



DEP OOG – Methane Emission Quantification

TECHNICAL PROPOSAL

State of West Virginia

Josh Hager

Solicitation No.: CRFP 0313 DEP2500000001

Bid Opening Date: 8/27/2024

Bid Opening Time: 1:30 PM ET

Fax No.: 304-558-3970

Submitted By:

Charles Connolly, PMP

CTEH, LLC

2501 Chapline St.

Box 6562

Wheeling, WV 26003

cconnolly@cteh.com



Table of Contents

1. Project Goals and Mandatory Requirements	2
The CTEH-Montrose Advantage.....	2
Statement of Understanding	3
1.1 Pre-Plugging Methane Measurement Approach	4
1.1.1 Overall Methodology	4
1.1.2 Equipment, Calibration, and Procedures	5
1.2 Post-Plugging Methane Measurements Approach.....	7
1.3 Screening Protocol for Testing Wells not Appearing to Leak	8
1.4 Previous Demonstrated Successes	8
1.5 Compliance with BIL Guidelines.....	8
2. Qualifications and Experience	9
2.1 Proposed Staffing Plans	9
2.1.1 Copies of Staff Certifications Applicable to this Project.....	12
2.2 Past Projects Completed.....	12
Federal Orphan Well Program, Bureau of Land Management, Utah	12
Louisiana Orphan Well Management, Statewide, Louisiana	12
West Virginia Flood Event (Rise West Virginia), Statewide, West Virginia.....	13
2.2.1 References for Prior Projects.....	14
2.2.2 Qualified Measurement Specialists	14
2.3 Addendum Acknowledgement Form.....	16
2.4 Signed RFP.....	16
Attachment A: Certifications	
Attachment B: Addendum Acknowledgement	
Attachment C: Signed RFP	

1. Project Goals and Mandatory Requirements

The CTEH-Montrose Advantage

In 2020, CTEH merged with Montrose Environmental Group, Inc. (Montrose), a leading environmental services company with operations across North America, Australia, and Europe. Montrose supports government and commercial organizations with a diverse range of services, from regulatory compliance, permitting, engineering, and remediation to comprehensive air measurement and laboratory services. Headquartered in Little Rock, Arkansas, Montrose has over 60 offices and 2,000 employees of varying environmental specialties, **including a location in Wheeling, West Virginia with a history of boots-on-the-ground environmental support for West Virginia communities.** With a commitment to personalized collaboration, Montrose has become the premier provider of environmental remediation, engineering, soil and water sampling, ambient monitoring, regulatory affairs, air quality permitting, emission inventory compilation, plume dispersion, modeling, laboratory services and emissions testing services across the country.



Figure 1: Through our parent company, Montrose Environmental Group, we have service locations all over the United States, including West Virginia.

Through our merger with Montrose, we continue to provide reliable and timely environmental data, gathered using the highest technical and ethical standards, and with the least interruption to our clients' business goals. We take pride in the quality of our services and are committed to helping industries comply with stringent environmental standards as promulgated by the Environmental Protection Agency (EPA), state, and local agencies. The Montrose Ambient staff has been serving clients since 1998 and have continuously provided a wide range of ambient monitoring, instrumentation and air quality/environmental issues across the United States.

The combination of these teams at Montrose gives you access to a comprehensive task force of geoscientists, professional engineers, toxicologists, chemists, and technicians deliver quality services unsurpassed by other environmental firms. Paired with our relevant and recent history with Bipartisan Infrastructure Law (BIL) projects, you gain the peace of mind that your project will be completed on-time and within budget.



Figure 2: We currently have over 40 qualified technicians that are trained for the prescribed techniques for methane quantification outlined in the guidelines.

Statement of Understanding

We understand the State of West Virginia has around 75,000 active and abandoned natural gas wells, including thousands of known wells for which there is no known responsible party, as well as potentially thousands more undocumented wells. We understand the Agency intends to permanently plug abandoned wells under the authority of W. Va. Code § 22-10-7(a), and prioritizes wells that could pose a threat to human health, safety, the environment, or future mineral development. We recognize that in order to complete this task, the orphaned wells must be evaluated for methane leakage.

For nearly 25 years, CTEH has been providing the nationally recognized expertise needed to execute your project goals. Our personnel have extensive experience in responding to and managing of incidents and emergency responses throughout North America, in addition to developing programs in support of incidents and operations globally. This experience, as well as our proficiency in generating, managing, and reporting on data, through our participation in thousands of responses in the Oil and Gas Industry over the past 20 years, as well as relevant methane quantification experience under the BIL in Utah, Louisiana, and Mississippi, should give you confidence in our ability to provide quality project management services.

