

GW - 164

WORK PLANS

2000

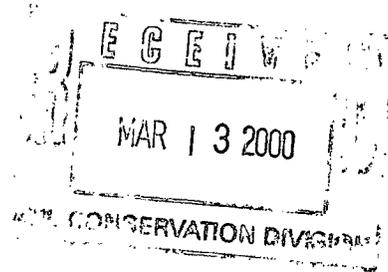


Highlander Environmental Corp.

Midland, Texas

March 6, 2000

Mr. Wayne Price
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505



Re: Scope of Work for Soil and Groundwater Sample Collection, Wood Group ESP, Inc. (BW-164), NW/4, NW/4, NW/4, Section 35, Township 17 South, Range 38 East, Lea County, New Mexico

Dear Mr. Price:

Wood Group ESP, Inc. (ESP, INC.) has retained Highlander Environmental Corp. (Highlander) to prepare a response to an inspection conducted by the New Mexico Oil Conservation Division (NMOCD) at its service center (Facility), located near Hobbs, New Mexico. The purpose of the response is to present a plan to address apparent soil contamination identified by the NMOCD, and collect groundwater samples from a water well at the Facility. The Facility address and contact information is as follows:

Name: Wood Group ESP, Inc.
Mailing Address: P. O. Box 596
Hobbs, New Mexico 88241
Street Address: 8426 North Dal Paso
Hobbs, New Mexico 88242
Telephone: (505) 392-7999
Fax: (505) 392-8190

The Facility is located in the NW/4, NW/4, NW/4 Section 35, Township 17 South, Range 38 East, Lea County, New Mexico. Figure 1 presents a Site location and topographic map.

Facility Description

The Facility operates under an NMOCD issued discharge plan (BW-164), and is a local service center for reconditioning electric submersible pumps, used in oil and gas production. The submersible pumps are delivered to the Facility, and initially cleaned to remove oil residues and scale. The cleaning process occurs in the shop building, on a concrete pad equipped with a fiberglass-lined collection sump and containment. The external surfaces are cleaned using a high-pressure washer. The internal surfaces are cleaned by circulating hydrochloric acid through the pump in a closed system. Wash water and acid drips drain to the collection sump, are transferred to an aboveground tank, and stored at the Facility until disposal is arranged. After cleaning, the pumps are

reconditioned, internally protected with light coating of mineral oil, and placed on storage racks, located on the north, east and south sides of the Facility, until retrieved by the customer. Drummed chemicals (i.e., hydrochloric acid, etc.) are stored on concrete pads located on the east side of the shop building.

The Facility is not connected to a publicly owned treatment works (POTW). However, a septic system is located near the northwest corner of the Facility. A water well, used for non-potable purposes (i.e., wash water and rest rooms), is located approximately 50 feet southeast of the shop building. Figure 2 presents a Facility drawing.

Regulatory Correspondence

On January 27, 2000, The New Mexico Oil Conservation Division (NMOCD) conducted an inspection of the Facility, in conjunction with renewal of its discharge plan. On February 4, 2000, the NMOCD conditionally approved the discharge plan, and requested the Facility to address several issues identified during the inspection. Appendix A presents a copy of the NMOCD notice. The issues identified include:

- Collecting groundwater samples from the water well for laboratory analysis;
- Addressing apparent contaminated soil near the south edge of the drive-way (south of the shop), drum storage area, and pump storage area;
- Installing containment in areas showing evidence of leaks and spills reaching ground surface, including the drive-way pad, drum and pump storage areas; and
- Preparing a storm water run-off plan for the Facility.

Areas of apparent soil contamination identified by the NMOCD included the south edge of the driveway, south of the shop building, drum storage area east of the shop building, and the pump storage area. Prior to ESP, the Facility was an implement dealership and serviced farm implements, including tractors. Tractors were reportedly washed off on the concrete driveway to remove oil and grease prior to servicing. Run-off from degreasing may have contributed to the apparent soil contamination south of the driveway. Pumps are placed on storage racks north, east and south of the shop building only after reconditioning, at which time, a coating of light mineral oil (Rocon #2) is applied to the internal pump workings to prevent corrosion during storage. According to the manufacture's Material Safety Data Sheet (MSDS), the mineral oil has a toxicity rating of insignificant (0). Appendix B presents the MSDS.

Groundwater Sampling and Analysis

No records pertaining to construction of the water well were available at the Facility. Based on water well construction records obtained from the New Mexico State Engineer, located in Roswell, New Mexico, the well was constructed in 1980, and was drilled to about 130 feet below ground surface (BGS). The well screen extends from about 110 to 130' BGS, and the casing diameter is 6 5/8". The static water level was reported at



approximately 68 feet BGS. The well will be purged to remove at least three (3) casing volumes of groundwater prior to sample collection, therefore, approximately 280 gallons of water will be pumped from the well. The water will be routed away from the well using a garden hose attached to a spigot located near the wellhead. Once purged, the hose will be removed and samples will be collected from the spigot. The samples will be submitted, under chain-of-custody control, to a certified laboratory, and analyzed for New Mexico Water Quality Control Commission (NMWQCC) human health and domestic water supply standards, including volatile and semi-volatile organics (8260C and 8270B), MTBE, 1 and 2-methylnaphthalene, metals, anions, cations and total dissolved solids (TDS).

