5	<6.0	<5.9	<6.8
Chloroethane	ug/kg dw	<6.4	<6.5	<6.0	<5.9	<6.8
Methylene chloride (Dichloromethane)	ug/kg dw	<6.4	<6.5	<6.0	<5.9	<6.8
Acetone	ug/kg dw	<32	21J	<30	<30	9.6J
Carbon disulfide	ug/kg dw	<6.4	<6.5	<6.0	<5.9	<6.8
1,1-Dichloroethene	ug/kg dw	<6.4	<6.5	<6.0	<5.9	<6.8
1,1-Dichloroethane	ug/kg dw	<6.4	<6.5	<6.0	<5.9	<6.8
Cis/Trans-1,2-Dichloroethene	ug/kg dw	<6.4	<6.5	<6.0	<5.9	<6.8
cis-1,2-Dichloroethene	ug/kg dw	<6.4	<6.5	<6.0	<5.9	<6.8
Chloroform	ug/kg dw	<6.4	<6.5	<6.0	<5.9	<6.8
Dichloroethane	ug/kg dw	<6.4	<6.5	<6.0	<5.9	<6.8
2-Butanone (MEK)	ug/kg dw	<32	<32	<30	<30	<34
1,1,1-Trichloroethane	ug/kg dw	<6.4	<6.5	<6.0	<5.9	<6.8
Carbon tetrachloride	ug/kg dw	<6.4	<6.5	<6.0	<5.9	<6.8
Vinyl acetate	ug/kg dw	<32	<32	<30	<30	<34
Bromodichloromethane	ug/kg dw	<6.4	<6.5	<6.0	<5.9	<6.8
1,2-Dichloropropane	ug/kg dw	<6.4	<6.5	<6.0	<5.9	<6.8
cis-1,3-Dichloropropene	ug/kg dw	<6.4	<6.5	<6.0	<5.9	<6.8
Trichloroethene	ug/kg dw	<6.4	<6.5	<6.0	<5.9	<6.8
Dibromochloromethane	ug/kg dw	<6.4	<6.5	<6.0	<5.9	<6.8
1,1,2-Trichloroethane	ug/kg dw	<6.4	<6.5	<6.0	<5.9	<6.8
Benzene	ug/kg dw	<6.4	<6.5	<6.0	<5.9	<6.8
trans-1,3-Dichloropropene	ug/kg dw	<6.4	<6.5	<6.0	<5.9	<6.8
Bromoform	ug/kg dw	<6.4	<6.5	<6.0	<5.9	<6.8
4-Methyl-2-pentanone (MIBK)	ug/kg dw	<32	<32	<30	<30	<34
2-Hexanone	ug/kg dw	<32	<32	<30	<30	<34
Tetrachloroethene	ug/kg dw	<6.4	<6.5	<6.0	<5.9	<6.8
1,1,2,2-Tetrachloroethane	ug/kg dw	<6.4	<6.5	<6.0	<5.9	<6.8
Toluene	ug/kg dw	2.4J	<6.5	1.3J	<5.9	1.2J

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-23	GPSOIL20030923-61-3.5	Solid	09/25/03	09/23/03 02:55	EPC02
09678-24	GPSOIL20030923-61-7.0	Solid	09/25/03	09/23/03 03:00	EPC02
09678-25	GPSOIL20030924-53-3.5 SB5-3 (3.5')	Solid	09/25/03	09/24/03 08:25	EPC02
09678-26	GPSOIL20030924-43-3.5	Solid	09/25/03	09/24/03 09:16	EPC02
09678-27	GPSOIL20030924-43-13.5	Solid	09/25/03	09/24/03 09:55	EPC02

Parameter	Units	Lab Sample IDs 09678-23	09678-24	09678-25	09678-26	09678-27
Volatile Organic Compounds (8260B)						
Chlorobenzene	ug/kg dw	<6.4	<6.5	<6.0	<5.9	<6.8
Ethylbenzene	ug/kg dw	<6.4	<6.5	<6.0	<5.9	<6.8
Styrene	ug/kg dw	<6.4	<6.5	<6.0	<5.9	<6.8
Xylenes, Total	ug/kg dw	<13	<13	<12	<12	<14
Surrogate - Dibromofluoromethane *	%	114 %	116 %	114 %	111 %	113 %
Surrogate - Toluene-d8 *	%	100 %	101 %	101 %	104 %	106 %
Surrogate - 4-Bromofluorobenzene *	%	94 %	96 %	97 %	98 %	97 %
Percent Solids		78	77	84	85	74
Dilution Factor		1	1	1	1	1
Prep Date		09/29/03	09/29/03	09/29/03	09/29/03	09/29/03
Prep Time		11:56	12:32	13:07	13:43	14:18
Analysis Date		09/29/03	09/29/03	09/29/03	09/29/03	09/29/03
Analysis Time		11:56	12:32	13:07	13:43	14:18
Batch ID		KAS165	KAS165	KAS165	KAS165	KAS165
Prep Method		5030B	5030B	5030B	5030B	5030B
Analyst		DWB	DWB	DWB	DWB	DWB
Quantitation Factor		1.28	1.3	1.19	1.18	1.35

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-28	GPSOIL20030924-42-3.5	Solid	09/25/03	09/24/03 10:15	EPC02
09678-29	GPSOIL20030924-42-13	Solid	09/25/03	09/24/03 10:30	EPC02
09678-30	GPSOIL20030924-41-3.5	Solid	09/25/03	09/24/03 11:15	EPC02
09678-31	GPSOIL20030924-41-19	Solid	09/25/03	09/24/03 11:50	EPC02
09678-32	GPSOIL20030924-46-3.5	Solid	09/25/03	09/24/03 14:15	EPC02

		Lab Sample IDs				
Parameter	Units	09678-28	09678-29	09678-30	09678-31	09678-32
Metals (6010B)						
Antimony	mg/kg dw	<12	<11	<8.9	<13	<9.5
Arsenic	mg/kg dw	5.2	2.0	8.3	5.3	1.5
Barium	mg/kg dw	130B	100B	150B	76B	51B
Beryllium	mg/kg dw	0.98	0.58J	0.99	0.78	0.29J
Cadmium	mg/kg dw	<1.2	0.27J	0.26J	0.26J	0.15J
Chromium	mg/kg dw	19	12	23	15	9.8
Copper	mg/kg dw	13	7.6	39	13	2.5
Lead	mg/kg dw	12	8.7	49	8.7	2.2
Nickel	mg/kg dw	16	12	15	18	7.7
Selenium	mg/kg dw	<2.4	<2.2	0.37J	<2.5	<1.9
Silver	mg/kg dw	<1.2	<1.1	<0.89	<1.3	<0.95
Thallium	mg/kg dw	<2.4	<2.2	<1.8	<2.5	<1.9
Zinc	mg/kg dw	56	51	61	98	27
Percent Solids		80	70	77	67	91
Dilution Factor		1	1	1	1	1
Prep Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Prep Time		13:39	13:39	13:39	13:39	13:39
Analysis Date		10/04/03	10/04/03	10/04/03	10/04/03	10/04/03
Analysis Time		01:29	01:34	01:40	01:46	00:11
Batch ID		PS199	PS199	PS199	PS199	PS199
Prep Method		3050B	3050B	3050B	3050B	3050B
Analyst		GSP	GSP	GSP	GSP	GSP
Quantitation Factor		119.0476	108.2251	88.9521	125.4233	94.7329
Mercury (7471A)						
Mercury	mg/kg dw	0.022	<0.011	0.25	0.023	0.0054J
Percent Solids		80	70	77	67	91
Dilution Factor		1	1	1	1	1
Prep Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Prep Time		17:15	17:15	17:15	17:15	17:15
Analysis Date		10/05/03	10/05/03	10/05/03	10/05/03	10/05/03
Analysis Time		10:52	10:54	10:55	10:57	10:59
Batch ID		HGS053	HGS053	HGS053	HGS053	HGS053
Prep Method		7471A	7471A	7471A	7471A	7471A
Analyst		JDE	JDE	JDE	JDE	JDE
Quantitation Factor		51.0121	56.1722	51.9481	59.3596	43.8999

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-28	GPSOIL20030924-42-3.5	Solid	09/25/03	09/24/03 10:15	EPC02
09678-29	GPSOIL20030924-42-13	Solid	09/25/03	09/24/03 10:30	EPC02
09678-30	GPSOIL20030924-41-3.5	Solid	09/25/03	09/24/03 11:15	EPC02
09678-31	GPSOIL20030924-41-19	Solid	09/25/03	09/24/03 11:50	EPC02
09678-32	GPSOIL20030924-46-3.5	Solid	09/25/03	09/24/03 14:15	EPC02

		Lab Sample IDs				
Parameter	Units	09678-28	09678-29	09678-30	09678-31	09678-32
Gasoline Range Organics (8015M)						
Hydrocarbons as GRO (C6-C10)	mg/kg dw	<6.2	0.63J	0.32J	280	0.27J
Surrogate - a,a,a-Trifluorotoluene *	%	103 %	102 %	98 %	320 %M	103 %
Percent Solids		80	70	77	67	91
Dilution Factor		50	50	50	100	50
Prep Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Prep Time		13:30	13:30	13:30	13:30	13:30
Analysis Date		10/02/03	10/02/03	10/02/03	10/02/03	10/02/03
Analysis Time		02:57	03:52	02:53	03:47	04:40
Batch ID		EXT097A	EXT097A	EXT097A	EXT097A	EXT097A
Prep Method		5035/5030B	5035/5030B	5035/5030B	5035/5030B	5035/5030B
Analyst		SB	SB	SB	SB	SB
Quantitation Factor		62.5	71.4	64.9	149	54.9
Diesel Range Organics (8015M)						
Mineral Spirits	mg/kg dw	<3.3	<3.5	<3.3	<3.8	<2.8
Kerosene	mg/kg dw	<3.3	<3.5	<3.3	<3.8	<2.8
Diesel	mg/kg dw	<3.3	<3.5	<3.3	<3.8	<2.8
Fuel Oil	mg/kg dw	<3.3	<3.5	<3.3	<3.8	<2.8
Motor oil (10W-40)	mg/kg dw	<3.3	<3.5	<3.3	<3.8	<2.8
Hydraulic Fluid Hydrocarbons	mg/kg dw	<3.3	<3.5	<3.3	<3.8	<2.8
Unknown Hydrocarbon	mg/kg dw	2.8J	<3.5	710	380	4.7
Surrogate - o-Terphenyl *	%	101 %	104 %	80 %	105 %	104 %
Percent Solids		80	70	77	67	91
Dilution Factor		1	1	1	1	1
Prep Date		09/30/03	09/30/03	09/30/03	09/30/03	09/30/03
Prep Time		11:05	11:05	11:05	11:05	11:05
Analysis Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Analysis Time		03:36	03:54	04:13	04:50	05:09
Batch ID		FPS204	FPS204	FPS204	FPS204	FPS204
Prep Method		3550B	3550B	3550B	3550B	3550B
Analyst		IE	IE	IE	IE	IE
Quantitation Factor		1.3	1.4	1.3	1.5	1.1

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-28	GPSOIL20030924-42-3.5	Solid	09/25/03	09/24/03 10:15	EPC02
09678-29	GPSOIL20030924-42-13	Solid	09/25/03	09/24/03 10:30	EPC02
09678-30	GPSOIL20030924-41-3.5	Solid	09/25/03	09/24/03 11:15	EPC02
09678-31	GPSOIL20030924-41-19	Solid	09/25/03	09/24/03 11:50	EPC02
09678-32	GPSOIL20030924-46-3.5	Solid	09/25/03	09/24/03 14:15	EPC02

Parameter	Units	Lab Sample IDs 09678-28	09678-29	09678-30	09678-31	09678-32
Volatile Organic Compounds (8260B)						
Chloromethane	ug/kg dw	<6.2	<7.2	<6.5	<15	<5.5
Bromomethane (Methyl bromide)	ug/kg dw	<6.2	<7.2	<6.5	<15	<5.5
Vinyl chloride	ug/kg dw	<6.2	<7.2	<6.5	<15	<5.5
Chloroethane	ug/kg dw	<6.2	<7.2	<6.5	<15	<5.5
Methylene chloride (Dichloromethane)	ug/kg dw	<6.2	<7.2	<6.5	<15	<5.5
Acetone	ug/kg dw	6.8J	76	<32	<75	<28
Carbon disulfide	ug/kg dw	<6.2	<7.2	<6.5	<15	<5.5
1,1-Dichloroethene	ug/kg dw	<6.2	<7.2	<6.5	<15	<5.5
1,1-Dichloroethane	ug/kg dw	<6.2	2.6J	<6.5	<15	<5.5
Cis/Trans-1,2-Dichloroethene	ug/kg dw	<6.2	<7.2	<6.5	<15	<5.5
cis-1,2-Dichloroethene	ug/kg dw	<6.2	<7.2	<6.5	<15	<5.5
Chloroform	ug/kg dw	<6.2	<7.2	<6.5	<15	<5.5
ichloroethane	ug/kg dw	<6.2	<7.2	<6.5	<15	<5.5
2-butanone (MEK)	ug/kg dw	<31	7.3J	<32	<75	<28
1,1,1-Trichloroethane	ug/kg dw	<6.2	<7.2	<6.5	<15	<5.5
Carbon tetrachloride	ug/kg dw	<6.2	<7.2	<6.5	<15	<5.5
Vinyl acetate	ug/kg dw	<31	<36	<32	<75	<28
Bromodichloromethane	ug/kg dw	<6.2	<7.2	<6.5	<15	<5.5
1,2-Dichloropropane	ug/kg dw	<6.2	<7.2	<6.5	<15	<5.5
cis-1,3-Dichloropropene	ug/kg dw	<6.2	<7.2	<6.5	<15	<5.5
Trichloroethene	ug/kg dw	<6.2	<7.2	<6.5	<15	<5.5
Dibromochloromethane	ug/kg dw	<6.2	<7.2	<6.5	<15	<5.5
1,1,2-Trichloroethane	ug/kg dw	<6.2	<7.2	<6.5	<15	<5.5
Benzene	ug/kg dw	0.92J	5.3J	<6.5	210	<5.5
trans-1,3-Dichloropropene	ug/kg dw	<6.2	<7.2	<6.5	<15	<5.5
Bromoform	ug/kg dw	<6.2	<7.2	<6.5	<15	<5.5
4-Methyl-2-pentanone (MIBK)	ug/kg dw	<31	<36	<32	<75	<28
2-Hexanone	ug/kg dw	<31	<36	<32	<75	<28
Tetrachloroethene	ug/kg dw	<6.2	<7.2	<6.5	<15	<5.5
1,1,2,2-Tetrachloroethane	ug/kg dw	<6.2	<7.2	<6.5	<15	<5.5
Toluene	ug/kg dw	<6.2	1.1J	<6.5	32	<5.5

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-28	GPSOIL20030924-42-3.5	Solid	09/25/03	09/24/03 10:15	EPC02
09678-29	GPSOIL20030924-42-13	Solid	09/25/03	09/24/03 10:30	EPC02
09678-30	GPSOIL20030924-41-3.5	Solid	09/25/03	09/24/03 11:15	EPC02
09678-31	GPSOIL20030924-41-19	Solid	09/25/03	09/24/03 11:50	EPC02
09678-32	GPSOIL20030924-46-3.5	Solid	09/25/03	09/24/03 14:15	EPC02

		Lab Sample IDs				
Parameter	Units	09678-28	09678-29	09678-30	09678-31	09678-32
Volatile Organic Compounds (8260B)						
Chlorobenzene	ug/kg dw	<6.2	<7.2	<6.5	<15	<5.5
Ethylbenzene	ug/kg dw	<6.2	2.5J	<6.5	1500	<5.5
Styrene	ug/kg dw	<6.2	<7.2	<6.5	<15	<5.5
Xylenes, Total	ug/kg dw	<12	<14	<13	270	<11
Surrogate - Dibromofluoromethane *	%	113 %	117 %	117 %	89 %	112 %
Surrogate - Toluene-d8 *	%	101 %	103 %	101 %	99 %	99 %
Surrogate - 4-Bromofluorobenzene *	%	95 %	99 %	90 %	89 %	100 %
Percent Solids		80	70	77	67	91
Dilution Factor		1	1	1	2	1
Prep Date		09/29/03	09/29/03	09/29/03	09/29/03	09/29/03
Prep Time		14:54	15:29	16:05	16:40	17:16
Analysis Date		09/29/03	09/29/03	09/29/03	09/29/03	09/29/03
Analysis Time		14:54	15:29	16:05	16:40	17:16
Batch ID		KAS165	KAS165	KAS165	KAS165	KAS165
Prep Method		5030B	5030B	5030B	5030B	5030B
Analyst		DWB	DWB	DWB	DWB	DWB
Quantitation Factor		1.25	1.43	1.3	2.99	1.1

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-33	GPSOIL20030924-44-3.5	Solid	09/25/03	09/24/03 14:35	EPC02
09678-34	GPSOIL20030924-49-3.5	Solid	09/25/03	09/24/03 15:00	EPC02
09678-35	GPSOIL20030924-45-3.5	Solid	09/25/03	09/24/03 17:05	EPC02
09678-36	GPSOIL20030923-63-3.5	Solid	09/25/03	09/23/03 14:30	EPC02
09678-37	DUPLICATE-2	Solid	09/25/03	09/23/03	EPC02

Lab Sample IDs

Parameter	Units	09678-33	09678-34	09678-35	09678-36	09678-37
Metals (6010B)						
Antimony	mg/kg dw	0.40J	<12	0.74J	0.51J	<10
Arsenic	mg/kg dw	6.4	6.4	5.8	8.4	5.6
Barium	mg/kg dw	250B	270B	58B	200B	330B
Beryllium	mg/kg dw	1.2	1.0	1.0	1.2	1.0
Cadmium	mg/kg dw	0.18J	0.21J	0.25J	0.16J	0.16J
Chromium	mg/kg dw	25	22	26	26	21
Copper	mg/kg dw	14	15	12	16	13
Lead	mg/kg dw	14	14	13	13	13
Nickel	mg/kg dw	21	18	23	22	17
Selenium	mg/kg dw	0.29J	<2.3	<2.1	0.51J	<2.0
Silver	mg/kg dw	<0.90	<1.2	<1.0	<0.95	<1.0
Thallium	mg/kg dw	<1.8	<2.3	<2.1	<1.9	<2.0
Zinc	mg/kg dw	65	76	64	64	61
Percent Solids		74	80	78	75	82
Dilution Factor		1	1	1	1	1
Prep Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Prep Time		13:39	13:39	13:39	13:39	13:39
Analysis Date		10/04/03	10/04/03	10/04/03	10/04/03	10/04/03
Analysis Time		01:51	01:57	02:02	02:08	02:24
Batch ID		PS199	PS199	PS199	PS199	PS199
Prep Method		3050B	3050B	3050B	3050B	3050B
Analyst		GSP	GSP	GSP	GSP	GSP
Quantitation Factor		90.0901	115.7407	104.2318	94.5626	101.6260
Mercury (7471A)						
Mercury	mg/kg dw	0.025	0.024	0.018	0.029	0.022
Percent Solids		74	80	78	75	82
Dilution Factor		1	1	1	1	1
Prep Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Prep Time		17:15	17:15	17:15	17:15	17:15
Analysis Date		10/05/03	10/05/03	10/05/03	10/05/03	10/05/03
Analysis Time		11:00	11:02	11:04	11:13	11:14
Batch ID		HGS053	HGS053	HGS053	HGS053	HGS053
Prep Method		7471A	7471A	7471A	7471A	7471A
Analyst		JDE	JDE	JDE	JDE	JDE
Quantitation Factor		54.4636	51.2211	52.9423	54.3508	49.7192

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-33	GPSOIL20030924-44-3.5	Solid	09/25/03	09/24/03 14:35	EPC02
09678-34	GPSOIL20030924-49-3.5	Solid	09/25/03	09/24/03 15:00	EPC02
09678-35	GPSOIL20030924-45-3.5	Solid	09/25/03	09/24/03 17:05	EPC02
09678-36	GPSOIL20030923-63-3.5	Solid	09/25/03	09/23/03 14:30	EPC02
09678-37	DUPLICATE-2	Solid	09/25/03	09/23/03	EPC02

Parameter	Units	Lab Sample IDs 09678-33	09678-34	09678-35	09678-36	09678-37
Gasoline Range Organics (8015M)						
Hydrocarbons as GRO (C6-C10)	mg/kg dw	0.40J	0.69J	<6.4	<6.7	<6.1
Surrogate - a,a,a-Trifluorotoluene *	%	102 %	115 %	112 %	88 %	95 %
Percent Solids		74	80	78	75	82
Dilution Factor		50	50	50	50	50
Prep Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Prep Time		13:30	13:30	13:30	13:30	13:30
Analysis Date		10/02/03	10/02/03	10/02/03	10/02/03	10/02/03
Analysis Time		05:33	08:59	09:52	12:00	13:03
Batch ID		EXT097A	EXT097A	EXT097A	EXT097A	EXT097A
Prep Method		5035/5030B	5035/5030B	5035/5030B	5035/5030B	5035/5030B
Analyst		SB	SB	SB	SB	SB
Quantitation Factor		67.6	62.5	64.1	66.7	61.0
Diesel Range Organics (8015M)						
Mineral Spirits	mg/kg dw	<3.5	<3.3	<3.3	<3.3	<3.0
Kerosene	mg/kg dw	<3.5	<3.3	<3.3	<3.3	<3.0
Diesel	mg/kg dw	<3.5	<3.3	<3.3	<3.3	<3.0
Fuel Oil	mg/kg dw	<3.5	<3.3	<3.3	<3.3	<3.0
Motor oil (10W-40)	mg/kg dw	<3.5	<3.3	<3.3	<3.3	<3.0
Hydraulic Fluid Hydrocarbons	mg/kg dw	<3.5	<3.3	<3.3	<3.3	<3.0
Unknown Hydrocarbon	mg/kg dw	12	4.0	1.2J	4.3	5.8
Surrogate - o-Terphenyl *	%	108 %	102 %	107 %	99 %	93 %
Percent Solids		74	80	78	75	82
Dilution Factor		1	1	1	1	1
Prep Date		09/30/03	09/30/03	09/30/03	09/30/03	09/30/03
Prep Time		11:05	11:05	11:05	11:05	11:05
Analysis Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Analysis Time		05:27	05:46	06:04	06:23	06:41
Batch ID		FPS204	FPS204	FPS204	FPS204	FPS204
Prep Method		3550B	3550B	3550B	3550B	3550B
Analyst		IE	IE	IE	IE	IE
Quantitation Factor		1.4	1.3	1.3	1.3	1.2

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-33	GPSOIL20030924-44-3.5	Solid	09/25/03	09/24/03 14:35	EPC02
09678-34	GPSOIL20030924-49-3.5	Solid	09/25/03	09/24/03 15:00	EPC02
09678-35	GPSOIL20030924-45-3.5	Solid	09/25/03	09/24/03 17:05	EPC02
09678-36	GPSOIL20030923-63-3.5	Solid	09/25/03	09/23/03 14:30	EPC02
09678-37	DUPLICATE-2	Solid	09/25/03	09/23/03	EPC02

Parameter	Units	Lab Sample IDs 09678-33	09678-34	09678-35	09678-36	09678-37
Volatile Organic Compounds (8260B)						
Chloromethane	ug/kg dw	<6.8	<6.2	<6.4	<6.6	<6.1
Bromomethane (Methyl bromide)	ug/kg dw	<6.8	<6.2	<6.4	<6.6	<6.1
Vinyl chloride	ug/kg dw	<6.8	<6.2	<6.4	<6.6	<6.1
Chloroethane	ug/kg dw	<6.8	<6.2	<6.4	<6.6	<6.1
Methylene chloride (Dichloromethane)	ug/kg dw	<6.8	<6.2	<6.4	<6.6	<6.1
Acetone	ug/kg dw	<34	<31	<32	<33	<30
Carbon disulfide	ug/kg dw	<6.8	<6.2	<6.4	<6.6	<6.1
1,1-Dichloroethene	ug/kg dw	<6.8	<6.2	<6.4	<6.6	<6.1
1,1-Dichloroethane	ug/kg dw	<6.8	<6.2	<6.4	<6.6	<6.1
Cis/Trans-1,2-Dichloroethene	ug/kg dw	<6.8	<6.2	<6.4	<6.6	<6.1
cis-1,2-Dichloroethene	ug/kg dw	<6.8	<6.2	<6.4	<6.6	<6.1
Chloroform	ug/kg dw	<6.8	<6.2	<6.4	<6.6	<6.1
[illegible]ichloroethane	ug/kg dw	<6.8	<6.2	<6.4	<6.6	<6.1
2-Butanone (MEK)	ug/kg dw	<34	7.5J	<32	<33	<30
1,1,1-Trichloroethane	ug/kg dw	<6.8	<6.2	<6.4	<6.6	<6.1
Carbon tetrachloride	ug/kg dw	<6.8	<6.2	<6.4	<6.6	<6.1
Vinyl acetate	ug/kg dw	<34	<31	<32	<33	<30
Bromodichloromethane	ug/kg dw	<6.8	<6.2	<6.4	<6.6	<6.1
1,2-Dichloropropane	ug/kg dw	<6.8	<6.2	<6.4	<6.6	<6.1
cis-1,3-Dichloropropene	ug/kg dw	<6.8	<6.2	<6.4	<6.6	<6.1
Trichloroethene	ug/kg dw	<6.8	<6.2	<6.4	<6.6	<6.1
Dibromochloromethane	ug/kg dw	<6.8	<6.2	<6.4	<6.6	<6.1
1,1,2-Trichloroethane	ug/kg dw	<6.8	<6.2	<6.4	<6.6	<6.1
Benzene	ug/kg dw	<6.8	<6.2	<6.4	<6.6	<6.1
trans-1,3-Dichloropropene	ug/kg dw	<6.8	<6.2	<6.4	<6.6	<6.1
Bromoform	ug/kg dw	<6.8	<6.2	<6.4	<6.6	<6.1
4-Methyl-2-pentanone (MIBK)	ug/kg dw	<34	<31	<32	<33	<30
2-Hexanone	ug/kg dw	<34	<31	<32	<33	<30
Tetrachloroethene	ug/kg dw	<6.8	<6.2	<6.4	<6.6	<6.1
1,1,2,2-Tetrachloroethane	ug/kg dw	<6.8	<6.2	<6.4	<6.6	<6.1
Toluene	ug/kg dw	<6.8	1.7J	1.1J	<6.6	<6.1

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-33	GPSOIL20030924-44-3.5	Solid	09/25/03	09/24/03 14:35	EPC02
09678-34	GPSOIL20030924-49-3.5	Solid	09/25/03	09/24/03 15:00	EPC02
09678-35	GPSOIL20030924-45-3.5	Solid	09/25/03	09/24/03 17:05	EPC02
09678-36	GPSOIL20030923-63-3.5	Solid	09/25/03	09/23/03 14:30	EPC02
09678-37	DUPLICATE-2	Solid	09/25/03	09/23/03	EPC02

Parameter	Units	Lab Sample IDs 09678-33	09678-34	09678-35	09678-36	09678-37
Volatile Organic Compounds (8260B)						
Chlorobenzene	ug/kg dw	<6.8	<6.2	<6.4	<6.6	<6.1
Ethylbenzene	ug/kg dw	<6.8	<6.2	<6.4	<6.6	<6.1
Styrene	ug/kg dw	<6.8	<6.2	<6.4	<6.6	<6.1
Xylenes, Total	ug/kg dw	<14	<12	<13	<13	<12
Surrogate - Dibromofluoromethane *	%	116 %	119 %	114 %	115 %	114 %
Surrogate - Toluene-d8 *	%	99 %	99 %	100 %	100 %	100 %
Surrogate - 4-Bromofluorobenzene *	%	98 %	100 %	96 %	93 %	95 %
Percent Solids		74	80	78	75	82
Dilution Factor		1	1	1	1	1
Prep Date		09/29/03	09/29/03	09/29/03	09/29/03	09/29/03
Prep Time		17:51	18:27	19:02	19:38	20:13
Analysis Date		09/29/03	09/29/03	09/29/03	09/29/03	09/29/03
Analysis Time		17:51	18:27	19:02	19:38	20:13
Batch ID		KAS165	KAS165	KAS165	KAS165	KAS165
Prep Method		5030B	5030B	5030B	5030B	5030B
Analyst		DWB	DWB	DWB	DWB	DWB
Quantitation Factor		1.35	1.25	1.28	1.33	1.22

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-38	Equipment Blank	Liquid	09/25/03	09/24/03 07:30	EPC02

Lab Sample IDs

Parameter	Units	09678-38
Metals (6010B)		
Antimony	mg/l	<0.10
Arsenic	mg/l	<0.010
Barium	mg/l	0.078B
Beryllium	mg/l	<0.0060
Cadmium	mg/l	<0.010
Chromium	mg/l	<0.010
Copper	mg/l	0.0020J
Lead	mg/l	<0.010
Nickel	mg/l	<0.010
Selenium	mg/l	<0.020
Silver	mg/l	<0.010
Thallium	mg/l	<0.020
Zinc	mg/l	0.010J
Dilution Factor		1
Prep Date		10/03/03
Prep Time		13:39
Analysis Date		10/04/03
Analysis Time		02:30
Batch ID		PS199
Prep Method		3050B
Analyst		GSP
Quantitation Factor		1.000
Mercury (7470A)		
Mercury	mg/l	<0.00020
Dilution Factor		1
Prep Date		10/06/03
Prep Time		10:20
Analysis Date		10/06/03
Analysis Time		12:37
Batch ID		HGW107
Prep Method		7470A
Analyst		JDE
Quantitation Factor		1

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-38	Equipment Blank	Liquid	09/25/03	09/24/03 07:30	EPC02

Parameter	Units	Lab Sample IDs 09678-38
Gasoline Range Organics (8015M)		
Hydrocarbons as GRO (C6-C10)	ug/l	<100
Surrogate -		
a,a,a-Trifluorotoluene *	%	103 %
Dilution Factor		1
Prep Date		10/08/03
Prep Time		06:20
Analysis Date		10/08/03
Analysis Time		06:20
Batch ID		PAW163C
Prep Method		5030B
Analyst		CP
Quantitation Factor		1
Diesel Range Organics (8015M)		
Mineral Spirits	ug/l	<100
Kerosene	ug/l	<100
Diesel	ug/l	<100
Fuel Oil	ug/l	<100
Motor oil (10W-40)	ug/l	<100
Hydraulic Fluid Hydrocarbons	ug/l	<100
Unknown Hydrocarbon	ug/l	<100
Surrogate - o-Terphenyl *	%	120 %
Dilution Factor		1
Prep Date		09/30/03
Prep Time		09:00
Analysis Date		10/01/03
Analysis Time		07:37
Batch ID		FPW207
Prep Method		3520C
Analyst		IE
Quantitation Factor		1

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-38	Equipment Blank	Liquid	09/25/03	09/24/03 07:30	EPC02

Parameter	Units	Lab Sample IDs 09678-38
Semivolatile Organic Compounds (8270C)		
Benzoic acid	ug/l	<50
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	ug/l	<10
2-Chlorophenol	ug/l	<10
2,4-Dichlorophenol	ug/l	<10
2,6-Dichlorophenol	ug/l	<10
2,4-Dimethylphenol	ug/l	<10
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	ug/l	<50
2,4-Dinitrophenol	ug/l	<50
2-Methylphenol (o-Cresol)	ug/l	<10
3-Methylphenol/4-Methylphenol (m&p-Cresol)	ug/l	<10
2-Nitrophenol (o-Nitrophenol)	ug/l	<10
4-Nitrophenol (p-Nitrophenol)	ug/l	<50
Pentachlorophenol	ug/l	<50
Phenol	ug/l	<10
,6-Tetrachlorophenol	ug/l	<10
2,4,5-Trichlorophenol	ug/l	<50
2,4,6-Trichlorophenol	ug/l	<10
Acenaphthene	ug/l	<10
Acenaphthylene	ug/l	<10
Acetophenone	ug/l	<10
4-Aminobiphenyl	ug/l	<10
Aniline	ug/l	<10
Anthracene	ug/l	<10
Benzidine	ug/l	<50
Benzo(a)anthracene	ug/l	<10
Benzo(b)fluoranthene	ug/l	<10
Benzo(k)fluoranthene	ug/l	<10
Benzo(g,h,i)perylene	ug/l	<10
Benzo(a)pyrene	ug/l	<10
Benzyl alcohol	ug/l	<10
4-Bromophenylphenyl ether	ug/l	<10
Butylbenzylphthalate	ug/l	<10
Carbazole	ug/l	<10

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-38	Equipment Blank	Liquid	09/25/03	09/24/03 07:30	EPC02

Parameter	Units	Lab Sample IDs 09678-38
Semivolatile Organic Compounds (8270C)		
4-Chloroaniline (p-Chloroaniline)	ug/l	<10
bis(2-Chloroethoxy)methane	ug/l	<10
bis(2-Chloroethyl)ether	ug/l	<10
bis(2-Chloroisopropyl) ether	ug/l	<10
1-Chloronaphthalene	ug/l	<10
2-Chloronaphthalene	ug/l	<10
4-Chlorophenylphenyl ether	ug/l	<10
Chrysene	ug/l	<10
Dibenz(a,j)acridine	ug/l	<10
Dibenzo(a,h)anthracene	ug/l	<10
Dibenzofuran	ug/l	<10
Di-n-butylphthalate	ug/l	<10
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/l	<10
1,3-Dichlorobenzene (m-Dichlorobenzene)	ug/l	<10
1,4-Dichlorobenzene (p-Dichlorobenzene)	ug/l	<10
3,3'-Dichlorobenzidine	ug/l	<50
Diethylene Glycol Monobutyl Ether	ug/l	<10
Diethylphthalate	ug/l	<10
p-(Dimethylamino)azobenzene	ug/l	<10
7,12-Dimethylbenz(a)anthracene	ug/l	<10
alpha,alpha-Dimethylphenethylamine	ug/l	<10
Dimethylphthalate	ug/l	<10
2,4-Dinitrotoluene	ug/l	<10
2,6-Dinitrotoluene	ug/l	<10
Di-n-octylphthalate	ug/l	<10
1,2-Diphenylhydrazine	ug/l	<10
bis(2-Ethylhexyl)phthalate	ug/l	<10
Ethyl methanesulfonate	ug/l	<10
Fluoranthene	ug/l	<10
Fluorene	ug/l	<10

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-38	Equipment Blank	Liquid	09/25/03	09/24/03 07:30	EPC02

Parameter	Units	Lab Sample IDs 09678-38
Semivolatile Organic Compounds (8270C)		
Hexachlorobenzene	ug/l	<10
Hexachlorobutadiene	ug/l	<10
Hexachlorocyclopentadiene	ug/l	<10
Hexachloroethane	ug/l	<10
Indeno(1,2,3-cd)pyrene	ug/l	<10
Isophorone	ug/l	<10
3-Methylcholanthrene	ug/l	<10
Methyl methanesulfonate	ug/l	<10
1-Methylnaphthalene	ug/l	<10
2-Methylnaphthalene	ug/l	<10
Naphthalene	ug/l	<10
1-Naphthylamine	ug/l	<10
2-Naphthylamine	ug/l	<10
2-Nitroaniline (o-Nitroaniline)	ug/l	<10
3-Nitroaniline (m-Nitroaniline)	ug/l	<10
roaniline (p-Nitroaniline)	ug/l	<10
Nitrobenzene	ug/l	<10
N-Nitrosodi-n-butylamine	ug/l	<10
N-Nitrosodimethylamine	ug/l	<10
N-Nitrosodiphenylamine	ug/l	<10
n-Nitrosodi-n-propylamine	ug/l	<10
N-Nitrosopiperidine	ug/l	<10
Pentachlorobenzene	ug/l	<10
Pentachloronitrobenzene	ug/l	<10
Phenacetin	ug/l	<10
Phenanthrene	ug/l	<10
2-Picoline	ug/l	<10
Pronamide	ug/l	<10
Pyrene	ug/l	<10
Pyridine	ug/l	<10
1,2,4,5-Tetrachlorobenzene	ug/l	<10
1,2,4-Trichlorobenzene	ug/l	<10
Surrogate - 2-Fluorobiphenyl *	%	49 %

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-38	Equipment Blank	Liquid	09/25/03	09/24/03 07:30	EPC02

Parameter	Units	Lab Sample IDs 09678-38
Semivolatile Organic Compounds (8270C)		
Surrogate - 2-Fluorophenol *	%	25 %
Surrogate - Nitrobenzene - d5 *	%	45 %
Surrogate - Phenol-d5 *	%	26 %
Surrogate - Terphenyl-d14 *	%	65 %
Surrogate - 2,4,6-Tribromophenol *	%	52 %
Dilution Factor		1
Prep Date		09/30/03
Prep Time		13:30
Analysis Date		10/02/03
Analysis Time		20:44
Batch ID		ALS066
Prep Method		3520C
Analyst		RDW
Quantitation Factor		1

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-39	Equipment Blank	Liquid	09/25/03	09/24/03 13:45	EPC02

Lab Sample IDs

Parameter	Units	09678-39
Metals (6010B)		
Antimony	mg/l	<0.10
Arsenic	mg/l	<0.010
Barium	mg/l	0.075B
Beryllium	mg/l	<0.0060
Cadmium	mg/l	<0.010
Chromium	mg/l	<0.010
Copper	mg/l	0.0020J
Lead	mg/l	<0.010
Nickel	mg/l	<0.010
Selenium	mg/l	<0.020
Silver	mg/l	<0.010
Thallium	mg/l	<0.020
Zinc	mg/l	0.0090J
Dilution Factor		1
Prep Date		10/03/03
Prep Time		13:39
Analysis Date		10/04/03
Analysis Time		02:35
Batch ID		PS199
Prep Method		3050B
Analyst		GSP
Quantitation Factor		1.000
Mercury (7470A)		
Mercury	mg/l	<0.00020
Dilution Factor		1
Prep Date		10/06/03
Prep Time		10:20
Analysis Date		10/06/03
Analysis Time		12:38
Batch ID		HGW107
Prep Method		7470A
Analyst		JDE
Quantitation Factor		1

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-39	Equipment Blank	Liquid	09/25/03	09/24/03 13:45	EPC02

Parameter	Units	Lab Sample IDs 09678-39
Gasoline Range Organics (8015M)		
Hydrocarbons as GRO (C6-C10)	ug/l	<100
Surrogate - a,a,a-Trifluorotoluene *	%	103 %
Dilution Factor		1
Prep Date		10/08/03
Prep Time		07:17
Analysis Date		10/08/03
Analysis Time		07:17
Batch ID		PAW163C
Prep Method		5030B
Analyst		CP
Quantitation Factor		1
Diesel Range Organics (8015M)		
Mineral Spirits	ug/l	<100
Kerosene	ug/l	<100
Diesel	ug/l	<100
Fuel Oil	ug/l	<100
Motor oil (10W-40)	ug/l	<100
Hydraulic Fluid Hydrocarbons	ug/l	<100
Unknown Hydrocarbon	ug/l	<100
Surrogate - o-Terphenyl *	%	124 %
Dilution Factor		1
Prep Date		09/30/03
Prep Time		09:00
Analysis Date		10/01/03
Analysis Time		08:13
Batch ID		FPW207
Prep Method		3520C
Analyst		IE
Quantitation Factor		1

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-39	Equipment Blank	Liquid	09/25/03	09/24/03 13:45	EPC02

Parameter	Units	Lab Sample IDs 09678-39
Volatile Organic Compounds (8260B)		
Chloromethane	ug/l	<5.0
Bromomethane (Methyl bromide)	ug/l	<5.0
Vinyl chloride	ug/l	<5.0
Chloroethane	ug/l	<5.0
Methylene chloride (Dichloromethane)	ug/l	<5.0
Acetone	ug/l	4.9J
Carbon disulfide	ug/l	<5.0
1,1-Dichloroethene	ug/l	<5.0
1,1-Dichloroethane	ug/l	<5.0
Cis/Trans-1,2-Dichloroethene	ug/l	<5.0
cis-1,2-Dichloroethene	ug/l	<5.0
Chloroform	ug/l	15
1,2-Dichloroethane	ug/l	<5.0
2-Butanone (MEK)	ug/l	<25
1,1,1-Trichloroethane	ug/l	<5.0
Carbon tetrachloride	ug/l	<5.0
[illegible] acetate	ug/l	<25
B[illegible]odichloromethane	ug/l	9.4
1,2-Dichloropropane	ug/l	<5.0
cis-1,3-Dichloropropene	ug/l	<5.0
Trichloroethene	ug/l	<5.0
Dibromochloromethane	ug/l	4.3J
1,1,2-Trichloroethane	ug/l	<5.0
Benzene	ug/l	<5.0
trans-1,3-Dichloropropene	ug/l	<5.0
Bromoform	ug/l	<5.0
4-Methyl-2-pentanone (MIBK)	ug/l	<25
2-Hexanone	ug/l	<25
Tetrachloroethene	ug/l	<5.0
1,1,2,2-Tetrachloroethane	ug/l	<5.0
Toluene	ug/l	<5.0
Chlorobenzene	ug/l	<5.0
Ethylbenzene	ug/l	<5.0
Styrene	ug/l	<5.0
Xylenes, Total	ug/l	<10

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-39	Equipment Blank	Liquid	09/25/03	09/24/03 13:45	EPC02

Parameter	Units	Lab Sample IDs 09678-39
Volatile Organic Compounds (8260B)		
Surrogate - Dibromofluoromethane *	%	122 %
Surrogate - Toluene-d8 *	%	99 %
Surrogate - 4-Bromofluorobenzene *	%	97 %
Dilution Factor		1
Prep Date		09/29/03
Prep Time		20:49
Analysis Date		09/29/03
Analysis Time		20:49
Batch ID		KAS165
Prep Method		5030B
Analyst		DWB
Quantitation Factor		1
Semivolatile Organic Compounds (8270C)		
Benzoic acid	ug/l	<50
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	ug/l	<10
2-Chlorophenol	ug/l	<10
2,4-Dichlorophenol	ug/l	<10
2,6-Dichlorophenol	ug/l	<10
2,4-Dimethylphenol	ug/l	<10
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	ug/l	<50
2,4-Dinitrophenol	ug/l	<50
2-Methylphenol (o-Cresol)	ug/l	<10
3-Methylphenol/4-Methylphenol (m&p-Cresol)	ug/l	<10
2-Nitrophenol (o-Nitrophenol)	ug/l	<10
4-Nitrophenol (p-Nitrophenol)	ug/l	<50
Pentachlorophenol	ug/l	<50
Phenol	ug/l	<10
2,3,4,6-Tetrachlorophenol	ug/l	<10
2,4,5-Trichlorophenol	ug/l	<50

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-39	Equipment Blank	Liquid	09/25/03	09/24/03 13:45	EPC02

Parameter	Units	Lab Sample IDs 09678-39
Semivolatile Organic Compounds (8270C)		
2,4,6-Trichlorophenol	ug/l	<10
Acenaphthene	ug/l	<10
Acenaphthylene	ug/l	<10
Acetophenone	ug/l	<10
4-Aminobiphenyl	ug/l	<10
Aniline	ug/l	<10
Anthracene	ug/l	<10
Benzidine	ug/l	<50
Benzo(a)anthracene	ug/l	<10
Benzo(b)fluoranthene	ug/l	<10
Benzo(k)fluoranthene	ug/l	<10
Benzo(g,h,i)perylene	ug/l	<10
Benzo(a)pyrene	ug/l	<10
Benzyl alcohol	ug/l	<10
4-Bromophenylphenyl ether	ug/l	<10
Butylbenzylphthalate	ug/l	<10
Carbazole	ug/l	<10
oroaniline		
p-Chloroaniline)	ug/l	<10
bis(2-Chloroethoxy)methane	ug/l	<10
bis(2-Chloroethyl)ether	ug/l	<10
bis(2-Chloroisopropyl) ether	ug/l	<10
1-Chloronaphthalene	ug/l	<10
2-Chloronaphthalene	ug/l	<10
4-Chlorophenylphenyl ether	ug/l	<10
Chrysene	ug/l	<10
Dibenz(a,j)acridine	ug/l	<10
Dibenzo(a,h)anthracene	ug/l	<10
Dibenzofuran	ug/l	<10
Di-n-butylphthalate	ug/l	<10
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/l	<10
1,3-Dichlorobenzene (m-Dichlorobenzene)	ug/l	<10
1,4-Dichlorobenzene (p-Dichlorobenzene)	ug/l	<10

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-39	Equipment Blank	Liquid	09/25/03	09/24/03 13:45	EPC02

Parameter	Units	Lab Sample IDs 09678-39
Semivolatile Organic Compounds (8270C)		
3,3'-Dichlorobenzidine	ug/l	<50
Diethylene Glycol Monobutyl Ether	ug/l	<10
Diethylphthalate	ug/l	<10
p-(Dimethylamino)azobenzene	ug/l	<10
7,12-Dimethylbenz(a)anthracene	ug/l	<10
alpha,alpha-Dimethylphenethylamine	ug/l	<10
Dimethylphthalate	ug/l	<10
2,4-Dinitrotoluene	ug/l	<10
2,6-Dinitrotoluene	ug/l	<10
Di-n-octylphthalate	ug/l	<10
1,2-Diphenylhydrazine	ug/l	<10
bis(2-Ethylhexyl)phthalate	ug/l	<10
Ethyl methanesulfonate	ug/l	<10
Fluoranthene	ug/l	<10
Fluorene	ug/l	<10
Hexachlorobenzene	ug/l	<10
Hexachlorobutadiene	ug/l	<10
Hexachlorocyclopentadiene	ug/l	<10
Hexachloroethane	ug/l	<10
Indeno(1,2,3-cd)pyrene	ug/l	<10
Isophorone	ug/l	<10
3-Methylcholanthrene	ug/l	<10
Methyl methanesulfonate	ug/l	<10
1-Methylnaphthalene	ug/l	<10
2-Methylnaphthalene	ug/l	<10
Naphthalene	ug/l	<10
1-Naphthylamine	ug/l	<10
2-Naphthylamine	ug/l	<10
2-Nitroaniline (o-Nitroaniline)	ug/l	<10
3-Nitroaniline (m-Nitroaniline)	ug/l	<10
4-Nitroaniline (p-Nitroaniline)	ug/l	<10

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09678-39	Equipment Blank	Liquid	09/25/03	09/24/03 13:45	EPC02

Lab Sample IDs

Parameter	Units	09678-39
Semivolatile Organic Compounds (8270C)		
Nitrobenzene	ug/l	<10
N-Nitrosodi-n-butylamine	ug/l	<10
N-Nitrosodimethylamine	ug/l	<10
N-Nitrosodiphenylamine	ug/l	<10
n-Nitrosodi-n-propylamine	ug/l	<10
N-Nitrosopiperidine	ug/l	<10
Pentachlorobenzene	ug/l	<10
Pentachloronitrobenzene	ug/l	<10
Phenacetin	ug/l	<10
Phenanthrene	ug/l	<10
2-Picoline	ug/l	<10
Pronamide	ug/l	<10
Pyrene	ug/l	<10
Pyridine	ug/l	<10
1,2,4,5-Tetrachlorobenzene	ug/l	<10
1,2,4-Trichlorobenzene	ug/l	<10
Surrogate - 2-Fluorobiphenyl *	%	51 %
Surrogate - 2-Fluorophenol *	%	41 %
Surrogate - Nitrobenzene - d5 *	%	51 %
Surrogate - Phenol-d5 *	%	37 %
Surrogate - Terphenyl-d14 *	%	68 %
Surrogate - 2,4,6-Tribromophenol *	%	57 %
Dilution Factor		1
Prep Date		09/30/03
Prep Time		13:30
Analysis Date		10/02/03
Analysis Time		21:22
Batch ID		ALS066
Prep Method		3520C
Analyst		RDW
Quantitation Factor		1

Chain of Custody Record

STL-4124-400 (12/02)

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

Client: El Paso	Project Manager: Bob Norris	Date: 9-24-03	Chain of Custody Number: 06393
Address: —	Telephone Number (Area Code)/Fax Number: 303 2395421	Lab Number: C309678	Page 1 of 1
City: Colorado Springs; State: CO; Zip Code: —	Site Contact: S. Harden	Lab Contact: M. Pope	
Project Name and Location (State): El Dorado Refinery	Carrier/Waybill Number: 1ZX178X9221025611 9		
Contract/Purchase Order/Quote No.:			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	NONE	METALS (6010B)	TPH-GAS (OA-1)	TPH-EXT (OA-2)	VOCS (8260B)	SVOCS (8270)								Special Instructions/ Conditions of Receipt
GPS01L20030923-51-0.5	9/23/03	5:50				X							X	X	X	X		X								1
GPS01L20030923-51-3.5		5:55												X	X	X	X									18
GPS01L20030923-54-0.5		6:10												X	X	X		X								2
GPS01L20030923-54-3.5		6:15												X	X	X	X									19
GPS01L20030923-54-6.0		6:20												X	X	X	X									20
GPS01L20030923-55-0.5		4:20												X	X	X		X								3
GPS01L20030923-55-3.5		4:25												X	X	X	X									21
GPS01L20030923-55-14		4:35												X	X	X	X									22
GPS01L20030923-61-0.5		2:50												X	X	X		X								4
GPS01L20030923-61-3.5		2:55												X	X	X	X									23
GPS01L20030923-61-7.0		3:00												X	X	X	X									24
GPS01L20030923-62-0.5		3:52												X	X	X		X								5

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other_____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Todd S. Glenchua	9/24/03	1200	1. Received By: Stephen Hall	9/24/03	1200
2. Relinquished By: Stephen Hall	9/24/03	1700	2. Received By: UPS	9/24/03	1700
3. Relinquished By:			3. Received By: Marla Swafford	9/25/03	

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

EPA-EL DORADO SDG#GPS01L

60

Chain of Custody Record

STL4124-400 (12/02)

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

Client: El Paso	Project Manager: Bob Norris	Date: 9-24-03	Chain of Custody Number: 06395
Address: —	Telephone Number (Area Code)/Fax Number: 303 289 5421	Lab Number: C309678	Page 1 of 1
City: Colorado Springs; State: CO; Zip Code:	Site Contact: S. Harden	Lab Contact: M. Pope	
Project Name and Location (State): El Dorado Refinery	Carrier/Waybill Number: 1Z X178X922 10256093		
Contract/Purchase Order/Quote No.:			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	NONE	METALS (6010B)	TPH-G (6A-1)	TPH-E (6A-2)	VOCs (8260B)	SVOCs (8270)								Special Instructions/ Conditions of Receipt
GPS01L20030924-47-0.5	9/24/03	7:55				X							X	X	X	X		X								6
GPS01L20030924-53-0.5		8:20												X	X	X		X								7
GPS01L20030924-53-3.5		8:25												X	X	X	X									25
GPS01L20030924-52-0.5		8:30												X	X	X		X								8
GPS01L20030924-43-0.5		9:10												X	X	X		X								9
GPS01L20030924-43-3.5		9:16												X	X	X	X									26
GPS01L20030924-43-13.5		9:55												X	X	X	X									27
GPS01L20030924-42-0.5		10:10												X	X	X		X								10
GPS01L20030924-42-3.5		10:15												X	X	X	X									28
GPS01L20030924-42-13		10:30												X	X	X	X									29
~~GPS01L20030924~~ TSG	—	—				—							—													
~~GPS01L20030924~~ TSG	—	—																								

Matrix: Air, Aqueous, Sed., Soil. Containers & Preservatives: Unpres., H2SO4, HNO3, HCl, NaOH, ZnAc/NaOH, NONE.

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown

Sample Disposal: [ ] Return To Client [X] Disposal By Lab [ ] Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: [ ] 24 Hours [ ] 48 Hours [ ] 7 Days [ ] 14 Days [ ] 21 Days [X] Other Standard

QC Requirements (Specify): Level II

	Date	Time		Date	Time
1. Relinquished By: Terrel S. Glenchur	9/24/03	1200	1. Received By: Stephanie Hall	9/24/03	1200
2. Relinquished By: Stephanie Hall	9/24/03	1700	2. Received By: UPS	9/24/03	1700
3. Relinquished By:			3. Received By: Mark Swafford	9/25/03	1030

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

STL4124-400 (12/02)

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

Client: EL PASO	Project Manager: Bob Norris	Date: 9-24-03	Chain of Custody Number: 06396
Address: —	Telephone Number (Area Code)/Fax Number:	Lab Number: C309678	Page 1 of 1
City: Colorado Springs; State: CO; Zip Code: —	Site Contact: S. Harden	Lab Contact:	
Project Name and Location (State): El Paso El Dorado Refinery	Carrier/Waybill Number: 1ZX17BX9221025 6128		
Contract/Purchase Order/Quote No.:			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil		Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	N/A	METALS (6010B)	TPH-G (OA-1)	TPH-E (OA-2)	VOCs (8260B)	SVOCs (8270)								Special Instructions/ Conditions of Receipt
GPS01L20030924-41-0.5	9/24/03	11:10				X								X	X	X	X		X							11	
GPS01L20030924-41-3.5	↓	11:15				↓								↓	X	X	X	X								31	
GPS01L20030924-41-19		11:50													X	X	X	X								31	
GPS01L20030924-46-0.5		2:10													X	X	X		X							12	
GPS01L20030924-46-3.5		2:15													X	X	X	X								32	
GPS01L20030924-44-0.5		2:30													X	X	X		X							13	
GPS01L20030924-44-3.5		2:35													X	X	X	X								33	
GPS01L20030924-49-0.5		2:55													X	X	X		X							14	
GPS01L20030924-49-3.5		3:00													X	X	X	X								34	
GPS01L20030924-45-0.5		5:00													X	X	X		X							15	
GPS01L20030924-45-3.5	↓	5:05				↓								↓	X	X	X	X								35	

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown

Sample Disposal: [ ] Return To Client [X] Disposal By Lab [ ] Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: [ ] 24 Hours [ ] 48 Hours [ ] 7 Days [ ] 14 Days [ ] 21 Days [X] Other Standard

QC Requirements (Specify): Level II

	Date	Time		Date	Time
1. Relinquished By: Todd S. Shanahan	9/24/03	1745	1. Received By: UPS		
2. Relinquished By:			2. Received By: Mark Swaffar	9/25/03	1030
3. Relinquished By:			3. Received By:		

Comments: EQUIP BLANK FROM 06394 IN THIS COOLER

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

EPA8-EPDRA00 SDG#80PS00

Chain Custody Record

STL-4124-400 (12/02)

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

Client: El Paso	Project Manager: Bob Norris	Date: 9-24-03	Chain of Custody Number: 06394
Address:	Telephone Number (Area Code)/Fax Number: 303 239 5421	Lab Number: C309678	Page ____ of ____
City: Colorado Springs; State: KS; Zip Code:	Site Contact: S. Harden	Lab Contact: M. Popl	
Project Name and Location (State): El Dorado Refinery	Carrier/Waybill Number: 1Z X17 8X9 22 10256100		
Contract/Purchase Order/Quote No.:			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	NONE	METALS (6010B)	TPH-GAS (OA-1)	TPH-EXT (OA-2)	VOCS (8260B)	SVOCS (8270)								Special Instructions/ Conditions of Receipt
GPSOIL20030923-63-0.5	9/23/03	2:25				X							X	X	X	X		X								16
GPSOIL20030923-63-3.5	↓	2:30				↓							↓	X	X	X	X									36
DUPLICATE-1		—												X	X	X		X								17
DUPLICATE-2	↓	—				↓							↓	X	X	X	X									37
EQUIP BLANK	9/24/03	7:30		X					X	X			—	X	X	X	X	X								38
~~PSW-1~~	~~9/24/03~~	~~1:30~~													X	X										
EQUIP BLANK-2	9/24/03	1:45											X	X	X	X	X	X								39
																X		X								

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other ____

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: Todd S. Blumberg	9/24/03	1350	1. Received By: Stephanie Held	9/24/03	1350
2. Relinquished By: Stephanie Held	9/24/03	1700	2. Received By: DPS	9/24/03	1700
3. Relinquished By:			3. Received By: Mark Swafford	9/25/03	1030

Comments:

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

EPASD-EDORADO SDG#03EP02

SEVERN TRENT STL

L Pensacola 3355 McLemore Drive - Pensacola FL 32514 Telephone:(850) 474-1001 Fax:(850) 478-2671

Analytical Report

For: Mr. Chris Miller
El Paso Energy Corporation
P.O. Box 2511
Houston, TX 77252-2511
CC: Lynn Hanzlicek (Shaw, KS)

Order Number: C309755
SDG Number: EPC03
Client Project ID:
Project: EL PASO-EL DORADO - FACILITY & REFINERY
Report Date: 10/28/2003
Sampled By: Client
Sample Received Date: 09/27/2003
Requisition Number:
Purchase Order: C-STL1-ELDORADO-001

Melissa L. Pope

Melissa L. Pope, Project Manager
mpope@stl-inc.com

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Sample Summary

Order: C309755
Date Received: 09/27/2003

Client: El Paso Energy Corporation
Project: EL PASO-EL DORADO - FACILITY & REFINERY

Client Sample ID	Lab Sample ID	Matrix	Date Sampled
GPSOIL20030925-34-0.5	C309755*1	Solid	09/25/2003 08:25
GPSOIL20030925-31-0.5	C309755*2	Solid	09/25/2003 09:25
GPSOIL20030925-29-0.5	C309755*3	Solid	09/25/2003 10:25
GPSOIL20030925-25-0.5	C309755*4	Solid	09/25/2003 11:25
GPSOIL20030925-28-0.5	C309755*5	Solid	09/25/2003 13:45
GPSOIL20030925-34-3.5	C309755*6	Solid	09/25/2003 08:30
GPSOIL20030925-34-17	C309755*7	Solid	09/25/2003 08:55
GPSOIL20030925-31-3.5	C309755*8	Solid	09/25/2003 09:30
GPSOIL20030925-31-18	C309755*9	Solid	09/25/2003 09:45
GPSOIL20030925-29-3.5	C309755*10	Solid	09/25/2003 10:30
GPSOIL20030925-29-19	C309755*11	Solid	09/25/2003 10:55
GPSOIL20030925-25-3.5	C309755*12	Solid	09/25/2003 11:30
GPSOIL20030925-25-6.5	C309755*13	Solid	09/25/2003 11:35
GPSOIL20030925-28-3.5	C309755*14	Solid	09/25/2003 13:50
GPSOIL20030925-28-8	C309755*15	Solid	09/25/2003 14:00
PWS-1	C309755*16	Liquid	09/24/2003 13:30

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09755-1	GPSOIL20030925-34-0.5	Solid	09/27/03	09/25/03 08:25	EPC03
09755-2	GPSOIL20030925-31-0.5	Solid	09/27/03	09/25/03 09:25	EPC03
09755-3	GPSOIL20030925-29-0.5	Solid	09/27/03	09/25/03 10:25	EPC03
09755-4	GPSOIL20030925-25-0.5	Solid	09/27/03	09/25/03 11:25	EPC03
09755-5	GPSOIL20030925-28-0.5	Solid	09/27/03	09/25/03 13:45	EPC03

Parameter	Units	Lab Sample IDs 09755-1	09755-2	09755-3	09755-4	09755-5
Metals (6010B)						
Antimony	mg/kg dw	4.2J	1.6J	1.0J	0.82J	0.52J
Arsenic	mg/kg dw	11	7.2	6.5	6.6	5.2
Barium	mg/kg dw	150B	160B	150B	120B	180B
Beryllium	mg/kg dw	0.69	0.83	1.1	0.72	0.73
Cadmium	mg/kg dw	0.74J	0.80J	0.32J	0.49J	0.54J
Chromium	mg/kg dw	190	110	22	26	14
Copper	mg/kg dw	130	89	16	20	11
Lead	mg/kg dw	95	280	48	160	230
Nickel	mg/kg dw	27B	26B	16B	14B	11B
Selenium	mg/kg dw	<2.2	<2.1	<2.5	<2.3	<1.8
Silver	mg/kg dw	<1.1	<1.1	<1.3	<1.2	<0.88
Thallium	mg/kg dw	<2.2	<2.1	<2.5	<2.3	<1.8
Zinc	mg/kg dw	170	160	60	60	41
Percent Solids		87	80	77	76	87
Dilution Factor		1	1	1	1	1
Prep Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Prep Time		18:20	18:20	18:20	18:20	18:20
Analysis Date		10/07/03	10/07/03	10/07/03	10/07/03	10/07/03
Analysis Time		19:03	19:09	19:14	19:20	18:36
Batch ID		PS202	PS202	PS202	PS202	PS202
Prep Method		3050B	3050B	3050B	3050B	3050B
Analyst		GSP	GSP	GSP	GSP	GSP
Quantitation Factor		111.5947	105.0420	126.0875	116.4415	88.4173
Mercury (7471A)						
Mercury	mg/kg dw	0.34	0.46	0.043	0.11	0.031
Percent Solids		87	80	77	76	87
Dilution Factor		1	1	1	1	1
Prep Date		10/06/03	10/06/03	10/06/03	10/06/03	10/06/03
Prep Time		14:25	14:25	14:25	14:25	14:25
Analysis Date		10/07/03	10/07/03	10/07/03	10/07/03	10/07/03
Analysis Time		14:10	14:11	14:13	14:15	14:17
Batch ID		HGS055	HGS055	HGS055	HGS055	HGS055
Prep Method		7471A	7471A	7471A	7471A	7471A
Analyst		JDE	JDE	JDE	JDE	JDE
Quantitation Factor		47.6463	51.9859	52.0291	51.7170	44.6030

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09755-1	GPSOIL20030925-34-0.5	Solid	09/27/03	09/25/03 08:25	EPC03
09755-2	GPSOIL20030925-31-0.5	Solid	09/27/03	09/25/03 09:25	EPC03
09755-3	GPSOIL20030925-29-0.5	Solid	09/27/03	09/25/03 10:25	EPC03
09755-4	GPSOIL20030925-25-0.5	Solid	09/27/03	09/25/03 11:25	EPC03
09755-5	GPSOIL20030925-28-0.5	Solid	09/27/03	09/25/03 13:45	EPC03

Parameter	Units	Lab Sample IDs 09755-1	09755-2	09755-3	09755-4	09755-5
Gasoline Range Organics (8015M)						
Hydrocarbons as GRO (C6-C10)	mg/kg dw	<5.8	<6.2	<6.5	<6.6	<5.8
Surrogate - a,a,a-Trifluorotoluene *	%	95 %	89 %	102 %	89 %	93 %
Percent Solids		87	80	77	76	87
Dilution Factor		50	50	50	50	50
Prep Date		10/02/03	10/02/03	10/02/03	10/02/03	10/02/03
Prep Time		11:50	11:50	11:50	11:50	11:50
Analysis Date		10/02/03	10/02/03	10/02/03	10/03/03	10/03/03
Analysis Time		15:20	22:27	23:21	00:14	01:07
Batch ID		EXT099A	EXT099A	EXT099A	EXT099A	EXT099A
Prep Method		5035/5030B	5035/5030B	5035/5030B	5035/5030B	5035/5030B
Analyst		CN	CN	CN	CN	CN
Quantitation Factor		57.5	62.5	64.9	65.8	57.5
Diesel Range Organics (8015M)						
Mineral Spirits	mg/kg dw	<140	<3.0	<3.2	<3.2	<140
Kerosene	mg/kg dw	<140	<3.0	<3.2	<3.2	<140
Diesel	mg/kg dw	<140	<3.0	<3.2	<3.2	<140
Fuel Oil	mg/kg dw	<140	<3.0	<3.2	<3.2	<140
Motor oil (10W-40)	mg/kg dw	<140	<3.0	<3.2	<3.2	<140
Hydraulic Fluid Hydrocarbons	mg/kg dw	<140	<3.0	<3.2	<3.2	<140
Unknown Hydrocarbon	mg/kg dw	180	110	10	38	120
Surrogate - o-Terphenyl *	%	4 %D	109 %	100 %	109 %	4 %D
Percent Solids		87	80	77	76	87
Dilution Factor		50	1	1	1	50
Prep Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Prep Time		12:30	12:30	12:30	12:30	12:30
Analysis Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Analysis Time		19:40	19:58	20:35	20:54	21:12
Batch ID		FPS206	FPS206	FPS206	FPS206	FPS206
Prep Method		3550B	3550B	3550B	3550B	3550B
Analyst		IE	IE	IE	IE	IE
Quantitation Factor		56.8	1.2	1.3	1.3	57.3

