

terradon.com

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May 22, 2018

WV Department of Administration Purchasing Division 2019 Washington Street, East Charleston, WV 25305

Subject:

EOI City of Elkins Landfill Construction QA/QC CEOI 0313 DEP1800000003

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WV PURCHASING

DIVISION

JEP1800000003

Good Morning,

I am pleased to submit the enclosed package for the above referenced project.

TERRADON proposes the following qualifications to provide construction inspection services for the above referenced project. The included package details TERRADON's qualifications, expertise, management and staffing capabilities, prior experience related to the proposed project, and required documentation for consideration.

FERRADON plans to lead this project under the management of Jason Asbury, ASLA, CESSWI (VP of Geo-Environmental & Field Services). TERRADON's team of qualified and certified construction inspection technicians are well versed in landfill construction projects.

Upon your review of the enclosed, please do not hesitate to contact me at 304-755-8291 with any questions or concerns. I look forward to hearing from you soon.

Sincerely,

Ryan Wheeler

**TERRADON** Corporation











## SUBMITTED BY:

TERRADON Corporation 409 Jacobson Drive Poca, WV 25159 304-755-8291 Fax: 304-755-2636

### BUSINESS DEVELOPMENT CONTACT:

Ryan Wheeler Director of Business Development ryan.wheeler@terradon.com 304-634-2894

# PROJECT MANAGER & POINT OF CONTACT

Jason Asbury, ASLA VP Geo-Environmental & Field Services Jason.asubry@terradon.com 304-729-9129

## STATEMENT OF QUALIFICATIONS

EOI City of Elkins Landfill Construction QA/QC CEOI 0310 DEP1800000003

Attn: Brittany E. Ingraham
Department of Administration
Purchasing Division
2019 Washington Street, East
Charleston, WV 25305

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Appendix A: Resumes







FOUNDED: 1989

**EMPLOYEES: 75** 

#### LOCATIONS:

Poca, WV Lewisburg, WV Fayetteville, WV Clarksburg, WV

#### **SERVICES:**

Water Design Services
Wastewater Services
Storm Water Services
Transportation Engineering
Structural Engineering
Testing & Inspection
Construction Monitoring &
Administration
Cultural Resources
Archaeological
Civil Engineering
Environmental
Geotechnical Engineering
Land Planning & Design
Survey & Mapping





TERRADON is the largest woman-owned engineering firm in West Virginia. TERRADON is a certified Women's Business Enterprise as defined by the Women's Business Enterprise National Council and the National Women Business Owners Corporation.

TERRADON Corporation offers a multi-faceted approach to design engineering and consulting services. For more than 28 years TERRADON staff has provided a wealth of engineering solutions blanketing West Virginia and surrounding states with successful projects. The company built its reputation on expert personnel and quality, time-sensitive service. Those same founding principles hold true today.

The firm has been recognized through numerous awards from professional organizations and agencies including the American Society of Civil Engineers, State Highway Departments, the Department of Environmental Protection and the American Institute of Architects.

TERRADON's diverse team of professionals work together on projects to offer a wide range of services in house to keep project centrally focused. By providing this range of services, TERRADON is able to work completely as a team to offer clients the most rewarding design.

TERRADON has experience working on projects funded by various agencies. Because of the variety of funding options for projects, TERRADON maintains in-house grant writing staff and support to help make funding client projects easier.

TERRADON maintains professionally registered engineers, landscape architects, and surveyors as well as a competitive team of highly certified inspectors and environmental specialists.

TERRADON's corporate culture promotes innovation and progressive thinking. Project leaders strive to sustain customers through a wide-range of engineering offerings. TERRADON employees understand the purpose behind their services and work to cultivate lasting relationships with clients through honest, hard work.







#### LANDFILL EXPERIENCE

TERRADON has performed a variety of services on landfill projects throughout West Virginia for more than 28 years. TERRADON engineers and Geo-Environmental groups are experienced in landfill cap designs and cap system cross sections, survey and mapping landfills, design elements including leachate design, leachate studies, landfill analysis, and NPDES certifications. TERRADON's experienced professionals have worked on a number of WVDEP Landfill Closure projects through the WVDEP Landfill Closure Assistance Program. Additionally, TERRADON has completed a wide variety of landfill maintenance and inspection projects. TERRADON maintains a staff of knowledgeable and experienced key personnel who have serviced West Virginia landfill projects spanning 50 years.

#### LANDFILL SERVICES

- Survey & Mapping
- Laboratory Analysis
- Subsurface Investigation
- CAP System Design
- Grading Plans
- CAP System Cross Sections
- Leachate Collection Design
- Storage System Design
- NPDES Certified

- Sediment & Erosion Control
- QA/QC Services
- Engineering Cost Estimates
- Solid Waste Facility Siting Plan
- Certificate of Need
- Certificate of Site Approval
- Quarterly & Annual Reports
- Leachaté Studies

TERRADON is experienced in designed landfill closures that sufficiently manage leachate, control sediment and erosion, control and manage natural gases, and monitor groundwater on both composite lined and lined or un-lined cells. TERRADON services customers to standards of the West Virginia Department of Environmental Protection. TERRADON offers clients full in-house services needed to complete landfill projects throughout the state. TERRADON offers subsurface investigation through our experienced geotechnical department lead by a professional engineer with more than 50 years experience servicing landfill and leachate projects throughout the state. TERRADON also offers survey and mapping, sediment and erosion control, construction document services, permitting and approvals, and environmental services to meet the needs of each individual project.









