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Header @ 1

List View

General Information | Contact | Default Values | Discount | Document Information | Clarification Request

Procurement Folder: 1051928

Procurement Type: Central Purchase Order

Vendor ID: 000000204737

Legal Name: CTL ENGINEERING OF WV INC

Alias/DBA:

Total Bid: \$0.00

Response Date: 07/07/2022

Response Time: 10:13

Responded By User ID: ct leng

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SO Doc Code: CEOI

SO Dept: 0313

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Solicitation Description: EOI - 2022 AML Contract 4 Project South

Total of Header Attachments: 1

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

**State of West Virginia
 Solicitation Response**

Proc Folder: 1051928
Solicitation Description: EOI - 2022 AML Contract 4 Project South
Proc Type: Central Purchase Order

Solicitation Closes	Solicitation Response	Version
2022-07-07 13:30	SR 0313 ESR07072200000000099	1

VENDOR
 000000204737
 CTL ENGINEERING OF WV INC

Solicitation Number: CEOI 0313 DEP2200000022
Total Bid: 0
Response Date: 2022-07-07
Response Time: 10:13:15
Comments:

FOR INFORMATION CONTACT THE BUYER
 Joseph E Hager III
 (304) 558-2306
 joseph.e.hageriii@wv.gov

Vendor Signature X **FEIN#** **DATE**

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

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Professional Svcs - Black Bottom Drainage				0.00

Comm Code	Manufacturer	Specification	Model #
81100000			

Commodity Line Comments: EOI

Extended Description:

Professional Svcs - Black Bottom Drainage

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
2	Professional Svcs - Logan County Airport UMF				0.00

Comm Code	Manufacturer	Specification	Model #
81100000			

Commodity Line Comments: EOI

Extended Description:

Professional Svcs - Logan County Airport UMF

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
3	Professional Svcs - Camp Chief Logan BSA Portals				0.00

Comm Code	Manufacturer	Specification	Model #
81100000			

Commodity Line Comments: EOI

Extended Description:

Professional Svcs - Camp Chief Logan BSA Portals

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
4	Professional Svcs - Big Creek (Surgoine) Landslide				0.00

Comm Code	Manufacturer	Specification	Model #
81100000			

Commodity Line Comments: EOI

Extended Description:

Professional Svcs - Big Creek (Surgoine) Landslide

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
5	Professional Svcs - Gun Range (Dials) Portals				0.00

Comm Code	Manufacturer	Specification	Model #
81100000			

Commodity Line Comments: EOI

Extended Description:

Professional Svcs - Gun Range (Dials) Portals

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
6	Professional Svcs - Campbells Creek (Hall) Drainage				0.00

Comm Code	Manufacturer	Specification	Model #
81100000			

Commodity Line Comments: EOI

Extended Description:

Professional Svcs - Campbells Creek (Hall) Drainage



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

State of West Virginia
 Centralized Expression of Interest
 Architect/Engr

Proc Folder: 1051928			Reason for Modification:
Doc Description: EOI - 2022 AML Contract 4 Project South			
Proc Type: Central Purchase Order			
Date Issued	Solicitation Closes	Solicitation No	Version
2022-06-08	2022-07-07 13:30	CEOI 0313 DEP2200000022	1

BID RECEIVING LOCATION

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

VENDOR

Vendor Customer Code:

Vendor Name :

Address :

Street :

City :

State : **Country :** **Zip :**

Principal Contact :

Vendor Contact Phone: **Extension:**

FOR INFORMATION CONTACT THE BUYER
 Joseph E Hager III
 (304) 558-2306
 joseph.e.hageriii@wv.gov

Vendor Signature X  **FEIN#** 55-063-1834 **DATE** July 7, 2022

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

west virginia



EXPRESSION OF INTEREST

EOI – 2022 AML Contract 4 Project South

CEOI 0313 DEP2200000022

July 7, 2022



DIEFFENBAUCH & HRITZ





EXPRESSION OF INTEREST

Engineering Services

EOI – 2022 AML Contract 4 Project South

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SECTION 1 INTRODUCTION



July 7, 2022

West Virginia Department of Environmental Protection
Office of Abandoned Mine Lands & Reclamation
601 57th Street SE
Charleston, WV 25304

Re: CEOI 0313 DEP2200000022
Expression of Interest
Design Engineering Services
EOI – 2022 AML Contract 4 Project South

Joseph E. Hager III;

CTL Engineering, Inc. is very pleased to present this Letter of Interest to provide design engineering and related services for the West Virginia Abandoned Mine Lands and Reclamation Program. With over 95 years in the business, we feel our firm can provide the professionals and facilities the State of West Virginia is looking for.

CTL has evolved into a recognized leader in the Abandoned Mine Lands Engineering Design and Investigation field. We offer the services necessary to provide a non-subcontract, quality product to support your program. Our capabilities include laboratory facilities, drilling rigs, surveying systems, design equipment, and a qualified staff. We have Professional Engineers registered in West Virginia that have direct AML Design Experience. Our in-house disciplines of professionals include: Civil & Mining Engineers, Geotechnical Engineers, CAD Designers, Surveyors, Geologists, Hydrologists and Biologists. We are experienced in completing more than 50 projects annually that require aerial mapping, support surveying with GPS, and final contouring for design.

Our in-house ability reaches beyond simply being an AML design firm. We also have extensive contract administration, and management experience with the procedures of the state of West Virginia. Our invoicing procedures and accounting software has been accepted, used, and audited by various state agencies.

CTL will be teaming with Dieffenbach & Hritz, LLC (D&H) to assist in providing NEPA services and project management, design and inspection for the project. D&H brings valuable knowledge and local experience for the project. Although CTL has the required services and professionals in house, D&H will add valuable knowledge and depth and allow the team to work on multiple projects at once to ensure the projects will be delivered on schedule. D&H and CTL have successfully teamed on projects and have a long standing professional relationship.

CTL's primary staff has over 125 years of experience with mine reclamation engineering on both a national and international level. Our qualifications and facilities are unsurpassed when it comes to Abandoned Mine Reclamation Design. With an office Morgantown, we can effectively respond to any AML Design tasks throughout West Virginia. In addition, we have a dedicated design team available to complete AML design projects. Our staff members have extensive experience relative to reclamation design, highwall elimination, abandoned portal seals and drainage control structures. The Project described in the expression of interest is similar in scope to more than 35 AML design projects that we have successfully completed. Attached to this EOI are numerous examples of similar projects which we have successfully designed and completed.

CTL has completed numerous landslide projects in several different states, for both private and public entities. CTL is currently working with FEMA on several landslide projects in Ohio. CTL has completed over 50 landslide projects in the FEMA program over the last two years and is currently working on 25 active landslide projects. CTL has several geotechnical engineers with experience regarding landslide stabilization and repair.



Our team has the experience and knowledge to provide services to all levels of the public and private sector. The general engineering requirements in your request actually describe the areas of expertise and experience of the team. CTL has provided designs and specifications for Public Projects and Private throughout the region

We sincerely appreciate the opportunity to submit this proposal to you for consideration. Should you have any questions or need additional information, please contact our office.

Respectfully submitted,
CTL Engineering of West Virginia, Inc.

A handwritten signature in blue ink, appearing to read 'Joe Stanley', written in a cursive style.

Joseph Stanley
Business Development Manager



SECTION 2 CORPORATE HISTORY AND QUALIFICATIONS



FIRM INFORMATION – CTL Engineering

CTL WV is a full-service consulting civil & geotechnical engineering, drilling, materials testing and construction observation service company. CTL WV was founded in 1983 to provide regional service to West Virginia, Maryland and Pennsylvania. CTL WV is part of CTL Engineering, Inc. formerly known as Columbus Testing Laboratory, which was established in Columbus, Ohio in 1927 as an independent engineering testing laboratory serving the local community. Since 1927 our expertise has focused mainly on foundation engineering, construction testing and inspection services.

CTL WV has a state-wide staff of over 20 people; including licensed professional engineers, licensed land surveyors, environmental scientists, geologists and certified engineering technicians. Nationwide CTL Engineering sustains a staff of over 250 employees, providing additional professional expertise as well as staff and equipment resources for meeting project needs and goals.

Over our 39 years in West Virginia, CTL WV has provided numerous civil site designs, geotechnical designs, stormwater plans and surveys for commercial and residential developments and roadway projects. We have successfully prepared State and Federal 401 and 404 Permit submittals, Ms4 Phase II stormwater permits and conducted Environmental Site Assessments. CTL WV also has significant experience working on mining related projects including mine plans and permitting, mine refuse reclamation and subsidence evaluations. These projects were completed by conscientious interaction with Architects, Engineers, State and Federal Agencies and Owners.



CTL WV has certified engineering and laboratory technicians providing material testing and construction observation services. Our Morgantown lab is annually inspected by the West Virginia Division of Highways. CTL WV maintains a fleet of four drill rigs including truck, rubberized track and ATV mounted. Our crews have experience in steep terrain and barge drilling and deep boring exploration to depths greater than 300 feet. Additionally, CTL Engineering has a total of 13 drill rigs allowing CTL to place multiple rigs on one site, if project schedule demands.



FIRM INFORMATION – Dieffenbach & Hritz

While CTLWV can provide the anticipated services in-house we have added highly qualified and experienced firm to our Team to augment our capabilities. Dieffenbach & Hritz brings experience and qualified staff, providing design, survey, environmental and construction services to the team. CTLWV will lead the Team and will provide the required services as a seamlessly integrated Team.

Strategic Team Partners	
Firm Name	Role
Dieffenbach & Hritz	Design, Survey, Environmental, QA/QC



DIEFFENBAUCH & HRITZ

Established in 2005 by Chris Dieffenbach and Michael Hritz, Dieffenbach & Hritz (D&H) is a team of professionals providing engineering and environmental services to the natural gas and coal mining industries, as well as, private developers and various public agencies in West Virginia, Ohio, Virginia and North Carolina.

Our team of experienced professionals is comprised of civil engineers, surveyors, landscape architects, biologist, and construction technicians. We specialize in planning, design and permitting for oil and gas, mining, transportation, and commercial site development projects. D&H is dedicated to meeting the growing needs of the industry by providing planning, engineering, permitting, surveying, GIS, and environmental compliance services.

D&H has been providing engineering support to clients in West Virginia, Virginia, Ohio, Pennsylvania, and North Carolina on a wide variety of projects.

Our Mission is to provide a superior level of service to clients through the timely delivery of professional services that meet the client’s expectations and results in successful projects. We utilize innovative engineering design methods and technology along with proven procedures and techniques to take the client’s ideas and turn them into reality. We are dedicated to building long-term relationships with clients through the delivery of exceptional professional services in a cost-effective and responsive manner.

Most notably, D&H played an integral part in the first ever public/private partnership between a coal company and the West Virginia Division of Highways, the Red Jacket section of King Coal Highway in Mingo County. This was a public-private partnership between the WVDOH and Nicewonder Contracting, Inc. (Alpha Natural Resources) (NCI/ANR) where NCI/ANR constructed twelve miles of four-lane highway and connector roads to subgrade utilizing coal synergy. The project was completed and opened to the public in 2012.

- Civil Engineering
- Construction Management and Inspection
- Drone and U.A.S.
- Environmental
- Mechanical Engineering
- Surveying

West Virginia
Headquarters
1095 Chaplin Road, Suite 200
Morgantown, WV 26501
304.985.5555



TECHNICAL AREAS OF STRENGTH FOR THE TEAM

Engineering Categories	Technical Areas of Strength
Geotechnical Engineering Services	✓
Civil Site Design (Mining and Reclamation)	✓
Professional Surveying Services	✓
Environmental	✓
Construction Inspection/Administration & Materials Testing	✓

Geotechnical Capabilities

CTL's Routinely Performs Subsurface Explorations and Soil and Rock Testing

CTL annually performs over 350 geotechnical explorations, including soil and rock testing, for highway, bridge and geohazard projects throughout the states of West Virginia, Ohio, Indiana and Kentucky. CTL owns and operates its own fleet of 13 drill rigs, the largest of which can drill, core rock, and take samples up to 300 feet deep. Our rigs are capable of accessing difficult locations since many of them are track-mounted, ATV or 4-wheel drive truck-mounted rigs.