CTEH air monitoring and air quality experts use state-of-the-art equipment to create an accurate representation of exposure in order to help protect individuals and maintain compliance. We currently have over 40 qualified technicians that are trained for the prescribed techniques for methane quantification outlined in the guidelines. Our experience along with the adoption of new technologies has uniquely positioned us to successfully execute these measurement procedures and data collection.

1.1 Pre-Plugging Methane Measurement Approach

1.1.1 Overall Methodology

CTEH proposes combining the industry-recognized, fit-for-purpose methane measurement equipment deployed by our LDAR Division air measurement specialists and the expert data management, emergency response, and project management solutions of CTEH responders. The benefits of our proposed solution include a) a robust and comprehensive ability to leverage characterization methods to facilitate the identification of well sites; and b) deployment of a range of solutions, from methane emission monitoring, Optical Gas Imaging (OGI) and aerial imagery to classify well sites by important variables (e.g., community and environmental impact) and c) developing a ranking system or matrix by which to prioritize orphan wells for assignment. In short, we will be able to pinpoint and prioritize which sites to focus on first.

Our team of qualified and experienced engineers, scientists, chemists, and technicians deliver quality services unsurpassed by other environmental firms. The CTEH Team has been serving clients since 1998 and have continuously provided a wide range of ambient monitoring, instrumentation and air quality/environmental issues across the United States.

CTEH air monitoring and air quality experts use state-of-the-art equipment to create an accurate representation of exposure in order to help protect individuals and maintain compliance. Our experience along with the adoption of new technologies has uniquely positioned us to successfully execute these measurement procedures and data collection.

BENEFITS OF OUR SOLUTION

1. Robust and comprehensive characterization methods to facilitate identification of well sites.
2. Deployment of a range of solutions including methane emission monitoring, Optical Gas Imaging (OGI), and aerial imagery.
3. Development of a ranking system or matrix by which to prioritize orphan wells for assignment.

1.1.2 Equipment, Calibration, and Procedures



Figure 3: Our equipment is certified for use in hazardous environments and is compliant with the U.S. EPA's Oil and Natural Gas Air Pollution Standards regulation requirements.

Our team will utilize a combined approach utilizing the **Bascom-Turner Gas Rover II**, **Optical Gas Imaging Cameras**, and a **Semtech Hi Flow 2 Sampler**. This equipment, which is currently being deployed on IJIA projects across the country, will satisfy all requirements described in Section 40601 (Orphaned well site plugging, remediation, and restoration) of Title V (Methane Reduction Infrastructure) of the 2021 Bipartisan Infrastructure Law (BIL; Public Law 117-58). CTEH uses digital screening, GPS capabilities, and calibrated cameras that can pinpoint the location of emission leaks in some of the harshest, smallest, and most difficult testing environments. Our equipment is certified for use in hazardous environments and compliant with the United States Environmental Protection Agency's Oil and Natural Gas Air Pollution Standards regulation requirements. Our Hi-Flow Samplers facilitate rapid detection, increase the accuracy of results and bring efficiency to the cost of monitoring. With this technology, we can perform quality initial assessments to identify and prioritize larger leaks responsible for the most harmful emissions, which can then be compared to post assessments to ensure all plugging activities are complete and the methane reduction is accurately quantified and reported.

All equipment is portable by field technician personnel, able to be deployed within minutes of arrival on an orphaned well location and is extremely accurate satisfying all federal and state requirements. Additional information on the accuracy of the Hi Flow 2 sampler at 5% or better, which would be utilized to quantify methane emissions at the 1 g/hr requirement, can be found at the links described at the end of this subsection.

We will use a Hi-Flow Sampler to quantify emissions at the required 1 g/hr threshold established in the Federal Program Guidelines. The following steps outline some of the main procedures and precautions of our protocol:

- **Calibration:** Instrument calibrated every 30 days to assure its accuracy. The frequency of calibration, however, may increase depending on how often the instrument is used. Any irregular function or output from the unit will trigger a calibration event.
- **Safety Precautions:** Due to the size and weight of the Hi-Flow Sampler, the equipment operator must always be aware of the space around them to avoid tripping and falling hazards. When using the Hi-Flow, one assessment team member is used as a spotter for the Hi-Flow Operator to help identify clearance issues and hazards. If the emission source is in an unsafe area and the available hazard controls are insufficient in eliminating or reducing the hazard, the measurement will not be attempted.
- **Grounding:** To prevent the possibility of a static discharge, the Hi-Flow Sampler must be grounded while conducting a test. The grounding clamp location must be a metal surface with a conductive connection to the ground (avoiding surfaces with heavy paint or any surface where the ground conduction is questionable).
- **Gas Exposure:** When measuring emission sources, where the gas detection readings are within a safe range but there still exists a potential for exposure to harmful substances (e.g. BTEX), the assessment team members will use appropriate respiratory equipment. If for some reason the appropriate respiratory equipment is not available and there is any doubt as to the exposure levels, the crew will not proceed with the measurement. Crew will avoid sampling gases or vapors that contain silicones or sulfur compounds. Sour gas (H₂S) can form contaminating compounds on the sensor element (poison the sensor), resulting in a decrease in sensitivity.
- **Startup:** To ensure that the gas sensors are properly zeroed at startup, the Hi Flow Sampler must be turned ON in clean air (free of combustible gases or vapors).
- **Emission Capture:** It is important to capture all the gas being emitted from the source. Depending on the size of the emission source, the crew may use a variety of accessories to ensure that all the gas is captured (plunger



