

PROPOSAL FOR ENVIRONMENTAL SERVICES
 Quarterly Groundwater Monitoring and Reporting
 ESA Project No. UPS2401

ESA CONSULTING, LLC (ESA) is pleased to present Upshur County (client) with this cost proposal for one year of quarterly groundwater monitoring and reporting at the Upshur County Road and Bridge Central Barn Facility located at 2255 US Highway 271 N in Gilmer (Upshur County), Texas. Quarterly groundwater monitoring of the groundwater monitoring well network is required to document the stability of the dissolved-phase hydrocarbon plume which resulted from a leaking petroleum storage tank dispenser line.

SCOPE OF WORK

ESA will sample all monitoring wells not containing light non-aqueous phase liquids (LNAPL) at the Site consistent with the United States Environmental Protection Agency (EPA) Low-Stress (low flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells (Revised: September 19, 2017). For the purposes of this proposal it is anticipated that 11 monitor wells will be sampled as part of each quarterly monitoring event. Prior to sampling, the well caps on each well will be removed to allow water levels to equilibrate to atmospheric pressure at which time depth to water at each well will be measured to the nearest 0.01 feet using an electronic water level probe. In addition, following sampling, the total well depth will be measured for each monitoring well.

A peristaltic pump with dedicated tubing will be used to purge groundwater from each monitoring well using micro-purging techniques (anticipated purge rate of 0.5 L/min. or less). Purge water will be monitored for pH, temperature, specific conductance, and turbidity. These parameters will be considered stable when the difference between the final two measurements is within the following limits:

<u>Parameter</u>	<u>Stabilization</u>
Temperature	1 degree Celsius
Specific Conductance	10 percent
pH	0.1 standard units
Turbidity	+/- 10 percent

In the event the monitoring well cannot yield sufficient water to sustain static fluid levels with less than 0.33 feet drawdown using low-flow sampling methods described above, the monitoring well will be purged dry and allowed to recover prior to sampling. In addition to the sampling of the groundwater monitoring wells, a representative groundwater sample will be collected from the on-site water well as part of each quarterly groundwater monitoring event.

Groundwater samples will be shipped via overnight delivery to Pace Analytical Laboratories for analysis of benzene, toluene, ethylbenzene and xylenes (BTEX) and methyl-tert butyl ether (MTBE) by United States Environmental Protection Agency (USEPA) Method 8260 and total petroleum hydrocarbons (TPH) Texas

Method 1005. In addition, the highest TPH sample result in the C12 to C28 carbon range per monitoring event will be resubmitted for analysis of polycyclic aromatic hydrocarbons (PAH) by USEPA Method 8270.

DELIVERABLES

Upon completion of the fourth quarterly groundwater monitoring event, ESA will prepare an annual groundwater monitoring report (TCEQ Report Form 000013) and applicable attachments. The annual groundwater monitoring report is due to the TCEQ within 45 days of the completion of the fourth quarterly groundwater monitoring event.

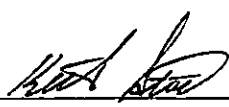
FEES

ESA will provide these services for a time and materials fee not to exceed \$39,200.00 without written approval of the client. Client will be invoiced monthly with any incremental time and material charges incurred during the period.

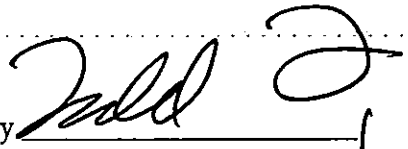
TERMS AND CONDITIONS

Client agrees to provide ESA with access to the property for the purpose of implementing the scope of work.

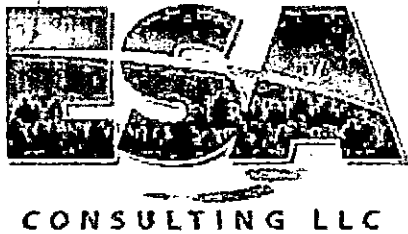
The client realizes that neither ESA nor subcontractors to ESA owe any fiduciary duty to the client. In no event shall ESA be liable for special, incidental or consequential damages. All services provided by ESA under this agreement will be performed in a manner consistent with that degree of care and skill ordinarily exercised by environmental professionals operating under similar circumstances. All reports and other work product are the property of ESA and the client. This agreement comprises the final and complete agreement between the client and ESA. It supersedes all prior or contemporaneous communications, representations, or agreements, whether oral or written, relating to the subject matter of this agreement. Execution of this agreement signifies that each party has read this agreement and is satisfied. Amendments to this agreement shall not be binding unless made in writing and signed by both ESA and the client.