In addition, CTL utilizes in-house geophysical equipment and software to evaluate variations in subsurface conditions such as the identification of the bedrock surface. These capabilities include Refraction Microtremor (ReMi), Electrical Resistivity Imaging (ERI) along with Ground Penetrating Radar (GPR) equipment to locate voids or other anomalies. CTL also has Pile Driving Analyzer (PDA) equipment for performing dynamic testing of driven piles.



CTL houses AASHTO–Accredited geotechnical testing laboratories in several office locations, which are each managed by Professional Engineers specializing in geotechnical engineering. These laboratories provide a detailed analysis of the surface and subsurface composition and chemistry of soils and rock encountered during geotechnical explorations and are equipped to conduct Consolidation, Tri-axial Shear, Unconfined Compressive Strength, Direct Shear, Moisture Density Relationship (Proctor Tests), and CBR tests.

CTL is well-known for providing cost-effective, yet safe solutions to difficult subsurface conditions. We review a significant number of geotechnical reports prepared by others for the purpose of providing alternative recommendations that are more constructible, less conservative, yet maintain an appropriate factor of safety.

CTL has 20 geotechnical engineers with a majority of the engineers with Master's degrees and Professional Engineer Registration.



Civil Site Design

CTL WV's Design Team has the capabilities to handle any size project.

The main goals of civil site design are functionality, quality and efficient use of space, and overall appearance. Our design team consist of qualified people who live and work in the area and take pride in seeing their designs benefit the community. We have performed civil site design services for a wide variety of projects in Morgantown and throughout West Virginia, Pennsylvania and Ohio. These projects consist of **mining and AML related projects**, medical facilities, restaurants, and shopping centers. In addition, we have performed engineering for local school districts and universities. In our efforts to be a full-service company, we provide assistance through the funding process, design every element of a site, and manage the construction process, ensuring not only a quality product, but also the success of our clients. These are some civil site design services we can offer:



CTL WV provides the following Civil Design services:

Complete Site Development	Infrastructure Planning and Design
Conceptual Design / Presentations	Reclamation Design
Stormwater Management	Permitting (NPDES)
Erosion and Sediment Control	As-Built Surveys and Drawings

Professional Surveying Services

CTL WV Maintains a Full-Service In-house Surveying and Mapping Team



CTL WV has the professional staff and the latest equipment to support eight (2) full survey crews. Our equipment includes a Global Positioning System and Robotic Surveying Instruments which gives us an added dimension to our surveying and mapping capabilities.

We have performed surveying and mapping on many of our civil/site projects and have supplied construction stakeout and monitoring for many of our clients.

- Multi-disciplined offices within the region staffed with qualified and experienced personnel.
- Multiple crews equipped with the most up to date survey equipment: Trimble GPS, Trimble Robotic Instruments.
- Drone capabilities with multiple licensed pilots. We also have experience with the latest 3D modeling software.

Construction Administration & Inspection

CTL WV's Construction Administration Services Include On-site Daily Inspections

Federal, State, and Locally funded Construction Projects require a high level of administration and quality control to meet the project's demands. Counties and Municipalities, as well as private owners, developers, and contractors have selected CTL WV for Construction Administration, knowing that we have the experienced staff to be accurate, dependable, and perform these services in a timely manner. Our experienced engineers, inspectors, and technicians are your partners in construction. We help in completing these projects successfully and meeting the specific project requirements.



CTL WV's qualified construction inspectors will observe and inspect your construction project and complete the necessary daily documentation required by the Federal, State, and Local funding agencies participating in the project. CTL WV also provides in-house testing services such as concrete, asphalt, and sub-grade compaction, as well as daily on-site inspection services.

CTL WV provides the following CA services:

- Conduct Pre-Construction Conference
- Project Team Coordination
- Field Reports & Construction Documents' Admin
- Field Engineering and Inspections
- Material Certification and Shop Drawing Reviews
- Progress Meetings and Schedule Tracking
- Payments and Reimbursements
- Change Order Reviews
- Prevailing Wage Compliance
- EEO/DBE Contract Requirements
- Project Closeout Activities

CTL WV's on-site inspector provides and/or participates in the following daily on-site Inspection services:

- Pre-Construction Conference
- Prepare Field Inspection & Quantities Reports
- Prepare Construction Docs & provide to Construction Admin
- Field Engineering in conjunction with Construction Administrator
- Observe & verify materials being used for the project
- Observe, identify and notify Construction Admin of deficiencies
- Provide Admin w/ monthly quantities for payment prep
- Material Testing, i.e., compaction, concrete, asphalt, etc.

Materials Testing and Laboratory Services

CTL WV is a Leader in Providing Analytical Services to the Construction Industry

We maintain a staff of experienced personnel and accurate equipment to guarantee dependable results. We evaluate all types of construction materials. Additionally, CTL can prepare and test Portland Cement and bituminous concrete mixes for optimization studies to insure the proper mix design for specific jobs.

CTL offers petrographic examination of construction materials. These specialized microscopic evaluations allow us to closely evaluate concrete quality and determine the causes and extent of failures in concrete, in addition to potential future performance.

In addition to the standard ASTM tests of strength, absorption, dimensions unit weights etc., CTL provides several specialty tests on concrete block and brick, including the fire rating test, specified by the BOCA, and efflorescence testing required by many architectural firms.



Environmental Services

CTL Provides Environmental Services for Projects Varying in Complexities for Diversified Clients

CTL's environmental staff has a combined total of 144 years of experience in managing and conducting environmental projects of varying complexities. CTL performs over 500 environmental projects per year and follows the various ASTM standards, BUSTR and EPA regulations, and ODOT Guidelines for ESA Screening, Phase I and Phase II ESAs, UST Closures, Tier I & II Assessments, HazMat management and remediation. We also perform wetland delineation, permitting, and mitigation; asbestos, lead-based paint, and hazardous materials surveys, sampling, evaluation, as well as abatement project design & monitoring; waste management and disposal; GPR surveys; environmental monitoring/inspections during construction.



D&H brings another level of depth to our team by adding or strengthening the following services

- NEPA compliance and permitting
- Regulatory agency coordination
- Environmental consulting, planning, and permitting
- Wetland /stream delineation and functional assessments
- Stream and wetland restoration and mitigation design

Team Collaboration

D&H and CTL have successfully teamed on projects. D&H brings a deep bench to the team by adding local experts and knowledge to the team. With CTL leading the team, D&H will help ensure the timely delivery of the project.

D&H will add value to the team with the following services:

Project Management
Professional Engineering
Reclamation Design
Survey
Environmental Permitting
QA/QC

D&H personnel will fall under the management of the CTL lead on the Organizational Chart.



SECTION 3 PROJECT APPROACH



Project Overview

AML Contract 4 Project South

The successful A/E Firm will be responsible for Design of the following (as may be applicable for each of the Projects as listed in Section Two):

- National Environmental Policy Act (NEPA) consultations and documentation
- Public Participation
- Infrastructure Investment Jobs Act (IIJA) compliance
- Determine legal ownership of properties
- Obtain exploratory and construction rights of entry
- Provide legal documentation to substantiate legal ownership findings
- Provide current mapping, perform survey and other related services
- Perform Site and Geotechnical Investigations
- Design temporary and permanent access or accesses for construction and future maintenance
- Slope stabilization
- Design multiple portal seals and regrades
- Design reclamation of exposed coal refuse and mine spoil
- Design of drainage conveyances, including drainage channels, underdrains, and/or other controls to safely convey water off-site
- Mine fire reclamation
- Construction quality assurance and quality control (QA/QC)
- Provide resident project representative/inspector
- Prepare daily construction activity logs summarizing activities
- Provide engineering support and services throughout construction
- Provide Engineers certification report

Locations: Projects are in Logan and Kanawha Counties.

1. Black Bottom Drainage project
2. Logan County Airport UMP project
3. Camp Chief Logan BSA Portals 739 project
4. Big Creek (Surgoine) Landslide project
5. Gun Range (Dials) Portals project
6. Campbells Creek (Hall) Drainage project



Project Management Plan

Our approach to the AML Contract 4 Project South will be similar to other CTL AML projects. The Project Management Plan we have developed for these sites are as follows:

The project manager will be solely responsible for expedient and accurate completion of each phase of the individual projects performed under this contract. He will review the project sites and discuss the specific scope of work for the project with the project representative from the WVDEP. A cost proposal will be prepared, in accordance with contract unit rates, based upon an estimate of manpower, equipment, and laboratory needs.

CTL will engage (D&H) to begin the NEPA scope of the project. D&H will be directed by the CTL project manager. Proposed federal actions require compliance with the National Environmental Policy Act of 1969 (NEPA) (42 USC 4321, *et seq.*), and the Council on Environmental Quality Regulations for Implementing NEPA (40 C.F.R. Parts 1500-1508), among other more discipline-specific regulations including but not limited to Section 7 of the Endangered Species Act (ESA) of 1973, as amended, and Section 106 of the National Historic Preservation Act of 1966. Through the preparation of NEPA documents (including Environmental Impact Statements, Environmental Assessments, and Categorical Exclusions) on behalf of numerous federal agencies, D&H's technical staff possess the knowledge and expertise to ensure compliance with these federal regulations.

As NEPA requires all federal agencies to review and analyze the environmental consequences associated with proposed actions, the US Department of Interior (DOI) Office of Surface Mining Reclamation and Enforcement (OSMRE) is also required to comply with NEPA whenever the bureau proposes to take an action, or authorizes any other entity to take an action, that could possibly affect environmental resources. For the projects proposed, Markosky would ensure that all DOI and OSMRE-specific NEPA protocols and procedures for AML reclamation are followed during preparation of the environmental review document(s) on behalf of the OSMRE. This will ensure that the significance of impacts for these AML reclamation projects is thoroughly evaluated in order to prepare the appropriate decision documents and allow the projects to move forward.

The CTL Project Manager will coordinate with CTL and D&H staff to develop a work flow chart, schedules and team assignments.

CTL will then mobilize a fully equipped survey crew to set survey control and map the project site. Permanent control monuments will be established to ensure that the construction contractor can tie into the necessary baselines. The project manager will supervise the surveying tasks and provide budgetary control for this portion of the work.

A geotechnical exploration and analysis will be performed to delineate the thickness of mine refuse to determine and design the optimum stable grading plan. This exploration will be performed with a focus on safety to insure the safety of the local inhabitants and dwellings as well as the safety of the drilling and geotechnical personnel. For Landslide projects CTL will perform a geotechnical exploration to determine the cause(s) of the slip. We will prepare a geotechnical report which will include proposed alternatives for the repair of the slip.

Should field conditions dictate that additional work or a major modification is required, the project manager will contact the WVDEP representative immediately to confirm the changed conditions.

Following completion of the surveying, geotechnical exploration and any material sampling, the analytical design work will begin. The Project Manager and Engineer will review the project data, evaluate the feasible alternatives and prepare a preliminary set of construction documents. The documents will include at a minimum:

1. A site map indicating existing conditions;
2. A tax map overlay with the parcels identified that may be impacted by the proposed design;
3. Reclamation Plans for the project area.
4. Proposed site plans for the repair and stabilization of the landslide, including safely dewatering and excavation of all portals, if needed.
5. Provide Sedimentation and Erosion Control Plan



6. Site Profiles
7. Cross Sections
8. Drainage systems and control structures, with details
9. NPDES Permit
10. MM109 Permit
11. Survey control points
12. Miscellaneous Site details

- CTL will also provide all necessary data for the MM109 and NPDES permit including S&E Control Plans as required for the site construction and if deemed necessary, perform environmental assessments. CTL will make submittals for the NPDES permit.
- In addition to preparation of the above-described drawings, a complete set of specifications will be prepared and outlined to describe in detail the scope and methods of work to be accomplished. An estimate of construction costs and the design calculations will also be submitted to the WVDEP for review and future reference.
- Following the submission of the construction documents, a project design review meeting will be coordinated with the WVDEP, CTL, and appropriate individuals to review the proposed plans.
- Recommendations for plan revisions will be discussed and implemented, as necessary, into the final design documents. Upon completion, all final documents, drawings, plans and specifications will be forwarded to the WVDEP for bidding purposes.
- CTL will assist the WVDEP in the bidding process with any design or constructability questions.
- CTL will provide engineering technicians to provide QA/QC and materials testing throughout construction activities.
- CTL will provide daily reports and document the construction process and assist the WVDEP in the project closeout.