Figure 4: The Hi-Flow 2 Sampler can quantify emissions at the required 1 g/hr threshold established in the Federal Program Guidelines.

SEMTECH HI-FLOW 2 KEY DOCUMENTATION

The Hi-Flow 2, a key piece of equipment in our methane quantification approach, meets and exceeds the detection limit of 1 g/hr and also quantifies up to 20 CFM.

Below is a link to the final report from a third-party test conducted at the Methane Emissions Technology Evaluation Center (METEC) facility at Colorado State University, a unique testing and research facility for emissions detection and quantification, training, and method development.

<https://tinyurl.com/HIFLOWREPORT>

More information about the Hi-Flow 2 can also be found at the manufacturer's website:

<https://tinyurl.com/SEMTECHII>

attachment, vent hood, static free plastic wrap, etc.). If there is any doubt that all the gas is not being captured, the crew may use the infrared camera as a screening tool to look for escaping gas.

- **Emissions at Height:** Frequently, extension poles are utilized to reach emission sources (rod packing, blow down vents, tank vents and wet seal degassing vents).

Our Standard Operating Procedures (SOP) require us to collect all the data needed under the Measurement Guidelines. This data is stored in a centralized database that is then accessible online the same day. The data includes pictures and Optical Gas Imaging (OGI) videos of each identified leak.

In addition, we maintain SOPs on data collection, data and quality management plans, standard operating guidelines on communications and quality management, and more. We have SOPs on delivering quality, accurate, and timely reports, data summaries, and deliverables. We track these dates and data can be shared for transparency. Since we have emergency response capabilities, all our other service offerings have timely, accurate, and defensible processes and procedures built-in and scalable to meet our client needs. Thus, depending on monitoring, sampling, or status reporting requirements, we can deliver these via email, web portal, or distribution group as necessary. We can build in tracking requirements into our web portal to show our turnaround time for deliveries.

Under the guidelines, our first leak detection survey would be conducted with a Method 21 (M21) approved analyzer. The second scanning technique to follow M21 would be the OGI camera. The second scan with the camera would help to identify the exact location of the leak. This two-pronged method will allow the technician to pinpoint the exact location of the leak to make quantification more accurate. The OGI camera is also used during the measurement process to ensure a complete capture and analysis of the leak.

1.2 Post-Plugging Methane Measurements Approach

CTEH will follow the same strategy and protocol for post-plugging methane measurements as stated in Section 1.1. We have extensive experience following this protocol on federal programs throughout the country following the plugging and abandonment of wells.

1.3 Screening Protocol for Testing Wells not Appearing to Leak

Through our process described in Section 1.1, CTEH is able to screen wells quickly and effectively to ensure all potential methane emitting sources are documented and quantified, if necessary. We are able to provide this service quickly and cost effectively to our clients so that we are able to prioritize wells and maximize the state's available resources.

1.4 Previous Demonstrated Successes

CTEH has performed similar projects in Utah, Louisiana, and Mississippi. These projects are described in section 2 ("Qualifications and Experience").

1.5 Compliance with BIL Guidelines

We have developed standard assessment protocols for undertaking surveys that will follow the Federal Program Guidelines to meet the federal program reporting requirements for methane emissions reductions, as described in Section 40601 (Orphaned well site plugging, remediation, and restoration) of Title V (Methane Reduction Infrastructure) of the 2021 Bipartisan Infrastructure Law (BIL; Public Law 117-58). Our methodology will follow the Part I: Optional Screening Protocol for Detecting and Classifying Methane Emissions and the Part II: Main Protocol Quantifying Methane Emission Rates. This will be accomplished by utilizing EPA Method 21 with a Gas Rover II across the entire well structure during Part I to classify emissions as "Not Detected", "Detected", or "Detected-May be high" depending on additional screening protocol questions. Our best practice measures include camera function tests, as well as detailed training and instruction on scanning techniques, scanning distance, scanning angles, and camera movements to help operators and field technicians view each individual equipment section thoroughly, before looking for gas movement at another equipment.