TERRADON offers materials testing and construction monitoring services to document compliance with project design specifications and regulatory requirements. The firm provides construction monitoring for utility, highway, and commercial construction projects.

TERRADON also provides laboratory and field testing of construction materials. Engineers and technicians at TERRADON are West Virginia Department of Highways certified in Portland Cement Concrete, Hot-mixed Asphalt, Compaction and Aggregates.

#### **MATERIALS TESTING & INSPECTION**

- Slump of Portland Cement Concrete (AASHTO-T119)
- Air Content of Freshly Mixed Concrete (AASHTO-T196 and T152)
- Unit Weight and Yield (AASHTO-T121)
- Making and Curing of Concrete Test Specimens (AASHTO-T23)
- Compressive Strength of Concrete Specimens (AASHTO-T22)
- Fine and Course Aggregate Gradations (AASHTO-T11 and T27)
- Specific Gravity of Aggregates (AASHTO-T84 and T85)
- Atterberg Limits (ASSHTO-T89 and T90)
- Moisture Content of Soil (ASTM-D2216)
- Nuclear Compaction Testing of Soil, Stone, and Hot Mixed Asphalt
- Preparation of Certification Forms and Construction Reports
- Welder Certification

#### **CONSTRUCTION MONITORING**

- Document compliance with project design specifications
- Ensures compliance with regulatory requirements
- OŠHA 10-Hour and 30-Hour Construction Safety & Health Certified

#### SPECIALTY TESTING & INSPECTION

- Floor Flatness Testing
- Fireproofing
- Masonry Testing
- Structural Steel Inspection
- Certified Weld Inspection
- Dye Penetrant Testing
- Bolt Testing
- Project Safety Monitoring
- FAA Eastern Regional Laboratories











Since 1989, TERRADON has provided planning, design and construction administration for millions of dollars worth of environmental projects including wastewater, water, and storm water improvement projects. The company has designed more than one million feet of utility main— enough pipe to stretch from Charleston, WV to Charlotte, NC.

Basic engineering services include planning, design, construction specifications, bid and contract documents, bidding phase, construction phase and post-construction phase engineering, administration and project management. TERRADON engineers have numerous resources within the company, such as surveying, geotechnical engineering, environmental services, landscape architecture, materials testing, and construction monitoring. This allows the project engineer to manage and control all phases of the design process, from initial site reconnaissance through construction.

TERRADON is typically responsible for preliminary engineering, funding source applications, Infrastructure and Jobs Development Council applications, Public Health applications and all supporting documentation for these applications. TERRADON also prepares environmental permit applications for the National Environmental Policy Act, US Army Corps of Engineers, Division of Environmental Protection, Public Lands Corporation and National Pollutant Discharge Elimination System.

TERRADON's project experience is varied in both size and scope, ranging from small on-site systems to meet the requirements of schools and single-user site office buildings, to upgrades of major municipal facilities involving both new construction and the renovation of existing facilities. Key staff have more than 100 years of combined experience and have designed water systems for both private clients and municipalities.

#### SERVICES INCLUDE

- Wastewater Collection, Pumping and Treatment
- Water Treatment, Storage and Distribution
- Natural Stream Design and Mitigation
- Mine Reclamation
- Utility Planning and Layout
- Cut and Fill Analysis
- Erosion and Sediment Control
- Computer Modeling
- Storm water Management Design
- Operation and Maintenance Manuals
- Wastewater Treatment, Flow Equalization, Collection and Pumping
- Decentralized Sewer System Planning

- Design/On-Site Wastewater System Design
- System Mapping
- Sewer System Infiltration and Inflow (I/I) and Sewer System Evaluation S
- Surveys (SSES)
- Sewer System Rehab Design
- Operation and Maintenance Manuals
- Industrial Waste Treatment
- Sanitary Sewer Overflow (SSO) Abatement
- Asset Management Planning
- Combined Sewer Overflow (CSO)
   Compliance
- Hydraulic Modeling







TERRADON has been a leader in West Virginia and the surrounding region for the land surveying industry since 1989. The team has developed an extensive resume of successful surveying and mapping projects performed for a diverse group of repeat private and public sector clients. TERRADON's experienced staff of licensed professional surveyors and mappers bring expertise and proficiency to every project task.

The company is committed to staying ahead of the industry's pace by investing in state-of-the-art equipment and technology. This commitment enables TERRADON to overcome unique and challenging project conditions or obstacles, and efficiently provide the most accurate and complete information available to clients.

TERRADON has a long history of providing design and construction survey services for numerous transportation projects. Efficient and accurate results are ensured by prioritizing the use of modern technology, including state of the art GPS and robotic total stations, with the latest design software.

TERRADON maintains full-time Professional Surveyors on staff. The firm services projects through the use of in-house field survey crews who are backed by corporate staff members, including an experienced team of CAD designers. TERRADON's transportation survey group is experienced in preparing highway right-of-way plans, including courthouse research and right of way questionnaires, and writing legal descriptions for right of way take parcels, temporary construction easements and permanent drainage easements.