Project Goals

AML Contract 4 Project South

Project and Goals:

- 2.1. NEPA tasks and IJJA compliance.
- 2.2. Determine legal ownership of properties and provide legal documentation to substantiate legal ownership findings (if required).
- 2.3. Develop construction plans and technical specifications for all aspects to reclaim mine portals, drainage controls and systems, slope stabilization, coal refuse reclamation, stream restoration, subsidence repair, storm water and erosion and sediment control, regrade and revegetation, and all other conditions encountered on the project sites.
- 2.4. Obtain/maintain/release all required permits.
- 2.5. Provide resident project representative, QA/QC certification, and prepare daily field activity logs summarizing construction activities.

***CTL's abilities to complete the project scope and goals:***

Tim Darrah will be the project manager for CTL. All communication through the owner for the duration of the project will be through Mr. Darrah. Mr. Darrah has the authority to engage any of CTL's staff or services for the completion of the project.

CTL has referenced several projects in (section 5) that were completed on time and on budget. CTL provides engineering services to a wide variety of projects with similar challenges as laid out in the EOI. We have a vast history providing engineering services to AML projects in WV and the surrounding states.

CTL will use the following project Management outline. CTL has accounting software that can provide work in progress reports weekly.

Plan Schedule Management

- **Define Scope**
- **Sequence scope tasks**
- **Estimate Resources and cost**
- **Estimate Durations and cost to complete tasks**
- **Develop Schedule**
- **Control Schedule**

CTL provides services to several projects throughout the year that are constructed timely and efficient.

Construction Management Plan

- **Project Organization**
- **Project Planning**
- **Project Monitoring**
- **Project Control**

CTL completes several projects a year that involve: landslide reclamation, civil site design, stormwater and drainage control, construction administration, construction inspection and testing, geotechnical engineering, surveying and environmental engineering.



SECTION 4 PROJECT PERSONNEL



CTL TEAM ORGANIZATION

west virginia



Timothy Darrah
Project Manager

Patrick Gallagher, PE
Subject matter expert
AML Reclamation

Reuben Haight, PE
Engineer of Record

Geotechnical

Joe Grani, PE
Geotechnical Lead

Carl Selfridge
Geotechnical Engineer

Design / Engineering

Timothy Darrah
Design Lead
Environmental Lead

Joseph Stanley
Staff Engineer

Environmental

Vinny Atardi (D&H)
Environmental Lead

Hydraulic Modeling

Millard "Bucky" Nicholson
Storm Modeling Lead

Reuben Haight, PE
Civil Engineer

Eric Stewart PE
Herb Parsons PE
(D&H) Engineer Leads

Construction Services

Joe Grani, PE
Construction Services
Lead

Caroline Ornowski
Engineering Technician

Robyn Smith
(D&H) Construction
Services Lead

CTL Team Key Personnel / Experience

Tim Darrah | Civil/Site and Surveying Department Manager

Education: B.S. Civil Engineering

Summary: Mr. Darrah will serve as the project manager for CTL. Mr. Darrah is presently responsible for department management for reclamation design, municipal engineering, civil site design, commercial development and surveying projects. Mr. Darrah also serves as project manager on various types of civil engineering projects including water, sewer and stormwater designs as well as residential, commercial developments and reclamation design projects. Office work includes project management, site designs, hydrology calculations, quantity calculations, and various other forms of engineering related duties.



Relevant Project Experience

- Guernsey Power Plant and Substation – Mine Grouting and Stabilization Design
 - ODNR Bond Forfeiture Program – 20 plus Projects
 - Morgantown Anderson Portals & Highwall – Abandoned Mine Land Reclamation Design, Morgantown, West Virginia
 - Hopewell Church Refuse and Acid Mine Drainage – Abandoned Mine Lands, Preston County, West Virginia
 - Fairmont (Jackson Addition) Subsidence Project – Abandoned Mine Land Reclamation, Marion County, West Virginia
 - Shinns Run Portals & Acid Mine Drainage – Abandoned Mine Lands Reclamation, Harrison County, West Virginia
 - Ream Refuse Piles – Abandoned Mine Lands Reclamation, McDowell County, West Virginia
 - Cheat Neck (Lenhart) Landslide, Monongalia County, West Virginia
 - St. Clair Portals – Abandoned Mine Lands Reclamation, Monongalia County, West Virginia
 - Morning Star Baptist Church Subsidence, Marion County, West Virginia
 - Fairmont United Methodist Church-Subsidence Investigation & Mitigation, Fairmont, West Virginia
 - Eccles and MacArthur Subsidence, Raleigh County, West Virginia
 - Peninsula Highwalls – Abandoned Mine Lands Reclamation, Monongalia County, West Virginia
-

Reuben Haught, P.E. | Civil Engineer

Education: B.S. Civil Engineering Technology

Summary: Mr. Haught is a licensed professional engineer in West Virginia and Pennsylvania and will be the engineer in charge for the project. He is a Project Engineer whose responsibilities include mining reclamation plans, impoundment stability inspections, project management, site design, site grading, stormwater design, and stormwater permitting,. He is proficient in AutoCAD Civil 3D and Hydraflow Hydrographs.



Relevant Project Experience

Morgantown Municipal Airport Runway Extension: Project Manager

More than 150 Weekly, Quarterly, and Annual Pond impoundment inspections each year since 2016.

Courtney Run Abandonment Plan Revision 18: Permitting through MSHA and WVDEP

WVU Willowdale Road Parking Garage: Road Adjustment Design and Permitting; Grading Design; Underground Storage and Pipe Network Layout, Sizing, and Permitting.

Patrick E. Gallagher, PE, CPGS | Technical Advisor**Education:** B.S. Civil Engineering, Minor in Geology**Summary:** Mr. Gallagher will serve as technical oversight for the project. Projects successfully completed under Mr. Gallagher's direction include: Civil Site Design, Foundation Design, Stormwater Management, Waste Water Design, Roadway Design, Parking Lot Design, Geotechnical Investigations & Design, Site Stability Analyses, Mine Subsidence Evaluations, Failure Investigations and Environmental Investigations and Expert Witness Testimony. Prior to joining CTL Engineering, Mr. Gallagher was the chief of the Abandoned Mine Reclamation Program for the State of Maryland, Department of Natural Resources, and Bureau of Mines. In addition, he was also responsible for overall engineering/geologic support to the Maryland Bureau of Mines Program. His career began in Pittsburgh as a project geotechnical engineer with Orbital Engineering.**Relevant Project Experience**

- ODOT 11-16 – Mine Voids Mitigation SR 2, Ottawa County, OH
- Step&J 11-12 – Eastern/Patriot Kopperston Refuse Impoundment, Wyoming County, WV
- LP Mineral 11-17 – Overhead Conveyor Yearly Inspection, Monongalia County, WV
- MDE 2012 – Douglas Avenue Landslide Repair Project – Task Order #9, Allegany County, MD
- WV DEP 12-13 – Fairmont (Jackson Addition) Subsidence Project (DEP 15594), Marion County, WV
- CONSOL 2013 – Annual Certification – Loveridge, Marion County, WV
- Mepco 13-14 – Seal Certification – Prime No. 1 Mine, Monongalia County, WV
- MDE 2014 – Shaft Firehall (TO#22), Frostburg, MD
- Island Creek 2015 – North Branch Annual Certifications, Grant County, WV
- MDE 14-15 – Aarons Run, Garrett County, MD
- AECOM 14-16 – I-79 Interchange Mine Subsidence and Grout Stabilization, Monongalia County, WV
- Beaver 2015 – Cowgill Waterline – Stability Analysis, Noble County, OH
- MDE 15-16 – Upper Georges Creek Stream Sealing Project Acid Mine Drainage, Allegany County, MD

Joseph Grani, P.E. | Geotechnical Engineer**Education:** M.S. Geotechnical Engineering, 1994; B.S. Civil Engineering, 1991**Summary of Experience:** Mr. Grani will be the geotechnical lead for the project. Mr. Grani has over 30 years of experience in the geotechnical field. He is responsible for the supervision of all subsurface exploration projects including landslides, foundation analyses and recommendations for roadways, bridges, sewers, buildings, towers, and tanks. He has managed geotechnical drilling operations for confirmation borings on large scale deep mine grouting projects. He has also worked on several roadway rehabilitation projects where unsuitable soils were encountered. His innovative solutions to projects have included using geogrid to bridge soft soils and decrease required pavement thicknesses and the use of drying agents such as cement and lime to stabilize the soils. Mr. Grani was the Project Manager for various landslide projects including a 1,590-foot long plug pile retaining wall (HEN-110-0.66), and a 1,170-foot long plug pile retaining wall (ADA-125-13.30).

Also, Mr. Grani served as the Project Manager for the geotechnical explorations with varying level of design calculations on over 150 landslides in West Virginia and Ohio. In addition to landslides, in the past 5 years, Mr. Grani has served as Geotechnical Project Manager on over 50 other transportation projects including roadway realignments, as well as bridge and culvert replacements.

Carl Selfridge | Geotechnical Engineer**Education:** B.S. Civil Engineering Technology**Summary:** Mr. Selfridge will serve as a geotechnical engineer and provide geotechnical oversight and review for the project.

Mr. Selfridge's responsibilities include management of field drilling activities, field classification of soil and rock, field and laboratory safety procedures, and performing geotechnical evaluations. Engineering evaluations include foundation recommendations, settlement analysis, slope stability analysis, earth pressure coefficients and report preparation.

Relevant Project Experience

- Eccles and MacArthur Subsidence-Subsidence Investigation & Mitigation, Raleigh County, W.V.
- Shinns Run Portals & AMD-AML Reclamation & Geotechnical Services, Harrison County, W.V.
- Tunnel Ridge Slurry Cell A-Piezometer Installations & Geotechnical Services, Ohio County, W.V.
- Pine Creek: Omar Landfill-Geotechnical Services, Logan County, W.V.
- WV State- wide Landfill-Geotechnical Services.
- Buzzard Pond Dam-Geotechnical Services, Marshall County, W.V.