Offered by ESA 

Date 8/1/2024

Accepted by 
Date 8-15-2024
TODD TEFFELLER
UPSHUR CO. JUDGE

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PROPOSAL FOR ENVIRONMENTAL SERVICES

Additional Subsurface Investigation and Reporting
ESA Project No. UPS2402

ESA CONSULTING, LLC (ESA) is pleased to present Upshur County (client) with this cost proposal for an additional subsurface investigation and reporting at the Upshur County Road and Bridge Central Barn Facility located at 2255 US Highway 271 N in Gilmer (Upshur County), Texas. The additional subsurface investigation is required to delineate the upgradient and downgradient extents of the dissolved-phase plume.

The scope of work required to obtain the information outlined above will include the following:

- ESA will oversee and direct a Texas-licensed Water Well Driller in the drilling and installation of two additional groundwater monitor wells. One upgradient monitor well will be installed south of the office/shop building near the southern property boundary. One downgradient monitor well will be installed north of monitoring well MW-10 on the northern adjacent property to delineate the downgradient extent of the dissolved-phase plume.
- During drilling an ESA project manager will screen soil cores for petroleum hydrocarbons using a photo-ionization detector (PID) to determine the vertical extent of impacts to soil and will describe the soil core to characterize the geological characteristics of the shallow subsurface. Boreholes will be drilled to at least five feet below the deepest detected PID response or until groundwater is encountered.
- Two soil samples will be collected from each borehole, one from the zone exhibiting the highest PID response and one above the soil/groundwater interface; if the presence of VOCs is not indicated by the PID, the sample will be collected at the total depth of the borehole. Soil samples will be collected using EPA Method 5035 for benzene, toluene, ethylbenzene, and total xylenes (BTEX) and methyl tertiary butyl ether (MTBE) by EPA method 8260B, total petroleum hydrocarbons (TPH) by Texas Method 1005, and for polycyclic aromatic hydrocarbons (PAH) by EPA Method 8270 if TPH >nC12 is detected.
- Following monitor well installation, each monitor well will be properly developed to remove accumulated sediment in the well prior to groundwater sample collection.
- The elevation of the top of each well casing will be determined relative to a permanent on-site datum to allow gauging of water levels and generation of a potentiometric map showing static groundwater elevations relative to the on-site datum.
- Groundwater samples will be collected for one year on a quarterly basis from each well using low flow sampling techniques with disposable tubing and pumped directly to laboratory-provided sampling containers and stored on ice until delivery to a TCEQ approved, NELAC-certified laboratory for analyses of benzene, toluene, ethylbenzene, and total xylenes (BTEX) and methyl

tertiary butyl ether (MTBE) by EPA method 8260B; for total petroleum hydrocarbons (TPH) by Texas Method 1005, and for polycyclic aromatic hydrocarbons (PAH) by EPA Method 8270 if TPH >nC12 is detected.

DELIVERABLES

ESA will prepare a letter report with updated supporting documents (i.e., data tables, figures, etc.) documenting the completion of the scope of work.

FEES


ESA will provide these services for a time and materials fee not to exceed \$20,900.00 without written approval of the client. Client will be invoiced monthly with any incremental time and material charges incurred during the period.


TERMS AND CONDITIONS

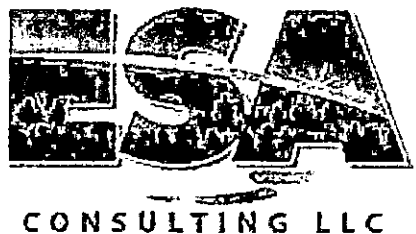
Client agrees to provide ESA with access to the property for the purpose of implementing the scope of work.

If additional wells or samples, are required to complete delineation of impacted environmental media, and/or if off-site access is required to complete the scope of services or if additional investigation is required after agency review of the report findings ESA will provide client with a cost proposal for additional services required.