EPS will notify the NMOCD personnel in Santa Fe and Hobbs, New Mexico, at least 48-hours prior to field activities for the opportunity to witness or collect duplicate samples.

Soil Sampling and Analysis

Soil samples will be collected near the south end of the driveway and in the drum storage area to determine the nature and extent of potential impacts from hydrocarbons. Based on information presented in the MSDS, the light mineral oil used to internally protect the submersible pumps after cleaning does not pose a significant environmental risk, therefore, ESP will implement a program to treat areas of mineral oil stained soil. Nitrogen fertilizer will be applied to soil showing staining from mineral oil, and the area watered, and tilled or raked to promote in-situ microbial degradation. Soil samples will be collected for field and laboratory analyses from two (2) locations near the south end of the driveway, and at three (3) locations in the drum storage area. Currently, it is ESP's intent to replace the existing drum storage structures located east of the shop building, with an engineered containment structure. Soil samples will be collected from the area upon removal of the concrete. The concrete will be retained on site, or taken to a municipal landfill for disposal. Figure 2 presents proposed sample locations.

Soil samples will be collected at each location using a stainless steel hand auger. The soil samples will be collected every three (3) feet until hydrocarbon impacts are no longer detected by visual or field screening methods. If hydrocarbon impacts extend beyond the capability of the hand auger or subsurface conditions prohibit using the hand auger, the soil samples may be collected during drilling with a truck-mounted drill rig. If a drilling rig is used, soil samples will be collected using a split-spoon sampler or grab samples of drill cuttings will be collected if subsurface conditions prohibit use of the split-spoon sampler. The samples will be collected every five (5) feet, until significant impacts are no longer detected by visual or field screening methods. All soil samples will be immediately placed in clean glass sample jars, labeled, placed in an ice chest, chilled, and transferred, under chain-of-custody control, to a qualified laboratory for possible analyses.



In addition, a portion of each sample will be placed in a clean plastic sample bag for field screening, using the Ambient Temperature Headspace (ATH) method. The ATH method consists of collecting a discrete or composite soil sample and placing the sample in a clean plastic sample bag, leaving a vacant headspace in the top of the bag. After sealing the bag, and approximately fifteen minutes at ambient temperature storage, the concentration of organic vapors in the sample bag headspace is measured using a photoionization detector (PID). A Thermo Environmental Instruments, Model 580B, Organic Vapor Meter, calibrated to an isobutylene standard, will be used to measure the concentration of hydrocarbon vapors in the sample headspace. The PID has a detection limit of 0.1 parts per million (ppm). In accordance with NMOCD guidelines (Guidelines for Remediation of Leaks, Spills and Releases, August 13, 1993), the soil samples will be analyzed for benzene, toluene, ethylbenzene, xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH). The NMOCD guidelines do not require analysis of soil samples for BTEX, if the soil headspace gas readings are below 100 ppm. However, a headspace gas analysis cannot be substituted for total petroleum hydrocarbon (TPH) analysis. The soil sample exhibiting the highest headspace gas reading and the deepest sample collected from each location will be selected for laboratory analysis. If the soil samples exhibit headspace gas readings above 100 ppm, the samples will be analyzed for BTEX (8021) and TPH (8015 Modified). However, if the samples exhibit headspace gas readings below 100 ppm, then the samples will only be tested for TPH.

The borings will be drilled to depths sufficient to determine if hydrocarbons have migrated to groundwater. If the hydrocarbon concentrations decrease below measurable levels, based on the headspace gas analyses, prior to encountering groundwater, drilling will stop. The drill cuttings will be placed in a traffic-free area until disposal is arranged. If significant hydrocarbon impacts are visually detected in the soil, the soil will be covered with plastic until analyses are received, and disposal is arranged. The borings will be plugged with cement and bentonite grout following sample collection. The NMOCD will be notified at least 48-hours prior to sampling in order to witness the sampling event, or collect samples.

Following receipt of the laboratory data, Highlander will prepare a report summarizing the results of the investigations. The report will present the investigation findings, and recommendations for additional investigations, if needed. A remediation plan, if required, will be prepared to address remediation of soil in the drum storage area and the south end of the driveway. The report will also include design and specifications for containment structures to be installed to control run-off in the drum storage and driveway areas. A storm water run-off plan will also be submitted for NMOCD approval.



Mr. Wayne Price
March 6, 2000
Page 5

Please call if you have questions,
Sincerely,
Highlander Environmental Corp.