Millard "Bucky" Nicholson | Civil Engineer**Education:** B.S. Civil Engineering**Summary:** Mr. Nicholson will serve as the Stormwater Modeling Lead. Mr. Millard L. Nicholson Jr. is a Staff Engineer, Project Manager, and CAD Designer in the Morgantown, West Virginia office of CTL Engineering, Inc. His responsibilities include assisting in the planning and design of civil site design projects involving land planning and site development aspects, stormwater for MS4 communities and permitting. He is proficient in AutoCAD Civil 3D, HEC-RAS, TR-55, Hydraflow Hydrographs, Microsoft Word, and Microsoft Excel. His projects include commercial and residential properties, mine and energy sites, and, also, state, county, and local roads. Mr. Nicholson expertise in stormwater and hydraulic modeling are crucial for any project CTL completes. All site development designs are coordinated through Bucky and rely on his calculations and analyses for site specific specifications. Bucky has completed numerous studies and analyses in support of modification to FEMA Flood Maps via LOMR (Letter of Map Revision) process. He has modeled several sites using HEC-RAS to determine the actual floodplain limits. Bucky also is our lead for green design in stormwater, such as biocells and rain gardens. Ditch calculations and drainage areas are other examples of Bucky's experience.**Relevant Project Experience**

- LOMR and FEMA permits various locations in West Virginia
- Site Development stormwater design, various locations in West Virginia
- Hydraulic Modeling for Bridge Analysis, Monongalia County, West Virginia
- Fairmont Subsidence – Abandoned Mine Land Reclamation, Marion County, West Virginia
- Morgantown Anderson Highwalls – Abandoned Mine Land Reclamation Design, Monongalia County, West Virginia
- Shinns Run Portals – Abandoned Mine Land Reclamation & Portal Closure, Harrison County, West Virginia
- Williams Refuse Pile – Land Reclamation, Harrison County, West Virginia

Joseph Stanley | Civil Engineer**Education:** A.S. Drafting and Design**Summary of Experience:** Mr. Joe Stanley is a Staff Engineer, Project Manager, and CAD Designer in the Morgantown, West Virginia office of CTL Engineering, Inc. His responsibilities include assisting in the planning and design of civil site design projects involving land planning and site development aspects. His projects vary from commercial and residential properties, mine and energy sites, and also includes state, county, and local roads.**Relevant Project Experience**

- Fairmont Subsidence – Abandoned Mine Land Reclamation, Marion County, West Virginia
- Morgantown Anderson Highwalls – Abandoned Mine Land Reclamation Design, Monongalia County, West Virginia
- Shinns Run Portals – Abandoned Mine Land Reclamation & Portal Closure, Harrison County, West Virginia
- Hopewell Church Refuse – Abandoned Mine Drainage, Preston County, West Virginia
- Peninsula Highwalls – Abandoned Mine Land Reclamation, Monongalia County, West Virginia
- Cheat Neck Landslide, Monongalia County, West Virginia

**Caroline Ornowski | Engineering Technician****Education:** B.S. Civil Engineering, Fairmont State University 2016**Summary of Experience:**

Caroline is Level III construction inspector with 5 years of construction experience in quality control testing and inspection of roadway, bridges and other infrastructure projects. She also has experience in construction – Above Ground Training OSHA – administration and inspection of general items such as: structures, storm sewers, sanitary sewers and waterlines.

Caroline has been assigned as the lead inspector on the MGW Runway Extension Runway construction project in Morgantown. This project features over **100,000 yards of rock excavation** and potential stakeholder encroachment. She has strong knowledge and experience with quality control testing, coordination of other technicians and serving as liaison between clients, owner and contractor. She also maintained as-built drawings, measured various material quantities and provided daily report of the construction activities.

**Relevant Project Experience**

- Morgantown Airport Runway Extension – City of Morgantown, West Virginia QA / QC
- Guernsey Power Plant and Substation – Mine Grouting and Stabilization Design QA / QC
- I79 Widening – WVDOH Asphalt QA / QC

President/Co-Owner
Michael D. Hritz, P.E.



DIEFFENBAUCH & HRITZ

Mr. Hritz has over 28 years of experience in the civil and environmental engineering field. During that time, he has served as co-owner of Dieffenbach & Hritz, LLC; Regulatory, Construction and Water Resources Manager for Chief Oil & Gas LLC and Manager at Gannett Fleming, Inc. Mr. Hritz has accumulated a broad range of experience in the regulatory, planning, well permitting, location construction, drilling, completing and production phases of the oil & gas industry in the Marcellus Shale. Also through his career he has gained valuable experience with projects in the transportation, environmental compliance, mining, water resources and commercial site development fields in OH, PA, VA, and WV.

Company Role, Quality Assurance Quality Control:

Responsible for overseeing and assuring the quality of all deliverables and management practices of all disciplines. This includes overseeing critical events, attending client or stockholder meetings. As well as participating in kick-off and milestone meetings, preparing quality control plans and assuring project and client performance.

Project Role, Professional Charge: Mr. Hritz is assigned professional charge on many projects for the engineering and survey departments. A critical key to quality control includes redundant professional reviews. D&H has a Client Leader in charge of projects and a designated Professional will provide independent review of each deliverable. This process assures unbiased results and quality deliverables. Professional charge assignments include permitting, engineering and survey deliverables for a variety of projects.

Experience Prior to Dieffenbach & Hritz, LLC:

Chief Oil & Gas
2009– 2012
Title: Regulatory, Construction and Water Resources Manager

Dieffenbach & Hritz, LLC
2005 - 2009
Title: President/ Co-Owner

Manager, Gannett Fleming, Inc
1993 – 2005
Title: Project Engineer through Regional Office

DETAILS AND ACHIEVEMENTS

Experience

Total: >28 years
With D&H: >14 years
(Founder 2005)

Education:

B.S., Civil Engineering,
The Pennsylvania State
University – 1991

PROFESSIONAL REGISTRATION(S):

1997/PE, PA
1999/PE, WV
2013/PE, NC

CORPORATE AFFILIATIONS:

Gas and Oil Association of
WV (GOWV)

Pennsylvania Independent
Oil and Gas Association
(PIOGA)

Herbert I Parsons III, PE, PLS
Operations Leader



DIEFFENBAUCH & HRITZ

Mr. Parsons has accumulated more than 20 years of project management experience in civil engineering and surveying. As a Senior Project Manager, he has developed a broad experience base and extensive project development with public and private sector clients. He has lead teams on complex projects that require coordination of disciplines, technical studies, environmental permitting, and multiple agencies and stakeholders. Specific areas of engineering design and surveying include, renewable energy, conventional energy, road design, utilities, hydrologic and hydraulic studies, commercial and residential site planning, erosion and sediment control plans and permit documents.

Quality Assurance Quality Control:

Mr. Parsons is responsible for overseeing and assuring the quality of all deliverables and management practices of all disciplines. This includes overseeing critical events, establishing program protocol's, attending client or stockholder meetings, participating in kick-off and milestone meetings, preparing project specific quality control plans and project execution plans. In addition Mr. Parsons is the Department Leader for the Survey Department and oversees its day to day operations as well as its overall responsible charge. Finally, Mr. Parsons has a QC role with the engineering department as an independent reviewer and has responsible charge and signature responsibilities for several clients and scopes of work in multiple states.

Technical Competency

- Water Resources (H & H Studies)
- Impoundment Design
- Storm Sewer System
- Storm Water Management
- Water Quality Control (BMP)
- Utility Systems
- Road Design
- Erosion and Sediment Control / NPDES
- Survey Expertise
 - Boundary Survey
 - ALTA/As-built Surveys
 - Aerial Control and Mapping
 - Obstruction Surveys
 - Construction Stakeout
 - Topographic Mapping

DETAILS AND ACHIEVEMENTS

Experience

Total: 25 years
With D&H: Nine Years

Education:

Virginia Military Institute
B.S. Civil Engineering 1994

Safety Training

Safeland (PEC)
OSHA 10
RigPass

PROFESSIONAL REGISTRATION(S):

Professional Surveyor

WV # [REDACTED] 2017)
VA # [REDACTED] 2007)
PA # [REDACTED] (2015)
NC # [REDACTED] 2013)

Professional Engineer

WV # [REDACTED] (2002)
VA # [REDACTED] 1999)
PA # [REDACTED] 2003)
OH# [REDACTED] (2020)

CORPORATE AFFILIATIONS:

Gas and Oil Association of WV (GOWV)
Pennsylvania Independent Oil and Gas Association (PIOGA)

Engineering Manager
Eric N. Stewart, P.E.



DIEFFENBAUCH & HRITZ

Mr. Stewart has over 15 years of experience in the civil and environmental engineering field. During that time, he has served as Engineering Manager for Dieffenbach & Hritz, LLC; Roadway and Special Projects Construction Manager for Antero Resources and Project Manager at Williams. Mr. Stewart has accumulated a broad range of experience in the regulatory, planning, well permitting, location construction, pipeline, and midstream facility of the oil & gas industry in the Marcellus and Utica Shale. Also, through his career he has gained valuable experience with projects in the transportation, environmental compliance, mining, water resources and commercial site development fields in OH, PA, and WV.

Company Role, Engineering Manager:

Responsible for all aspects of engineering and design. He coordinates procedures as well as works closely with clients and regulatory agencies to ensure the company is at the forefront of design and regulatory adherence.

Project Role, Professional Charge: Mr. Stewart is assigned professional charge on many projects for the engineering and construction management departments. A critical key to quality control includes redundant professional reviews. D&H has a Client Leader in charge of projects and a designated Professional will provide independent review of each deliverable. This process assures unbiased results and quality deliverables. Professional charge assignments include permitting, engineering, survey and construction management deliverables for a variety of projects.

Experience Prior to Dieffenbach & Hritz, LLC:

Antero Resources Corporation
2016– 2018
Title: Special Projects & Roadway Construction Manager

Williams Companies, Inc.
2009– 2016
Title: Facilities Engineer/Project Manager/Permitting Manager

Dieffenbach & Hritz, LLC
2005 - 2009
Title: Project Manager

Gannett Fleming, Inc.
2003 – 2005
Title: Associate Engineer

DETAILS AND ACHIEVEMENTS

Experience

Total: 18 years
With D&H: 7 years

Education:

B.S., Civil Engineering,
West Virginia University

PROFESSIONAL REGISTRATION(S):

Professional Engineer
WV [REDACTED]
PA # [REDACTED]
OH # [REDACTED]

CORPORATE AFFILIATIONS:

Gas and Oil Associate of
WV (GOWV)

Pennsylvania Independent
Oil and Gas Association
(PIOGA)

Construction Services Manager**Robyn E. Smith**

DIEFFENBAUCH & HRITZ

Mr. Smith has over 35 years of experience in the civil, mining, and construction management fields. Mr. Smith has accumulated a broad range of experience in the regulatory, planning, location construction, drilling, geotechnical and construction management phases of the oil & gas industry in the Utica and Marcellus Shale. Also throughout his career he has gained valuable experience with projects in the transportation, environmental compliance, mining, water resources, geotechnical and commercial site development fields in KY, OH, PA, VA, and WV.

Project Role, Construction Services Manager:

Responsible for managing the design, permitting, construction management and certification activities associated with client's projects. Projects may include but are not limited to: oil & gas well pads, fresh and reuse water impoundments. Primary role includes; managing company operations, management of oil & gas development planning and regulatory reporting, management of construction services including construction compliance and inspection, construction management, construction sequencing and optimization, contractor management, project development and management and project completion, and planning, design, permitting, and construction phase services for water resources, environmental, mining, transportation, geotechnical and commercial site development projects.

Summary of Projects:**Oil & Gas Well Pad Projects:** [2015 – present]

Over the past 5 years, Mr. Smith has managed hundreds of design, permitting, construction management, and certification for natural gas well sites, above ground storage facilities, centralized impoundments, pipelines, and metering facilities for various natural gas companies at locations throughout PA, OH and WV.

Experience prior to Dieffenbach & Hritz LLC:

Chief Engineer; Coal River Energy [2011 – 2015]
Senior Mining Engineer/Construction Manager; Callaway Natural Resources [2005 – 2011]
Project Engineer/Field Services Manager; Triad Engineering, Inc. [1998-2005]
Branch Manager; Triad Engineering, Inc. [1993-1998]
General Manager; GLX Development Corporation [1987-1993]
Mining Engineer; Stagg Engineering Services, Inc. [1985-1987]

DETAILS AND ACHIEVEMENTS**Experience:**

Total: 36 years
With D&H: 6 years

Education:

BS, Mining Engineering,
West Virginia Institute of
Technology, 1984

Safety Training:

PEC Training
MSHA US Department of Labor
Certified Surface Mine
Instructor (Code IS)
MSHA US Department of Labor
Certified Underground Mine
Instructor (Code IU)
MSHA US Department of Labor
Certified Impoundment
Inspection Instructor.
WV Certified Surface Mine
Foreman
WV Certified Underground
Mine Foreman

CORPORATE AFFILIATIONS:

Environmental Services Leader
Vincent J. Attardi, M.S.