Operators are prohibited from constantly moving the camera from scene to scene without pausing in each view to look for gas images, because this can result in missing emissions. They are also prohibited to walk while looking through the eyepiece of the camera or at the external viewfinder. More importantly, when the camera operator has completed a section of equipment scanning, their training instructs them to stop scanning, to remove their eyes from the camera and only then to walk to the next scanning area.

When an emission is detected, a video and digital picture record is taken at an angle that optimizes the visibility of the source. Source details are recorded. Each leak is described from at least three points of reference, i.e. "2-inch threaded union on fuel gas line, below north side of glycol re-boiler, east of chemical pump." The three descriptors in this example are "the fuel gas line", "north side of glycol re-boiler" and "east of chemical pump." This is a best practice.

2. Qualifications and Experience

We currently have over 40 qualified technicians that are trained for the prescribed techniques for methane quantification outlined in the guidelines. Our experience along with the adoption of new technologies has uniquely positioned us to successfully execute these measurement procedures and data collection.

The experience, education and training of our staff is crucial to providing effective and efficient support to our clients. Our in-house training is designed to both verify job specific skills and aptitude and enhance field and professional training. We have rigorous Standard Operating Procedures, Technical Operating Manuals and Quality Assurance/Quality Control protocols to ensure work performance meets/exceeds expected standards and facilitates continuous improvement. Equipment calibration and maintenance, working safely, operational proficiency, project management, issue resolution, accurate invoicing and billing are also integral components of our in-house training.

2.1 Proposed Staffing Plans

Our proposed key personnel are summarized below. Credentials in **bold** are provided as an attachment to this document.

Name & Role	Credentials
Lydia Work, LRS Principal Chemist	<ul style="list-style-type: none">• B.S., Chemistry• Licensed Remediation Specialist, WV No. 148• HAZWOPER 40-Hour with annual refreshers

Ms. Work has over 25 years of analytical quality assurance experience as well as extensive applied geoscience experience in the area of assessment and remediation. As a Licensed Remediation Specialist (LRS), Ms. Work has been successful in achieving Certificates of Completion for her clients across a diverse segment of properties from former industrial sites, rail lines, mining/quarrying properties, and fueling stations to orchard land. She has provided project management and strategic consulting services to private industry, manufacturers, developers, municipalites, non-profits, as well as state and federal regulators across various programs including Voluntary Remediation and Brownfields, ASTM Environmental Site Assessments, National Pollutant Discharge Elimination System (NPDES), and Superfund. Ms. Work is prepared to assist in the event this project expands beyond the scope of methane assessments and quantification with a focus on environmental site remediation.

Name & Role	Credentials
Pat Hickman Senior Geologist	<ul style="list-style-type: none">• B.S., Wildlife Resources• HAZWOPER 40-Hour with annual refreshers

Ms. Hickman has over 30 years of experience in environmental education, compliance, site remediation, site redevelopment, and grant administration. Previously, Ms. Hickman served as the Director of the Division of Land Restoration within the West Virginia Department of Environmental Protection (WVDEP) where she directed agency remediation and reclamation programs, including Brownfields and Voluntary Remediation, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA) Corrective Action, Leaking Aboveground and Underground Storage Tanks (LAST and LUST), Landfill Closure Assistance, bond forfeiture mining reclamation, Pollution Prevention and Open Dump, recycling, tire reclamation, and beautification programs. Ms. Hickman provides business development and technical leadership in the areas of federal grant administration, and environmental assessment, remediation, and compliance. She has presented at and contributed to 15 panel discussions concerning topics like brownfields and environmental regulation in West Virginia. Ms. Hickman is prepared to assist in the event this project expands beyond the scope of methane assessments and quantification with a focus on environmental site remediation.

Name & Role	Credentials
Leah Mistick, LRS Project Geologist	<ul style="list-style-type: none"> • MBA • B.A., Environmental Science & Anthropology • Licensed Remediation Specialist, WV No. 308 • HAZWOPER 40-Hour with annual refreshers

Ms. Mistick is a geoscientist whose 15 years of professional experience includes the management and performance of Voluntary Remediation Program (VRP) and Brownfields projects, Phase I and Phase II ASTM Environmental Site Assessments (ESAs), National Pollutant Discharge Elimination System (NPDES) projects, environmental remediations, compliance audits, oil and gas inventories and investigations, complaint investigations, impoundment monitoring, State and Federal permitting, emergency response, and stray gas investigations. Her regular responsibilities include the direction and supervision of field staff, sampling and analysis, and Quality Assurance protocols. Ms. Mistick is prepared to assist in the event this project expands beyond the scope of methane assessments and quantification with a focus on environmental site remediation.