The client realizes that neither ESA nor subcontractors to ESA owe any fiduciary duty to the client. In no event shall ESA be liable for special, incidental or consequential damages. All services provided by ESA under this agreement will be performed in a manner consistent with that degree of care and skill ordinarily exercised by environmental professionals operating under similar circumstances. All reports and other work product are the property of ESA and the client. This agreement comprises the final and complete agreement between the client and ESA. It supersedes all prior or contemporaneous communications, representations, or agreements, whether oral or written, relating to the subject matter of this agreement. Execution of this agreement signifies that each party has read this agreement and is satisfied. Amendments to this agreement shall not be binding unless made in writing and signed by both ESA and the client.

Offered by ESA 
Date 8-1-2024

Accepted by 
Date 8-15-2024
TODD TEFTUEER
UPSHUR CO. JUDGE



PROPOSAL FOR ENVIRONMENTAL SERVICES
 LNAPL Recovery System Installation and O&M Activities
 ESA Project No. UPS2403

ESA CONSULTING, LLC (ESA) is pleased to present Upshur County (client) with this cost proposal for light non-aqueous phase liquids (LNAPL) recovery system installation and operation and maintenance (O&M) activities at the Upshur County Road and Bridge Central Barn Facility located at 2255 US Highway 271 N in Gilmer (Upshur County), Texas.

The scope of work required to obtain the information outlined above will include the following:

- ESA will install two, in-well LNAPL recovery pumps with floating inlets into two of the LNAPL impacted groundwater monitoring/recovery wells. The LNAPL recovery pumps are pneumatically operated and will operate on an air supply line connected to the on-site air compressor system. Pumping rates are adjusted by a programmable solar powered controller.
- Recovered LNAPL will be temporarily stored on-site in a 2,000-gallon steel storage tank provided by Upshur County. The storage tank will be equipped with a floating high level cutoff switch connected to the controller which will shut down the system if the tank becomes full.
- Recovered LNAPL will be removed via a licensed transporter and delivered to a licensed treatment facility as needed.
- ESA personnel will perform bi-weekly operation and maintenance (O&M) events on the recovery system. The O&M events will include gauging fluid levels in affected wells, resetting pump inlets, cleaning/repairing pumps and gauging fluid levels in the storage tank. It is estimated the bi-weekly O&M events will require four hours per event. O&M events included in this cost proposal are for a period of one year.
- Following one year of LNAPL recovery, ESA will prepare a Field Activity Report (FAR) for submittal to the Texas Commission on Environmental Quality (TCEQ). The report will include volumes of LNAPL recovered as well as manifests documenting volumes of LNAPL transported off-site for recycling.

DELIVERABLES

ESA will prepare an FAR with updated supporting documents (i.e., data tables, manifests, etc.) documenting LNAPL recovery activities for a period of one year.

FEES

ESA will provide these services for a time and materials fee not to exceed \$39,900.00 without written approval of the client. Client will be invoiced monthly with any incremental time and material charges incurred during the period.

TERMS AND CONDITIONS

Client agrees to provide ESA with access to the property for the purpose of implementing the scope of work.

If additional wells or samples, are required to complete delineation of impacted environmental media, and/or if off-site access is required to complete the scope of services or if additional investigation is required after agency review of the report findings ESA will provide client with a cost proposal for additional services required.

The client realizes that neither ESA nor subcontractors to ESA owe any fiduciary duty to the client. In no event shall ESA be liable for special, incidental or consequential damages. All services provided by ESA under this agreement will be performed in a manner consistent with that degree of care and skill ordinarily exercised by environmental professionals operating under similar circumstances. All reports and other work product are the property of ESA and the client. This agreement comprises the final and complete agreement between the client and ESA. It supersedes all prior or contemporaneous communications, representations, or agreements, whether oral or written, relating to the subject matter of this agreement. Execution of this agreement signifies that each party has read this agreement and is satisfied. Amendments to this agreement shall not be binding unless made in writing and signed by both ESA and the client.

Offered by ESA 

Date 8-1-2024

Accepted by 

Date 8-15-2024
TODD TEFTLELLER
UPSHUR CO. SUDG P