DIEFFENBAUCH & HRITZ

Mr. Attardi has over 40 years of experience conducting environmental and ecological investigations throughout the eastern United States. During the course of his career, he has held positions in the government, academic, and private sectors and has founded three ecological consulting firms. He is an aquatic ecologist by training and a leading expert in project permitting under Sections 404 and 401 of the Clean Water Act (CWA). He is proficient in wetland and stream services (delineation, mitigation, restoration, permitting), endangered species habitat assessments, botanical surveys, soil assessments, aerial photo interpretation, NEPA documents, natural resource management plans, and other natural resource investigations.

Project Role, Environmental Coordinator:

In his current position, Mr. Attardi is responsible for the development and management of program and personnel that comprises the entirety of Environmental Services offered to our clients and in support of our Engineering and Construction Service Sectors. Key roles include development and implementation of the quality assurance program, development of standard operating procedures, scheduling, technical expertise, technical mentoring, personnel management, budgeting, project management, and business development.

Summary of Projects:

Mr. Attardi has overseen the environmental investigation and permitting of approximately 150 projects during his time at Dieffenbach & Hritz. These investigations were primarily conducted in support of oil and gas projects.

Experience prior to Dieffenbach & Hritz LLC:

Principal, Wetland Services; Copperhead Environmental Consulting, Inc. [2013 – 2014]

Senior Associate; Stantec [2008 – 2012]

Senior Ecologist, Project Manager; FMSM [2005 – 2008]

Senior Ecologist, President; Ecological Planning Group, LLC [2002 – 2005]

Natural Resources Program Manager; Law Engineering and Environmental Services, Inc. [1999 – 2002]

Natural Resources Program Manager; Ogden Environmental and Energy Services, Inc. [1997 – 1999]

DETAILS AND ACHIEVEMENTS

Experience

Total: 40 years
With D&H: 7 Years

Education:

M.S., Biology, Rutgers University, 1992
B.S., Marine Science / Biology, University of Tampa, 1981

Safety Training

Safeland
OSHA 10
First Aid / CPR / Blood Pathogen

PROFESSIONAL CERTIFICATIONS:

Sewage Enforcement Officer

Pennsylvania – No. [REDACTED] (2015)

Certified Erosion Prevention & Sediment Control Inspector

South Carolina – No. [REDACTED] (2016)

CORPORATE AFFILIATIONS:

Society of Wetland Scientists
Pennsylvania Association of Sewage Enforcement Officers
GOWV Environmental Committee
Pennsylvania Independent Oil and Gas Association (PIOGA)



SECTION 5 PAST PERFORMANCE



AML & Relevant Project Experience

HIGHWALLS

- Anderson Highwalls, WVDEP
- Peninsula Highwalls, WVDEP
- St. Clair Portals, WVDEP
- Collins Mining, ODNR
- Miller Mining, ODNR

OPEN PITS

- Shinn's Run Portals, WVDEP
- Jones Trucking, ODNR
- General Clay #1 & #2, ODNR

OPEN MINE SHAFTS

- Kennel Mine Closure, MDE, AMLD
- Frostburg North Closure, MDE, AMLD
- Zilman Closure, MDE, AMLD

REFUSE PILES

- Hopewell Church Refuse & AMD, WVDEP
- Ream Refuse Pile, WVDEP
- Williams Refuse Pile, Private
- Harrison Power Plant, Allegheny Power

MINE SUBSIDENCE

- Fairmont Subsidence, WV DEP
- Lower Consol Road MDE, AMLD
- Terra Haute Airport, IN AML
- Farmington UMC, WV DEP Emergency
- Morningside Baptist, WV DEP Emergency
- Eccles Subsidence, WV DEP
- McArthur Subsidence, WV DEP
- Mark Kempner, NJ Private
- WV BRIM
- OMSIUA



MINE DRAINAGE/STREAM RESTORATION

- St. Clair Portals, WV DEP
- Aarons Run, MDE, AMLD
- Deckers Creek, WVDEP

LANDSLIDES

- Douglas Avenue Landslide, MDE, AMLD
- Schramm Landslide, MDE, AMLD
- Gordon Landslide, MDE, AMLD
- East Franklin Landslide, MDE, AMLD
- Cheat Neck Landslide, WV DEP
- McCourt Landslide, ODNR
- Caldonia Hill Slope Stability, MDE, AMLD

WATER SUPPLY REPLACEMENT

- Douglas Avenue Stormwater System Repair, MDE, AMLD
- Bald Knob & Potomac Hollow Water Investigations, MDE, AMLD
- Pee Wee Hill Supply Design, MDE, AMLD
- Pee Wee Will Water Feasibility Study, MDE, AMLD
- Fairview Water Feasibility, WV DEP
- Tioga Water Feasibility, WV DEP



AML / Mine Related-Past Performance Matrix

Name	Location	Landslide	Subsidence	Highwalls	Refuse Piles	AMD	Mine Openings	Stream Design / Restorations	Construction Docs / Bidding
Anderson Highwall	Monongalia County, WV			X			X		X
Tars Hill Landslide	Jefferson County Ohio	X							X
Oakhill Landslide	Allegheny County Maryland	X							X
Riddles Run Landslide	Jefferson County, Ohio	X							X
Aarons Run Road Failure & Landslide	Garrett County, Maryland	X							X
Peninsula Highwall	Monongalia County, WV			X			X		X
St. Clair Portals	Monongalia County, WV			X	X	X	X	X	X
Aaron's Run	Garrett County, MD					X		X	X
George's Creek	Garrett County, MD							X	X
Shinn's Run Portals	Harrison County, WV					X	X		X
Williams Refuse Pile	Harrison County, WV				X	X			X
Maryland Deep Mine Closures	Allegheny & Garrett County, MD						X		X
Hopewell Church & AMD, WVDEP	Preston County, WV			X	X	X	X		X
Fairmont Subsidence	Fairmont, WV		X						X
Blackwater River AMD	Tucker County, WV					X			X
Taylor Creek Impoundment	Clay County, WV				X			X	X
Thomas Subsidence	Thomas, WV		X						X
Red Hollow Refuse Pile	Mc Comas, WV				X				X
Alderson Branch Refuse Pile	Raleigh County, WV				X				X
General Clay	Medina County, Ohio			X					X
Zerger Quarry	Noble County, Ohio			X					X

Past Project Experience

Project: Anderson Highwall

Client: WVDEP AML

Contact: AML Division (Bridgeport Office)

Phone: (304) 926-0499

Location: Monongalia County, West Virginia

Project Description: The site consisted of dangerous highwalls, seven or more open or partially open portals and a dangerous scrap yard with potentially dangerous materials. CTL provided surveying, geotechnical investigation, civil design and construction bidding documents.



Project: Tars Hill Landslide

Client: ODNR – Division of Mineral Resource Management

Contact: AML Division

Phone: (614) 265-7079

Location: Jefferson County, Ohio

Project Description: CTL Engineering, Inc. provided engineering design services and construction documents necessary to repair and stabilize a landslide that has damaged a road and made it impassable. In addition, the hillside above the damaged road has become unstable and has several large slip areas. Abandoned deep mines, on both sides of the hollow, produce a significant number of ground water sources, which has added to the instability of the area.



Site design will begin on the collection and diversion of ground water, slope stability and road replacement once the final site investigation has been completed.

Project: Oakhill Landslide

Client: Maryland Department of Environment – Bureau of Mining

Contact: MBOM

Phone: (301) 689-8020

Location: Allegheny County, Maryland

Project Description: CTL Engineering, Inc. provided engineering design services and construction documents necessary to reclaim and stabilize a landslide encroaching on Georges Creek and reducing the flow area of the stream. The site had been backfilled with mine spoil and mine drainage was saturating the slope and creating the instability. Subsurface investigations were performed to determine soil characteristics, strata depths and water levels, using piezometers. Slope stability analyses were performed to determine the corrective actions required to stabilize the area. Surface and subsurface drainage structures, a toe key, and stream bank protection were designed to correct the instability problems and provide long term protection to the area.



Project: Riddles Run Landslide
Client: ODNR – Division of Mineral Resource Management
Contact: AML Division
Phone: (614) 265-7079
Location: Jefferson County, Ohio
Project Description: CTL Engineering, Inc. provided engineering design services and construction documents necessary to repair and stabilize a landslide that has damaged a road. Mine drainage of abandoned deep mine entries have saturated the soil causing it to slide down the slope toward the road. In addition, trees whose roots have been loosened by the movement of soils are in danger of sliding onto the roadway.



This 0.15-acre site was cleared and grubbed to install a sub-surface drain that will carry mine drainage away from the slip area. This drain was constructed above and perpendicular to the slip. An additional surface drain was constructed and lined with rock to direct the flow from the subsurface drain to natural drainage.

Project: Oakhill Landslide
Client: Maryland Department of Environment – Bureau of Mining
Contact: MBOM
Phone: (301) 689-8020
Location: Garrett County, Maryland
Project Description: CTL Engineering of West Virginia Inc. provided site investigation, geotechnical drilling and engineering services and remediation design for this road failure which was caused by subsidence from abandoned deep mines. The mines were within 50 feet of the road surface and had active water discharge on the outslope of the roadway. The design required the excavation of all material to the deep mine, create and engineered embankment to the road level and move the roadway further into the uphill side of the existing roadway.



This design was selected as the most cost effective way to remediate the failure and utilize nearby material for the fill.

Project: Peninsula Highwall
Client: WVDEP AML
Contact: AML Division (Bridgeport Office)
Phone: (304) 926-0499
Location: Monongalia County, West Virginia
Project Description: This site contained 1,800 LF of vertical to sloughed highwalls 15 to 25 feet high, 7 partially of totally collapsed mine portals, 1 open mine portal, subsidence depressions behind the portals and water present at or flowing from the portals. CTL Engineering of West Virginia, Inc. was retained to provide the design for the access road into the site, wet seal 2 portals, regrade face of 2 portals, riprap channel and additional channel to carry water off site, backfill of highwalls and subsidence areas, restoration of golf path asphalt, and conditioning and revegetation of all disturbed areas.



Project: St. Clair Portals
Client: WVDEP AML
Contact: AML Division (Bridgeport Office)
Phone: (304) 926-0499
Location: Monongalia County, West Virginia

Project Description: The site consisted of coal refuse, acid mine drainage with impounded water, collapsed mine portals and highwalls. 17 portals were found along the highwall bench. Three impoundments of approximately 70,000 sq.ft. had water flowing at 300 gpm with a pH value of 3.1 and iron >10 mg/l. A 35' to 45' high refuse pile was in the middle of the site as well as scattered refuse throughout the site.



CTL Engineering of West Virginia, Inc. was retained to provide the design for excavation and wet seal of at least 17 mine portals, dewater three impoundments, 2000 LF of stream reconstruction, regrade and cover of coal refuse and spoil areas on mine bench, drainage control channels to carry water off site. CTL was also responsible for the backfill of highwalls using spoil material to original contour and conditioning and revegetation of all disturbed areas.

Project: Aaron's Run AMD Project
Client: Maryland Department of Environment – AML Division
Contact: Mike Garner
Phone: (301) 689-1440
Location: Garrett County, Maryland

Project Description: CTL Engineering of West Virginia, Inc. was retained to provide the design for multiple AMD treatment systems, 2 SAP cells, slurry doser, settling ponds, and natural wetlands. CTL also provided full site grading plans & drainage controls, access road & highway rated bridge, all state & federal permitting, and construction specifications and drawings.



Project: Upper Georges Creek Stream Sealing Project
Client: Maryland Department of Environment – AML Division
Contact: Tim Miller
Phone: (301) 689-1440
Location: Garrett County, Maryland

Project Description: CTL Engineering of West Virginia Inc. was retained to perform geologic and hydrologic assessments of the Upper Georges Creek Watershed to determine the extent and amount of stream flow lost to underground mines. CTL was responsible for conducting cooperative meetings with several stakeholders, reviewing existing reports and data on file at the AMLD office and based on available data along with possibly field measurements or drilling, develop plans to monitor streams to locate stream water loss zones. CTL then performed stream flow measurements within the study area to locate the areas of most significant water loss. Also, assessments to each tributary was completed as a part of the study. Upon completion of the study, CTL provided remediation options for sealing the streams.