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09755-1	GPSOIL20030925-34-0.5	Solid	09/27/03	09/25/03 08:25	EPC03
09755-2	GPSOIL20030925-31-0.5	Solid	09/27/03	09/25/03 09:25	EPC03
09755-3	GPSOIL20030925-29-0.5	Solid	09/27/03	09/25/03 10:25	EPC03
09755-4	GPSOIL20030925-25-0.5	Solid	09/27/03	09/25/03 11:25	EPC03
09755-5	GPSOIL20030925-28-0.5	Solid	09/27/03	09/25/03 13:45	EPC03

Parameter	Units	Lab Sample IDs 09755-1	09755-2	09755-3	09755-4	09755-5
Semivolatile Organic Compounds (8270C)						
Benzoic acid	ug/kg dw	<6700	<290	<2100	<2200	<670
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	ug/kg dw	<2900	<130	<420	<440	<300
2-Chlorophenol	ug/kg dw	<2200	<96	<420	<440	<220
2,4-Dichlorophenol	ug/kg dw	<2600	<110	<420	<440	<260
2,6-Dichlorophenol	ug/kg dw	<2300	<100	<420	<440	<230
2,4-Dimethylphenol	ug/kg dw	<4600	<200	<420	<440	<460
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	ug/kg dw	<2000	<89	<2100	<2200	<200
2,4-Dinitrophenol	ug/kg dw	<2800	<120	<2100	<2200	<280
2-Methylphenol (o-Cresol)	ug/kg dw	<2500	<110	<420	<440	<250
3-Methylphenol/4-Methylphenol (m&p-Cresol)	ug/kg dw	<2400	<110	<420	<440	<240
2-Nitrophenol (o-Nitrophenol)	ug/kg dw	<2200	<94	<420	<440	<220
4-Nitrophenol (p-Nitrophenol)	ug/kg dw	<2500	<110	<2100	<2200	<260
Pentachlorophenol	ug/kg dw	<2700	<120	<2100	<2200	<270
Phenol	ug/kg dw	<2500	<110	<420	<440	<250
2,3,4,6-Tetrachlorophenol	ug/kg dw	<2400	<100	<420	<440	<240
2,4,5-Trichlorophenol	ug/kg dw	<2300	<99	<2100	<2200	<230
2,4,6-Trichlorophenol	ug/kg dw	<2000	<86	<420	<440	<200
Acenaphthene	ug/kg dw	<1900	<84	<420	<440	<190
Acenaphthylene	ug/kg dw	<2500	<110	<420	<440	<260
Acetophenone	ug/kg dw	<2500	<110	<420	<440	<250
4-Aminobiphenyl	ug/kg dw	<5300	<230	<420	<440	<530
Aniline	ug/kg dw	<6900	<300	<420	<440	<690
Anthracene	ug/kg dw	<2300	99J	<420	65J	<230
Benzidine	ug/kg dw	<53000	<2300	<2100	<2200	<5300
Benzo(a)anthracene	ug/kg dw	<3600	<160	<420	<440	<360
Benzo(b)fluoranthene	ug/kg dw	<3800	180J	<420	<440	<380
Benzo(k)fluoranthene	ug/kg dw	<4600	<200	<420	<440	<460
Benzo(g,h,i)perylene	ug/kg dw	<2800	200J	<420	410J	<280
Benzo(a)pyrene	ug/kg dw	<3500	180J	<420	<440	<350

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09755-1	GPSOIL20030925-34-0.5	Solid	09/27/03	09/25/03 08:25	EPC03
09755-2	GPSOIL20030925-31-0.5	Solid	09/27/03	09/25/03 09:25	EPC03
09755-3	GPSOIL20030925-29-0.5	Solid	09/27/03	09/25/03 10:25	EPC03
09755-4	GPSOIL20030925-25-0.5	Solid	09/27/03	09/25/03 11:25	EPC03
09755-5	GPSOIL20030925-28-0.5	Solid	09/27/03	09/25/03 13:45	EPC03

Parameter	Units	Lab Sample IDs 09755-1	09755-2	09755-3	09755-4	09755-5
Semivolatile Organic Compounds (8270C)						
Benzyl alcohol	ug/kg dw	<1900	<84	<420	<440	<190
4-Bromophenylphenyl ether	ug/kg dw	<2500	<110	<420	<440	<250
Butylbenzylphthalate	ug/kg dw	<3800	<170	<420	<440	<380
Carbazole	ug/kg dw	<3100	<130	<420	<440	<310
4-Chloroaniline (p-Chloroaniline)	ug/kg dw	<2900	<130	<420	<440	<300
bis(2-Chloroethoxy)methane	ug/kg dw	<1900	<84	<420	<440	<190
bis(2-Chloroethyl)ether	ug/kg dw	<2500	<110	<420	<440	<250
bis(2-Chloroisopropyl) ether	ug/kg dw	<2900	<130	<420	<440	<290
1-Chloronaphthalene	ug/kg dw	<2200	<94	<420	<440	<220
2-Chloronaphthalene	ug/kg dw	<2700	<120	<420	<440	<270
4-Chlorophenylphenyl ether	ug/kg dw	<2600	<110	<420	<440	<260
Chrysene	ug/kg dw	<3700	230J	<420	<440	<370
Dibenz(a,j)acridine	ug/kg dw	<4300	<190	<420	<440	<430
Dibenzo(a,h)anthracene	ug/kg dw	<2000	<89	<420	<440	<200
Dibenzofuran	ug/kg dw	<2000	<89	<420	<440	<200
Di-n-butylphthalate	ug/kg dw	<3500	<150	<420	<440	<350
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/kg dw	<2300	<100	<420	<440	<230
1,3-Dichlorobenzene (m-Dichlorobenzene)	ug/kg dw	<2300	<99	<420	<440	<230
1,4-Dichlorobenzene (p-Dichlorobenzene)	ug/kg dw	<2500	<110	<420	<440	<260
3,3'-Dichlorobenzidine	ug/kg dw	<3000	<130	<2100	<2200	<300
Diethylene Glycol Monobutyl Ether	ug/kg dw	<2200	<94	<420	<440	<220
Diethylphthalate	ug/kg dw	<2400	<100	<420	<440	<240
p-(Dimethylamino)azobenzene	ug/kg dw	<2900	<130	<420	<440	<300
7,12-Dimethylbenz(a)anthracene	ug/kg dw	<4400	<190	<420	<440	<440
alpha,alpha-Dimethylphenethylamine	ug/kg dw	<19000	<810	<420	<440	<1900
Dimethylphthalate	ug/kg dw	<2300	<100	<420	<440	<230

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09755-1	GPSOIL20030925-34-0.5	Solid	09/27/03	09/25/03 08:25	EPC03
09755-2	GPSOIL20030925-31-0.5	Solid	09/27/03	09/25/03 09:25	EPC03
09755-3	GPSOIL20030925-29-0.5	Solid	09/27/03	09/25/03 10:25	EPC03
09755-4	GPSOIL20030925-25-0.5	Solid	09/27/03	09/25/03 11:25	EPC03
09755-5	GPSOIL20030925-28-0.5	Solid	09/27/03	09/25/03 13:45	EPC03

Parameter	Units	Lab Sample IDs 09755-1	09755-2	09755-3	09755-4	09755-5
Semivolatile Organic Compounds (8270C)						
2,4-Dinitrotoluene	ug/kg dw	<2700	<120	<420	<440	<270
2,6-Dinitrotoluene	ug/kg dw	<2200	<96	<420	<440	<220
Di-n-octylphthalate	ug/kg dw	<3700	<160	<420	<440	<370
1,2-Diphenylhydrazine	ug/kg dw	<2500	<110	<420	<440	<250
bis(2-Ethylhexyl)phthalate	ug/kg dw	<4400	880	<420	<440	<440
Ethyl methanesulfonate	ug/kg dw	<2300	<100	<420	<440	<230
Fluoranthene	ug/kg dw	<3100	<130	<420	<440	<310
Fluorene	ug/kg dw	<2600	<110	<420	<440	<260
Hexachlorobenzene	ug/kg dw	<2200	<96	<420	<440	<220
Hexachlorobutadiene	ug/kg dw	<2200	<96	<420	<440	<220
Hexachlorocyclopentadiene	ug/kg dw	<790	<34	<420	<440	<80
Hexachloroethane	ug/kg dw	<2200	<96	<420	<440	<220
Indeno(1,2,3-cd)pyrene	ug/kg dw	<3200	<140	<420	<440	<320
Isophorone	ug/kg dw	<2400	<110	<420	<440	<240
3-Methylcholanthrene	ug/kg dw	<2900	<130	<420	<440	<300
Methyl methanesulfonate	ug/kg dw	<1600	<69	<420	<440	<160
1-Methylnaphthalene	ug/kg dw	<2400	<110	<420	<440	<240
2-Methylnaphthalene	ug/kg dw	<2500	<110	<420	<440	<260
Naphthalene	ug/kg dw	<2200	<94	<420	<440	<220
1-Naphthylamine	ug/kg dw	<4700	<200	<420	<440	<470
2-Naphthylamine	ug/kg dw	<4100	<180	<420	<440	<410
2-Nitroaniline (o-Nitroaniline)	ug/kg dw	<2800	<120	<420	<440	<280
3-Nitroaniline (m-Nitroaniline)	ug/kg dw	<2800	<120	<420	<440	<280
4-Nitroaniline (p-Nitroaniline)	ug/kg dw	<3000	<130	<420	<440	<300
Nitrobenzene	ug/kg dw	<2500	<110	<420	<440	<260
N-Nitrosodi-n-butylamine	ug/kg dw	<2900	<130	<420	<440	<300
N-Nitrosodimethylamine	ug/kg dw	<2300	<99	<420	<440	<230
N-Nitrosodiphenylamine	ug/kg dw	<2500	<110	<420	<440	<260
n-Nitrosodi-n-propylamine	ug/kg dw	<2400	<110	<420	<440	<240

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09755-1	GPSOIL20030925-34-0.5	Solid	09/27/03	09/25/03 08:25	EPC03
09755-2	GPSOIL20030925-31-0.5	Solid	09/27/03	09/25/03 09:25	EPC03
09755-3	GPSOIL20030925-29-0.5	Solid	09/27/03	09/25/03 10:25	EPC03
09755-4	GPSOIL20030925-25-0.5	Solid	09/27/03	09/25/03 11:25	EPC03
09755-5	GPSOIL20030925-28-0.5	Solid	09/27/03	09/25/03 13:45	EPC03

Parameter	Units	Lab Sample IDs 09755-1	09755-2	09755-3	09755-4	09755-5
Semivolatile Organic Compounds (8270C)						
N-Nitrosopiperidine	ug/kg dw	<2700	<120	<420	<440	<270
Pentachlorobenzene	ug/kg dw	<2300	<99	<420	<440	<230
Pentachloronitrobenzene	ug/kg dw	<2500	<110	<420	<440	<260
Phenacetin	ug/kg dw	<3500	<150	<420	<440	<350
Phenanthrene	ug/kg dw	<2400	110J	<420	<440	<240
2-Picoline	ug/kg dw	<11000	<470	<420	<440	<1100
Pronamide	ug/kg dw	<3800	<170	<420	<440	<380
Pyrene	ug/kg dw	4100J	230J	<420	<440	<390
Pyridine	ug/kg dw	<17000	<750	<420	<440	<1700
1,2,4,5-Tetrachlorobenzene	ug/kg dw	<1900	<81	<420	<440	<190
1,2,4-Trichlorobenzene	ug/kg dw	<2400	<100	<420	<440	<240
Surrogate - 2-Fluorobiphenyl *	%	56 %	66 %	54 %	67 %	60 %
Surrogate - 2-Fluorophenol *	%	41 %	56 %	50 %	62 %	50 %
Surrogate - Nitrobenzene - d5 *	%	41 %	58 %	53 %	64 %	46 %
Surrogate - Phenol-d5 *	%	49 %	66 %	56 %	69 %	56 %
Surrogate - Terphenyl-d14 *	%	79 %	83 %	67 %	85 %	81 %
Surrogate - 2,4,6-Tribromophenol *	%	52 %	83 %	73 %	89 %	69 %
Percent Solids		87	80	77	76	87
Dilution Factor		50	2	1	1	5
Prep Date		09/30/03	09/30/03	09/30/03	09/30/03	09/30/03
Prep Time		11:10	11:10	11:10	11:10	11:10
Analysis Date		10/04/03	10/03/03	10/03/03	10/03/03	10/04/03
Analysis Time		00:47	23:35	20:37	23:00	00:11
Batch ID		ALS067	ALS067	ALS067	ALS067	ALS067
Prep Method		3550B	3550B	3550B	3550B	3550B
Analyst		RDW	RDW	RDW	RDW	RDW
Quantitation Factor		1886.16	82.13	42.48	43.55	189.30

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09755-6	GPSOIL20030925-34-3.5	Solid	09/27/03	09/25/03 08:30	EPC03
09755-7	GPSOIL20030925-34-17	Solid	09/27/03	09/25/03 08:55	EPC03
09755-8	GPSOIL20030925-31-3.5	Solid	09/27/03	09/25/03 09:30	EPC03
09755-9	GPSOIL20030925-31-18	Solid	09/27/03	09/25/03 09:45	EPC03
09755-10	GPSOIL20030925-29-3.5	Solid	09/27/03	09/25/03 10:30	EPC03

Parameter	Units	Lab Sample IDs 09755-6	09755-7	09755-8	09755-9	09755-10
Metals (6010B)						
Antimony	mg/kg dw	1.9J	0.58J	1.8J	0.71J	<11
Arsenic	mg/kg dw	7.5	4.5	9.9	7.3	3.8
Barium	mg/kg dw	150B	96B	110B	470B	220B
Beryllium	mg/kg dw	0.78	0.77	0.60	0.90	1.2
Cadmium	mg/kg dw	0.51J	<1.1	0.86J	2.7	0.12J
Chromium	mg/kg dw	67	16	85	27	22
Copper	mg/kg dw	38	8.8	89	18	12
Lead	mg/kg dw	89	10	190	14	13
Nickel	mg/kg dw	22B	12B	29B	55B	17B
Selenium	mg/kg dw	<2.0	<2.1	0.45J	1.0J	<2.3
Silver	mg/kg dw	<1.0	<1.1	<0.88	<1.1	<1.1
Thallium	mg/kg dw	<2.0	<2.1	<1.8	<2.2	<2.3
[illegible]	mg/kg dw	110	38	160	120	45
[illegible]ent Solids		85	74	78	67	81
Dilution Factor		1	1	1	1	1
Prep Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Prep Time		18:20	18:20	18:20	18:20	18:20
Analysis Date		10/07/03	10/07/03	10/07/03	10/07/03	10/07/03
Analysis Time		19:25	19:42	19:47	19:53	19:58
Batch ID		PS202	PS202	PS202	PS202	PS202
Prep Method		3050B	3050B	3050B	3050B	3050B
Analyst		GSP	GSP	GSP	GSP	GSP
Quantitation Factor		102.3018	106.4056	88.4173	112.2209	113.2631
Mercury (7471A)						
Mercury	mg/kg dw	0.050	0.0058J	1.2	0.021	0.019
Percent Solids		85	74	78	67	81
Dilution Factor		1	1	5	1	1
Prep Date		10/06/03	10/06/03	10/06/03	10/06/03	10/06/03
Prep Time		14:25	14:25	14:25	14:25	14:25
Analysis Date		10/07/03	10/07/03	10/07/03	10/07/03	10/07/03
Analysis Time		14:18	14:20	15:01	14:30	14:32
Batch ID		HGS055	HGS055	HGS055	HGS055	HGS055
Prep Method		7471A	7471A	7471A	7471A	7471A
Analyst		JDE	JDE	JDE	JDE	JDE
Quantitation Factor		48.0307	56.2556	249.2522	57.7634	47.9111

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09755-6	GPSOIL20030925-34-3.5	Solid	09/27/03	09/25/03 08:30	EPC03
09755-7	GPSOIL20030925-34-17	Solid	09/27/03	09/25/03 08:55	EPC03
09755-8	GPSOIL20030925-31-3.5	Solid	09/27/03	09/25/03 09:30	EPC03
09755-9	GPSOIL20030925-31-18	Solid	09/27/03	09/25/03 09:45	EPC03
09755-10	GPSOIL20030925-29-3.5	Solid	09/27/03	09/25/03 10:30	EPC03

Parameter	Units	Lab Sample IDs 09755-6	09755-7	09755-8	09755-9	09755-10
Gasoline Range Organics (8015M)						
Hydrocarbons as GRO (C6-C10)	mg/kg dw	1.7J	<6.8	40	<7.5	1.9J
Surrogate - a,a,a-Trifluorotoluene *	%	91 %	81 %	122 %	86 %	93 %
Percent Solids		85	74	78	67	81
Dilution Factor		50	50	100	50	50
Prep Date		10/02/03	10/02/03	10/02/03	10/02/03	10/02/03
Prep Time		11:50	11:50	11:50	11:50	11:50
Analysis Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Analysis Time		02:01	02:54	03:47	12:03	12:56
Batch ID		EXT099A	EXT099A	EXT099A	EXT099A	EXT099A
Prep Method		5035/5030B	5035/5030B	5035/5030B	5035/5030B	5035/5030B
Analyst		CN	CN	CN	CN	CN
Quantitation Factor		58.8	67.6	128	74.6	61.7
Diesel Range Organics (8015M)						
Mineral Spirits	mg/kg dw	<29	<3.2	<3.2	<3.8	<3.0
Kerosene	mg/kg dw	<29	<3.2	<3.2	<3.8	<3.0
Diesel	mg/kg dw	<29	<3.2	<3.2	<3.8	<3.0
Fuel Oil	mg/kg dw	<29	<3.2	<3.2	<3.8	<3.0
Motor oil (10W-40)	mg/kg dw	<29	<3.2	<3.2	<3.8	<3.0
Hydraulic Fluid Hydrocarbons	mg/kg dw	<29	<3.2	<3.2	<3.8	<3.0
Unknown Hydrocarbon	mg/kg dw	87	2.2J	45	1.5J	0.96J
Surrogate - o-Terphenyl *	%	12 %D	105 %	102 %	88 %	98 %
Percent Solids		85	74	78	67	81
Dilution Factor		10	1	1	1	1
Prep Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Prep Time		12:30	12:30	12:30	12:30	12:30
Analysis Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Analysis Time		21:31	21:49	22:07	22:26	22:44
Batch ID		FPS206	FPS206	FPS206	FPS206	FPS206
Prep Method		3550B	3550B	3550B	3550B	3550B
Analyst		IE	IE	IE	IE	IE
Quantitation Factor		11.7	1.3	1.3	1.5	1.2

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09755-6	GPSOIL20030925-34-3.5	Solid	09/27/03	09/25/03 08:30	EPC03
09755-7	GPSOIL20030925-34-17	Solid	09/27/03	09/25/03 08:55	EPC03
09755-8	GPSOIL20030925-31-3.5	Solid	09/27/03	09/25/03 09:30	EPC03
09755-9	GPSOIL20030925-31-18	Solid	09/27/03	09/25/03 09:45	EPC03
09755-10	GPSOIL20030925-29-3.5	Solid	09/27/03	09/25/03 10:30	EPC03

Parameter	Units	Lab Sample IDs 09755-6	09755-7	09755-8	09755-9	09755-10
Volatile Organic Compounds (8260B)						
Chloromethane	ug/kg dw	<5.9	<6.8	<320	<7.4	<6.2
Bromomethane (Methyl bromide)	ug/kg dw	<5.9	<6.8	<320	<7.4	<6.2
Vinyl chloride	ug/kg dw	<5.9	<6.8	<320	<7.4	<6.2
Chloroethane	ug/kg dw	<5.9	<6.8	<320	<7.4	<6.2
Methylene chloride (Dichloromethane)	ug/kg dw	<5.9	<6.8	<320	<7.4	<6.2
Acetone	ug/kg dw	6.0J	16J	<1600	23J	25J
Carbon disulfide	ug/kg dw	<5.9	3.6J	<320	3.0J	1.4J
1,1-Dichloroethene	ug/kg dw	<5.9	<6.8	<320	<7.4	<6.2
1,1-Dichloroethane	ug/kg dw	<5.9	<6.8	<320	<7.4	<6.2
Cis/Trans-1,2-Dichloroethene	ug/kg dw	<5.9	<6.8	<320	<7.4	<6.2
cis-1,2-Dichloroethene	ug/kg dw	<5.9	<6.8	<320	<7.4	<6.2
[illegible]roform	ug/kg dw	<5.9	<6.8	<320	<7.4	<6.2
[illegible]Dichloroethane	ug/kg dw	<5.9	<6.8	<320	<7.4	<6.2
2-Butanone (MEK)	ug/kg dw	<30	4.6J	<1600	5.2J	<31
1,1,1-Trichloroethane	ug/kg dw	<5.9	<6.8	<320	<7.4	<6.2
Carbon tetrachloride	ug/kg dw	<5.9	<6.8	<320	<7.4	<6.2
Vinyl acetate	ug/kg dw	<30	<34	<1600	<37	<31
Bromodichloromethane	ug/kg dw	<5.9	<6.8	<320	<7.4	<6.2
1,2-Dichloropropane	ug/kg dw	<5.9	<6.8	<320	<7.4	<6.2
cis-1,3-Dichloropropene	ug/kg dw	<5.9	<6.8	<320	<7.4	<6.2
Trichloroethene	ug/kg dw	<5.9	<6.8	<320	<7.4	<6.2
Dibromochloromethane	ug/kg dw	<5.9	<6.8	<320	<7.4	<6.2
1,1,2-Trichloroethane	ug/kg dw	<5.9	<6.8	<320	<7.4	<6.2
Benzene	ug/kg dw	<5.9	<6.8	92J	<7.4	38
trans-1,3-Dichloropropene	ug/kg dw	<5.9	<6.8	<320	<7.4	<6.2
Bromoform	ug/kg dw	<5.9	<6.8	<320	<7.4	<6.2
4-Methyl-2-pentanone (MIBK)	ug/kg dw	<30	<34	<1600	<37	<31
2-Hexanone	ug/kg dw	<30	<34	<1600	<37	<31
Tetrachloroethene	ug/kg dw	<5.9	<6.8	<320	<7.4	<6.2
1,1,2,2-Tetrachloroethane	ug/kg dw	<5.9	<6.8	<320	<7.4	<6.2
Toluene	ug/kg dw	<5.9	1.4J	200J	1.9J	1.6J

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09755-6	GPSOIL20030925-34-3.5	Solid	09/27/03	09/25/03 08:30	EPC03
09755-7	GPSOIL20030925-34-17	Solid	09/27/03	09/25/03 08:55	EPC03
09755-8	GPSOIL20030925-31-3.5	Solid	09/27/03	09/25/03 09:30	EPC03
09755-9	GPSOIL20030925-31-18	Solid	09/27/03	09/25/03 09:45	EPC03
09755-10	GPSOIL20030925-29-3.5	Solid	09/27/03	09/25/03 10:30	EPC03

Parameter	Units	Lab Sample IDs 09755-6	09755-7	09755-8	09755-9	09755-10
Volatile Organic Compounds (8260B)						
Chlorobenzene	ug/kg dw	<5.9	<6.8	<320	<7.4	<6.2
Ethylbenzene	ug/kg dw	<5.9	<6.8	440	<7.4	6.5
Styrene	ug/kg dw	<5.9	<6.8	<320	<7.4	<6.2
Xylenes, Total	ug/kg dw	<12	<14	1200	<15	2.6J
Surrogate - Dibromofluoromethane *	%	115 %	110 %	99 %	111 %	111 %
Surrogate - Toluene-d8 *	%	104 %	106 %	104 %	105 %	104 %
Surrogate - 4-Bromofluorobenzene *	%	94 %	96 %	90 %	95 %	96 %
Percent Solids		85	74	78	67	81
Dilution Factor		1	1	50	1	1
Prep Date		10/03/03	10/03/03	09/29/03	10/03/03	10/03/03
Prep Time		12:09	13:20	09:30	13:55	14:31
Analysis Date		10/03/03	10/03/03	10/02/03	10/03/03	10/03/03
Analysis Time		12:09	13:20	17:35	13:55	14:31
Batch ID		KAS171	KAS171	KAS169	KAS171	KAS171
Prep Method		5030B	5030B	5035/5030B	5030B	5030B
Analyst		DWB	DWB	DWB	DWB	DWB
Quantitation Factor		1.18	1.35	64.1	1.49	1.23

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09755-11	GPSOIL20030925-29-19	Solid	09/27/03	09/25/03 10:55	EPC03
09755-12	GPSOIL20030925-25-3.5	Solid	09/27/03	09/25/03 11:30	EPC03
09755-13	GPSOIL20030925-25-6.5	Solid	09/27/03	09/25/03 11:35	EPC03
09755-14	GPSOIL20030925-28-3.5	Solid	09/27/03	09/25/03 13:50	EPC03
09755-15	GPSOIL20030925-28-8	Solid	09/27/03	09/25/03 14:00	EPC03

Parameter	Units	Lab Sample IDs 09755-11	09755-12	09755-13	09755-14	09755-15
Metals (6010B)						
Antimony	mg/kg dw	0.55J	0.42J	0.70J	0.45J	0.44J
Arsenic	mg/kg dw	3.6	4.5	7.0	5.0	4.0
Barium	mg/kg dw	110B	310B	240B	160B	150B
Beryllium	mg/kg dw	0.78	1.1	1.3	1.1	0.91
Cadmium	mg/kg dw	0.23J	0.15J	0.48J	0.13J	0.19J
Chromium	mg/kg dw	14	21	24	21	17
Copper	mg/kg dw	11	15	15	12	10
Lead	mg/kg dw	13	14	19	12	10
Nickel	mg/kg dw	15B	16B	41B	18B	17B
Selenium	mg/kg dw	<1.9	<1.9	<1.8	<1.8	<1.7
Silver	mg/kg dw	<0.97	<0.97	<0.91	<0.91	<0.84
Thallium	mg/kg dw	<1.9	<1.9	<1.8	<1.8	<1.7
Zinc	mg/kg dw	42	48	50	44	35
Percent Solids		73	79	79	82	77
Dilution Factor		1	1	1	1	1
Prep Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Prep Time		18:20	18:20	18:20	18:20	18:20
Analysis Date		10/07/03	10/07/03	10/07/03	10/07/03	10/07/03
Analysis Time		20:04	20:10	20:15	20:21	20:26
Batch ID		PS202	PS202	PS202	PS202	PS202
Prep Method		3050B	3050B	3050B	3050B	3050B
Analyst		GSP	GSP	GSP	GSP	GSP
Quantitation Factor		97.1534	97.3710	91.0664	91.0084	84.3313
Mercury (7471A)						
Mercury	mg/kg dw	0.0070J	0.018	0.014	0.016	0.0067J
Percent Solids		73	79	79	82	77
Dilution Factor		1	1	1	1	1
Prep Date		10/06/03	10/06/03	10/06/03	10/06/03	10/06/03
Prep Time		14:25	14:25	14:25	14:25	14:25
Analysis Date		10/07/03	10/07/03	10/07/03	10/07/03	10/07/03
Analysis Time		14:34	14:36	14:37	14:39	14:41
Batch ID		HGS055	HGS055	HGS055	HGS055	HGS055
Prep Method		7471A	7471A	7471A	7471A	7471A
Analyst		JDE	JDE	JDE	JDE	JDE
Quantitation Factor		55.4816	51.1876	52.4329	49.8504	51.8995

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09755-11	GPSOIL20030925-29-19	Solid	09/27/03	09/25/03 10:55	EPC03
09755-12	GPSOIL20030925-25-3.5	Solid	09/27/03	09/25/03 11:30	EPC03
09755-13	GPSOIL20030925-25-6.5	Solid	09/27/03	09/25/03 11:35	EPC03
09755-14	GPSOIL20030925-28-3.5	Solid	09/27/03	09/25/03 13:50	EPC03
09755-15	GPSOIL20030925-28-8	Solid	09/27/03	09/25/03 14:00	EPC03

		Lab Sample IDs				
Parameter	Units	09755-11	09755-12	09755-13	09755-14	09755-15
Gasoline Range Organics (8015M)						
Hydrocarbons as GRO (C6-C10)	mg/kg dw	1500	91	870	91	2700
Surrogate -						
a,a,a-Trifluorotoluene *	%	0 %	250 %M	0 %	261 %M	0 %
Percent Solids		73	79	79	82	77
Dilution Factor		1000	100	1000	50	10000
Prep Date		10/02/03	10/02/03	10/02/03	10/02/03	10/02/03
Prep Time		11:50	11:50	11:50	11:50	11:50
Analysis Date		10/03/03	10/02/03	10/03/03	10/06/03	10/07/03
Analysis Time		13:49	17:07	14:43	19:30	13:14
Batch ID		EXT099A	EXT099A	EXT099A	EXT099A	EXT099A
Prep Method		5035/5030B	5035/5030B	5035/5030B	5035/5030B	5035/5030B
Analyst		CN	CN	CN	CN	CN
Quantitation Factor		1370	127	1270	61.0	13000
Diesel Range Organics (8015M)						
Mineral Spirits	mg/kg dw	<3.5	<3.2	<3.0	<3.0	<6.5
Kerosene	mg/kg dw	<3.5	<3.2	<3.0	<3.0	<6.5
Diesel	mg/kg dw	<3.5	<3.2	<3.0	<3.0	<6.5
Fuel Oil	mg/kg dw	<3.5	<3.2	<3.0	<3.0	<6.5
Motor oil (10W-40)	mg/kg dw	<3.5	<3.2	<3.0	<3.0	<6.5
Hydraulic Fluid Hydrocarbons	mg/kg dw	<3.5	<3.2	<3.0	<3.0	<6.5
Unknown Hydrocarbon	mg/kg dw	110	89	74	290	2300
Surrogate - o-Terphenyl *	%	114 %	95 %	95 %	95 %	57 %D
Percent Solids		73	79	79	82	77
Dilution Factor		1	1	1	1	2
Prep Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Prep Time		12:30	12:30	12:30	12:30	12:30
Analysis Date		10/01/03	10/01/03	10/01/03	10/02/03	10/02/03
Analysis Time		23:03	23:21	23:58	00:17	15:44
Batch ID		FPS206	FPS206	FPS206	FPS206	FPS206
Prep Method		3550B	3550B	3550B	3550B	3550B
Analyst		IE	IE	IE	IE	IE
Quantitation Factor		1.4	1.3	1.2	1.2	2.6

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09755-11	GPSOIL20030925-29-19	Solid	09/27/03	09/25/03 10:55	EPC03
09755-12	GPSOIL20030925-25-3.5	Solid	09/27/03	09/25/03 11:30	EPC03
09755-13	GPSOIL20030925-25-6.5	Solid	09/27/03	09/25/03 11:35	EPC03
09755-14	GPSOIL20030925-28-3.5	Solid	09/27/03	09/25/03 13:50	EPC03
09755-15	GPSOIL20030925-28-8	Solid	09/27/03	09/25/03 14:00	EPC03

Parameter	Units	Lab Sample IDs 09755-11	09755-12	09755-13	09755-14	09755-15
Volatile Organic Compounds (8260B)						
Chloromethane	ug/kg dw	<680	<320	<320	<300	<320
Bromomethane (Methyl bromide)	ug/kg dw	<680	<320	<320	<300	<320
Vinyl chloride	ug/kg dw	<680	<320	<320	<300	<320
Chloroethane	ug/kg dw	<680	<320	<320	<300	<320
Methylene chloride (Dichloromethane)	ug/kg dw	<680	<320	<320	<300	<320
Acetone	ug/kg dw	<3400	<1600	<1600	<1500	<1600
Carbon disulfide	ug/kg dw	<680	<320	<320	<300	<320
1,1-Dichloroethene	ug/kg dw	<680	<320	<320	<300	<320
1,1-Dichloroethane	ug/kg dw	<680	<320	<320	<300	<320
Cis/Trans-1,2-Dichloroethene	ug/kg dw	<680	<320	<320	<300	<320
cis-1,2-Dichloroethene	ug/kg dw	<680	<320	<320	<300	<320
[illegible]roform	ug/kg dw	<680	<320	<320	<300	<320
[illegible]Dichloroethane	ug/kg dw	<680	<320	<320	<300	<320
2-Butanone (MEK)	ug/kg dw	<3400	<1600	<1600	<1500	<1600
1,1,1-Trichloroethane	ug/kg dw	<680	<320	<320	<300	<320
Carbon tetrachloride	ug/kg dw	<680	<320	<320	<300	<320
Vinyl acetate	ug/kg dw	<3400	<1600	<1600	<1500	<1600
Bromodichloromethane	ug/kg dw	<680	<320	<320	<300	<320
1,2-Dichloropropane	ug/kg dw	<680	<320	<320	<300	<320
cis-1,3-Dichloropropene	ug/kg dw	<680	<320	<320	<300	<320
Trichloroethene	ug/kg dw	<680	<320	<320	<300	<320
Dibromochloromethane	ug/kg dw	<680	<320	<320	<300	<320
1,1,2-Trichloroethane	ug/kg dw	<680	<320	<320	<300	<320
Benzene	ug/kg dw	7900	770	2500	<300	630
trans-1,3-Dichloropropene	ug/kg dw	<680	<320	<320	<300	<320
Bromoform	ug/kg dw	<680	<320	<320	<300	<320
4-Methyl-2-pentanone (MIBK)	ug/kg dw	<3400	<1600	<1600	<1500	<1600
2-Hexanone	ug/kg dw	<3400	<1600	<1600	<1500	<1600
Tetrachloroethene	ug/kg dw	<680	<320	<320	<300	<320
1,1,2,2-Tetrachloroethane	ug/kg dw	<680	<320	<320	<300	<320
Toluene	ug/kg dw	4000	130J	2900	<300	150J

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09755-11	GPSOIL20030925-29-19	Solid	09/27/03	09/25/03 10:55	EPC03
09755-12	GPSOIL20030925-25-3.5	Solid	09/27/03	09/25/03 11:30	EPC03
09755-13	GPSOIL20030925-25-6.5	Solid	09/27/03	09/25/03 11:35	EPC03
09755-14	GPSOIL20030925-28-3.5	Solid	09/27/03	09/25/03 13:50	EPC03
09755-15	GPSOIL20030925-28-8	Solid	09/27/03	09/25/03 14:00	EPC03

Parameter	Units	Lab Sample IDs 09755-11	09755-12	09755-13	09755-14	09755-15
Volatile Organic Compounds (8260B)						
Chlorobenzene	ug/kg dw	<680	<320	<320	<300	<320
Ethylbenzene	ug/kg dw	17000	730	18000	<300	170J
Styrene	ug/kg dw	<680	<320	<320	<300	<320
Xylenes, Total	ug/kg dw	47000	1400	26000	<610	1200
Surrogate - Dibromofluoromethane *	%	84 %	96 %	82 %	99 %	91 %
Surrogate - Toluene-d8 *	%	92 %	99 %	94 %	104 %	95 %
Surrogate - 4-Bromofluorobenzene *	%	120 %	97 %	119 %	91 %	116 %
Percent Solids		73	79	79	82	77
Dilution Factor		100	50	50	50	50
Prep Date		09/29/03	09/29/03	09/29/03	09/29/03	09/29/03
Prep Time		10:55	11:30	11:35	13:50	14:00
Analysis Date		10/02/03	10/02/03	10/02/03	10/02/03	10/02/03
Analysis Time		18:10	18:46	19:21	19:57	20:32
Batch ID		KAS169	KAS169	KAS169	KAS169	KAS169
Prep Method		5035/5030B	5035/5030B	5035/5030B	5035/5030B	5035/5030B
Analyst		DWB	DWB	DWB	DWB	DWB
Quantitation Factor		136.99	63.29	63.29	60.98	64.94

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09755-16	PWS-1	Liquid	09/27/03	09/24/03 13:30	EPC03

Lab Sample IDs

Parameter	Units	09755-16
Metals (6010B)		
Antimony	mg/l	0.0070J
Arsenic	mg/l	<0.010
Barium	mg/l	0.080
Beryllium	mg/l	<0.0060
Cadmium	mg/l	<0.010
Chromium	mg/l	<0.010
Copper	mg/l	0.0020J
Lead	mg/l	<0.010
Nickel	mg/l	<0.010
Selenium	mg/l	<0.020
Silver	mg/l	<0.010
Thallium	mg/l	<0.020
Zinc	mg/l	0.0090J
Dilution Factor		1
Prep Date		10/04/03
Prep Time		15:00
Analysis Date		10/07/03
Analysis Time		18:08
Batch ID		PW364
Prep Method		3010A
Analyst		GSP
Quantitation Factor		1.000
Mercury (7470A)		
Mercury	mg/l	<0.00020
Dilution Factor		1
Prep Date		10/06/03
Prep Time		10:20
Analysis Date		10/06/03
Analysis Time		12:18
Batch ID		HGW107
Prep Method		7470A
Analyst		JDE
Quantitation Factor		1

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09755-16	PWS-1	Liquid	09/27/03	09/24/03 13:30	EPC03

Parameter	Units	Lab Sample IDs 09755-16
Gasoline Range Organics (8015M)		
Hydrocarbons as GRO (C6-C10)	ug/l	<100
Surrogate -		
a,a,a-Trifluorotoluene *	%	97 %
Dilution Factor		1
Prep Date		10/08/03
Prep Time		00:56
Analysis Date		10/08/03
Analysis Time		00:56
Batch ID		CAW105C
Prep Method		5030B
Analyst		CN
Quantitation Factor		1
Diesel Range Organics (8015M)		
Mineral Spirits	ug/l	<100
Kerosene	ug/l	<100
Diesel	ug/l	<100
Fuel Oil	ug/l	<100
Motor oil (10W-40)	ug/l	<100
Hydraulic Fluid Hydrocarbons	ug/l	<100
Unknown Hydrocarbon	ug/l	<100
Surrogate - o-Terphenyl *	%	123 %
Dilution Factor		1
Prep Date		09/30/03
Prep Time		09:00
Analysis Date		10/01/03
Analysis Time		12:21
Batch ID		FPW207
Prep Method		3250B
Analyst		IE
Quantitation Factor		1.0

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09755-16	PWS-1	Liquid	09/27/03	09/24/03 13:30	EPC03

Parameter	Units	Lab Sample IDs 09755-16
Semivolatile Organic Compounds (8270C)		
Benzoic acid	ug/l	<50
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	ug/l	<10
2-Chlorophenol	ug/l	<10
2,4-Dichlorophenol	ug/l	<10
2,6-Dichlorophenol	ug/l	<10
2,4-Dimethylphenol	ug/l	<10
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	ug/l	<50
2,4-Dinitrophenol	ug/l	<50
2-Methylphenol (o-Cresol)	ug/l	<10
3-Methylphenol/4-Methylphenol (m&p-Cresol)	ug/l	<10
2-Nitrophenol (o-Nitrophenol)	ug/l	<10
4-Nitrophenol (p-Nitrophenol)	ug/l	<50
Pentachlorophenol	ug/l	<50
[illegible]ol	ug/l	<10
[illegible],6-Tetrachlorophenol	ug/l	<10
2,4,5-Trichlorophenol	ug/l	<50
2,4,6-Trichlorophenol	ug/l	<10
Acenaphthene	ug/l	<10
Acenaphthylene	ug/l	<10
Acetophenone	ug/l	<10
4-Aminobiphenyl	ug/l	<10
Aniline	ug/l	<10
Anthracene	ug/l	<10
Benzidine	ug/l	<50
Benzo(a)anthracene	ug/l	<10
Benzo(b)fluoranthene	ug/l	<10
Benzo(k)fluoranthene	ug/l	<10
Benzo(g,h,i)perylene	ug/l	<10
Benzo(a)pyrene	ug/l	<10
Benzyl alcohol	ug/l	<10
4-Bromophenylphenyl ether	ug/l	<10
Butylbenzylphthalate	ug/l	<10
Carbazole	ug/l	<10

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09755-16	PWS-1	Liquid	09/27/03	09/24/03 13:30	EPC03

Parameter	Units	Lab Sample IDs 09755-16
Semivolatile Organic Compounds (8270C)		
4-Chloroaniline (p-Chloroaniline)	ug/l	<10
bis(2-Chloroethoxy)methane	ug/l	<10
bis(2-Chloroethyl)ether	ug/l	<10
bis(2-Chloroisopropyl) ether	ug/l	<10
1-Chloronaphthalene	ug/l	<10
2-Chloronaphthalene	ug/l	<10
4-Chlorophenylphenyl ether	ug/l	<10
Chrysene	ug/l	<10
Dibenz(a,j)acridine	ug/l	<10
Dibenzo(a,h)anthracene	ug/l	<10
Dibenzofuran	ug/l	<10
Di-n-butylphthalate	ug/l	1.7J
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/l	<10
1,3-Dichlorobenzene (m-Dichlorobenzene)	ug/l	<10
1,4-Dichlorobenzene (p-Dichlorobenzene)	ug/l	<10
3,3'-Dichlorobenzidine	ug/l	<50
Diethylene Glycol Monobutyl Ether	ug/l	<10
Diethylphthalate	ug/l	<10
p-(Dimethylamino)azobenzene	ug/l	<10
7,12-Dimethylbenz(a)anthracene	ug/l	<10
alpha,alpha-Dimethylphenethylamine	ug/l	<10
Dimethylphthalate	ug/l	<10
2,4-Dinitrotoluene	ug/l	<10
2,6-Dinitrotoluene	ug/l	<10
Di-n-octylphthalate	ug/l	<10
1,2-Diphenylhydrazine	ug/l	<10
bis(2-Ethylhexyl)phthalate	ug/l	1.3J
Ethyl methanesulfonate	ug/l	<10
Fluoranthene	ug/l	<10
Fluorene	ug/l	<10

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09755-16	PWS-1	Liquid	09/27/03	09/24/03 13:30	EPC03

Parameter	Units	Lab Sample IDs 09755-16
Semivolatile Organic Compounds (8270C)		
Hexachlorobenzene	ug/l	<10
Hexachlorobutadiene	ug/l	<10
Hexachlorocyclopentadiene	ug/l	<10
Hexachloroethane	ug/l	<10
Indeno(1,2,3-cd)pyrene	ug/l	<10
Isophorone	ug/l	<10
3-Methylcholanthrene	ug/l	<10
Methyl methanesulfonate	ug/l	<10
1-Methylnaphthalene	ug/l	<10
2-Methylnaphthalene	ug/l	<10
Naphthalene	ug/l	<10
1-Naphthylamine	ug/l	<10
2-Naphthylamine	ug/l	<10
2-Nitroaniline (o-Nitroaniline)	ug/l	<10
3-Nitroaniline (m-Nitroaniline)	ug/l	<10
4-Nitroaniline (p-Nitroaniline)	ug/l	<10
Nitrobenzene	ug/l	<10
N-Nitrosodi-n-butylamine	ug/l	<10
N-Nitrosodimethylamine	ug/l	<10
N-Nitrosodiphenylamine	ug/l	<10
n-Nitrosodi-n-propylamine	ug/l	<10
N-Nitrosopiperidine	ug/l	<10
Pentachlorobenzene	ug/l	<10
Pentachloronitrobenzene	ug/l	<10
Phenacetin	ug/l	<10
Phenanthrene	ug/l	<10
2-Picoline	ug/l	<10
Pronamide	ug/l	<10
Pyrene	ug/l	<10
Pyridine	ug/l	<10
1,2,4,5-Tetrachlorobenzene	ug/l	<10
1,2,4-Trichlorobenzene	ug/l	<10
Surrogate - 2-Fluorobiphenyl *	%	46 %*

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09755-16	PWS-1	Liquid	09/27/03	09/24/03 13:30	EPC03

Parameter	Units	Lab Sample IDs 09755-16
Semivolatile Organic Compounds (8270C)		
Surrogate - 2-Fluorophenol *	%	22 %
Surrogate - Nitrobenzene - d5 *	%	34 %*
Surrogate - Phenol-d5 *	%	19 %
Surrogate - Terphenyl-d14 *	%	85 %
Surrogate - 2,4,6-Tribromophenol *	%	52 %
Dilution Factor		1
Prep Date		09/30/03
Prep Time		09:00
Analysis Date		10/02/03
Analysis Time		18:13
Batch ID		ALW159
Prep Method		3520C
Analyst		RDW
Quantitation Factor		1
Volatile Organic Compounds (8260B)		
Chloromethane	ug/l	<5.0
Bromomethane (Methyl bromide)	ug/l	<5.0
Vinyl chloride	ug/l	<5.0
Chloroethane	ug/l	<5.0
Methylene chloride (Dichloromethane)	ug/l	<5.0
Acetone	ug/l	<25
Carbon disulfide	ug/l	<5.0
1,1-Dichloroethene	ug/l	<5.0
1,1-Dichloroethane	ug/l	<5.0
Cis/Trans-1,2-Dichloroethene	ug/l	<5.0
cis-1,2-Dichloroethene	ug/l	<5.0
Chloroform	ug/l	12
1,2-Dichloroethane	ug/l	<5.0
2-Butanone (MEK)	ug/l	<25
1,1,1-Trichloroethane	ug/l	<5.0
Carbon tetrachloride	ug/l	<5.0

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09755-16	PWS-1	Liquid	09/27/03	09/24/03 13:30	EPC03

Lab Sample IDs

Parameter	Units	09755-16
Volatile Organic Compounds (8260B)		
Vinyl acetate	ug/l	<5.0
Bromodichloromethane	ug/l	9.5
1,2-Dichloropropane	ug/l	<5.0
cis-1,3-Dichloropropene	ug/l	<5.0
Trichloroethene	ug/l	<5.0
Dibromochloromethane	ug/l	4.8J
1,1,2-Trichloroethane	ug/l	<5.0
Benzene	ug/l	<1.0
trans-1,3-Dichloropropene	ug/l	<5.0
Bromoform	ug/l	2.0J
4-Methyl-2-pentanone (MIBK)	ug/l	<25
2-Hexanone	ug/l	<25
Tetrachloroethene	ug/l	<5.0
1,1,2,2-Tetrachloroethane	ug/l	<5.0
Toluene	ug/l	<5.0
Chlorobenzene	ug/l	<5.0
Ethylbenzene	ug/l	<5.0
[illegible]ene	ug/l	<5.0
Xylenes, Total	ug/l	<10
Surrogate - Dibromofluoromethane *	%	100 %
Surrogate - Toluene-d8 *	%	94 %
Surrogate - 4-Bromofluorobenzene *	%	96 %
Dilution Factor		1
Prep Date		10/02/03
Prep Time		16:52
Analysis Date		10/02/03
Analysis Time		16:52
Batch ID		TAW174
Prep Method		5030B
Analyst		GRH
Quantitation Factor		1.000

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.

[redacted]

Chain of Custody Record

STL-4124-400 (12/02)

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

Client: El Paso	Project Manager: Bob Norris	Date: 9-25-03	Chain of Custody Number: 06390
Address: —	Telephone Number (Area Code)/Fax Number: 303 239 5421	Lab Number: C309755	Page 1 of 1
City: Colorado Springs; State: CO; Zip Code: —	Site Contact: S. Harden	Lab Contact: M. Pope	
Project Name and Location (State): El Paso El Dorado Facility	Carrier/Waybill Number: 1ZX178X9221025107 5		
Contract/Purchase Order/Quote No.: —			

Analysis (Attach list if more space is needed): BOW + BS

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	NONE	METALS (6010B)	TPH-G (8015)	TPH-E (8015)	VOCS (8260)	SVOCS (8270)								Special Instructions/ Conditions of Receipt
GPS01L20030925-34-0.5	9/25/03	8:25				X							X	X	X	X		X								1
GPS01L20030925-34-3.5	↓	8:30				↓							↓	X	X	X	X									6
GPS01L20030925-34-17		8:55												X	X	X	X									7
GPS01L20030925-31-0.5		9:25												X	X	X		X								2
GPS01L20030925-31-3.5		9:30												X	X	X	X									8
GPS01L20030925-31-18		9:45												X	X	X	X									9
GPS01L20030925-29-0.5		10:25												X	X	X		X								3
GPS01L20030925-29-3.5		10:30												X	X	X	X									10
GPS01L20030925-29-19		10:55												X	X	X	X									11
GPS01L20030925-25-0.5		11:25												X	X	X		X								4
GPS01L20030925-25-3.5		11:30												X	X	X	X									12
GPS01L20030925-25-6.5	↓	11:35				↓							↓	X	X	X	X									13

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: Todd S. Glenshaw	9/25/03	1300	1. Received By: Stephen Hall	9/25/03	1300
2. Relinquished By: Stephen Hall	9/25/03	1800	2. Received By: UPS	9/25/03	1800
3. Relinquished By:			3. Received By: Danette Howard	9-26-03	1000

Comments: Part of above samples in cooler 2 of 2; Chain in cooler 1 of 2

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

30

Chain of Custody Record

STL-4124-400 (12/02)

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

Client: El Paso	Project Manager: Bob Norris	Date: 9-25-03	Chain of Custody Number: 05836
Address: —	Telephone Number (Area Code)/Fax Number: 303 2395221	Lab Number: C309755	Page 1 of 1
City: Colorado Springs; State: CO; Zip Code: —	Site Contact: S. Harden	Lab Contact: M. Pope	
Project Name and Location (State): El Paso El Dorado Refinery	Carrier/Waybill Number: 1Z X178 X9 221025 6066		
Contract/Purchase Order/Quote No.: —			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil		Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH		Analysis (Attach list if more space is needed): RP metals (6010) + Ba	TPH-G (8015)	TPH-D (8015)	VOCs (8260)	SVOCs (8270)							Special Instructions/ Conditions of Receipt
WS-1	9/24/03	1330		X				X			X				X	X	X	X	X							16	
RPSOIL20030925-28-0.5	9/25/03	1345				X		X							X	X	X		X							5	
RPSOIL20030925-28-3.5	↓	1350				X		X							X	X	X	X								14	
RPSOIL 20030925-28-8	↓	1400				X		X							X	X	X	X								15	

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown

Sample Disposal: [ ] Return To Client [X] Disposal By Lab [ ] Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: [ ] 24 Hours [ ] 48 Hours [ ] 7 Days [ ] 14 Days [ ] 21 Days [X] Other Standard

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: Stephen Hell	9/25/03	1800	1. Received By: UPS	9/25/03	1800
2. Relinquished By:			2. Received By: Dave the Hauler	9-26-03	1000
3. Relinquished By:			3. Received By:		

Comments: Some samples from cooler 1 COC 06390

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

SEVERN TRENT STL

TL Pensacola 3355 McLemore Drive - Pensacola FL 32514 Telephone:(850) 474-1001 Fax:(850) 478-2671

Analytical Report

For: Mr. Chris Miller
El Paso Energy Corporation
P.O. Box 2511
Houston, TX 77252-2511
CC: Lynn Hanzlicek (Shaw, KS)

Order Number: C309767
SDG Number: EPC04
Client Project ID:
Project: EL PASO-EL DORADO, KS
Report Date: 10/30/2003
Sampled By: Client
Sample Received Date: 09/27/2003
Requisition Number:
Purchase Order: C-STL1-ELDORADO-001

Melissa L. Pope

Melissa L. Pope, Project Manager
mpope@stl-inc.com

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Sample Summary

Order: C309767
Date Received: 09/27/2003

Client: El Paso Energy Corporation
Project: EL PASO-EL DORADO, KS

Client Sample ID	Lab Sample ID	Matrix	Date Sampled
DUPLICATE-4	C309767*1	Solid	09/25/2003
GPSOIL20030925-24-0.5	C309767*2	Solid	09/25/2003 13:55
GPSOIL20030925-23-0.5	C309767*3	Solid	09/25/2003 14:35
GPSOIL20030925-22-0.5	C309767*4	Solid	09/25/2003 15:25
GPSOIL20030925-26-0.5	C309767*5	Solid	09/25/2003 16:10
GPSOIL20030925-27-0.5	C309767*6	Solid	09/25/2003 17:20
GPSOIL20030926-48-0.5	C309767*7	Solid	09/26/2003 08:15
DUPLICATE-3	C309767*8	Solid	09/25/2003
DUPLICATE-5	C309767*9	Solid	09/25/2003
GPSOIL20030925-24-3.5	C309767*10	Solid	09/25/2003 14:00
GPSOIL20030925-24-6.0	C309767*11	Solid	09/25/2003 14:05
GPSOIL20030925-23-3.5	C309767*12	Solid	09/25/2003 14:40
GPSOIL20030925-23-8.5	C309767*13	Solid	09/25/2003 14:45
GPSOIL20030925-22-3.5	C309767*14	Solid	09/25/2003 15:30
GPSOIL20030925-22-7.0	C309767*15	Solid	09/25/2003 15:40
GPSOIL20030925-26-3.5	C309767*16	Solid	09/25/2003 16:15
GPSOIL20030925-27-5.5	C309767*17	Solid	09/25/2003 17:30
GPSOIL20030926-48-3.5	C309767*18	Solid	09/26/2003 08:20
GPSOIL20030925-27-3.5	C309767*19	Solid	09/25/2003 17:25

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09767-1	DUPLICATE-4	Solid	09/27/03	09/25/03	EPC04
09767-2	GPSOIL20030925-24-0.5	Solid	09/27/03	09/25/03 13:55	EPC04
09767-3	GPSOIL20030925-23-0.5	Solid	09/27/03	09/25/03 14:35	EPC04
09767-4	GPSOIL20030925-22-0.5	Solid	09/27/03	09/25/03 15:25	EPC04
09767-5	GPSOIL20030925-26-0.5	Solid	09/27/03	09/25/03 16:10	EPC04

Parameter	Units	Lab Sample IDs 09767-1	09767-2	09767-3	09767-4	09767-5
Metals (6010B)						
Antimony	mg/kg dw	0.61JB	<12	<12	<11	0.88JB
Arsenic	mg/kg dw	6.4	8.6	11	6.2	8.8
Barium	mg/kg dw	140B	180B	930B	170B	140B
Beryllium	mg/kg dw	1.3	0.93	1.2	1.2	0.81
Cadmium	mg/kg dw	0.20J	0.46J	0.86J	0.23J	0.60J
Chromium	mg/kg dw	25	19	32	22	27
Copper	mg/kg dw	14	42	45	15	41
Lead	mg/kg dw	17	190	68	16	210
Nickel	mg/kg dw	18	16	25	17	17
Selenium	mg/kg dw	<2.2	<2.3	2.3JB	<2.2	<1.9
Silver	mg/kg dw	<1.1	<1.2	<1.2	<1.1	<0.94
Thallium	mg/kg dw	<2.2	<2.3	<2.3	<2.2	<1.9
[illegible]	mg/kg dw	50	67	85	43	93
[illegible]ent Solids		79	79	83	77	82
Dilution Factor		1	1	1	1	1
Prep Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Prep Time		18:20	18:20	18:20	18:20	18:20
Analysis Date		10/07/03	10/07/03	10/07/03	10/07/03	10/07/03
Analysis Time		22:06	21:38	22:11	22:17	22:33
Batch ID		PS203	PS203	PS203	PS203	PS203
Prep Method		3050B	3050B	3050B	3050B	3050B
Analyst		GSP	GSP	GSP	GSP	GSP
Quantitation Factor		111.0371	115.0748	116.9727	108.2251	94.5358
Mercury (7471A)						
Mercury	mg/kg dw	0.025	0.31	0.080	0.017	1.2
Percent Solids		79	79	83	77	82
Dilution Factor		1	1	1	1	10
Prep Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Prep Time		17:15	17:15	17:15	17:15	17:15
Analysis Date		10/05/03	10/05/03	10/05/03	10/05/03	10/05/03
Analysis Time		11:46	11:48	11:50	11:51	12:32
Batch ID		HGS054	HGS054	HGS054	HGS054	HGS054
Prep Method		7471A	7471A	7471A	7471A	7471A
Analyst		JDE	JDE	JDE	JDE	JDE
Quantitation Factor		51.5677	52.6316	47.1520	52.8318	482.4392

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09767-1	DUPLICATE-4	Solid	09/27/03	09/25/03	EPC04
09767-2	GPSOIL20030925-24-0.5	Solid	09/27/03	09/25/03 13:55	EPC04
09767-3	GPSOIL20030925-23-0.5	Solid	09/27/03	09/25/03 14:35	EPC04
09767-4	GPSOIL20030925-22-0.5	Solid	09/27/03	09/25/03 15:25	EPC04
09767-5	GPSOIL20030925-26-0.5	Solid	09/27/03	09/25/03 16:10	EPC04

Parameter	Units	Lab Sample IDs 09767-1	09767-2	09767-3	09767-4	09767-5
Gasoline Range Organics (8015M)						
Hydrocarbons as GRO (C6-C10)	mg/kg dw	1.9J	<6.3	<6.0	1.5J	1.1J
Surrogate - a,a,a-Trifluorotoluene *	%	99 %	92 %	96 %	96 %	87 %
Percent Solids		79	79	83	77	82
Dilution Factor		50	50	50	50	50
Prep Date		09/30/03	09/30/03	09/30/03	09/30/03	09/30/03
Prep Time		14:00	14:00	14:00	14:00	14:00
Analysis Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Analysis Time		15:39	16:42	17:44	18:47	19:49
Batch ID		EXT098A	EXT098A	EXT098A	EXT098A	EXT098A
Prep Method		5035/5030B	5035/5030B	5035/5030B	5035/5030B	5035/5030B
Analyst		SB	SB	SB	SB	SB
Quantitation Factor		63.3	63.3	60.2	64.9	61.0
Diesel Range Organics (8015M)						
Mineral Spirits	mg/kg dw	<3.2	<3.2	<300	<3.2	<3.0
Kerosene	mg/kg dw	<3.2	<3.2	<300	<3.2	<3.0
Diesel	mg/kg dw	<3.2	<3.2	<300	<3.2	<3.0
Fuel Oil	mg/kg dw	<3.2	<3.2	<300	<3.2	<3.0
Motor oil (10W-40)	mg/kg dw	<3.2	<3.2	<300	<3.2	<3.0
Hydraulic Fluid Hydrocarbons	mg/kg dw	<3.2	<3.2	<300	<3.2	<3.0
Unknown Hydrocarbon	mg/kg dw	3.0J	9.5	300	170	30
Surrogate - o-Terphenyl *	%	98 %	111 %	3 %D	129 %	97 %
Percent Solids		79	79	83	77	82
Dilution Factor		1	1	100	1	1
Prep Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Prep Time		10:50	10:50	10:50	10:50	10:50
Analysis Date		10/02/03	10/02/03	10/02/03	10/02/03	10/02/03
Analysis Time		02:08	02:26	02:45	03:21	03:40
Batch ID		FPS207	FPS207	FPS207	FPS207	FPS207
Prep Method		3550B	3550B	3550B	3550B	3550B
Analyst		IE	IE	IE	IE	IE
Quantitation Factor		1.3	1.3	120	1.3	1.2

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09767-1	DUPLICATE-4	Solid	09/27/03	09/25/03	EPC04
09767-2	GPSOIL20030925-24-0.5	Solid	09/27/03	09/25/03 13:55	EPC04
09767-3	GPSOIL20030925-23-0.5	Solid	09/27/03	09/25/03 14:35	EPC04
09767-4	GPSOIL20030925-22-0.5	Solid	09/27/03	09/25/03 15:25	EPC04
09767-5	GPSOIL20030925-26-0.5	Solid	09/27/03	09/25/03 16:10	EPC04

Parameter	Units	Lab Sample IDs 09767-1	09767-2	09767-3	09767-4	09767-5
Semivolatile Organic Compounds (8270C)						
Benzoic acid	ug/kg dw	<2100	<2100	<7000	<2100	<2000
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	ug/kg dw	<420	<420	<3100	<420	<400
2-Chlorophenol	ug/kg dw	<420	<420	<2300	<420	<400
2,4-Dichlorophenol	ug/kg dw	<420	<420	<2700	<420	<400
2,6-Dichlorophenol	ug/kg dw	<420	<420	<2400	<420	<400
2,4-Dimethylphenol	ug/kg dw	<420	<420	<4800	<420	<400
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	ug/kg dw	<2100	<2100	<2100	<2100	<2000
2,4-Dinitrophenol	ug/kg dw	<2100	<2100	<2900	<2100	<2000
2-Methylphenol (o-Cresol)	ug/kg dw	<420	<420	<2600	<420	<400
3-Methylphenol/4-Methylphenol &p-Cresol)	ug/kg dw	<420	<420	<2500	<420	<400
trophenol (o-Nitrophenol)	ug/kg dw	<420	<420	<2200	<420	<400
4-Nitrophenol (p-Nitrophenol)	ug/kg dw	<2100	<2100	<2700	<2100	<2000
Pentachlorophenol	ug/kg dw	<2100	<2100	<2800	<2100	<2000
Phenol	ug/kg dw	<420	<420	<2600	<420	<400
2,3,4,6-Tetrachlorophenol	ug/kg dw	<420	<420	<2500	<420	<400
2,4,5-Trichlorophenol	ug/kg dw	<2100	<2100	<2400	<2100	<2000
2,4,6-Trichlorophenol	ug/kg dw	<420	<420	<2100	<420	<400
Acenaphthene	ug/kg dw	<420	<420	<2000	<420	<400
Acenaphthylene	ug/kg dw	<420	<420	<2700	<420	<400
Acetophenone	ug/kg dw	<420	<420	<2600	<420	<400
4-Aminobiphenyl	ug/kg dw	<420	<420	<5500	<420	<400
Aniline	ug/kg dw	<420	<420	<7200	<420	<400
Anthracene	ug/kg dw	<420	<420	<2400	130J	<400
Benzidine	ug/kg dw	<2100	<2100	<55000	<2100	<2000
Benzo(a)anthracene	ug/kg dw	<420	120J	<3800	230J	<400
Benzo(b)fluoranthene	ug/kg dw	<420	220J	<4000	72J	96J
Benzo(k)fluoranthene	ug/kg dw	<420	82J	<4800	<420	<400
Benzo(g,h,i)perylene	ug/kg dw	<420	110J	<3000	<420	180J
Benzo(a)pyrene	ug/kg dw	<420	140J	<3700	160J	87J

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09767-1	DUPLICATE-4	Solid	09/27/03	09/25/03	EPC04
09767-2	GPSOIL20030925-24-0.5	Solid	09/27/03	09/25/03 13:55	EPC04
09767-3	GPSOIL20030925-23-0.5	Solid	09/27/03	09/25/03 14:35	EPC04
09767-4	GPSOIL20030925-22-0.5	Solid	09/27/03	09/25/03 15:25	EPC04
09767-5	GPSOIL20030925-26-0.5	Solid	09/27/03	09/25/03 16:10	EPC04

Parameter	Units	Lab Sample IDs 09767-1	09767-2	09767-3	09767-4	09767-5
Semivolatile Organic Compounds (8270C)						
Benzyl alcohol	ug/kg dw	<420	<420	<2000	<420	<400
4-Bromophenylphenyl ether	ug/kg dw	<420	<420	<2600	<420	<400
Butylbenzylphthalate	ug/kg dw	<420	<420	<4000	<420	<400
Carbazole	ug/kg dw	<420	<420	<3200	140J	<400
4-Chloroaniline (p-Chloroaniline)	ug/kg dw	<420	<420	<3100	<420	<400
bis(2-Chloroethoxy)methane	ug/kg dw	<420	<420	<2000	<420	<400
bis(2-Chloroethyl)ether	ug/kg dw	<420	<420	<2600	<420	<400
bis(2-Chloroisopropyl) ether	ug/kg dw	<420	<420	<3000	<420	<400
1-Chloronaphthalene	ug/kg dw	<420	<420	<2200	<420	<400
2-Chloronaphthalene	ug/kg dw	<420	<420	<2800	<420	<400
4-Chlorophenylphenyl ether	ug/kg dw	<420	<420	<2700	<420	<400
Chrysene	ug/kg dw	<420	190J	<3800	410J	89J
Dibenz(a,j)acridine	ug/kg dw	<420	<420	<4500	<420	<400
Dibenzo(a,h)anthracene	ug/kg dw	<420	<420	<2100	<420	<400
Dibenzofuran	ug/kg dw	<420	<420	<2100	49J	<400
Di-n-butylphthalate	ug/kg dw	<420	<420	<3700	<420	<400
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/kg dw	<420	<420	<2400	<420	<400
1,3-Dichlorobenzene (m-Dichlorobenzene)	ug/kg dw	<420	<420	<2400	<420	<400
1,4-Dichlorobenzene (p-Dichlorobenzene)	ug/kg dw	<420	<420	<2700	<420	<400
3,3'-Dichlorobenzidine	ug/kg dw	<2100	<2100	<3100	<2100	<2000
Diethylene Glycol Monobutyl Ether	ug/kg dw	<420	<420	<2200	<420	<400
Diethylphthalate	ug/kg dw	<420	<420	<2500	<420	<400
p-(Dimethylamino)azobenzene	ug/kg dw	<420	<420	<3100	<420	<400
7,12-Dimethylbenz(a)anthracene	ug/kg dw	<420	<420	<4600	<420	<400
alpha,alpha-Dimethylphenethylamine	ug/kg dw	<420	<420	<20000	<420	<400
Dimethylphthalate	ug/kg dw	<420	<420	<2400	<420	<400