# TERRADON's Professional Surveyors are licensed in:

- West Virginia
- Pennsylvania
- Kentucky
- Tennessee

#### SERVICES INCLUDE

- Mapping
- Construction Layout
- ALTA survey
- Topographic Survey
- GPS Network Control Surveys
- Aerial & LiDAR Mapping









Constantly changing federal and state environmental requirements are difficult to track and can have a serious impact on businesses and other organizations. TERRADON offers a strong environmental services team to manage issues in a complex environment. Staff is well-versed on environmental permitting processes and regulations as well as site assessment and reporting.

TERRADON closely follows environmental activities on the local, state and federal levels. TERRADON has a thorough understanding of state and federal environmental permitting processes and regulations. This expertise applies to both the initial permit preparations, as well as subsequent negotiations affecting the permit. The firm's strength in addressing environmental issues is built on the diversity of its staff with credentials in chemistry, civil engineering, geotechnical engineering and geology.

#### SERVICES INCLUDE

- Environmental Site Assessments
- Phase I E\$A
- Phase II ESA
- NEPA EA
- Hazardous Waste
- Process Water
- Wastewater
- Storm Water
- Groundwater
- AST's
- Risk Management Plans
- Wetland Delineation

- 401/404
- Mitigation
- HEČRAS
- Tier II Reporting
- Emergency Response Plans
- Environmental Audits
- Environmental Remediation
- NEPA Compliance
- Aspestos and Lead Inspection
- Underground Storage Tanks
- Impoundment Stabilization & Closure
- SPCC Planning
- BMP Planning

TERRADON's experienced environmental staff routinely performs Waters of the US determinations, wetland delineations, Nationwide Permits as well as Individual 404/401 Permits with the Army Corps of Engineers and West Virginia Department of Environmental Protection (WVDEP). TERRADON has performed hundreds of wetland delineations using the Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Corps, 2012).

TERRADON has performed floodplain modeling and elevation studies in compliance with FEMA, state, and local floodplain coordinators. Our permitting team has performed numerous assessments and documentation complying with FEMA standards for our clients.









TERRADON offers some of the most experienced staff in the region for local geotechnical expertise. This team of experts brings a distinctive, specialized understanding of the difficult soil and groundwater conditions found in the Ohio Valley and Appalachian Regions of the United States.

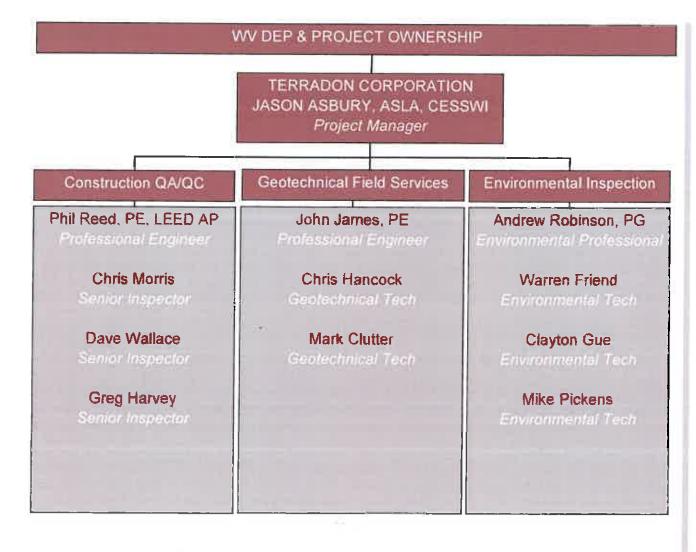
The Geotechnical group has provided investigations associated with earthen dams, mining, waste disposal, new building construction, landslides analysis and remedial design, cell and high mast towers, landfill permitting and cap design, flexible/rigid pavement design, and environmental remediation.

#### SERVICES INCLUDE

- Test Borings
- Test Pit Excavations
- Monitoring Well and Piezometer Installation
- Soil and Rock Logging, Sampling & Testing
- Landslide Analysis and Remedial Design
- Stability Analysis
- Retaining Structure Design
- Earthen Dams
- Foundation Design
- Municipal and Industrial Landfills

- Flexible and Rigid Pavement Design
- Complete Removal for Landslide Repair
- Removal, Stabilization & Replacement
- Buttressing and Regrading
- Subsurface Drainage
- Structural Corrections
- Retaining Walls
- MSE Walls and Other Gravity Walls
- H-Piles and Lagging
- Anchors (Rock or Soil Nailing)











# CONFIDENTIAL ENERGY CLIENT, WELL PAD QA/QC DODDRIDGE COUNTY, WV

TERRADON provided assistance in the reclamation of the retention pond located at the well pad that is located in Doddridge County. The impoundment/pit was approximately 360'L x 100'W x15'D and was used during the active drilling stage of well production to house freshwater and/or produced waste. Upon completion of active well production the site was reclaimed to return the area to its natural state. TERRADON was selected to provide QA/QC during the reclamation of the impoundment/pit by the owners. TERRADON utilized experienced personnel to perform compaction testing during the fill operation. Each lift was visually inspected while material was being placed to ensure organic material was removed. Difficulties that were faced during the reclamation were adverse weather conditions that would halt progress until the fill material could dry to a useable moisture content. Despite harsh weather, TERRADON completed services on time.