Project: Shinns Run
Client: WVDEP AML
Contact: AML Division (Bridgeport Office)
Phone: (304) 926-0499

Location: Harrison County, West Virginia

Project Description: CTL Engineering provided surveying, reclamation design and subsurface investigations for this Abandoned Mine Lands and Reclamation project. The surveying was completed in order to establish the areas that will be reclaimed and to locate utilities that were not apparent on the mapping provided for the job. CTL provided drilling services near the mine entries to determine the mine pool as well as near a bridge on site to determine the foundation depth and bearing capacity. CTL also developed sedimentation and erosion control plans for all disturbed sites.



Project: Williams Refuse Pile

Client: Targe Energy
Contact: Van Plocus
Phone: (412) 784-0750

Location: Harrison County, West Virginia

Project Description: CTL Engineering of West Virginia, Inc. was selected to perform engineering related services including environmental services, site design, and permitting for Targe Energy Reclamation, LLC during this *turnkey project*. This project was treated very similar to a complete surface mine application. The scope of services provided by CTL included a refuse removal plan, field reconnaissance, ash backfill design, permits preparation, and environmental sampling.



Project: Maryland Deep Mine Closures

Client: Maryland Department of Environment – AML Division
Contact: Tim Miller
Phone: (301) 689-1440

Location: Allegheny and Garrett County, Maryland

Project Description: CTL Engineering of West Virginia, Inc. was retained to provide the develop detailed engineering design plans and construction plans including; cost estimates, bid documents, project drawings, maps, plans & specifications for the reclamation construction of multiple mine mouth closures. Design and Plans included dry and wet mine seals, bat gates, regrading, drainage structures and site reclamation.



Project: Fairmont Subsidence
Client: WVDEP AML
Contact: AML Division (Bridgeport Office)
Phone: (304) 926-0499
Location: Harrison County, West Virginia
Project Description: CTL Engineering provided surveying, reclamation design and subsurface investigations for this Abandoned Mine Lands and Reclamation project. The surveying was completed in order to establish the areas that will be reclaimed and to locate utilities that were not apparent on the mapping provided for the job. CTL provided drilling services near the mine entries to determine the mine pool as well as near a bridge on site to determine the foundation depth and bearing capacity. CTL also developed sedimentation and erosion control plans for all disturbed sites.



Project: Blackwater River
Client: WVDEP AML
Contact: AML Division (Bridgeport Office)
Phone: (304) 926-0499
Location: Tucker County, West Virginia
Project Description: CTL Engineering of West Virginia, Inc. provided Engineering Design Services and construction documents to rehabilitate an existing concrete dam and install a rotating drum and limestone slurry treatment facility on the Blackwater River. This project was a cooperative project with West Virginia Department of Environmental Protection and West Virginia Division of Natural Resources. This project has been recognized by "Trout Unlimited" and was mentioned in the February 1993 issue of "Outdoor Life". The Blackwater River/Beaver Creek Treatment Project has successfully transformed a formally dead section of the Blackwater River into a high quality trout fishery and was recognized by the *US Dept of Interior, Office of Surface Mining, as the 1999 Appalachian Region Award Winner.*



Project: Taylor Creek Impoundment
Client: WVDEP AML
Contact: AML Division (Bridgeport Office)
Phone: (304) 926-0499
Location: Clay County, West Virginia
Project Description: CTL Engineering of West Virginia, Inc. provided Engineering Design Services and construction documents necessary for the reclamation and extinguishment of a 120-acre burning refuse pile. This project also included the subsurface investigation of burning material to depths of approximately 110 feet, and the design and reconstruction of approximately 3,400 feet of Taylor Creek. Several areas of slope instability required stabilization. Additionally, an existing 24-acre coal related impoundment had to be evaluated, dewatered and the area stabilized.



Project: Morgantown Airport Runway Extension

Client: City of Morgantown

Contact: Michael Baker

Phone: (304) 284-7405

Location: Monongalia, West Virginia

Project Description: The Runway Extension Project is a five-year initiative taking place at the Morgantown Municipal Airport – the busiest airport in West Virginia. The scope of work for this project

is to extend the existing runway by 1,001 feet, creating a safer takeoff and landing space for outgoing and incoming flights. Over 100,000 CY of rock excavation was part of the scope of the PH-1 project.



D&H Project Descriptions for Abandoned Mine Lands Related Projects

Dieffenbauch & Hritz (D&H) has provided engineering and related services to over 100 projects similar to AML projects following the guidelines and standard to the West Virginia Department of Protection. Below is a sampling of projects that have been completed.

Project: EQT Waterline System Client: EQT Production Location: Marion & Wetzel Counties, WV D&H was retained by EQT Production to provide engineering design and permitting and survey services for approximately 87,911 LF of waterlines to supply water for hydraulic fracturing on natural gas well pads. Developed site design included stream and wetland crossings, proposed driveways and waterline road crossing and stormwater discharge. Based upon route development data, survey crews and engineering teams were able to finalize the waterline routes and all necessary permits were obtained for the proposed construction.

Project: RHL89 Well Pad Client: CNX Gas Company, LLC Location: Greene County, PA D&H was retained by CNX Gas Company to provide engineering design and permitting, environmental services and survey services for a new Oil and Gas well pad located in Greene County, PA. The project consisted of D&H field staff designing an approximately 203" long graveled access road to the area where a pad will be constructed for the purpose of drilling unconventional gas wells. During the design and investigation process of this project D&H retained NGE, LLC to provide geotechnical work that were needed.

Project: NV13 Well Pad Slip Repair Client: CNX Gas Company, LLC Location: Greene County, PA D&H was retained by CNX Gas Company to provide engineering design and permitting, environmental services and survey for a slip repair for an existing oil and gas well pad located in Greene County, PA. This project consisted of D&H staff designing the remediation and restoration of a slide area caused by an infiltration berm. Reclaiming the infiltration berm area and re-routing impervious runoff to a new PCSM BMP. A second slip was fix on an existing infiltration basin and converting that infiltration basin to a wet pond. The designed slip repair involved an environmental assessment of the site and survey of the construction stakeout and producing a full as-built of the site once completed. During the slip repair design of this project, D&H retained NGE, LLC to provide a geotechnical assessment.

Project: Hampshire Gas Pipeline Replacement Client: Hampshire Gas: A Washington Gas Company Locations: Hampshire County, WV D&H was retained by Hampshire Gas to provide as-built survey and mapping services for the replacement of approximately 13,600 LF of gas pipeline located in Hampshire County, WV. This project consisted of the D&H field staff to survey the as-built pipeline and recording attribute information. Mapping deliverables consisted of line work generation, full plan set consisting of plan view over profiles and data tables with the attribute information that was collected in the field and amount of cover over pipeline once installed into the ground.

Project: Falcon Land AML Client: AJ Burk Location: Nicholas County, WV D&H was retained by AJ Burk to provide construction and as-built survey and UAV mapping services for an AML project located in Nicholas County, WV. This



project consisted of D&H field staff to survey the construction stakeout of modifications of existing ponds, emergency spillways, ditches, manholes, pipes, culverts, sump and construction of a new Limestone Facility. After the site was completed, D&H returned to provide a full site as-built of all work completed and provide an aerial imagery and a finished plan set.

Project: Purdy Run Quarry UAV Mapping Client: KCS Contracting, LLC Location: Harrison County, WV KCS Contracting retained D&H to provide UAV mapping services for the Purdy Run Quarry located in Harrison County, WV. This project consisted of D&H field staff to survey aerial targets and perform a UAV flight to capture aerial imagery to show the progression of the active mining at the quarry and to provide volumes of all stockpiles on site. D&H provided contours of one foot interval, plan sets of the mapping, a Google Earth file of the flight and a report that provided volumes of each stockpile in cubic yards.

Project: Mashey Gap Quarry UAV Mapping Client: J.F. Allen Company Location: Randolph County, WV J.F. Allen Company retained D&H to provide UAV mapping for the Mashey Gap Quarry located in Randolph County, WV. This project consisted of D&H field staff to survey aerial targets and perform a UAV flight to capture aerial imagery to show the progression of the active mining at the quarry. D&H provided aerial mapping, contours of one foot interval, plan set of the mapping and a Google Earth file of the flight.



SECTION 6
CCQQ
RPEM

**WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
 AML CONSULTANT CONFIDENTIAL QUALIFICATION QUESTIONNAIRE "Attachment B"**

PROJECT NAME Project 4 South	DATE (DAY, MONTH, YEAR) 07/07/2022	FEIN 55-063-1834
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1. FIRM NAME CTL Engineering, Inc.	2. HOME OFFICE BUSINESS ADDRESS 2860 Fisher Road Columbus, OH 43204	3. FORMER FIRM NAME Columbus Testing Laboratories
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4. HOME OFFICE TELEPHONE (614)276-8123	5. ESTABLISHED (YEAR) CTL-1927 CTL-WV 1983	6. TYPE OWNERSHIP Individual Corporation Partnership Joint-Venture	6a. WV REGISTERED DBE (Disadvantaged Business Enterprise) YES NO
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6. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE
1091 Chaplin Road, Morgantown, WV 26501/ 304-292-1135/ CK Satyapriya, President / Morgantown - 16

7. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM C. K. Satyapriya – CEO Ali Jamshidi – CFO Bipender Jindal – Secretary Hassan Zahran – Principal Ali Karaki – Principal David Breitfeller – Principal Kevin Reichert – Principal	8a. NAME, TITLE, & TELEPHONE NUMBER – OTHER PRINCIPALS Joe Grani – President – Geotechnical and Branch Manager of CTL Engineering of WV Timothy Darrah – Design Manager – CTL Eng. of WV Office Telephone: 304-292-1135
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9. PERSONNEL BY DISCIPLINE

1 ADMINISTRATIVE - ARCHITECTS - BIOLOGIST 4 CADD DESIGNERS - CHEMICAL ENGINEERS 3 CIVIL ENGINEERS 7 CONSTRUCTION INSPECTORS - DESIGNERS 1 DRAFTSMEN	- ECOLOGISTS - ECONOMISTS - ELECTRICAL ENGINEERS 1 ENVIRONMENTALISTS - ESTIMATORS 2 GEOLOGISTS/GEOTECH ENG. - HISTORIANS 1 HYDROLOGISTS	- LANDSCAPE ARCHITECTS - MECHANICAL ENGINEERS 1 MINING ENGINEERS - PHOTOGRAMMETRISTS - PLANNERS: URBAN/REGIONAL - SANITARY ENGINEERS 1 SOILS ENGINEERS 1 SPECIFICATION WRITERS f	- STRUCTURAL ENGINEERS 2 SURVEYORS/RODMEN - TRAFFIC ENGINEERS X OTHER, 1 Geotechnical Drillers 1 Driller Helpers 3 Geotechnical Engineers 2 Laboratory Technicians
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32 TOTAL PERSONNEL

TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: 3
***RPEs other than Civil and Mining must provide supporting documentation that qualifies them to supervise and perform this type of work.**

The TOTAL PERSONNEL number is for CTL Engineering, Inc. Morgantown, WV Office

TOTAL PERSONNEL for CTL Engineering, Inc. is 250, which includes the Morgantown Office.

10. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE? YES NO

11. OUTSIDE KEY CONSULTANTS/SUB-CONSULTANTS ANTICIPATED TO BE USED. Attach "AML Consultant Confidential Qualification Questionnaire" for each if copy is not on file with AML.

NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE _____ Yes _____ No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE _____ Yes _____ No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE _____ Yes _____ No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE _____ Yes _____ No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE _____ Yes _____ No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE _____ Yes _____ No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE _____ Yes _____ No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE _____ Yes _____ No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE _____ Yes _____ No

12. A. Are your firm's personnel experienced in Abandoned Mine Lands Remediation/Mine Reclamation Engineering?

YES Description and Number of Projects: CTL Engineering has completed more than 800 AML related

projects nationally and internationally. See attached "AML Past Project Experience" for some specific examples. CTL completes an excess of 100 testing projects each year.