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09767-1	DUPLICATE-4	Solid	09/27/03	09/25/03	EPC04
09767-2	GPSOIL20030925-24-0.5	Solid	09/27/03	09/25/03 13:55	EPC04
09767-3	GPSOIL20030925-23-0.5	Solid	09/27/03	09/25/03 14:35	EPC04
09767-4	GPSOIL20030925-22-0.5	Solid	09/27/03	09/25/03 15:25	EPC04
09767-5	GPSOIL20030925-26-0.5	Solid	09/27/03	09/25/03 16:10	EPC04

Parameter	Units	Lab Sample IDs 09767-1	09767-2	09767-3	09767-4	09767-5
Semivolatile Organic Compounds (8270C)						
2,4-Dinitrotoluene	ug/kg dw	<420	<420	<2800	<420	<400
2,6-Dinitrotoluene	ug/kg dw	<420	<420	<2300	<420	<400
Di-n-octylphthalate	ug/kg dw	<420	<420	<3800	<420	<400
1,2-Diphenylhydrazine	ug/kg dw	<420	<420	<2600	<420	<400
bis(2-Ethylhexyl)phthalate	ug/kg dw	<420	<420	<4600	<420	<400
Ethyl methanesulfonate	ug/kg dw	<420	<420	<2400	<420	<400
Fluoranthene	ug/kg dw	<420	450	<3200	110J	80J
Fluorene	ug/kg dw	<420	<420	<2700	92J	<400
Hexachlorobenzene	ug/kg dw	<420	<420	<2300	<420	<400
Hexachlorobutadiene	ug/kg dw	<420	<420	<2300	<420	<400
Hexachlorocyclopentadiene	ug/kg dw	<420	<420	<830	<420	<400
Hexachloroethane	ug/kg dw	<420	<420	<2300	<420	<400
[illegible]ene(1,2,3-cd)pyrene	ug/kg dw	<420	<420	<3300	<420	<400
[illegible]horone	ug/kg dw	<420	<420	<2500	<420	<400
3-Methylcholanthrene	ug/kg dw	<420	<420	<3100	<420	<400
Methyl methanesulfonate	ug/kg dw	<420	<420	<1700	<420	<400
1-Methylnaphthalene	ug/kg dw	<420	<420	<2500	270J	<400
2-Methylnaphthalene	ug/kg dw	<420	<420	<2700	430	<400
Naphthalene	ug/kg dw	<420	<420	<2200	100J	<400
1-Naphthylamine	ug/kg dw	<420	<420	<4900	<420	<400
2-Naphthylamine	ug/kg dw	<420	<420	<4300	<420	<400
2-Nitroaniline (o-Nitroaniline)	ug/kg dw	<420	<420	<2900	<420	<400
3-Nitroaniline (m-Nitroaniline)	ug/kg dw	<420	<420	<2900	<420	<400
4-Nitroaniline (p-Nitroaniline)	ug/kg dw	<420	<420	<3100	<420	<400
Nitrobenzene	ug/kg dw	<420	<420	<2700	<420	<400
N-Nitrosodi-n-butylamine	ug/kg dw	<420	<420	<3100	<420	<400
N-Nitrosodimethylamine	ug/kg dw	<420	<420	<2400	<420	<400
N-Nitrosodiphenylamine	ug/kg dw	<420	<420	<2700	<420	<400
n-Nitrosodi-n-propylamine	ug/kg dw	<420	<420	<2500	<420	<400

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09767-1	DUPLICATE-4	Solid	09/27/03	09/25/03	EPC04
09767-2	GPSOIL20030925-24-0.5	Solid	09/27/03	09/25/03 13:55	EPC04
09767-3	GPSOIL20030925-23-0.5	Solid	09/27/03	09/25/03 14:35	EPC04
09767-4	GPSOIL20030925-22-0.5	Solid	09/27/03	09/25/03 15:25	EPC04
09767-5	GPSOIL20030925-26-0.5	Solid	09/27/03	09/25/03 16:10	EPC04

Parameter	Units	Lab Sample IDs 09767-1	09767-2	09767-3	09767-4	09767-5
Semivolatile Organic Compounds (8270C)						
N-Nitrosopiperidine	ug/kg dw	<420	<420	<2800	<420	<400
Pentachlorobenzene	ug/kg dw	<420	<420	<2400	<420	<400
Pentachloronitrobenzene	ug/kg dw	<420	<420	<2700	<420	<400
Phenacetin	ug/kg dw	<420	<420	<3700	<420	<400
Phenanthrene	ug/kg dw	<420	510	<2500	850	71J
2-Picoline	ug/kg dw	<420	<420	<11000	<420	<400
Pronamide	ug/kg dw	<420	<420	<4000	<420	<400
Pyrene	ug/kg dw	<420	350J	<4100	350J	91J
Pyridine	ug/kg dw	<420	<420	<18000	<420	<400
1,2,4,5-Tetrachlorobenzene	ug/kg dw	<420	<420	<2000	<420	<400
1,2,4-Trichlorobenzene	ug/kg dw	<420	<420	<2500	<420	<400
Surrogate - 2-Fluorobiphenyl *	%	60 %	64 %	51 %	58 %	59 %
Surrogate - 2-Fluorophenol *	%	56 %	54 %	38 %	53 %	52 %
Surrogate - Nitrobenzene - d5 *	%	58 %	64 %	55 %	58 %	57 %
Surrogate - Phenol-d5 *	%	61 %	65 %	50 %	58 %	58 %
Surrogate - Terphenyl-d14 *	%	72 %	73 %	80 %	67 %	67 %
Surrogate - 2,4,6-Tribromophenol *	%	81 %	78 %	60 %	75 %	73 %
Percent Solids		79	79	83	77	82
Dilution Factor		1	1	50	1	1
Prep Date		09/30/03	09/30/03	09/30/03	09/30/03	09/30/03
Prep Time		11:10	11:10	11:10	11:10	11:10
Analysis Date		10/03/03	10/03/03	10/04/03	10/03/03	10/03/03
Analysis Time		18:49	21:13	01:23	19:25	21:48
Batch ID		ALS067	ALS067	ALS067	ALS067	ALS067
Prep Method		3550B	3550B	3550B	3550B	3550B
Analyst		RDW	RDW	RDW	RDW	RDW
Quantitation Factor		41.75	41.71	1970.59	42.37	40.38

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09767-6	GPSOIL20030925-27-0.5	Solid	09/27/03	09/25/03 17:20	EPC04
09767-7	GPSOIL20030926-48-0.5	Solid	09/27/03	09/26/03 08:15	EPC04

Parameter	Units	Lab Sample IDs 09767-6	09767-7
Metals (6010B)			
Antimony	mg/kg dw	1.6JB	<10
Arsenic	mg/kg dw	9.7	6.0
Barium	mg/kg dw	190B	120B
Beryllium	mg/kg dw	0.74	0.94
Cadmium	mg/kg dw	0.83J	0.22J
Chromium	mg/kg dw	93	19
Copper	mg/kg dw	100	13
Lead	mg/kg dw	700	19
Nickel	mg/kg dw	41	13
Selenium	mg/kg dw	0.36JB	<2.1
Silver	mg/kg dw	<0.90	<1.0
Thallium	mg/kg dw	<1.8	<2.1
Zinc	mg/kg dw	130	39
Percent Solids		82	75
Dilution Factor		1	1
Prep Date		10/03/03	10/03/03
Prep Time		18:20	18:20
Analysis Date		10/07/03	10/07/03
Analysis Time		22:39	22:44
Batch ID		PS203	PS203
Prep Method		3050B	3050B
Analyst		GSP	GSP
Quantitation Factor		89.6700	104.1667
Mercury (7471A)			
Mercury	mg/kg dw	0.62	0.024
Percent Solids		82	75
Dilution Factor		10	1
Prep Date		10/03/03	10/03/03
Prep Time		17:15	17:15
Analysis Date		10/05/03	10/05/03
Analysis Time		12:34	12:04
Batch ID		HGS054	HGS054
Prep Method		7471A	7471A
Analyst		JDE	JDE
Quantitation Factor		498.4051	53.0898

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09767-6	GPSOIL20030925-27-0.5	Solid	09/27/03	09/25/03 17:20	EPC04
09767-7	GPSOIL20030926-48-0.5	Solid	09/27/03	09/26/03 08:15	EPC04

Parameter	Units	Lab Sample IDs 09767-6	09767-7
Gasoline Range Organics (8015M)			
Hydrocarbons as GRO (C6-C10)	mg/kg dw	<6.1	<6.7
Surrogate -			
a,a,a-Trifluorotoluene *	%	82 %	95 %
Percent Solids		82	75
Dilution Factor		50	50
Prep Date		09/30/03	09/30/03
Prep Time		14:00	14:00
Analysis Date		10/01/03	10/01/03
Analysis Time		20:52	23:59
Batch ID		EXT098A	EXT098A
Prep Method		5035/5030B	5035/5030B
Analyst		SB	SB
Quantitation Factor		61.0	66.7
Diesel Range Organics (8015M)			
Mineral Spirits	mg/kg dw	<15	<3.2
Kerosene	mg/kg dw	<15	<3.2
Diesel	mg/kg dw	<15	<3.2
Fuel Oil	mg/kg dw	<15	<3.2
Motor oil (10W-40)	mg/kg dw	<15	<3.2
Hydraulic Fluid Hydrocarbons	mg/kg dw	<15	<3.2
Unknown Hydrocarbon	mg/kg dw	120	9.1
Surrogate - o-Terphenyl *	%	24 %D	110 %
Percent Solids		82	75
Dilution Factor		5	1
Prep Date		10/01/03	10/01/03
Prep Time		10:50	10:50
Analysis Date		10/02/03	10/02/03
Analysis Time		03:58	04:17
Batch ID		FPS207	FPS207
Prep Method		3550B	3550B
Analyst		IE	IE
Quantitation Factor		6.1	1.3

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09767-6	GPSOIL20030925-27-0.5	Solid	09/27/03	09/25/03 17:20	EPC04
09767-7	GPSOIL20030926-48-0.5	Solid	09/27/03	09/26/03 08:15	EPC04

Parameter	Units	Lab Sample IDs 09767-6	09767-7
Semivolatile Organic Compounds (8270C)			
Benzoic acid	ug/kg dw	<2000	<2200
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	ug/kg dw	<410	<440
2-Chlorophenol	ug/kg dw	<410	<440
2,4-Dichlorophenol	ug/kg dw	<410	<440
2,6-Dichlorophenol	ug/kg dw	<410	<440
2,4-Dimethylphenol	ug/kg dw	<410	<440
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	ug/kg dw	<2000	<2200
2,4-Dinitrophenol	ug/kg dw	<2000	<2200
2-Methylphenol (o-Cresol)	ug/kg dw	<410	<440
3-Methylphenol/4-Methylphenol (m&p-Cresol)	ug/kg dw	<410	<440
2-Nitrophenol (o-Nitrophenol)	ug/kg dw	<410	<440
4-Nitrophenol (p-Nitrophenol)	ug/kg dw	<2000	<2200
[illegible]achlorophenol	ug/kg dw	<2000	<2200
[illegible]ol	ug/kg dw	<410	<440
2,3,4,6-Tetrachlorophenol	ug/kg dw	<410	<440
2,4,5-Trichlorophenol	ug/kg dw	<2000	<2200
2,4,6-Trichlorophenol	ug/kg dw	<410	<440
Acenaphthene	ug/kg dw	<410	<440
Acenaphthylene	ug/kg dw	<410	<440
Acetophenone	ug/kg dw	<410	<440
4-Aminobiphenyl	ug/kg dw	<410	<440
Aniline	ug/kg dw	<410	<440
Anthracene	ug/kg dw	160J	<440
Benzidine	ug/kg dw	<2000	<2200
Benzo(a)anthracene	ug/kg dw	<410	<440
Benzo(b)fluoranthene	ug/kg dw	<410	<440
Benzo(k)fluoranthene	ug/kg dw	<410	<440
Benzo(g,h,i)perylene	ug/kg dw	130J	<440
Benzo(a)pyrene	ug/kg dw	85J	<440
Benzyl alcohol	ug/kg dw	<410	<440
4-Bromophenylphenyl ether	ug/kg dw	<410	<440
Butylbenzylphthalate	ug/kg dw	<410	<440

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09767-6	GPSOIL20030925-27-0.5	Solid	09/27/03	09/25/03 17:20	EPC04
09767-7	GPSOIL20030926-48-0.5	Solid	09/27/03	09/26/03 08:15	EPC04

Parameter	Units	Lab Sample IDs 09767-6	09767-7
Semivolatile Organic Compounds (8270C)			
Carbazole	ug/kg dw	<410	<440
4-Chloroaniline (p-Chloroaniline)	ug/kg dw	<410	<440
bis(2-Chloroethoxy)methane	ug/kg dw	<410	<440
bis(2-Chloroethyl)ether	ug/kg dw	<410	<440
bis(2-Chloroisopropyl) ether	ug/kg dw	<410	<440
1-Chloronaphthalene	ug/kg dw	<410	<440
2-Chloronaphthalene	ug/kg dw	<410	<440
4-Chlorophenylphenyl ether	ug/kg dw	<410	<440
Chrysene	ug/kg dw	94J	<440
Dibenz(a,j)acridine	ug/kg dw	<410	<440
Dibenzo(a,h)anthracene	ug/kg dw	<410	<440
Dibenzofuran	ug/kg dw	<410	<440
Di-n-butylphthalate	ug/kg dw	<410	<440
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/kg dw	<410	<440
1,3-Dichlorobenzene (m-Dichlorobenzene)	ug/kg dw	<410	<440
1,4-Dichlorobenzene (p-Dichlorobenzene)	ug/kg dw	<410	<440
3,3'-Dichlorobenzidine	ug/kg dw	<2000	<2200
Diethylene Glycol Monobutyl Ether	ug/kg dw	<410	<440
Diethylphthalate	ug/kg dw	<410	<440
p-(Dimethylamino)azobenzene	ug/kg dw	<410	<440
7,12-Dimethylbenz(a)anthracene	ug/kg dw	<410	<440
alpha,alpha-Dimethylphenethylamine	ug/kg dw	<410	<440
Dimethylphthalate	ug/kg dw	<410	<440
2,4-Dinitrotoluene	ug/kg dw	<410	<440
2,6-Dinitrotoluene	ug/kg dw	<410	<440
Di-n-octylphthalate	ug/kg dw	<410	<440
1,2-Diphenylhydrazine	ug/kg dw	<410	<440
bis(2-Ethylhexyl)phthalate	ug/kg dw	<410	<440
Ethyl methanesulfonate	ug/kg dw	<410	<440

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09767-6	GPSOIL20030925-27-0.5	Solid	09/27/03	09/25/03 17:20	EPC04
09767-7	GPSOIL20030926-48-0.5	Solid	09/27/03	09/26/03 08:15	EPC04

Parameter	Units	Lab Sample IDs 09767-6	09767-7
Semivolatile Organic Compounds (8270C)			
Fluoranthene	ug/kg dw	<410	<440
Fluorene	ug/kg dw	<410	<440
Hexachlorobenzene	ug/kg dw	<410	<440
Hexachlorobutadiene	ug/kg dw	<410	<440
Hexachlorocyclopentadiene	ug/kg dw	<410	<440
Hexachloroethane	ug/kg dw	<410	<440
Indeno(1,2,3-cd)pyrene	ug/kg dw	<410	<440
Isophorone	ug/kg dw	<410	<440
3-Methylcholanthrene	ug/kg dw	<410	<440
Methyl methanesulfonate	ug/kg dw	<410	<440
1-Methylnaphthalene	ug/kg dw	83J	<440
2-Methylnaphthalene	ug/kg dw	140J	<440
Naphthalene	ug/kg dw	<410	<440
1-Naphthylamine	ug/kg dw	<410	<440
2-Naphthylamine	ug/kg dw	<410	<440
2-Nitroaniline (o-Nitroaniline)	ug/kg dw	<410	<440
3-Nitroaniline (m-Nitroaniline)	ug/kg dw	<410	<440
4-Nitroaniline (p-Nitroaniline)	ug/kg dw	<410	<440
Nitrobenzene	ug/kg dw	<410	<440
N-Nitrosodi-n-butylamine	ug/kg dw	<410	<440
N-Nitrosodimethylamine	ug/kg dw	<410	<440
N-Nitrosodiphenylamine	ug/kg dw	<410	<440
n-Nitrosodi-n-propylamine	ug/kg dw	<410	<440
N-Nitrosopiperidine	ug/kg dw	<410	<440
Pentachlorobenzene	ug/kg dw	<410	<440
Pentachloronitrobenzene	ug/kg dw	<410	<440
Phenacetin	ug/kg dw	<410	<440
Phenanthrene	ug/kg dw	150J	<440
2-Picoline	ug/kg dw	<410	<440
Pronamide	ug/kg dw	<410	<440
Pyrene	ug/kg dw	210J	<440
Pyridine	ug/kg dw	<410	<440

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09767-6	GPSOIL20030925-27-0.5	Solid	09/27/03	09/25/03 17:20	EPC04
09767-7	GPSOIL20030926-48-0.5	Solid	09/27/03	09/26/03 08:15	EPC04

Parameter	Units	Lab Sample IDs 09767-6	09767-7
Semivolatile Organic Compounds (8270C)			
1,2,4,5-Tetrachlorobenzene	ug/kg dw	<410	<440
1,2,4-Trichlorobenzene	ug/kg dw	<410	<440
Surrogate - 2-Fluorobiphenyl *	%	66 %	54 %
Surrogate - 2-Fluorophenol *	%	60 %	47 %
Surrogate - Nitrobenzene - d5 *	%	62 %	53 %
Surrogate - Phenol-d5 *	%	68 %	53 %
Surrogate - Terphenyl-d14 *	%	77 %	64 %
Surrogate - 2,4,6-Tribromophenol *	%	77 %	72 %
Percent Solids		82	75
Dilution Factor		1	1
Prep Date		09/30/03	09/30/03
Prep Time		11:10	11:10
Analysis Date		10/03/03	10/03/03
Analysis Time		22:24	20:01
Batch ID		ALS067	ALS067
Prep Method		3550B	3550B
Analyst		RDW	RDW
Quantitation Factor		40.64	44.25

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09767-8	DUPLICATE-3	Solid	09/27/03	09/25/03	EPC04
09767-9	DUPLICATE-5	Solid	09/27/03	09/25/03	EPC04
09767-10	GPSOIL20030925-24-3.5	Solid	09/27/03	09/25/03 14:00	EPC04
09767-11	GPSOIL20030925-24-6.0	Solid	09/27/03	09/25/03 14:05	EPC04
09767-12	GPSOIL20030925-23-3.5	Solid	09/27/03	09/25/03 14:40	EPC04

Parameter	Units	Lab Sample IDs 09767-8	09767-9	09767-10	09767-11	09767-12
Metals (6010B)						
Antimony	mg/kg dw	0.56JB	0.69JB	0.57JB	0.82JB	<12
Arsenic	mg/kg dw	3.2	4.5	5.8	6.3	8.2
Barium	mg/kg dw	370B	110B	170B	380B	230B
Beryllium	mg/kg dw	1.1	1.1	1.0	1.3	1.1
Cadmium	mg/kg dw	0.18J	0.17J	0.25J	0.19J	0.56J
Chromium	mg/kg dw	19	22	21	27	24
Copper	mg/kg dw	12	13	13	13	66
Lead	mg/kg dw	13	27	24	18	160
Nickel	mg/kg dw	16	15	15	28	21
Selenium	mg/kg dw	<1.5	<2.0	<2.3	<1.9	<2.4
Silver	mg/kg dw	<0.77	<1.0	<1.1	<0.94	<1.2
Thallium	mg/kg dw	<1.5	<2.0	<2.3	<1.9	<2.4
[illegible]	mg/kg dw	42	49	47	51	86
[illegible]ent Solids		77	80	80	77	78
Dilution Factor		1	1	1	1	1
Prep Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Prep Time		18:20	18:20	18:20	18:20	18:20
Analysis Date		10/07/03	10/07/03	10/07/03	10/07/03	10/07/03
Analysis Time		22:50	22:56	23:01	23:07	23:12
Batch ID		PS203	PS203	PS203	PS203	PS203
Prep Method		3050B	3050B	3050B	3050B	3050B
Analyst		GSP	GSP	GSP	GSP	GSP
Quantitation Factor		76.8462	100.0000	114.6789	94.1088	117.6194
Mercury (7471A)						
Mercury	mg/kg dw	0.018	0.064	0.038	0.020	0.072
Percent Solids		77	80	80	77	78
Dilution Factor		1	1	1	1	1
Prep Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Prep Time		17:15	17:15	17:15	17:15	17:15
Analysis Date		10/05/03	10/05/03	10/05/03	10/05/03	10/05/03
Analysis Time		12:06	12:07	12:09	12:11	12:12
Batch ID		HGS054	HGS054	HGS054	HGS054	HGS054
Prep Method		7471A	7471A	7471A	7471A	7471A
Analyst		JDE	JDE	JDE	JDE	JDE
Quantitation Factor		53.0448	51.9319	50.9061	53.6251	52.8318

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09767-8	DUPLICATE-3	Solid	09/27/03	09/25/03	EPC04
09767-9	DUPLICATE-5	Solid	09/27/03	09/25/03	EPC04
09767-10	GPSOIL20030925-24-3.5	Solid	09/27/03	09/25/03 14:00	EPC04
09767-11	GPSOIL20030925-24-6.0	Solid	09/27/03	09/25/03 14:05	EPC04
09767-12	GPSOIL20030925-23-3.5	Solid	09/27/03	09/25/03 14:40	EPC04

Parameter	Units	Lab Sample IDs 09767-8	09767-9	09767-10	09767-11	09767-12
Gasoline Range Organics (8015M)						
Hydrocarbons as GRO (C6-C10)	mg/kg dw	3.1J	240	2.1J	30	0.31J
Surrogate - a,a,a-Trifluorotoluene *	%	121 %	758 %M	94 %	295 %M	95 %
Percent Solids		77	80	80	77	78
Dilution Factor		50	100	50	100	50
Prep Date		09/30/03	09/30/03	09/30/03	09/30/03	09/30/03
Prep Time		14:00	14:00	14:00	14:00	14:00
Analysis Date		10/02/03	10/02/03	10/02/03	10/02/03	10/02/03
Analysis Time		01:02	02:05	03:07	04:10	05:12
Batch ID		EXT098A	EXT098A	EXT098A	EXT098A	EXT098A
Prep Method		5035/5030B	5035/5030B	5035/5030B	5035/5030B	5035/5030B
Analyst		SB	SB	SB	SB	SB
Quantitation Factor		64.9	125	62.5	130	64.1
Diesel Range Organics (8015M)						
Mineral Spirits	mg/kg dw	<3.2	<3.0	<3.0	<6.5	<3.2
Kerosene	mg/kg dw	<3.2	<3.0	<3.0	<6.5	<3.2
Diesel	mg/kg dw	<3.2	<3.0	<3.0	<6.5	<3.2
Fuel Oil	mg/kg dw	<3.2	<3.0	<3.0	<6.5	<3.2
Motor oil (10W-40)	mg/kg dw	<3.2	<3.0	<3.0	<6.5	<3.2
Hydraulic Fluid Hydrocarbons	mg/kg dw	<3.2	<3.0	<3.0	<6.5	<3.2
Unknown Hydrocarbon	mg/kg dw	2.3J	250	4.8	1500	93
Surrogate - o-Terphenyl *	%	110 %	115 %	100 %	58 %D	107 %
Percent Solids		77	80	80	77	78
Dilution Factor		1	1	1	2	1
Prep Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Prep Time		10:50	10:50	10:50	10:50	10:50
Analysis Date		10/02/03	10/02/03	10/02/03	10/02/03	10/02/03
Analysis Time		04:35	04:54	05:12	16:03	05:49
Batch ID		FPS207	FPS207	FPS207	FPS207	FPS207
Prep Method		3550B	3550B	3550B	3550B	3550B
Analyst		IE	IE	IE	IE	IE
Quantitation Factor		1.3	1.2	1.2	2.6	1.3

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09767-8	DUPLICATE-3	Solid	09/27/03	09/25/03	EPC04
09767-9	DUPLICATE-5	Solid	09/27/03	09/25/03	EPC04
09767-10	GPSOIL20030925-24-3.5	Solid	09/27/03	09/25/03 14:00	EPC04
09767-11	GPSOIL20030925-24-6.0	Solid	09/27/03	09/25/03 14:05	EPC04
09767-12	GPSOIL20030925-23-3.5	Solid	09/27/03	09/25/03 14:40	EPC04

Parameter	Units	Lab Sample IDs 09767-8	09767-9	09767-10	09767-11	09767-12
Volatile Organic Compounds (8260B)						
Chloromethane	ug/kg dw	<6.8	<31	<6.2	<32	<6.4
Bromomethane (Methyl bromide)	ug/kg dw	<6.8	<31	<6.2	<32	<6.4
Vinyl chloride	ug/kg dw	<6.8	<31	<6.2	<32	<6.4
Chloroethane	ug/kg dw	<6.8	<31	<6.2	<32	<6.4
Methylene chloride (Dichloromethane)	ug/kg dw	<6.8	<31	<6.2	<32	<6.4
Acetone	ug/kg dw	55	<160	<31	190	<32
Carbon disulfide	ug/kg dw	<6.8	<31	<6.2	<32	<6.4
1,1-Dichloroethene	ug/kg dw	<6.8	<31	<6.2	<32	<6.4
1,1-Dichloroethane	ug/kg dw	<6.8	<31	<6.2	<32	<6.4
Cis/Trans-1,2-Dichloroethene	ug/kg dw	<6.8	<31	<6.2	<32	<6.4
cis-1,2-Dichloroethene	ug/kg dw	<6.8	<31	<6.2	<32	<6.4
Chloroform	ug/kg dw	<6.8	<31	<6.2	<32	<6.4
Dichloroethane	ug/kg dw	<6.8	<31	<6.2	<32	<6.4
2-Butanone (MEK)	ug/kg dw	16J	<160	<31	<160	<32
1,1,1-Trichloroethane	ug/kg dw	<6.8	<31	<6.2	<32	<6.4
Carbon tetrachloride	ug/kg dw	<6.8	<31	<6.2	<32	<6.4
Vinyl acetate	ug/kg dw	<34	<160	<31	<160	<32
Bromodichloromethane	ug/kg dw	<6.8	<31	<6.2	<32	<6.4
1,2-Dichloropropane	ug/kg dw	<6.8	<31	<6.2	<32	<6.4
cis-1,3-Dichloropropene	ug/kg dw	<6.8	<31	<6.2	<32	<6.4
Trichloroethene	ug/kg dw	<6.8	<31	<6.2	<32	<6.4
Dibromochloromethane	ug/kg dw	<6.8	<31	<6.2	<32	<6.4
1,1,2-Trichloroethane	ug/kg dw	<6.8	<31	<6.2	<32	<6.4
Benzene	ug/kg dw	1.1J	45	<6.2	150	<6.4
trans-1,3-Dichloropropene	ug/kg dw	<6.8	<31	<6.2	<32	<6.4
Bromoform	ug/kg dw	<6.8	<31	<6.2	<32	<6.4
4-Methyl-2-pentanone (MIBK)	ug/kg dw	<34	<160	<31	<160	<32
2-Hexanone	ug/kg dw	<34	<160	<31	<160	<32
Tetrachloroethene	ug/kg dw	<6.8	<31	<6.2	<32	<6.4
1,1,2,2-Tetrachloroethane	ug/kg dw	<6.8	<31	<6.2	<32	<6.4
Toluene	ug/kg dw	1.6J	1200	3.7J	12J	<6.4

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09767-8	DUPLICATE-3	Solid	09/27/03	09/25/03	EPC04
09767-9	DUPLICATE-5	Solid	09/27/03	09/25/03	EPC04
09767-10	GPSOIL20030925-24-3.5	Solid	09/27/03	09/25/03 14:00	EPC04
09767-11	GPSOIL20030925-24-6.0	Solid	09/27/03	09/25/03 14:05	EPC04
09767-12	GPSOIL20030925-23-3.5	Solid	09/27/03	09/25/03 14:40	EPC04

Parameter	Units	Lab Sample IDs 09767-8	09767-9	09767-10	09767-11	09767-12
Volatile Organic Compounds (8260B)						
Chlorobenzene	ug/kg dw	<6.8	<31	<6.2	<32	<6.4
Ethylbenzene	ug/kg dw	<6.8	840	<6.2	710	<6.4
Styrene	ug/kg dw	<6.8	<31	<6.2	<32	<6.4
Xylenes, Total	ug/kg dw	<14	4600	2.6J	660	<13
Surrogate - Dibromofluoromethane *	%	112 %	103 %	111 %	111 %	112 %
Surrogate - Toluene-d8 *	%	103 %	91 %	103 %	102 %	103 %
Surrogate - 4-Bromofluorobenzene *	%	97 %	105 %	89 %	91 %	88 %
Percent Solids		77	80	80	77	78
Dilution Factor		1	5	1	5	1
Prep Date		10/04/03	10/04/03	10/04/03	10/05/03	10/05/03
Prep Time		13:36	14:12	14:47	11:00	10:24
Analysis Date		10/04/03	10/04/03	10/04/03	10/05/03	10/05/03
Analysis Time		13:36	14:12	14:47	11:00	10:24
Batch ID		KAS172	KAS172	KAS172	KAS173	KAS173
Prep Method		5030B	5030B	5030B	5030B	5030B
Analyst		DWB	DWB	DWB	DWB	DWB
Quantitation Factor		1.35	6.25	1.25	6.49	1.28

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09767-13	GPSOIL20030925-23-8.5	Solid	09/27/03	09/25/03 14:45	EPC04
09767-14	GPSOIL20030925-22-3.5	Solid	09/27/03	09/25/03 15:30	EPC04
09767-15	GPSOIL20030925-22-7.0	Solid	09/27/03	09/25/03 15:40	EPC04
09767-16	GPSOIL20030925-26-3.5	Solid	09/27/03	09/25/03 16:15	EPC04
09767-17	GPSOIL20030925-27-5.5	Solid	09/27/03	09/25/03 17:30	EPC04

Parameter	Units	Lab Sample IDs 09767-13	09767-14	09767-15	09767-16	09767-17
Metals (6010B)						
Antimony	mg/kg dw	0.85JB	0.47JB	0.43JB	<11	<8.4
Arsenic	mg/kg dw	6.3	5.4	7.0	11	4.8
Barium	mg/kg dw	280B	150B	240B	91B	140B
Beryllium	mg/kg dw	1.2	0.97	1.3	0.43J	0.88
Cadmium	mg/kg dw	0.28J	0.22J	0.32J	1.3	0.46J
Chromium	mg/kg dw	24	19	26	13	16
Copper	mg/kg dw	15	12	15	4.3	15
Lead	mg/kg dw	15	13	15	11	260
Nickel	mg/kg dw	18	14	24	12	15
Selenium	mg/kg dw	<1.8	<1.8	<1.7	<2.2	<1.7
Silver	mg/kg dw	<0.90	<0.88	<0.85	<1.1	<0.84
Thallium	mg/kg dw	<1.8	<1.8	<1.7	<2.2	<1.7
[illegible]	mg/kg dw	50	38	52	94	100
[illegible]ent Solids		80	77	77	87	76
Dilution Factor		1	1	1	1	1
Prep Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Prep Time		18:20	18:20	18:20	18:20	18:20
Analysis Date		10/07/03	10/07/03	10/07/03	10/07/03	10/07/03
Analysis Time		23:18	23:23	23:40	23:45	23:51
Batch ID		PS203	PS203	PS203	PS203	PS203
Prep Method		3050B	3050B	3050B	3050B	3050B
Analyst		GSP	GSP	GSP	GSP	GSP
Quantitation Factor		89.9281	88.3470	84.8824	109.4691	84.3455
Mercury (7471A)						
Mercury	mg/kg dw	0.020	0.017	0.029	0.0078J	0.14
Percent Solids		80	77	77	87	76
Dilution Factor		1	1	1	1	1
Prep Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Prep Time		17:15	17:15	17:15	17:15	17:15
Analysis Date		10/05/03	10/05/03	10/05/03	10/05/03	10/05/03
Analysis Time		12:14	12:16	12:18	12:23	12:25
Batch ID		HGS054	HGS054	HGS054	HGS054	HGS054
Prep Method		7471A	7471A	7471A	7471A	7471A
Analyst		JDE	JDE	JDE	JDE	JDE
Quantitation Factor		50.5766	51.2715	50.8130	44.8511	53.9840

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09767-13	GPSOIL20030925-23-8.5	Solid	09/27/03	09/25/03 14:45	EPC04
09767-14	GPSOIL20030925-22-3.5	Solid	09/27/03	09/25/03 15:30	EPC04
09767-15	GPSOIL20030925-22-7.0	Solid	09/27/03	09/25/03 15:40	EPC04
09767-16	GPSOIL20030925-26-3.5	Solid	09/27/03	09/25/03 16:15	EPC04
09767-17	GPSOIL20030925-27-5.5	Solid	09/27/03	09/25/03 17:30	EPC04

Parameter	Units	Lab Sample IDs 09767-13	09767-14	09767-15	09767-16	09767-17
Gasoline Range Organics (8015M)						
Hydrocarbons as GRO (C6-C10)	mg/kg dw	0.90J	20	2.4J	<5.8	160
Surrogate - a,a,a-Trifluorotoluene *	%	88 %	95 %	91 %	106 %	212 %M
Percent Solids		80	77	77	87	76
Dilution Factor		50	50	50	50	100
Prep Date		09/30/03	09/30/03	09/30/03	09/30/03	09/30/03
Prep Time		14:00	14:00	14:00	14:00	14:00
Analysis Date		10/02/03	10/01/03	10/01/03	10/01/03	10/02/03
Analysis Time		06:15	18:00	18:53	19:47	00:13
Batch ID		EXT098A	EXT098A	EXT098A	EXT098A	EXT098A
Prep Method		5035/5030B	5035/5030B	5035/5030B	5035/5030B	5035/5030B
Analyst		SB	SB	SB	SB	SB
Quantitation Factor		62.5	64.9	64.9	57.5	132
Diesel Range Organics (8015M)						
Mineral Spirits	mg/kg dw	<3.0	<3.2	<3.2	<2.8	<32
Kerosene	mg/kg dw	<3.0	<3.2	<3.2	<2.8	<32
Diesel	mg/kg dw	<3.0	<3.2	<3.2	<2.8	<32
Fuel Oil	mg/kg dw	<3.0	<3.2	<3.2	<2.8	<32
Motor oil (10W-40)	mg/kg dw	<3.0	<3.2	<3.2	<2.8	<32
Hydraulic Fluid Hydrocarbons	mg/kg dw	<3.0	<3.2	<3.2	<2.8	<32
Unknown Hydrocarbon	mg/kg dw	4.1	510	400	8.9	9300
Surrogate - o-Terphenyl *	%	101 %	167 %M	152 %	107 %	16 %D
Percent Solids		80	77	77	87	76
Dilution Factor		1	1	1	1	10
Prep Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Prep Time		10:50	10:50	10:50	10:50	10:50
Analysis Date		10/02/03	10/02/03	10/02/03	10/02/03	10/02/03
Analysis Time		06:08	06:44	07:03	07:21	16:21
Batch ID		FPS207	FPS207	FPS207	FPS207	FPS207
Prep Method		3550B	3550B	3550B	3550B	3550B
Analyst		IE	IE	IE	IE	IE
Quantitation Factor		1.2	1.3	1.3	1.1	13

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09767-13	GPSOIL20030925-23-8.5	Solid	09/27/03	09/25/03 14:45	EPC04
09767-14	GPSOIL20030925-22-3.5	Solid	09/27/03	09/25/03 15:30	EPC04
09767-15	GPSOIL20030925-22-7.0	Solid	09/27/03	09/25/03 15:40	EPC04
09767-16	GPSOIL20030925-26-3.5	Solid	09/27/03	09/25/03 16:15	EPC04
09767-17	GPSOIL20030925-27-5.5	Solid	09/27/03	09/25/03 17:30	EPC04

Parameter	Units	Lab Sample IDs 09767-13	09767-14	09767-15	09767-16	09767-17
Volatile Organic Compounds (8260B)						
Chloromethane	ug/kg dw	<6.2	<6.5	<6.5	<5.8	<330
Bromomethane (Methyl bromide)	ug/kg dw	<6.2	<6.5	<6.5	<5.8	<330
Vinyl chloride	ug/kg dw	<6.2	<6.5	<6.5	<5.8	<330
Chloroethane	ug/kg dw	<6.2	<6.5	<6.5	<5.8	<330
Methylene chloride (Dichloromethane)	ug/kg dw	<6.2	<6.5	<6.5	<5.8	<330
Acetone	ug/kg dw	25J	<32	39	<29	230JB
Carbon disulfide	ug/kg dw	<6.2	<6.5	3.3J	<5.8	<330
1,1-Dichloroethene	ug/kg dw	<6.2	<6.5	<6.5	<5.8	<330
1,1-Dichloroethane	ug/kg dw	<6.2	<6.5	<6.5	<5.8	<330
Cis/Trans-1,2-Dichloroethene	ug/kg dw	<6.2	<6.5	<6.5	<5.8	<330
cis-1,2-Dichloroethene	ug/kg dw	<6.2	<6.5	<6.5	<5.8	<330
[illegible]roform	ug/kg dw	<6.2	<6.5	<6.5	<5.8	<330
[illegible] Dichloroethane	ug/kg dw	<6.2	<6.5	<6.5	<5.8	<330
2-Butanone (MEK)	ug/kg dw	5.4J	<32	9.7J	<29	<1600
1,1,1-Trichloroethane	ug/kg dw	<6.2	<6.5	<6.5	<5.8	<330
Carbon tetrachloride	ug/kg dw	<6.2	<6.5	<6.5	<5.8	<330
Vinyl acetate	ug/kg dw	<31	<32	<32	<29	<1600
Bromodichloromethane	ug/kg dw	<6.2	<6.5	<6.5	<5.8	<330
1,2-Dichloropropane	ug/kg dw	<6.2	<6.5	<6.5	<5.8	<330
cis-1,3-Dichloropropene	ug/kg dw	<6.2	<6.5	<6.5	<5.8	<330
Trichloroethene	ug/kg dw	<6.2	<6.5	<6.5	<5.8	<330
Dibromochloromethane	ug/kg dw	<6.2	<6.5	<6.5	<5.8	<330
1,1,2-Trichloroethane	ug/kg dw	<6.2	<6.5	<6.5	<5.8	<330
Benzene	ug/kg dw	<6.2	<6.5	<6.5	<5.8	180J
trans-1,3-Dichloropropene	ug/kg dw	<6.2	<6.5	<6.5	<5.8	<330
Bromoform	ug/kg dw	<6.2	<6.5	<6.5	<5.8	<330
4-Methyl-2-pentanone (MIBK)	ug/kg dw	<31	<32	<32	<29	<1600
2-Hexanone	ug/kg dw	<31	<32	<32	<29	<1600
Tetrachloroethene	ug/kg dw	<6.2	<6.5	<6.5	<5.8	<330
1,1,2,2-Tetrachloroethane	ug/kg dw	<6.2	<6.5	<6.5	<5.8	<330
Toluene	ug/kg dw	<6.2	<6.5	7.5	<5.8	2800

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09767-13	GPSOIL20030925-23-8.5	Solid	09/27/03	09/25/03 14:45	EPC04
09767-14	GPSOIL20030925-22-3.5	Solid	09/27/03	09/25/03 15:30	EPC04
09767-15	GPSOIL20030925-22-7.0	Solid	09/27/03	09/25/03 15:40	EPC04
09767-16	GPSOIL20030925-26-3.5	Solid	09/27/03	09/25/03 16:15	EPC04
09767-17	GPSOIL20030925-27-5.5	Solid	09/27/03	09/25/03 17:30	EPC04

Parameter	Units	Lab Sample IDs 09767-13	09767-14	09767-15	09767-16	09767-17
Volatile Organic Compounds (8260B)						
Chlorobenzene	ug/kg dw	<6.2	<6.5	<6.5	<5.8	<330
Ethylbenzene	ug/kg dw	<6.2	2.5J	8.0	<5.8	1900
Styrene	ug/kg dw	<6.2	<6.5	<6.5	<5.8	<330
Xylenes, Total	ug/kg dw	<12	8.8J	56	<12	10000
Surrogate - Dibromofluoromethane *	%	111 %	111 %	114 %	110 %	101 %
Surrogate - Toluene-d8 *	%	104 %	104 %	103 %	104 %	104 %
Surrogate - 4-Bromofluorobenzene *	%	97 %	93 %	82 %	97 %	90 %
Percent Solids		80	77	77	87	76
Dilution Factor		1	1	1	1	50
Prep Date		10/04/03	10/04/03	10/04/03	10/04/03	10/05/03
Prep Time		16:34	17:09	17:45	18:20	12:00
Analysis Date		10/04/03	10/04/03	10/04/03	10/04/03	10/08/03
Analysis Time		16:34	17:09	17:45	18:20	15:59
Batch ID		KAS172	KAS172	KAS172	KAS172	KAS180
Prep Method		5030B	5030B	5030B	5030B	5030B
Analyst		DWB	DWB	DWB	DWB	DWB
Quantitation Factor		1.25	1.3	1.3	1.15	65.79

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09767-18	GPSOIL20030926-48-3.5	Solid	09/27/03	09/26/03 08:20	EPC04
09767-19	GPSOIL20030925-27-3.5	Solid	09/27/03	09/25/03 17:25	EPC04

Parameter	Units	Lab Sample IDs 09767-18	09767-19
Metals (6010B)			
Antimony	mg/kg dw	<12	0.80J
Arsenic	mg/kg dw	6.5	8.7
Barium	mg/kg dw	220B	110B
Beryllium	mg/kg dw	1.3	1.1
Cadmium	mg/kg dw	0.27J	0.22J
Chromium	mg/kg dw	28	20
Copper	mg/kg dw	14	13
Lead	mg/kg dw	15	73
Nickel	mg/kg dw	22	17
Selenium	mg/kg dw	<2.3	<2.1
Silver	mg/kg dw	<1.2	<1.0
Thallium	mg/kg dw	<2.3	<2.1
Zinc	mg/kg dw	59	65
Percent Solids		79	78
Dilution Factor		1	1
Date		10/03/03	10/03/03
Time		18:20	18:20
Analysis Date		10/07/03	10/08/03
Analysis Time		23:56	00:02
Batch ID		PS203	PS203
Prep Method		3050B	3050B
Analyst		GSP	GSP
Quantitation Factor		115.0748	104.2318
Mercury (7471A)			
Mercury	mg/kg dw	0.027	0.074
Percent Solids		79	78
Dilution Factor		1	1
Prep Date		10/03/03	10/03/03
Prep Time		17:15	17:15
Analysis Date		10/05/03	10/05/03
Analysis Time		12:26	12:28
Batch ID		HGS054	HGS054
Prep Method		7471A	7471A
Analyst		JDE	JDE
Quantitation Factor		51.9319	52.9325

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09767-18	GPSOIL20030926-48-3.5	Solid	09/27/03	09/26/03 08:20	EPC04
09767-19	GPSOIL20030925-27-3.5	Solid	09/27/03	09/25/03 17:25	EPC04

Parameter	Units	Lab Sample IDs 09767-18	09767-19
Gasoline Range Organics (8015M)			
Hydrocarbons as GRO (C6-C10)	mg/kg dw	330	140
Surrogate - a,a,a-Trifluorotoluene *	%	657 %M	225 %M
Percent Solids		79	78
Dilution Factor		100	100
Prep Date		09/30/03	09/30/03
Prep Time		14:00	14:00
Analysis Date		10/02/03	10/02/03
Analysis Time		01:07	02:00
Batch ID		EXT098A	EXT098A
Prep Method		5035/5030B	5035/5030B
Analyst		SB	SB
Quantitation Factor		127	128
Diesel Range Organics (8015M)			
Mineral Spirits	mg/kg dw	<3.2	<3.2
Kerosene	mg/kg dw	<3.2	<3.2
Diesel	mg/kg dw	<3.2	<3.2
Fuel Oil	mg/kg dw	<3.2	<3.2
Motor oil (10W-40)	mg/kg dw	<3.2	<3.2
Hydraulic Fluid Hydrocarbons	mg/kg dw	<3.2	<3.2
Unknown Hydrocarbon	mg/kg dw	7.7	13
Surrogate - o-Terphenyl *	%	101 %	112 %
Percent Solids		79	78
Dilution Factor		1	1
Prep Date		10/01/03	10/01/03
Prep Time		10:50	10:50
Analysis Date		10/02/03	10/02/03
Analysis Time		07:58	08:16
Batch ID		FPS207	FPS207
Prep Method		3550B	3550B
Analyst		IE	IE
Quantitation Factor		1.3	1.3

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09767-18	GPSOIL20030926-48-3.5	Solid	09/27/03	09/26/03 08:20	EPC04
09767-19	GPSOIL20030925-27-3.5	Solid	09/27/03	09/25/03 17:25	EPC04

Parameter	Units	Lab Sample IDs 09767-18	09767-19
Volatile Organic Compounds (8260B)			
Chloromethane	ug/kg dw	<320	<32
Bromomethane (Methyl bromide)	ug/kg dw	<320	<32
Vinyl chloride	ug/kg dw	<320	<32
Chloroethane	ug/kg dw	<320	<32
Methylene chloride (Dichloromethane)	ug/kg dw	<320	<32
Acetone	ug/kg dw	<1600	<160
Carbon disulfide	ug/kg dw	<320	15J
1,1-Dichloroethene	ug/kg dw	<320	<32
1,1-Dichloroethane	ug/kg dw	<320	<32
Cis/Trans-1,2-Dichloroethene	ug/kg dw	<320	<32
cis-1,2-Dichloroethene	ug/kg dw	<320	<32
Chloroform	ug/kg dw	<320	<32
1,2-Dichloroethane	ug/kg dw	<320	<32
2-Butanone (MEK)	ug/kg dw	<1600	<160
1-Trichloroethane	ug/kg dw	<320	<32
on tetrachloride	ug/kg dw	<320	<32
Vinyl acetate	ug/kg dw	<1600	<160
Bromodichloromethane	ug/kg dw	<320	<32
1,2-Dichloropropane	ug/kg dw	<320	<32
cis-1,3-Dichloropropene	ug/kg dw	<320	<32
Trichloroethene	ug/kg dw	<320	<32
Dibromochloromethane	ug/kg dw	<320	<32
1,1,2-Trichloroethane	ug/kg dw	<320	<32
Benzene	ug/kg dw	<320	27J
trans-1,3-Dichloropropene	ug/kg dw	<320	<32
Bromoform	ug/kg dw	<320	<32
4-Methyl-2-pentanone (MIBK)	ug/kg dw	<1600	<160
2-Hexanone	ug/kg dw	<1600	<160
Tetrachloroethene	ug/kg dw	<320	<32
1,1,2,2-Tetrachloroethane	ug/kg dw	<320	<32
Toluene	ug/kg dw	<320	640
Chlorobenzene	ug/kg dw	<320	<32
Ethylbenzene	ug/kg dw	6000	490
Styrene	ug/kg dw	<320	<32

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09767-18	GPSOIL20030926-48-3.5	Solid	09/27/03	09/26/03 08:20	EPC04
09767-19	GPSOIL20030925-27-3.5	Solid	09/27/03	09/25/03 17:25	EPC04

Parameter	Units	Lab Sample IDs 09767-18	09767-19
Volatile Organic Compounds (8260B)			
Xylenes, Total	ug/kg dw	17000	3700
Surrogate - Dibromofluoromethane *	%	103 %	104 %
Surrogate - Toluene-d8 *	%	97 %	99 %
Surrogate - 4-Bromofluorobenzene *	%	99 %	102 %
Percent Solids		79	78
Dilution Factor		50	5
Prep Date		10/05/03	10/04/03
Prep Time		12:00	22:29
Analysis Date		10/08/03	10/04/03
Analysis Time		16:35	22:29
Batch ID		KAS180	KAS172
Prep Method		5030B	5030B
Analyst		DWB	DWB
Quantitation Factor		63.29	6.41

·e test results meet all the requirements of NELAC. All questions .rding this test report should be directed to the STL Project Manager who signed this test report.

Chain of Custody Record

STL4124-400 (12/02)

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

Client	Project Manager	Date	Chain of Custody Number
			06397
Address	Telephone Number (Area Code)/Fax Number	Lab Number	Page ____ of ____
		C309767	

City | State | Zip Code | Site Contact | Lab Contact

Project Name and Location (State) | Carrier/Waybill Number

Contract/Purchase Order/Quote No.

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil		Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	NA	METALS	TPH-G	TPH-E	VOCS	SVOCS								Special Instructions/ Conditions of Receipt
DUPLICATE-3	9/25/03	—				X								X	X	X	X	X									8
DUPLICATE-4		—													X	X	X		X								1
DUPLICATE-5		—													X	X	X	X									9
GPSOIL20030925-24-0.5		1:55													X	X	X		X								2
GPSOIL20030925-24-3.5		2:00													X	X	X	X									10
GPSOIL20030925-24-6.0		2:05													X	X	X	X									11
GPSOIL20030925-23-0.5		2:35													X	X	X		X								3
GPSOIL20030925-23-3.5		2:40													X	X	X	X									12
GPSOIL20030925-23-8.5		2:45													X	X	X	X	X TSG								13
GPSOIL20030925-22-0.5		3:25													X	X	X		X								4
GPSOIL20030925-22-3.5		3:30													X	X	X	X									14
GPSOIL20030925-22-7.0		3:40													X	X	X	X									15

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Todd S. Glendhar	9/26/03	5:00	1. Received By: UPS	9/26/03	5:05
2. Relinquished By			2. Received By: Mark Swafford	9/27/03	1025
3. Relinquished By			3. Received By		

Comments: SAMPLES IN COOLERS A1 + A2 / SAME BILLING FOR EL DORADO REFINERY

DISTRIBUTIC HITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

EL DORADO SDG#630EP004

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[redacted]

Chain o
Custody Record

STL-4124-400 (12/02)

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL Pensaco
3355 McLem Drive
Pensacola, FL 32514

EL PASO-EL DORADO SDG #630E PG 04

Client	Project Manager	Date	Chain of Custody Number
			06398
Address	Telephone Number (Area Code)/Fax Number	Lab Number	Page ____ of ____
		C309767	

City	State	Zip Code	Site Contact	Lab Contact

Project Name and Location (State)	Carrier/Waybill Number

Contract/Purchase Order/Quote No.

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil		Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	NA	METALS	TPH-G	TPH-E	VOCS	SVOCS								Special Instructions/ Conditions of Receipt
GPS01L20030925-26-0.5	9/25/03	4:10				X								X	X	X	X		X								5
GPS01L20030925-26-3.5	↓	4:15				↓								↓	X	X	X	X									16
GPS01L20030925-27-0.5		5:20													X	X	X		X								6
GPS01L20030925-27-5.5		5:30													X	X	X	X									17
GPS01L20030926-48-0.5	9/26/03	8:15													X	X	X		X								7
GPS01L20030926-48-3.5	"	8:20													X	X	X	X									18
GPS01L20030925-27-3.5	9/25/03	5:25				X								X	X	X	X	X									19

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other_____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Todd S. Glendon	9/26/03	5:00	1. Received By: UPS	9/26/03	5:05
2. Relinquished By			2. Received By: Mark Swafford	9/27/03	1025
3. Relinquished By			3. Received By		

Comments
SAMPLES IN COOLERS A1 + A2 / SAME BILLING FOR EL DORADO REFINERY

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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SEVERN TRENT STL

'L Pensacola 3355 McLemore Drive - Pensacola FL 32514 Telephone:(850) 474-1001 Fax:(850) 478-2671

Analytical Report

For: Mr. Chris Miller
El Paso Energy Corporation
P.O. Box 2511
Houston, TX 77252-2511
CC: Lynn Hanzlicek (Shaw, KS)

Order Number: C310202
SDG Number: EPC07
Client Project ID:
Project: EL PASO-EL DORADO, KS
Report Date: 10/31/2003
Sampled By: Client
Sample Received Date: 10/08/2003
Requisition Number:
Purchase Order: C-STL1-ELDORADO-001

Melissa L. Pope, Project Manager
mpope@stl-inc.com

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Sample Summary

Order: C310202
Date Received: 10/08/2003

Client: El Paso Energy Corporation
Project: EL PASO-EL DORADO, KS

Client Sample ID	Lab Sample ID	Matrix	Date Sampled
W#3	C310202*1	Liquid	10/07/2003 11:35
W#8	C310202*2	Liquid	10/07/2003 13:20
W#29S	C310202*3	Liquid	10/07/2003 14:30
W#29D	C310202*4	Liquid	10/07/2003 15:00
N1-1	C310202*5	Liquid	10/07/2003 13:55
Trip Blank	C310202*6	Liquid	10/07/2003

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10202-1	W#3	Liquid	10/08/03	10/07/03 11:35	EPC07
10202-2	W#8	Liquid	10/08/03	10/07/03 13:20	EPC07
10202-3	W#29S	Liquid	10/08/03	10/07/03 14:30	EPC07
10202-4	W#29D	Liquid	10/08/03	10/07/03 15:00	EPC07

Parameter	Units	Lab Sample IDs 10202-1	10202-2	10202-3	10202-4
Metals (6010B)					
Antimony	mg/l	0.0050J	0.011J	0.0070J	0.0060J
Arsenic	mg/l	<0.010	0.13	0.023	0.0040J
Barium	mg/l	0.14B	1.9B	0.56B	0.23B
Beryllium	mg/l	0.0010J	0.016	0.0030J	0.0010J
Cadmium	mg/l	<0.010	0.0070J	0.0010J	<0.010
Chromium	mg/l	0.087	0.42	0.073	0.010
Copper	mg/l	0.0030J	0.82	0.044	0.0040J
Lead	mg/l	<0.010	1.1	0.042	0.0040J
Nickel	mg/l	0.037	0.38	0.066	0.0070J
Selenium	mg/l	0.0060J	0.0050J	<0.020	<0.020
Silver	mg/l	<0.010	<0.010	<0.010	<0.010
Thallium	mg/l	<0.020	<0.020	<0.020	<0.020
Zinc	mg/l	0.015J	0.96	0.14	0.027J
Dilution Factor		1	1	1	1
Date		10/10/03	10/10/03	10/10/03	10/10/03
Prep Time		09:43	09:43	09:43	09:43
Analysis Date		10/13/03	10/13/03	10/13/03	10/13/03
Analysis Time		21:13	21:52	21:57	22:03
Batch ID		PW373	PW373	PW373	PW373
Prep Method		3010A	3010A	3010A	3010A
Analyst		GSP	GSP	GSP	GSP
Quantitation Factor		1.000	1.000	1.000	1.000
Mercury (7470A)					
Mercury	mg/l	<0.00020	0.0010	0.000073J	<0.00020
Dilution Factor		1	1	1	1
Prep Date		10/17/03	10/17/03	10/17/03	10/17/03
Prep Time		13:00	13:00	13:00	13:00
Analysis Date		10/17/03	10/17/03	10/17/03	10/17/03
Analysis Time		15:32	15:34	15:35	15:37
Batch ID		HGW118	HGW118	HGW118	HGW118
Prep Method		7470A	7470A	7470A	7470A
Analyst		JDE	JDE	JDE	JDE
Quantitation Factor		1	1	1	1

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10202-1	W#3	Liquid	10/08/03	10/07/03 11:35	EPC07
10202-2	W#8	Liquid	10/08/03	10/07/03 13:20	EPC07
10202-3	W#29S	Liquid	10/08/03	10/07/03 14:30	EPC07
10202-4	W#29D	Liquid	10/08/03	10/07/03 15:00	EPC07

Parameter	Units	Lab Sample IDs 10202-1	10202-2	10202-3	10202-4
Gasoline Range Organics (8015M)					
Hydrocarbons as GRO (C6-C10)	ug/l	24J	<100	<100	<100
Surrogate - a,a,a-Trifluorotoluene *	%	107 %	107 %	106 %	114 %
Dilution Factor		1	1	1	1
Prep Date		10/16/03	10/16/03	10/16/03	10/16/03
Prep Time		13:35	14:28	17:08	18:02
Analysis Date		10/16/03	10/16/03	10/16/03	10/16/03
Analysis Time		13:35	14:28	17:08	18:02
Batch ID		ETW116A	ETW116A	ETW116A	ETW116A
Prep Method		5030B	5030B	5030B	5030B
Analyst		CN	CN	CN	CN
Quantitation Factor		1	1	1	1
Diesel Range Organics (8015M)					
Mineral Spirits	ug/l	<100	<100	<100	<100
Kerosene	ug/l	<100	<100	<100	<100
Diesel	ug/l	<100	<100	<100	<100
Fuel Oil	ug/l	<100	<100	<100	<100
Motor oil (10W-40)	ug/l	<100	<100	<100	<100
Hydraulic Fluid Hydrocarbons	ug/l	<100	<100	<100	<100
Unknown Hydrocarbon	ug/l	660	69J	250	380
Surrogate - o-Terphenyl *	%	91 %	93 %	92 %	96 %
Dilution Factor		1	1	1	1
Prep Date		10/09/03	10/09/03	10/09/03	10/09/03
Prep Time		16:30	16:30	16:30	16:30
Analysis Date		10/10/03	10/10/03	10/10/03	10/10/03
Analysis Time		16:44	16:52	16:59	17:07
Batch ID		FPW218	FPW218	FPW218	FPW218
Prep Method		3520C	3520C	3520C	3520C
Analyst		IE	IE	IE	IE
Quantitation Factor		1.0	1.0	1.0	1.0

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10202-1	W#3	Liquid	10/08/03	10/07/03 11:35	EPC07
10202-2	W#8	Liquid	10/08/03	10/07/03 13:20	EPC07
10202-3	W#29S	Liquid	10/08/03	10/07/03 14:30	EPC07
10202-4	W#29D	Liquid	10/08/03	10/07/03 15:00	EPC07

Parameter	Units	Lab Sample IDs 10202-1	10202-2	10202-3	10202-4
Volatile Organic Compounds (8260B)					
Chloromethane	ug/l	<5.0	<5.0	<5.0	<5.0
Bromomethane (Methyl bromide)	ug/l	<5.0	<5.0	<5.0	<5.0
Vinyl chloride	ug/l	<5.0	<5.0	<5.0	<5.0
Chloroethane	ug/l	<5.0	<5.0	<5.0	<5.0
Methylene chloride (Dichloromethane)	ug/l	<5.0	<5.0	<5.0	<5.0
Acetone	ug/l	<25	<25	<25	<25
Carbon disulfide	ug/l	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	ug/l	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	ug/l	<5.0	<5.0	<5.0	<5.0
Cis/Trans-1,2-Dichloroethene	ug/l	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	ug/l	<5.0	<5.0	<5.0	<5.0
Chloroform	ug/l	<5.0	<5.0	<5.0	<5.0
Dichloroethane	ug/l	<5.0	<5.0	<5.0	<5.0
canone (MEK)	ug/l	<25	<25	<25	<25
1,1,1-Trichloroethane	ug/l	<5.0	<5.0	<5.0	<5.0
Carbon tetrachloride	ug/l	<5.0	<5.0	<5.0	<5.0
Vinyl acetate	ug/l	<5.0	<5.0	<5.0	<5.0
Bromodichloromethane	ug/l	<5.0	<5.0	<5.0	<5.0
1,2-Dichloropropane	ug/l	<5.0	<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	ug/l	<5.0	<5.0	<5.0	<5.0
Trichloroethene	ug/l	<5.0	<5.0	<5.0	<5.0
Dibromochloromethane	ug/l	<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	ug/l	<5.0	<5.0	<5.0	<5.0
Benzene	ug/l	0.25J	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	ug/l	<5.0	<5.0	<5.0	<5.0
Bromoform	ug/l	<5.0	<5.0	<5.0	<5.0
4-Methyl-2-pentanone (MIBK)	ug/l	<25	<25	<25	<25
2-Hexanone	ug/l	<25	<25	<25	<25
Tetrachloroethene	ug/l	<5.0	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	ug/l	<5.0	<5.0	<5.0	<5.0
Toluene	ug/l	0.61J	0.25J	0.20J	<5.0
Chlorobenzene	ug/l	<5.0	<5.0	<5.0	<5.0

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10202-1	W#3	Liquid	10/08/03	10/07/03 11:35	EPC07
10202-2	W#8	Liquid	10/08/03	10/07/03 13:20	EPC07
10202-3	W#29S	Liquid	10/08/03	10/07/03 14:30	EPC07
10202-4	W#29D	Liquid	10/08/03	10/07/03 15:00	EPC07

Parameter	Units	Lab Sample IDs 10202-1	10202-2	10202-3	10202-4
Volatile Organic Compounds (8260B)					
Ethylbenzene	ug/l	0.26J	<5.0	<5.0	<5.0
Styrene	ug/l	<5.0	<5.0	<5.0	<5.0
Xylenes, Total	ug/l	1.6J	<10	<10	<10
Surrogate - Dibromofluoromethane *	%	101 %	104 %	105 %	106 %
Surrogate - Toluene-d8 *	%	94 %	94 %	95 %	95 %
Surrogate - 4-Bromofluorobenzene *	%	96 %	95 %	96 %	96 %
Dilution Factor		1	1	1	1
Prep Date		10/13/03	10/13/03	10/13/03	10/13/03
Prep Time		17:27	18:00	18:34	19:07
Analysis Date		10/13/03	10/13/03	10/13/03	10/13/03
Analysis Time		17:27	18:00	18:34	19:07
Batch ID		TAW192	TAW192	TAW192	TAW192
Prep Method		5030B	5030B	5030B	5030B
Analyst		GRH	GRH	GRH	GRH
Quantitation Factor		1	1	1	1

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10202-5	N1-1	Liquid	10/08/03	10/07/03 13:55	EPC07

Lab Sample IDs

Parameter	Units	10202-5
Metals (6010B)		
Antimony	mg/l	<0.10
Arsenic	mg/l	<0.010
Barium	mg/l	0.14B
Beryllium	mg/l	<0.0060
Cadmium	mg/l	<0.010
Chromium	mg/l	<0.010
Copper	mg/l	0.0020J
Lead	mg/l	<0.010
Nickel	mg/l	<0.010
Selenium	mg/l	0.0040J
Silver	mg/l	<0.010
Thallium	mg/l	<0.020
Zinc	mg/l	0.0080J
Dilution Factor		1
Prep Date		10/10/03
Prep Time		09:43
ysis Date		10/13/03
ysis Time		22:08
Batch ID		PW373
Prep Method		3010A
Analyst		GSP
Quantitation Factor		1.000
Mercury (7470A)		
Mercury	mg/l	<0.00020
Dilution Factor		1
Prep Date		10/17/03
Prep Time		13:00
Analysis Date		10/17/03
Analysis Time		15:39
Batch ID		HGW118
Prep Method		7470A
Analyst		JDE
Quantitation Factor		1

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10202-5	N1-1	Liquid	10/08/03	10/07/03 13:55	EPC07