# CHESAPEAKE ENERGY AQUATIC RESOURCE ASSESSMENTS & WETLANDS VARIOUS LOCATIONS, WV

TERRADON provided Construction Management and Inspection Services for approximately 400 well pad sites across the State of West Virginia. Inspection services included conducting field survey for wetland indicators (soil, plants, and hydrology) and Water of the U.S. in accordance with US Army Corps of Engineers methodology, flagging wetland boundaries for survey and preparation of reports with detailed field activities and findings for USACE. The inspection staff was also responsible for determining and obtaining appropriate Nationwide, Office of Land and Stream and WV DOH permits when project conditions warranted permitting.

# SUMMIT BECHTEL NATIONAL SCOUTING RESERVE GLEN JEAN, WV

TERRADON engineers designed all the underground utilities at the Summit Bechtel Reserve. The design included plans that implemented a water distribution system to service the reservation. The water distribution system included 18 miles of water distribution piping, and two precast concrete water tanks with Solar Blue mixers to help with stratification of the water: a 2 million gallon water storage tank and a 6 million gallon water storage tank. The water services run to 130 bath house facilities on the property that each hold three shower houses. Water service for this site is provided by both West Virginia American Water and Mount Hope Water.









# WEST VIRGINIA AMERICAN WATER STATEWIDE, WV

TERRADON provided design services to West Virginia American Water (WVAW) for several significant water main rehabilitation projects in 2017. These projects were of medium to severe complexity due to their location in heavily populated areas, both residential and commercial in nature. Effective coordination with water company personnel, Division of Highways officials, other regulatory personnel, and the contractors was instrumental in the successful completion of the work with a minimum amount of disruption and inconvenience to the public. TERRADON also provided inspection and quality control services for these projects as well.

TERRADON is also providing design services for a significant portion of a major capital improvement project currently underway by WVAW. This project is comprised of several water line contracts and multiple contracts for the construction of water booster stations, pressure reducing stations, and water storage tanks. We began this work in 2017 and will continue to provide design services for the next several years until the project is completed.

TERRADON continues to provide water line inspection services to WVAW for their ongoing capital improvements program. We currently have five (5) inspectors who are dedicated full time to inspecting ongoing water line construction projects. These inspectors are responsible for the preparation of as-built drawings, for providing GIS information of installed facilities directly to the WVAW GIS Department, investigation and resolution of conflicts/disputes that arise during construction, and any other construction related services requested by the Water Company.

# TRIANA ENERGY FRESH WATER IMPOUNDMENT BUCHANNON. WV

TERRADON provided Construction Management and Inspection Services for the 15 acre-feet Triana Energy Fresh Water Impoundment located in Buchannon, WV. Inspection services included observation of proof rolling, conducting in field one-point proctors and compaction testing. TERRADON also provided oversight of all TERRADON construction monitoring inspectors, documentation and reporting, and permits compliance. Additionally, TERRADON was responsible for drafting and delivering quality assurance plans for the project, documenting and recording project progress percentages while giving daily updates to all party heads throughout the project on updates, and analysis of construction design and revisions.

# CHESAPEAKE ENERGY ABOVE GROUND STORAGE TANK INSPECTIONS VARIOUS LOCATIONS, WV

TERRADON provided Environmental Inspection Services for approximately 1,800 Above Ground Storage Tank Inspection across the State of West Virginia. TERRADON provided inspection staff to conduct inspections of AST's, certification of tanks, submitting certifications to WVDEP for compliance. Inspections of the AST's included a visual inspection to determine if the tank was structurally sound and fit for service. Inspection and certification of secondary containment was also conducted to determine if proper spill prevention, control, and countermeasures were in place.





# GREENBRIER COUNTY SANITARY LANDFILL LEWISBURG, WV

TERRADON has been the Engineer of Record for Greenbrier County Sanitary Landfill for the more than one year. TERRADON has been working with the facility to address compliance issues in regards to storm water management and leachate management. The facility operates a leachate collection system which flows into two leachate storage ponds. Pre-treatment, in the form of a package plant, is performed on a percentage of the leachate in one of the ponds. The leachate is eventually pumped via approximately four miles of force main to the local PSD collection system. The treatment plant imposes daily flow restrictions and halts flow completely during periods of wet weather when the plant experiences large inflow and infiltration problems.

TERRADON is working with Greenbrier County Landfill to best manage its storage capabilities to provide the required 30-day leachate storage while utilizing its existing leachate management facilities. This management includes guidance on cell development to minimize leachate generation and storm water management to reduce the potential for storm water to enter the leachate collection/storage system. TERRADON is also evaluating the need for expansion to leachate storage ponds.

## **SERVICES PROVIDED**

Compliance Study
Storm Water Management
Leachate Collection Study
Leachate Management
Storage Management
Inspection
Design

#### PROJECT REFERENCE

Wayne Childers, Manager Greenbrier County Landfill 304-645-2489







# HAM SANITARY LANDFILL PETERSTOWN, WV

TERRADON has been the Engineer of Record for HAM Sanitary Landfill for more than 10 years. TERRADON has designed and overseen construction of a leachate conveyance line, one MSW disposal cell and two Asbestos/C&D disposal cells over this period.