Name & Role	Credentials
Charles Connolly, PMP Senior Consultant, Disaster Recovery	<ul style="list-style-type: none"> • B.S., University of Texas, Austin, Texas • HAZWOPER 40-Hour with annual refreshers • OSHA 8-Hour HAZWOPER Supervisor

Charles Connolly is a senior consultant for the disaster recovery division for CTEH. He is responsible for providing consultation, oversight, and management during disasters, pandemics, and emergency response to CTEH's clients in both the government and private sectors. He assists clients in identifying solutions to solve environmental, emergency response, and regulatory challenges; manages key clients; and oversees coordination with all FEMA and HUD grant

applications and management, reimbursements, and procurement and management of all necessary professional services to initiate and close out each program.

Name & Role	Credentials
Jared Metcalf Vice President of U.S. OGI Operations	<ul style="list-style-type: none"> B.S., Industrial Technology/Technician A.S., Instrumentation Technology/Technician

Mr. Metcalf has over 20 years of Oil & Gas Industry experience. He currently heads the OGI Division for Montrose Environmental Group, CTEH's parent company, as Vice President. With a B. Sc. in Industrial Technology and A.S. in Instrumentation, he provides logistical and operational support to Montrose's USA OGI crews. Mr. Metcalf is the company's lead contact for interacting with clients in both office and field settings. He has extensive experience in providing professional fugitive emission monitoring services across North America and internationally has given him the expertise to help our clients meet their compliance/voluntary requirements.

Name & Role	Credentials
Blake Mulherin Senior Field Technician	<ul style="list-style-type: none"> A.S., Applied Science in Instrumentation Technology EPA Method 21 Optical Gas Imaging Thermographer FLIR Certified Certified: FLIR GF320, Hi-Flow Sampler, VPAC II, various other gas detectors

Mr. Mulherin is a Senior Emission Technician with over 14 years of industrial, electrical, and field service experience. He is a specialist in the Green House Gas Division where he serves as a Lead Technician. Mr. Mulherin's extensive fugitive emission project management experience and his expertise in analyzing and interpreting fugitive emission data is invaluable to clients. His knowledge of natural gas plants, compressor stations, and LNG storage facilities has helped many clients.

Name & Role	Credentials
James Martell Field Project Manager	<ul style="list-style-type: none"> M.S., Geology B.S., Geology A.A., General Studies Remote Pilot of Small Unmanned Aircraft System, FAA Certified: EPA Subpart W H2S; FLIR GF320 and GFX models; Hi-Flow Sampler; VPAC II

Mr. Martell is a field manager for our OGI project team. In his current role, he supervises daily field operational and safety aspects of site-specific LDAR programs; surveys natural gas infrastructure for the detection and logging of fugitive gas emissions; helps clients stay in environmental compliance and reduce material losses; and communicates with operators to ensure gas leaks are repaired efficiently and effectively. He has successfully completed more than 320 client assessments at multiple facilities.

2.1.1 Copies of Staff Certifications Applicable to this Project

Certifications are provided as an attachment to this document.

2.2 Past Projects Completed

Federal Orphan Well Program, Bureau of Land Management, Utah

Project Manager	Charles Connolly, cconnolly@cteh.com
Project Type	Orphan well emissions detection

Project Goals and Objectives

The Bipartisan Infrastructure Law (BIL) was signed into law in November 2021. One goal of the law involves an Orphan Well Program for addressing orphaned wells on federal land and a grant program to fund plugging, remediation, and restoration programs. Orphaned wells vent methane and other potentially harmful gases into the atmosphere; leach contaminants into surrounding soils and waters; and create other potential safety hazards. There are about 3.5 million abandoned oil and gas wells in the United States.

Challenge

Multiple wells located throughout the state of Utah were abandoned between 2013 and 2016 and were not properly plugged by the original owners.

Solution

In accordance with federal guidelines, CTEH is creating and implementing a protocol for methane emission rates before plugging and abandonment activities begin. CTEH used state-of-the-art fugitive emissions detection technology and training to complete the full scope of work and provided all reports to the BLM.

Louisiana Orphan Well Management, Statewide, Louisiana

Project Manager	Charles Connolly, cconnolly@cteh.com
Project Type	Orphan well emissions detection

Background

As part of the Bipartisan Infrastructure Law enacted in 2021, almost \$5 billion in Federal funding was set aside for programs to inventory and close orphaned oil and gas wells. These wells can emit noxious gases like methane, contaminate groundwater, and cause other issues for surrounding communities. The State of Louisiana received \$25 million of these funds to address orphan wells around the state.