Parameter	Units	Lab Sample IDs 10202-5
Gasoline Range Organics (8015M)		
Hydrocarbons as GRO (C6-C10)	ug/l	<100
Surrogate - a,a,a-Trifluorotoluene *	%	107 %
Dilution Factor		1
Prep Date		10/17/03
Prep Time		05:34
Analysis Date		10/17/03
Analysis Time		05:34
Batch ID		ETW116B
Prep Method		5030B
Analyst		CN
Quantitation Factor		1
Diesel Range Organics (8015M)		
Mineral Spirits	ug/l	<100
Kerosene	ug/l	<100
Diesel	ug/l	<100
Fuel Oil	ug/l	<100
Motor oil (10W-40)	ug/l	<100
Hydraulic Fluid Hydrocarbons	ug/l	<100
Unknown Hydrocarbon	%	170
Surrogate - o-Terphenyl *	%	93 %
Dilution Factor		1
Prep Date		10/09/03
Prep Time		16:30
Analysis Date		10/10/03
Analysis Time		17:15
Batch ID		FPW218
Prep Method		3520C
Analyst		IE
Quantitation Factor		1.0

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10202-5	N1-1	Liquid	10/08/03	10/07/03 13:55	EPC07

Parameter	Units	Lab Sample IDs 10202-5
Semivolatile Organic Compounds (8270C)		
Benzoic acid	ug/l	<50
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	ug/l	<10
2-Chlorophenol	ug/l	<10
2,4-Dichlorophenol	ug/l	<10
2,6-Dichlorophenol	ug/l	<10
2,4-Dimethylphenol	ug/l	<10
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	ug/l	<50
2,4-Dinitrophenol	ug/l	<50
2-Methylphenol (o-Cresol)	ug/l	<10
3-Methylphenol/4-Methylphenol (m&p-Cresol)	ug/l	<10
2-Nitrophenol (o-Nitrophenol)	ug/l	<10
4-Nitrophenol (p-Nitrophenol)	ug/l	<50
Pentachlorophenol	ug/l	<50
[illegible]nol	ug/l	1.3J
4,6-Tetrachlorophenol	ug/l	<10
2,4,5-Trichlorophenol	ug/l	<50
2,4,6-Trichlorophenol	ug/l	<10
Acenaphthene	ug/l	<10
Acenaphthylene	ug/l	<10
Acetophenone	ug/l	<10
4-Aminobiphenyl	ug/l	<10
Aniline	ug/l	<10
Anthracene	ug/l	<10
Benzidine	ug/l	<50
Benzo(a)anthracene	ug/l	<10
Benzo(b)fluoranthene	ug/l	<10
Benzo(k)fluoranthene	ug/l	<10
Benzo(g,h,i)perylene	ug/l	<10
Benzo(a)pyrene	ug/l	<10
Benzyl alcohol	ug/l	3.9J
4-Bromophenylphenyl ether	ug/l	<10
Butylbenzylphthalate	ug/l	<10
Carbazole	ug/l	<10

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10202-5	N1-1	Liquid	10/08/03	10/07/03 13:55	EPC07

Parameter	Units	Lab Sample IDs 10202-5
Semivolatile Organic Compounds (8270C)		
4-Chloroaniline (p-Chloroaniline)	ug/l	<10
bis(2-Chloroethoxy)methane	ug/l	<10
bis(2-Chloroethyl)ether	ug/l	<10
bis(2-Chloroisopropyl) ether	ug/l	<10
1-Chloronaphthalene	ug/l	<10
2-Chloronaphthalene	ug/l	<10
4-Chlorophenylphenyl ether	ug/l	<10
Chrysene	ug/l	<10
Dibenz(a,j)acridine	ug/l	<10
Dibenzo(a,h)anthracene	ug/l	<10
Dibenzofuran	ug/l	<10
Di-n-butylphthalate	ug/l	<10
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/l	<10
1,3-Dichlorobenzene (m-Dichlorobenzene)	ug/l	<10
1,4-Dichlorobenzene (p-Dichlorobenzene)	ug/l	<10
3,3'-Dichlorobenzidine	ug/l	<50
Diethylene Glycol Monobutyl Ether	ug/l	<10
Diethylphthalate	ug/l	<10
p-(Dimethylamino)azobenzene	ug/l	<10
7,12-Dimethylbenz(a)anthracene	ug/l	<10
alpha,alpha-Dimethylphenethylamine	ug/l	<10
Dimethylphthalate	ug/l	<10
2,4-Dinitrotoluene	ug/l	<10
2,6-Dinitrotoluene	ug/l	<10
Di-n-octylphthalate	ug/l	<10
1,2-Diphenylhydrazine	ug/l	<10
bis(2-Ethylhexyl)phthalate	ug/l	<10
Ethyl methanesulfonate	ug/l	<10
Fluoranthene	ug/l	<10
Fluorene	ug/l	<10

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10202-5	N1-1	Liquid	10/08/03	10/07/03 13:55	EPC07

Parameter	Units	Lab Sample IDs 10202-5
Semivolatile Organic Compounds (8270C)		
Hexachlorobenzene	ug/l	<10
Hexachlorobutadiene	ug/l	<10
Hexachlorocyclopentadiene	ug/l	<10
Hexachloroethane	ug/l	<10
Indeno(1,2,3-cd)pyrene	ug/l	<10
Isophorone	ug/l	<10
3-Methylcholanthrene	ug/l	<10
Methyl methanesulfonate	ug/l	<10
1-Methylnaphthalene	ug/l	<10
2-Methylnaphthalene	ug/l	<10
Naphthalene	ug/l	<10
1-Naphthylamine	ug/l	<10
2-Naphthylamine	ug/l	<10
2-Nitroaniline (o-Nitroaniline)	ug/l	<10
3-Nitroaniline (m-Nitroaniline)	ug/l	<10
4-Nitroaniline (p-Nitroaniline)	ug/l	<10
Nitrobenzene	ug/l	<10
N-Nitrosodi-n-butylamine	ug/l	<10
N-Nitrosodimethylamine	ug/l	<10
N-Nitrosodiphenylamine	ug/l	<10
n-Nitrosodi-n-propylamine	ug/l	<10
N-Nitrosopiperidine	ug/l	<10
Pentachlorobenzene	ug/l	<10
Pentachloronitrobenzene	ug/l	<10
Phenacetin	ug/l	<10
Phenanthrene	ug/l	<10
2-Picoline	ug/l	<10
Pronamide	ug/l	<10
Pyrene	ug/l	<10
Pyridine	ug/l	<10
1,2,4,5-Tetrachlorobenzene	ug/l	<10
1,2,4-Trichlorobenzene	ug/l	<10
Surrogate - 2-Fluorobiphenyl *	%	69 %

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10202-5	N1-1	Liquid	10/08/03	10/07/03 13:55	EPC07

Parameter	Units	Lab Sample IDs 10202-5
Semivolatile Organic Compounds (8270C)		
Surrogate - 2-Fluorophenol *	%	47 %
Surrogate - Nitrobenzene - d5 *	%	58 %
Surrogate - Phenol-d5 *	%	48 %
Surrogate - Terphenyl-d14 *	%	105 %
Surrogate - 2,4,6-Tribromophenol *	%	85 %
Dilution Factor		1
Prep Date		10/09/03
Prep Time		16:30
Analysis Date		10/12/03
Analysis Time		01:55
Batch ID		ALW171
Prep Method		3520C
Analyst		RDW
Quantitation Factor		1
Volatile Organic Compounds (8260B)		
Chloromethane	ug/l	<5.0
Bromomethane (Methyl bromide)	ug/l	<5.0
Vinyl chloride	ug/l	<5.0
Chloroethane	ug/l	<5.0
Methylene chloride (Dichloromethane)	ug/l	<5.0
Acetone	ug/l	<25
Carbon disulfide	ug/l	<5.0
1,1-Dichloroethene	ug/l	<5.0
1,1-Dichloroethane	ug/l	<5.0
Cis/Trans-1,2-Dichloroethene	ug/l	<5.0
cis-1,2-Dichloroethene	ug/l	<5.0
Chloroform	ug/l	0.52J
1,2-Dichloroethane	ug/l	<5.0
2-Butanone (MEK)	ug/l	<25
1,1,1-Trichloroethane	ug/l	<5.0
Carbon tetrachloride	ug/l	<5.0

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10202-5	N1-1	Liquid	10/08/03	10/07/03 13:55	EPC07

Lab Sample IDs

Parameter	Units	10202-5
Volatile Organic Compounds (8260B)		
Vinyl acetate	ug/l	<5.0
Bromodichloromethane	ug/l	<5.0
1,2-Dichloropropane	ug/l	<5.0
cis-1,3-Dichloropropene	ug/l	<5.0
Trichloroethene	ug/l	<5.0
Dibromochloromethane	ug/l	<5.0
1,1,2-Trichloroethane	ug/l	<5.0
Benzene	ug/l	<1.0
trans-1,3-Dichloropropene	ug/l	<5.0
Bromoform	ug/l	<5.0
4-Methyl-2-pentanone (MIBK)	ug/l	<25
2-Hexanone	ug/l	<25
Tetrachloroethene	ug/l	<5.0
1,1,2,2-Tetrachloroethane	ug/l	<5.0
Toluene	ug/l	<5.0
Chlorobenzene	ug/l	12
Ethylbenzene	ug/l	<5.0
[illegible]ene	ug/l	<5.0
Xylenes, Total	ug/l	<10
Surrogate - Dibromofluoromethane *	%	102 %
Surrogate - Toluene-d8 *	%	95 %
Surrogate - 4-Bromofluorobenzene *	%	95 %
Dilution Factor		1
Prep Date		10/13/03
Prep Time		19:40
Analysis Date		10/13/03
Analysis Time		19:40
Batch ID		TAW192
Prep Method		5030B
Analyst		GRH
Quantitation Factor		1

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10202-6	Trip Blank	Liquid	10/08/03	10/07/03	EPC07

Parameter	Units	Lab Sample IDs 10202-6
Volatile Organic Compounds (8260B)		
Chloromethane	ug/l	<5.0
Bromomethane (Methyl bromide)	ug/l	<5.0
Vinyl chloride	ug/l	<5.0
Chloroethane	ug/l	<5.0
Methylene chloride (Dichloromethane)	ug/l	<5.0
Acetone	ug/l	<25
Carbon disulfide	ug/l	<5.0
1,1-Dichloroethene	ug/l	<5.0
1,1-Dichloroethane	ug/l	<5.0
Cis/Trans-1,2-Dichloroethene	ug/l	<5.0
cis-1,2-Dichloroethene	ug/l	<5.0
Chloroform	ug/l	<5.0
1,2-Dichloroethane	ug/l	<5.0
2-Butanone (MEK)	ug/l	<25
1,1,1-Trichloroethane	ug/l	<5.0
Carbon tetrachloride	ug/l	<5.0
Vinyl acetate	ug/l	<5.0
Bromodichloromethane	ug/l	<5.0
1,2-Dichloropropane	ug/l	<5.0
cis-1,3-Dichloropropene	ug/l	<5.0
Trichloroethene	ug/l	<5.0
Dibromochloromethane	ug/l	<5.0
1,1,2-Trichloroethane	ug/l	<5.0
Benzene	ug/l	<1.0
trans-1,3-Dichloropropene	ug/l	<5.0
Bromoform	ug/l	<5.0
4-Methyl-2-pentanone (MIBK)	ug/l	<25
2-Hexanone	ug/l	<25
Tetrachloroethene	ug/l	<5.0
1,1,2,2-Tetrachloroethane	ug/l	<5.0
Toluene	ug/l	<5.0
Chlorobenzene	ug/l	<5.0
Ethylbenzene	ug/l	<5.0
Styrene	ug/l	<5.0
Xylenes, Total	ug/l	<10

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10202-6	Trip Blank	Liquid	10/08/03	10/07/03	EPC07

Parameter	Units	Lab Sample IDs 10202-6
Volatile Organic Compounds (8260B)		
Surrogate - Dibromofluoromethane *	%	103 %
Surrogate - Toluene-d8 *	%	95 %
Surrogate - 4-Bromofluorobenzene *	%	94 %
Dilution Factor		1
Prep Date		10/13/03
Prep Time		20:14
Analysis Date		10/13/03
Analysis Time		20:14
Batch ID		TAW192
Prep Method		5030B
Analyst		GRH
Quantitation Factor		1

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.

[redacted]

Chain of Custody Record

STL4124-400 (12/02)

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL Pensac
3355 McLemore Drive
Pensacola, FL 32514

Client: Shaw E&I / Brown & Caldwell	Project Manager: Lynn Hanzlicek / Bob Norris	Date: 10-7-03	Chain of Custody Number: 05689
Address: 1950 S. Florence	Telephone Number (Area Code)/Fax Number: 316-943-3444 / 316-943-1321 (303.235 5400 / 303.239 5454)	Lab Number: C310202	Page 1 of 1
City: Wichita; State: KS; Zip Code: 67209	Site Contact: S. Harden	Lab Contact: M. Pope	
Project Name and Location (State): El Paso / El Dorado KS	Carrier/Waybill Number: UPS		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil		Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH		Analysis (Attach list if more space is needed): 8260 VOCs	8015 TPH-Gro	6010/7470	8015 TPH-Dro	8270 SVOCs								Special Instructions/ Conditions of Receipt
W#3	10-7-03	1135		X						1	7				3	3	1	1									
W#8	10-7-03	1320		X						1	7				3	3	1	1									
N1-1	10-7-03	1355		X				1		1	7				3	3	1	1	1								
W#29S	10-7-03	1430		X						1	7				3	3	1	1									
W#29D	10-7-03	1500		X						1	7				3	3	1	1									
Trip Blank				X							1				1												

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other STAT

QC Requirements (Specify):

1. Relinquished By: Amber L. LeMaster / Matt McGhee	Date: 10-7-03	Time: 1840	1. Received By: Raven Hedania	Date: 10-08-03	Time: 0950
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

EL PASO/EL DORADO SDG#C30EP01

SEVERN TRENT STL

'L Pensacola 3355 McLemore Drive - Pensacola FL 32514 Telephone:(850) 474-1001 Fax:(850) 478-2671

Analytical Report

For: Mr. Chris Miller
El Paso Energy Corporation
P.O. Box 2511
Houston, TX 77252-2511
CC: Lynn Hanzlicek (Shaw, KS)

Order Number: C310203
SDG Number: EPC07
Client Project ID:
Project: EL PASO-EL DORADO, KS
Report Date: 10/31/2003
Sampled By: Client
Sample Received Date: 10/08/2003
Requisition Number:
Purchase Order: C-STL1-ELDORADO-001

Melissa L. Pope, Project Manager
mpope@stl-inc.com

'he test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Sample Summary

Order: C310203
Date Received: 10/08/2003

Client: El Paso Energy Corporation
Project: EL PASO-EL DORADO, KS

Client Sample ID	Lab Sample ID	Matrix	Date Sampled
W#26	C310203*1	Liquid	10/07/2003 16:10
W#15S	C310203*2	Liquid	10/07/2003 16:40
W#15D	C310203*3	Liquid	10/07/2003 17:20
Trip Blank	C310203*4	Liquid	10/07/2003

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10203-1	W#26	Liquid	10/08/03	10/07/03 16:10	EPC07
10203-2	W#15S	Liquid	10/08/03	10/07/03 16:40	EPC07
10203-3	W#15D	Liquid	10/08/03	10/07/03 17:20	EPC07

Parameter	Units	Lab Sample IDs 10203-1	10203-2	10203-3
Metals (6010B)				
Antimony	mg/l	0.0070J	0.0080J	0.0050J
Arsenic	mg/l	0.048	0.011	0.0080J
Barium	mg/l	1.8B	0.21B	0.39B
Beryllium	mg/l	0.0020J	0.0020J	0.0010J
Cadmium	mg/l	0.0010J	<0.010	<0.010
Chromium	mg/l	0.030	0.033	<0.010
Copper	mg/l	0.013J	0.025	0.0040J
Lead	mg/l	0.015	0.011	<0.010
Nickel	mg/l	0.028	0.036	0.010
Selenium	mg/l	0.0080J	0.0040J	0.0040J
Silver	mg/l	<0.010	<0.010	<0.010
Thallium	mg/l	<0.020	<0.020	<0.020
Zinc	mg/l	0.048	0.041	0.10
Dilution Factor		1	1	1
Prep Date		10/10/03	10/10/03	10/10/03
Prep Time		09:43	09:43	09:43
Analysis Date		10/13/03	10/13/03	10/13/03
Analysis Time		22:14	22:19	22:25
Batch ID		PW373	PW373	PW373
Prep Method		3010A	3010A	3010A
Analyst		GSP	GSP	GSP
Quantitation Factor		1.000	1.000	1.000
Mercury (7470A)				
Mercury	mg/l	<0.00020	<0.00020	<0.00020
Dilution Factor		1	1	1
Prep Date		10/17/03	10/17/03	10/17/03
Prep Time		13:00	13:00	13:00
Analysis Date		10/17/03	10/17/03	10/17/03
Analysis Time		17:36	17:42	17:43
Batch ID		HGW119	HGW119	HGW119
Prep Method		7470A	7470A	7470A
Analyst		JDE	JDE	JDE
Quantitation Factor		1	1	1

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10203-1	W#26	Liquid	10/08/03	10/07/03 16:10	EPC07
10203-2	W#15S	Liquid	10/08/03	10/07/03 16:40	EPC07
10203-3	W#15D	Liquid	10/08/03	10/07/03 17:20	EPC07

Parameter	Units	Lab Sample IDs 10203-1	10203-2	10203-3
Gasoline Range Organics (8015M)				
Hydrocarbons as GRO (C6-C10)	ug/l	<100	<100	<100
Surrogate - a,a,a-Trifluorotoluene *	%	98 %	101 %	98 %
Dilution Factor		1	1	1
Prep Date		10/16/03	10/17/03	10/17/03
Prep Time		23:14	00:16	01:19
Analysis Date		10/16/03	10/17/03	10/17/03
Analysis Time		23:14	00:16	01:19
Batch ID		CAW112A	CAW112A	CAW112A
Prep Method		5030B	5030B	5030B
Analyst		CN	CN	CN
Quantitation Factor		1	1	1
Diesel Range Organics (8015M)				
Mineral Spirits	ug/l	<100	<100	<100
Kerosene	ug/l	<100	<100	<100
Diesel	ug/l	<100	<100	<100
Fuel Oil	ug/l	<100	<100	<100
Motor oil (10W-40)	ug/l	<100	<100	<100
Hydraulic Fluid Hydrocarbons	ug/l	<100	<100	<100
Unknown Hydrocarbon	ug/l	450	<100	430
Surrogate - o-Terphenyl *	%	90 %	92 %	96 %
Dilution Factor		1	1	1
Prep Date		10/09/03	10/09/03	10/09/03
Prep Time		16:30	16:30	16:30
Analysis Date		10/10/03	10/10/03	10/10/03
Analysis Time		17:22	17:37	17:45
Batch ID		FPW218	FPW218	FPW218
Prep Method		3520C	3520C	3520C
Analyst		IE	IE	IE
Quantitation Factor		1.0	1.0	1.0

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10203-1	W#26	Liquid	10/08/03	10/07/03 16:10	EPC07
10203-2	W#15S	Liquid	10/08/03	10/07/03 16:40	EPC07
10203-3	W#15D	Liquid	10/08/03	10/07/03 17:20	EPC07

Parameter	Units	Lab Sample IDs 10203-1	10203-2	10203-3
Volatile Organic Compounds (8260B)				
Chloromethane	ug/l	<5.0	<5.0	<5.0
Bromomethane (Methyl bromide)	ug/l	<5.0	<5.0	<5.0
Vinyl chloride	ug/l	<5.0	<5.0	<5.0
Chloroethane	ug/l	<5.0	<5.0	<5.0
Methylene chloride (Dichloromethane)	ug/l	<5.0	<5.0	<5.0
Acetone	ug/l	<25	<25	<25
Carbon disulfide	ug/l	<5.0	<5.0	<5.0
1,1-Dichloroethene	ug/l	<5.0	<5.0	<5.0
1,1-Dichloroethane	ug/l	<5.0	<5.0	<5.0
Cis/Trans-1,2-Dichloroethene	ug/l	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	ug/l	<5.0	<5.0	<5.0
Chloroform	ug/l	<5.0	0.60J	<5.0
1,2-Dichloroethane	ug/l	<5.0	<5.0	<5.0
tanone (MEK)	ug/l	<25	<25	<25
[illegible],1-Trichloroethane	ug/l	<5.0	<5.0	<5.0
Carbon tetrachloride	ug/l	<5.0	<5.0	<5.0
Vinyl acetate	ug/l	<5.0	<5.0	<5.0
Bromodichloromethane	ug/l	<5.0	<5.0	<5.0
1,2-Dichloropropane	ug/l	<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	ug/l	<5.0	<5.0	<5.0
Trichloroethene	ug/l	<5.0	<5.0	<5.0
Dibromochloromethane	ug/l	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	ug/l	<5.0	<5.0	<5.0
Benzene	ug/l	0.36J	0.26J	<1.0
trans-1,3-Dichloropropene	ug/l	<5.0	<5.0	<5.0
Bromoform	ug/l	<5.0	<5.0	<5.0
4-Methyl-2-pentanone (MIBK)	ug/l	<25	<25	<25
2-Hexanone	ug/l	<25	<25	<25
Tetrachloroethene	ug/l	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	ug/l	<5.0	<5.0	<5.0
Toluene	ug/l	1.0	0.24J	<5.0
Chlorobenzene	ug/l	<5.0	<5.0	<5.0
Ethylbenzene	ug/l	0.21J	<5.0	<5.0

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10203-1	W#26	Liquid	10/08/03	10/07/03 16:10	EPC07
10203-2	W#15S	Liquid	10/08/03	10/07/03 16:40	EPC07
10203-3	W#15D	Liquid	10/08/03	10/07/03 17:20	EPC07

Parameter	Units	Lab Sample IDs 10203-1	10203-2	10203-3
Volatile Organic Compounds (8260B)				
Styrene	ug/l	<5.0	<5.0	<5.0
Xylenes, Total	ug/l	0.58J	<10	<10
Surrogate - Dibromofluoromethane *	%	102 %	100 %	103 %
Surrogate - Toluene-d8 *	%	95 %	95 %	95 %
Surrogate - 4-Bromofluorobenzene *	%	96 %	95 %	95 %
Dilution Factor		1	1	1
Prep Date		10/13/03	10/13/03	10/13/03
Prep Time		17:44	18:17	18:50
Analysis Date		10/13/03	10/13/03	10/13/03
Analysis Time		17:44	18:17	18:50
Batch ID		TAW191	TAW191	TAW191
Prep Method		5030B	5030B	5030B
Analyst		GRH	GRH	GRH
Quantitation Factor		1	1	1

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10203-4	Trip Blank	Liquid	10/08/03	10/07/03	EPC07

Parameter	Units	Lab Sample IDs 10203-4
Volatile Organic Compounds (8260B)		
Chloromethane	ug/l	<5.0
Bromomethane (Methyl bromide)	ug/l	<5.0
Vinyl chloride	ug/l	<5.0
Chloroethane	ug/l	<5.0
Methylene chloride (Dichloromethane)	ug/l	<5.0
Acetone	ug/l	<25
Carbon disulfide	ug/l	<5.0
1,1-Dichloroethene	ug/l	<5.0
1,1-Dichloroethane	ug/l	<5.0
Cis/Trans-1,2-Dichloroethene	ug/l	<5.0
cis-1,2-Dichloroethene	ug/l	<5.0
Chloroform	ug/l	<5.0
1,2-Dichloroethane	ug/l	<5.0
2-Butanone (MEK)	ug/l	<25
1,1,1-Trichloroethane	ug/l	<5.0
on tetrachloride	ug/l	<5.0
yl acetate	ug/l	<5.0
Bromodichloromethane	ug/l	<5.0
1,2-Dichloropropane	ug/l	<5.0
cis-1,3-Dichloropropene	ug/l	<5.0
Trichloroethene	ug/l	<5.0
Dibromochloromethane	ug/l	<5.0
1,1,2-Trichloroethane	ug/l	<5.0
Benzene	ug/l	<1.0
trans-1,3-Dichloropropene	ug/l	<5.0
Bromoform	ug/l	<5.0
4-Methyl-2-pentanone (MIBK)	ug/l	<25
2-Hexanone	ug/l	<25
Tetrachloroethene	ug/l	<5.0
1,1,2,2-Tetrachloroethane	ug/l	<5.0
Toluene	ug/l	<5.0
Chlorobenzene	ug/l	<5.0
Ethylbenzene	ug/l	<5.0
Styrene	ug/l	<5.0
Xylenes, Total	ug/l	<10

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10203-4	Trip Blank	Liquid	10/08/03	10/07/03	EPC07

Parameter	Units	Lab Sample IDs 10203-4
Volatile Organic Compounds (8260B)		
Surrogate - Dibromofluoromethane *	%	100 %
Surrogate - Toluene-d8 *	%	95 %
Surrogate - 4-Bromofluorobenzene *	%	94 %
Dilution Factor		1
Prep Date		10/13/03
Prep Time		19:24
Analysis Date		10/13/03
Analysis Time		19:24
Batch ID		TAW191
Prep Method		5030B
Analyst		GRH
Quantitation Factor		1

: test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.

[redacted]

Chain of Custody Record

STL4124-400 (12/02)

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

Client: Shaw E&I / Brown & Caldwell	Project Manager: Lynn Hanzlicek / Bob Norris	Date: 10-7-03	Chain of Custody Number: 05690
Address: 1950 S. Florence	Telephone Number (Area Code)/Fax Number: 316-943-3444 / 316-943-1321 (303-239-5400 303 239 5454)	Lab Number: C310203	Page 1 of 1
City: Wichita; State: KS; Zip Code: 67209	Site Contact: S. Harden	Lab Contact: M. Pope	
Project Name and Location (State): El Paso / El Dorado Kansas	Carrier/Waybill Number: UPS		
Contract/Purchase Order/Quote No.:			

Analysis (Attach list if more space is needed): 8260 VOCs; 8015GRO; 1010/7470; 8015 DRO; 8270 SVOCs

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil		Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH		8260 VOCs	8015GRO	1010/7470	8015 DRO	8270 SVOCs	Special Instructions/ Conditions of Receipt
W#26	10-7-03	1610		X						1	7				3	3	1	1		
W#15S	10-7-03	1640		X						1	7				3	3	1	1		
W#15D	10-7-03	1720		X						1	7				3	3	1	1		
Trip Blank				X							1				2					

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other STAT

QC Requirements (Specify):

1. Relinquished By: Amber L. LaMaster / Mark Swafford	Date: 10-7-03	Time: 1840	1. Received By: Mark Swafford	Date: 10/8/03	Time: 950
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: TE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

EL PASO-EL DORADO SWG#C30EPC07

33

STL

TL Pensacola 3355 McLemore Drive - Pensacola FL 32514 Telephone:(850) 474-1001 Fax:(850) 478-2671

Analytical Report

For: Mr. Chris Miller
El Paso Energy Corporation
P.O. Box 2511
Houston, TX 77252-2511
CC: Lynn Hanzlicek (Shaw, KS)

Order Number: C310231
SDG Number: EPC07
Client Project ID:
Project: EL PASO-EL DORADO, KS
Report Date: 11/02/2003
Sampled By: Client
Sample Received Date: 10/09/2003
Requisition Number:
Purchase Order: C-STL1-ELDORADO-001

Melissa L. Pope, Project Manager
mpope@stl-inc.com

The test results in this report meet all NELAP requirements for parameters for which ccreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Sample Summary

Order: C310231
Date Received: 10/09/2003

Client: El Paso Energy Corporation
Project: EL PASO-EL DORADO, KS

Client Sample ID	Lab Sample ID	Matrix	Date Sampled
N5-2	C310231*1	Liquid	10/08/2003 15:00
N5-3	C310231*2	Liquid	10/08/2003 15:30
Trip Blank	C310231*3	Liquid	10/08/2003

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10231-1	N5-2	Liquid	10/09/03	10/08/03 15:00	EPC07
10231-2	N5-3	Liquid	10/09/03	10/08/03 15:30	EPC07

Parameter	Units	Lab Sample IDs 10231-1	10231-2
Metals (6010B)			
Antimony	mg/l	<0.10	0.0050J
Arsenic	mg/l	0.0050J	0.094
Barium	mg/l	0.25	2.2
Beryllium	mg/l	0.0020J	0.013
Cadmium	mg/l	<0.010	0.0090J
Chromium	mg/l	0.0040J	0.22
Copper	mg/l	0.0070J	0.26
Lead	mg/l	0.015	0.20
Nickel	mg/l	0.0030J	0.30
Selenium	mg/l	<0.020	<0.020
Silver	mg/l	<0.010	<0.010
Thallium	mg/l	<0.020	<0.020
Zinc	mg/l	0.38	1.1
Dilution Factor		1	1
Prep Date		10/15/03	10/15/03
Prep Time		10:06	10:06
Analysis Date		10/15/03	10/15/03
Analysis Time		19:01	19:07
Batch ID		PW379	PW379
Prep Method		3010A	3010A
Analyst		GSP	GSP
Quantitation Factor		1.000	1.000
Mercury (7470A)			
Mercury	mg/l	<0.00020	0.00023
Dilution Factor		1	1
Prep Date		10/17/03	10/17/03
Prep Time		13:00	13:00
Analysis Date		10/17/03	10/17/03
Analysis Time		17:32	17:34
Batch ID		HGW119	HGW119
Prep Method		7470A	7470A
Analyst		JDE	JDE
Quantitation Factor		1	1

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10231-1	N5-2	Liquid	10/09/03	10/08/03 15:00	EPC07
10231-2	N5-3	Liquid	10/09/03	10/08/03 15:30	EPC07

Parameter	Units	Lab Sample IDs 10231-1	10231-2
Gasoline Range Organics (8015M)			
Hydrocarbons as GRO (C6-C10)	ug/l	<100	2400
Surrogate - a,a,a-Trifluorotoluene *	%	109 %	141 %M
Dilution Factor		1	5
Prep Date		10/17/03	10/17/03
Prep Time		10:50	16:10
Analysis Date		10/17/03	10/17/03
Analysis Time		10:50	16:10
Batch ID		ETW116C	ETW116C
Prep Method		5030B	5030B
Analyst		CN	CN
Quantitation Factor		1	5
Diesel Range Organics (8015M)			
Mineral Spirits	ug/l	<100	<100
Kerosene	ug/l	<100	<100
Diesel	ug/l	<100	<100
Fuel Oil	ug/l	<100	<100
Motor oil (10W-40)	ug/l	<100	<100
Hydraulic Fluid Hydrocarbons	ug/l	<100	2600
Unknown Hydrocarbon	ug/l	<100	<100
Surrogate - o-Terphenyl *	%	98 %	97 %
Dilution Factor		1	1
Prep Date		10/11/03	10/11/03
Prep Time		08:50	08:50
Analysis Date		10/13/03	10/13/03
Analysis Time		11:44	11:51
Batch ID		FPW220	FPW220
Prep Method		3520C	3520C
Analyst		KA	KA
Quantitation Factor		1.0	1.0

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10231-1	N5-2	Liquid	10/09/03	10/08/03 15:00	EPC07
10231-2	N5-3	Liquid	10/09/03	10/08/03 15:30	EPC07

Parameter	Units	Lab Sample IDs 10231-1	10231-2
Semivolatile Organic Compounds (8270C)			
Benzoic acid	ug/l	<50	<50
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	ug/l	<10	<10
2-Chlorophenol	ug/l	<10	<10
2,4-Dichlorophenol	ug/l	<10	<10
2,6-Dichlorophenol	ug/l	<10	<10
2,4-Dimethylphenol	ug/l	<10	<10
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	ug/l	<50	<50
2,4-Dinitrophenol	ug/l	<50	<50
2-Methylphenol (o-Cresol)	ug/l	<10	<10
3-Methylphenol/4-Methylphenol (m&p-Cresol)	ug/l	<10	<10
2-Nitrophenol (o-Nitrophenol)	ug/l	<10	<10
4-Nitrophenol (p-Nitrophenol)	ug/l	<50	<50
Pentachlorophenol	ug/l	<50	<50
[illegible]ol	ug/l	<10	<10
2,3,4,6-Tetrachlorophenol	ug/l	<10	<10
2,4,5-Trichlorophenol	ug/l	<50	<50
2,4,6-Trichlorophenol	ug/l	<10	<10
Acenaphthene	ug/l	<10	<10
Acenaphthylene	ug/l	<10	<10
Acetophenone	ug/l	<10	<10
4-Aminobiphenyl	ug/l	<10	<10
Aniline	ug/l	<10	<10
Anthracene	ug/l	<10	<10
Benzidine	ug/l	<50	<50
Benzo(a)anthracene	ug/l	<10	<10
Benzo(b)fluoranthene	ug/l	<10	<10
Benzo(k)fluoranthene	ug/l	<10	<10
Benzo(g,h,i)perylene	ug/l	<10	<10
Benzo(a)pyrene	ug/l	<10	<10
Benzyl alcohol	ug/l	<10	<10
4-Bromophenylphenyl ether	ug/l	<10	<10
Butylbenzylphthalate	ug/l	<10	<10

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10231-1	N5-2	Liquid	10/09/03	10/08/03 15:00	EPC07
10231-2	N5-3	Liquid	10/09/03	10/08/03 15:30	EPC07

Parameter	Units	Lab Sample IDs 10231-1	10231-2
Semivolatile Organic Compounds (8270C)			
Carbazole	ug/l	<10	<10
4-Chloroaniline (p-Chloroaniline)	ug/l	<10	<10
bis(2-Chloroethoxy)methane	ug/l	<10	<10
bis(2-Chloroethyl)ether	ug/l	<10	<10
bis(2-Chloroisopropyl) ether	ug/l	<10	<10
1-Chloronaphthalene	ug/l	<10	<10
2-Chloronaphthalene	ug/l	<10	<10
4-Chlorophenylphenyl ether	ug/l	<10	<10
Chrysene	ug/l	<10	<10
Dibenz(a,j)acridine	ug/l	<10	<10
Dibenzo(a,h)anthracene	ug/l	<10	<10
Dibenzofuran	ug/l	<10	<10
Di-n-butylphthalate	ug/l	<10	<10
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/l	<10	<10
1,3-Dichlorobenzene (m-Dichlorobenzene)	ug/l	<10	<10
1,4-Dichlorobenzene (p-Dichlorobenzene)	ug/l	<10	<10
3,3'-Dichlorobenzidine	ug/l	<50	<50
Diethylene Glycol Monobutyl Ether	ug/l	<10	<10
Diethylphthalate	ug/l	<10	<10
p-(Dimethylamino)azobenzene	ug/l	<10	<10
7,12-Dimethylbenz(a)anthracene	ug/l	<10	<10
alpha,alpha-Dimethylphenethylamine	ug/l	<10	<10
Dimethylphthalate	ug/l	<10	<10
2,4-Dinitrotoluene	ug/l	<10	<10
2,6-Dinitrotoluene	ug/l	<10	<10
Di-n-octylphthalate	ug/l	<10	<10
1,2-Diphenylhydrazine	ug/l	<10	<10
bis(2-Ethylhexyl)phthalate	ug/l	<10	0.86J
Ethyl methanesulfonate	ug/l	<10	<10

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10231-1	N5-2	Liquid	10/09/03	10/08/03 15:00	EPC07
10231-2	N5-3	Liquid	10/09/03	10/08/03 15:30	EPC07

Parameter	Units	Lab Sample IDs 10231-1	10231-2
Semivolatile Organic Compounds (8270C)			
Fluoranthene	ug/l	<10	<10
Fluorene	ug/l	<10	<10
Hexachlorobenzene	ug/l	<10	<10
Hexachlorobutadiene	ug/l	<10	<10
Hexachlorocyclopentadiene	ug/l	<10	<10
Hexachloroethane	ug/l	<10	<10
Indeno(1,2,3-cd)pyrene	ug/l	<10	<10
Isophorone	ug/l	<10	<10
3-Methylcholanthrene	ug/l	<10	<10
Methyl methanesulfonate	ug/l	<10	<10
1-Methylnaphthalene	ug/l	<10	<10
2-Methylnaphthalene	ug/l	<10	<10
Naphthalene	ug/l	<10	<10
1-Naphthylamine	ug/l	<10	<10
2-Naphthylamine	ug/l	<10	<10
2-Nitroaniline (o-Nitroaniline)	ug/l	<10	<10
3-Nitroaniline (m-Nitroaniline)	ug/l	<10	<10
4-Nitroaniline (p-Nitroaniline)	ug/l	<10	<10
Nitrobenzene	ug/l	<10	<10
N-Nitrosodi-n-butylamine	ug/l	<10	<10
N-Nitrosodimethylamine	ug/l	<10	<10
N-Nitrosodiphenylamine	ug/l	<10	<10
n-Nitrosodi-n-propylamine	ug/l	<10	<10
N-Nitrosopiperidine	ug/l	<10	<10
Pentachlorobenzene	ug/l	<10	<10
Pentachloronitrobenzene	ug/l	<10	<10
Phenacetin	ug/l	<10	<10
Phenanthrene	ug/l	<10	<10
2-Picoline	ug/l	<10	<10
Pronamide	ug/l	<10	<10
Pyrene	ug/l	<10	<10
Pyridine	ug/l	<10	<10

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10231-1	N5-2	Liquid	10/09/03	10/08/03 15:00	EPC07
10231-2	N5-3	Liquid	10/09/03	10/08/03 15:30	EPC07

Parameter	Units	Lab Sample IDs 10231-1	10231-2
Semivolatile Organic Compounds (8270C)			
1,2,4,5-Tetrachlorobenzene	ug/l	<10	<10
1,2,4-Trichlorobenzene	ug/l	<10	<10
Surrogate - 2-Fluorobiphenyl *	%	64 %	79 %
Surrogate - 2-Fluorophenol *	%	44 %	57 %
Surrogate - Nitrobenzene - d5 *	%	51 %	64 %
Surrogate - Phenol-d5 *	%	48 %	56 %
Surrogate - Terphenyl-d14 *	%	87 %	89 %
Surrogate - 2,4,6-Tribromophenol *	%	79 %	90 %
Dilution Factor		1	1
Prep Date		10/13/03	10/13/03
Prep Time		08:45	08:45
Analysis Date		10/17/03	10/17/03
Analysis Time		17:49	18:26
Batch ID		ALW174	ALW174
Prep Method		3520C	3520C
Analyst		RDW	RDW
Quantitation Factor		1	1
Volatile Organic Compounds (8260B)			
Chloromethane	ug/l	<5.0	<5.0
Bromomethane (Methyl bromide)	ug/l	<5.0	<5.0
Vinyl chloride	ug/l	<5.0	<5.0
Chloroethane	ug/l	<5.0	<5.0
Methylene chloride (Dichloromethane)	ug/l	<5.0	<5.0
Acetone	ug/l	<25	<25
Carbon disulfide	ug/l	<5.0	<5.0
1,1-Dichloroethene	ug/l	<5.0	<5.0
1,1-Dichloroethane	ug/l	<5.0	<5.0
Cis/Trans-1,2-Dichloroethene	ug/l	<5.0	<5.0
cis-1,2-Dichloroethene	ug/l	<5.0	<5.0
Chloroform	ug/l	<5.0	<5.0

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10231-1	N5-2	Liquid	10/09/03	10/08/03 15:00	EPC07
10231-2	N5-3	Liquid	10/09/03	10/08/03 15:30	EPC07

Parameter	Units	Lab Sample IDs 10231-1	10231-2
Volatile Organic Compounds (8260B)			
1,2-Dichloroethane	ug/l	<5.0	<5.0
2-Butanone (MEK)	ug/l	<25	<25
1,1,1-Trichloroethane	ug/l	<5.0	<5.0
Carbon tetrachloride	ug/l	<5.0	<5.0
Vinyl acetate	ug/l	<5.0	<5.0
Bromodichloromethane	ug/l	<5.0	<5.0
1,2-Dichloropropane	ug/l	<5.0	<5.0
cis-1,3-Dichloropropene	ug/l	<5.0	<5.0
Trichloroethene	ug/l	<5.0	<5.0
Dibromochloromethane	ug/l	<5.0	<5.0
1,1,2-Trichloroethane	ug/l	<5.0	<5.0
Benzene	ug/l	<1.0	<1.0
trans-1,3-Dichloropropene	ug/l	<5.0	<5.0
Bromoform	ug/l	<5.0	<5.0
4-Methyl-2-pentanone (MIBK)	ug/l	<25	<25
2-Hexanone	ug/l	<25	<25
achloroethene	ug/l	<5.0	<5.0
1,1,2,2-Tetrachloroethane	ug/l	<5.0	<5.0
Toluene	ug/l	<5.0	<5.0
Chlorobenzene	ug/l	<5.0	<5.0
Ethylbenzene	ug/l	<5.0	<5.0
Styrene	ug/l	<5.0	<5.0
Xylenes, Total	ug/l	<10	<10
Surrogate - Dibromofluoromethane *	%	102 %	102 %
Surrogate - Toluene-d8 *	%	99 %	103 %
Surrogate - 4-Bromofluorobenzene *	%	99 %	101 %
Dilution Factor		1	1
Prep Date		10/16/03	10/16/03
Prep Time		12:33	13:06
Analysis Date		10/16/03	10/16/03
Analysis Time		12:33	13:06
Batch ID		TAW193	TAW193
Prep Method		5030B	5030B
Analyst		GRH	GRH
Quantitation Factor		1	1

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10231-3	Trip Blank	Liquid	10/09/03	10/08/03	EPC07

Parameter	Units	Lab Sample IDs 10231-3
Volatile Organic Compounds (8260B)		
Chloromethane	ug/l	<5.0
Bromomethane (Methyl bromide)	ug/l	<5.0
Vinyl chloride	ug/l	<5.0
Chloroethane	ug/l	<5.0
Methylene chloride (Dichloromethane)	ug/l	5.0
Acetone	ug/l	<25
Carbon disulfide	ug/l	<5.0
1,1-Dichloroethene	ug/l	<5.0
1,1-Dichloroethane	ug/l	<5.0
Cis/Trans-1,2-Dichloroethene	ug/l	<5.0
cis-1,2-Dichloroethene	ug/l	<5.0
Chloroform	ug/l	<5.0
1,2-Dichloroethane	ug/l	<5.0
2-Butanone (MEK)	ug/l	<25
1,1,1-Trichloroethane	ug/l	<5.0
Carbon tetrachloride	ug/l	<5.0
Vinyl acetate	ug/l	<25
Bromodichloromethane	ug/l	<5.0
1,2-Dichloropropane	ug/l	<5.0
cis-1,3-Dichloropropene	ug/l	<5.0
Trichloroethene	ug/l	<5.0
Dibromochloromethane	ug/l	<5.0
1,1,2-Trichloroethane	ug/l	<5.0
Benzene	ug/l	<1.0
trans-1,3-Dichloropropene	ug/l	<5.0
Bromoform	ug/l	<5.0
4-Methyl-2-pentanone (MIBK)	ug/l	<25
2-Hexanone	ug/l	<25
Tetrachloroethene	ug/l	<5.0
1,1,2,2-Tetrachloroethane	ug/l	<5.0
Toluene	ug/l	<5.0
Chlorobenzene	ug/l	<5.0
Ethylbenzene	ug/l	<5.0
Styrene	ug/l	<5.0
Xylenes, Total	ug/l	<10

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10231-3	Trip Blank	Liquid	10/09/03	10/08/03	EPC07

Lab Sample IDs

Parameter	Units	10231-3
Volatile Organic Compounds (8260B)		
Surrogate - Dibromofluoromethane *	%	103 %
Surrogate - Toluene-d8 *	%	102 %
Surrogate - 4-Bromofluorobenzene *	%	91 %
Dilution Factor		1
Prep Date		10/18/03
Prep Time		08:13
Analysis Date		10/18/03
Analysis Time		08:13
Batch ID		LEW138A
Prep Method		5030B
Analyst		WD
Quantitation Factor		1

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.

Chain of Custody Record

STL4124-400 (12/02)

SEVERN TRENT STL
Severn Trent Laboratories, Inc.

STL Pensac
3355 McLemore Drive
Pensacola, FL 32514

Client: Brown & Caldwell	Project Manager: Bob Norris	Date: 10-8-03	Chain of Custody Number: 05695
Address: 11697 Coke Blvd.	Telephone Number (Area Code)/Fax Number: 303-239-5400 / 303-239-5454	Lab Number: C310231	Page 1 of 1
City: Golden; State: CO; Zip Code: 80401	Site Contact: S. Harden	Lab Contact: M. Pope	
Project Name and Location (State): El Paso / El Dorado KS	Carrier/Waybill Number: UPS		
Contract/Purchase Order/Quote No.			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	8260 VOCs	8015-TPHGRO	6010/7470	8015-TPH Dro	8270 SVOCs	Special Instructions/ Conditions of Receipt
NS-2	10-8-03	1500		X			1		1	7			3	3	1	1	1	
NS-3	10-8-03	1530		X			1		1	7			3	3	1	1	1	
Trip Blank				X						1			1					

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other STAT

QC Requirements (Specify)

1. Relinquished By: Amber L. LeMaster	Date: 10-8-03	Time: 1744	1. Received By: Karen Hedario	Date: 10.09.03	Time: 940
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

STL

TL Pensacola 3355 McLemore Drive - Pensacola FL 32514 Telephone:(850) 474-1001 Fax:(850) 478-2671

Analytical Report

For: Mr. Chris Miller
El Paso Energy Corporation
P.O. Box 2511
Houston, TX 77252-2511
CC: Lynn Hanzlicek (Shaw, KS)

Order Number: C310244
SDG Number: EPC07
Client Project ID:
Project: EL PASO-EL DORADO, KS
Report Date: 11/02/2003
Sampled By: Client
Sample Received Date: 10/09/2003
Requisition Number:
Purchase Order: C-STL1-ELDORADO-001

Melissa L. Pope, Project Manager
mpope@stl-inc.com

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Sample Summary

Order: C310244
Date Received: 10/09/2003

Client: El Paso Energy Corporation
Project: EL PASO-EL DORADO, KS

Client Sample ID	Lab Sample ID	Matrix	Date Sampled
N2-1	C310244*1	Liquid	10/08/2003 08:40
N4-3	C310244*2	Liquid	10/08/2003 09:20
N3-3	C310244*3	Liquid	10/08/2003 10:05
N4-4	C310244*4	Liquid	10/08/2003 11:06
DUPLICATE A	C310244*5	Liquid	10/08/2003
N4-1	C310244*7	Liquid	10/08/2003 13:50
N4-2	C310244*8	Liquid	10/08/2003 14:10
N5-1	C310244*9	Liquid	10/08/2003 14:40
W#22	C310244*10	Liquid	10/08/2003 10:24
W#16S	C310244*11	Liquid	10/08/2003 13:15
Trip Blank (1)	C310244*12	Liquid	10/08/2003
Trip Blank (2)	C310244*13	Liquid	10/08/2003
Trip Blank (3)	C310244*14	Liquid	10/08/2003

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10244-1	N2-1	Liquid	10/09/03	10/08/03 08:40	EPC07
10244-2	N4-3	Liquid	10/09/03	10/08/03 09:20	EPC07
10244-3	N3-3	Liquid	10/09/03	10/08/03 10:05	EPC07
10244-4	N4-4	Liquid	10/09/03	10/08/03 11:06	EPC07
10244-5	DUPLICATE A	Liquid	10/09/03	10/08/03	EPC07

Parameter	Units	Lab Sample IDs 10244-1	10244-2	10244-3	10244-4	10244-5
Metals (6010B)						
Antimony	mg/l	<0.10	<0.10	<0.10	<0.10	<0.10
Arsenic	mg/l	<0.010	<0.010	0.048	0.011	0.010
Barium	mg/l	0.21	0.40	1.3	0.33	0.49
Beryllium	mg/l	<0.0060	<0.0060	0.0020J	0.0010J	0.0030J
Cadmium	mg/l	<0.010	<0.010	0.0010J	<0.010	<0.010
Chromium	mg/l	<0.010	0.0040J	0.036	0.020	0.025
Copper	mg/l	0.0020J	0.0030J	0.019J	0.012J	0.017J
Lead	mg/l	0.0020J	0.0050J	0.022	0.013	0.026
Nickel	mg/l	<0.010	0.0040J	0.042	0.026	0.030
Selenium	mg/l	<0.020	<0.020	<0.020	<0.020	<0.020
Silver	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
Thallium	mg/l	<0.020	<0.020	<0.020	<0.020	<0.020
Zinc	mg/l	0.010J	0.12	0.20	0.15	0.27
Dilution Factor		1	1	1	1	1
Prep Date		10/15/03	10/15/03	10/15/03	10/15/03	10/15/03
Prep Time		10:06	10:06	10:06	10:06	10:06
Analysis Date		10/15/03	10/15/03	10/15/03	10/15/03	10/15/03
Analysis Time		17:16	17:55	18:00	18:06	18:11
Batch ID		PW379	PW379	PW379	PW379	PW379
Prep Method		3010A	3010A	3010A	3010A	3010A
Analyst		GSP	GSP	GSP	GSP	GSP
Quantitation Factor		1.000	1.000	1.000	1.000	1.000
Mercury (7470A)						
Mercury	mg/l	<0.00020	<0.00020	0.00010J	<0.00020	<0.00020
Dilution Factor		1	1	1	1	1
Prep Date		10/17/03	10/17/03	10/17/03	10/17/03	10/17/03
Prep Time		13:00	13:00	13:00	13:00	13:00
Analysis Date		10/17/03	10/17/03	10/17/03	10/17/03	10/17/03
Analysis Time		16:53	16:55	16:57	16:58	17:00
Batch ID		HGW119	HGW119	HGW119	HGW119	HGW119
Prep Method		7470A	7470A	7470A	7470A	7470A
Analyst		JDE	JDE	JDE	JDE	JDE
Quantitation Factor		1	1	1	1	1

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10244-1	N2-1	Liquid	10/09/03	10/08/03 08:40	EPC07
10244-2	N4-3	Liquid	10/09/03	10/08/03 09:20	EPC07
10244-3	N3-3	Liquid	10/09/03	10/08/03 10:05	EPC07
10244-4	N4-4	Liquid	10/09/03	10/08/03 11:06	EPC07
10244-5	DUPLICATE A	Liquid	10/09/03	10/08/03	EPC07

Parameter	Units	Lab Sample IDs 10244-1	10244-2	10244-3	10244-4	10244-5
Gasoline Range Organics (8015M)						
Hydrocarbons as GRO (C6-C10)	ug/l	<100	<100	3300	<100	<100
Surrogate - a,a,a-Trifluorotoluene *	%	107 %	109 %	115 %	112 %	108 %
Dilution Factor		1	1	10	1	1
Prep Date		10/17/03	10/17/03	10/18/03	10/17/03	10/17/03
Prep Time		12:37	13:30	01:03	15:17	17:04
Analysis Date		10/17/03	10/17/03	10/18/03	10/17/03	10/17/03
Analysis Time		12:37	13:30	01:03	15:17	17:04
Batch ID		ETW116C	ETW116C	ETW116D	ETW116C	ETW116C
Prep Method		5030B	5030B	5030B	5030B	5030B
Analyst		CN	CN	CN	CN	CN
Quantitation Factor		1	1	10	1	1
Diesel Range Organics (8015M)						
Mineral Spirits	ug/l	<100	<100	<100	<100	<100
Kerosene	ug/l	<100	<100	<100	<100	<100
Diesel	ug/l	<100	<100	<100	<100	<100
Fuel Oil	ug/l	<100	<100	<100	<100	<100
Motor oil (10W-40)	ug/l	<100	<100	<100	<100	<100
Hydraulic Fluid Hydrocarbons	ug/l	<100	<100	<100	<100	<100
Unknown Hydrocarbon	ug/l	69J	120	5500	190	170
Surrogate - o-Terphenyl *	%	106 %	107 %	98 %	97 %	103 %
Dilution Factor		1	1	1	1	1
Prep Date		10/11/03	10/11/03	10/11/03	10/11/03	10/11/03
Prep Time		08:50	08:50	08:50	08:50	08:50
Analysis Date		10/13/03	10/13/03	10/13/03	10/13/03	10/13/03
Analysis Time		13:52	13:59	14:07	14:22	14:30
Batch ID		FPW221	FPW221	FPW221	FPW221	FPW221
Prep Method		3520C	3520C	3520C	3520C	3520C
Analyst		IE	IE	IE	IE	IE
Quantitation Factor		1.0	1.0	1.0	1.0	1.0

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10244-1	N2-1	Liquid	10/09/03	10/08/03 08:40	EPC07
10244-2	N4-3	Liquid	10/09/03	10/08/03 09:20	EPC07
10244-3	N3-3	Liquid	10/09/03	10/08/03 10:05	EPC07
10244-4	N4-4	Liquid	10/09/03	10/08/03 11:06	EPC07
10244-5	DUPLICATE A	Liquid	10/09/03	10/08/03	EPC07

Parameter	Units	Lab Sample IDs 10244-1	10244-2	10244-3	10244-4	10244-5
Semivolatile Organic Compounds (8270C)						
Benzoic acid	ug/l	<50	<50	<50	<50	<50
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	ug/l	<10	<10	<10	<10	<10
2-Chlorophenol	ug/l	<10	<10	<10	<10	<10
2,4-Dichlorophenol	ug/l	<10	<10	<10	<10	<10
2,6-Dichlorophenol	ug/l	<10	<10	<10	<10	<10
2,4-Dimethylphenol	ug/l	<10	<10	<10	<10	<10
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	ug/l	<50	<50	<50	<50	<50
2,4-Dinitrophenol	ug/l	<50	<50	<50	<50	<50
2-Methylphenol (o-Cresol)	ug/l	<10	<10	<10	<10	<10
3-Methylphenol/4-Methylphenol (m&p-Cresol)	ug/l	<10	<10	<10	<10	<10
trophenol (o-Nitrophenol)	ug/l	<10	<10	<10	<10	<10
4-Nitrophenol (p-Nitrophenol)	ug/l	<50	<50	<50	<50	<50
Pentachlorophenol	ug/l	<50	<50	<50	<50	<50
Phenol	ug/l	<10	<10	<10	<10	<10
2,3,4,6-Tetrachlorophenol	ug/l	<10	<10	<10	<10	<10
2,4,5-Trichlorophenol	ug/l	<50	<50	<50	<50	<50
2,4,6-Trichlorophenol	ug/l	<10	<10	<10	<10	<10
Acenaphthene	ug/l	<10	<10	<10	<10	<10
Acenaphthylene	ug/l	<10	<10	<10	<10	<10
Acetophenone	ug/l	<10	<10	<10	<10	<10
4-Aminobiphenyl	ug/l	<10	<10	<10	<10	<10
Aniline	ug/l	<10	<10	<10	<10	<10
Anthracene	ug/l	<10	<10	<10	<10	<10
Benzidine	ug/l	<50	<50	<50	<50	<50
Benzo(a)anthracene	ug/l	<10	<10	<10	<10	<10
Benzo(b)fluoranthene	ug/l	<10	<10	<10	<10	<10
Benzo(k)fluoranthene	ug/l	<10	<10	<10	<10	<10
Benzo(g,h,i)perylene	ug/l	<10	<10	<10	<10	<10
Benzo(a)pyrene	ug/l	<10	<10	<10	<10	<10

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10244-1	N2-1	Liquid	10/09/03	10/08/03 08:40	EPC07
10244-2	N4-3	Liquid	10/09/03	10/08/03 09:20	EPC07
10244-3	N3-3	Liquid	10/09/03	10/08/03 10:05	EPC07
10244-4	N4-4	Liquid	10/09/03	10/08/03 11:06	EPC07
10244-5	DUPLICATE A	Liquid	10/09/03	10/08/03	EPC07

Parameter	Units	Lab Sample IDs 10244-1	10244-2	10244-3	10244-4	10244-5
Semivolatile Organic Compounds (8270C)						
Benzyl alcohol	ug/l	<10	<10	<10	<10	<10
4-Bromophenylphenyl ether	ug/l	<10	<10	<10	<10	<10
Butylbenzylphthalate	ug/l	<10	<10	<10	<10	<10
Carbazole	ug/l	<10	<10	<10	<10	<10
4-Chloroaniline (p-Chloroaniline)	ug/l	<10	<10	<10	<10	<10
bis(2-Chloroethoxy)methane	ug/l	<10	<10	<10	<10	<10
bis(2-Chloroethyl)ether	ug/l	<10	<10	<10	<10	<10
bis(2-Chloroisopropyl) ether	ug/l	<10	<10	<10	<10	<10
1-Chloronaphthalene	ug/l	<10	<10	<10	<10	<10
2-Chloronaphthalene	ug/l	<10	<10	<10	<10	<10
4-Chlorophenylphenyl ether	ug/l	<10	<10	<10	<10	<10
Chrysene	ug/l	<10	<10	<10	<10	<10
Dibenz(a,j)acridine	ug/l	<10	<10	<10	<10	<10
Dibenzo(a,h)anthracene	ug/l	<10	<10	<10	<10	<10
Dibenzofuran	ug/l	<10	<10	<10	<10	<10
Di-n-butylphthalate	ug/l	<10	<10	<10	<10	<10
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/l	<10	<10	<10	<10	<10
1,3-Dichlorobenzene (m-Dichlorobenzene)	ug/l	<10	<10	<10	<10	<10
1,4-Dichlorobenzene (p-Dichlorobenzene)	ug/l	<10	<10	<10	<10	<10
3,3'-Dichlorobenzidine	ug/l	<50	<50	<50	<50	<50
Diethylene Glycol Monobutyl Ether	ug/l	<10	<10	<10	<10	<10
Diethylphthalate	ug/l	<10	<10	<10	<10	<10
p-(Dimethylamino)azobenzene	ug/l	<10	<10	<10	<10	<10
7,12-Dimethylbenz(a)anthracene	ug/l	<10	<10	<10	<10	<10
alpha,alpha-Dimethylphenethylamine	ug/l	<10	<10	<10	<10	<10
Dimethylphthalate	ug/l	<10	<10	<10	<10	<10

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10244-1	N2-1	Liquid	10/09/03	10/08/03 08:40	EPC07
10244-2	N4-3	Liquid	10/09/03	10/08/03 09:20	EPC07
10244-3	N3-3	Liquid	10/09/03	10/08/03 10:05	EPC07
10244-4	N4-4	Liquid	10/09/03	10/08/03 11:06	EPC07
10244-5	DUPLICATE A	Liquid	10/09/03	10/08/03	EPC07

		Lab Sample IDs				
Parameter	Units	10244-1	10244-2	10244-3	10244-4	10244-5
Semivolatile Organic Compounds (8270C)						
2,4-Dinitrotoluene	ug/l	<10	<10	<10	<10	<10
2,6-Dinitrotoluene	ug/l	<10	<10	<10	<10	<10
Di-n-octylphthalate	ug/l	<10	<10	<10	<10	<10
1,2-Diphenylhydrazine	ug/l	<10	<10	<10	<10	<10
bis(2-Ethylhexyl)phthalate	ug/l	<10	1.6J	0.86J	<10	<10
Ethyl methanesulfonate	ug/l	<10	<10	<10	<10	<10
Fluoranthene	ug/l	<10	<10	<10	<10	<10
Fluorene	ug/l	<10	<10	<10	<10	<10
Hexachlorobenzene	ug/l	<10	<10	<10	<10	<10
Hexachlorobutadiene	ug/l	<10	<10	<10	<10	<10
Hexachlorocyclopentadiene	ug/l	<10	<10	<10	<10	<10
Hexachloroethane	ug/l	<10	<10	<10	<10	<10
Indeno(1,2,3-cd)pyrene	ug/l	<10	<10	<10	<10	<10
Isophorone	ug/l	<10	<10	<10	<10	<10
3-Methylcholanthrene	ug/l	<10	<10	<10	<10	<10
Methyl methanesulfonate	ug/l	<10	<10	<10	<10	<10
1-Methylnaphthalene	ug/l	<10	<10	20	<10	<10
2-Methylnaphthalene	ug/l	<10	<10	<10	<10	<10
Naphthalene	ug/l	<10	<10	<10	<10	<10
1-Naphthylamine	ug/l	<10	<10	<10	<10	<10
2-Naphthylamine	ug/l	<10	<10	<10	<10	<10
2-Nitroaniline (o-Nitroaniline)	ug/l	<10	<10	<10	<10	<10
3-Nitroaniline (m-Nitroaniline)	ug/l	<10	<10	<10	<10	<10
4-Nitroaniline (p-Nitroaniline)	ug/l	<10	<10	<10	<10	<10
Nitrobenzene	ug/l	<10	<10	<10	<10	<10
N-Nitrosodi-n-butylamine	ug/l	<10	<10	<10	<10	<10
N-Nitrosodimethylamine	ug/l	<10	<10	<10	<10	<10
N-Nitrosodiphenylamine	ug/l	<10	<10	<10	<10	<10
n-Nitrosodi-n-propylamine	ug/l	<10	<10	<10	<10	<10

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10244-1	N2-1	Liquid	10/09/03	10/08/03 08:40	EPC07
10244-2	N4-3	Liquid	10/09/03	10/08/03 09:20	EPC07
10244-3	N3-3	Liquid	10/09/03	10/08/03 10:05	EPC07
10244-4	N4-4	Liquid	10/09/03	10/08/03 11:06	EPC07
10244-5	DUPLICATE A	Liquid	10/09/03	10/08/03	EPC07

Parameter	Units	Lab Sample IDs 10244-1	10244-2	10244-3	10244-4	10244-5
Semivolatile Organic Compounds (8270C)						
N-Nitrosopiperidine	ug/l	<10	<10	<10	<10	<10
Pentachlorobenzene	ug/l	<10	<10	<10	<10	<10
Pentachloronitrobenzene	ug/l	<10	<10	<10	<10	<10
Phenacetin	ug/l	<10	<10	<10	<10	<10
Phenanthrene	ug/l	<10	<10	1.2J	<10	<10
2-Picoline	ug/l	<10	<10	<10	<10	<10
Pronamide	ug/l	<10	<10	<10	<10	<10
Pyrene	ug/l	<10	<10	<10	<10	<10
Pyridine	ug/l	<10	<10	<10	<10	<10
1,2,4,5-Tetrachlorobenzene	ug/l	<10	<10	<10	<10	<10
1,2,4-Trichlorobenzene	ug/l	<10	<10	<10	<10	<10
Surrogate - 2-Fluorobiphenyl *	%	65 %	64 %	66 %	55 %	73 %
Surrogate - 2-Fluorophenol *	%	46 %	47 %	51 %	29 %	45 %
Surrogate - Nitrobenzene - d5 *	%	52 %	54 %	56 %	40 %	56 %
Surrogate - Phenol-d5 *	%	43 %	45 %	50 %	31 %	41 %
Surrogate - Terphenyl-d14 *	%	84 %	88 %	87 %	85 %	92 %
Surrogate - 2,4,6-Tribromophenol *	%	68 %	76 %	82 %	69 %	80 %
Dilution Factor		1	1	1	1	1
Prep Date		10/13/03	10/13/03	10/13/03	10/13/03	10/13/03
Prep Time		08:45	08:45	08:45	08:45	08:45
Analysis Date		10/17/03	10/17/03	10/17/03	10/17/03	10/17/03
Analysis Time		19:04	19:42	20:20	20:58	21:36
Batch ID		ALW174	ALW174	ALW174	ALW174	ALW174
Prep Method		3520C	3520C	3520C	3520C	3520C
Analyst		RDW	RDW	RDW	RDW	RDW
Quantitation Factor			1	1	1	1

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10244-1	N2-1	Liquid	10/09/03	10/08/03 08:40	EPC07
10244-2	N4-3	Liquid	10/09/03	10/08/03 09:20	EPC07
10244-3	N3-3	Liquid	10/09/03	10/08/03 10:05	EPC07
10244-4	N4-4	Liquid	10/09/03	10/08/03 11:06	EPC07
10244-5	DUPLICATE A	Liquid	10/09/03	10/08/03	EPC07