A handwritten signature in black ink, appearing to read 'Mark J. Larson', with a large, stylized initial 'M' and 'L'.

Mark J. Larson
Senior Project Manager

Encl.

cc: Larry Merworth, Wood Group ESP, Inc.
Chris Williams, NMOCD - Hobbs District



FIGURES



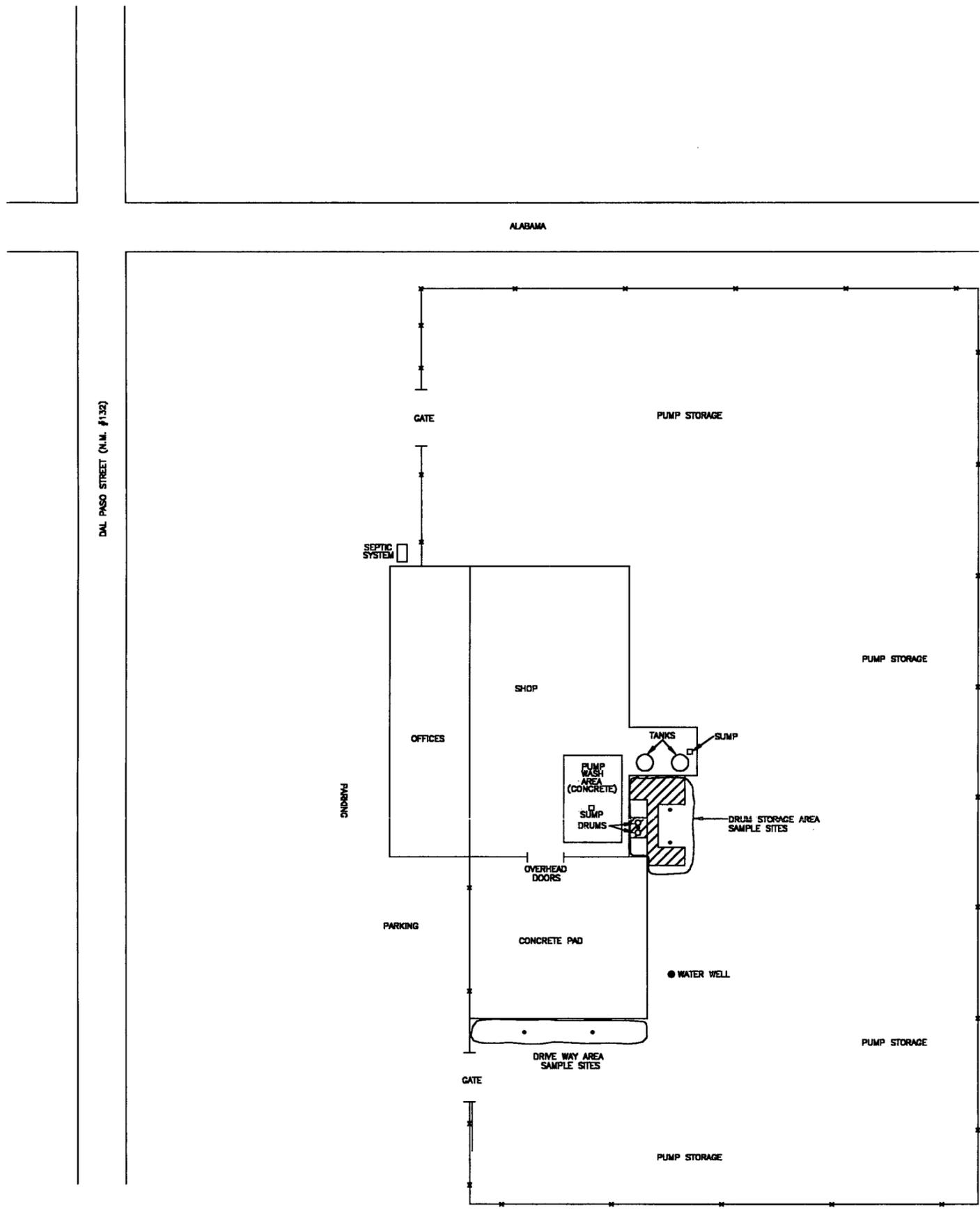
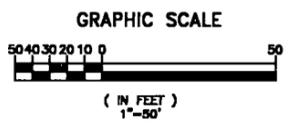


FIGURE NO. 2

LEA COUNTY, NEW MEXICO	
ELECTRIC SUBMERSIBLE PUMPS, INC.	
HOBBS, NEW MEXICO	
SITE DRAWING	
HIGHLANDER ENVIRONMENTAL CORP.	
MIDLAND, TEXAS	

DATE: 03/05/00
 DWN. BY: JDA
 FILE: C:\ESP\SITE



LEGEND

● PROPOSED SAMPLE LOCATIONS (APPROXIMATE)

APPENDIX A
NMOCD Correspondence



APPENDIX B
Mineral Oil MSDS