TERRADON Corporation provided site characterization, surveying, mapping, subsurface investigation, groundwater study, monitoring, cell design, and Certificate of Need application for a Major Modification to HAM Landfill's existing facility.

HAM Landfill initially collected leachate in a series of above ground storage tanks and trucked leachate off-site to PSD for treatment. Growth of the facility warranted change in leachate management. Through a series of permit modifications, HAM Landfill now has a gravity connection to the PSD for leachate removal and is under construction to replace the above ground storage tanks with a lined leachate pond. TERRADON works with HAM Landfill to manage its leachate flow to meet flow restrictions by the PSD while accommodating the WVDEP's requirement for on —site 30- day leachate storage.

TERRADON is currently overseeing the construction of a 2 acre asbestos/C&D disposal cell, a 2 acre MSW disposal cell, and a leachate storage pond at HAM Sanitary Landfill

SERVICES PROVIDED
Compliance Study
Storm Water Management
Leachate Collection Study
Leachate Management
Storage Management
Construction Inspection
Construction Management
Cell Design
Hazardous Materials
Site Characterization
Subsurface Investigation
Groundwater Study

PROJECT REFERENCE Cassie Bradley, Manager HAM Sanitary Landfill, LLC 304-753-9470





TUCKER COUNTY LANDFILL DAVIS. WV

#### **CELL 5 DESIGN & CERTIFICATIONS**

For the Tucker County Solid Waste Authority, TERRADON performed surveying, cell design, and construction observation and certification for the extension of Cell 5.

#### **EXISTING LEACHATE POND REPAIR**

TERRADON assessed the need for scheduled relining of the leachate Pond and correctly determined the problem was ground water leakage under the pond and designed an intercept ditch to fix the problem, resulting in several hundred thousand dollars savings.

## **CELL 6 DESIGN**

TERRADON performed surveying, mapping, subsurface investigation, Certificate of Need and Major Modification permit application, Cell Design, construction monitoring and certification for the six-acre cell.

#### **CELL 7 DESIGN**

TERRADON provided Certificate of Need (CON) application and major modification for the permit for a 20-acre, 50-year new cell design including leachate pond and innovative gravity loadout facility design, QA/QC services, and final certification. Design included provisions for cell lining in four phases, storm water and leachate management.

#### **CAPPING FOR CELLS 1-4**

TERRADON provided design for the capping of Cells 1-4 including gas venting and leachate management.

SERVICES PROVIDED
Cell Design
Construction Observation
Certification
Leachate Pond Repair
Surveying & Mapping
Subsurface Investigation
Construction Monitoring
Leachate Management
Geotechnical Investigations
Monitoring Well Installation
HELP Analysis
QA/QC
Reporting

#### PROJECT REFERENCE

Joe F. Drenning, Chairman Tucker County Solid Waste Authority 304-259-5580







# MCDOWELL COUNTY LANDFILL LCAP MCDOWELL COUNTY, WV

The project consisted of capping approximately 12 acres with a HDPE Liner. The project included: surveying, develop exiting topo map, site assessment, concept plans, bid documents, permitting, bidding, construction and construction oversite, and certification. Site assessment included extensive surface and subsurface evaluations to minimize the amount of groundwater entering the leachate collection system.

SERVICES PROVIDED
Cap Design
Surveying
Topo Mapping
Site Assessment
Concept Plans
Bid Documents
Permitting
Bidding
Construction Oversight
Surface & Subsurface Evals







# PINE CREEK LANDFILL LOGAN, WV

For the WVDEP LCAP, TERRADON Corporation designed the permanent closure plan including an additional landfill cell, stormwater management, capping, leachate management and storage tank, construction QC and certification for the abandoned landfill.

# JACSON COUNTY SANITARY LANDFILL JACKSON COUNTY, WV

As part of the WVDEP's Landfill Closure Assistance Program, TERRADON Corporation prepared interim closure plan including stormwater management, leachate management, sediment pond and leachate pond repairs, regrading and re-vegetation of disturbed areas.

# COPPER RIDGE LANDFILL CAPELS, WV

TERRADON provided services to Enviro Solutions for the Cooper Ridge Landfill. TERRADON services included stormwater management, leachate management, and subsurface investigations. The project had a \$5.6 Million construction cost.

# WYOMING COUNTY SANITARY LANDFILL WYOMING COUNTY, WV

TERRADON Corporation provided landfill and geotechnical services for the Wyoming County Landfill in WV. Services included site characterization, stormwater management, leachate management including storage tanks, pump station and force main to POTW; slope stability regrading; and Subtitle D cap for the WVDEP.