Parameter	Units	Lab Sample IDs 10244-1	10244-2	10244-3	10244-4	10244-5
Volatile Organic Compounds (8260B)						
Chloromethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Bromomethane (Methyl bromide)	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl chloride	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Methylene chloride (Dichloromethane)	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Acetone	ug/l	<25	<25	<25	<25	<25
Carbon disulfide	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Cis/Trans-1,2-Dichloroethene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform	ug/l	2.3	<5.0	<5.0	<5.0	<5.0
Dichloroethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
2-Butanone (MEK)	ug/l	<25	<25	<25	<25	<25
1,1,1-Trichloroethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Carbon tetrachloride	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl acetate	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Bromodichloromethane	ug/l	1.2	<5.0	<5.0	<5.0	<5.0
1,2-Dichloropropane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Dibromochloromethane	ug/l	0.51J	<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Benzene	ug/l	<1.0	<1.0	3.7	<1.0	<1.0
trans-1,3-Dichloropropene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Bromoform	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
4-Methyl-2-pentanone (MIBK)	ug/l	<25	<25	<25	<25	<25
2-Hexanone	ug/l	<25	<25	<25	<25	<25
Tetrachloroethene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10244-1	N2-1	Liquid	10/09/03	10/08/03 08:40	EPC07
10244-2	N4-3	Liquid	10/09/03	10/08/03 09:20	EPC07
10244-3	N3-3	Liquid	10/09/03	10/08/03 10:05	EPC07
10244-4	N4-4	Liquid	10/09/03	10/08/03 11:06	EPC07
10244-5	DUPLICATE A	Liquid	10/09/03	10/08/03	EPC07

Parameter	Units	Lab Sample IDs 10244-1	10244-2	10244-3	10244-4	10244-5
Volatile Organic Compounds (8260B)						
Chlorobenzene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	ug/l	<5.0	<5.0	0.60J	<5.0	<5.0
Styrene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Xylenes, Total	ug/l	<10	<10	1.3J	<10	<10
Surrogate - Dibromofluoromethane *	%	104 %	104 %	102 %	102 %	103 %
Surrogate - Toluene-d8 *	%	98 %	98 %	107 %	98 %	98 %
Surrogate - 4-Bromofluorobenzene *	%	93 %	94 %	99 %	93 %	93 %
Dilution Factor		1	1	1	1	1
Prep Date		10/17/03	10/17/03	10/17/03	10/17/03	10/17/03
Prep Time		10:48	11:22	11:56	12:29	13:04
Analysis Date		10/17/03	10/17/03	10/17/03	10/17/03	10/17/03
Analysis Time		10:48	11:22	11:56	12:29	13:04
Batch ID		COW037	COW037	COW037	COW037	COW037
Prep Method		5030B	5030B	5030B	5030B	5030B
Analyst		WD	WD	WD	WD	WD
Quantitation Factor		1	1	1	1	1

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10244-6	RINSE BLANK 1	Liquid	10/09/03	10/08/03 11:15	EPC07
10244-7	N4-1	Liquid	10/09/03	10/08/03 13:50	EPC07
10244-8	N4-2	Liquid	10/09/03	10/08/03 14:10	EPC07
10244-9	N5-1	Liquid	10/09/03	10/08/03 14:40	EPC07

Lab Sample IDs

Parameter	Units	10244-6	10244-7	10244-8	10244-9
Metals (6010B)					
Antimony	mg/l	<0.10	<0.10	<0.10	<0.10
Arsenic	mg/l	<0.010	0.0040J	0.010J	0.013
Barium	mg/l	0.0040J	0.33	0.14	0.39
Beryllium	mg/l	<0.0060	<0.0060	<0.0060	0.0020J
Cadmium	mg/l	<0.010	<0.010	<0.010	<0.010
Chromium	mg/l	<0.010	0.0020J	0.0080J	0.021
Copper	mg/l	0.0020J	0.0020J	0.0040J	0.015J
Lead	mg/l	0.0020J	0.0030J	0.0080J	0.014
Nickel	mg/l	<0.010	0.0030J	0.074	0.022
Selenium	mg/l	<0.020	<0.020	<0.020	<0.020
Silver	mg/l	<0.010	<0.010	<0.010	<0.010
Thallium	mg/l	<0.020	<0.020	<0.020	<0.020
Zinc	mg/l	0.0090J	0.27	0.12	0.41
Dilution Factor		1	1	1	1
Prep Date		10/15/03	10/15/03	10/15/03	10/15/03
Prep Time		10:06	10:06	10:06	10:06
Analysis Date		10/15/03	10/15/03	10/15/03	10/15/03
Analysis Time		18:17	18:22	18:28	18:44
Batch ID		PW379	PW379	PW379	PW379
Prep Method		3010A	3010A	3010A	3010A
Analyst		GSP	GSP	GSP	GSP
Quantitation Factor		1.000	1.000	1.000	1.000
Mercury (7470A)					
Mercury	mg/l	<0.00020	<0.00020	<0.00020	<0.00020
Dilution Factor		1	1	1	1
Prep Date		10/17/03	10/17/03	10/17/03	10/17/03
Prep Time		13:00	13:00	13:00	13:00
Analysis Date		10/17/03	10/17/03	10/17/03	10/17/03
Analysis Time		17:02	17:04	17:09	17:24
Batch ID		HGW119	HGW119	HGW119	HGW119
Prep Method		7470A	7470A	7470A	7470A
Analyst		JDE	JDE	JDE	JDE
Quantitation Factor		1	1	1	1

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10244-6	RINSE BLANK 1	Liquid	10/09/03	10/08/03 11:15	EPC07
10244-7	N4-1	Liquid	10/09/03	10/08/03 13:50	EPC07
10244-8	N4-2	Liquid	10/09/03	10/08/03 14:10	EPC07
10244-9	N5-1	Liquid	10/09/03	10/08/03 14:40	EPC07

Parameter	Units	Lab Sample IDs 10244-6	10244-7	10244-8	10244-9
Gasoline Range Organics (8015M)					
Hydrocarbons as GRO (C6-C10)	ug/l	<100	250	<100	<100
Surrogate - a,a,a-Trifluorotoluene *	%	110 %	109 %	110 %	108 %
Dilution Factor		1	1	1	1
Prep Date		10/17/03	10/17/03	10/17/03	10/17/03
Prep Time		19:44	20:37	21:30	22:24
Analysis Date		10/17/03	10/17/03	10/17/03	10/17/03
Analysis Time		19:44	20:37	21:30	22:24
Batch ID		ETW116D	ETW116D	ETW116D	ETW116D
Prep Method		5030B	5030B	5030B	5030B
Analyst		CN	CN	CN	CN
Quantitation Factor		1	1	1	1
Diesel Range Organics (8015M)					
Mineral Spirits	ug/l	<100	<100	<100	<100
Kerosene	ug/l	<100	<100	<100	<100
Diesel	ug/l	<100	<100	<100	<100
Fuel Oil	ug/l	<100	<100	<100	<100
Motor oil (10W-40)	ug/l	<100	<100	<100	<100
Hydraulic Fluid Hydrocarbons	ug/l	<100	<100	<100	<100
Unknown Hydrocarbon	ug/l	<100	480	56J	42J
Surrogate - o-Terphenyl *	%	104 %	107 %	105 %	101 %
Dilution Factor		1	1	1	1
Prep Date		10/11/03	10/11/03	10/11/03	10/11/03
Prep Time		08:50	08:50	08:50	08:50
Analysis Date		10/13/03	10/13/03	10/13/03	10/13/03
Analysis Time		14:37	14:45	14:52	15:00
Batch ID		FPW221	FPW221	FPW221	FPW221
Prep Method		3520C	3520C	3520C	3520C
Analyst		IE	IE	IE	IE
Quantitation Factor		1.0	1.0	1.0	1.0

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10244-6	RINSE BLANK 1	Liquid	10/09/03	10/08/03 11:15	EPC07
10244-7	N4-1	Liquid	10/09/03	10/08/03 13:50	EPC07
10244-8	N4-2	Liquid	10/09/03	10/08/03 14:10	EPC07
10244-9	N5-1	Liquid	10/09/03	10/08/03 14:40	EPC07

		Lab Sample IDs			
Parameter	Units	10244-6	10244-7	10244-8	10244-9
Semivolatile Organic Compounds (8270C)					
Benzoic acid	ug/l	<50	<50	<50	<50
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	ug/l	<10	<10	<10	<10
2-Chlorophenol	ug/l	<10	<10	<10	<10
2,4-Dichlorophenol	ug/l	<10	<10	<10	<10
2,6-Dichlorophenol	ug/l	<10	<10	<10	<10
2,4-Dimethylphenol	ug/l	<10	<10	<10	<10
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	ug/l	<50	<50	<50	<50
2,4-Dinitrophenol	ug/l	<50	<50	<50	<50
2-Methylphenol (o-Cresol)	ug/l	<10	<10	<10	<10
3-Methylphenol/4-Methylphenol (m&p-Cresol)	ug/l	<10	<10	<10	<10
2-Nitrophenol (o-Nitrophenol)	ug/l	<10	<10	<10	<10
trophenol (p-Nitrophenol)	ug/l	<50	<50	<50	<50
ntachlorophenol	ug/l	<50	<50	<50	<50
Phenol	ug/l	<10	<10	<10	<10
2,3,4,6-Tetrachlorophenol	ug/l	<10	<10	<10	<10
2,4,5-Trichlorophenol	ug/l	<50	<50	<50	<50
2,4,6-Trichlorophenol	ug/l	<10	<10	<10	<10
Acenaphthene	ug/l	<10	<10	<10	<10
Acenaphthylene	ug/l	<10	<10	<10	<10
Acetophenone	ug/l	<10	<10	<10	<10
4-Aminobiphenyl	ug/l	<10	<10	<10	<10
Aniline	ug/l	<10	<10	<10	<10
Anthracene	ug/l	<10	<10	<10	<10
Benzidine	ug/l	<50	<50	<50	<50
Benzo(a)anthracene	ug/l	<10	<10	<10	<10
Benzo(b)fluoranthene	ug/l	<10	<10	<10	<10
Benzo(k)fluoranthene	ug/l	<10	<10	<10	<10
Benzo(g,h,i)perylene	ug/l	<10	<10	<10	<10
Benzo(a)pyrene	ug/l	<10	<10	<10	<10
Benzyl alcohol	ug/l	<10	<10	<10	<10

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10244-6	RINSE BLANK 1	Liquid	10/09/03	10/08/03 11:15	EPC07
10244-7	N4-1	Liquid	10/09/03	10/08/03 13:50	EPC07
10244-8	N4-2	Liquid	10/09/03	10/08/03 14:10	EPC07
10244-9	N5-1	Liquid	10/09/03	10/08/03 14:40	EPC07

Parameter	Units	Lab Sample IDs 10244-6	10244-7	10244-8	10244-9
Semivolatile Organic Compounds (8270C)					
4-Bromophenylphenyl ether	ug/l	<10	<10	<10	<10
Butylbenzylphthalate	ug/l	<10	<10	<10	<10
Carbazole	ug/l	<10	<10	<10	<10
4-Chloroaniline (p-Chloroaniline)	ug/l	<10	<10	<10	<10
bis(2-Chloroethoxy)methane	ug/l	<10	<10	<10	<10
bis(2-Chloroethyl)ether	ug/l	<10	<10	<10	<10
bis(2-Chloroisopropyl) ether	ug/l	<10	<10	<10	<10
1-Chloronaphthalene	ug/l	<10	<10	<10	<10
2-Chloronaphthalene	ug/l	<10	<10	<10	<10
4-Chlorophenylphenyl ether	ug/l	<10	<10	<10	<10
Chrysene	ug/l	<10	<10	<10	<10
Dibenz(a,j)acridine	ug/l	<10	<10	<10	<10
Dibenzo(a,h)anthracene	ug/l	<10	<10	<10	<10
Dibenzofuran	ug/l	<10	<10	<10	<10
Di-n-butylphthalate	ug/l	<10	<10	<10	<10
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/l	<10	<10	<10	<10
1,3-Dichlorobenzene (m-Dichlorobenzene)	ug/l	<10	<10	<10	<10
1,4-Dichlorobenzene (p-Dichlorobenzene)	ug/l	<10	<10	<10	<10
3,3'-Dichlorobenzidine	ug/l	<50	<50	<50	<50
Diethylene Glycol Monobutyl Ether	ug/l	<10	<10	<10	<10
Diethylphthalate	ug/l	<10	<10	<10	<10
p-(Dimethylamino)azobenzene	ug/l	<10	<10	<10	<10
7,12-Dimethylbenz(a)anthracene	ug/l	<10	<10	<10	<10
alpha,alpha-Dimethylphenethylamine	ug/l	<10	<10	<10	<10
Dimethylphthalate	ug/l	<10	<10	<10	<10
2,4-Dinitrotoluene	ug/l	<10	<10	<10	<10
2,6-Dinitrotoluene	ug/l	<10	<10	<10	<10

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10244-6	RINSE BLANK 1	Liquid	10/09/03	10/08/03 11:15	EPC07
10244-7	N4-1	Liquid	10/09/03	10/08/03 13:50	EPC07
10244-8	N4-2	Liquid	10/09/03	10/08/03 14:10	EPC07
10244-9	N5-1	Liquid	10/09/03	10/08/03 14:40	EPC07

Parameter	Units	Lab Sample IDs 10244-6	10244-7	10244-8	10244-9
Semivolatile Organic Compounds (8270C)					
Di-n-octylphthalate	ug/l	<10	<10	<10	<10
1,2-Diphenylhydrazine	ug/l	<10	<10	<10	<10
bis(2-Ethylhexyl)phthalate	ug/l	<10	<10	<10	<10
Ethyl methanesulfonate	ug/l	<10	<10	<10	<10
Fluoranthene	ug/l	<10	<10	<10	<10
Fluorene	ug/l	<10	<10	<10	<10
Hexachlorobenzene	ug/l	<10	<10	<10	<10
Hexachlorobutadiene	ug/l	<10	<10	<10	<10
Hexachlorocyclopentadiene	ug/l	<10	<10	<10	<10
Hexachloroethane	ug/l	<10	<10	<10	<10
Indeno(1,2,3-cd)pyrene	ug/l	<10	<10	<10	<10
Isophorone	ug/l	<10	<10	<10	<10
3-Methylcholanthrene	ug/l	<10	<10	<10	<10
Methyl methanesulfonate	ug/l	<10	<10	<10	<10
thylnaphthalene	ug/l	<10	<10	<10	<10
ethylnaphthalene	ug/l	<10	<10	<10	<10
Naphthalene	ug/l	<10	<10	<10	<10
1-Naphthylamine	ug/l	<10	<10	<10	<10
2-Naphthylamine	ug/l	<10	<10	<10	<10
2-Nitroaniline (o-Nitroaniline)	ug/l	<10	<10	<10	<10
3-Nitroaniline (m-Nitroaniline)	ug/l	<10	<10	<10	<10
4-Nitroaniline (p-Nitroaniline)	ug/l	<10	<10	<10	<10
Nitrobenzene	ug/l	<10	<10	<10	<10
N-Nitrosodi-n-butylamine	ug/l	<10	<10	<10	<10
N-Nitrosodimethylamine	ug/l	<10	<10	<10	<10
N-Nitrosodiphenylamine	ug/l	<10	<10	<10	<10
n-Nitrosodi-n-propylamine	ug/l	<10	<10	<10	<10
N-Nitrosopiperidine	ug/l	<10	<10	<10	<10
Pentachlorobenzene	ug/l	<10	<10	<10	<10
Pentachloronitrobenzene	ug/l	<10	<10	<10	<10

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10244-6	RINSE BLANK 1	Liquid	10/09/03	10/08/03 11:15	EPC07
10244-7	N4-1	Liquid	10/09/03	10/08/03 13:50	EPC07
10244-8	N4-2	Liquid	10/09/03	10/08/03 14:10	EPC07
10244-9	N5-1	Liquid	10/09/03	10/08/03 14:40	EPC07

Parameter	Units	Lab Sample IDs 10244-6	10244-7	10244-8	10244-9
Semivolatile Organic Compounds (8270C)					
Phenacetin	ug/l	<10	<10	<10	<10
Phenanthrene	ug/l	<10	<10	<10	<10
2-Picoline	ug/l	<10	<10	<10	<10
Pronamide	ug/l	<10	<10	<10	<10
Pyrene	ug/l	<10	<10	<10	<10
Pyridine	ug/l	<10	<10	<10	<10
1,2,4,5-Tetrachlorobenzene	ug/l	<10	<10	<10	<10
1,2,4-Trichlorobenzene	ug/l	<10	<10	<10	<10
Surrogate - 2-Fluorobiphenyl *	%	50 %	71 %	66 %	66 %
Surrogate - 2-Fluorophenol *	%	39 %	48 %	45 %	39 %
Surrogate - Nitrobenzene - d5 *	%	43 %	57 %	52 %	49 %
Surrogate - Phenol-d5 *	%	40 %	48 %	45 %	40 %
Surrogate - Terphenyl-d14 *	%	92 %	82 %	92 %	88 %
Surrogate - 2,4,6-Tribromophenol *	%	57 %	79 %	83 %	79 %
Dilution Factor		1	1	1	1
Prep Date		10/13/03	10/13/03	10/13/03	10/13/03
Prep Time		08:45	08:45	08:45	08:45
Analysis Date		10/17/03	10/17/03	10/18/03	10/18/03
Analysis Time		22:14	22:52	00:18	00:55
Batch ID		ALW174	ALW174	ALW174	ALW174
Prep Method		3520C	3520C	3520C	3520C
Analyst		RDW	RDW	RDW	RDW
Quantitation Factor		1	1	1	1
Volatile Organic Compounds (8260B)					
Chloromethane	ug/l	<5.0	<10	<5.0	<5.0
Bromomethane (Methyl bromide)	ug/l	<5.0	<10	<5.0	<5.0
Vinyl chloride	ug/l	<5.0	<10	<5.0	<5.0
Chloroethane	ug/l	<5.0	<10	<5.0	<5.0
Methylene chloride (Dichloromethane)	ug/l	<5.0	4.4J	<5.0	<5.0

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10244-6	RINSE BLANK 1	Liquid	10/09/03	10/08/03 11:15	EPC07
10244-7	N4-1	Liquid	10/09/03	10/08/03 13:50	EPC07
10244-8	N4-2	Liquid	10/09/03	10/08/03 14:10	EPC07
10244-9	N5-1	Liquid	10/09/03	10/08/03 14:40	EPC07

Parameter	Units	Lab Sample IDs 10244-6	10244-7	10244-8	10244-9
Volatile Organic Compounds (8260B)					
Acetone	ug/l	<25	<50	<25	<25
Carbon disulfide	ug/l	<5.0	<10	<5.0	<5.0
1,1-Dichloroethene	ug/l	<5.0	<10	<5.0	<5.0
1,1-Dichloroethane	ug/l	<5.0	<10	<5.0	<5.0
Cis/Trans-1,2-Dichloroethene	ug/l	<5.0	<10	<5.0	<5.0
cis-1,2-Dichloroethene	ug/l	<5.0	<10	<5.0	<5.0
Chloroform	ug/l	<5.0	<10	<5.0	<5.0
1,2-Dichloroethane	ug/l	<5.0	<10	<5.0	<5.0
2-Butanone (MEK)	ug/l	<25	<50	<25	<25
1,1,1-Trichloroethane	ug/l	<5.0	<10	<5.0	<5.0
Carbon tetrachloride	ug/l	<5.0	<10	<5.0	<5.0
Vinyl acetate	ug/l	<5.0	<50	<5.0	<5.0
Bromodichloromethane	ug/l	<5.0	<10	<5.0	<5.0
1,2-Dichloropropane	ug/l	<5.0	<10	<5.0	<5.0
1,3-Dichloropropene	ug/l	<5.0	<10	<5.0	<5.0
Trichloroethene	ug/l	<5.0	<10	<5.0	<5.0
Dibromochloromethane	ug/l	<5.0	<10	<5.0	<5.0
1,1,2-Trichloroethane	ug/l	<5.0	<10	<5.0	<5.0
Benzene	ug/l	<1.0	<2.0	<1.0	<1.0
trans-1,3-Dichloropropene	ug/l	<5.0	<10	<5.0	<5.0
Bromoform	ug/l	<5.0	<10	<5.0	<5.0
4-Methyl-2-pentanone (MIBK)	ug/l	<25	<50	<25	<25
2-Hexanone	ug/l	<25	<50	<25	<25
Tetrachloroethene	ug/l	<5.0	<10	<5.0	<5.0
1,1,2,2-Tetrachloroethane	ug/l	<5.0	<10	<5.0	<5.0
Toluene	ug/l	<5.0	<10	<5.0	<5.0
Chlorobenzene	ug/l	<5.0	<10	<5.0	<5.0
Ethylbenzene	ug/l	<5.0	<10	<5.0	<5.0
Styrene	ug/l	<5.0	<10	<5.0	<5.0
Xylenes, Total	ug/l	<10	<20	<10	<10
Surrogate - Dibromofluoromethane *	%	105 %	104 %	105 %	103 %
Surrogate - Toluene-d8 *	%	98 %	99 %	97 %	98 %

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10244-6	RINSE BLANK 1	Liquid	10/09/03	10/08/03 11:15	EPC07
10244-7	N4-1	Liquid	10/09/03	10/08/03 13:50	EPC07
10244-8	N4-2	Liquid	10/09/03	10/08/03 14:10	EPC07
10244-9	N5-1	Liquid	10/09/03	10/08/03 14:40	EPC07

Parameter	Units	Lab Sample IDs 10244-6	10244-7	10244-8	10244-9
Volatile Organic Compounds (8260B)					
Surrogate -					
4-Bromofluorobenzene *	%	92 %	97 %	92 %	94 %
Dilution Factor		1	2	1	1
Prep Date		10/17/03	10/18/03	10/17/03	10/17/03
Prep Time		13:37	08:45	14:44	15:18
Analysis Date		10/17/03	10/18/03	10/17/03	10/17/03
Analysis Time		13:37	08:45	14:44	15:18
Batch ID		COW037	LEW138A	COW037	COW037
Prep Method		5030B	5030B	5030B	5030B
Analyst		WD	WD	WD	WD
Quantitation Factor		1	2	1	1

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10244-10	W#22	Liquid	10/09/03	10/08/03 10:24	EPC07
10244-11	W#16S	Liquid	10/09/03	10/08/03 13:15	EPC07

Parameter	Units	Lab Sample IDs 10244-10	10244-11
Metals (6010B)			
Antimony	mg/l	<0.10	<0.10
Arsenic	mg/l	0.10	<0.010
Barium	mg/l	0.46	0.094
Beryllium	mg/l	0.0010J	<0.0060
Cadmium	mg/l	<0.010	<0.010
Chromium	mg/l	0.013	<0.010
Copper	mg/l	0.042	<0.020
Lead	mg/l	0.014	0.0020J
Nickel	mg/l	0.026	<0.010
Selenium	mg/l	<0.020	<0.020
Silver	mg/l	<0.010	<0.010
Thallium	mg/l	<0.020	<0.020
Zinc	mg/l	0.32	0.25
Dilution Factor		1	1
Prep Date		10/15/03	10/15/03
Prep Time		10:06	10:06
ysis Date		10/15/03	10/15/03
alysis Time		18:50	18:56
Batch ID		PW379	PW379
Prep Method		3010A	3010A
Analyst		GSP	GSP
Quantitation Factor		1.000	1.000
Mercury (7470A)			
Mercury	mg/l	<0.00020	<0.00020
Dilution Factor		1	1
Prep Date		10/17/03	10/17/03
Prep Time		13:00	13:00
Analysis Date		10/17/03	10/17/03
Analysis Time		17:26	17:27
Batch ID		HGW119	HGW119
Prep Method		7470A	7470A
Analyst		JDE	JDE
Quantitation Factor		1	1

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10244-10	W#22	Liquid	10/09/03	10/08/03 10:24	EPC07
10244-11	W#16S	Liquid	10/09/03	10/08/03 13:15	EPC07

Parameter	Units	Lab Sample IDs 10244-10	10244-11
Gasoline Range Organics (8015M)			
Hydrocarbons as GRO (C6-C10)	ug/l	2000	18J
Surrogate -			
a,a,a-Trifluorotoluene *	%	114 %	106 %
Dilution Factor		5	1
Prep Date		10/18/03	10/18/03
Prep Time		12:41	00:10
Analysis Date		10/18/03	10/18/03
Analysis Time		12:41	00:10
Batch ID		ETW117A	ETW116D
Prep Method		5030B	5030B
Analyst		CN	CN
Quantitation Factor		5	1
Diesel Range Organics (8015M)			
Mineral Spirits	ug/l	<100	<100
Kerosene	ug/l	<100	<100
Diesel	ug/l	<100	<100
Fuel Oil	ug/l	<100	<100
Motor oil (10W-40)	ug/l	<100	<100
Hydraulic Fluid Hydrocarbons	ug/l	<100	<100
Unknown Hydrocarbon	ug/l	1600	32J
Surrogate - o-Terphenyl *	%	94 %	100 %
Dilution Factor		1	1
Prep Date		10/11/03	10/11/03
Prep Time		08:50	08:50
Analysis Date		10/13/03	10/13/03
Analysis Time		15:07	15:15
Batch ID		FPW221	FPW221
Prep Method		3520C	3520C
Analyst		IE	IE
Quantitation Factor		1.0	1.0

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10244-10	W#22	Liquid	10/09/03	10/08/03 10:24	EPC07
10244-11	W#16S	Liquid	10/09/03	10/08/03 13:15	EPC07

Parameter	Units	Lab Sample IDs 10244-10	10244-11
Volatile Organic Compounds (8260B)			
Chloromethane	ug/l	<5.0	<5.0
Bromomethane (Methyl bromide)	ug/l	<5.0	<5.0
Vinyl chloride	ug/l	<5.0	<5.0
Chloroethane	ug/l	<5.0	<5.0
Methylene chloride (Dichloromethane)	ug/l	<5.0	<5.0
Acetone	ug/l	<25	<25
Carbon disulfide	ug/l	<5.0	<5.0
1,1-Dichloroethene	ug/l	<5.0	<5.0
1,1-Dichloroethane	ug/l	<5.0	<5.0
Cis/Trans-1,2-Dichloroethene	ug/l	<5.0	<5.0
cis-1,2-Dichloroethene	ug/l	<5.0	<5.0
Chloroform	ug/l	<5.0	<5.0
1,2-Dichloroethane	ug/l	<5.0	<5.0
2-Butanone (MEK)	ug/l	<25	<25
1.1,1-Trichloroethane	ug/l	<5.0	<5.0
on tetrachloride	ug/l	<5.0	<5.0
...yl acetate	ug/l	<5.0	<5.0
Bromodichloromethane	ug/l	<5.0	<5.0
1,2-Dichloropropane	ug/l	<5.0	<5.0
cis-1,3-Dichloropropene	ug/l	<5.0	<5.0
Trichloroethene	ug/l	<5.0	<5.0
Dibromochloromethane	ug/l	<5.0	<5.0
1,1,2-Trichloroethane	ug/l	<5.0	<5.0
Benzene	ug/l	130	<1.0
trans-1,3-Dichloropropene	ug/l	<5.0	<5.0
Bromoform	ug/l	<5.0	<5.0
4-Methyl-2-pentanone (MIBK)	ug/l	<25	<25
2-Hexanone	ug/l	<25	<25
Tetrachloroethene	ug/l	<5.0	<5.0
1,1,2,2-Tetrachloroethane	ug/l	<5.0	<5.0
Toluene	ug/l	7.4	<5.0
Chlorobenzene	ug/l	<5.0	<5.0
Ethylbenzene	ug/l	3.1	<5.0
Styrene	ug/l	<5.0	<5.0

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10244-10	W#22	Liquid	10/09/03	10/08/03 10:24	EPC07
10244-11	W#16S	Liquid	10/09/03	10/08/03 13:15	EPC07

Parameter	Units	Lab Sample IDs 10244-10	10244-11
Volatile Organic Compounds (8260B)			
Xylenes, Total	ug/l	18	<10
Surrogate - Dibromofluoromethane *	%	102 %	104 %
Surrogate - Toluene-d8 *	%	104 %	99 %
Surrogate - 4-Bromofluorobenzene *	%	100 %	95 %
Dilution Factor		1	1
Prep Date		10/17/03	10/17/03
Prep Time		15:51	16:25
Analysis Date		10/17/03	10/17/03
Analysis Time		15:51	16:25
Batch ID		COW037	COW037
Prep Method		5030B	5030B
Analyst		WD	WD
Quantitation Factor		1	1

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10244-12	Trip Blank (1)	Liquid	10/09/03	10/08/03	EPC07
10244-13	Trip Blank (2)	Liquid	10/09/03	10/08/03	EPC07
10244-14	Trip Blank (3)	Liquid	10/09/03	10/08/03	EPC07

Parameter	Units	Lab Sample IDs 10244-12	10244-13	10244-14
Volatile Organic Compounds (8260B)				
Chloromethane	ug/l	<5.0	<5.0	<5.0
Bromomethane (Methyl bromide)	ug/l	<5.0	<5.0	<5.0
Vinyl chloride	ug/l	<5.0	<5.0	<5.0
Chloroethane	ug/l	<5.0	<5.0	<5.0
Methylene chloride (Dichloromethane)	ug/l	<5.0	<5.0	<5.0
Acetone	ug/l	<25	<25	<25
Carbon disulfide	ug/l	<5.0	<5.0	<5.0
1,1-Dichloroethene	ug/l	<5.0	<5.0	<5.0
1,1-Dichloroethane	ug/l	<5.0	<5.0	<5.0
Cis/Trans-1,2-Dichloroethene	ug/l	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	ug/l	<5.0	<5.0	<5.0
Chloroform	ug/l	<5.0	<5.0	<5.0
1,2-Dichloroethane	ug/l	<5.0	<5.0	<5.0
2-Butanone (MEK)	ug/l	<25	<25	<25
1-Trichloroethane	ug/l	<5.0	<5.0	<5.0
Carbon tetrachloride	ug/l	<5.0	<5.0	<5.0
Vinyl acetate	ug/l	<5.0	<5.0	<5.0
Bromodichloromethane	ug/l	<5.0	<5.0	<5.0
1,2-Dichloropropane	ug/l	<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	ug/l	<5.0	<5.0	<5.0
Trichloroethene	ug/l	<5.0	<5.0	<5.0
Dibromochloromethane	ug/l	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	ug/l	<5.0	<5.0	<5.0
Benzene	ug/l	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	ug/l	<5.0	<5.0	<5.0
Bromoform	ug/l	<5.0	<5.0	<5.0
4-Methyl-2-pentanone (MIBK)	ug/l	<25	<25	<25
2-Hexanone	ug/l	<25	<25	<25
Tetrachloroethene	ug/l	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	ug/l	<5.0	<5.0	<5.0
Toluene	ug/l	<5.0	<5.0	<5.0
Chlorobenzene	ug/l	<5.0	<5.0	<5.0
Ethylbenzene	ug/l	<5.0	<5.0	<5.0

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10244-12	Trip Blank (1)	Liquid	10/09/03	10/08/03	EPC07
10244-13	Trip Blank (2)	Liquid	10/09/03	10/08/03	EPC07
10244-14	Trip Blank (3)	Liquid	10/09/03	10/08/03	EPC07

Parameter	Units	Lab Sample IDs 10244-12	10244-13	10244-14
Volatile Organic Compounds (8260B)				
Styrene	ug/l	<5.0	<5.0	<5.0
Xylenes, Total	ug/l	<10	<10	<10
Surrogate - Dibromofluoromethane *	%	104 %	107 %	105 %
Surrogate - Toluene-d8 *	%	99 %	98 %	98 %
Surrogate - 4-Bromofluorobenzene *	%	93 %	94 %	93 %
Dilution Factor		1	1	1
Prep Date		10/17/03	10/17/03	10/17/03
Prep Time		16:58	17:32	18:05
Analysis Date		10/17/03	10/17/03	10/17/03
Analysis Time		16:58	17:32	18:05
Batch ID		COW037	COW037	COW037
Prep Method		5030B	5030B	5030B
Analyst		WD	WD	WD
Quantitation Factor		1	1	1

'se test results meet all the requirements of NELAC. All questions
.rding this test report should be directed to the STL Project Manager
who signed this test report.

[redacted]

Chain of Custody Record

STL4124-400 (12/02)

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

Client: Brown & Caldwell	Project Manager: Bob Norris	Date: 10-8-03	Chain of Custody Number: 05692
Address: 1697 Cole Blvd	Telephone Number (Area Code)/Fax Number: 303-239-5400 / 303-239-5454	Lab Number: C310244	Page 1 of
City: Golden; State: CO; Zip Code: 80401	Site Contact: S. Harden	Lab Contact: M. Pope	
Project Name and Location (State): El Paso / El Dorado KS	Carrier/Waybill Number: UPS		
Contract/Purchase Order/Quote No.			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil		Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH		8260 VOCs	8015 TPH-GRO	6010/7470	8015 TPH-DRO	8270 SVOCs								Special Instructions/ Conditions of Receipt
N2-1	10-8-03	0840		X				1		1	7				3	3	1	1	1								
N4-3	10-8-03	0920		X				1		1	7				3	3	1	1	1								
W#22	10-8-03	1024		X						1	7				3	3	1	1									
Trip Blank 2				X							1				1												

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other STAT

QC Requirements (Specify)

1. Relinquished By: Cimber L. LeMaster	Date: 10-8-03	Time: 1744	1. Received By: Mark Swafford	Date: 10/9/03	Time: 940
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTI WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Cop

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[redacted]

Chain of Custody Record

STL4124-400 (12/02)

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL Pensac
3355 McLen... Drive
Pensacola, FL 32514

Client: Brown & Caldwell	Project Manager: Bob Norris	Date: 10-8-03	Chain of Custody Number: 05693
Address: 1697 Cole Blvd	Telephone Number (Area Code)/Fax Number: 303-239-5400 / 303-239-5454	Lab Number: C310244	Page 1 of 1
City: Golden; State: CO; Zip Code: 80401	Site Contact: S. Harden	Lab Contact: M. Pope	
Project Name and Location (State): El Paso / El Dorado KS	Carrier/Waybill Number: UPS		
Contract/Purchase Order/Quote No.:			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	8260 VOCs	8015 TPH GRO	8015 TPH-DRO	6010/7470	8270 SVOCs	Special Instructions/ Conditions of Receipt
N3-3	10-8-03	1005		X			1		1	7			3	3	1	1	1	
N4-4	10-8-03	1106		X			1		1	7			3	3	1	1	1	
Duplicate A	10-8-03	—		X			1		1	7			3	3	1	1	1	
Rinse Blank 1	10-8-03	1115		X			1		1	7			3	3	1	1	1	
Trip Blank 1				X						1			1					

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other STAT

QC Requirements (Specify):

1. Relinquished By: Amber L. LeMaster	Date: 10-8-03	Time: 1744	1. Received By: Mark Swafford	Date: 10/9/03	Time: 940
2. Relinquished By:	Date:	Time:	2. Received By:	Date:	Time:
3. Relinquished By:	Date:	Time:	3. Received By:	Date:	Time:

Comments:

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

EL DORADO SITE #C30EPC01

[redacted]

Chain of Custody Record

STL4124-400 (12/02)

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

Client	Project Manager	Date	Chain of Custody Number
Brown & Caldwell	Bob Norris	10-8-03	05694
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	
9697 Cole Blvd.	303-239-6400 / 303-239-5454	C310244	Page 1 of 1
City / State / Zip Code	**Site Contact / Lab Contact**		
Golden / CO / 80401	S. Harden / M. Pope		
Project Name and Location (State)	**Carrier/Waybill Number**		
El Paso El Dorado Kansas	UPS		
Contract/Purchase Order/Quote No.			
SOG#C30EP20			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil		Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH		Analysis (Attach list if more space is needed): 8260 VOCs	8015 TPH-GRO	6010/7470	8015 TPH-DRO	8270 SVOCs								Special Instructions/ Conditions of Receipt
W#16S	10-8-03	1315		X						1	7				3	3	1	1									
N4-1	10-8-03	1350		X				1		1	7				3	3	1	1	1								
N4-2	10-8-03	1410		X				1		1	7				3	3	1	1	1								
N5-1	10-8-03	1440		X				1		1	7				3	3	1	1	1								
Trip Blank	10-8-03			X							1				1												

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other STAT

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Amber L. LeMaster	10-8-03		1. Received By: Mark Swofford	10/9/03	940
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTI[illegible] WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Cop[illegible]

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SEVERN TRENT STL

STL Pensacola 3355 McLemore Drive - Pensacola FL 32514 Telephone:(850) 474-1001 Fax:(850) 478-2671

Analytical Report

For: Mr. Chris Miller
El Paso Energy Corporation
P.O. Box 2511
Houston, TX 77252-2511
CC: Lynn Hanzlicek (Shaw, KS)

Order Number: C310283
SDG Number: EPC07
Client Project ID:
Project: EL PASO-EL DORADO, KS
Report Date: 10/31/2003
Sampled By: Client
Sample Received Date: 10/10/2003
Requisition Number:
Purchase Order: C-STL1-ELDORADO-001

Melissa L. Pope, Project Manager
mpope@stl-inc.com

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Sample Summary

Order: C310283
Date Received: 10/10/2003

Client: El Paso Energy Corporation
Project: EL PASO-EL DORADO, KS

Client Sample ID	Lab Sample ID	Matrix	Date Sampled
W#1S	C310283*1	Liquid	10/09/2003 12:30
W#1D	C310283*2	Liquid	10/09/2003 13:00
FINA WELL_MW-38	C310283*3	Liquid	10/09/2003 15:05
W#23	C310283*4	Liquid	10/09/2003 09:30
W#24	C310283*5	Liquid	10/09/2003 11:00
N3-2	C310283*6	Liquid	10/09/2003 13:25
N2-3	C310283*7	Liquid	10/09/2003 15:30
N3-1	C310283*8	Liquid	10/09/2003 14:10
DUPLICATE B	C310283*9	Liquid	10/09/2003
RINSE BLANK 2	C310283*10	Liquid	10/09/2003 14:30
N3-4	C310283*11	Liquid	10/09/2003 09:55
N2-2	C310283*12	Liquid	10/09/2003 15:55
N2-4	C310283*13	Liquid	10/09/2003 16:30
Trip Blank 1	C310283*14	Liquid	10/09/2003
Trip Blank 2	C310283*15	Liquid	10/09/2003
Trip Blank 3	C310283*16	Liquid	10/09/2003
Trip Blank 4	C310283*17	Liquid	10/09/2003

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10283-1	W#1S	Liquid	10/10/03	10/09/03 12:30	EPC07
10283-2	W#1D	Liquid	10/10/03	10/09/03 13:00	EPC07
10283-3	FINA WELL_MW-38	Liquid	10/10/03	10/09/03 15:05	EPC07
10283-4	W#23	Liquid	10/10/03	10/09/03 09:30	EPC07
10283-5	W#24	Liquid	10/10/03	10/09/03 11:00	EPC07

Lab Sample IDs

Parameter	Units	10283-1	10283-2	10283-3	10283-4	10283-5
Metals (6010B)						
Antimony	mg/l	<0.10	<0.10	<0.10	<0.10	<0.10
Arsenic	mg/l	<0.010	<0.010	0.032	0.0060J	0.016
Barium	mg/l	0.35	0.054	0.40	0.40	0.25
Beryllium	mg/l	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060
Cadmium	mg/l	0.0010J	<0.010	<0.010	<0.010	<0.010
Chromium	mg/l	0.0080J	0.0090J	0.0050J	0.028	<0.010
Copper	mg/l	0.014J	0.0030J	0.0040J	0.019J	0.0010J
Lead	mg/l	0.0090J	0.020	0.0080J	0.0090J	0.0030J
Nickel	mg/l	0.0080J	<0.010	0.0040J	0.012	<0.010
Selenium	mg/l	0.0040J	<0.020	<0.020	<0.020	<0.020
Silver	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
Thallium	mg/l	<0.020	<0.020	<0.020	<0.020	<0.020
Zinc	mg/l	0.024J	0.016J	0.022J	0.067	0.013J
Dilution Factor		1	1	1	1	1
Prep Date		10/15/03	10/15/03	10/15/03	10/15/03	10/15/03
Prep Time		10:06	10:06	10:06	10:06	10:06
Analysis Date		10/15/03	10/15/03	10/15/03	10/15/03	10/15/03
Analysis Time		19:51	20:18	20:24	20:29	20:46
Batch ID		PW380	PW380	PW380	PW380	PW380
Prep Method		3010A	3010A	3010A	3010A	3010A
Analyst		GSP	GSP	GSP	GSP	GSP
Quantitation Factor		1.000	1.000	1.000	1.000	1.000
Mercury (7470A)						
Mercury	mg/l	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dilution Factor		1	1	1	1	1
Prep Date		10/17/03	10/17/03	10/17/03	10/17/03	10/17/03
Prep Time		16:45	16:45	16:45	16:45	16:45
Analysis Date		10/19/03	10/19/03	10/19/03	10/19/03	10/19/03
Analysis Time		13:30	13:32	13:37	13:39	13:40
Batch ID		HGW121	HGW121	HGW121	HGW121	HGW121
Prep Method		7470A	7470A	7470A	7470A	7470A
Analyst		JDE	JDE	JDE	JDE	JDE
Quantitation Factor		1	1	1	1	1

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10283-1	W#1S	Liquid	10/10/03	10/09/03 12:30	EPC07
10283-2	W#1D	Liquid	10/10/03	10/09/03 13:00	EPC07
10283-3	FINA WELL_MW-38	Liquid	10/10/03	10/09/03 15:05	EPC07
10283-4	W#23	Liquid	10/10/03	10/09/03 09:30	EPC07
10283-5	W#24	Liquid	10/10/03	10/09/03 11:00	EPC07

Parameter	Units	Lab Sample IDs 10283-1	10283-2	10283-3	10283-4	10283-5
Gasoline Range Organics (8015M)						
Hydrocarbons as GRO (C6-C10)	ug/l	<100	<100	2500	960	3100
Surrogate - a,a,a-Trifluorotoluene *	%	109 %	109 %	92 %	124 %M	99 %
Dilution Factor		1	1	10	1	10
Prep Date		10/18/03	10/18/03	10/18/03	10/18/03	10/18/03
Prep Time		16:14	17:07	21:33	22:27	23:20
Analysis Date		10/18/03	10/18/03	10/18/03	10/18/03	10/18/03
Analysis Time		16:14	17:07	21:33	22:27	23:20
Batch ID		ETW117A	ETW117A	ETW117B	ETW117B	ETW117B
Prep Method		5030B	5030B	5030B	5030B	5030B
Analyst		CN	CN	CN	CN	CN
Quantitation Factor		1	1	10	1	10
Diesel Range Organics (8015M)						
Mineral Spirits	ug/l	<100	<100	<100	<100	<100
Kerosene	ug/l	<100	<100	<100	<100	<100
Diesel	ug/l	<100	<100	<100	<100	<100
Fuel Oil	ug/l	<100	<100	<100	<100	<100
Motor oil (10W-40)	ug/l	<100	<100	<100	<100	<100
Hydraulic Fluid Hydrocarbons	ug/l	<100	<100	<100	<100	<100
Unknown Hydrocarbon	ug/l	240	120	6900	440	3400
Surrogate - o-Terphenyl *	%	95 %	72 %	97 %	78 %	116 %
Dilution Factor		1	1	1	1	1
Prep Date		10/14/03	10/14/03	10/14/03	10/14/03	10/14/03
Prep Time		14:05	14:05	14:05	14:05	14:05
Analysis Date		10/15/03	10/15/03	10/15/03	10/15/03	10/15/03
Analysis Time		10:15	10:22	10:30	10:38	10:46
Batch ID		FPW228	FPW228	FPW228	FPW228	FPW228
Prep Method		3510C	3510C	3510C	3510C	3510C
Analyst		IE	IE	IE	IE	IE
Quantitation Factor		1.0	1.0	1.0	1.0	1.0

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10283-1	W#1S	Liquid	10/10/03	10/09/03 12:30	EPC07
10283-2	W#1D	Liquid	10/10/03	10/09/03 13:00	EPC07
10283-3	FINA WELL_MW-38	Liquid	10/10/03	10/09/03 15:05	EPC07
10283-4	W#23	Liquid	10/10/03	10/09/03 09:30	EPC07
10283-5	W#24	Liquid	10/10/03	10/09/03 11:00	EPC07

Parameter	Units	Lab Sample IDs 10283-1	10283-2	10283-3	10283-4	10283-5
Volatile Organic Compounds (8260B)						
Chloromethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Bromomethane (Methyl bromide)	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl chloride	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Methylene chloride (Dichloromethane)	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Acetone	ug/l	<25	1.8J	<25	<25	<25
Carbon disulfide	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Cis/Trans-1,2-Dichloroethene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Dichloroethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
2-Butanone (MEK)	ug/l	<25	<25	<25	<25	<25
1,1,1-Trichloroethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Carbon tetrachloride	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl acetate	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Bromodichloromethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloropropane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Dibromochloromethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Benzene	ug/l	<1.0	<1.0	230	11	120
trans-1,3-Dichloropropene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Bromoform	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
4-Methyl-2-pentanone (MIBK)	ug/l	<25	<25	<25	<25	<25
2-Hexanone	ug/l	<25	<25	<25	<25	<25
Tetrachloroethene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	ug/l	<5.0	<5.0	19	1.3	7.2

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10283-1	W#1S	Liquid	10/10/03	10/09/03 12:30	EPC07
10283-2	W#1D	Liquid	10/10/03	10/09/03 13:00	EPC07
10283-3	FINA WELL_MW-38	Liquid	10/10/03	10/09/03 15:05	EPC07
10283-4	W#23	Liquid	10/10/03	10/09/03 09:30	EPC07
10283-5	W#24	Liquid	10/10/03	10/09/03 11:00	EPC07

Parameter	Units	Lab Sample IDs 10283-1	10283-2	10283-3	10283-4	10283-5
Volatile Organic Compounds (8260B)						
Chlorobenzene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	ug/l	<5.0	<5.0	7.6	2.4	12
Styrene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Xylenes, Total	ug/l	<10	<10	48	4.4	22
Surrogate - Dibromofluoromethane *	%	102 %	103 %	101 %	101 %	100 %
Surrogate - Toluene-d8 *	%	100 %	100 %	106 %	103 %	105 %
Surrogate - 4-Bromofluorobenzene *	%	100 %	98 %	106 %	102 %	106 %
Dilution Factor		1	1	1	1	1
Prep Date		10/16/03	10/16/03	10/16/03	10/16/03	10/17/03
Prep Time		13:40	14:13	14:46	15:19	19:12
Analysis Date		10/16/03	10/16/03	10/16/03	10/16/03	10/17/03
Analysis Time		13:40	14:13	14:46	15:19	19:12
Batch ID		TAW193	TAW193	TAW193	TAW193	COW037
Prep Method		5030B	5030B	5030B	5030B	5030B
Analyst		GRH	GRH	GRH	GRH	WD
Quantitation Factor		1	1	1	1	1

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10283-6	N3-2	Liquid	10/10/03	10/09/03 13:25	EPC07
10283-7	N2-3	Liquid	10/10/03	10/09/03 15:30	EPC07
10283-8	N3-1	Liquid	10/10/03	10/09/03 14:10	EPC07
10283-9	DUPLICATE B	Liquid	10/10/03	10/09/03	EPC07
10283-10	RINSE BLANK 2	Liquid	10/10/03	10/09/03 14:30	EPC07

Lab Sample IDs

Parameter	Units	10283-6	10283-7	10283-8	10283-9	10283-10
Metals (6010B)						
Antimony	mg/l	<0.10	<0.10	<0.10	<0.10	<0.10
Arsenic	mg/l	0.045	0.056	<0.010	<0.010	<0.010
Barium	mg/l	0.59	0.70	0.21	0.22	0.010J
Beryllium	mg/l	0.0010J	0.0030J	<0.0060	<0.0060	<0.0060
Cadmium	mg/l	0.0030J	0.0010J	0.0020J	0.0030J	<0.010
Chromium	mg/l	0.017	0.067	0.010	0.012	<0.010
Copper	mg/l	0.0090J	0.042	0.0090J	0.0090J	0.0020J
Lead	mg/l	0.0090J	0.043	0.037	0.034	<0.010
Nickel	mg/l	0.017	0.077	0.0040J	0.0050J	0.0050J
Selenium	mg/l	<0.020	<0.020	0.0030J	<0.020	<0.020
Silver	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
Thallium	mg/l	<0.020	<0.020	<0.020	<0.020	<0.020
Zinc	mg/l	0.041	0.35	0.070	0.062	0.0090J
tion Factor		1	1	1	1	1
Prep Date		10/15/03	10/15/03	10/15/03	10/15/03	10/15/03
Prep Time		10:06	10:06	10:06	10:06	10:06
Analysis Date		10/15/03	10/15/03	10/15/03	10/15/03	10/15/03
Analysis Time		20:52	20:57	21:03	21:08	21:14
Batch ID		PW380	PW380	PW380	PW380	PW380
Prep Method		3010A	3010A	3010A	3010A	3010A
Analyst		GSP	GSP	GSP	GSP	GSP
Quantitation Factor		1.000	1.000	1.000	1.000	1.000
Mercury (7470A)						
Mercury	mg/l	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dilution Factor		1	1	1	1	1
Prep Date		10/17/03	10/17/03	10/17/03	10/17/03	10/17/03
Prep Time		16:45	16:45	16:45	16:45	16:45
Analysis Date		10/19/03	10/19/03	10/19/03	10/19/03	10/19/03
Analysis Time		13:47	13:49	13:51	13:52	13:54
Batch ID		HGW121	HGW121	HGW121	HGW121	HGW121
Prep Method		7470A	7470A	7470A	7470A	7470A
Analyst		JDE	JDE	JDE	JDE	JDE
Quantitation Factor		1	1	1	1	1

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10283-6	N3-2	Liquid	10/10/03	10/09/03 13:25	EPC07
10283-7	N2-3	Liquid	10/10/03	10/09/03 15:30	EPC07
10283-8	N3-1	Liquid	10/10/03	10/09/03 14:10	EPC07
10283-9	DUPLICATE B	Liquid	10/10/03	10/09/03	EPC07
10283-10	RINSE BLANK 2	Liquid	10/10/03	10/09/03 14:30	EPC07

Parameter	Units	Lab Sample IDs 10283-6	10283-7	10283-8	10283-9	10283-10
Gasoline Range Organics (8015M)						
Hydrocarbons as GRO (C6-C10)	ug/l	210	7700	220	220	<100
Surrogate - a,a,a-Trifluorotoluene *	%	123 %M	104 %	121 %M	118 %M	110 %
Dilution Factor		1	10	1	1	1
Prep Date		10/19/03	10/19/03	10/19/03	10/20/03	10/20/03
Prep Time		00:13	01:06	02:52	21:47	22:40
Analysis Date		10/19/03	10/19/03	10/19/03	10/20/03	10/20/03
Analysis Time		00:13	01:06	02:52	21:47	22:40
Batch ID		ETW117B	ETW117B	ETW117B	ETW118A	ETW188A
Prep Method		5030B	5030B	5030B	5030B	5030B
Analyst		CN	CN	CN	CN	CN
Quantitation Factor		1	10	1	1	1
Diesel Range Organics (8015M)						
Mineral Spirits	ug/l	<100	<100	<100	<100	<100
Kerosene	ug/l	<100	<100	<100	<100	<100
Diesel	ug/l	<100	<100	<100	<100	<100
Fuel Oil	ug/l	<100	<100	<100	<100	<100
Motor oil (10W-40)	ug/l	<100	<100	<100	<100	<100
Hydraulic Fluid Hydrocarbons	ug/l	<100	<100	<100	<100	<100
Unknown Hydrocarbon	ug/l	1800	8200	1300	510	<100
Surrogate - o-Terphenyl *	%	84 %	93 %	78 %	86 %	74 %
Dilution Factor		1	1	1	1	1
Prep Date		10/14/03	10/14/03	10/14/03	10/14/03	10/14/03
Prep Time		14:05	14:05	14:05	14:05	14:05
Analysis Date		10/15/03	10/15/03	10/15/03	10/15/03	10/15/03
Analysis Time		10:53	11:01	11:08	11:16	11:31
Batch ID		FPW228	FPW228	FPW228	FPW228	FPW228
Prep Method		3510C	3510C	3510C	3510C	3510C
Analyst		IE	IE	IE	IE	IE
Quantitation Factor		1.0	1.0	1.0	1.0	1.0

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10283-6	N3-2	Liquid	10/10/03	10/09/03 13:25	EPC07
10283-7	N2-3	Liquid	10/10/03	10/09/03 15:30	EPC07
10283-8	N3-1	Liquid	10/10/03	10/09/03 14:10	EPC07
10283-9	DUPLICATE B	Liquid	10/10/03	10/09/03	EPC07
10283-10	RINSE BLANK 2	Liquid	10/10/03	10/09/03 14:30	EPC07

Parameter	Units	Lab Sample IDs 10283-6	10283-7	10283-8	10283-9	10283-10
Semivolatile Organic Compounds (8270C)						
Benzoic acid	ug/l	<50	<50	<50	<50	<50
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	ug/l	<10	<10	<10	<10	<10
2-Chlorophenol	ug/l	<10	<10	<10	<10	<10
2,4-Dichlorophenol	ug/l	<10	<10	<10	<10	<10
2,6-Dichlorophenol	ug/l	<10	<10	<10	<10	<10
2,4-Dimethylphenol	ug/l	<10	<10	<10	<10	<10
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	ug/l	<50	<50	<50	<50	<50
2,4-Dinitrophenol	ug/l	<50	<50	<50	<50	<50
2-Methylphenol (o-Cresol)	ug/l	<10	<10	<10	<10	<10
3-Methylphenol/4-Methylphenol (m&p-Cresol)	ug/l	<10	<10	<10	<10	<10
trophenol (o-Nitrophenol)	ug/l	<10	<10	<10	<10	<10
4-Nitrophenol (p-Nitrophenol)	ug/l	<50	<50	<50	<50	<50
Pentachlorophenol	ug/l	<50	<50	<50	<50	<50
Phenol	ug/l	<10	4.8J	<10	<10	<10
2,3,4,6-Tetrachlorophenol	ug/l	<10	<10	<10	<10	<10
2,4,5-Trichlorophenol	ug/l	<50	<50	<50	<50	<50
2,4,6-Trichlorophenol	ug/l	<10	<10	<10	<10	<10
Acenaphthene	ug/l	<10	3.5J	<10	<10	<10
Acenaphthylene	ug/l	<10	<10	<10	<10	<10
Acetophenone	ug/l	<10	<10	<10	<10	<10
4-Aminobiphenyl	ug/l	<10	<10	<10	<10	<10
Aniline	ug/l	<10	<10	<10	<10	<10
Anthracene	ug/l	<10	1.4J	<10	<10	<10
Benzidine	ug/l	<50	<50	<50	<50	<50
Benzo(a)anthracene	ug/l	<10	<10	<10	<10	<10
Benzo(b)fluoranthene	ug/l	<10	<10	<10	<10	<10
Benzo(k)fluoranthene	ug/l	<10	<10	<10	<10	<10
Benzo(g,h,i)perylene	ug/l	<10	<10	<10	<10	<10
Benzo(a)pyrene	ug/l	<10	<10	<10	<10	<10

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10283-6	N3-2	Liquid	10/10/03	10/09/03 13:25	EPC07
10283-7	N2-3	Liquid	10/10/03	10/09/03 15:30	EPC07
10283-8	N3-1	Liquid	10/10/03	10/09/03 14:10	EPC07
10283-9	DUPLICATE B	Liquid	10/10/03	10/09/03	EPC07
10283-10	RINSE BLANK 2	Liquid	10/10/03	10/09/03 14:30	EPC07

Parameter	Units	Lab Sample IDs 10283-6	10283-7	10283-8	10283-9	10283-10
Semivolatile Organic Compounds (8270C)						
Benzyl alcohol	ug/l	<10	<10	<10	<10	<10
4-Bromophenylphenyl ether	ug/l	<10	<10	<10	<10	<10
Butylbenzylphthalate	ug/l	<10	<10	<10	<10	<10
Carbazole	ug/l	<10	<10	<10	<10	<10
4-Chloroaniline (p-Chloroaniline)	ug/l	<10	<10	<10	<10	<10
bis(2-Chloroethoxy)methane	ug/l	<10	<10	<10	<10	<10
bis(2-Chloroethyl)ether	ug/l	<10	<10	<10	<10	<10
bis(2-Chloroisopropyl) ether	ug/l	<10	<10	<10	<10	<10
1-Chloronaphthalene	ug/l	<10	<10	<10	<10	<10
2-Chloronaphthalene	ug/l	<10	<10	<10	<10	<10
4-Chlorophenylphenyl ether	ug/l	<10	<10	<10	<10	<10
Chrysene	ug/l	<10	<10	<10	<10	<10
Dibenz(a,j)acridine	ug/l	<10	<10	<10	<10	<10
Dibenzo(a,h)anthracene	ug/l	<10	<10	<10	<10	<10
Dibenzofuran	ug/l	<10	2.4J	<10	<10	<10
Di-n-butylphthalate	ug/l	<10	<10	<10	<10	<10
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/l	<10	<10	<10	<10	<10
1,3-Dichlorobenzene (m-Dichlorobenzene)	ug/l	<10	<10	<10	<10	<10
1,4-Dichlorobenzene (p-Dichlorobenzene)	ug/l	<10	<10	<10	<10	<10
3,3'-Dichlorobenzidine	ug/l	<50	<50	<50	<50	<50
Diethylene Glycol Monobutyl Ether	ug/l	<10	<10	<10	<10	<10
Diethylphthalate	ug/l	<10	<10	0.78J	0.86J	5.8J
p-(Dimethylamino)azobenzene	ug/l	<10	<10	<10	<10	<10
7,12-Dimethylbenz(a)anthracene	ug/l	<10	<10	<10	<10	<10
alpha,alpha-Dimethylphenethylamine	ug/l	<10	<10	<10	<10	<10
Dimethylphthalate	ug/l	<10	<10	1.2J	1.4J	<10

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10283-6	N3-2	Liquid	10/10/03	10/09/03 13:25	EPC07
10283-7	N2-3	Liquid	10/10/03	10/09/03 15:30	EPC07
10283-8	N3-1	Liquid	10/10/03	10/09/03 14:10	EPC07
10283-9	DUPLICATE B	Liquid	10/10/03	10/09/03	EPC07
10283-10	RINSE BLANK 2	Liquid	10/10/03	10/09/03 14:30	EPC07

Parameter	Units	Lab Sample IDs 10283-6	10283-7	10283-8	10283-9	10283-10
Semivolatile Organic Compounds (8270C)						
2,4-Dinitrotoluene	ug/l	<10	<10	<10	<10	<10
2,6-Dinitrotoluene	ug/l	<10	<10	<10	<10	<10
Di-n-octylphthalate	ug/l	<10	<10	<10	<10	<10
1,2-Diphenylhydrazine	ug/l	<10	<10	<10	<10	<10
bis(2-Ethylhexyl)phthalate	ug/l	<10	6.4J	11	28	<10
Ethyl methanesulfonate	ug/l	<10	<10	<10	<10	<10
Fluoranthene	ug/l	<10	<10	<10	<10	<10
Fluorene	ug/l	<10	3.6J	<10	<10	<10
Hexachlorobenzene	ug/l	<10	<10	<10	<10	<10
Hexachlorobutadiene	ug/l	<10	<10	<10	<10	<10
Hexachlorocyclopentadiene	ug/l	<10	<10	<10	<10	<10
Hexachloroethane	ug/l	<10	<10	<10	<10	<10
[illegible]no(1,2,3-cd)pyrene	ug/l	<10	<10	<10	<10	<10
[illegible]norone	ug/l	<10	<10	<10	<10	<10
3-Methylcholanthrene	ug/l	<10	<10	<10	<10	<10
Methyl methanesulfonate	ug/l	<10	<10	<10	<10	<10
1-Methylnaphthalene	ug/l	<10	140	<10	<10	<10
2-Methylnaphthalene	ug/l	<10	180	<10	<10	<10
Naphthalene	ug/l	<10	130	<10	<10	<10
1-Naphthylamine	ug/l	<10	<10	<10	<10	<10
2-Naphthylamine	ug/l	<10	<10	<10	<10	<10
2-Nitroaniline (o-Nitroaniline)	ug/l	<10	<10	<10	<10	<10
3-Nitroaniline (m-Nitroaniline)	ug/l	<10	<10	<10	<10	<10
4-Nitroaniline (p-Nitroaniline)	ug/l	<10	<10	<10	<10	<10
Nitrobenzene	ug/l	<10	<10	<10	<10	<10
N-Nitrosodi-n-butylamine	ug/l	<10	<10	<10	<10	<10
N-Nitrosodimethylamine	ug/l	<10	<10	<10	<10	<10
N-Nitrosodiphenylamine	ug/l	<10	<10	<10	<10	<10
n-Nitrosodi-n-propylamine	ug/l	<10	<10	<10	<10	<10

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10283-6	N3-2	Liquid	10/10/03	10/09/03 13:25	EPC07
10283-7	N2-3	Liquid	10/10/03	10/09/03 15:30	EPC07
10283-8	N3-1	Liquid	10/10/03	10/09/03 14:10	EPC07
10283-9	DUPLICATE B	Liquid	10/10/03	10/09/03	EPC07
10283-10	RINSE BLANK 2	Liquid	10/10/03	10/09/03 14:30	EPC07

Parameter	Units	Lab Sample IDs 10283-6	10283-7	10283-8	10283-9	10283-10
Semivolatile Organic Compounds (8270C)						
N-Nitrosopiperidine	ug/l	<10	<10	<10	<10	<10
Pentachlorobenzene	ug/l	<10	<10	<10	<10	<10
Pentachloronitrobenzene	ug/l	<10	<10	<10	<10	<10
Phenacetin	ug/l	<10	<10	<10	<10	<10
Phenanthrene	ug/l	<10	12	<10	<10	<10
2-Picoline	ug/l	<10	<10	<10	<10	<10
Pronamide	ug/l	<10	<10	<10	<10	<10
Pyrene	ug/l	<10	1.4J	<10	<10	<10
Pyridine	ug/l	<10	<10	<10	<10	<10
1,2,4,5-Tetrachlorobenzene	ug/l	<10	<10	<10	<10	<10
1,2,4-Trichlorobenzene	ug/l	<10	<10	<10	<10	<10
Surrogate - 2-Fluorobiphenyl *	%	78 %	66 %	69 %	68 %	70 %
Surrogate - 2-Fluorophenol *	%	58 %	40 %	54 %	55 %	51 %
Surrogate - Nitrobenzene - d5 *	%	68 %	52 %	61 %	57 %	55 %
Surrogate - Phenol-d5 *	%	57 %	41 %	54 %	57 %	48 %
Surrogate - Terphenyl-d14 *	%	92 %	91 %	97 %	91 %	96 %
Surrogate - 2,4,6-Tribromophenol *	%	81 %	75 %	78 %	74 %	65 %
Dilution Factor		1	1	1	1	1
Prep Date		10/14/03	10/14/03	10/14/03	10/14/03	10/14/03
Prep Time		09:10	09:10	09:10	09:10	09:10
Analysis Date		10/19/03	10/18/03	10/18/03	10/18/03	10/18/03
Analysis Time		23:50	19:41	20:18	20:56	21:33
Batch ID		ALW177	ALW177	ALW177	ALW177	ALW177
Prep Method		3520C	3520C	3520C	3520C	3520C
Analyst		RDW	RDW	RDW	RDW	RDW
Quantitation Factor		1	1	1	1	1

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10283-6	N3-2	Liquid	10/10/03	10/09/03 13:25	EPC07
10283-7	N2-3	Liquid	10/10/03	10/09/03 15:30	EPC07
10283-8	N3-1	Liquid	10/10/03	10/09/03 14:10	EPC07
10283-9	DUPLICATE B	Liquid	10/10/03	10/09/03	EPC07
10283-10	RINSE BLANK 2	Liquid	10/10/03	10/09/03 14:30	EPC07