NO

B. Is your firm experienced in Soil Analysis?

YES Description and Number of Projects: Our in-house laboratories perform all ASTM mechanical, organic

and in-organic analyses for soils. Our labs are certified by WVDOH, OEPA and US Corps of Engineers.

NO

C. Is your firm experienced in hydrology and hydraulics?

YES Description and Number of Projects: Each of our site design and AML projects require hydrology &

hydraulic evaluations. We estimate that annually, we complete more than 100 projects requiring hydrology design.

NO

D. Does your firm produce its own Aerial Photography and Develop Contour Mapping?

YES Description and Number of Projects:

NO However, we annually complete more than 25 projects requiring aerial photography & mapping. While we

sub-contract the aerial photography, in-house we provide GPS, surveying and develop the contouring as needed. CTL deploys a drone to support contour mapping typicall for sites less than 10 acres.

E. Is your firm experienced in domestic waterline design? (Include any experience your firm has in evaluation of aquifer degradation as a result of mining.)

YES Description and Number of Projects: We have completed numerous waterline design projects and our

in-house staff has more than 50 years of combined experience with aquifer degradation.

NO

F. Is your firm experienced in Acid Mine Drainage Evaluation and Abatement Design?

YES Description and Number of Projects: CTL has developed more than 20 active and passive treatment

systems for AMD. More than 50 of our AML Design projects required some form of AMD evaluation and design.

NO

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES **RESPONSIBLE FOR AML PROJECT DESIGN** (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.) Gallagher, Patrick E., PE President, Project Manager	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE: 40	YEARS OF AML RELATED DESIGN EXPERIENCE: 40	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 32

Brief Explanation of Responsibilities
 President of CTL Engineering of WV, Inc.; responsible for the overall administration of the Morgantown, WV office along with the management of the individual engineering projects. His administration and management responsibilities include marketing, proposal preparation, client contact, supervision of design personnel, scheduling, budget control, and report preparation. Projects successfully completed by Mr. Gallagher include: Geotechnical Investigations, Foundation Design Investigations, Dam Stability Analyses, Mine Subsidence Evaluations, Mineral Reserve Studies, Landslide Investigations, Mine Reclamation Designs, Failure Investigations, and Mining Permits.

EDUCATION (Degree, Year, Specialization)

B.S., 1975, Civil Engineering
 B.S., 1975, Equivalent, Geology

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

American Society of Civil Engineers
 Society of Mining Engineers of A.I.M.E.
 Triangle Fraternity of Engineers, Architects and Scientists
 International Society of Soil Mechanics and Foundation Engineers
 American Institute of Professional Geologists

REGISTRATION (Type, Year, State)

Registered Professional Engineer; 1983-West Virginia, 1984-Ohio, 1983-Maryland, 1993-Pennsylvania, 2006-Wyoming, 2006-North Carolina
 Certified Professional Geological Scientist - 1984
 Professional Surveyor, 1995-West Virginia

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES **RESPONSIBLE FOR AML PROJECT DESIGN** (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.) Selfridge, Carl G. Department Head, Geotechnical Services	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE: 11	YEARS OF AML RELATED DESIGN EXPERIENCE: 11	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:

Brief Explanation of Responsibilities
Department Head Geotechnical Engineering. Responsible for subsurface investigations, geotechnical reporting, foundation analysis & recommendations, program development for investigative and laboratory analysis.

EDUCATION (Degree, Year, Specialization)

Graduate Studies, 1996-1999, Civil Engineering (Geotechnical)
 B.S., 1996, Civil Engineering, Geotechnical and Structural
 A.S., 1994, Engineering Science
 A.A.S., 1991, Mechanical Technology - Design & Drafting

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

Fellow of the American Society of Civil Engineers, The GEO-Institute, Timber Framers Guild, Construction Institute (ASCE)

REGISTRATION (Type, Year, State)

Engineering Intern (EI), 1996, New York
 Level II Drilling Inspector, 1999, PennDOT

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES **RESPONSIBLE FOR AML PROJECT DESIGN** (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.) Darrah, Timothy A. Civil Site Dept. Mgr., Project Manager	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE: 26	YEARS OF AML RELATED DESIGN EXPERIENCE: 26	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE 26

Brief Explanation of Responsibilities
Mr. Darrah is presently responsible for Management and Design for various types of civil engineering projects including reclamation design, commercial and residential development projects. He is also responsible for scheduling, invoicing and client contacts for all surveying projects including topographic, property and construction layout. Mr. Darrah's duties include drafting, writing of property descriptions, hydrology calculations, quantity calculations and various other forms of surveying and civil engineering related duties. He is also proficient in computer software including AutoCAD, Civilsoft, HEC-1, HEC-RAS and various other engineering software.

EDUCATION (Degree, Year, Specialization)
B.S., 1988, Civil Engineering Technology

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES **RESPONSIBLE FOR AML PROJECT DESIGN** (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.) Stanley, Joseph Project Manager	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE: 12	YEARS OF AML RELATED DESIGN EXPERIENCE: 12	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 9

Brief Explanation of Responsibilities
Mr. Stanley is responsible for Reclamation Design, Drafting Hydrology, Quantity Calculations, Stability Analysis, Residential Development, Valley Fill Footprinting, Surveying, Subsidence Surveys, Pre-Blast Surveys, Acid Base Accounts, Groundwater Inventory. PC Software includes Hydrologic TR-20, TR-55, Excel, Harstad Methods, Word, AutoCADD Land, Quarttro, Access.

EDUCATION (Degree, Year, Specialization)
A.S., 2001 Civil -Engineering Technology Drafting & Design

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES **RESPONSIBLE FOR AML PROJECT DESIGN** (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.) Grani, Joe Branch Manager (WV) Geotechnical Manager	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE: 0	YEARS OF AML RELATED DESIGN EXPERIENCE: 28	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 0

Brief Explanation of Responsibilities

Mr. Grani is the Branch Manager of the WV office and also responsible for field review and exploration for the Geotechnical Engineering Department for CTL Engineering of West Virginia. Joe is involved in the management of field drilling, classification of soil and rock, field safety procedures, assignment of project specific lab testing, and performing geotechnical evaluations. Engineering evaluations include subsidence evaluation, foundation recommendations, settlement analysis, slope stability analysis, earth pressure coefficients and report preparation.

EDUCATION (Degree, Year, Specialization)

B.S., 1991, The Ohio State University, Civil Engineering
M.S., 1994, The Ohio State University, Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
ASHE ACEC	Civil Engineering Professional Engineer, # [REDACTED] Ohio

14. PROVIDE A LIST OF SOFTWARE AND EQUIPMENT AVAILABLE IN THE PRIMARY OFFICE WHICH WILL BE USED TO COMPLETE AML DESIGN SERVICES.

OFFICE EQUIPMENT

3 HP Color Plotters
HP Color Scanner
Duplicating equipment, copiers, blueprinting, laser printers, etc.
Facsimile Machine

DESIGN SOFTWARE

Windows XP & 2000 based operating systems

Microsoft Office 2000 & 2002 is used for word processing, spreadsheet creation, data processing, and presentation creation. Alternative software including Corel Suite is available, if necessary Project designs and specifications are produced in our Computer Aided Drafting and Design (CADD) section using all versions of AutoCAD including Release current civil 3d version.

Hydrogeologic Studies

MODFLO

MODPATH

SURFER

CAPZONE

GWPATH

SKUGIS

PHREEQCI

WATEQ4F

Groundwater for Windows

Civil Engineering Software

Civil 3D

Profiling

Civilsoft

TR-20 & TR-55

SEDCAD

HEC 1 & 2

HEC-RAS

Arc GIS

ArcPAD

Carson Software

Geotechnical

GINT

STABL6

SHAFT

WSPRO

Various Bridge, Pavement, Pile and Foundation Software

SURVEY EQUIPMENT

- 8 - Trimble GPS Systems - 6-R8 Receivers & 2- R10 Receiver
- 6 Total Stations (2- Robotics)
- DJI Inspire II Drone
- NAK Micrometer Level System & Direct Levels
- 4X4 Vehicles, including ATV for off-road use
- 2-Way Radios

SUBSURFACE INVESTIGATION EQUIPMENT

• CTL Engineering Inc.'s subsurface exploration equipment is adaptable for use on barges or all terrain vehicles (ATV's). CTL can mobilize special equipment or a fleet of drilling rigs to a particular project requiring multiple units. CTL Engineering currently owns and operates twelve (12) drill rigs with a capacity of drilling to a depth of 500 feet. Other equipment includes large diameter soil boring and rock core sampling equipment, in-situ pressure meters, field vane, GUS Sampler along with other field sampling and testing.

•

• CTL's drill rigs are rotary drilling rigs equipped to conduct standard split-spoon sampling with the use of hollow-stem augering, continuous sampler, casing with advancer, air and mud rotary, down-hole hammer, etc. The rigs are also equipped with Moyno pumps, wire-line or standard coring equipment for proper and efficient execution of a subsurface investigation program.

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- For this proposal, CTL owns and operates the following rigs:
- 1996 CME 45C Skid, trailer, and/or Truck Mounted Drill Rig System
- 1988 CME 55 Truck Mounted Rig
- 1978 CME 75 Truck Mounted Rig
- 1985 CME 75 Truck Mounted Rig
- 1987 CME 75 Truck Mounted Rig
- 2012 CME 550X Rubber Tired ATV Mounted Rig
- 2015 CME 550X Rubber Tired ATV Mounted Rig
- 1995 SIMCO 4000 Rubber Track Mounted Rig
- 2002 CME 55 Rubber Track Mounted Rig
- 2005 CME 550 Rubber Track Mounted Rig
- 2015 Mobile B-57 Rubber Track Mounted Rig
- Mobile "Minuteman" Small Portable Drilling Rig with Tripod System
- Portable Electric Core Drill with Truck Mount System

- Portable barges for water borne drilling (including supply boats w/outboard motors)
- In-situ permeability apparatus
- Single or double ring field infiltrometers for hydraulic conductivity testing
- Down hole temperature gauges
- Color Borehole Camera with 300 foot range
- Ground Penetrating Radar Undisturbed shelby tube sampling devices
- Standard penetration testing equipment (1", 2", 3" split spoons)
- Settlement probes
- Tripod portable drilling equipment for interior drilling with 7 feet of clearance
- CBR equipment
- Hand Augers
- Solid flight augers - 4" O.D.
- Hollow stem augers - 33", 43", 63" 83" I.D.
- Rotary drilling capability up to 12" O.D.
- Hydro Punch - In-situ groundwater monitoring
- Conventional and wireline coring capabilities - (1", 2", 3", & 4")
- Soil-gas survey equipment
- Pump testing equipment
- Decontamination Equipment - Steam cleaners, drums, generators, etc.
- Electronic Data Loggers
- Field Sampling equipment for soil, water and groundwater
- Nuclear Densometer - Soil Compaction
- PID, FID, CGI and various field monitoring equipment
- Groundwater and Soil Remediation Equipment
- Mobile activated carbon system
- Air and chemical stripping of soils and water

15. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
Geotechnical Engineering	ODOT District 9 ODOT District 6	Geotechnical Engineering and Drilling	NA	90%
WV Statewide Drilling Contract	WVDOT Charleston, WV	Geotechnical Engineering and Drilling	NA	2019-2022
Scioto County Engineer Landslides	Scioto County Ohio Engineer	Geotechnical Engineering and Drilling	NA	2022
Red Oak Development	MAGCS, LLC 308 Cheat Road Morgantown, WV 26508	Civil Site Design, Surveying, Geotechnical Engineering	CTL Fees \$65,000	50%
Monongahela Soils Conservation, Impoundments	Monongahela Soils Conservation Morgantown, WV	Civil Site Design, Geotechnical Engineering	NA	50%
TOTAL NUMBER OF PROJECTS: 57				

16. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS SERVING AS A SUB-CONSULTANT TO OTHERS