Appendix A: Resumes





# EDUCATION B.S. Landscape Architecture West Virginia University

# WORK EXPERIENCE TERRADON Corporation 2010-Present

Robert Gabriel & Associates 2009-2010

R.G.S. Associates, Inc. 2004-2009

### **CERTIFICATIONS**

38 Hour USACE Wetland Delineation Training

30 Hour OSHA Construction Safety & Health Certification

40 Hour OSHA HAZWOPER Certification

OSHA Confined Space Entry Trained

OPEC SafeLandUSA



Jason Asbury is the Vice President of Geotechnical, Environmental & Field Services and Construction Management departments at TERRADON Corporation. Acting as regulatory liaison/coordinator, Asbury provides critical project support for specialized permitting and erosion and sediment control planning, as well as conducting field work for wetland assessment/delineation projects and Section 404/401 permitting. Asbury is also responsible for scheduling and coordinating field service teams for Construction QA/QC services. Asbury also provides site grading, landscape and utility plans, site detailing and erosion sediment control plans and permitting for energy, commercial, and educational projects.

#### PROJECT EXPERIENCE

The Bechtel Summit National Scouting Reserve

Served as Regulatory Coordinator for a 10,600+- acre recreational development in Fayette County, WV, acting as the primary contact with the WVDEP on behalf of all contractors and consultants, for more than 50 site permits. Task included NDPES design and permitting, including erosion and sediment control, for multiple contractors/consultants with the WVDEP. Also coordinated monthly site inspections with representatives from the WVDEP and numerous on-site contractor representatives. The project included 550,000 tons of aggregate, 600 acres of grading activities, 28 miles of drainage swales, 14 miles of new road construction, 4 earthen dams, and more than 60 miles of new utility installation.

Above Ground Storage Tank Inspections (WVSB 373 Compliance) Served as Regulatory Coordinator and Project Manager for Approximately 1,800 Above Ground Storage Tank Inspection across the State of West Virginia. Task included inspections of AST's, certification of tanks, submitting certifications to WVDEP for compliance. Inspections of the AST's included a visual inspection to determine if the tank was structurally sound and fit for service. Inspection and certification of secondary containment was also conducted to determine if proper spill prevention, control, and countermeasures were in place.

Chesapeake Energy - Trace Fork Slip

Served as Regulatory Coordinator and Project Manager for erosion repair design for a 175' x 40' wide slip for a Chesapeake Energy site located in Lincoln County, West Virginia. The project included the redesigned of an existing storm water channel that constantly eroded preventing permit closure of the facility from WVDEP. Upon the completion of the design, construction, and final stabilization of the site a notice of termination was filed with WVDEP. Tasks included the redesign of an existing stormwater channel, preparation of grading, and sediment and erosion control plans. Also coordinated all agency contact for the submittal and approval of all necessary construction permits.

## Chesapeake Energy Aquatic Resource Assessments/Wetland Delineation

Served as Qualified Individual and Regulatory Coordinator to assess approximately 350 well pad sites across the State of West Virginia .Task included conducting field survey for wetland indicators (soil, plants, and hydrology) in accordance with USACE methodology, flagging wetland boundaries for survey and preparation of reports with detailed field activities and findings for USACE. Also was responsible for determining and obtaining appropriate Nationwide, Office of Land and Stream and WV DOH permits when project conditions warranted permitting.



EDUCATION
B.A. Civil
Engineering
West Virginia
Institute of
Technology

# WORK EXPERIENCE TERRADON Corporation 2004-Present

James Engineering 1983-2004

Triad Engineering 1978-1983

James Engineering 1973-1978

Ackenherl & Associates 1968-1973

### REGISTRATION Professional Engineer: WV

John James is a Senior Geotechnical Engineer for various dam, landslide, foundation investigation/design, transportation, environmental, site selection, and mining projects. He has over 48 years of experience practicing engineering in WV and surrounding states. James specializes in innovative and cost-saving concepts for his projects. Coupled with his hands on common sense approach to projects, he works with many of the accepted geotechnical and other engineering software applications for latest technical solutions.

James' project experience includes: foundation investigations and designs ranging in size from small projects to major industrial complexes; studies and designs for landfills and other environmental facilities; studies and designs for earth, earth/rockfill and concrete dams; all types of retaining wall designs, including conventional concrete walls, MSE walls, sheet piling, and H Pile and lagging, all with or without various anchoring systems; landslide analysis and remediation; roads; highways and bridges; surface and groundwater studies; storm drainage facilities; airport facilities; and forensic engineering.

#### PROJECT EXPERIENCE

**Tucker County Landfill** 

James has been the lead design engineer/engineer of record for the TCLF for the past 10 years, including responsibility for siting, permitting, design and all other services for the landfill. He has devised many cost-saving solutions and designs, including the incidental mining of previous mined-out coal workings for a cost savings for \$8,000,000 of \$10,000,000 Cell 7 cost. Ham Landfill Expansion

Provided site characterization, surveying, mapping, subsurface investigation, groundwater study, monitoring, cell design, major modification to permit, and Certificate of Need application for the Ham Sanitary Landfill Expansion Project in Peterstown, WV.

#### Pine Creek/Omar Landfill

This project was under the WVDEP LCAP Program. James provided design and permitting services for the landfill that used 12 Acres HDPE Liner, in Pine Creek, Logan County, WV.

## Dam Experience

James has been Engineer of Record for numerous earth and rock fill dams in West Virginia, and some recent projects include: Mallard Dam (presently in design), 8 acres; Upper Glade Creek Water Supply Dam upgrade (from 95 to 112 acres+/-; Dawson Dam, 30 acres+/-; Lake Chaweva Reconstruction, 24 acres+/-; and Chatham Dam, 65 acres+/-. Also provided consultation and construction design for the United States Army Corps of Engineers for Bluestone Dam.