Challenge

The State of Louisiana has about 16,000 total abandoned wells which need plugging. The State hired Dynamic Group, LLC and Lemoine to address between 250 and 900 wells for the first tranche of Federal funds.

Solution

CTEH was contracted to provide program management services for both contracting companies. We are assisting in location and prioritization of wells. We are also using environmental justice screening tools to identify wells in disadvantaged communities. Partnering with our parent company's air quality division (Montrose Air Quality Services), we perform methane assessments using EPA Method 21 optical gas imaging and high-flow quantification to verify emissions are below the Federal threshold. Once the assessment is complete, the well is plugged. With the help of the CTEH team, Louisiana is on track to plug more wells and create more methane data than other states in the first year of this program.

West Virginia Flood Event (Rise West Virginia), Statewide, West Virginia

Project Manager	Jacob Fenske, jfenske@cteh.com
Project Type	Project Management

Background

Following historic flooding in 2016, the U.S. Department of Housing and Urban Development (HUD) awarded the state of West Virginia \$150 million in CDBG-DR funds for the purposes of redeveloping property damaged in the floods.

Challenge

CTEH served as construction manager for the state of West Virginia, and was tasked with planning, oversight, and management of construction related housing recovery programs. This included single family restoration and reconstruction, rental property restoration and reconstruction, and MHU restoration and replacement.

Solution

The CTEH team helped develop RFP documents, including outlining all statutory requirements; developed cost reasonableness criteria and grant limits for the various programs; selected contractors; negotiated contractor pricing and verified compliance with program(s) grant limits; and developed quality control programs. The CTEH team helped develop RFP documents, including outlining all statutory requirements; developed cost reasonableness criteria and grant limits for the various programs; selected contractors; negotiated contractor pricing and verified compliance with program(s) grant limits; and developed quality control programs.

Benefits

CTEH managed the assignment of work orders, oversaw construction, closed out work orders, provided invoicing oversight, and aided the state of West Virginia in procuring additional services on an as-needed basis.

2.2.1 References for Prior Projects

Table 1: Project References

Company	Contact	Contract/Work Experience
Bureau of Land Management	Ryan Angus Supervisory Petroleum Engineer rangus@blm.gov 435-781-4486	As part of a federal orphan well plugging program, CTEH was selected to help identify possible hydrocarbon leaks and obtain emissions rates for the leaks on abandoned orphan wells located throughout Grand County, Utah. The wells were abandoned between 2013 and 2016 and were not properly plugged by the owners. In accordance with federal guidelines, CTEH is creating and implementing a protocol for methane emission rates before plugging and abandonment activities begin.
Lemoine on behalf State of Louisiana	Ben Diebold Executive Vice President ben.diebold@1lemoine.com Cell: (504) 810-0471	As part of a state orphan well plugging program funded by BIL, CTEH is selected to help create environmental testing, soil surveys, well identification, project inspection and obtain emissions rates for the leaks on abandoned orphan wells located throughout Louisiana. CTEH is working with the CMAR on creating and implementing a protocol for all environmental and methane emission rates before, during, and after plugging and abandonment activities. Our team has completed approximately 1,200 methane assessments for the state.
Energy Transfer	Alyssa Najewicz Sr. Environmental Specialist alyssa.najewicz@energytransfer.com Work/Cell: N/A	Multiple large-scale fugitive emissions assessments on pipelines and active well sites from 2012-2021; OOOOa ; LDAR and Subpart W Compliance Monitoring

2.2.2 Qualified Measurement Specialists

CTEH meets the definition of a “qualified measurement specialist;” a description of how our specialists are trained and qualified is shown below.

Training and Certifications

The experience, education and training of our staff is crucial to providing effective and efficient support to our clients. Our in-house training is designed to both verify job specific skills and aptitude and enhance field and professional training. We have rigorous Standard Operating Procedures, Technical Operating Manuals and Quality Assurance/Quality Control protocols to ensure work performance meets/exceeds expected standards and facilitates continuous improvement. Equipment calibration and maintenance, working safely, operational proficiency, project management, issue resolution, accurate invoicing and billing are also integral components of our in-house training.

Core Job Training is at the forefront of our onboarding process as employees begin their LDAR careers with CTEH and Montrose. In our New Hire Training Program, employees are trained in all aspects of LDAR, from performing inspections, to proper equipment operation and maintenance, to an overall understanding of industry standards. As our employees grow through their career, they complete refresher courses and receive additional training on advanced inspection techniques, equipment uses, and other topics. Advancement and continuing education training provide a track for career advancement and allows us to build and enhance our LDAR Division from within. We provide a clear path for employees to advance from Inspector to Project Manager to becoming leaders part of the wider LDAR Industry.