PROJECT NAME, TYPE AND LOCATION	NATURE OF FIRMS RESPONSIBILITY	NAME AND ADDRESS OF OWNER	ESTIMATED COMPLETION DATE	ESTIMATED CONSTRUCTION COST	
				ENTIRE PROJECT	YOUR FIRMS RESPONSIBILITY
Morgantown Airport Expansion	Construction Management and Inspection	Michael Baker	2025	\$40,000,000	\$500,000
Cacapon Resort	Civil Site Design and Surveying	Paradigm Architecture 2223 Cheat Rd. Morgantown, WV	2022	\$25,000,000	\$140,000
Sunnyside TIF Project	Geotechnical Engineering and Surveying	Herbert, Rowland and Grubic, Inc 829 Fairmont Road Morgantown, WV	2022	\$6,000,000	\$50,000
Jefferson County Schools	Jefferson County Schools, WV	Geotechnical Engineering and Drilling	2024	\$32,000,000	\$60,000

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM WAS THE DESIGNATED ENGINEER OF RECORD				
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
WVU Aquatic Center Morgantown, WV	West Virginia University	\$45,000,000	2018	YES
Guernsey Power Plant Mine Grout Project Cambridge, Ohio	Gemma Power Systems Glastonbury, CT	\$1,000,000,000	2018- 2020	YES
WVUH Drug Rehab Center	WVU Hospitals 1 Medical Center Drive Morgantown, WV 26506	\$30,000,000	2018	YES
Southern WV Drilling	Department of Environmental Protection Office of the AML	\$650,000	2017- 2018	YES

18. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM HAS BEEN A SUB-CONSULTANT TO OTHER FIRMS (INDICATE PHASE OF WORK FOR WHICH YOUR FIRM WAS RESPONSIBLE)

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST OF YOUR FIRM'S PORTION	YEAR	CONSTRUCTED (YES OR NO)	FIRM ASSOCIATED WITH
Fremont City Schools 4 elementary schools	Civil Site Design and Surveying	SSOE Group, 1001 Madison Ave. Toledo, Ohio	2020	\$52,000,000	\$400,000
Cacapon Resort	Civil Site Design and Surveying	Paradigm Architecture 2223 Cheat Rd. Morgantown, WV	2019	\$25,000,000	\$140,000
Sunnyside TIF Project	Geotechnical Engineering and Surveying	Herbert, Rowland and Grubic, Inc 829 Fairmont Road Morgantown, WV	2019	\$6,000,000	\$50,000
Arizona Infrastructure Project	Civil Site Design	Rizzo International	2020	NA	NA
West Run Widening Morgantown, WV	Surveying and Geotechnical	Herbert, Rowland and Grubic (HRG)	2020	\$28,000,000	\$175,000

19. Use this space to provide any additional information or description of resources supporting your firm's qualifications to perform work for the West Virginia Abandoned Mine Lands Program.
For the past 30 years, CTL has successfully designed more than 200 AML projects. We have worked nationally and internationally on a variety of AML problem sites. We have developed unique solutions that have been applied to site development, AMD Treatment, Mine Subsidence Abatement, Mine Fires and Highwall Elimination. Routinely, CTL is involved with highwall and refuse pile stabilization, extinguishment and landslides.

20. The foregoing is a statement of facts.

Signature: _____ Title: Business Development

Date: April 8, 2022

Printed Name: Joseph Stanley

NOTE: THIS DOCUMENT WILL BECOME VOID AFTER DECEMBER 31 IN CALENDAR YEAR OF DATE HEREON.

PROJECT	Exp. Basis C=Corp. P=Personal *	Additional Info Provided in Section (s) **	Abandoned Surface Mine Reclamation	Abandoned Deep Mine Reclamation	Portal/Shaft Closure	Hydrologic/Hydraulic Design/Eval.	Remining Evaluation	Mine Refuse/ Fire Abatement	Subsidence Investigation Mitigation	Hazardous Waste Disposal	Project Specifications	Water Quality Evaluation/Mitigation/ Replacement	Construction Inspection/Management	Water Treatment	Equipment/ Structure Removal	Stream Restoration	Geotechnical/Stability	PATRICK GALLAGHER, PE	TIM DARRAH	PE
AWN ANDERSON HIGHWALLS (WV AML '12)	C			X	X	X					X							MP	MP	
ON -EAST FRANKLIN LANDSLIDES (MD AML '12)	C		X	X							X						X	MP	MP	
ENUE STORMWATER SYSTEM (MD AML '12)	C					X						X						MP		
DMONT SUBSIDENCE (WV AML '12)	C	Profile		X					X		X						X	MP	MP	
AS AVENUE LANDSLIDE (MD AML '12)	C			X		X			X		X						X	MP	MP	
NSOL ROAD SUBSIDENCE (MD AML '11)	C		X	X					X		X						X	MP	MP	
OB WATER SUPPLY STUDY (MD AML '12)	C					X						X						MP	MP	
NNS RUN PORTALS (WV AML '11)	C	Profile		X	X												X	MP	MP	
TEAM REFUSE PILE (WV AML '10)	C	Profile	X					X										MP	MP	
EE HILL WATER SUPPLY (MD AML '10)	C											X						MP	MP	
RA HAUTE AIRPORT (IN AML '10)	C			X	X				X		X						X	MP	MP	
NEL MINE CLOSURE (MD AML '10)	C		X	X	X						X							MP	MP	
BURG NORTH CLOSURE (MD AML '10)	C		X	X	X						X							MP	MP	
HILL WATER FEASIBILITY (MD AML '10)	C											X						MP	MP	
MS REFUSE PILE #2 (Private AML '09)	C		X			X	X			X	X	X	X	X			X			
NSULA HIGHWALLS (WV AML '09)	C	Profile	X	X		X			X		X						X	MP	MP	
. CLAIR PORTALS (WV AML '09)	C	Profile	X	X	X	X					X					X	X	MP	MP	
AT NECK LANDSLIDE (WV AML '09)	C	Profile			X	X					X						X	MP	MP	
MINGTON UMC (WV DEP EMER. '09)	C								X		X							MP	MP	
NGSIDE BAPTIST (WV DEP EMER. '09)	C								X		X							MP	MP	
OLLINS MINING (ODNR FOR. '09)	C		X								X							MP	MP	
EW WATER FEASIBILITY(WV AML '09)	C											X						MP	MP	
AARON'S RUN (MD AML '09)	C	Profile	X			X					X	X		X		X		MP	MP	
CLES SUBSIDENCE (WV AML '08)	C								X		X						X	MP	MP	
RTHUR SUBSIDENCE (WV AML '08)	C								X								X	MP	MP	
A WATER FEASIBILITY (WV AML '08)	C											X						MP	MP	
OURT LANDSLIDE(ODNR FOR. '08)	C		X			X					X						X	MP	MP	
NES TRUCKING (ODNR FOR. '08)	C		X								X							MP	MP	
ILLER MINING (ODNR FOR. '08)	C					X					X	X						MP	MP	
ILMAN CLOSURE (MD AML '08)	C			X	X						X							MP	MP	
A HILL SLOPE STABILITY (MD AML '08)	C		X														X	MP	MP	
IRGINIA BRIM (2005 - 2012) 42 Projects	C								X								X	MP	MP	
MSIUA (2005 - 2010) 47 Projects	C								X								X	MP	MP	
Additional AML Projects for WV, MD, OH, PA	C		X	X	X				X		X	X	X				X	MP	MP	


ent and	C&P					X	X				X	X	X	X	X					
rea and	C&P					X	X	X			X	X	X	X	X					
and Power	C&P					X	X	X			X	X	X	X	X					
Area	C&P					X	X	X			X	X	X	X	X					
e Area	C&P					X	X	X			X	X	X	X	X					

t experience is corporate or personnel based or both.
 Provide specific sections or pages if needed for reference.
 n personnel and their functional capacity for the projects listed.

Attachment "B"

bsidence investigation during longwall mining operations beneath well pad and access road.
 bsidence investigation during longwall mining operations beneath well pad and access road.
 bsidence investigation during longwall mining operations beneath well pad and access road.

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.

(Name, Title)  Business Development Manager

(Printed Name and Title) Joe Stanley, Business Development Manager

(Address) 1091 Chaplin Road, Morgantown, WV 26501

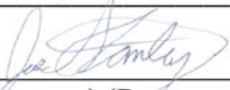
(Phone Number) / (Fax Number) 304-292-1135 / 304-296-9302

(email address) jstanley@ctleng.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 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.

CTL Engineering of West Virginia, Inc.

(Company)  Business Development Manager

(Authorized Signature) (Representative Name, Title)
Joe Stanley, Business Development Manager July 5, 2022

(Printed Name and Title of Authorized Representative) (Date)
304-292-1135 / 304296-9302

(Phone Number) (Fax Number)
jstanley@ctleng.com

(Email Address)

ABANDONED MINE LANDS (AML) CONTRACTOR INFORMATION FORM

You must complete this form for your AML contracting officer to request an eligibility evaluation from the Office of Surface Mining Reclamation and Enforcement (OSMRE) to determine if you are eligible to receive an AML contract. This requirement can be found under OSMRE's regulations at 30 CFR 874.16. **NOTE:** This form must be signed and **dated within 30 days** of submission to be considered for a current bid.

Part A: General Information

Business Name: CTL Engineering of West Virginia
 Tax ID #: 55-063-183
 Address: 1091 Chaplin Road
 City, State, & Zip: Morgantown, WV 26501
 Phone Number: 304-292-1135
 Email Address: jstanley@ctleng.com

Part B: Obtain an Organizational Family Tree (OFT) from the Applicant Violator System (AVS)

If you plan to certify the existing AVS information or submit updates under Part C, you must include an OFT. Instructions for downloading an OFT from the AVS can be found at:

<https://www.osmre.gov/resources/forms/OMB1029-0119instructions.pdf>

If you require assistance you may contact the AVS Office by phone at: 800-643-9748, or by email at:

avshelp@osmre.gov.

Part C: Certifying and updating information in the AVS

Select one of the options, follow the instructions for the selected option, sign, and date below.

I, _____, have express authority to certify that:
 (Print Name)

1. Our business is listed in the AVS. The information is accurate, complete, and up to date. (If you select this option, you must attach an Entity OFT from the AVS to this form). Do not complete Part D.
2. Our business is in the AVS. The information needs to be updated. (If you select this option, you must attach an Entity OFT from the AVS to this form). Complete Part D to provide the missing or corrected information.
3. Our business is not listed in the AVS. The information needs to be added. Complete Part D to provide the information.

06/21/2022

Date



Signature

Business Development Manager

Title



AVS OFT Report - 6/21/2022 3:37:49 PM

All OFT's where the selected entity is listed as an entity or related entity

Entity Selected (138901) CTL Engineering Inc

Parent Entity	Relationship	Description	Related Entity	% Ownership	Begin Date	End Date
(247114) CTL Engineering Inc ESOP	Shareholder		CTL Engineering Inc		1/15/1999	
(138901) CTL Engineering Inc	Owner		CTL Engineering of Indiana Inc	100%	12/1/2007	
(138901) CTL Engineering Inc	President		C K Satyapriya		5/10/1986	
(138901) CTL Engineering Inc	Shareholder		C K Satyapriya	17%	7/1/1980	
(138901) CTL Engineering Inc	Chief Executive Officer		C K Satyapriya		1/15/1999	
(138901) CTL Engineering Inc	Chairman of the Board		C K Satyapriya		1/15/1999	
(138901) CTL Engineering Inc	Shareholder		CTL Engineering of Indiana Inc	80%	3/20/1998	1/15/1999
(138901) CTL Engineering Inc	Chairman of the Board		Asbjorn Kvammen Jr		11/23/1980	1/15/1999
(138901) CTL Engineering Inc	Chief Executive Officer		Asbjorn Kvammen Jr		11/23/1980	1/15/1999
(138901) CTL Engineering Inc	Shareholder		Asbjorn Kvammen Jr	73%	6/27/1980	1/15/1999
(138901) CTL Engineering Inc	Shareholder		CTL Engineering of Indiana Inc	29%	1/15/1999	12/1/2007