Lab Sample IDs

Parameter	Units	10283-6	10283-7	10283-8	10283-9	10283-10
Volatile Organic Compounds (8260B)						
Chloromethane	ug/l	<5.0	<25	<5.0	<5.0	<5.0
Bromomethane (Methyl bromide)	ug/l	<5.0	<25	<5.0	<5.0	<5.0
Vinyl chloride	ug/l	<5.0	<25	<5.0	<5.0	<5.0
Chloroethane	ug/l	<5.0	<25	<5.0	<5.0	<5.0
Methylene chloride (Dichloromethane)	ug/l	<5.0	<25	<5.0	<5.0	<5.0
Acetone	ug/l	<25	<120	<25	<25	5.0
Carbon disulfide	ug/l	<5.0	<25	<5.0	<5.0	<5.0
1,1-Dichloroethene	ug/l	<5.0	<25	<5.0	<5.0	<5.0
1,1-Dichloroethane	ug/l	<5.0	<25	<5.0	<5.0	<5.0
Cis/Trans-1,2-Dichloroethene	ug/l	<5.0	<25	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	ug/l	<5.0	<25	<5.0	<5.0	<5.0
Chloroform	ug/l	<5.0	<25	<5.0	<5.0	<5.0
Dichloroethane	ug/l	<5.0	<25	<5.0	<5.0	<5.0
2-Butanone (MEK)	ug/l	<25	<120	<25	<25	<25
1,1,1-Trichloroethane	ug/l	<5.0	<25	<5.0	<5.0	<5.0
Carbon tetrachloride	ug/l	<5.0	<25	<5.0	<5.0	<5.0
Vinyl acetate	ug/l	<5.0	<25	<5.0	<5.0	<5.0
Bromodichloromethane	ug/l	<5.0	<25	<5.0	<5.0	<5.0
1,2-Dichloropropane	ug/l	<5.0	<25	<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	ug/l	<5.0	<25	<5.0	<5.0	<5.0
Trichloroethene	ug/l	<5.0	<25	<5.0	<5.0	<5.0
Dibromochloromethane	ug/l	<5.0	<25	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	ug/l	<5.0	<25	<5.0	<5.0	<5.0
Benzene	ug/l	<1.0	620	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	ug/l	<5.0	<25	<5.0	<5.0	<5.0
Bromoform	ug/l	<5.0	<25	<5.0	<5.0	<5.0
4-Methyl-2-pentanone (MIBK)	ug/l	<25	<120	<25	<25	<25
2-Hexanone	ug/l	<25	<120	<25	<25	<25
Tetrachloroethene	ug/l	<5.0	<25	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	ug/l	<5.0	<25	<5.0	<5.0	<5.0
Toluene	ug/l	0.86J	16	<5.0	<5.0	<5.0

Analytical Data Report

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10283-6	N3-2	Liquid	10/10/03	10/09/03 13:25	EPC07
10283-7	N2-3	Liquid	10/10/03	10/09/03 15:30	EPC07
10283-8	N3-1	Liquid	10/10/03	10/09/03 14:10	EPC07
10283-9	DUPLICATE B	Liquid	10/10/03	10/09/03	EPC07
10283-10	RINSE BLANK 2	Liquid	10/10/03	10/09/03 14:30	EPC07

Parameter	Units	Lab Sample IDs 10283-6	10283-7	10283-8	10283-9	10283-10
Volatile Organic Compounds (8260B)						
Chlorobenzene	ug/l	<5.0	<25	<5.0	<5.0	<5.0
Ethylbenzene	ug/l	0.29J	37	<5.0	<5.0	<5.0
Styrene	ug/l	<5.0	<25	<5.0	<5.0	<5.0
Xylenes, Total	ug/l	2.6J	54	<10	<10	<10
Surrogate - Dibromofluoromethane *	%	101 %	98 %	103 %	101 %	101 %
Surrogate - Toluene-d8 *	%	100 %	104 %	100 %	101 %	100 %
Surrogate - 4-Bromofluorobenzene *	%	100 %	102 %	102 %	101 %	101 %
Dilution Factor		1	5	1	1	1
Prep Date		10/16/03	10/16/03	10/16/03	10/16/03	10/16/03
Prep Time		16:26	17:00	17:33	18:06	18:40
Analysis Date		10/16/03	10/16/03	10/16/03	10/16/03	10/16/03
Analysis Time		16:26	17:00	17:33	18:06	18:40
Batch ID		TAW193	TAW193	TAW193	TAW193	TAW193
Prep Method		5030B	5030B	5030B	5030B	5030B
Analyst		GRH	GRH	GRH	GRH	GRH
Quantitation Factor		1	5	1		1

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10283-11	N3-4	Liquid	10/10/03	10/09/03 09:55	EPC07
10283-12	N2-2	Liquid	10/10/03	10/09/03 15:55	EPC07
10283-13	N2-4	Liquid	10/10/03	10/09/03 16:30	EPC07

Parameter	Units	Lab Sample IDs 10283-11	10283-12	10283-13
Metals (6010B)				
Antimony	mg/l	<0.10	<0.10	<0.10
Arsenic	mg/l	0.092	0.14	<0.010
Barium	mg/l	0.44	2.6	0.48
Beryllium	mg/l	0.0030J	0.015	<0.0060
Cadmium	mg/l	0.0020J	0.011	<0.010
Chromium	mg/l	0.10	0.27	0.0040J
Copper	mg/l	0.046	0.28	0.0030J
Lead	mg/l	0.086	0.36	0.0050J
Nickel	mg/l	0.098	0.34	0.024
Selenium	mg/l	0.0070J	<0.020	<0.020
Silver	mg/l	0.0030J	<0.010	<0.010
Thallium	mg/l	<0.020	<0.020	<0.020
Zinc	mg/l	0.32	1.0	0.017J
Dilution Factor		1	1	1
Prep Date		10/15/03	10/15/03	10/15/03
Time		10:06	10:06	10:06
Analysis Date		10/15/03	10/15/03	10/15/03
Analysis Time		21:19	21:25	21:30
Batch ID		PW380	PW380	PW380
Prep Method		3010A	3010A	3010A
Analyst		GSP	GSP	GSP
Quantitation Factor		1.000	1.000	1.000
Mercury (7470A)				
Mercury	mg/l	0.00012J	0.00056	<0.00020
Dilution Factor		1	1	1
Prep Date		10/17/03	10/17/03	10/17/03
Prep Time		16:45	16:45	16:45
Analysis Date		10/19/03	10/19/03	10/19/03
Analysis Time		13:56	13:58	13:59
Batch ID		HGW121	HGW121	HGW121
Prep Method		7470A	7470A	7470A
Analyst		JDE	JDE	JDE
Quantitation Factor		1	1	1

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10283-11	N3-4	Liquid	10/10/03	10/09/03 09:55	EPC07
10283-12	N2-2	Liquid	10/10/03	10/09/03 15:55	EPC07
10283-13	N2-4	Liquid	10/10/03	10/09/03 16:30	EPC07

Parameter	Units	Lab Sample IDs 10283-11	10283-12	10283-13
Gasoline Range Organics (8015M)				
Hydrocarbons as GRO (C6-C10)	ug/l	1700	1400	500
Surrogate -				
a,a,a-Trifluorotoluene *	%	127 %M	85 %	99 %
Dilution Factor		5	10	1
Prep Date		10/18/03	10/20/03	10/21/03
Prep Time		13:34	23:33	00:27
Analysis Date		10/18/03	10/20/03	10/21/03
Analysis Time		13:34	23:33	00:27
Batch ID		ETW117A	ETW118A	ETW118A
Prep Method		5030B	5030B	5030B
Analyst		CN	CN	CN
Quantitation Factor		5	10	1
Diesel Range Organics (8015M)				
Mineral Spirits	ug/l	<100	<100	<100
Kerosene	ug/l	<100	<100	<100
Diesel	ug/l	<100	<100	<100
Fuel Oil	ug/l	<100	<100	<100
Motor oil (10W-40)	ug/l	<100	<100	<100
Hydraulic Fluid Hydrocarbons	ug/l	<100	<100	<100
Unknown Hydrocarbon	ug/l	9100	6100	1100
Surrogate - o-Terphenyl *	%	75 %	90 %	91 %
Dilution Factor		1	1	1
Prep Date		10/14/03	10/14/03	10/14/03
Prep Time		14:05	14:05	14:05
Analysis Date		10/15/03	10/15/03	10/15/03
Analysis Time		11:39	11:47	11:54
Batch ID		FPW228	FPW228	FPW228
Prep Method		3510C	3510C	3510C
Analyst		IE	IE	IE
Quantitation Factor		1.0	1.0	1.0

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10283-11	N3-4	Liquid	10/10/03	10/09/03 09:55	EPC07
10283-12	N2-2	Liquid	10/10/03	10/09/03 15:55	EPC07
10283-13	N2-4	Liquid	10/10/03	10/09/03 16:30	EPC07

Parameter	Units	Lab Sample IDs 10283-11	10283-12	10283-13
Semivolatile Organic Compounds (8270C)				
Benzoic acid	ug/l	<50	<50	<50
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	ug/l	<10	<10	<10
2-Chlorophenol	ug/l	<10	<10	<10
2,4-Dichlorophenol	ug/l	<10	<10	<10
2,6-Dichlorophenol	ug/l	<10	<10	<10
2,4-Dimethylphenol	ug/l	<10	<10	<10
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	ug/l	<50	<50	<50
2,4-Dinitrophenol	ug/l	<50	<50	<50
2-Methylphenol (o-Cresol)	ug/l	<10	<10	<10
3-Methylphenol/4-Methylphenol (m&p-Cresol)	ug/l	<10	<10	<10
2-Nitrophenol (o-Nitrophenol)	ug/l	<10	<10	<10
4-Nitrophenol (p-Nitrophenol)	ug/l	<50	<50	<50
Pentachlorophenol	ug/l	<50	<50	<50
Phenol	ug/l	<10	<10	<10
2,3,4,6-Tetrachlorophenol	ug/l	<10	<10	<10
2,4,5-Trichlorophenol	ug/l	<50	<50	<50
2,4,6-Trichlorophenol	ug/l	<10	<10	<10
Acenaphthene	ug/l	<10	2.2J	<10
Acenaphthylene	ug/l	<10	<10	<10
Acetophenone	ug/l	<10	<10	<10
4-Aminobiphenyl	ug/l	<10	<10	<10
Aniline	ug/l	<10	<10	<10
Anthracene	ug/l	<10	<10	<10
Benzidine	ug/l	<50	<50	<50
Benzo(a)anthracene	ug/l	<10	1.1J	<10
Benzo(b)fluoranthene	ug/l	<10	<10	<10
Benzo(k)fluoranthene	ug/l	<10	<10	<10
Benzo(g,h,i)perylene	ug/l	<10	<10	<10
Benzo(a)pyrene	ug/l	<10	0.98J	<10
Benzyl alcohol	ug/l	<10	<10	<10
4-Bromophenylphenyl ether	ug/l	<10	<10	<10

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10283-11	N3-4	Liquid	10/10/03	10/09/03 09:55	EPC07
10283-12	N2-2	Liquid	10/10/03	10/09/03 15:55	EPC07
10283-13	N2-4	Liquid	10/10/03	10/09/03 16:30	EPC07

Parameter	Units	Lab Sample IDs 10283-11	10283-12	10283-13
Semivolatile Organic Compounds (8270C)				
Butylbenzylphthalate	ug/l	<10	<10	<10
Carbazole	ug/l	<10	<10	<10
4-Chloroaniline (p-Chloroaniline)	ug/l	<10	<10	<10
bis(2-Chloroethoxy)methane	ug/l	<10	<10	<10
bis(2-Chloroethyl)ether	ug/l	<10	<10	<10
bis(2-Chloroisopropyl) ether	ug/l	<10	<10	<10
1-Chloronaphthalene	ug/l	<10	<10	<10
2-Chloronaphthalene	ug/l	<10	<10	<10
4-Chlorophenylphenyl ether	ug/l	<10	<10	<10
Chrysene	ug/l	<10	2.5J	<10
Dibenz(a,j)acridine	ug/l	<10	<10	<10
Dibenzo(a,h)anthracene	ug/l	<10	<10	<10
Dibenzofuran	ug/l	<10	<10	<10
Di-n-butylphthalate	ug/l	<10	<10	<10
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/l	<10	<10	<10
1,3-Dichlorobenzene (m-Dichlorobenzene)	ug/l	<10	<10	<10
1,4-Dichlorobenzene (p-Dichlorobenzene)	ug/l	<10	<10	<10
3,3'-Dichlorobenzidine	ug/l	<50	<50	<50
Diethylene Glycol Monobutyl Ether	ug/l	<10	<10	<10
Diethylphthalate	ug/l	<10	<10	<10
p-(Dimethylamino)azobenzene	ug/l	<10	<10	<10
7,12-Dimethylbenz(a)anthracene	ug/l	<10	<10	<10
alpha,alpha-Dimethylphenethylamine	ug/l	<10	<10	<10
Dimethylphthalate	ug/l	<10	<10	<10
2,4-Dinitrotoluene	ug/l	<10	<10	<10
2,6-Dinitrotoluene	ug/l	<10	<10	<10
Di-n-octylphthalate	ug/l	<10	<10	<10
1,2-Diphenylhydrazine	ug/l	<10	<10	<10

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10283-11	N3-4	Liquid	10/10/03	10/09/03 09:55	EPC07
10283-12	N2-2	Liquid	10/10/03	10/09/03 15:55	EPC07
10283-13	N2-4	Liquid	10/10/03	10/09/03 16:30	EPC07

Parameter	Units	Lab Sample IDs 10283-11	10283-12	10283-13
Semivolatile Organic Compounds (8270C)				
bis(2-Ethylhexyl)phthalate	ug/l	<10	<10	<10
Ethyl methanesulfonate	ug/l	<10	<10	<10
Fluoranthene	ug/l	<10	0.27J	<10
Fluorene	ug/l	<10	2.2J	<10
Hexachlorobenzene	ug/l	<10	<10	<10
Hexachlorobutadiene	ug/l	<10	<10	<10
Hexachlorocyclopentadiene	ug/l	<10	<10	<10
Hexachloroethane	ug/l	<10	<10	<10
Indeno(1,2,3-cd)pyrene	ug/l	<10	<10	<10
Isophorone	ug/l	<10	<10	<10
3-Methylcholanthrene	ug/l	<10	<10	<10
Methyl methanesulfonate	ug/l	<10	<10	<10
1-Methylnaphthalene	ug/l	4.5J	69	<10
2-Methylnaphthalene	ug/l	1.3J	91	<10
Naphthalene	ug/l	1.4J	9.9J	<10
1-Naphthylamine	ug/l	<10	<10	<10
2-Naphthylamine	ug/l	<10	<10	<10
2-Nitroaniline (o-Nitroaniline)	ug/l	<10	<10	<10
3-Nitroaniline (m-Nitroaniline)	ug/l	<10	<10	<10
4-Nitroaniline (p-Nitroaniline)	ug/l	<10	<10	<10
Nitrobenzene	ug/l	<10	<10	<10
N-Nitrosodi-n-butylamine	ug/l	<10	<10	<10
N-Nitrosodimethylamine	ug/l	<10	<10	<10
N-Nitrosodiphenylamine	ug/l	<10	<10	<10
n-Nitrosodi-n-propylamine	ug/l	<10	<10	<10
N-Nitrosopiperidine	ug/l	<10	<10	<10
Pentachlorobenzene	ug/l	<10	<10	<10
Pentachloronitrobenzene	ug/l	<10	<10	<10
Phenacetin	ug/l	<10	<10	<10
Phenanthrene	ug/l	<10	6.3J	<10
2-Picoline	ug/l	<10	<10	<10

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10283-11	N3-4	Liquid	10/10/03	10/09/03 09:55	EPC07
10283-12	N2-2	Liquid	10/10/03	10/09/03 15:55	EPC07
10283-13	N2-4	Liquid	10/10/03	10/09/03 16:30	EPC07

Parameter	Units	Lab Sample IDs 10283-11	10283-12	10283-13
Semivolatile Organic Compounds (8270C)				
Pronamide	ug/l	<10	<10	<10
Pyrene	ug/l	<10	1.4J	<10
Pyridine	ug/l	<10	<10	<10
1,2,4,5-Tetrachlorobenzene	ug/l	<10	<10	<10
1,2,4-Trichlorobenzene	ug/l	<10	<10	<10
Surrogate - 2-Fluorobiphenyl *	%	77 %	66 %	75 %
Surrogate - 2-Fluorophenol *	%	53 %	41 %	51 %
Surrogate - Nitrobenzene - d5 *	%	63 %	55 %	63 %
Surrogate - Phenol-d5 *	%	51 %	44 %	49 %
Surrogate - Terphenyl-d14 *	%	86 %	84 %	91 %
Surrogate - 2,4,6-Tribromophenol *	%	80 %	67 %	73 %
Dilution Factor		1	1	1
Prep Date		10/14/03	10/14/03	10/14/03
Prep Time		09:10	09:10	09:10
Analysis Date		10/18/03	10/18/03	10/18/03
Analysis Time		22:11	22:49	23:26
Batch ID		ALW177	ALW177	ALW177
Prep Method		3520C	3520C	3520C
Analyst		RDW	RDW	RDW
Quantitation Factor		1	1	1
Volatile Organic Compounds (8260B)				
Chloromethane	ug/l	<5.0	<5.0	<5.0
Bromomethane (Methyl bromide)	ug/l	<5.0	<5.0	<5.0
Vinyl chloride	ug/l	<5.0	<5.0	<5.0
Chloroethane	ug/l	<5.0	<5.0	<5.0
Methylene chloride (Dichloromethane)	ug/l	<5.0	<5.0	<5.0
Acetone	ug/l	<25	<25	<25
Carbon disulfide	ug/l	<5.0	<5.0	<5.0
1,1-Dichloroethene	ug/l	<5.0	<5.0	<5.0

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10283-11	N3-4	Liquid	10/10/03	10/09/03 09:55	EPC07
10283-12	N2-2	Liquid	10/10/03	10/09/03 15:55	EPC07
10283-13	N2-4	Liquid	10/10/03	10/09/03 16:30	EPC07

Parameter	Units	Lab Sample IDs 10283-11	10283-12	10283-13
Volatile Organic Compounds (8260B)				
1,1-Dichloroethane	ug/l	<5.0	<5.0	<5.0
Cis/Trans-1,2-Dichloroethene	ug/l	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	ug/l	<5.0	<5.0	<5.0
Chloroform	ug/l	<5.0	<5.0	<5.0
1,2-Dichloroethane	ug/l	<5.0	<5.0	<5.0
2-Butanone (MEK)	ug/l	<25	<25	<25
1,1,1-Trichloroethane	ug/l	<5.0	<5.0	<5.0
Carbon tetrachloride	ug/l	<5.0	<5.0	<5.0
Vinyl acetate	ug/l	<5.0	<5.0	<5.0
Bromodichloromethane	ug/l	<5.0	<5.0	<5.0
1,2-Dichloropropane	ug/l	<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	ug/l	<5.0	<5.0	<5.0
Trichloroethene	ug/l	<5.0	<5.0	<5.0
Dibromochloromethane	ug/l	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	ug/l	<5.0	<5.0	<5.0
[illegible]ene	ug/l	20	11	13
trans-1,3-Dichloropropene	ug/l	<5.0	<5.0	<5.0
Bromoform	ug/l	<5.0	<5.0	<5.0
4-Methyl-2-pentanone (MIBK)	ug/l	<25	<25	<25
2-Hexanone	ug/l	<25	<25	<25
Tetrachloroethene	ug/l	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	ug/l	<5.0	<5.0	<5.0
Toluene	ug/l	0.85J	3.8	3.1
Chlorobenzene	ug/l	<5.0	<5.0	<5.0
Ethylbenzene	ug/l	0.26J	35	0.71J
Styrene	ug/l	<5.0	<5.0	<5.0
Xylenes, Total	ug/l	1.5J	25	10
Surrogate - Dibromofluoromethane *	%	98 %	101 %	102 %
Surrogate - Toluene-d8 *	%	102 %	113 %	101 %
Surrogate - 4-Bromofluorobenzene *	%	101 %	135 %M	100 %
Dilution Factor		1	1	1
Prep Date		10/16/03	10/16/03	10/16/03
Prep Time		19:13	19:46	20:20
Analysis Date		10/16/03	10/16/03	10/16/03
Analysis Time		19:13	19:46	20:20
Batch ID		TAW193	TAW193	TAW193
Prep Method		5030B	5030B	5030B
Analyst		GRH	GRH	GRH
[illegible]titation Factor		1	1	1

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10283-14	Trip Blank 1	Liquid	10/10/03	10/09/03	EPC07
10283-15	Trip Blank 2	Liquid	10/10/03	10/09/03	EPC07
10283-16	Trip Blank 3	Liquid	10/10/03	10/09/03	EPC07
10283-17	Trip Blank 4	Liquid	10/10/03	10/09/03	EPC07

Parameter	Units	Lab Sample IDs 10283-14	10283-15	10283-16	10283-17
Volatile Organic Compounds (8260B)					
Chloromethane	ug/l	<5.0	<5.0	<5.0	<5.0
Bromomethane (Methyl bromide)	ug/l	<5.0	<5.0	<5.0	<5.0
Vinyl chloride	ug/l	<5.0	<5.0	<5.0	<5.0
Chloroethane	ug/l	<5.0	<5.0	<5.0	<5.0
Methylene chloride (Dichloromethane)	ug/l	8.4	<5.0	<5.0	<5.0
Acetone	ug/l	<25	<25	<25	<25
Carbon disulfide	ug/l	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	ug/l	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	ug/l	<5.0	<5.0	<5.0	<5.0
Cis/Trans-1,2-Dichloroethene	ug/l	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	ug/l	<5.0	<5.0	<5.0	<5.0
Chloroform	ug/l	<5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane	ug/l	<5.0	<5.0	<5.0	<5.0
2-Butanone (MEK)	ug/l	<25	<25	<25	<25
1,1,1-Trichloroethane	ug/l	<5.0	<5.0	<5.0	<5.0
Carbon tetrachloride	ug/l	<5.0	<5.0	<5.0	<5.0
Vinyl acetate	ug/l	<25	<25	<25	<25
Bromodichloromethane	ug/l	<5.0	<5.0	<5.0	<5.0
1,2-Dichloropropane	ug/l	<5.0	<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	ug/l	<5.0	<5.0	<5.0	<5.0
Trichloroethene	ug/l	<5.0	<5.0	<5.0	<5.0
Dibromochloromethane	ug/l	<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	ug/l	<5.0	<5.0	<5.0	<5.0
Benzene	ug/l	<1.0	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	ug/l	<5.0	<5.0	<5.0	<5.0
Bromoform	ug/l	<5.0	<5.0	<5.0	<5.0
4-Methyl-2-pentanone (MIBK)	ug/l	<25	<25	<25	<25
2-Hexanone	ug/l	<25	<25	<25	<25
Tetrachloroethene	ug/l	<5.0	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	ug/l	<5.0	<5.0	<5.0	<5.0
Toluene	ug/l	<5.0	<5.0	<5.0	<5.0
Chlorobenzene	ug/l	<5.0	<5.0	<5.0	<5.0

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10283-14	Trip Blank 1	Liquid	10/10/03	10/09/03	EPC07
10283-15	Trip Blank 2	Liquid	10/10/03	10/09/03	EPC07
10283-16	Trip Blank 3	Liquid	10/10/03	10/09/03	EPC07
10283-17	Trip Blank 4	Liquid	10/10/03	10/09/03	EPC07

		Lab Sample IDs			
Parameter	Units	10283-14	10283-15	10283-16	10283-17
Volatile Organic Compounds (8260B)					
Ethylbenzene	ug/l	<5.0	<5.0	<5.0	<5.0
Styrene	ug/l	<5.0	<5.0	<5.0	<5.0
Xylenes, Total	ug/l	<10	<10	<10	<10
Surrogate - Dibromofluoromethane *	%	105 %	108 %	108 %	103 %
Surrogate - Toluene-d8 *	%	98 %	101 %	100 %	100 %
Surrogate - 4-Bromofluorobenzene *	%	99 %	97 %	102 %	99 %
Dilution Factor		1	1	1	1
Prep Date		10/17/03	10/17/03	10/17/03	10/17/03
Prep Time		00:42	14:01	14:33	16:41
Analysis Date		10/17/03	10/17/03	10/17/03	10/17/03
Analysis Time		00:42	14:01	14:33	16:41
Batch ID		LEW137A	LEW137B	LEW137B	LEW137B
Method		5030B	5030B	5030B	5030B
Analyst		WD	WD	WD	WD
Quantitation Factor		1	1	1	1

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.

[redacted]

Chain of Custody Record

STL4124-400 (12/02)

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

Client: Brown & Caldwell	Project Manager: Bob Norris	Date: 10-9-03	Chain of Custody Number: 05697
Address: 1697 Cole Blvd.	Telephone Number (Area Code)/Fax Number: 303-239-5400 / 303-239-5454	Lab Number: C310283	Page 1 of 1
City: Golden; State: CO; Zip Code: 80401	Site Contact: S. Harden	Lab Contact:	
Project Name and Location (State): El Paso / El Dorado KS	Carrier/Waybill Number: UPS		
Contract/Purchase Order/Quote No.:			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	8260 VOCs	8015 TPH-GRO	6010/7470	8015 TPH-DRO	8270 SVOCs	Total	Special Instructions/ Conditions of Receipt
WHIS	10-9-03	1230		X					1	7			3	3	1	1		1	
WHID	10-9-03	1300		X					1	7			3	3	1	1		2	
N3-2	10-9-03	1325		X			1		1	7			3	3	1	1	1	6	
N2-3	10-9-03	1530		X			1		1	7			3	3	1	1	1	7	
Trip Blank 1				X						1			1					14	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other STAT

QC Requirements (Specify):

1. Relinquished By: Ambrei L. Lattaster	Date: 10-9-03	Time: 1830	1. Received By: Mark Swafford	Date: 10/10/03	Time: 0900
2. Relinquished By:	Date:	Time:	2. Received By:	Date:	Time:
3. Relinquished By:	Date:	Time:	3. Received By:	Date:	Time:

Comments:

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

EL PASO/EL DORADO SSI#C30EPC07

109

[redacted]

Chain of Custody Record

STL4124-400 (12/02)

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

Client	Project Manager	Date	Chain of Custody Number
Brown & Caldwell	Bob Norris	10-9-03	05698
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of**
1697 Cole Blvd.	303-239-5400 / 303-239-5454	C310283	

City	State	Zip Code	Site Contact	Lab Contact
Golden	CO	80401	S. Harden	M. Pope

Project Name and Location (State)	Carrier/Waybill Number
El Paso / El Dorado KS	UPS

Contract/Purchase Order/Quote No.

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil		Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH		Analysis (Attach list if more space is needed): 8260 VOCs	8015 TPH-GRO	1010/1470	8015 TPH-DRO	8270 SVOCs								Special Instructions/ Conditions of Receipt
B3-1	10-9-03	1410		X				1		1	7				3	3	1	1	1							8	
Duplicate B	10-9-03	—		X				1		1	7				3	3	1	1	1							9	
Rinse Blank 2	10-9-03	1430		X				1		1	7				3	3	1	1	1							10	
FINA WELL — MW-38	10-9-03	1505		X						1	7				3	3	1	1								3	
Trip Blank 2				X							1				1											15	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other STAT

QC Requirements (Specify)

1. Relinquished By	Date	Time	1. Received By	Date	Time
Amber L. LeMaster	10-9-03	1830	Mark Swafford	10/10/03	1000
2. Relinquished By	**Date**	**Time**	**2. Received By**	**Date**	**Time**
3. Relinquished By	**Date**	**Time**	**3. Received By**	**Date**	**Time**

Comments

DISTRIBUTIO[illegible] WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

PL PSC-FL EL DORADO SDG#C3OEP01

110

[redacted]

Chain o
Custody Record

STL4124-400 (12/02)

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL Pensacc
3355 McLemu... Drive
Pensacola, FL 32514

EL PASO/EL DORADO SITE #C30EP07

Client	Project Manager	Date	Chain of Custody Number
Brown & Caldwell	Bob Norris	10-9-03	05696
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
1697 Cole Blvd	303-239-5400 / 303-239-5454	C310283	

City	State	Zip Code	Site Contact	Lab Contact
Golden	CO	80401	S. Harden	M. Pope

Project Name and Location (State)	Carrier/Waybill Number
El Paso / El Dorado KS	UPS

Contract/Purchase Order/Quote No.

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil		Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH		Analysis: 8260 VOCs	8015 TPH-GRO	6010/7470	8015 TPH-DRO	8270 SVOCs								Special Instructions/ Conditions of Receipt
W#23	10-9-03	0930		X						1	7				3	3	1	1								4	
N3-4	10-9-03	0955		X				1		1	7				3	3	1	1	1							11	MS/MSD collected
W#24	10-9-03	1100		X				~~1~~		1	7				3	3	1	1								5	
Trip Blank 3				X							1				1											16	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other STAT

QC Requirements (Specify)

1. Relinquished By	Date	Time	1. Received By	Date	Time
Amber L LeMaster	10-9-03	1630	Mark Sawyer	10/10/03	1000
2. Relinquished By	**Date**	**Time**	**2. Received By**	**Date**	**Time**
3. Relinquished By	**Date**	**Time**	**3. Received By**	**Date**	**Time**

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

[redacted]

Chain of Custody Record

STL4124-400 (12/02)

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

Client: Brown & Caldwell	Project Manager: Bob Norris	Date: 10-9-03	Chain of Custody Number: 05700
Address: 1697 Cole Blvd.	Telephone Number (Area Code)/Fax Number: 303-239-5400 / 303-239-5454	Lab Number: C310283	Page 1 of 1
City: Golden; State: CO; Zip Code: 80401	Site Contact: S Harden	Lab Contact:	
Project Name and Location (State): El Paso / El Dorado KS	Carrier/Waybill Number: UPS		
Contract/Purchase Order/Quote No.:			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	8260 VOCs	8015 TPH-GRO	6010/7470	8015 TPH-DRO	8270 SVOCs							Special Instructions/ Conditions of Receipt
N2-2	10-9-03	1555		X			1		1	7			3	3	1	1	1						12	
N2-4	10-9-03	1630		X			1		1	7			3	3	1	1	1						13	
Trip Blank "	1			X						1			1										7	

Matrix: Air, Aqueous, Sed., Soil. Containers & Preservatives: Unpres., H2SO4, HNO3, HCl, NaOH, ZnAc/NaOH.

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other STAT

QC Requirements (Specify)

1. Relinquished By: Amber L. LeMaster	Date: 10-9-03	Time: 1830	1. Received By: Mark Swafford	Date: 10/10/03	Time: 1000
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

EL PASO/EL DORADO SDG#C30EP01

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SEVERN TRENT STL

STL Pensacola 3355 McLemore Drive - Pensacola FL 32514 Telephone:(850) 474-1001 Fax:(850) 478-2671

Analytical Report

For: Mr. Chris Miller
El Paso Energy Corporation
P.O. Box 2511
Houston, TX 77252-2511
CC: Lynn Hanzlicek (Shaw, KS)

Order Number: C309769
SDG Number: EPC05
Client Project ID:
Project: EL PASO-EL DORADO, KS
Report Date: 10/30/2003
Sampled By: Client
Sample Received Date: 09/27/2003
Requisition Number:
Purchase Order: C-STL1-ELDORADO-001

Melissa L. Pope

Melissa L. Pope, Project Manager
mpope@stl-inc.com

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Sample Summary

Order: C309769
Date Received: 09/27/2003

Client: El Paso Energy Corporation
Project: EL PASO-EL DORADO, KS

Client Sample ID	Lab Sample ID	Matrix	Date Sampled
SWSOIL20030926-1-0.5	C309769*1	Solid	09/26/2003 09:15
SWSOIL20030926-2-0.5	C309769*2	Solid	09/26/2003 09:20
SWSOIL20030926-3-0.5	C309769*3	Solid	09/26/2003 10:20
SWSOIL20030926-4-0.5	C309769*4	Solid	09/26/2003 11:05
SWDUPLICATE-1	C309769*5	Solid	09/26/2003
SWSOIL20030926-5-0.5	C309769*6	Solid	09/26/2003 12:30
SWSOIL20030926-6-0.5	C309769*7	Solid	09/26/2003 13:00
SWSOIL20030926-7-0.5	C309769*8	Solid	09/26/2003 13:30
SWSOIL20030926-8-0.5	C309769*9	Solid	09/26/2003 14:40
SWDUPLICATE-2	C309769*10	Solid	09/26/2003
SWH2O20030926-2	C309769*11	Liquid	09/26/2003 09:15
SWH2O20030926-3	C309769*12	Liquid	09/26/2003 10:15
SWH2O20030926-4	C309769*13	Liquid	09/26/2003 11:00
SWDUPLICATE-1	C309769*14	Liquid	09/26/2003
SWH2O20030926-6	C309769*15	Liquid	09/26/2003 12:55
SWH2O20030926-7	C309769*16	Liquid	09/26/2003 13:25
SWH2O20030926-8	C309769*17	Liquid	09/26/2003 14:30
SWDUPLICATE-2	C309769*18	Liquid	09/26/2003
EQUIPBLANK-3	C309769*19	Liquid	09/25/2003 17:00
SWEQUIPBLANK-1	C309769*20	Liquid	09/26/2003 11:20
Trip Blank	C309769*21	Liquid	09/26/2003

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09769-1	SWSOIL20030926-1-0.5	Solid	09/27/03	09/26/03 09:15	EPC05
09769-2	SWSOIL20030926-2-0.5	Solid	09/27/03	09/26/03 09:20	EPC05
09769-3	SWSOIL20030926-3-0.5	Solid	09/27/03	09/26/03 10:20	EPC05
09769-4	SWSOIL20030926-4-0.5	Solid	09/27/03	09/26/03 11:05	EPC05
09769-5	SWDUPLICATE-1	Solid	09/27/03	09/26/03	EPC05

Parameter	Units	Lab Sample IDs 09769-1	09769-2	09769-3	09769-4	09769-5
Metals (6010B)						
Antimony	mg/kg dw	<11	0.83JB	0.84JB	0.57JB	0.82JB
Arsenic	mg/kg dw	7.2	8.8	6.7	8.3	6.7
Barium	mg/kg dw	210B	110B	320B	210B	360B
Beryllium	mg/kg dw	0.97	0.69	1.1	1.1	1.1
Cadmium	mg/kg dw	0.57J	0.57J	0.26J	0.37J	0.27J
Chromium	mg/kg dw	28	17	22	24	22
Copper	mg/kg dw	16	9.6	14	16	14
Lead	mg/kg dw	85	22	27	61	27
Nickel	mg/kg dw	16	14	17	19	18
Selenium	mg/kg dw	<2.2	<1.7	<2.3	<2.6	<1.9
Silver	mg/kg dw	<1.1	<0.84	<1.2	<1.3	<0.97
Thallium	mg/kg dw	<2.2	<1.7	<2.3	<2.6	<1.9
Zinc	mg/kg dw	80	100	51	74	47
Percent Solids		77	68	79	72	71
Dilution Factor		1	1	1	1	1
Prep Date		10/04/03	10/04/03	10/04/03	10/04/03	10/04/03
Prep Time		13:54	13:54	13:54	13:54	13:54
Analysis Date		10/08/03	10/08/03	10/08/03	10/08/03	10/08/03
Analysis Time		00:19	00:57	01:03	01:08	01:14
Batch ID		PS204	PS204	PS204	PS204	PS204
Prep Method		3050B	3050B	3050B	3050B	3050B
Analyst		GSP	GSP	GSP	GSP	GSP
Quantitation Factor		111.0001	84.0336	117.2058	129.8027	97.1345
Mercury (7471A)						
Mercury	mg/kg dw	0.048	0.014	0.015	0.019	0.029
Percent Solids		77	68	79	72	71
Dilution Factor		1	1	1	1	1
Prep Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Prep Time		13:15	13:15	13:15	13:15	13:15
Analysis Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Analysis Time		15:23	15:28	15:30	15:32	15:33
Batch ID		HGS050	HGS050	HGS050	HGS050	HGS050
Prep Method		7471A	7471A	7471A	7471A	7471A
Analyst		JDE	JDE	JDE	JDE	JDE
Quantitation Factor		53.2029	57.1037	50.4134	55.9660	55.6545

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09769-1	SWSOIL20030926-1-0.5	Solid	09/27/03	09/26/03 09:15	EPC05
09769-2	SWSOIL20030926-2-0.5	Solid	09/27/03	09/26/03 09:20	EPC05
09769-3	SWSOIL20030926-3-0.5	Solid	09/27/03	09/26/03 10:20	EPC05
09769-4	SWSOIL20030926-4-0.5	Solid	09/27/03	09/26/03 11:05	EPC05
09769-5	SWDUPLICATE-1	Solid	09/27/03	09/26/03	EPC05

Parameter	Units	Lab Sample IDs 09769-1	09769-2	09769-3	09769-4	09769-5
Gasoline Range Organics (8015M)						
Hydrocarbons as GRO (C6-C10)	mg/kg dw	<6.5	<7.4	<6.3	<6.9	0.39J
Surrogate - a,a,a-Trifluorotoluene *	%	92 %	89 %	91 %	85 %	97 %
Percent Solids		77	68	79	72	71
Dilution Factor		50	50	50	50	50
Prep Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Prep Time		14:25	14:25	14:25	14:25	14:25
Analysis Date		10/04/03	10/04/03	10/04/03	10/07/03	10/06/03
Analysis Time		02:07	03:09	04:12	12:21	20:24
Batch ID		EXT100A	EXT100A	EXT100A	EXT100A	EXT100A
Prep Method		5035/5030B	5035/5030B	5035/5030B	5035/5030B	5035/5030B
Analyst		SB	SB	SB	CN	CN
Quantitation Factor		64.9	73.5	63.3	69.4	70.4
Semivolatile Organic Compounds (8270C)						
Benzoic acid	ug/kg dw	<460	<510	<2100	<2300	<2300
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	ug/kg dw	<200	<230	<420	<460	<470
2-Chlorophenol	ug/kg dw	<150	<170	<420	<460	<470
2,4-Dichlorophenol	ug/kg dw	<180	<200	<420	<460	<470
2,6-Dichlorophenol	ug/kg dw	<160	<180	<420	<460	<470
2,4-Dimethylphenol	ug/kg dw	<310	<350	<420	<460	<470
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	ug/kg dw	<140	<160	<2100	<2300	<2300
2,4-Dinitrophenol	ug/kg dw	<190	<210	<2100	<2300	<2300
2-Methylphenol (o-Cresol)	ug/kg dw	<170	<190	<420	<460	<470
3-Methylphenol/4-Methylphenol (m&p-Cresol)	ug/kg dw	<170	<190	<420	<460	<470
2-Nitrophenol (o-Nitrophenol)	ug/kg dw	<150	<170	<420	<460	<470
4-Nitrophenol (p-Nitrophenol)	ug/kg dw	<170	<200	<2100	<2300	<2300
Pentachlorophenol	ug/kg dw	<190	<210	<2100	<2300	<2300

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09769-1	SWSOIL20030926-1-0.5	Solid	09/27/03	09/26/03 09:15	EPC05
09769-2	SWSOIL20030926-2-0.5	Solid	09/27/03	09/26/03 09:20	EPC05
09769-3	SWSOIL20030926-3-0.5	Solid	09/27/03	09/26/03 10:20	EPC05
09769-4	SWSOIL20030926-4-0.5	Solid	09/27/03	09/26/03 11:05	EPC05
09769-5	SWDUPLICATE-1	Solid	09/27/03	09/26/03	EPC05

		Lab Sample IDs				
Parameter	Units	09769-1	09769-2	09769-3	09769-4	09769-5
Semivolatile Organic Compounds (8270C)						
Phenol	ug/kg dw	<170	<190	<420	<460	<470
2,3,4,6-Tetrachlorophenol	ug/kg dw	<160	<180	<420	<460	<470
2,4,5-Trichlorophenol	ug/kg dw	<160	<170	<2100	<2300	<2300
2,4,6-Trichlorophenol	ug/kg dw	<140	<150	<420	<460	<470
Acenaphthene	ug/kg dw	<130	<150	<420	<460	<470
Acenaphthylene	ug/kg dw	<170	<200	<420	<460	<470
Acetophenone	ug/kg dw	<170	<190	<420	<460	<470
4-Aminobiphenyl	ug/kg dw	<360	<400	<420	<460	<470
Aniline	ug/kg dw	<470	<530	<420	<460	<470
Anthracene	ug/kg dw	<160	<170	<420	<460	<470
Benzidine	ug/kg dw	<3600	<4100	<2100	<2300	<2300
Benzo(a)anthracene	ug/kg dw	<250	<280	<420	<460	<470
Benzo(b)fluoranthene	ug/kg dw	<260	<290	<420	71J	<470
(k)fluoranthene	ug/kg dw	<310	<350	<420	<460	<470
Benzo(g,h,i)perylene	ug/kg dw	<190	<220	<420	<460	<470
Benzo(a)pyrene	ug/kg dw	<240	<270	<420	<460	<470
Benzyl alcohol	ug/kg dw	<130	<150	<420	<460	<470
4-Bromophenylphenyl ether	ug/kg dw	<170	<190	<420	<460	<470
Butylbenzylphthalate	ug/kg dw	<260	<290	<420	<460	<470
Carbazole	ug/kg dw	<210	<240	<420	<460	<470
4-Chloroaniline (p-Chloroaniline)	ug/kg dw	<200	<230	<420	<460	<470
bis(2-Chloroethoxy)methane	ug/kg dw	<130	<150	<420	<460	<470
bis(2-Chloroethyl)ether	ug/kg dw	<170	<190	<420	<460	<470
bis(2-Chloroisopropyl) ether	ug/kg dw	<200	<220	<420	<460	<470
1-Chloronaphthalene	ug/kg dw	<150	<170	<420	<460	<470
2-Chloronaphthalene	ug/kg dw	<190	<210	<420	<460	<470
4-Chlorophenylphenyl ether	ug/kg dw	<180	<200	<420	<460	<470
Chrysene	ug/kg dw	<250	<280	<420	<460	<470
Dibenz(a,j)acridine	ug/kg dw	<300	<330	<420	<460	<470
Dibenzo(a,h)anthracene	ug/kg dw	<140	<160	<420	<460	<470
Dibenzofuran	ug/kg dw	<140	<160	<420	<460	<470

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09769-1	SWSOIL20030926-1-0.5	Solid	09/27/03	09/26/03 09:15	EPC05
09769-2	SWSOIL20030926-2-0.5	Solid	09/27/03	09/26/03 09:20	EPC05
09769-3	SWSOIL20030926-3-0.5	Solid	09/27/03	09/26/03 10:20	EPC05
09769-4	SWSOIL20030926-4-0.5	Solid	09/27/03	09/26/03 11:05	EPC05
09769-5	SWDUPLICATE-1	Solid	09/27/03	09/26/03	EPC05

Parameter	Units	Lab Sample IDs 09769-1	09769-2	09769-3	09769-4	09769-5
Semivolatile Organic Compounds (8270C)						
Di-n-butylphthalate	ug/kg dw	<240	<270	<420	<460	<470
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/kg dw	<160	<180	<420	<460	<470
1,3-Dichlorobenzene (m-Dichlorobenzene)	ug/kg dw	<160	<170	<420	<460	<470
1,4-Dichlorobenzene (p-Dichlorobenzene)	ug/kg dw	<170	<200	<420	<460	<470
3,3'-Dichlorobenzidine	ug/kg dw	<210	<230	<2100	<2300	<2300
Diethylene Glycol Monobutyl Ether	ug/kg dw	<150	<170	<420	<460	<470
Diethylphthalate	ug/kg dw	<160	<180	<420	<460	<470
p-(Dimethylamino)azobenzene	ug/kg dw	<200	<230	<420	<460	<470
7,12-Dimethylbenz(a)anthracene	ug/kg dw	<300	<340	<420	<460	<470
alpha,alpha-Dimethylphenethylamine	ug/kg dw	<1300	<1400	<420	<460	<470
Dimethylphthalate	ug/kg dw	<160	<180	<420	<460	<470
2,4-Dinitrotoluene	ug/kg dw	<180	<200	<420	<460	<470
2,6-Dinitrotoluene	ug/kg dw	<150	<170	<420	<460	<470
Di-n-octylphthalate	ug/kg dw	<250	<280	<420	<460	<470
1,2-Diphenylhydrazine	ug/kg dw	<170	<190	<420	<460	<470
bis(2-Ethylhexyl)phthalate	ug/kg dw	<300	<340	<420	<460	<470
Ethyl methanesulfonate	ug/kg dw	<160	<180	<420	<460	<470
Fluoranthene	ug/kg dw	<210	<240	<420	140J	<470
Fluorene	ug/kg dw	<180	<200	<420	<460	<470
Hexachlorobenzene	ug/kg dw	<150	<170	<420	<460	<470
Hexachlorobutadiene	ug/kg dw	<150	<170	<420	<460	<470
Hexachlorocyclopentadiene	ug/kg dw	<54	<61	<420	<460	<470
Hexachloroethane	ug/kg dw	<150	<170	<420	<460	<470
Indeno(1,2,3-cd)pyrene	ug/kg dw	<220	<240	<420	<460	<470
Isophorone	ug/kg dw	<170	<190	<420	<460	<470
3-Methylcholanthrene	ug/kg dw	<200	<230	<420	<460	<470
Methyl methanesulfonate	ug/kg dw	<110	<120	<420	<460	<470

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09769-1	SWSOIL20030926-1-0.5	Solid	09/27/03	09/26/03 09:15	EPC05
09769-2	SWSOIL20030926-2-0.5	Solid	09/27/03	09/26/03 09:20	EPC05
09769-3	SWSOIL20030926-3-0.5	Solid	09/27/03	09/26/03 10:20	EPC05
09769-4	SWSOIL20030926-4-0.5	Solid	09/27/03	09/26/03 11:05	EPC05
09769-5	SWDUPLICATE-1	Solid	09/27/03	09/26/03	EPC05

Parameter	Units	Lab Sample IDs 09769-1	09769-2	09769-3	09769-4	09769-5
Semivolatile Organic Compounds (8270C)						
1-Methylnaphthalene	ug/kg dw	<170	<190	<420	<460	<470
2-Methylnaphthalene	ug/kg dw	<170	<200	<420	<460	<470
Naphthalene	ug/kg dw	<150	<170	<420	<460	<470
1-Naphthylamine	ug/kg dw	<320	<360	<420	<460	<470
2-Naphthylamine	ug/kg dw	<280	<310	<420	<460	<470
2-Nitroaniline (o-Nitroaniline)	ug/kg dw	<190	<210	<420	<460	<470
3-Nitroaniline (m-Nitroaniline)	ug/kg dw	<190	<210	<420	<460	<470
4-Nitroaniline (p-Nitroaniline)	ug/kg dw	<210	<230	<420	<460	<470
Nitrobenzene	ug/kg dw	<170	<200	<420	<460	<470
N-Nitrosodi-n-butylamine	ug/kg dw	<200	<230	<420	<460	<470
rosodimethylamine	ug/kg dw	<160	<170	<420	<460	<470
N...trosodiphenylamine	ug/kg dw	<170	<200	<420	<460	<470
n-Nitrosodi-n-propylamine	ug/kg dw	<170	<190	<420	<460	<470
N-Nitrosopiperidine	ug/kg dw	<190	<210	<420	<460	<470
Pentachlorobenzene	ug/kg dw	<160	<170	<420	<460	<470
Pentachloronitrobenzene	ug/kg dw	<170	<200	<420	<460	<470
Phenacetin	ug/kg dw	<240	<270	<420	<460	<470
Phenanthrene	ug/kg dw	<170	<190	<420	140J	<470
2-Picoline	ug/kg dw	<750	<840	<420	<460	<470
Pronamide	ug/kg dw	<260	<290	<420	<460	<470
Pyrene	ug/kg dw	<270	<300	<420	130J	<470
Pyridine	ug/kg dw	<1200	<1300	<420	<460	<470
1,2,4,5-Tetrachlorobenzene	ug/kg dw	<130	<140	<420	<460	<470
1,2,4-Trichlorobenzene	ug/kg dw	<160	<180	<420	<460	<470
Surrogate - 2-Fluorobiphenyl *	%	56 %	58 %	60 %	62 %	48 %
Surrogate - 2-Fluorophenol *	%	47 %	48 %	55 %	57 %	44 %
Surrogate - Nitrobenzene - d5 *	%	50 %	51 %	56 %	59 %	45 %
Surrogate - Phenol-d5 *	%	52 %	57 %	61 %	63 %	49 %

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09769-1	SWSOIL20030926-1-0.5	Solid	09/27/03	09/26/03 09:15	EPC05
09769-2	SWSOIL20030926-2-0.5	Solid	09/27/03	09/26/03 09:20	EPC05
09769-3	SWSOIL20030926-3-0.5	Solid	09/27/03	09/26/03 10:20	EPC05
09769-4	SWSOIL20030926-4-0.5	Solid	09/27/03	09/26/03 11:05	EPC05
09769-5	SWDUPLICATE-1	Solid	09/27/03	09/26/03	EPC05

Parameter	Units	Lab Sample IDs 09769-1	09769-2	09769-3	09769-4	09769-5
Semivolatile Organic Compounds (8270C)						
Surrogate - Terphenyl-d14 *	%	66 %	74 %	70 %	71 %	64 %
Surrogate - 2,4,6-Tribromophenol *	%	67 %	74 %	79 %	77 %	70 %
Percent Solids		77	68	79	72	71
Dilution Factor		3	3	1	1	1
Prep Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Prep Time		13:15	13:15	13:15	13:15	13:15
Analysis Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Analysis Time		06:20	08:07	01:35	05:45	05:09
Batch ID		ALS068	ALS068	ALS068	ALS068	ALS068
Prep Method		3550B	3550B	3550B	3550B	3550B
Analyst		RDW	RDW	RDW	RDW	RDW
Quantitation Factor		129.40	145.08	41.50	45.94	46.73
Volatile Organic Compounds (8260B)						
Chloromethane	ug/kg dw	<6.5	<7.4	<6.4	<7.0	<7.0
Bromomethane (Methyl bromide)	ug/kg dw	<6.5	<7.4	<6.4	<7.0	<7.0
Vinyl chloride	ug/kg dw	<6.5	<7.4	<6.4	<7.0	<7.0
Chloroethane	ug/kg dw	<6.5	<7.4	<6.4	<7.0	<7.0
Methylene chloride (Dichloromethane)	ug/kg dw	<6.5	<7.4	<6.4	<7.0	<7.0
Acetone	ug/kg dw	<32	<37	<32	<35	<35
Carbon disulfide	ug/kg dw	<6.5	<7.4	<6.4	<7.0	<7.0
1,1-Dichloroethene	ug/kg dw	<6.5	<7.4	<6.4	<7.0	<7.0
1,1-Dichloroethane	ug/kg dw	<6.5	<7.4	<6.4	<7.0	<7.0
Cis/Trans-1,2-Dichloroethene	ug/kg dw	<6.5	<7.4	<6.4	<7.0	<7.0
cis-1,2-Dichloroethene	ug/kg dw	<6.5	<7.4	<6.4	<7.0	<7.0
Chloroform	ug/kg dw	<6.5	<7.4	<6.4	<7.0	<7.0
1,2-Dichloroethane	ug/kg dw	<6.5	<7.4	<6.4	<7.0	<7.0
2-Butanone (MEK)	ug/kg dw	<32	<37	<32	<35	<35
1,1,1-Trichloroethane	ug/kg dw	<6.5	<7.4	<6.4	<7.0	<7.0

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09769-1	SWSOIL20030926-1-0.5	Solid	09/27/03	09/26/03 09:15	EPC05
09769-2	SWSOIL20030926-2-0.5	Solid	09/27/03	09/26/03 09:20	EPC05
09769-3	SWSOIL20030926-3-0.5	Solid	09/27/03	09/26/03 10:20	EPC05
09769-4	SWSOIL20030926-4-0.5	Solid	09/27/03	09/26/03 11:05	EPC05
09769-5	SWDUPLICATE-1	Solid	09/27/03	09/26/03	EPC05

Parameter	Units	Lab Sample IDs 09769-1	09769-2	09769-3	09769-4	09769-5
Volatile Organic Compounds (8260B)						
Carbon tetrachloride	ug/kg dw	<6.5	<7.4	<6.4	<7.0	<7.0
Vinyl acetate	ug/kg dw	<32	<37	<32	<35	<35
Bromodichloromethane	ug/kg dw	<6.5	<7.4	<6.4	<7.0	<7.0
1,2-Dichloropropane	ug/kg dw	<6.5	<7.4	<6.4	<7.0	<7.0
cis-1,3-Dichloropropene	ug/kg dw	<6.5	<7.4	<6.4	<7.0	<7.0
Trichloroethene	ug/kg dw	<6.5	<7.4	<6.4	<7.0	<7.0
Dibromochloromethane	ug/kg dw	<6.5	<7.4	<6.4	<7.0	<7.0
1,1,2-Trichloroethane	ug/kg dw	<6.5	<7.4	<6.4	<7.0	<7.0
Benzene	ug/kg dw	<6.5	<7.4	<6.4	<7.0	<7.0
trans-1,3-Dichloropropene	ug/kg dw	<6.5	<7.4	<6.4	<7.0	<7.0
Bromoform	ug/kg dw	<6.5	<7.4	<6.4	<7.0	<7.0
4-Methyl-2-pentanone (MIBK)	ug/kg dw	<32	<37	<32	<35	<35
2-Hexanone	ug/kg dw	<32	<37	<32	<35	<35
chloroethene	ug/kg dw	<6.5	<7.4	<6.4	<7.0	<7.0
1,1,2,2-Tetrachloroethane	ug/kg dw	<6.5	<7.4	<6.4	<7.0	<7.0
Toluene	ug/kg dw	<6.5	<7.4	<6.4	<7.0	<7.0
Chlorobenzene	ug/kg dw	<6.5	<7.4	<6.4	<7.0	<7.0
Ethylbenzene	ug/kg dw	<6.5	<7.4	<6.4	<7.0	<7.0
Styrene	ug/kg dw	<6.5	<7.4	<6.4	<7.0	<7.0
Xylenes, Total	ug/kg dw	<13	<15	<13	<14	<14
Surrogate - Dibromofluoromethane *	%	113 %	114 %	112 %	112 %	111 %
Surrogate - Toluene-d8 *	%	101 %	104 %	105 %	102 %	105 %
Surrogate - 4-Bromofluorobenzene *	%	82 %	94 %	96 %	84 %	94 %
Percent Solids		77	68	79	72	71
Dilution Factor		1	1	1	1	1
Prep Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Prep Time		15:06	15:42	16:17	16:53	17:28
Analysis Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Analysis Time		15:06	15:42	16:17	16:53	17:28
Batch ID		KAS171	KAS171	KAS171	KAS171	KAS171
Prep Method		5030B	5030B	5030B	5030B	5030B
Analyst		DWB	DWB	DWB	DWB	DWB
Quantitation Factor		1.3	1.47	1.27	1.39	1.41

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09769-1	SWSOIL20030926-1-0.5	Solid	09/27/03	09/26/03 09:15	EPC05
09769-2	SWSOIL20030926-2-0.5	Solid	09/27/03	09/26/03 09:20	EPC05
09769-3	SWSOIL20030926-3-0.5	Solid	09/27/03	09/26/03 10:20	EPC05
09769-4	SWSOIL20030926-4-0.5	Solid	09/27/03	09/26/03 11:05	EPC05
09769-5	SWDUPLICATE-1	Solid	09/27/03	09/26/03	EPC05

Parameter	Units	Lab Sample IDs 09769-1	09769-2	09769-3	09769-4	09769-5
Diesel Range Organics (8015M)						
Mineral Spirits	mg/kg dw	<3.2	<36	<3.2	<3.5	<3.5
Kerosene	mg/kg dw	<3.2	<36	<3.2	<3.5	<3.5
Diesel	mg/kg dw	<3.2	<36	<3.2	<3.5	<3.5
Fuel Oil	mg/kg dw	<3.2	<36	<3.2	<3.5	<3.5
Motor oil (10W-40)	mg/kg dw	<3.2	<36	<3.2	<3.5	<3.5
Hydraulic Fluid Hydrocarbons	mg/kg dw	<3.2	<36	<3.2	<3.5	<3.5
Unknown Hydrocarbon	mg/kg dw	25	22	<3.2	23	2.3J
Surrogate - o-Terphenyl *	%	108 %	13 %D	120 %	109 %	107 %
Percent Solids		77	68	79	72	71
Dilution Factor		1	10	1	1	1
Prep Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Prep Time		13:00	13:00	13:00	13:00	13:00
Analysis Date		10/02/03	10/02/03	10/02/03	10/02/03	10/02/03
Analysis Time		10:06	10:25	10:43	11:01	11:20
Batch ID		FPS208	FPS208	FPS208	FPS208	FPS208
Prep Method		3550B	3550B	3550B	3550B	3550B
Analyst		IE	IE	IE	IE	IE
Quantitation Factor		1.3	14.5	1.3	1.4	1.4

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09769-6	SWSOIL20030926-5-0.5	Solid	09/27/03	09/26/03 12:30	EPC05
09769-7	SWSOIL20030926-6-0.5	Solid	09/27/03	09/26/03 13:00	EPC05
09769-8	SWSOIL20030926-7-0.5	Solid	09/27/03	09/26/03 13:30	EPC05
09769-9	SWSOIL20030926-8-0.5	Solid	09/27/03	09/26/03 14:40	EPC05
09769-10	SWDUPLICATE-2	Solid	09/27/03	09/26/03	EPC05

Lab Sample IDs

Parameter	Units	09769-6	09769-7	09769-8	09769-9	09769-10
Metals (6010B)						
Antimony	mg/kg dw	0.50JB	0.50JB	0.69JB	<14	0.51JB
Arsenic	mg/kg dw	8.9	7.7	5.9	6.3	7.2
Barium	mg/kg dw	250B	180B	170B	170B	160B
Beryllium	mg/kg dw	1.3	0.91	1.0	0.93	0.98
Cadmium	mg/kg dw	0.42J	0.53J	0.45J	0.35J	0.33J
Chromium	mg/kg dw	31	17	21	19	20
Copper	mg/kg dw	19	12	13	12	12
Lead	mg/kg dw	100	25	24	20	18
Nickel	mg/kg dw	21	18	19	17	19
Selenium	mg/kg dw	<2.2	<1.5	<2.1	<2.8	<2.0
Silver	mg/kg dw	<1.1	<0.76	<1.1	<1.4	<0.99
Thallium	mg/kg dw	<2.2	<1.5	<2.1	<2.8	<2.0
Zinc	mg/kg dw	93	37	52	53	43
Percent Solids		71	70	68	66	73
Dilution Factor		1	1	1	1	1
Prep Date		10/04/03	10/04/03	10/04/03	10/04/03	10/04/03
Prep Time		13:54	13:54	13:54	13:54	13:54
Analysis Date		10/08/03	10/08/03	10/08/03	10/08/03	10/08/03
Analysis Time		01:20	01:25	01:31	01:47	01:53
Batch ID		PS204	PS204	PS204	PS204	PS204
Prep Method		3050B	3050B	3050B	3050B	3050B
Analyst		GSP	GSP	GSP	GSP	GSP
Quantitation Factor		111.7818	75.9878	105.7977	140.2918	98.5513
Mercury (7471A)						
Mercury	mg/kg dw	0.0093J	0.015	0.0096J	0.012J	0.010J
Percent Solids		71	70	68	66	73
Dilution Factor		1	1	1	1	1
Prep Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Prep Time		13:15	13:15	13:15	13:15	13:15
Analysis Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Analysis Time		15:39	15:40	15:42	15:44	15:45
Batch ID		HGS050	HGS050	HGS050	HGS050	HGS050
Prep Method		7471A	7471A	7471A	7471A	7471A
Analyst		JDE	JDE	JDE	JDE	JDE
Quantitation Factor		55.7289	55.8036	60.0673	61.7742	55.1268

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09769-6	SWSOIL20030926-5-0.5	Solid	09/27/03	09/26/03 12:30	EPC05
09769-7	SWSOIL20030926-6-0.5	Solid	09/27/03	09/26/03 13:00	EPC05
09769-8	SWSOIL20030926-7-0.5	Solid	09/27/03	09/26/03 13:30	EPC05
09769-9	SWSOIL20030926-8-0.5	Solid	09/27/03	09/26/03 14:40	EPC05
09769-10	SWDUPLICATE-2	Solid	09/27/03	09/26/03	EPC05

Parameter	Units	Lab Sample IDs 09769-6	09769-7	09769-8	09769-9	09769-10
Gasoline Range Organics (8015M)						
Hydrocarbons as GRO (C6-C10)	mg/kg dw	<7.0	<7.1	<7.4	<7.6	<6.8
Surrogate -						
a,a,a-Trifluorotoluene *	%	82 %	96 %	88 %	96 %	93 %
Percent Solids		71	70	68	66	73
Dilution Factor		50	50	50	50	50
Prep Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Prep Time		14:25	14:25	14:25	14:25	14:25
Analysis Date		10/06/03	10/06/03	10/07/03	10/07/03	10/07/03
Analysis Time		21:17	22:10	00:50	01:43	02:36
Batch ID		EXT100A	EXT100A	EXT100A	EXT100A	EXT100A
Prep Method		5035/5030B	5035/5030B	5035/5030B	5035/5030B	5035/5030B
Analyst		CN	CN	CN	CN	CN
Quantitation Factor		70.4	71.4	73.5	75.8	68.5
Semivolatile Organic Compounds (8270C)						
Benzoic acid	ug/kg dw	<2300	<2400	<2400	<2500	<2200
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	ug/kg dw	<460	<470	<480	<500	<450
2-Chlorophenol	ug/kg dw	<460	<470	<480	<500	<450
2,4-Dichlorophenol	ug/kg dw	<460	<470	<480	<500	<450
2,6-Dichlorophenol	ug/kg dw	<460	<470	<480	<500	<450
2,4-Dimethylphenol	ug/kg dw	<460	<470	<480	<500	<450
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	ug/kg dw	<2300	<2400	<2400	<2500	<2200
2,4-Dinitrophenol	ug/kg dw	<2300	<2400	<2400	<2500	<2200
2-Methylphenol (o-Cresol)	ug/kg dw	<460	<470	<480	<500	<450
3-Methylphenol/4-Methylphenol (m&p-Cresol)	ug/kg dw	<460	<470	<480	<500	<450
2-Nitrophenol (o-Nitrophenol)	ug/kg dw	<460	<470	<480	<500	<450
4-Nitrophenol (p-Nitrophenol)	ug/kg dw	<2300	<2400	<2400	<2500	<2200
Pentachlorophenol	ug/kg dw	<2300	<2400	<2400	<2500	<2200

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09769-6	SWSOIL20030926-5-0.5	Solid	09/27/03	09/26/03 12:30	EPC05
09769-7	SWSOIL20030926-6-0.5	Solid	09/27/03	09/26/03 13:00	EPC05
09769-8	SWSOIL20030926-7-0.5	Solid	09/27/03	09/26/03 13:30	EPC05
09769-9	SWSOIL20030926-8-0.5	Solid	09/27/03	09/26/03 14:40	EPC05
09769-10	SWDUPLICATE-2	Solid	09/27/03	09/26/03	EPC05

Parameter	Units	Lab Sample IDs 09769-6	09769-7	09769-8	09769-9	09769-10
Semivolatile Organic Compounds (8270C)						
Phenol	ug/kg dw	<460	<470	<480	<500	<450
2,3,4,6-Tetrachlorophenol	ug/kg dw	<460	<470	<480	<500	<450
2,4,5-Trichlorophenol	ug/kg dw	<2300	<2400	<2400	<2500	<2200
2,4,6-Trichlorophenol	ug/kg dw	<460	<470	<480	<500	<450
Acenaphthene	ug/kg dw	<460	<470	<480	<500	<450
Acenaphthylene	ug/kg dw	<460	<470	<480	<500	<450
Acetophenone	ug/kg dw	<460	<470	<480	<500	<450
4-Aminobiphenyl	ug/kg dw	<460	<470	<480	<500	<450
Aniline	ug/kg dw	<460	<470	<480	<500	<450
Anthracene	ug/kg dw	<460	<470	<480	<500	<450
Benzidine	ug/kg dw	<2300	<2400	<2400	<2500	<2200
Benzo(a)anthracene	ug/kg dw	<460	<470	<480	<500	<450
Benzo(b)fluoranthene	ug/kg dw	<460	<470	<480	<500	<450
Benzo(k)fluoranthene	ug/kg dw	<460	<470	<480	<500	<450
Benzo(g,h,i)perylene	ug/kg dw	<460	<470	<480	<500	<450
Benzo(a)pyrene	ug/kg dw	<460	<470	<480	<500	<450
Benzyl alcohol	ug/kg dw	<460	<470	<480	<500	<450
4-Bromophenylphenyl ether	ug/kg dw	<460	<470	<480	<500	<450
Butylbenzylphthalate	ug/kg dw	<460	<470	<480	<500	<450
Carbazole	ug/kg dw	<460	<470	<480	<500	<450
4-Chloroaniline (p-Chloroaniline)	ug/kg dw	<460	<470	<480	<500	<450
bis(2-Chloroethoxy)methane	ug/kg dw	<460	<470	<480	<500	<450
bis(2-Chloroethyl)ether	ug/kg dw	<460	<470	<480	<500	<450
bis(2-Chloroisopropyl) ether	ug/kg dw	<460	<470	<480	<500	<450
1-Chloronaphthalene	ug/kg dw	<460	<470	<480	<500	<450
2-Chloronaphthalene	ug/kg dw	<460	<470	<480	<500	<450
4-Chlorophenylphenyl ether	ug/kg dw	<460	<470	<480	<500	<450
Chrysene	ug/kg dw	<460	<470	<480	<500	<450
Dibenz(a,j)acridine	ug/kg dw	<460	<470	<480	<500	<450
Dibenzo(a,h)anthracene	ug/kg dw	<460	<470	<480	<500	<450
Dibenzofuran	ug/kg dw	<460	<470	<480	<500	<450