## Site Selection Experience

James specializes in site evaluation from geologic and topographic perspectives with an ability to visualize relevant features of both geotechnical and topographical, including literature research and site reconnaissance, for specific project needs.

## **Transportation Experience**

Worked on numerous roadway (cut and fill slopes) designs, landslide evaluation and remediation, site designs for numerous projects and foundation investigations for approximately 1,000 projects in West Virginia and the surrounding states.



B.S. Civil Engineering VA Tech

# WORK EXPERIENCE

TERRADON Corporation 2006-Present

ET 2000, Inc. 1990-2006

Brackenrich & Associates 1992-1998

Cornerstone Land Surveying 1991-1992

Norfolk Southern 1989-1991

#### **CERTIFICATIONS**

WVDOT Concrete & Compaction Inspector Philip Reed serves as TERRADON'S Lewisburg, WV Office Director and provides services to clients for Quality Control, Materials Testing and Engineering Design. Reed provides technical direction on a variety of civil engineering markets including landfills, commercial and industrial developments, housing, energy and infrastructure. Reed is responsible for engineering analysis and modeling, design, regulatory compliance and permitting, in addition to quality control and assurance. He has created numerous residential subdivision designs with roadways and drainage.

#### PROJECT EXPERIENCE

**HAM Sanitary Landfill** 

Responsible for all aspects of solid waste landfill permitting (H.A.M. Sanitary Landfill, Inc.), including: Certificate of Site Approval through local county Solid Waste Authority; Certificate of Need through Public Service Commission; Part 1 Solid Waste Facility Permit to include geologic and hydrologic evaluation of site; Part 2 Solid Waste Facility Design Application to include site design, leachate modeling, and composite liner design; and solid waste cell construction drawings, Construction Specifications, and Construction Quality Assurance / Quality Control Plan. Also responsible for all aspects of Construction Monitoring, including: monitoring of construction of both municipal solid waste disposal cells and Construction/demolition and asbestos disposal cells; responsible for construction stakeout and monitoring of construction, and Final Certification of construction.

**Greenbrier County Landfill** 

Reed has been working with the facility to address compliance issues in regards to storm water management and leachate management. The facility operated a leachate collection system which flows into two leachate storage ponds. Pre-treatment, in the form of a package plant, is performed on a percentage of the leachate in one of the ponds. The leachate is eventually pumped via approximately four miles of force main to the local PSD collection system. The treatment plant imposes daily flow restrictions and halts flow completely during periods of wet weather when the plant experiences large inflow and infiltration problems.

Triana Energy Fresh Water Impoundment

Responsible for site design, construction certification, and bi-weekly inspections for 15 acre-feet freshwater impoundment in Northern, WV. Responsible for oversight of construction monitoring inspectors, reporting and permit compliance.

**Summit Bechtel Reserve** 

Provided Engineering Support for a 12,000-acre site development in Fayette County, WV. Oversaw site layout, grading, and survey support for one of the largest infrastructure projects in West Virginia. Oversaw all QC services and provided project direction of 20 inspectors and technicians during installation of more than 100 miles of utilities and nearly 50 miles of roadway construction. Additional inspection and monitoring activities included vertical construction of three buildings and an iconic wingtip pedestrian bridge.



B.S. Civil Engineering Technology Fairmont State College

A.A.S. Civil Engineering Technology Fairmont State College

A.A.S. Drafting/ Design Engineering Technology Fairmont State College

# WORK EXPERIENCE

TERRADON Corporation 2010-Present

Triad Engineering, Inc. 2000-2010

WV Army National Guard 1990-2003 Mark Clutter is a Project Manager/Design Engineer who is experienced in preparing construction documents and associated permitting for numerous projects throughout Kentucky, Ohio, and West Virginia including: creating erosion and sediment control plans, storm water management, design of impoundment closures, slope stability analysis, field surveying, drawings and specification preparation, design, design drafting, construction inspection, quality control testing, shop drawing review, project management, contract administration, permitting, and report preparation.

Clutter's landfill experience adheres to the WVDEP's Landfill Closure Assistance Program (LCAP) for landfill designs and construction, including all closure-related activities such as: leachate management control, sediment and erosion, gas management, groundwater monitoring, and a final cover on non-composite lined landfills.

## **PROJECT EXPERIENCE**

Tucker County Landfill, Cell 7 Design

For the Tucker County Solid Waste Authority, performed major modification of the permit, geotechnical investigation, new 50-year cell design, and leachate pond closure plan, groundwater statistical report, leachate management, QA/QC services, stormwater ponds, subsurface investigation, and Certificate of Need (CON) application, HELP mode and installation of monitoring wells for a 20 acre cell at the Tucker County Landfill in Davis, WV.

Tucker County Landfill Permitting

Solid Waste Facility Siting Plan, Certificate of Need, Certificate of Site Approval, Part 1-Site Evaluation Application, Part 2-Design Application, DWWM-Module A-NPDES, Major Modification, Quarterly Report, Annual Report for the Tucker County Landfill.