Our Field Technicians must complete a 90-day training package. Our Camera Technicians must complete 160 hours of camera use. Our in-house training and certification programs provide a detailed equipment operation course that verifies aptitude with mandatory classroom testing and field level audits. Each employee must successfully complete their training modules and log minimum required field times to obtain Technician certification. The protocol also includes an audit program to evaluate work performance on an on-going basis. Each Monitoring Technician undergoes quarterly performance audits to ensure equipment and operational proficiency. Each Camera Technician must perform on site with zero misses during a supervised audit. This training system ensures that each crew member is adhering to the procedures and guidelines of the protocol.

Our Monitoring Technicians have the following qualifications:

Technician Qualifications	
Project Understanding	Monitoring Technicians have a strong knowledge of oil and gas operations and a detailed understanding of the various processes that are involved in the transportation and processing of natural gas.
Certifications	Monitoring Technicians are certified and experienced in the use of fugitive emission detection and measurement equipment. Many of the proposed technicians are OSHA 10 Certified; EPA Subpart W Certified and hold EPA Method 21 and H2S Certifications. They are also certified to use OGI Camera (FLIR GF320 and GFX models) and HI-Flow Samplers.
Experience	Monitoring Technicians have a minimum of 1,000 hours of experience on the use of Method 21, optical gas imaging and emission flow rate measurement.

Training

Maintains required safety training and strong understanding of applicable Safe Operating Procedures and receives performance audits to ensure compliance to our prescriptive fugitive emission assessment protocol.

2.3 Addendum Acknowledgement Form

The addendum acknowledgement is included as **Attachment B**.

2.4 Signed RFP

The signed RFP is included as **Attachment C**.

Attachment A: Certifications

Renewal



West Virginia
Department of
Environmental Protection

WORK, LYDIA
Licensed Remediation Specialist

Registration Number: 148

A handwritten signature in dark ink, appearing to read "D. R. R.", is positioned above a horizontal line.

Director, Division of Land Restoration

10/01/2022 - 09/30/2024

Date Issued - Date Expires

Renewal



West Virginia
Department of
Environmental Protection

MISTICK, LEAH DAWN
Licensed Remediation Specialist
Registration Number: 308

A handwritten signature in black ink, appearing to read "D. J. [unclear]", is written over a horizontal line.

Director, Division of Land Restoration

10/01/2022 - 09/30/2024

Date Issued - Date Expires

Attachment B: Addendum Acknowledgement

ADDENDUM ACKNOWLEDGEMENT FORM

SOLICITATION NO.: CRFP 0313 DEP2500000001

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:

(Check the box next to each addendum received)

- ☒ Addendum No. 1
- ☐ Addendum No. 2
- ☐ Addendum No. 3
- ☐ Addendum No. 4
- ☐ Addendum No. 5

- ☐ Addendum No. 6
- ☐ Addendum No. 7
- ☐ Addendum No. 8
- ☐ Addendum No. 9
- ☐ Addendum No. 10

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

CTEH, LLC

Company

Authorized Signature

8/23/24

Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.

Attachment C: Signed RFP



Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

State of West Virginia
Centralized Request for Proposals
Service - Prof

Proc Folder: 1465803

Doc Description: DEP OOG - Methane Emission Quantification

Reason for Modification:

Addendum #1 issued to publish agency responses to vendor submitted questions, extend bid due date, c..... See Page 2 for complete info

Proc Type: Central Master Agreement

Date Issued	Solicitation Closes	Solicitation No	Version
024-08-14	2024-08-27 13:30	CRFP 0313 DEP2500000001	2

BID RECEIVING LOCATION

BID CLERK
DEPARTMENT OF ADMINISTRATION
PURCHASING DIVISION
2019 WASHINGTON ST E
CHARLESTON WV 25305
US

ENDOR

Vendor Customer Code: 337204

Vendor Name : CTEH, LLC

Address :

Street : 5120 Northshore Drive

City : North Little Rock

State : AR

Country : USA

Zip : 72118

Principal Contact : Chase Selby

Vendor Contact Phone: 501-801-8500

Extension:

FOR INFORMATION CONTACT THE BUYER

Joseph E Hager III
(304) 558-2306
joseph.e.hageriii@wv.gov

Vendor
Signature X

FEIN# 62-1679336

DATE 8/23/24

All offers subject to all terms and conditions contained in this solicitation

Reason for Modification:

Addendum #1 issued to publish agency responses to vendor submitted questions, extend bid due date, correct contract terms.

ADDITIONAL INFORMATION

The West Virginia Department of Administration, Purchasing Division (hereinafter referred to as the "Purchasing Division") is issuing this solicitation as a request for proposal ("RFP"), as authorized by W. Va. Code 5A-3-10b, for the West Virginia Department of Environmental Protection (hereinafter referred to as the "Agency") to provide methane emission quantification ("MEQ") services for selected oil and natural gas wells per the attached specifications and terms and conditions.