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09769-6	SWSOIL20030926-5-0.5	Solid	09/27/03	09/26/03 12:30	EPC05
09769-7	SWSOIL20030926-6-0.5	Solid	09/27/03	09/26/03 13:00	EPC05
09769-8	SWSOIL20030926-7-0.5	Solid	09/27/03	09/26/03 13:30	EPC05
09769-9	SWSOIL20030926-8-0.5	Solid	09/27/03	09/26/03 14:40	EPC05
09769-10	SWDUPLICATE-2	Solid	09/27/03	09/26/03	EPC05

Parameter	Units	Lab Sample IDs 09769-6	09769-7	09769-8	09769-9	09769-10
Semivolatile Organic Compounds (8270C)						
Di-n-butylphthalate	ug/kg dw	<460	<470	<480	<500	<450
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/kg dw	<460	<470	<480	<500	<450
1,3-Dichlorobenzene (m-Dichlorobenzene)	ug/kg dw	<460	<470	<480	<500	<450
1,4-Dichlorobenzene (p-Dichlorobenzene)	ug/kg dw	<460	<470	<480	<500	<450
3,3'-Dichlorobenzidine	ug/kg dw	<2300	<2400	<2400	<2500	<2200
Diethylene Glycol Monobutyl Ether	ug/kg dw	<460	<470	<480	<500	<450
Diethylphthalate	ug/kg dw	<460	<470	<480	<500	<450
p-(Dimethylamino)azobenzene	ug/kg dw	<460	<470	<480	<500	<450
7,12-Dimethylbenz(a)anthracene	ug/kg dw	<460	<470	<480	<500	<450
alpha,alpha-Dimethylphenethylamine	ug/kg dw	<460	<470	<480	<500	<450
Dimethylphthalate	ug/kg dw	<460	<470	<480	<500	<450
2,4-Dinitrotoluene	ug/kg dw	<460	<470	<480	<500	<450
2,6-Dinitrotoluene	ug/kg dw	<460	<470	<480	<500	<450
Di-n-octylphthalate	ug/kg dw	<460	<470	<480	<500	<450
1,2-Diphenylhydrazine	ug/kg dw	<460	<470	<480	<500	<450
bis(2-Ethylhexyl)phthalate	ug/kg dw	<460	<470	<480	<500	<450
Ethyl methanesulfonate	ug/kg dw	<460	<470	<480	<500	<450
Fluoranthene	ug/kg dw	<460	<470	<480	<500	<450
Fluorene	ug/kg dw	<460	<470	<480	<500	<450
Hexachlorobenzene	ug/kg dw	<460	<470	<480	<500	<450
Hexachlorobutadiene	ug/kg dw	<460	<470	<480	<500	<450
Hexachlorocyclopentadiene	ug/kg dw	<460	<470	<480	<500	<450
Hexachloroethane	ug/kg dw	<460	<470	<480	<500	<450
Indeno(1,2,3-cd)pyrene	ug/kg dw	<460	<470	<480	<500	<450
Isophorone	ug/kg dw	<460	<470	<480	<500	<450
3-Methylcholanthrene	ug/kg dw	<460	<470	<480	<500	<450
Methyl methanesulfonate	ug/kg dw	<460	<470	<480	<500	<450

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09769-6	SWSOIL20030926-5-0.5	Solid	09/27/03	09/26/03 12:30	EPC05
09769-7	SWSOIL20030926-6-0.5	Solid	09/27/03	09/26/03 13:00	EPC05
09769-8	SWSOIL20030926-7-0.5	Solid	09/27/03	09/26/03 13:30	EPC05
09769-9	SWSOIL20030926-8-0.5	Solid	09/27/03	09/26/03 14:40	EPC05
09769-10	SWDUPLICATE-2	Solid	09/27/03	09/26/03	EPC05

Parameter	Units	Lab Sample IDs 09769-6	09769-7	09769-8	09769-9	09769-10
Semivolatile Organic Compounds (8270C)						
1-Methylnaphthalene	ug/kg dw	<460	<470	<480	<500	<450
2-Methylnaphthalene	ug/kg dw	<460	<470	<480	<500	<450
Naphthalene	ug/kg dw	<460	<470	<480	<500	<450
1-Naphthylamine	ug/kg dw	<460	<470	<480	<500	<450
2-Naphthylamine	ug/kg dw	<460	<470	<480	<500	<450
2-Nitroaniline (o-Nitroaniline)	ug/kg dw	<460	<470	<480	<500	<450
3-Nitroaniline (m-Nitroaniline)	ug/kg dw	<460	<470	<480	<500	<450
4-Nitroaniline (p-Nitroaniline)	ug/kg dw	<460	<470	<480	<500	<450
Nitrobenzene	ug/kg dw	<460	<470	<480	<500	<450
N-Nitrosodi-n-butylamine	ug/kg dw	<460	<470	<480	<500	<450
N-Nitrosodimethylamine	ug/kg dw	<460	<470	<480	<500	<450
N-Nitrosodiphenylamine	ug/kg dw	<460	<470	<480	<500	<450
n-Nitrosodi-n-propylamine	ug/kg dw	<460	<470	<480	<500	<450
N-Nitrosopiperidine	ug/kg dw	<460	<470	<480	<500	<450
Pentachlorobenzene	ug/kg dw	<460	<470	<480	<500	<450
Pentachloronitrobenzene	ug/kg dw	<460	<470	<480	<500	<450
Phenacetin	ug/kg dw	<460	<470	<480	<500	<450
Phenanthrene	ug/kg dw	<460	<470	<480	<500	<450
2-Picoline	ug/kg dw	<460	<470	<480	<500	<450
Pronamide	ug/kg dw	<460	<470	<480	<500	<450
Pyrene	ug/kg dw	<460	<470	<480	<500	<450
Pyridine	ug/kg dw	<460	<470	<480	<500	<450
1,2,4,5-Tetrachlorobenzene	ug/kg dw	<460	<470	<480	<500	<450
1,2,4-Trichlorobenzene	ug/kg dw	<460	<470	<480	<500	<450
Surrogate - 2-Fluorobiphenyl *	%	59 %	55 %	58 %	56 %	55 %
Surrogate - 2-Fluorophenol *	%	56 %	51 %	54 %	50 %	51 %
Surrogate - Nitrobenzene - d5 *	%	59 %	53 %	57 %	52 %	55 %
Surrogate - Phenol-d5 *	%	59 %	54 %	59 %	56 %	56 %

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09769-6	SWSOIL20030926-5-0.5	Solid	09/27/03	09/26/03 12:30	EPC05
09769-7	SWSOIL20030926-6-0.5	Solid	09/27/03	09/26/03 13:00	EPC05
09769-8	SWSOIL20030926-7-0.5	Solid	09/27/03	09/26/03 13:30	EPC05
09769-9	SWSOIL20030926-8-0.5	Solid	09/27/03	09/26/03 14:40	EPC05
09769-10	SWDUPLICATE-2	Solid	09/27/03	09/26/03	EPC05

Parameter	Units	Lab Sample IDs 09769-6	09769-7	09769-8	09769-9	09769-10
Semivolatile Organic Compounds (8270C)						
Surrogate - Terphenyl-d14 *	%	67 %	63 %	70 %	68 %	67 %
Surrogate - 2,4,6-Tribromophenol *	%	72 %	71 %	75 %	73 %	71 %
Percent Solids		71	70	68	66	73
Dilution Factor		1	1	1	1	1
Prep Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Prep Time		13:15	13:15	13:15	13:15	13:15
Analysis Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Analysis Time		02:11	02:47	03:22	03:58	04:34
Batch ID		ALS068	ALS068	ALS068	ALS068	ALS068
Prep Method		3550B	3550B	3550B	3550B	3550B
Analyst		RDW	RDW	RDW	RDW	RDW
Quantitation Factor		46.44	47.41	48.45	49.91	44.93
Volatile Organic Compounds (8260B)						
Chloromethane	ug/kg dw	<7.0	<7.2	<7.4	<7.6	<6.8
Bromomethane (Methyl bromide)	ug/kg dw	<7.0	<7.2	<7.4	<7.6	<6.8
Vinyl chloride	ug/kg dw	<7.0	<7.2	<7.4	<7.6	<6.8
Chloroethane	ug/kg dw	<7.0	<7.2	<7.4	<7.6	<6.8
Methylene chloride (Dichloromethane)	ug/kg dw	<7.0	<7.2	<7.4	<7.6	<6.8
Acetone	ug/kg dw	<35	<36	<37	<38	<34
Carbon disulfide	ug/kg dw	<7.0	<7.2	<7.4	<7.6	<6.8
1,1-Dichloroethene	ug/kg dw	<7.0	<7.2	<7.4	<7.6	<6.8
1,1-Dichloroethane	ug/kg dw	<7.0	<7.2	<7.4	<7.6	<6.8
Cis/Trans-1,2-Dichloroethene	ug/kg dw	<7.0	<7.2	<7.4	<7.6	<6.8
cis-1,2-Dichloroethene	ug/kg dw	<7.0	<7.2	<7.4	<7.6	<6.8
Chloroform	ug/kg dw	<7.0	<7.2	<7.4	<7.6	<6.8
1,2-Dichloroethane	ug/kg dw	<7.0	<7.2	<7.4	<7.6	<6.8
2-Butanone (MEK)	ug/kg dw	<35	<36	<37	<38	<34
1,1,1-Trichloroethane	ug/kg dw	<7.0	<7.2	<7.4	<7.6	<6.8

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09769-6	SWSOIL20030926-5-0.5	Solid	09/27/03	09/26/03 12:30	EPC05
09769-7	SWSOIL20030926-6-0.5	Solid	09/27/03	09/26/03 13:00	EPC05
09769-8	SWSOIL20030926-7-0.5	Solid	09/27/03	09/26/03 13:30	EPC05
09769-9	SWSOIL20030926-8-0.5	Solid	09/27/03	09/26/03 14:40	EPC05
09769-10	SWDUPLICATE-2	Solid	09/27/03	09/26/03	EPC05

Parameter	Units	Lab Sample IDs 09769-6	09769-7	09769-8	09769-9	09769-10
Volatile Organic Compounds (8260B)						
Carbon tetrachloride	ug/kg dw	<7.0	<7.2	<7.4	<7.6	<6.8
Vinyl acetate	ug/kg dw	<35	<36	<37	<38	<34
Bromodichloromethane	ug/kg dw	<7.0	<7.2	<7.4	<7.6	<6.8
1,2-Dichloropropane	ug/kg dw	<7.0	<7.2	<7.4	<7.6	<6.8
cis-1,3-Dichloropropene	ug/kg dw	<7.0	<7.2	<7.4	<7.6	<6.8
Trichloroethene	ug/kg dw	<7.0	<7.2	<7.4	<7.6	<6.8
Dibromochloromethane	ug/kg dw	<7.0	<7.2	<7.4	<7.6	<6.8
1,1,2-Trichloroethane	ug/kg dw	<7.0	<7.2	<7.4	<7.6	<6.8
Benzene	ug/kg dw	<7.0	<7.2	<7.4	<7.6	<6.8
trans-1,3-Dichloropropene	ug/kg dw	<7.0	<7.2	<7.4	<7.6	<6.8
Bromoform	ug/kg dw	<7.0	<7.2	<7.4	<7.6	<6.8
4-Methyl-2-pentanone (MIBK)	ug/kg dw	<35	<36	<37	<38	<34
2-Hexanone	ug/kg dw	<35	<36	<37	<38	<34
Tetrachloroethene	ug/kg dw	<7.0	<7.2	<7.4	<7.6	<6.8
1,1,2,2-Tetrachloroethane	ug/kg dw	<7.0	<7.2	<7.4	<7.6	<6.8
Toluene	ug/kg dw	<7.0	<7.2	<7.4	<7.6	<6.8
Chlorobenzene	ug/kg dw	<7.0	<7.2	<7.4	<7.6	<6.8
Ethylbenzene	ug/kg dw	<7.0	<7.2	<7.4	<7.6	<6.8
Styrene	ug/kg dw	<7.0	<7.2	<7.4	<7.6	<6.8
Xylenes, Total	ug/kg dw	<14	<14	<15	<15	<14
Surrogate - Dibromofluoromethane *	%	112 %	111 %	110 %	109 %	111 %
Surrogate - Toluene-d8 *	%	100 %	104 %	103 %	105 %	104 %
Surrogate - 4-Bromofluorobenzene *	%	83 %	91 %	87 %	92 %	94 %
Percent Solids		71	70	68	66	73
Dilution Factor		1	1	1	1	1
Prep Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Prep Time		18:04	18:39	19:14	19:50	20:25
Analysis Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Analysis Time		18:04	18:39	19:14	19:50	20:25
Batch ID		KAS171	KAS171	KAS171	KAS171	KAS171
Prep Method		5030B	5030B	5030B	5030B	5030B
Analyst		DWB	DWB	DWB	DWB	DWB
Quantitation Factor		1.41	1.43	1.47	1.52	1.37

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09769-6	SWSOIL20030926-5-0.5	Solid	09/27/03	09/26/03 12:30	EPC05
09769-7	SWSOIL20030926-6-0.5	Solid	09/27/03	09/26/03 13:00	EPC05
09769-8	SWSOIL20030926-7-0.5	Solid	09/27/03	09/26/03 13:30	EPC05
09769-9	SWSOIL20030926-8-0.5	Solid	09/27/03	09/26/03 14:40	EPC05
09769-10	SWDUPLICATE-2	Solid	09/27/03	09/26/03	EPC05

Parameter	Units	Lab Sample IDs 09769-6	09769-7	09769-8	09769-9	09769-10
Diesel Range Organics (8015M)						
Mineral Spirits	mg/kg dw	<3.5	<3.5	<3.8	<3.8	<3.5
Kerosene	mg/kg dw	<3.5	<3.5	<3.8	<3.8	<3.5
Diesel	mg/kg dw	<3.5	<3.5	<3.8	<3.8	<3.5
Fuel Oil	mg/kg dw	<3.5	<3.5	<3.8	<3.8	<3.5
Motor oil (10W-40)	mg/kg dw	<3.5	<3.5	<3.8	<3.8	<3.5
Hydraulic Fluid Hydrocarbons	mg/kg dw	<3.5	<3.5	<3.8	<3.8	<3.5
Unknown Hydrocarbon	mg/kg dw	6.1	7.8	2.5J	4.8	3.0J
Surrogate - o-Terphenyl *	%	92 %	106 %	107 %	116 %	106 %
Percent Solids		71	70	68	66	73
Dilution Factor		1	1	1	1	1
Prep Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Prep Time		13:00	13:00	13:00	13:00	13:00
Analysis Date		10/02/03	10/02/03	10/02/03	10/02/03	10/02/03
Analysis Time		11:38	11:57	12:16	12:34	12:52
Batch ID		FPS208	FPS208	FPS208	FPS208	FPS208
Prep Method		3550B	3550B	3550B	3550B	3550B
Analyst		IE	IE	IE	IE	IE
Quantitation Factor		1.4	1.4	1.5	1.5	1.4

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09769-11	SWH2020030926-2	Liquid	09/27/03	09/26/03 09:15	EPC05
09769-12	SWH2020030926-3	Liquid	09/27/03	09/26/03 10:15	EPC05
09769-13	SWH2020030926-4	Liquid	09/27/03	09/26/03 11:00	EPC05
09769-14	SWDUPLICATE-1	Liquid	09/27/03	09/26/03	EPC05
09769-15	SWH2020030926-6	Liquid	09/27/03	09/26/03 12:55	EPC05

Parameter	Units	Lab Sample IDs 09769-11	09769-12	09769-13	09769-14	09769-15
Metals (6010B)						
Antimony	mg/l	<0.10	<0.10	<0.10	<0.10	0.0050J
Arsenic	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
Barium	mg/l	0.17	0.17	0.17	0.16	0.20
Beryllium	mg/l	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060
Cadmium	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
Chromium	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	mg/l	0.0010J	0.0020J	0.0020J	0.0010J	<0.020
Lead	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
Nickel	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
Selenium	mg/l	<0.020	0.0040J	0.0050J	0.0040J	0.0050J
Silver	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
Thallium	mg/l	<0.020	<0.020	<0.020	<0.020	<0.020
Zinc	mg/l	<0.040	<0.040	<0.040	<0.040	0.013J
Dilution Factor		1	1	1	1	1
Prep Date		10/04/03	10/04/03	10/04/03	10/04/03	10/04/03
Prep Time		15:00	15:00	15:00	15:00	15:00
Analysis Date		10/07/03	10/07/03	10/07/03	10/07/03	10/07/03
Analysis Time		16:06	16:45	16:51	16:56	17:02
Batch ID		PW364	PW364	PW364	PW364	PW364
Prep Method		3010A	3010A	3010A	3010A	3010A
Analyst		GSP	GSP	GSP	GSP	GSP
Quantitation Factor		1.000	1.000	1.000	1.000	1.000
Mercury (7470A)						
Mercury	mg/l	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dilution Factor		1	1	1	1	1
Prep Date		10/06/03	10/06/03	10/06/03	10/06/03	10/06/03
Prep Time		10:20	10:20	10:20	10:20	10:20
Analysis Date		10/06/03	10/06/03	10/06/03	10/06/03	10/06/03
Analysis Time		11:53	11:55	12:00	12:02	12:04
Batch ID		HGW107	HGW107	HGW107	HGW107	HGW107
Prep Method		7470A	7470A	7470A	7470A	7470A
Analyst		JDE	JDE	JDE	JDE	JDE
Quantitation Factor		1	1	1	1	1

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09769-11	SWH2020030926-2	Liquid	09/27/03	09/26/03 09:15	EPC05
09769-12	SWH2020030926-3	Liquid	09/27/03	09/26/03 10:15	EPC05
09769-13	SWH2020030926-4	Liquid	09/27/03	09/26/03 11:00	EPC05
09769-14	SWDUPLICATE-1	Liquid	09/27/03	09/26/03	EPC05
09769-15	SWH2020030926-6	Liquid	09/27/03	09/26/03 12:55	EPC05

Parameter	Units	Lab Sample IDs 09769-11	09769-12	09769-13	09769-14	09769-15
Gasoline Range Organics (8015M)						
Hydrocarbons as GRO (C6-C10)	ug/l	<100	<100	<100	<100	18J
Surrogate - a,a,a-Trifluorotoluene *	%	97 %	97 %	97 %	98 %	109 %
Dilution Factor		1	1	1	1	1
Prep Date		10/08/03	10/08/03	10/08/03	10/08/03	10/08/03
Prep Time		01:58	03:01	04:04	17:47	03:26
Analysis Date		10/08/03	10/08/03	10/08/03	10/08/03	10/08/03
Analysis Time		01:58	03:01	04:04	17:47	03:26
Batch ID		CAW105C	CAW105C	CAW105C	CAW105D	ETW108C
Prep Method		5030B	5030B	5030B	5030B	5030B
Analyst		CN	CN	CN	CN	CN
Quantitation Factor		1	1	1	1	1
Diesel Range Organics (8015M)						
Mineral Spirits	ug/l	<100	<100	<100	<100	<100
Kerosene	ug/l	<100	<100	<100	<100	<100
Diesel	ug/l	<100	<100	<100	<100	<100
Fuel Oil	ug/l	<100	<100	<100	<100	<100
Motor oil (10W-40)	ug/l	<100	<100	<100	<100	<100
Hydraulic Fluid Hydrocarbons	ug/l	<100	<100	<100	<100	<100
Unknown Hydrocarbon	ug/l	<100	<100	<100	<100	<100
Surrogate - o-Terphenyl *	%	116 %	122 %	119 %	116 %	121 %
Dilution Factor		1	1	1	1	1
Prep Date		09/30/03	09/30/03	09/30/03	09/30/03	09/30/03
Prep Time		09:00	09:00	09:00	09:00	09:00
Analysis Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Analysis Time		08:32	09:17	09:35	09:53	10:12
Batch ID		FPW207	FPW207	FPW207	FPW207	FPW207
Prep Method		3520C	3520C	3520C	3520C	3520C
Analyst		IE	IE	IE	IE	IE
Quantitation Factor		1.0	1.0	1.0	1.0	1.0

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09769-11	SWH2020030926-2	Liquid	09/27/03	09/26/03 09:15	EPC05
09769-12	SWH2020030926-3	Liquid	09/27/03	09/26/03 10:15	EPC05
09769-13	SWH2020030926-4	Liquid	09/27/03	09/26/03 11:00	EPC05
09769-14	SWDUPLICATE-1	Liquid	09/27/03	09/26/03	EPC05
09769-15	SWH2020030926-6	Liquid	09/27/03	09/26/03 12:55	EPC05

Parameter	Units	Lab Sample IDs 09769-11	09769-12	09769-13	09769-14	09769-15
Semivolatile Organic Compounds (8270C)						
Benzoic acid	ug/l	<50	<100	<50	<50	<50
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	ug/l	<10	<20	<10	<10	<10
2-Chlorophenol	ug/l	<10	<20	<10	<10	<10
2,4-Dichlorophenol	ug/l	<10	<20	<10	<10	<10
2,6-Dichlorophenol	ug/l	<10	<20	<10	<10	<10
2,4-Dimethylphenol	ug/l	<10	<20	<10	<10	<10
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	ug/l	<50	<100	<50	<50	<50
2,4-Dinitrophenol	ug/l	<50	<100	<50	<50	<50
2-Methylphenol (o-Cresol)	ug/l	<10	<20	<10	<10	<10
3-Methylphenol/4-Methylphenol (m&p-Cresol)	ug/l	<10	<20	<10	<10	<10
[illegible]trophenol (o-Nitrophenol)	ug/l	<10	<20	<10	<10	<10
[illegible]trophenol (p-Nitrophenol)	ug/l	<50	<100	<50	<50	<50
Pentachlorophenol	ug/l	<50	<100	<50	<50	<50
Phenol	ug/l	<10	<20	<10	<10	<10
2,3,4,6-Tetrachlorophenol	ug/l	<10	<20	<10	<10	<10
2,4,5-Trichlorophenol	ug/l	<50	<100	<50	<50	<50
2,4,6-Trichlorophenol	ug/l	<10	<20	<10	<10	<10
Acenaphthene	ug/l	<10	<20	<10	<10	<10
Acenaphthylene	ug/l	<10	<20	<10	<10	<10
Acetophenone	ug/l	<10	<20	<10	<10	<10
4-Aminobiphenyl	ug/l	<10	<20	<10	<10	<10
Aniline	ug/l	<10	<20	<10	<10	<10
Anthracene	ug/l	<10	<20	<10	<10	<10
Benzidine	ug/l	<50	<100	<50	<50	<50
Benzo(a)anthracene	ug/l	<10	<20	<10	<10	<10
Benzo(b)fluoranthene	ug/l	<10	<20	<10	<10	<10
Benzo(k)fluoranthene	ug/l	<10	<20	<10	<10	<10
Benzo(g,h,i)perylene	ug/l	<10	<20	<10	<10	<10
Benzo(a)pyrene	ug/l	<10	<20	<10	<10	<10

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09769-11	SWH2020030926-2	Liquid	09/27/03	09/26/03 09:15	EPC05
09769-12	SWH2020030926-3	Liquid	09/27/03	09/26/03 10:15	EPC05
09769-13	SWH2020030926-4	Liquid	09/27/03	09/26/03 11:00	EPC05
09769-14	SWDUPLICATE-1	Liquid	09/27/03	09/26/03	EPC05
09769-15	SWH2020030926-6	Liquid	09/27/03	09/26/03 12:55	EPC05

Parameter	Units	Lab Sample IDs 09769-11	09769-12	09769-13	09769-14	09769-15
Semivolatile Organic Compounds (8270C)						
Benzyl alcohol	ug/l	<10	<20	<10	<10	<10
4-Bromophenylphenyl ether	ug/l	<10	<20	<10	<10	<10
Butylbenzylphthalate	ug/l	<10	<20	<10	<10	<10
Carbazole	ug/l	<10	<20	<10	<10	<10
4-Chloroaniline (p-Chloroaniline)	ug/l	<10	<20	<10	<10	<10
bis(2-Chloroethoxy)methane	ug/l	<10	<20	<10	<10	<10
bis(2-Chloroethyl)ether	ug/l	<10	<20	<10	<10	<10
bis(2-Chloroisopropyl) ether	ug/l	<10	<20	<10	<10	<10
1-Chloronaphthalene	ug/l	<10	<20	<10	<10	<10
2-Chloronaphthalene	ug/l	<10	<20	<10	<10	<10
4-Chlorophenylphenyl ether	ug/l	<10	<20	<10	<10	<10
Chrysene	ug/l	<10	<20	<10	<10	<10
Dibenz(a,j)acridine	ug/l	<10	<20	<10	<10	<10
Dibenzo(a,h)anthracene	ug/l	<10	<20	<10	<10	<10
Dibenzofuran	ug/l	<10	<20	<10	<10	<10
Di-n-butylphthalate	ug/l	<10	<20	<10	<10	<10
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/l	<10	<20	<10	<10	<10
1,3-Dichlorobenzene (m-Dichlorobenzene)	ug/l	<10	<20	<10	<10	<10
1,4-Dichlorobenzene (p-Dichlorobenzene)	ug/l	<10	<20	<10	<10	<10
3,3'-Dichlorobenzidine	ug/l	<50	<100	<50	<50	<50
Diethylene Glycol Monobutyl Ether	ug/l	<10	<20	<10	<10	<10
Diethylphthalate	ug/l	<10	<20	<10	<10	<10
p-(Dimethylamino)azobenzene	ug/l	<10	<20	<10	<10	<10
7,12-Dimethylbenz(a)anthracene	ug/l	<10	<20	<10	<10	<10
alpha,alpha-Dimethylphenethylamine	ug/l	<10	<20	<10	<10	<10
Dimethylphthalate	ug/l	<10	<20	<10	<10	<10

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09769-11	SWH2020030926-2	Liquid	09/27/03	09/26/03 09:15	EPC05
09769-12	SWH2020030926-3	Liquid	09/27/03	09/26/03 10:15	EPC05
09769-13	SWH2020030926-4	Liquid	09/27/03	09/26/03 11:00	EPC05
09769-14	SWDUPLICATE-1	Liquid	09/27/03	09/26/03	EPC05
09769-15	SWH2020030926-6	Liquid	09/27/03	09/26/03 12:55	EPC05

Parameter	Units	Lab Sample IDs 09769-11	09769-12	09769-13	09769-14	09769-15
Semivolatile Organic Compounds (8270C)						
2,4-Dinitrotoluene	ug/l	<10	<20	<10	<10	<10
2,6-Dinitrotoluene	ug/l	<10	<20	<10	<10	<10
Di-n-octylphthalate	ug/l	<10	<20	<10	<10	<10
1,2-Diphenylhydrazine	ug/l	<10	<20	<10	<10	<10
bis(2-Ethylhexyl)phthalate	ug/l	<10	<20	<10	<10	<10
Ethyl methanesulfonate	ug/l	<10	<20	<10	<10	<10
Fluoranthene	ug/l	<10	<20	<10	<10	<10
Fluorene	ug/l	<10	<20	<10	<10	<10
Hexachlorobenzene	ug/l	<10	<20	<10	<10	<10
Hexachlorobutadiene	ug/l	<10	<20	<10	<10	<10
Hexachlorocyclopentadiene	ug/l	<10	<20	<10	<10	<10
Hexachloroethane	ug/l	<10	<20	<10	<10	<10
Indeno(1,2,3-cd)pyrene	ug/l	<10	<20	<10	<10	<10
[illegible]orone	ug/l	<10	<20	<10	<10	<10
[illegible]chylcholanthrene	ug/l	<10	<20	<10	<10	<10
Methyl methanesulfonate	ug/l	<10	<20	<10	<10	<10
1-Methylnaphthalene	ug/l	<10	<20	<10	<10	<10
2-Methylnaphthalene	ug/l	<10	<20	<10	<10	<10
Naphthalene	ug/l	<10	<20	<10	<10	<10
1-Naphthylamine	ug/l	<10	<20	<10	<10	<10
2-Naphthylamine	ug/l	<10	<20	<10	<10	<10
2-Nitroaniline (o-Nitroaniline)	ug/l	<10	<20	<10	<10	<10
3-Nitroaniline (m-Nitroaniline)	ug/l	<10	<20	<10	<10	<10
4-Nitroaniline (p-Nitroaniline)	ug/l	<10	<20	<10	<10	<10
Nitrobenzene	ug/l	<10	<20	<10	<10	<10
N-Nitrosodi-n-butylamine	ug/l	<10	<20	<10	<10	<10
N-Nitrosodimethylamine	ug/l	<10	<20	<10	<10	<10
N-Nitrosodiphenylamine	ug/l	<10	<20	<10	<10	<10
n-Nitrosodi-n-propylamine	ug/l	<10	<20	<10	<10	<10

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09769-11	SWH2020030926-2	Liquid	09/27/03	09/26/03 09:15	EPC05
09769-12	SWH2020030926-3	Liquid	09/27/03	09/26/03 10:15	EPC05
09769-13	SWH2020030926-4	Liquid	09/27/03	09/26/03 11:00	EPC05
09769-14	SWDUPLICATE-1	Liquid	09/27/03	09/26/03	EPC05
09769-15	SWH2020030926-6	Liquid	09/27/03	09/26/03 12:55	EPC05

Parameter	Units	Lab Sample IDs 09769-11	09769-12	09769-13	09769-14	09769-15
Semivolatile Organic Compounds (8270C)						
N-Nitrosopiperidine	ug/l	<10	<20	<10	<10	<10
Pentachlorobenzene	ug/l	<10	<20	<10	<10	<10
Pentachloronitrobenzene	ug/l	<10	<20	<10	<10	<10
Phenacetin	ug/l	<10	<20	<10	<10	<10
Phenanthrene	ug/l	<10	<20	<10	<10	<10
2-Picoline	ug/l	<10	<20	<10	<10	<10
Pronamide	ug/l	<10	<20	<10	<10	<10
Pyrene	ug/l	<10	<20	<10	<10	<10
Pyridine	ug/l	<10	<20	<10	<10	<10
1,2,4,5-Tetrachlorobenzene	ug/l	<10	<20	<10	<10	<10
1,2,4-Trichlorobenzene	ug/l	<10	<20	<10	<10	<10
Surrogate - 2-Fluorobiphenyl *	%	54 %	55 %	51 %	59 %	64 %
Surrogate - 2-Fluorophenol *	%	43 %	29 %	40 %	41 %	49 %
Surrogate - Nitrobenzene - d5 *	%	52 %	51 %	50 %	54 %	59 %
Surrogate - Phenol-d5 *	%	42 %	9 %	38 %	42 %	47 %
Surrogate - Terphenyl-d14 *	%	67 %	89 %	83 %	85 %	84 %
Surrogate - 2,4,6-Tribromophenol *	%	57 %	60 %	63 %	79 %	75 %
Dilution Factor		1	2	1	1	1
Prep Date		09/30/03	09/30/03	09/30/03	09/30/03	09/30/03
Prep Time		13:30	13:30	13:30	13:30	13:30
Analysis Date		10/02/03	10/02/03	10/03/03	10/03/03	10/03/03
Analysis Time		22:00	22:38	06:23	07:01	07:39
Batch ID		ALW160	ALW160	ALW160	ALW160	ALW160
Prep Method		3520C	3520C	3520C	3520C	3520C
Analyst		RDW	RDW	RDW	RDW	RDW
Quantitation Factor		1	2	1	1	1

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09769-11	SWH2020030926-2	Liquid	09/27/03	09/26/03 09:15	EPC05
09769-12	SWH2020030926-3	Liquid	09/27/03	09/26/03 10:15	EPC05
09769-13	SWH2020030926-4	Liquid	09/27/03	09/26/03 11:00	EPC05
09769-14	SWDUPLICATE-1	Liquid	09/27/03	09/26/03	EPC05
09769-15	SWH2020030926-6	Liquid	09/27/03	09/26/03 12:55	EPC05

Parameter	Units	Lab Sample IDs 09769-11	09769-12	09769-13	09769-14	09769-15
Volatile Organic Compounds (8260B)						
Chloromethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Bromomethane (Methyl bromide)	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl chloride	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Methylene chloride (Dichloromethane)	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Acetone	ug/l	<25	<25	<25	<25	<25
Carbon disulfide	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Cis/Trans-1,2-Dichloroethene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
[illegible]ichloroethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
[illegible]canone (MEK)	ug/l	<25	<25	<25	<25	<25
1,1,1-Trichloroethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Carbon tetrachloride	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl acetate	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Bromodichloromethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloropropane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Dibromochloromethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Benzene	ug/l	2.3	<1.0	<1.0	<1.0	0.34J
trans-1,3-Dichloropropene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Bromoform	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
4-Methyl-2-pentanone (MIBK)	ug/l	<25	<25	<25	<25	<25
2-Hexanone	ug/l	<25	<25	<25	<25	<25
Tetrachloroethene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09769-11	SWH2020030926-2	Liquid	09/27/03	09/26/03 09:15	EPC05
09769-12	SWH2020030926-3	Liquid	09/27/03	09/26/03 10:15	EPC05
09769-13	SWH2020030926-4	Liquid	09/27/03	09/26/03 11:00	EPC05
09769-14	SWDUPLICATE-1	Liquid	09/27/03	09/26/03	EPC05
09769-15	SWH2020030926-6	Liquid	09/27/03	09/26/03 12:55	EPC05

Parameter	Units	Lab Sample IDs 09769-11	09769-12	09769-13	09769-14	09769-15
Volatile Organic Compounds (8260B)						
Chlorobenzene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	ug/l	0.38J	<5.0	<5.0	<5.0	<5.0
Styrene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Xylenes, Total	ug/l	0.86J	<10	<10	<10	<10
Surrogate - Dibromofluoromethane *	%	101 %	101 %	102 %	103 %	103 %
Surrogate - Toluene-d8 *	%	95 %	94 %	95 %	95 %	96 %
Surrogate - 4-Bromofluorobenzene *	%	95 %	96 %	96 %	96 %	96 %
Dilution Factor		1	1	1	1	1
Prep Date		10/02/03	10/02/03	10/02/03	10/02/03	10/02/03
Prep Time		17:25	17:58	18:32	19:05	19:38
Analysis Date		10/02/03	10/02/03	10/02/03	10/02/03	10/02/03
Analysis Time		17:25	17:58	18:32	19:05	19:38
Batch ID		TAW174	TAW174	TAW174	TAW174	TAW174
Prep Method		5030B	5030B	5030B	5030B	5030B
Analyst		GRH	GRH	GRH	GRH	GRH
Quantitation Factor		1.00	1.00	1.00	1.00	1.00

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09769-16	SWH2020030926-7	Liquid	09/27/03	09/26/03 13:25	EPC05
09769-17	SWH2020030926-8	Liquid	09/27/03	09/26/03 14:30	EPC05
09769-18	SWDUPLICATE-2	Liquid	09/27/03	09/26/03	EPC05
09769-19	EQUIPBLANK-3	Liquid	09/27/03	09/25/03 17:00	EPC05
09769-20	SWEQUIPBLANK-1	Liquid	09/27/03	09/26/03 11:20	EPC05

Parameter	Units	Lab Sample IDs 09769-16	09769-17	09769-18	09769-19	09769-20
Metals (6010B)						
Antimony	mg/l	<0.10	0.0040J	0.0050J	<0.10	0.0060J
Arsenic	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
Barium	mg/l	0.21	0.18	0.18	<0.020	<0.020
Beryllium	mg/l	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060
Cadmium	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
Chromium	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	mg/l	0.0020J	0.0010J	0.0010J	<0.020	<0.020
Lead	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
Nickel	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
Selenium	mg/l	<0.020	<0.020	0.0040J	0.0040J	<0.020
Silver	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
Thallium	mg/l	<0.020	<0.020	<0.020	<0.020	<0.020
Zinc	mg/l	0.0090J	<0.040	<0.040	<0.040	<0.040
Dilution Factor		1	1	1	1	1
Prep Date		10/04/03	10/04/03	10/04/03	10/04/03	10/04/03
Prep Time		15:00	15:00	15:00	15:00	15:00
Analysis Date		10/07/03	10/07/03	10/07/03	10/07/03	10/07/03
Analysis Time		17:07	17:13	17:18	17:35	17:40
Batch ID		PW364	PW364	PW364	PW364	PW364
Prep Method		3010A	3010A	3010A	3010A	3010A
Analyst		GSP	GSP	GSP	GSP	GSP
Quantitation Factor		1.000	1.000	1.000	1.000	1.000
Mercury (7470A)						
Mercury	mg/l	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dilution Factor		1	1	1	1	1
Prep Date		10/06/03	10/06/03	10/06/03	10/06/03	10/06/03
Prep Time		10:20	10:20	10:20	10:20	10:20
Analysis Date		10/06/03	10/06/03	10/06/03	10/06/03	10/06/03
Analysis Time		12:09	12:11	12:13	12:14	12:16
Batch ID		HGW107	HGW107	HGW107	HGW107	HGW107
Prep Method		7470A	7470A	7470A	7470A	7470A
Analyst		JDE	JDE	JDE	JDE	JDE
Quantitation Factor		1	1	1	1	1

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09769-16	SWH2020030926-7	Liquid	09/27/03	09/26/03 13:25	EPC05
09769-17	SWH2020030926-8	Liquid	09/27/03	09/26/03 14:30	EPC05
09769-18	SWDUPLICATE-2	Liquid	09/27/03	09/26/03	EPC05
09769-19	EQUIPBLANK-3	Liquid	09/27/03	09/25/03 17:00	EPC05
09769-20	SWEQUIPBLANK-1	Liquid	09/27/03	09/26/03 11:20	EPC05

Parameter	Units	Lab Sample IDs 09769-16	09769-17	09769-18	09769-19	09769-20
Gasoline Range Organics (8015M)						
Hydrocarbons as GRO (C6-C10)	ug/l	<100	<100	<100	<100	41J
Surrogate - a,a,a-Trifluorotoluene *	%	110 %	108 %	99 %	100 %	98 %
Dilution Factor		1	1	1	1	1
Prep Date		10/08/03	10/08/03	10/08/03	10/08/03	10/08/03
Prep Time		04:19	05:12	18:50	19:52	20:55
Analysis Date		10/08/03	10/08/03	10/08/03	10/08/03	10/08/03
Analysis Time		04:19	05:12	18:50	19:52	20:55
Batch ID		ETW108C	ETW108C	CAW105D	CAW105D	CAW105D
Prep Method		5030B	5030B	5030B	5030B	5030B
Analyst		CN	CN	CN	CN	CN
Quantitation Factor		1	1	1	1	1
Diesel Range Organics (8015M)						
Mineral Spirits	ug/l	<100	<100	<100	<100	<100
Kerosene	ug/l	<100	<100	<100	<100	<100
Diesel	ug/l	<100	<100	<100	<100	<100
Fuel Oil	ug/l	<100	<100	<100	<100	<100
Motor oil (10W-40)	ug/l	<100	<100	<100	<100	<100
Hydraulic Fluid Hydrocarbons	ug/l	<100	<100	<100	<100	<100
Unknown Hydrocarbon	ug/l	360	<100	<100	<100	<100
Surrogate - o-Terphenyl *	%	106 %	116 %	122 %	124 %	126 %
Dilution Factor		1	1	1	1	1
Prep Date		09/30/03	09/30/03	09/30/03	09/30/03	09/30/03
Prep Time		09:00	09:00	09:00	09:00	09:00
Analysis Date		10/01/03	10/01/03	10/01/03	10/01/03	10/01/03
Analysis Time		10:30	10:49	11:07	11:25	12:03
Batch ID		FPW207	FPW207	FPW207	FPW207	FPW207
Prep Method		3520C	3520C	3520C	3520C	3520C
Analyst		IE	IE	IE	IE	IE
Quantitation Factor		1.0	1.0	1.0	1.0	1.0

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
9-16	SWH2020030926-7	Liquid	09/27/03	09/26/03 13:25	EPC05
09769-17	SWH2020030926-8	Liquid	09/27/03	09/26/03 14:30	EPC05
09769-18	SWDUPLICATE-2	Liquid	09/27/03	09/26/03	EPC05
09769-19	EQUIPBLANK-3	Liquid	09/27/03	09/25/03 17:00	EPC05
09769-20	SWEQUIPBLANK-1	Liquid	09/27/03	09/26/03 11:20	EPC05

Parameter	Units	Lab Sample IDs 09769-16	09769-17	09769-18	09769-19	09769-20
Semivolatile Organic Compounds (8270C)						
Benzoic acid	ug/l	<50	<50	<50	<50	<50
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	ug/l	<10	<10	<10	<10	<10
2-Chlorophenol	ug/l	<10	<10	<10	<10	<10
2,4-Dichlorophenol	ug/l	<10	<10	<10	<10	<10
2,6-Dichlorophenol	ug/l	<10	<10	<10	<10	<10
2,4-Dimethylphenol	ug/l	<10	<10	<10	<10	<10
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	ug/l	<50	<50	<50	<50	<50
2,4-Dinitrophenol	ug/l	<50	<50	<50	<50	<50
2-Methylphenol (o-Cresol)	ug/l	<10	<10	<10	<10	<10
3-Methylphenol/4-Methylphenol (m&p-Cresol)	ug/l	<10	<10	<10	<10	<10
trophenol (o-Nitrophenol)	ug/l	<10	<10	<10	<10	<10
trophenol (p-Nitrophenol)	ug/l	<50	<50	<50	<50	<50
Pentachlorophenol	ug/l	<50	<50	<50	<50	<50
Phenol	ug/l	<10	<10	<10	<10	<10
2,3,4,6-Tetrachlorophenol	ug/l	<10	<10	<10	<10	<10
2,4,5-Trichlorophenol	ug/l	<50	<50	<50	<50	<50
2,4,6-Trichlorophenol	ug/l	<10	<10	<10	<10	<10
Acenaphthene	ug/l	<10	<10	<10	<10	<10
Acenaphthylene	ug/l	<10	<10	<10	<10	<10
Acetophenone	ug/l	<10	<10	<10	<10	<10
4-Aminobiphenyl	ug/l	<10	<10	<10	<10	<10
Aniline	ug/l	<10	<10	<10	<10	<10
Anthracene	ug/l	<10	<10	<10	<10	<10
Benzidine	ug/l	<50	<50	<50	<50	<50
Benzo(a)anthracene	ug/l	<10	<10	<10	<10	<10
Benzo(b)fluoranthene	ug/l	<10	<10	<10	<10	<10
Benzo(k)fluoranthene	ug/l	<10	<10	<10	<10	<10
Benzo(g,h,i)perylene	ug/l	<10	<10	<10	<10	<10
Benzo(a)pyrene	ug/l	<10	<10	<10	<10	<10

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09769-16	SWH2020030926-7	Liquid	09/27/03	09/26/03 13:25	EPC05
09769-17	SWH2020030926-8	Liquid	09/27/03	09/26/03 14:30	EPC05
09769-18	SWDUPLICATE-2	Liquid	09/27/03	09/26/03	EPC05
09769-19	EQUIPBLANK-3	Liquid	09/27/03	09/25/03 17:00	EPC05
09769-20	SWEQUIPBLANK-1	Liquid	09/27/03	09/26/03 11:20	EPC05

Parameter	Units	Lab Sample IDs 09769-16	09769-17	09769-18	09769-19	09769-20
Semivolatile Organic Compounds (8270C)						
Benzyl alcohol	ug/l	<10	<10	<10	<10	<10
4-Bromophenylphenyl ether	ug/l	<10	<10	<10	<10	<10
Butylbenzylphthalate	ug/l	<10	<10	<10	<10	<10
Carbazole	ug/l	<10	<10	<10	<10	<10
4-Chloroaniline (p-Chloroaniline)	ug/l	<10	<10	<10	<10	<10
bis(2-Chloroethoxy)methane	ug/l	<10	<10	<10	<10	<10
bis(2-Chloroethyl)ether	ug/l	<10	<10	<10	<10	<10
bis(2-Chloroisopropyl) ether	ug/l	<10	<10	<10	<10	<10
1-Chloronaphthalene	ug/l	<10	<10	<10	<10	<10
2-Chloronaphthalene	ug/l	<10	<10	<10	<10	<10
4-Chlorophenylphenyl ether	ug/l	<10	<10	<10	<10	<10
Chrysene	ug/l	<10	<10	<10	<10	<10
Dibenz(a,j)acridine	ug/l	<10	<10	<10	<10	<10
Dibenzo(a,h)anthracene	ug/l	<10	<10	<10	<10	<10
Dibenzofuran	ug/l	<10	<10	<10	<10	<10
Di-n-butylphthalate	ug/l	<10	<10	<10	<10	<10
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/l	<10	<10	<10	<10	<10
1,3-Dichlorobenzene (m-Dichlorobenzene)	ug/l	<10	<10	<10	<10	<10
1,4-Dichlorobenzene (p-Dichlorobenzene)	ug/l	<10	<10	<10	<10	<10
3,3'-Dichlorobenzidine	ug/l	<50	<50	<50	<50	<50
Diethylene Glycol Monobutyl Ether	ug/l	<10	<10	<10	<10	<10
Diethylphthalate	ug/l	<10	<10	<10	<10	<10
p-(Dimethylamino)azobenzene	ug/l	<10	<10	<10	<10	<10
7,12-Dimethylbenz(a)anthracene	ug/l	<10	<10	<10	<10	<10
alpha,alpha-Dimethylphenethylamine	ug/l	<10	<10	<10	<10	<10
Dimethylphthalate	ug/l	<10	<10	<10	<10	<10

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09769-16	SWH2020030926-7	Liquid	09/27/03	09/26/03 13:25	EPC05
09769-17	SWH2020030926-8	Liquid	09/27/03	09/26/03 14:30	EPC05
09769-18	SWDUPLICATE-2	Liquid	09/27/03	09/26/03	EPC05
09769-19	EQUIPBLANK-3	Liquid	09/27/03	09/25/03 17:00	EPC05
09769-20	SWEQUIPBLANK-1	Liquid	09/27/03	09/26/03 11:20	EPC05

Parameter	Units	Lab Sample IDs 09769-16	09769-17	09769-18	09769-19	09769-20
Semivolatile Organic Compounds (8270C)						
2,4-Dinitrotoluene	ug/l	<10	<10	<10	<10	<10
2,6-Dinitrotoluene	ug/l	<10	<10	<10	<10	<10
Di-n-octylphthalate	ug/l	<10	<10	<10	<10	<10
1,2-Diphenylhydrazine	ug/l	<10	<10	<10	<10	<10
bis(2-Ethylhexyl)phthalate	ug/l	<10	1.3J	<10	<10	<10
Ethyl methanesulfonate	ug/l	<10	<10	<10	<10	<10
Fluoranthene	ug/l	<10	<10	<10	<10	<10
Fluorene	ug/l	<10	<10	<10	<10	<10
Hexachlorobenzene	ug/l	<10	<10	<10	<10	<10
Hexachlorobutadiene	ug/l	<10	<10	<10	<10	<10
Hexachlorocyclopentadiene	ug/l	<10	<10	<10	<10	<10
Hexachloroethane	ug/l	<10	<10	<10	<10	<10
Indeno(1,2,3-cd)pyrene	ug/l	<10	<10	<10	<10	<10
Isophorone	ug/l	<10	<10	<10	<10	<10
Methylcholanthrene	ug/l	<10	<10	<10	<10	<10
Methyl methanesulfonate	ug/l	<10	<10	<10	<10	<10
1-Methylnaphthalene	ug/l	<10	<10	<10	<10	<10
2-Methylnaphthalene	ug/l	<10	<10	<10	<10	<10
Naphthalene	ug/l	<10	<10	<10	<10	<10
1-Naphthylamine	ug/l	<10	<10	<10	<10	<10
2-Naphthylamine	ug/l	<10	<10	<10	<10	<10
2-Nitroaniline (o-Nitroaniline)	ug/l	<10	<10	<10	<10	<10
3-Nitroaniline (m-Nitroaniline)	ug/l	<10	<10	<10	<10	<10
4-Nitroaniline (p-Nitroaniline)	ug/l	<10	<10	<10	<10	<10
Nitrobenzene	ug/l	<10	<10	<10	<10	<10
N-Nitrosodi-n-butylamine	ug/l	<10	<10	<10	<10	<10
N-Nitrosodimethylamine	ug/l	<10	<10	<10	<10	<10
N-Nitrosodiphenylamine	ug/l	<10	<10	<10	<10	<10
n-Nitrosodi-n-propylamine	ug/l	<10	<10	<10	<10	<10

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09769-16	SWH2020030926-7	Liquid	09/27/03	09/26/03 13:25	EPC05
09769-17	SWH2020030926-8	Liquid	09/27/03	09/26/03 14:30	EPC05
09769-18	SWDUPLICATE-2	Liquid	09/27/03	09/26/03	EPC05
09769-19	EQUIPBLANK-3	Liquid	09/27/03	09/25/03 17:00	EPC05
09769-20	SWEQUIPBLANK-1	Liquid	09/27/03	09/26/03 11:20	EPC05

Parameter	Units	Lab Sample IDs 09769-16	09769-17	09769-18	09769-19	09769-20
Semivolatile Organic Compounds (8270C)						
N-Nitrosopiperidine	ug/l	<10	<10	<10	<10	<10
Pentachlorobenzene	ug/l	<10	<10	<10	<10	<10
Pentachloronitrobenzene	ug/l	<10	<10	<10	<10	<10
Phenacetin	ug/l	<10	<10	<10	<10	<10
Phenanthrene	ug/l	<10	<10	<10	<10	<10
2-Picoline	ug/l	<10	<10	<10	<10	<10
Pronamide	ug/l	<10	<10	<10	<10	<10
Pyrene	ug/l	<10	<10	<10	<10	<10
Pyridine	ug/l	<10	<10	<10	<10	<10
1,2,4,5-Tetrachlorobenzene	ug/l	<10	<10	<10	<10	<10
1,2,4-Trichlorobenzene	ug/l	<10	<10	<10	<10	<10
Surrogate - 2-Fluorobiphenyl *	%	78 %	60 %	52 %	53 %	46 %*
Surrogate - 2-Fluorophenol *	%	36 %	45 %	35 %	43 %	38 %
Surrogate - Nitrobenzene - d5 *	%	76 %	55 %	46 %	51 %	47 %
Surrogate - Phenol-d5 *	%	45 %	48 %	39 %	43 %	38 %
Surrogate - Terphenyl-d14 *	%	88 %	87 %	85 %	95 %	78 %
Surrogate - 2,4,6-Tribromophenol *	%	73 %	75 %	72 %	55 %	44 %
Dilution Factor		1	1	1	1	1
Prep Date		09/30/03	09/30/03	09/30/03	09/30/03	09/30/03
Prep Time		13:30	13:30	13:30	13:30	13:30
Analysis Date		10/03/03	10/03/03	10/03/03	10/03/03	10/03/03
Analysis Time		08:17	08:55	09:33	10:11	10:48
Batch ID		ALW160	ALW160	ALW160	ALW160	ALW160
Prep Method		3520C	3520C	3520C	3520C	3520C
Analyst		RDW	RDW	RDW	RDW	RDW
Quantitation Factor		1	1	1	1	1

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09769-16	SWH2020030926-7	Liquid	09/27/03	09/26/03 13:25	EPC05
09769-17	SWH2020030926-8	Liquid	09/27/03	09/26/03 14:30	EPC05
09769-18	SWDUPLICATE-2	Liquid	09/27/03	09/26/03	EPC05
09769-19	EQUIPBLANK-3	Liquid	09/27/03	09/25/03 17:00	EPC05
09769-20	SWEQUIPBLANK-1	Liquid	09/27/03	09/26/03 11:20	EPC05

Parameter	Units	Lab Sample IDs 09769-16	09769-17	09769-18	09769-19	09769-20
Volatile Organic Compounds (8260B)						
Chloromethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Bromomethane (Methyl bromide)	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl chloride	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Methylene chloride (Dichloromethane)	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Acetone	ug/l	<25	<25	<25	<25	<25
Carbon disulfide	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Cis/Trans-1,2-Dichloroethene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
2-Butanone (MEK)	ug/l	<25	<25	<25	<25	<25
1,1,1-Trichloroethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Carbon tetrachloride	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl acetate	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Bromodichloromethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloropropane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Dibromochloromethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Benzene	ug/l	0.21J	0.23J	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Bromoform	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
4-Methyl-2-pentanone (MIBK)	ug/l	<25	<25	<25	<25	<25
2-Hexanone	ug/l	<25	<25	<25	<25	<25
Tetrachloroethene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09769-16	SWH2020030926-7	Liquid	09/27/03	09/26/03 13:25	EPC05
09769-17	SWH2020030926-8	Liquid	09/27/03	09/26/03 14:30	EPC05
09769-18	SWDUPLICATE-2	Liquid	09/27/03	09/26/03	EPC05
09769-19	EQUIPBLANK-3	Liquid	09/27/03	09/25/03 17:00	EPC05
09769-20	SWEQUIPBLANK-1	Liquid	09/27/03	09/26/03 11:20	EPC05

Parameter	Units	Lab Sample IDs 09769-16	09769-17	09769-18	09769-19	09769-20
Volatile Organic Compounds (8260B)						
Chlorobenzene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Styrene	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Xylenes, Total	ug/l	<10	0.44J	<10	<10	<10
Surrogate - Dibromofluoromethane *	%	102 %	104 %	101 %	104 %	103 %
Surrogate - Toluene-d8 *	%	95 %	95 %	95 %	95 %	95 %
Surrogate - 4-Bromofluorobenzene *	%	95 %	96 %	96 %	95 %	96 %
Dilution Factor		1	1	1	1	1
Prep Date		10/02/03	10/02/03	10/02/03	10/02/03	10/02/03
Prep Time		20:11	20:44	21:18	21:51	22:24
Analysis Date		10/02/03	10/02/03	10/02/03	10/02/03	10/02/03
Analysis Time		20:11	20:44	21:18	21:51	22:24
Batch ID		TAW174	TAW174	TAW174	TAW174	TAW174
Prep Method		5030B	5030B	5030B	5030B	5030B
Analyst		GRH	GRH	GRH	GRH	GRH
Quantitation Factor		1.00	1.00	1.00	1.00	1.00

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
[illegible]9-21	Trip Blank	Liquid	09/27/03	09/26/03	EPC05

Parameter	Units	Lab Sample IDs 09769-21
Gasoline Range Organics (8015M)		
Hydrocarbons as GRO (C6-C10)	ug/l	<100
Surrogate -		
a,a,a-Trifluorotoluene *	%	98 %
Dilution Factor		1
Prep Date		10/08/03
Prep Time		21:58
Analysis Date		10/08/03
Analysis Time		21:58
Batch ID		CAW105D
Prep Method		5030B
Analyst		CN
Quantitation Factor		1
Volatile Organic Compounds (8260B)		
Chloromethane	ug/l	<5.0
Bromomethane (Methyl bromide)	ug/l	<5.0
[illegible]l chloride	ug/l	<5.0
[illegible]oethane	ug/l	<5.0
Methylene chloride (Dichloromethane)	ug/l	<5.0
Acetone	ug/l	<25
Carbon disulfide	ug/l	<5.0
1,1-Dichloroethene	ug/l	<5.0
1,1-Dichloroethane	ug/l	<5.0
Cis/Trans-1,2-Dichloroethene	ug/l	<5.0
cis-1,2-Dichloroethene	ug/l	<5.0
Chloroform	ug/l	<5.0
1,2-Dichloroethane	ug/l	<5.0
2-Butanone (MEK)	ug/l	<25
1,1,1-Trichloroethane	ug/l	<5.0
Carbon tetrachloride	ug/l	<5.0
Vinyl acetate	ug/l	<5.0
Bromodichloromethane	ug/l	<5.0
1,2-Dichloropropane	ug/l	<5.0
cis-1,3-Dichloropropene	ug/l	<5.0

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09769-21	Trip Blank	Liquid	09/27/03	09/26/03	EPC05

Parameter	Units	Lab Sample IDs 09769-21
Volatile Organic Compounds (8260B)		
Trichloroethene	ug/l	<5.0
Dibromochloromethane	ug/l	<5.0
1,1,2-Trichloroethane	ug/l	<5.0
Benzene	ug/l	<1.0
trans-1,3-Dichloropropene	ug/l	<5.0
Bromoform	ug/l	<5.0
4-Methyl-2-pentanone (MIBK)	ug/l	<25
2-Hexanone	ug/l	<25
Tetrachloroethene	ug/l	<5.0
1,1,2,2-Tetrachloroethane	ug/l	<5.0
Toluene	ug/l	<5.0
Chlorobenzene	ug/l	<5.0
Ethylbenzene	ug/l	<5.0
Styrene	ug/l	<5.0
Xylenes, Total	ug/l	<10
Surrogate - Dibromofluoromethane *	%	103 %
Surrogate - Toluene-d8 *	%	94 %
Surrogate - 4-Bromofluorobenzene *	%	95 %
Dilution Factor		1
Prep Date		10/02/03
Prep Time		22:57
Analysis Date		10/02/03
Analysis Time		22:57
Batch ID		TAW174
Prep Method		5030B
Analyst		GRH
Quantitation Factor		1.00

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager signed this test report.

Chain of Custody Record

STL4124-400 (12/02)

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

EL PASO-EL DORADO SDG#C30

Client	Project Manager	Date	Chain of Custody Number
			06441
Address	Telephone Number (Area Code)/Fax Number	Lab Number C309769	Page ____ of ____
City / State / Zip Code	Site Contact / Lab Contact		
Project Name and Location (State)	Carrier/Waybill Number		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil		Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH		METALS	TPH-G	TPH-E	VOCS	SVOCS	Special Instructions/ Conditions of Receipt
SWSOIL20030926-1-0.5	9/26/03	9:15				X								X	X	X	X	X	X	1
SWSOIL20030926-2-0.5	↓	9:20				X								X	↓	↓	↓	↓	↓	2
SWH2O20030926-2	↓	9:15		X						X	X			X	↓	↓	↓	↓	↓	11
SWSOIL20030926-3-0.5	↓	10:20				X								X	↓	↓	↓	↓	↓	3
SWH2O20030926-3	↓	10:15		X						X	X			X	↓	↓	↓	↓	↓	12
SWSOIL20030926-4-0.5	↓	11:05				X								X	↓	↓	↓	↓	↓	4
SWH2O20030926-4	↓	11:00		X						X	X			X	↓	↓	↓	↓	↓	13
SWDUPLICATE-1	↓	—				X								X	↓	↓	↓	↓	↓	5
SWDUPLICATE-1	↓	—		X						X	X			X	↓	↓	↓	↓	↓	14

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Todd S. [illegible]	9/26/03	5:05	1. Received By: UPS	9/26/03	5:10
2. Relinquished By			2. Received By: Mark Swafford	9/27/03	1025
3. Relinquished By			3. Received By		

Comments
SAM — BILLING FOR EL DORADO REFINERY

DISTRIBUTI[illegible] WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Cop[illegible]

543

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

SF-4124-400 (12/02)

Client	Project Manager	Date	Chain of Custody Number
			06400
Address	Telephone Number (Area Code)/Fax Number	Lab Number	Page _____ of _____
		C309769	

City | State | Zip Code | Site Contact | Lab Contact

Project Name and Location (State) | Carrier/Waybill Number

Contract/Purchase Order/Quote No.

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil		Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	NA	METALS	TPH-G	TPH-E	VOCS	SVOCS								Special Instructions/ Conditions of Receipt
SWSOIL20030926-5-0.5	9/26/03	12:30				X				~~X~~	~~X~~			X	X	X	X	X	X								6
SWSOIL20030926-6-0.5		1:00				X								X													7
SWH2O20030926-6		12:55		X						X	X			X													15
SWSOIL20030926-7-0.5		1:30				X								X													8
SWH2O20030926-7		1:25		X						X	X			X													16
SWSOIL20030926-8-0.5		2:40				X								X													9
SWH2O20030926-8		2:30		X						X	X			X													17
SWDUPLICATE-2		—				X								X													10
SWDUPLKATE-2		—		X						X	X			X													18

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other_____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Todd S. Glenn	9/26/03		1. Received By: UPS	9/26/03	5:05
2. Relinquished By			2. Received By: Max Swaffar	9/27/03	1025
3. Relinquished By			3. Received By		

Comments
SAMPLES IN COOLERS B1 + B2 / SAME BILLING FOR EL DORADO REFINERY

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

EL PASO-EL DORADO SDG#C30

EL PASO-EL DORADO SDG#C30

344

Chain of Custody Record

STE4124-400 (12/02)

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

Client	Project Manager	Date	Chain of Custody Number
			06399
Address	Telephone Number (Area Code)/Fax Number	Lab Number	Page ____ of ____
		C309769	

City	State	Zip Code	Site Contact	Lab Contact

Project Name and Location (State)	Carrier/Waybill Number

Contract/Purchase Order/Quote No.

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil		Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	NONE	METALS	TPH-G	TPH-E	VOCS	SVOCS							Special Instructions/ Conditions of Receipt
EQUIPBLANK-3	9/25/03	5:00		X						X	X			X	X	X	X	X	X							~~15~~ 19
EQUIPBLANK-1	9/26/03	11:20		X						X	X			X	X	X	X	X	X							~~16~~ 20

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Todd S. Glendine	9/26/03		1. Received By: UPS	9/26/03	5:05
2. Relinquished By			2. Received By: Mark Swiffen	9/27/03	1025
3. Relinquished By			3. Received By		

Comments
SAMPLES IN COOLERS B1 + B2 / SAME BILLING FOR ELDORADO REFINERY

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

EL PASO-EL DORADO SDG#C30EPC05

EL PASO-EL DORADO SDG#C30

45

SEVERN TRENT STL

STL Pensacola 3355 McLemore Drive - Pensacola FL 32514 Telephone:(850) 474-1001 Fax:(850) 478-2671

Analytical Report

For: Mr. Chris Miller
El Paso Energy Corporation
P.O. Box 2511
Houston, TX 77252-2511
CC: Bob Norris (Shaw, KS)

Order Number: C309811
SDG Number: EPC06
Client Project ID:
Project: EL PASO-EL DORADO REFINERY
Report Date: 10/30/2003
Sampled By: Client
Sample Received Date: 09/30/2003
Requisition Number:
Purchase Order: C-STL1-ELDORADO-001

Melissa L Pope

Melissa L. Pope, Project Manager
mpope@stl-inc.com

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Sample Summary

Order: C309811
Date Received: 09/30/2003

Client: El Paso Energy Corporation
Project: EL PASO-EL DORADO REFINERY

Client Sample ID	Lab Sample ID	Matrix	Date Sampled
SWSOIL20030928-9-0.5	C309811*1	Solid	09/28/2003 08:45
SWSOIL20030928-10-0.5	C309811*2	Solid	09/28/2003 09:40
SWSOIL20030928-11-0.5	C309811*3	Solid	09/28/2003 10:40
SWH2O20030928-9	C309811*4	Liquid	09/28/2003 08:35
SWH2O20030928-10	C309811*5	Liquid	09/28/2003 09:30
SWH2O20030928-11	C309811*6	Liquid	09/28/2003 10:30
SWEQUIPBLANK-2	C309811*7	Liquid	09/29/2003 14:20
Trip Blank	C309811*8	Liquid	09/29/2003

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09811-1	SWSOIL20030928-9-0.5	Solid	09/30/03	09/28/03 08:45	EPC06
09811-2	SWSOIL20030928-10-0.5	Solid	09/30/03	09/28/03 09:40	EPC06
09811-3	SWSOIL20030928-11-0.5	Solid	09/30/03	09/28/03 10:40	EPC06

Parameter	Units	Lab Sample IDs 09811-1	09811-2	09811-3
Metals (6010B)				
Antimony	mg/kg dw	<11	1.3J	3.5J
Arsenic	mg/kg dw	7.4	10	12
Barium	mg/kg dw	160B	210B	310B
Beryllium	mg/kg dw	0.92	1.2	1.2
Cadmium	mg/kg dw	0.35J	1.3J	1.3J
Chromium	mg/kg dw	19	66	250
Copper	mg/kg dw	11	66	1900
Lead	mg/kg dw	24	680	250
Nickel	mg/kg dw	16B	24B	25B
Selenium	mg/kg dw	<2.2	0.80J	2.6J
Silver	mg/kg dw	<1.1	<2.0	<1.4
Thallium	mg/kg dw	<2.2	<4.0	<2.8
Zinc	mg/kg dw	49	270	290
Percent Solids		78	48	39
Dilution Factor		1	1	1
Prep Date		10/03/03	10/03/03	10/03/03
Prep Time		18:20	18:20	18:20
Analysis Date		10/07/03	10/07/03	10/07/03
Analysis Time		20:43	20:48	20:54
Batch ID		PS202	PS202	PS202
Prep Method		3050B	3050B	3050B
Analyst		GSP	GSP	GSP
Quantitation Factor		108.6484	198.4127	138.6001
Mercury (7471A)				
Mercury	mg/kg dw	0.013	1.6	0.38
Percent Solids		78	48	39
Dilution Factor		1	5	1
Prep Date		10/06/03	10/06/03	10/06/03
Prep Time		14:25	14:25	14:25
Analysis Date		10/07/03	10/07/03	10/07/03
Analysis Time		14:46	15:03	14:53
Batch ID		HGS055	HGS055	HGS055
Prep Method		7471A	7471A	7471A
Analyst		JDE	JDE	JDE
Quantitation Factor		53.3846	417.0838	101.9160

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09811-1	SWSOIL20030928-9-0.5	Solid	09/30/03	09/28/03 08:45	EPC06
09811-2	SWSOIL20030928-10-0.5	Solid	09/30/03	09/28/03 09:40	EPC06
09811-3	SWSOIL20030928-11-0.5	Solid	09/30/03	09/28/03 10:40	EPC06

Parameter	Units	Lab Sample IDs 09811-1	09811-2	09811-3
Gasoline Range Organics (8015M)				
Hydrocarbons as GRO (C6-C10)	mg/kg dw	<6.4	1.1JB	10JB
Surrogate - a,a,a-Trifluorotoluene *	%	95 %	90 %	91 %
Percent Solids		78	48	39
Dilution Factor		50	50	50
Prep Date		10/06/03	10/06/03	10/06/03
Prep Time		15:45	15:45	15:45
Analysis Date		10/09/03	10/09/03	10/10/03
Analysis Time		16:15	17:18	19:46
Batch ID		EXT101A	EXT101A	EXT101A
Prep Method		5035/5030B	5035/5030B	5035/5030B
Analyst		CN	CN	CN
Quantitation Factor		64.1	104	128
Diesel Range Organics (8015M)				
Mineral Spirits	mg/kg dw	<3.2	<52	<310
Kerosene	mg/kg dw	<3.2	<52	<310
Diesel	mg/kg dw	<3.2	<52	<310
Fuel Oil	mg/kg dw	<3.2	<52	<310
Motor oil (10W-40)	mg/kg dw	<3.2	<52	<310
Hydraulic Fluid Hydrocarbons	mg/kg dw	<3.2	<52	<310
Unknown Hydrocarbon	mg/kg dw	27	250	5600
Surrogate - o-Terphenyl *	%	93 %	10 %D	17 %D
Percent Solids		78	48	39
Dilution Factor		1	10	50
Prep Date		10/02/03	10/02/03	10/02/03
Prep Time		09:20	09:20	09:20
Analysis Date		10/02/03	10/02/03	10/03/03
Analysis Time		20:39	20:58	15:28
Batch ID		FPS211	FPS211	FPS211
Prep Method		3550B	3550B	3550B
Analyst		IE	IE	IE
Quantitation Factor		1.3	21	125

EL PASO-EL DORADO SDG#C30EPC06

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09811-1	SWSOIL20030928-9-0.5	Solid	09/30/03	09/28/03 08:45	EPC06
09811-2	SWSOIL20030928-10-0.5	Solid	09/30/03	09/28/03 09:40	EPC06
09811-3	SWSOIL20030928-11-0.5	Solid	09/30/03	09/28/03 10:40	EPC06

Parameter	Units	Lab Sample IDs 09811-1	09811-2	09811-3
Semivolatile Organic Compounds (8270C)				
Benzoic acid	ug/kg dw	<2100	<1200	<12000
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	ug/kg dw	<420	<530	<5300
2-Chlorophenol	ug/kg dw	<420	<400	<3900
2,4-Dichlorophenol	ug/kg dw	<420	<470	<4600
2,6-Dichlorophenol	ug/kg dw	<420	<420	<4100
2,4-Dimethylphenol	ug/kg dw	<420	<830	<8200
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	ug/kg dw	<2100	<370	<3600
2,4-Dinitrophenol	ug/kg dw	<2100	<500	<4900
2-Methylphenol (o-Cresol)	ug/kg dw	<420	<450	<4400
3-Methylphenol/4-Methylphenol (m&p-Cresol)	ug/kg dw	<420	<440	<4300
2-Nitrophenol (o-Nitrophenol)	ug/kg dw	<420	<390	<3800
4-Nitrophenol (p-Nitrophenol)	ug/kg dw	<2100	<460	<4500
tachlorophenol	ug/kg dw	<2100	<490	<4800
enol	ug/kg dw	<420	<450	<4400
2,3,4,6-Tetrachlorophenol	ug/kg dw	<420	<430	<4200
2,4,5-Trichlorophenol	ug/kg dw	<2100	<410	<4000
2,4,6-Trichlorophenol	ug/kg dw	<420	<360	<3500
Acenaphthene	ug/kg dw	<420	<350	<3400
Acenaphthylene	ug/kg dw	<420	<460	<4500
Acetophenone	ug/kg dw	<420	<450	<4400
4-Aminobiphenyl	ug/kg dw	<420	<950	<9400
Aniline	ug/kg dw	<420	<1200	<12000
Anthracene	ug/kg dw	<420	<410	<4000
Benzidine	ug/kg dw	<2100	<9600	<94000
Benzo(a)anthracene	ug/kg dw	<420	<660	<6500
Benzo(b)fluoranthene	ug/kg dw	<420	1200J	<6800
Benzo(k)fluoranthene	ug/kg dw	<420	<830	<8200
Benzo(g,h,i)perylene	ug/kg dw	<420	760J	<5000
Benzo(a)pyrene	ug/kg dw	<420	860J	<6300
Benzyl alcohol	ug/kg dw	<420	<350	<3400
4-Bromophenylphenyl ether	ug/kg dw	<420	<450	<4400

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09811-1	SWSOIL20030928-9-0.5	Solid	09/30/03	09/28/03 08:45	EPC06
09811-2	SWSOIL20030928-10-0.5	Solid	09/30/03	09/28/03 09:40	EPC06
09811-3	SWSOIL20030928-11-0.5	Solid	09/30/03	09/28/03 10:40	EPC06

Parameter	Units	Lab Sample IDs 09811-1	09811-2	09811-3
Semivolatile Organic Compounds (8270C)				
Butylbenzylphthalate	ug/kg dw	<420	<690	<6800
Carbazole	ug/kg dw	<420	<550	<5500
4-Chloroaniline (p-Chloroaniline)	ug/kg dw	<420	<530	<5300
bis(2-Chloroethoxy)methane	ug/kg dw	<420	<350	<3400
bis(2-Chloroethyl)ether	ug/kg dw	<420	<450	<4400
bis(2-Chloroisopropyl) ether	ug/kg dw	<420	<520	<5200
1-Chloronaphthalene	ug/kg dw	<420	<390	<3800
2-Chloronaphthalene	ug/kg dw	<420	<490	<4800
4-Chlorophenylphenyl ether	ug/kg dw	<420	<470	<4600
Chrysene	ug/kg dw	<420	1000J	10000J
Dibenz(a,j)acridine	ug/kg dw	<420	<780	<7700
Dibenzo(a,h)anthracene	ug/kg dw	<420	<370	<3600
Dibenzofuran	ug/kg dw	<420	<370	<3600
Di-n-butylphthalate	ug/kg dw	<420	<630	<6300
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/kg dw	<420	<420	<4100
1,3-Dichlorobenzene (m-Dichlorobenzene)	ug/kg dw	<420	<410	<4000
1,4-Dichlorobenzene (p-Dichlorobenzene)	ug/kg dw	<420	<460	<4500
3,3'-Dichlorobenzidine	ug/kg dw	<2100	<540	<5400
Diethylene Glycol Monobutyl Ether	ug/kg dw	<420	<390	<3800
Diethylphthalate	ug/kg dw	<420	<430	<4200
p-(Dimethylamino)azobenzene	ug/kg dw	<420	<530	<5300
7,12-Dimethylbenz(a)anthracene	ug/kg dw	<420	<800	<7900
alpha,alpha-Dimethylphenethylamine	ug/kg dw	<420	<3400	<33000
Dimethylphthalate	ug/kg dw	<420	<420	<4100
2,4-Dinitrotoluene	ug/kg dw	<420	<480	<4700
2,6-Dinitrotoluene	ug/kg dw	<420	<400	<3900
Di-n-octylphthalate	ug/kg dw	<420	<670	<6600
1,2-Diphenylhydrazine	ug/kg dw	<420	<450	<4400

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09811-1	SWSOIL20030928-9-0.5	Solid	09/30/03	09/28/03 08:45	EPC06
09811-2	SWSOIL20030928-10-0.5	Solid	09/30/03	09/28/03 09:40	EPC06
09811-3	SWSOIL20030928-11-0.5	Solid	09/30/03	09/28/03 10:40	EPC06

Parameter	Units	Lab Sample IDs 09811-1	09811-2	09811-3
Semivolatile Organic Compounds (8270C)				
bis(2-Ethylhexyl)phthalate	ug/kg dw	<420	<800	<7900
Ethyl methanesulfonate	ug/kg dw	<420	<420	<4100
Fluoranthene	ug/kg dw	<420	740J	7700J
Fluorene	ug/kg dw	<420	<470	<4600
Hexachlorobenzene	ug/kg dw	<420	<400	<3900
Hexachlorobutadiene	ug/kg dw	<420	<400	<3900
Hexachlorocyclopentadiene	ug/kg dw	<420	<140	<1400
Hexachloroethane	ug/kg dw	<420	<400	<3900
Indeno(1,2,3-cd)pyrene	ug/kg dw	<420	<570	<5700
Isophorone	ug/kg dw	<420	<440	<4300
3-Methylcholanthrene	ug/kg dw	<420	<530	<5300
Methyl methanesulfonate	ug/kg dw	<420	<290	<2800
1-Methylnaphthalene	ug/kg dw	<420	<440	<4300
2-Methylnaphthalene	ug/kg dw	<420	<460	<4500
Naphthalene	ug/kg dw	<420	<390	<3800
aphthylamine	ug/kg dw	<420	<850	<8400
Naphthylamine	ug/kg dw	<420	<740	<7300
2-Nitroaniline (o-Nitroaniline)	ug/kg dw	<420	<500	<4900
3-Nitroaniline (m-Nitroaniline)	ug/kg dw	<420	<500	<4900
4-Nitroaniline (p-Nitroaniline)	ug/kg dw	<420	<540	<5400
Nitrobenzene	ug/kg dw	<420	<460	<4500
N-Nitrosodi-n-butylamine	ug/kg dw	<420	<530	<5300
N-Nitrosodimethylamine	ug/kg dw	<420	<410	<4000
N-Nitrosodiphenylamine	ug/kg dw	<420	<460	<4500
n-Nitrosodi-n-propylamine	ug/kg dw	<420	<440	<4300
N-Nitrosopiperidine	ug/kg dw	<420	<490	<4800
Pentachlorobenzene	ug/kg dw	<420	<410	<4000
Pentachloronitrobenzene	ug/kg dw	<420	<460	<4500
Phenacetin	ug/kg dw	<420	<630	<6300
Phenanthrene	ug/kg dw	<420	<440	12000J
2-Picoline	ug/kg dw	<420	<2000	<19000

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09811-1	SWSOIL20030928-9-0.5	Solid	09/30/03	09/28/03 08:45	EPC06
09811-2	SWSOIL20030928-10-0.5	Solid	09/30/03	09/28/03 09:40	EPC06
09811-3	SWSOIL20030928-11-0.5	Solid	09/30/03	09/28/03 10:40	EPC06

Parameter	Units	Lab Sample IDs 09811-1	09811-2	09811-3
Semivolatile Organic Compounds (8270C)				
Pronamide	ug/kg dw	<420	<690	<6800
Pyrene	ug/kg dw	<420	1000J	60000
Pyridine	ug/kg dw	<420	<3100	<31000
1,2,4,5-Tetrachlorobenzene	ug/kg dw	<420	<340	<3300
1,2,4-Trichlorobenzene	ug/kg dw	<420	<430	<4200
Surrogate - 2-Fluorobiphenyl *	%	65 %	59 %	65 %
Surrogate - 2-Fluorophenol *	%	61 %	52 %	44 %
Surrogate - Nitrobenzene - d5 *	%	55 %	45 %	69 %
Surrogate - Phenol-d5 *	%	67 %	51 %	42 %
Surrogate - Terphenyl-d14 *	%	103 %	78 %	101 %
Surrogate - 2,4,6-Tribromophenol *	%	96 %	65 %	67 %
Percent Solids		78	48	39
Dilution Factor		1	5	40
Prep Date		10/02/03	10/02/03	10/02/03
Prep Time		09:20	09:20	09:20
Analysis Date		10/10/03	10/10/03	10/10/03
Analysis Time		07:39	09:26	10:01
Batch ID		ALS069	ALS069	ALS069
Prep Method		3550B	3550B	3550B
Analyst		RDW	RDW	RDW
Quantitation Factor		42.20	341.31	3366.07
Volatile Organic Compounds (8260B)				
Chloromethane	ug/kg dw	<6.4	<10	<64
Bromomethane (Methyl bromide)	ug/kg dw	<6.4	<10	<64
Vinyl chloride	ug/kg dw	<6.4	<10	<64
Chloroethane	ug/kg dw	<6.4	<10	<64
Methylene chloride (Dichloromethane)	ug/kg dw	<6.4	<10	<64
Acetone	ug/kg dw	<32	24J	61J
Carbon disulfide	ug/kg dw	<6.4	<10	<64

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09811-1	SWSOIL20030928-9-0.5	Solid	09/30/03	09/28/03 08:45	EPC06
09811-2	SWSOIL20030928-10-0.5	Solid	09/30/03	09/28/03 09:40	EPC06
09811-3	SWSOIL20030928-11-0.5	Solid	09/30/03	09/28/03 10:40	EPC06

Parameter	Units	Lab Sample IDs 09811-1	09811-2	09811-3
Volatile Organic Compounds (8260B)				
1,1-Dichloroethene	ug/kg dw	<6.4	<10	<64
1,1-Dichloroethane	ug/kg dw	<6.4	<10	<64
Cis/Trans-1,2-Dichloroethene	ug/kg dw	<6.4	<10	<64
cis-1,2-Dichloroethene	ug/kg dw	<6.4	<10	<64
Chloroform	ug/kg dw	<6.4	<10	<64
1,2-Dichloroethane	ug/kg dw	<6.4	<10	<64
2-Butanone (MEK)	ug/kg dw	<32	<52	<320
1,1,1-Trichloroethane	ug/kg dw	<6.4	<10	<64
Carbon tetrachloride	ug/kg dw	<6.4	<10	<64
Vinyl acetate	ug/kg dw	<32	<52	<320
Bromodichloromethane	ug/kg dw	<6.4	<10	<64
1,2-Dichloropropane	ug/kg dw	<6.4	<10	<64
cis-1,3-Dichloropropene	ug/kg dw	<6.4	<10	<64
Trichloroethene	ug/kg dw	<6.4	<10	<64
Dibromochloromethane	ug/kg dw	<6.4	<10	<64
,2-Trichloroethane	ug/kg dw	<6.4	<10	<64
..izene	ug/kg dw	<6.4	75	29J
trans-1,3-Dichloropropene	ug/kg dw	<6.4	<10	<64
Bromoform	ug/kg dw	<6.4	<10	<64
4-Methyl-2-pentanone (MIBK)	ug/kg dw	<32	<52	<320
2-Hexanone	ug/kg dw	<32	<52	<320
Tetrachloroethene	ug/kg dw	<6.4	<10	<64
1,1,2,2-Tetrachloroethane	ug/kg dw	<6.4	<10	<64
Toluene	ug/kg dw	<6.4	<10	120
Chlorobenzene	ug/kg dw	<6.4	<10	<64
Ethylbenzene	ug/kg dw	<6.4	<10	16J
Styrene	ug/kg dw	<6.4	<10	<64
Xylenes, Total	ug/kg dw	<13	<21	69
Surrogate - Dibromofluoromethane *	%	112 %	121 %	116 %
Surrogate - Toluene-d8 *	%	102 %	90 %	90 %
Surrogate - 4-Bromofluorobenzene *	%	84 %	75 %*	74 %
Percent Solids		78	48	39
Dilution Factor		1	1	5
Prep Date		10/04/03	10/04/03	10/05/03
Prep Time		18:56	19:31	12:11
Analysis Date		10/04/03	10/04/03	10/05/03
Analysis Time		18:56	19:31	12:11
Batch ID		KAS172	KAS172	KAS173
ep Method		5030B	5030B	5030B
lyst		DWB	DWB	DWB
Quantitation Factor		1.28	2.08	12.82

EL PASO-EL DORADO SDG#C30EPC06

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09811-4	SWH2020030928-9	Liquid	09/30/03	09/28/03 08:35	EPC06
09811-5	SWH2020030928-10	Liquid	09/30/03	09/28/03 09:30	EPC06
09811-6	SWH2020030928-11	Liquid	09/30/03	09/28/03 10:30	EPC06
09811-7	SWEQUIPBLANK-2	Liquid	09/30/03	09/29/03 14:20	EPC06

Parameter	Units	Lab Sample IDs 09811-4	09811-5	09811-6	09811-7
Metals (6010B)					
Antimony	mg/l	<0.10	<0.10	0.0070J	<0.10
Arsenic	mg/l	<0.010	0.0040J	0.0080J	<0.010
Barium	mg/l	0.20	0.12	0.022	<0.020
Beryllium	mg/l	<0.0060	<0.0060	<0.0060	<0.0060
Cadmium	mg/l	<0.010	<0.010	<0.010	<0.010
Chromium	mg/l	<0.010	0.0030J	0.0050J	<0.010
Copper	mg/l	0.0010J	0.0030J	0.035	<0.020
Lead	mg/l	<0.010	0.0030J	0.015	<0.010
Nickel	mg/l	<0.010	<0.010	0.010J	<0.010
Selenium	mg/l	0.0040J	0.0030J	0.0060J	<0.020
Silver	mg/l	<0.010	<0.010	<0.010	<0.010
Thallium	mg/l	<0.020	<0.020	<0.020	<0.020
Zinc	mg/l	<0.040	0.0090J	0.016J	<0.040
Dilution Factor		1	1	1	1
Prep Date		10/04/03	10/04/03	10/04/03	10/04/03
Prep Time		15:00	15:00	15:00	15:00
Analysis Date		10/07/03	10/07/03	10/07/03	10/07/03
Analysis Time		17:46	17:51	17:57	18:02
Batch ID		PW364	PW364	PW364	PW364
Prep Method		3010A	3010A	3010A	3010A
Analyst		GSP	GSP	GSP	GSP
Quantitation Factor		1.000	1.000	1.000	1.000
Mercury (7470A)					
Mercury	mg/l	<0.00020	<0.00020	<0.00020	<0.00020
Dilution Factor		1	1	1	1
Prep Date		10/06/03	10/06/03	10/06/03	10/06/03
Prep Time		10:20	12:32	14:25	10:20
Analysis Date		10/06/03	10/06/03	10/06/03	10/06/03
Analysis Time		12:23	12:32	12:33	12:35
Batch ID		HGW107	HGW107	HGW107	HGW107
Prep Method		7470A	7470A	7470A	7470A
Analyst		JDE	JDE	JDE	JDE
Quantitation Factor		1	1	1	1

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09811-4	SWH2020030928-9	Liquid	09/30/03	09/28/03 08:35	EPC06
09811-5	SWH2020030928-10	Liquid	09/30/03	09/28/03 09:30	EPC06
09811-6	SWH2020030928-11	Liquid	09/30/03	09/28/03 10:30	EPC06
09811-7	SWEQUIPBLANK-2	Liquid	09/30/03	09/29/03 14:20	EPC06

Parameter	Units	Lab Sample IDs 09811-4	09811-5	09811-6	09811-7
Gasoline Range Organics (8015M)					
Hydrocarbons as GRO (C6-C10)	ug/l	<100	24J	<100	<100
Surrogate - a,a,a-Trifluorotoluene *	%	99 %	104 %	98 %	98 %
Dilution Factor		1	1	1	1
Prep Date		10/09/03	10/09/03	10/09/03	10/09/03
Prep Time		04:14	05:16	06:19	07:22
Analysis Date		10/09/03	10/09/03	10/09/03	10/09/03
Analysis Time		04:14	05:16	06:19	07:22
Batch ID		CAW107A	CAW107A	CAW107A	CAW107A
Prep Method		5030B	5030B	5030B	5030B
Analyst		CN	CN	CN	CN
Quantitation Factor		1	1	1	1
Diesel Range Organics (8015M)					
ıeral Spirits	ug/l	<100	<100	<100	<100
Kerosene	ug/l	<100	<100	<100	<100
Diesel	ug/l	<100	<100	<100	<100
Fuel Oil	ug/l	<100	<100	<100	<100
Motor oil (10W-40)	ug/l	<100	<100	<100	<100
Hydraulic Fluid Hydrocarbons	ug/l	<100	<100	<100	<100
Unknown Hydrocarbon	ug/l	<100	<100	<100	<100
Surrogate - o-Terphenyl *	%	121 %	122 %	122 %	124 %
Dilution Factor		1	1	1	1
Prep Date		10/02/03	10/02/03	10/02/03	10/02/03
Prep Time		09:10	09:10	09:10	09:10
Analysis Date		10/02/03	10/02/03	10/02/03	10/02/03
Analysis Time		17:16	17:35	17:53	18:11
Batch ID		FPW208	FPW208	FPW208	FPW208
Prep Method		3520C	3520C	3520C	3520C
Analyst		IE	IE	IE	IE
Quantitation Factor		1.0	1.0	1.0	1.0

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09811-4	SWH2020030928-9	Liquid	09/30/03	09/28/03 08:35	EPC06
09811-5	SWH2020030928-10	Liquid	09/30/03	09/28/03 09:30	EPC06
09811-6	SWH2020030928-11	Liquid	09/30/03	09/28/03 10:30	EPC06
09811-7	SWEQUIPBLANK-2	Liquid	09/30/03	09/29/03 14:20	EPC06

Parameter	Units	Lab Sample IDs 09811-4	09811-5	09811-6	09811-7
Semivolatile Organic Compounds (8270C)					
Benzoic acid	ug/l	<50	<50	<50	<50
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	ug/l	<10	<10	<10	<10
2-Chlorophenol	ug/l	<10	<10	<10	<10
2,4-Dichlorophenol	ug/l	<10	<10	<10	<10
2,6-Dichlorophenol	ug/l	<10	<10	<10	<10
2,4-Dimethylphenol	ug/l	<10	<10	<10	<10
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	ug/l	<50	<50	<50	<50
2,4-Dinitrophenol	ug/l	<50	<50	<50	<50
2-Methylphenol (o-Cresol)	ug/l	<10	<10	<10	<10
3-Methylphenol/4-Methylphenol (m&p-Cresol)	ug/l	<10	<10	<10	<10
2-Nitrophenol (o-Nitrophenol)	ug/l	<10	<10	<10	<10
4-Nitrophenol (p-Nitrophenol)	ug/l	<50	<50	<50	<50
Pentachlorophenol	ug/l	<50	<50	<50	<50
Phenol	ug/l	<10	<10	<10	<10
2,3,4,6-Tetrachlorophenol	ug/l	<10	<10	<10	<10
2,4,5-Trichlorophenol	ug/l	<50	<50	<50	<50
2,4,6-Trichlorophenol	ug/l	<10	<10	<10	<10
Acenaphthene	ug/l	<10	<10	<10	<10
Acenaphthylene	ug/l	<10	<10	<10	<10
Acetophenone	ug/l	<10	<10	<10	<10
4-Aminobiphenyl	ug/l	<10	<10	<10	<10
Aniline	ug/l	<10	<10	<10	<10
Anthracene	ug/l	<10	<10	<10	<10
Benzidine	ug/l	<50	<50	<50	<50
Benzo(a)anthracene	ug/l	<10	<10	<10	<10
Benzo(b)fluoranthene	ug/l	<10	<10	<10	<10
Benzo(k)fluoranthene	ug/l	<10	<10	<10	<10
Benzo(g,h,i)perylene	ug/l	<10	<10	<10	<10
Benzo(a)pyrene	ug/l	<10	<10	<10	<10
Benzyl alcohol	ug/l	<10	<10	<10	<10

Analytical Data Report

Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09811-4	SWH2020030928-9	Liquid	09/30/03	09/28/03 08:35	EPC06
09811-5	SWH2020030928-10	Liquid	09/30/03	09/28/03 09:30	EPC06
09811-6	SWH2020030928-11	Liquid	09/30/03	09/28/03 10:30	EPC06
09811-7	SWEQUIPBLANK-2	Liquid	09/30/03	09/29/03 14:20	EPC06

Parameter	Units	Lab Sample IDs 09811-4	09811-5	09811-6	09811-7
Semivolatile Organic Compounds (8270C)					
4-Bromophenylphenyl ether	ug/l	<10	<10	<10	<10
Butylbenzylphthalate	ug/l	<10	<10	<10	<10
Carbazole	ug/l	<10	<10	<10	<10
4-Chloroaniline (p-Chloroaniline)	ug/l	<10	<10	<10	<10
bis(2-Chloroethoxy)methane	ug/l	<10	<10	<10	<10
bis(2-Chloroethyl)ether	ug/l	<10	<10	<10	<10
bis(2-Chloroisopropyl) ether	ug/l	<10	<10	<10	<10
1-Chloronaphthalene	ug/l	<10	<10	<10	<10
2-Chloronaphthalene	ug/l	<10	<10	<10	<10
4-Chlorophenylphenyl ether	ug/l	<10	<10	<10	<10
Chrysene	ug/l	<10	<10	<10	<10
Dibenz(a,j)acridine	ug/l	<10	<10	<10	<10
Dibenzo(a,h)anthracene	ug/l	<10	<10	<10	<10
enzofuran	ug/l	<10	<10	<10	<10
-n-butylphthalate	ug/l	<10	<10	<10	<10
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/l	<10	<10	<10	<10
1,3-Dichlorobenzene (m-Dichlorobenzene)	ug/l	<10	<10	<10	<10
1,4-Dichlorobenzene (p-Dichlorobenzene)	ug/l	<10	<10	<10	<10
3,3'-Dichlorobenzidine	ug/l	<50	<50	<50	<50
Diethylene Glycol Monobutyl Ether	ug/l	<10	<10	<10	<10
Diethylphthalate	ug/l	<10	<10	<10	<10
p-(Dimethylamino)azobenzene	ug/l	<10	<10	<10	<10
7,12-Dimethylbenz(a)anthracene	ug/l	<10	<10	<10	<10
alpha,alpha-Dimethylphenethylamine	ug/l	<10	<10	<10	<10
Dimethylphthalate	ug/l	<10	<10	<10	<10
2,4-Dinitrotoluene	ug/l	<10	<10	<10	<10
2,6-Dinitrotoluene	ug/l	<10	<10	<10	<10

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09811-4	SWH2020030928-9	Liquid	09/30/03	09/28/03 08:35	EPC06
09811-5	SWH2020030928-10	Liquid	09/30/03	09/28/03 09:30	EPC06
09811-6	SWH2020030928-11	Liquid	09/30/03	09/28/03 10:30	EPC06
09811-7	SWEQUIPBLANK-2	Liquid	09/30/03	09/29/03 14:20	EPC06

Parameter	Units	Lab Sample IDs 09811-4	09811-5	09811-6	09811-7
Semivolatile Organic Compounds (8270C)					
Di-n-octylphthalate	ug/l	<10	<10	<10	<10
1,2-Diphenylhydrazine	ug/l	<10	<10	<10	<10
bis(2-Ethylhexyl)phthalate	ug/l	<10	1.0J	<10	<10
Ethyl methanesulfonate	ug/l	<10	<10	<10	<10
Fluoranthene	ug/l	<10	<10	<10	<10
Fluorene	ug/l	<10	<10	<10	<10
Hexachlorobenzene	ug/l	<10	<10	<10	<10
Hexachlorobutadiene	ug/l	<10	<10	<10	<10
Hexachlorocyclopentadiene	ug/l	<10	<10	<10	<10
Hexachloroethane	ug/l	<10	<10	<10	<10
Indeno(1,2,3-cd)pyrene	ug/l	<10	<10	<10	<10
Isophorone	ug/l	<10	<10	<10	<10
3-Methylcholanthrene	ug/l	<10	<10	<10	<10
Methyl methanesulfonate	ug/l	<10	<10	<10	<10
1-Methylnaphthalene	ug/l	<10	<10	<10	<10
2-Methylnaphthalene	ug/l	<10	<10	<10	<10
Naphthalene	ug/l	<10	<10	<10	<10
1-Naphthylamine	ug/l	<10	<10	<10	<10
2-Naphthylamine	ug/l	<10	<10	<10	<10
2-Nitroaniline (o-Nitroaniline)	ug/l	<10	<10	<10	<10
3-Nitroaniline (m-Nitroaniline)	ug/l	<10	<10	<10	<10
4-Nitroaniline (p-Nitroaniline)	ug/l	<10	<10	<10	<10
Nitrobenzene	ug/l	<10	<10	<10	<10
N-Nitrosodi-n-butylamine	ug/l	<10	<10	<10	<10
N-Nitrosodimethylamine	ug/l	<10	<10	<10	<10
N-Nitrosodiphenylamine	ug/l	<10	<10	<10	<10
n-Nitrosodi-n-propylamine	ug/l	<10	<10	<10	<10
N-Nitrosopiperidine	ug/l	<10	<10	<10	<10
Pentachlorobenzene	ug/l	<10	<10	<10	<10
Pentachloronitrobenzene	ug/l	<10	<10	<10	<10

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09811-4	SWH2020030928-9	Liquid	09/30/03	09/28/03 08:35	EPC06
09811-5	SWH2020030928-10	Liquid	09/30/03	09/28/03 09:30	EPC06
09811-6	SWH2020030928-11	Liquid	09/30/03	09/28/03 10:30	EPC06
09811-7	SWEQUIPBLANK-2	Liquid	09/30/03	09/29/03 14:20	EPC06

Parameter	Units	Lab Sample IDs 09811-4	09811-5	09811-6	09811-7
Semivolatile Organic Compounds (8270C)					
Phenacetin	ug/l	<10	<10	<10	<10
Phenanthrene	ug/l	<10	<10	<10	<10
2-Picoline	ug/l	<10	<10	<10	<10
Pronamide	ug/l	<10	<10	<10	<10
Pyrene	ug/l	<10	<10	<10	<10
Pyridine	ug/l	<10	<10	<10	<10
1,2,4,5-Tetrachlorobenzene	ug/l	<10	<10	<10	<10
1,2,4-Trichlorobenzene	ug/l	<10	<10	<10	<10
Surrogate - 2-Fluorobiphenyl *	%	73 %	79 %	68 %	73 %
Surrogate - 2-Fluorophenol *	%	39 %	48 %	54 %	61 %
Surrogate - Nitrobenzene - d5 *	%	71 %	72 %	66 %	70 %
Surrogate - Phenol-d5 *	%	36 %	53 %	55 %	59 %
Surrogate - Terphenyl-d14 *	%	84 %	81 %	76 %	82 %
rogate - 2,4,6-Tribromophenol *	%	71 %	90 %	86 %	87 %
Dilution Factor		1	1	1	1
Prep Date		10/02/03	10/02/03	10/02/03	10/02/03
Prep Time		09:00	09:00	09:00	09:00
Analysis Date		10/03/03	10/03/03	10/03/03	10/03/03
Analysis Time		18:25	19:03	19:41	20:19
Batch ID		ALW163	ALW163	ALW163	ALW163
Prep Method		3520C	3520C	3520C	3520C
Analyst		RDW	RDW	RDW	RDW
Quantitation Factor		1	1	1	1
Volatile Organic Compounds (8260B)					
Chloromethane	ug/l	<5.0	<5.0	<5.0	<5.0
Bromomethane (Methyl bromide)	ug/l	<5.0	<5.0	<5.0	<5.0
Vinyl chloride	ug/l	<5.0	<5.0	<5.0	<5.0
Chloroethane	ug/l	<5.0	<5.0	<5.0	<5.0
Methylene chloride (Dichloromethane)	ug/l	<5.0	<5.0	<5.0	<5.0

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09811-4	SWH2020030928-9	Liquid	09/30/03	09/28/03 08:35	EPC06
09811-5	SWH2020030928-10	Liquid	09/30/03	09/28/03 09:30	EPC06
09811-6	SWH2020030928-11	Liquid	09/30/03	09/28/03 10:30	EPC06
09811-7	SWEQUIPBLANK-2	Liquid	09/30/03	09/29/03 14:20	EPC06

Parameter	Units	Lab Sample IDs 09811-4	09811-5	09811-6	09811-7
Volatile Organic Compounds (8260B)					
Acetone	ug/l	<25	<25	<25	<25
Carbon disulfide	ug/l	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	ug/l	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	ug/l	<5.0	<5.0	<5.0	<5.0
Cis/Trans-1,2-Dichloroethene	ug/l	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	ug/l	<5.0	<5.0	<5.0	<5.0
Chloroform	ug/l	<5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane	ug/l	<5.0	<5.0	<5.0	<5.0
2-Butanone (MEK)	ug/l	<25	<25	<25	<25
1,1,1-Trichloroethane	ug/l	<5.0	<5.0	<5.0	<5.0
Carbon tetrachloride	ug/l	<5.0	<5.0	<5.0	<5.0
Vinyl acetate	ug/l	<5.0	<5.0	<5.0	<5.0
Bromodichloromethane	ug/l	<5.0	<5.0	<5.0	<5.0
1,2-Dichloropropane	ug/l	<5.0	<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	ug/l	<5.0	<5.0	<5.0	<5.0
Trichloroethene	ug/l	<5.0	<5.0	<5.0	<5.0
Dibromochloromethane	ug/l	<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	ug/l	<5.0	<5.0	<5.0	<5.0
Benzene	ug/l	<1.0	0.91J	<1.0	<1.0
trans-1,3-Dichloropropene	ug/l	<5.0	<5.0	<5.0	<5.0
Bromoform	ug/l	<5.0	<5.0	<5.0	<5.0
4-Methyl-2-pentanone (MIBK)	ug/l	<25	<25	<25	<25
2-Hexanone	ug/l	<25	<25	<25	<25
Tetrachloroethene	ug/l	<5.0	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	ug/l	<5.0	<5.0	<5.0	<5.0
Toluene	ug/l	0.42J	0.52J	0.44J	0.26J
Chlorobenzene	ug/l	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	ug/l	<5.0	<5.0	<5.0	<5.0
Styrene	ug/l	<5.0	<5.0	<5.0	<5.0
Xylenes, Total	ug/l	<10	<10	<10	<10
Surrogate - Dibromofluoromethane *	%	102 %	103 %	101 %	102 %
Surrogate - Toluene-d8 *	%	95 %	95 %	96 %	95 %

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09811-4	SWH2020030928-9	Liquid	09/30/03	09/28/03 08:35	EPC06
09811-5	SWH2020030928-10	Liquid	09/30/03	09/28/03 09:30	EPC06
09811-6	SWH2020030928-11	Liquid	09/30/03	09/28/03 10:30	EPC06
09811-7	SWEQUIPBLANK-2	Liquid	09/30/03	09/29/03 14:20	EPC06

Parameter	Units	Lab Sample IDs 09811-4	09811-5	09811-6	09811-7
Volatile Organic Compounds (8260B)					
Surrogate -					
4-Bromofluorobenzene *	%	97 %	97 %	97 %	95 %
Dilution Factor		1	1	1	1
Prep Date		10/03/03	10/03/03	10/03/03	10/03/03
Prep Time		16:41	17:14	17:48	18:21
Analysis Date		10/03/03	10/03/03	10/03/03	10/03/03
Analysis Time		16:41	17:14	17:48	18:21
Batch ID		TAW176	TAW176	TAW176	TAW176
Prep Method		5030B	5030B	5030B	5030B
Analyst		GRH	GRH	GRH	GRH
Quantitation Factor		1	1	1	1

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09811-8	Trip Blank	Liquid	09/30/03	09/29/03	EPC06

Parameter	Units	Lab Sample IDs 09811-8
Gasoline Range Organics (8015M)		
Hydrocarbons as GRO (C6-C10)	ug/l	<100
Surrogate -		
a,a,a-Trifluorotoluene *	%	99 %
Dilution Factor		1
Prep Date		10/09/03
Prep Time		08:22
Analysis Date		10/09/03
Analysis Time		08:22
Batch ID		CAW107A
Prep Method		5030B
Analyst		CN
Quantitation Factor		1
Volatile Organic Compounds (8260B)		
Chloromethane	ug/l	<5.0
Bromomethane (Methyl bromide)	ug/l	<5.0
Vinyl chloride	ug/l	<5.0
Chloroethane	ug/l	<5.0
Methylene chloride (Dichloromethane)	ug/l	<5.0
Acetone	ug/l	<25
Carbon disulfide	ug/l	<5.0
1,1-Dichloroethene	ug/l	<5.0
1,1-Dichloroethane	ug/l	<5.0
Cis/Trans-1,2-Dichloroethene	ug/l	<5.0
cis-1,2-Dichloroethene	ug/l	<5.0
Chloroform	ug/l	<5.0
1,2-Dichloroethane	ug/l	<5.0
2-Butanone (MEK)	ug/l	<25
1,1,1-Trichloroethane	ug/l	<5.0
Carbon tetrachloride	ug/l	<5.0
Vinyl acetate	ug/l	<5.0
Bromodichloromethane	ug/l	<5.0
1,2-Dichloropropane	ug/l	<5.0
cis-1,3-Dichloropropene	ug/l	<5.0

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
09811-8	Trip Blank	Liquid	09/30/03	09/29/03	EPC06

Parameter	Units	Lab Sample IDs 09811-8
Volatile Organic Compounds (8260B)		
Trichloroethene	ug/l	<5.0
Dibromochloromethane	ug/l	<5.0
1,1,2-Trichloroethane	ug/l	<5.0
Benzene	ug/l	<1.0
trans-1,3-Dichloropropene	ug/l	<5.0
Bromoform	ug/l	<5.0
4-Methyl-2-pentanone (MIBK)	ug/l	<25
2-Hexanone	ug/l	<25
Tetrachloroethene	ug/l	<5.0
1,1,2,2-Tetrachloroethane	ug/l	<5.0
Toluene	ug/l	<5.0
Chlorobenzene	ug/l	<5.0
Ethylbenzene	ug/l	<5.0
Styrene	ug/l	<5.0
Xylenes, Total	ug/l	<10
Surrogate -		
Dibromofluoromethane *	%	104 %
rogate - Toluene-d8 *	%	95 %
urrogate -		
4-Bromofluorobenzene *	%	96 %
Dilution Factor		1
Prep Date		10/03/03
Prep Time		18:54
Analysis Date		10/03/03
Analysis Time		18:54
Batch ID		TAW176
Prep Method		5030B
Analyst		GRH
Quantitation Factor		1

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.

Chain of Custody Record

STL-4124-400 (12/02)

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL Pensa
3355 McLemore Drive
Pensacola, FL 32514

Client: El Paso	Project Manager: Bob Norris	Date: 9/29/03	Chain of Custody Number: 06443
Address: —	Telephone Number (Area Code)/Fax Number	Lab Number: C309811	Page 1 of 1
City: Colorado Springs, State: CO, Zip Code: —	Site Contact: S. Harden	Lab Contact: M. Pope	
Project Name and Location (State): El Paso El Dorado Refinery	Carrier/Waybill Number: 1Z X178X922 1026 1336		
Contract/Purchase Order/Quote No.: —			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil		Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	NA	METALS	TPH-G	TPH-E	VOCS	SVOCS	Special Instructions/ Conditions of Receipt
SWSOIL20030928-9-0.5	9/28/03	8:45				X								X	X	X	X	X	X	
SWH2O20030928-9		8:35		X						X	X			X						
~~SWSOIL20030928-9.75~~																				
SWSOIL20030928-10-0.5		9:40				X								X						
SWH2O20030928-10		9:30		X						X	X			X						
SWSOIL20030928-11-0.5		10:40				X								X						
SWH2O20030928-11		10:30		X						X	X			X						

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other_____

QC Requirements (Specify)

1. Relinquished By: Todd S. Hudson	Date: 9/28/03	Time: 6:00	1. Received By: [signature]	Date: 9/28/03	Time: 6:00pm
2. Relinquished By: [signature]	Date: 9/29/03	Time: 1800	2. Received By: UPS	Date: 9/29/03	Time: 1800
3. Relinquished By:	Date:	Time:	3. Received By: Mike Swafford	Date: 9/30/03	Time: 930

Comments: 2 Coolers COC in Cooler 1 of 2.

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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Chain of Custody Record

STL4124-400 (12/02)

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514

22

Client: El Paso	Project Manager: Bob Norris	Date: 9/29/03	Chain of Custody Number: 06443
Address: —	Telephone Number (Area Code)/Fax Number	Lab Number	Page 1 of 1
City: Colorado Springs; State: CO; Zip Code: —	Site Contact: S. Harden	Lab Contact: M. Pope	
Project Name and Location (State): El Paso El Dorado Refinery	Carrier/Waybill Number: TZ X178X922102613 36		
Contract/Purchase Order/Quote No.: —			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil		Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	NA	METALS	TPH-G	TPH-E	VOCS	SVOCS							Special Instructions/ Conditions of Receipt
SWS011 20030928-9-0.5	9/28/03	8:45				X								X	X	X	X	X	X							
~~SWH2O 20030928-9~~																										
~~SWS011 20030928-9 TBC~~		8:35		X						X	X			X												
SWS011 20030928-10-0.5		9:40				X								X												
SWH2O 20030928-10		9:30		X						X	X			X												
SWS011 20030928-11-0.5		10:40				X								X												
SWH2O 20030928-11		10:30		X						X	X			X												
SW EQUIA BLANK-2	9/29	1420		X						X	X			X	X	X	X	X	X							

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Todd S. Harden	9/28/03	6:00	1. Received By: [signature]	9/28/03	6:00pm
2. Relinquished By: [signature]	9/29/03	1800	2. Received By: UPS	9/29/03	1800
3. Relinquished By			3. Received By: Mark Swafford	~~10/1/03~~ 9/30/	930

Comments: 2 coolers COC in cooler 1 of 2.

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

EL PASO-EL DORADO SDG#C30EPC06

STL Pensacola 3355 McLemore Drive - Pensacola FL 32514 Telephone:(850) 474-1001 Fax:(850) 478-2671

Analytical Report

For: Mr. Chris Miller
El Paso Energy Corporation
P.O. Box 2511
Houston, TX 77252-2511
CC: Lynn Hanzlicek (Shaw, KS)

Order Number: C310922
SDG Number: EPC08
Client Project ID:
Project: EL PASO-EL DORADO REFINERY
Report Date: 11/17/2003
Sampled By: Client
Sample Received Date: 10/31/2003
Requisition Number:
Purchase Order: C-STL1-ELDORADO-001

Melissa L Pope

Melissa L. Pope, Project Manager
mpope@stl-inc.com
11/17/2003

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Sample Summary

Order: C310922
Date Received: 10/31/2003

Client: El Paso Energy Corporation
Project: EL PASO-EL DORADO REFINERY

Client Sample ID	Lab Sample ID	Matrix	Date Sampled
SS01-103003	C310922*1	Liquid	10/30/2003 11:30
SS02-103003	C310922*2	Liquid	10/30/2003 12:00
Trip Blank	C310922*3	Liquid	10/30/2003

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10922-1	SS01-103003	Liquid	10/31/03	10/30/03 11:30	EPC08
10922-2	SS02-103003	Liquid	10/31/03	10/30/03 12:00	EPC08

Parameter	Units	Lab Sample IDs 10922-1	10922-2
Metals (6010B)			
Antimony	mg/l	0.0060J	<0.10
Arsenic	mg/l	0.075	0.0080J
Barium	mg/l	0.45	0.34
Beryllium	mg/l	<0.0060	<0.0060
Cadmium	mg/l	<0.010	<0.010
Chromium	mg/l	<0.010	<0.010
Copper	mg/l	<0.020	<0.020
Lead	mg/l	<0.010	<0.010
Nickel	mg/l	0.0060J	0.0080J
Selenium	mg/l	<0.020	<0.020
Silver	mg/l	<0.010	<0.010
Thallium	mg/l	<0.020	<0.020
Zinc	mg/l	<0.040	<0.040
Dilution Factor		1	1
Prep Date		11/07/03	11/07/03
Prep Time		09:39	09:39
Analysis Date		11/07/03	11/07/03
Analysis Time		17:36	18:14
Batch ID		PW410	PW410
Prep Method		3010A	3010A
Analyst		GSP	GSP
Quantitation Factor		1.000	1.000
Mercury (7470A)			
Mercury	mg/l	<0.00020	<0.00020
Dilution Factor		1	1
Prep Date		11/04/03	11/04/03
Prep Time		01:11	01:11
Analysis Date		11/04/03	11/04/03
Analysis Time		14:07	14:09
Batch ID		HGW125	HGW125
Prep Method		7470A	7470A
Analyst		JDE	JDE
Quantitation Factor		1	1

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10922-1	SS01-103003	Liquid	10/31/03	10/30/03 11:30	EPC08
10922-2	SS02-103003	Liquid	10/31/03	10/30/03 12:00	EPC08

Parameter	Units	Lab Sample IDs 10922-1	10922-2
Gasoline Range Organics (8015M)			
Hydrocarbons as GRO (C6-C10)	ug/l	130	1800
Surrogate - a,a,a-Trifluorotoluene *	%	114 %	107 %
Dilution Factor		1	2
Prep Date		11/10/03	11/10/03
Prep Time		17:51	18:44
Analysis Date		11/10/03	11/10/03
Analysis Time		17:51	18:44
Batch ID		ETW126B	ETW126B
Prep Method		5030B	5030B
Analyst		CN	CN
Quantitation Factor		1	2
Diesel Range Organics (8015M)			
Mineral Spirits	ug/l	<100	<100
Kerosene	ug/l	<100	<100
Diesel	ug/l	<100	<100
Fuel Oil	ug/l	<100	<100
Motor oil (10W-40)	ug/l	<100	<100
Hydraulic Fluid Hydrocarbons	ug/l	<100	<100
Unknown Hydrocarbon	ug/l	2200	130
Surrogate - o-Terphenyl *	%	98 %	108 %
Dilution Factor		1	1
Prep Date		11/04/03	11/04/03
Prep Time		11:40	11:40
Analysis Date		11/05/03	11/05/03
Analysis Time		07:17	07:25
Batch ID		FPW254	FPW254
Prep Method		3520C	3520C
Analyst		IE	IE
Quantitation Factor		1.0	1.0

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10922-1	SS01-103003	Liquid	10/31/03	10/30/03 11:30	EPC08
10922-2	SS02-103003	Liquid	10/31/03	10/30/03 12:00	EPC08

Parameter	Units	Lab Sample IDs 10922-1	10922-2
Semivolatile Organic Compounds (8270C)			
Benzoic acid	ug/l	<50	<50
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	ug/l	<10	<10
2-Chlorophenol	ug/l	<10	<10
2,4-Dichlorophenol	ug/l	<10	<10
2,6-Dichlorophenol	ug/l	<10	<10
2,4-Dimethylphenol	ug/l	<10	<10
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	ug/l	<50	<50
2,4-Dinitrophenol	ug/l	<50	<50
2-Methylphenol (o-Cresol)	ug/l	<10	<10
3-Methylphenol/4-Methylphenol (m&p-Cresol)	ug/l	<10	<10
2-Nitrophenol (o-Nitrophenol)	ug/l	<10	<10
4-Nitrophenol (p-Nitrophenol)	ug/l	<50	<50
Pentachlorophenol	ug/l	<50	<50
Phenol	ug/l	12	<10
2,3,4,6-Tetrachlorophenol	ug/l	<10	<10
2,4,5-Trichlorophenol	ug/l	<50	<50
2,4,6-Trichlorophenol	ug/l	<10	<10
Acenaphthene	ug/l	<10	<10
Acenaphthylene	ug/l	<10	<10
Acetophenone	ug/l	<10	<10
4-Aminobiphenyl	ug/l	<10	<10
Aniline	ug/l	<10	<10
Anthracene	ug/l	<10	<10
Benzidine	ug/l	<50	<50
Benzo(a)anthracene	ug/l	<10	<10
Benzo(b)fluoranthene	ug/l	<10	<10
Benzo(k)fluoranthene	ug/l	<10	<10
Benzo(g,h,i)perylene	ug/l	<10	<10
Benzo(a)pyrene	ug/l	<10	<10
Benzyl alcohol	ug/l	2.0J	1.1J
4-Bromophenylphenyl ether	ug/l	<10	<10
Butylbenzylphthalate	ug/l	<10	<10

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10922-1	SS01-103003	Liquid	10/31/03	10/30/03 11:30	EPC08
10922-2	SS02-103003	Liquid	10/31/03	10/30/03 12:00	EPC08

Parameter	Units	Lab Sample IDs 10922-1	10922-2
Semivolatile Organic Compounds (8270C)			
Carbazole	ug/l	<10	<10
4-Chloroaniline (p-Chloroaniline)	ug/l	<10	<10
bis(2-Chloroethoxy)methane	ug/l	<10	<10
bis(2-Chloroethyl)ether	ug/l	<10	<10
bis(2-Chloroisopropyl) ether	ug/l	<10	<10
1-Chloronaphthalene	ug/l	<10	<10
2-Chloronaphthalene	ug/l	<10	<10
4-Chlorophenylphenyl ether	ug/l	<10	<10
Chrysene	ug/l	<10	<10
Dibenz(a,j)acridine	ug/l	<10	<10
Dibenzo(a,h)anthracene	ug/l	<10	<10
Dibenzofuran	ug/l	<10	<10
Di-n-butylphthalate	ug/l	<10	<10
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/l	<10	<10
1,3-Dichlorobenzene (m-Dichlorobenzene)	ug/l	<10	<10
1,4-Dichlorobenzene (p-Dichlorobenzene)	ug/l	<10	<10
3,3'-Dichlorobenzidine	ug/l	<50	<50
Diethylene Glycol Monobutyl Ether	ug/l	<10	<10
Diethylphthalate	ug/l	<10	<10
p-(Dimethylamino)azobenzene	ug/l	<10	<10
7,12-Dimethylbenz(a)anthracene	ug/l	<10	<10
alpha,alpha-Dimethylphenethylamine	ug/l	<10	<10
Dimethylphthalate	ug/l	<10	<10
2,4-Dinitrotoluene	ug/l	<10	<10
2,6-Dinitrotoluene	ug/l	<10	<10
Di-n-octylphthalate	ug/l	<10	<10
1,2-Diphenylhydrazine	ug/l	<10	<10
bis(2-Ethylhexyl)phthalate	ug/l	<10	<10
Ethyl methanesulfonate	ug/l	<10	<10

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10922-1	SS01-103003	Liquid	10/31/03	10/30/03 11:30	EPC08
10922-2	SS02-103003	Liquid	10/31/03	10/30/03 12:00	EPC08

Parameter	Units	Lab Sample IDs 10922-1	10922-2
Semivolatile Organic Compounds (8270C)			
Fluoranthene	ug/l	<10	<10
Fluorene	ug/l	<10	<10
Hexachlorobenzene	ug/l	<10	<10
Hexachlorobutadiene	ug/l	<10	<10
Hexachlorocyclopentadiene	ug/l	<10	<10
Hexachloroethane	ug/l	<10	<10
Indeno(1,2,3-cd)pyrene	ug/l	<10	<10
Isophorone	ug/l	<10	<10
3-Methylcholanthrene	ug/l	<10	<10
Methyl methanesulfonate	ug/l	<10	<10
1-Methylnaphthalene	ug/l	35	1.8J
2-Methylnaphthalene	ug/l	17	<10
Naphthalene	ug/l	0.78J	<10
1-Naphthylamine	ug/l	<10	<10
2-Naphthylamine	ug/l	<10	<10
2-Nitroaniline (o-Nitroaniline)	ug/l	<10	<10
3-Nitroaniline (m-Nitroaniline)	ug/l	<10	<10
4-Nitroaniline (p-Nitroaniline)	ug/l	<10	<10
Nitrobenzene	ug/l	<10	<10
N-Nitrosodi-n-butylamine	ug/l	<10	<10
N-Nitrosodimethylamine	ug/l	<10	<10
N-Nitrosodiphenylamine	ug/l	<10	<10
n-Nitrosodi-n-propylamine	ug/l	<10	<10
N-Nitrosopiperidine	ug/l	<10	<10
Pentachlorobenzene	ug/l	<10	<10
Pentachloronitrobenzene	ug/l	<10	<10
Phenacetin	ug/l	<10	<10
Phenanthrene	ug/l	1.1J	<10
2-Picoline	ug/l	<10	<10
Pronamide	ug/l	<10	<10
Pyrene	ug/l	<10	<10
Pyridine	ug/l	<10	<10

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10922-1	SS01-103003	Liquid	10/31/03	10/30/03 11:30	EPC08
10922-2	SS02-103003	Liquid	10/31/03	10/30/03 12:00	EPC08

Parameter	Units	Lab Sample IDs 10922-1	10922-2
Semivolatile Organic Compounds (8270C)			
1,2,4,5-Tetrachlorobenzene	ug/l	<10	<10
1,2,4-Trichlorobenzene	ug/l	<10	<10
Surrogate - 2-Fluorobiphenyl *	%	71 %	78 %
Surrogate - 2-Fluorophenol *	%	49 %	53 %
Surrogate - Nitrobenzene - d5 *	%	68 %	73 %
Surrogate - Phenol-d5 *	%	59 %	51 %
Surrogate - Terphenyl-d14 *	%	85 %	91 %
Surrogate - 2,4,6-Tribromophenol *	%	85 %	87 %
Dilution Factor		1	1
Prep Date		11/04/03	11/04/03
Prep Time		08:50	08:50
Analysis Date		11/06/03	11/06/03
Analysis Time		21:07	21:45
Batch ID		ALW194	ALW194
Prep Method		3520C	3520C
Analyst		RDW	RDW
Quantitation Factor		1	1
Volatile Organic Compounds (8260B)			
Chloromethane	ug/l	<5.0	<5.0
Bromomethane (Methyl bromide)	ug/l	<5.0	<5.0
Vinyl chloride	ug/l	<5.0	<5.0
Chloroethane	ug/l	<5.0	<5.0
Methylene chloride (Dichloromethane)	ug/l	<5.0	<5.0
Acetone	ug/l	<25	<25
Carbon disulfide	ug/l	<5.0	<5.0
1,1-Dichloroethene	ug/l	<5.0	<5.0
1,1-Dichloroethane	ug/l	<5.0	<5.0
Cis/Trans-1,2-Dichloroethene	ug/l	<5.0	<5.0
cis-1,2-Dichloroethene	ug/l	<5.0	<5.0
Chloroform	ug/l	<5.0	<5.0

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10922-1	SS01-103003	Liquid	10/31/03	10/30/03 11:30	EPC08
10922-2	SS02-103003	Liquid	10/31/03	10/30/03 12:00	EPC08

Parameter	Units	Lab Sample IDs 10922-1	10922-2
Volatile Organic Compounds (8260B)			
1,2-Dichloroethane	ug/l	<5.0	<5.0
2-Butanone (MEK)	ug/l	<25	<25
1,1,1-Trichloroethane	ug/l	<5.0	<5.0
Carbon tetrachloride	ug/l	<5.0	<5.0
Vinyl acetate	ug/l	<5.0	<5.0
Bromodichloromethane	ug/l	<5.0	<5.0
1,2-Dichloropropane	ug/l	<5.0	<5.0
cis-1,3-Dichloropropene	ug/l	<5.0	<5.0
Trichloroethene	ug/l	<5.0	<5.0
Dibromochloromethane	ug/l	<5.0	<5.0
1,1,2-Trichloroethane	ug/l	<5.0	<5.0
Benzene	ug/l	120	0.81J
trans-1,3-Dichloropropene	ug/l	<5.0	<5.0
Bromoform	ug/l	<5.0	<5.0
4-Methyl-2-pentanone (MIBK)	ug/l	<25	<25
2-Hexanone	ug/l	<25	<25
Tetrachloroethene	ug/l	<5.0	<5.0
1,1,2,2-Tetrachloroethane	ug/l	<5.0	<5.0
Toluene	ug/l	4.7	0.20J
Chlorobenzene	ug/l	<5.0	<5.0
Ethylbenzene	ug/l	1.5	0.22J
Styrene	ug/l	<5.0	<5.0
Xylenes, Total	ug/l	20	<10
Surrogate - Dibromofluoromethane *	%	100 %	99 %
Surrogate - Toluene-d8 *	%	104 %	100 %
Surrogate - 4-Bromofluorobenzene *	%	98 %	98 %
Dilution Factor		1	1
Prep Date		11/06/03	11/06/03
Prep Time		20:28	21:01
Analysis Date		11/06/03	11/06/03
Analysis Time		20:28	21:01
Batch ID		TAW219	TAW219
Prep Method		5030B	5030B
Analyst		GRH	GRH
Quantitation Factor		1	1

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10922-3	Trip Blank	Liquid	10/31/03	10/30/03	EPC08

Parameter	Units	Lab Sample IDs 10922-3
Volatile Organic Compounds (8260B)		
Chloromethane	ug/l	<5.0
Bromomethane (Methyl bromide)	ug/l	<5.0
Vinyl chloride	ug/l	<5.0
Chloroethane	ug/l	<5.0
Methylene chloride (Dichloromethane)	ug/l	1.6B
Acetone	ug/l	<25
Carbon disulfide	ug/l	<5.0
1,1-Dichloroethene	ug/l	<5.0
1,1-Dichloroethane	ug/l	<5.0
Cis/Trans-1,2-Dichloroethene	ug/l	<5.0
cis-1,2-Dichloroethene	ug/l	<5.0
Chloroform	ug/l	<5.0
1,2-Dichloroethane	ug/l	<5.0
2-Butanone (MEK)	ug/l	<25
1,1,1-Trichloroethane	ug/l	<5.0
Carbon tetrachloride	ug/l	<5.0
Vinyl acetate	ug/l	<5.0
Bromodichloromethane	ug/l	<5.0
1,2-Dichloropropane	ug/l	<5.0
cis-1,3-Dichloropropene	ug/l	<5.0
Trichloroethene	ug/l	<5.0
Dibromochloromethane	ug/l	<5.0
1,1,2-Trichloroethane	ug/l	<5.0
Benzene	ug/l	<1.0
trans-1,3-Dichloropropene	ug/l	<5.0
Bromoform	ug/l	<5.0
4-Methyl-2-pentanone (MIBK)	ug/l	<25
2-Hexanone	ug/l	<25
Tetrachloroethene	ug/l	<5.0
1,1,2,2-Tetrachloroethane	ug/l	<5.0
Toluene	ug/l	<5.0
Chlorobenzene	ug/l	<5.0
Ethylbenzene	ug/l	<5.0
Styrene	ug/l	<5.0
Xylenes, Total	ug/l	<10

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
10922-3	Trip Blank	Liquid	10/31/03	10/30/03	EPC08

Parameter	Units	Lab Sample IDs 10922-3
Volatile Organic Compounds (8260B)		
Surrogate - Dibromofluoromethane *	%	100 %
Surrogate - Toluene-d8 *	%	99 %
Surrogate - 4-Bromofluorobenzene *	%	97 %
Dilution Factor		1
Prep Date		11/06/03
Prep Time		21:34
Analysis Date		11/06/03
Analysis Time		21:34
Batch ID		TAW219
Prep Method		5030B
Analyst		GRH
Quantitation Factor		1

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.

[redacted] [redacted]

Chain of Custody Record

STL4124-400 (12/02)

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL Pensac
3355 McLemore Drive
Pensacola, FL 32514

Client: El Paso	Project Manager: Bob Norris	Date: 10/30/03	Chain of Custody Number: 09575
Address: —	Telephone Number (Area Code)/Fax Number: 3169445232	Lab Number:	Page 1 of 1
City: Colorado Springs; State: Co; Zip Code: —	Site Contact: S. Harden	Lab Contact: M. Pope	
Project Name and Location (State): El Paso El Porado Refinery	Carrier/Waybill Number: 1Z X17 8X9 22 1026 3503		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	8270	8260	601/8010	8015 GRO	8015 DRO
SS01-10-002	10/30	1130		X			X		X	X			X	X	X	X	X
SS02 10-03-03	10/30	1200		X			X		X	X			X	X	X	X	X

Special Instructions/ Conditions of Receipt

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown

Sample Disposal: [ ] Return To Client [X] Disposal By Lab [ ] Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: [ ] 24 Hours [ ] 48 Hours [ ] 7 Days [ ] 14 Days [X] 21 Days [ ] Other _____

QC Requirements (Specify): Level II

1. Relinquished By: [signature]	Date: 10/30/03	Time: 1730	1. Received By: UPS	Date: 10/30/03	Time: 1730
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

COPY

K A N S A S

RODERICK L. BREMBY, SECRETARY

KATHLEEN SEBELIUS, GOVERNOR

DEPARTMENT OF HEALTH AND ENVIRONMENT

December 7, 2004

Jennifer Allender
Project Manager
Environmental Remediation
El Paso Corporation
2 North Nevada Avenue
Colorado Springs, CO 80903

RE: Supplemental Responses to KDHE Comments
First Phase Comprehensive Investigation Report
Coastal El Dorado Refinery–El Dorado, Kansas

Dear Ms. Allender:

The Kansas Department of Health and Environment–Bureau of Environmental Remediation (KDHE–BER) acknowledges receipt of the El Paso Corporation (EPC) supplemental response to comment letter dated November 18, 2004 regarding the January 2004 *First Phase Comprehensive Investigation Report for the Coastal El Dorado Refinery* (Phase 1 CI Report). Although the summary tables and contaminant distribution figures presented in the Phase 1 CI Report do not appear to be inclusive of all detected analytes reported by the laboratory, the primary contaminants of concern (COCs) have been identified. We just request that future investigative report submittals include all detected analytes in the data summary tables and corresponding figures. Therefore, KDHE—BER accepts the Phase 1 CI Report into the administrative record as augmented by pertinent comment resolution-related correspondence dated March 2, April 15, May 11, June 15 and November 18, 2004. It is noted that the November 18th supplemental response to comment letter accurately reflects our meeting discussion on August 31, 2004.

Should you have any questions regarding this letter, you may reach me by telephone at 785-291-3255 or by e-mail at junderwood@kdhe.state.ks.us .

Sincerely,

E. Jean Underwood

E. Jean Underwood
Environmental Geologist
Remedial Section
Bureau of Environmental Remediation

c: Kurt Limesand→file Coastal El Dorado (C2-008-70243-01)