*Online responses have been prohibited for this solicitation, if you have questions contact the Buyer - Josh Hager - joseph.E.HagerIII@wv.gov

INVOICE TO	SHIP TO
ENVIRONMENTAL PROTECTION REAP OFFICE 601 57TH ST SE CHARLESTON WV 25304 US	STATE OF WEST VIRGINIA VARIOUS LOCATIONS AS INDICATED BY ORDER No City WV 99999 US

Line	Comm Ln Desc	Qty	Unit of Measure	Unit Price	Total Price
	4.2.1.1 Measure pre-plugging methane emissions	200.00000	EA		

Comm Code	Manufacturer	Specification	Model #
7121506			

Extended Description:
4.2.1.1 Measure pre-plugging methane emissions

INVOICE TO	SHIP TO
ENVIRONMENTAL PROTECTION REAP OFFICE 601 57TH ST SE CHARLESTON WV 25304 US	STATE OF WEST VIRGINIA VARIOUS LOCATIONS AS INDICATED BY ORDER No City WV 99999 US

Line	Comm Ln Desc	Qty	Unit of Measure	Unit Price	Total Price
	4.2.1.2 Measure post-plugging methane emissions	200.00000	EA		

Comm Code	Manufacturer	Specification	Model #
77121506			

Extended Description:
4.2.1.2 Measure post-plugging methane emissions

INVOICE TO	SHIP TO
ENVIRONMENTAL PROTECTION REAP OFFICE 601 57TH ST SE CHARLESTON WV 25304 JS	STATE OF WEST VIRGINIA VARIOUS LOCATIONS AS INDICATED BY ORDER No City WV 99999 US

Line	Comm Ln Desc	Qty	Unit of Measure	Unit Price	Total Price
	4.2.1.3 Screen wells for methane emissions	200.00000	EA		

Comm Code	Manufacturer	Specification	Model #
7121506			

Extended Description:
4.2.1.3 Screen wells for methane emissions

SCHEDULE OF EVENTS		
Line	Event	Event Date

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

(Printed Name and Title) Chase Selby, Senior Vice President

(Address) 5120 Northshore Drive, North Little Rock, AR 72118

(Phone Number) / (Fax Number) 501-801-8500 / 501-801-8501

(email address) cselby@cteh.com

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that: I have reviewed this Solicitation/Contract in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation/Contract for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that this bid or offer was made without prior understanding, agreement, or connection with any entity submitting a bid or offer for the same material, supplies, equipment or services; that this bid or offer is in all respects fair and without collusion or fraud; that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; that I am authorized by the Vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on Vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law; and that pursuant to W. Va. Code 5A-3-63, the entity entering into this contract is prohibited from engaging in a boycott against Israel.

CTEH, LLC

(Company)

(Signature of Authorized Representative)

Chase Selby, Senior Vice President

(Printed Name and Title of Authorized Representative) (Date)

501-801-8500 / 501-801-8501

(Phone Number) (Fax Number)

cselby@cteh.com

(Email Address)

REQUEST FOR PROPOSAL

(WVDEP CRFP 25*01)

Proposal 1: Step 1 – $\$1,000,000 / \$1,000,000 = \text{Cost Score Percentage of } 1 \text{ (100\%)}$
Step 2 – $1 \times 30 = \text{Total Cost Score of } 30$

Proposal 2: Step 1 – $\$1,000,000 / \$1,100,000 = \text{Cost Score Percentage of } 0.909091 \text{ (90.9091\%)}$
Step 2 – $0.909091 \times 30 = \text{Total Cost Score of } 27.27273$

- 6.8. Availability of Information:** Proposal submissions become public and are available for review immediately after opening pursuant to West Virginia Code §5A-3-11(h). All other information associated with the RFP, including but not limited to, technical scores and reasons for disqualification, will not be available until after the contract has been awarded pursuant to West Virginia Code of State Rules §148-1-6.3.d.

By signing below, I certify that I have reviewed this Request for Proposal in its entirety; understand the requirements, terms and conditions, and other information contained herein; that I am submitting this proposal for review and consideration; that I am authorized by the bidder to execute this bid or any documents related thereto on bidder's behalf; that I am authorized to bind the bidder in a contractual relationship; and that, to the best of my knowledge, the bidder has properly registered with any State agency that may require registration.

CTEH, LLC

(Company)

Chase Selby, Senior Vice President

(Representative Name, Title)

501-801-8500 | 501-801-8501

(Contact Phone/Fax Number)

8/23/24

(Date)