**Tucker County Landfill Cells 1-4 Capping** 

The project consists of capping approximately 20 acres of previous landfill cells with a HDPE Liner. The project included the following: preparation of construction drawings, technical specifications, contract and bidding documents, advertisements for bid, design report outlining the calculations to support the design, Erosion and Sediment Control permits, modifications to the NPDES storm water permit, permits to the West Virginia Solid Waste Authority for capping and reuse of methane, air pollution control permits for use of the methane gas emissions, and field services for Quality Control.

**Tucker County Landfill** 

TERRADON provides quarterly surveying of the current landfill surface and calculation of the quarterly volume and compaction rate; producing semi-annual statistical analysis and reports; creating annual reports that include: construction activities, financials, MSW tonnage, leachate generation, groundwater and discharge monitoring reports, and airspace summaries. Ham Landfill Expansion

Provided site characterization, surveying, mapping, subsurface investigation, groundwater study, monitoring, cell design, major modification to permit, and Certificate of Need application for the Ham Sanitary Landfill Expansion Project. Additional LCAP Experience

Provided design and permitting for the following under the WVDEP LCAP Program:

- Pine Creek/Omar Landfill, 12 Acres HDPE Liner, Pine Creek, Logan County, WV
- Buckhannon Landfill, 14 Acres Geo-synthetic Clay Liner, Buckhannon, WV
   Don's Disposal, 24 Acres HDPE Liner, near Eden's Fork, Kanawha County,
- WV
   McDowell County Landfill, 12 Acres HDPE Liner, near Welch, McDowell

McDowell County Landfill, 12 Acres HDPE Liner, near Welch, McDowe County, WV



B.S. Geology West Virginia University

# WORK EXPERIENCE

TERRADON Corporation 2017-Present

CH2M 2016-2017

#### **CERTIFICATIONS**

30 Hour OSHA Construction Safety & Health Certification

40 Hour OSHA HAZWOPER Certification

8 Hour OSHA HAZWOPER Refresher

SafeLand Training (Pending)

WVDOT TRET Level 3 Warren Friend is a Construction Inspector and Project Geologist at TERRADON Corporation. Friend applies environmental and geotechnical knowledge and skills to engineering and construction management uses. Friend has experience in construction administration and construction inspection including safety and construction oversight. Friend also has experience in potentiometric map making, ground water sampling, environmental remediation responsibilities, ground wells, landscaping and hardscaping. Friend was the staff geologist on numerous piezometer installations and was responsible for logging all soil cores and determining the appropriate screened zones according to specifications. Friend also provided oversight for drilling processes and ensured wells were installed to meet the engineered design on various projects. Friend is responsible for oversight of various inspection and construction services including concrete pours, concrete strength testing, asphalt testing, water line installation, drainage installation, MEP installations, and other construction services.

#### RELEVANT PROJECT EXPERIENCE

Confidential Energy Client, Slide Repairs

TERRADON provided professional opinion throughout the landslide and pipeline repair along the pipeline right-of-way. TERRADON representatives serves as the compaction specialist for both the landslide repair and the roadway projects in both West Virginia and Pennsylvania. Staff provided real-time field management support for project engineers and project managers. Environmental professionals provided environmental monitoring including sediment and erosion control.

Toyota Motor Manufacturing, Buffalo, WV

Friend's responsibilities included concrete pours, concrete strength testing, reporting, contractor communication and oversight, implementation of data to server, daily reports, and construction plan review.

Road Relocation Projects

Friend's responsibilities included asphalt testing and reporting, compaction testing, contractor communication and oversight, implementation of data to server, daily reports and construction plan review.

Waterline Installation, WV

Friend is responsible for the oversight of contractors, compaction testing and construction plan review.

**Drainage Installation, WV** 

Friend is responsible for the oversight of contractors, compaction testing and construction plan review.

Dow Chemical, WV

Friend served as a site geologist and safety coordinator during the installation of remediation systems within the subsurface in order to control and/or eliminate contamination. Friend was responsible for logging soil from drilling, analyzed results and determined the correct build for each location, worked/communicated/oversee contractors constantly, and determined the path forward for waste removal. Friend is site safety coordinator trained through CH2M, OSHA 40HR HAZWOPER trained, and OSHA 30HR trained.



B.S. Geology, Marshall University Huntington, WV

WORK EXPERIENCE

2014—Present TERRADON Corporation

## CERTIFICA-TIONS

SafeLand Training

38 Hour USACE Wetland Delineation

HAZWOPER 40 HR

Asbestos Management Planner

Asbestos Inspector

Radon Inspector

Michael J. Pickens joined TERRADON as a Project Geologist in the Fall of 2014. As a Geo-Environmental team member, Pickens applies environmental and geologic skills to engineering uses; assesses slope stability; interprets various borehole data (e.g., bulk density, groundwater monitoring, gamma ray, etc.); and collects various field data (stratigraphic section measurement, Brunton use, data presentation on topographic base maps, etc.). He is proficient in various software programs related to scientific study, including: PETRA, ArcGIS, RockWorks 2002, PSSLOPE, Stereonet, and Winstable.

#### PROJECT EXPERIENCE

**Confidential Energy Client, Slide Repairs** 

TERRADON provided professional opinion throughout the landslide and pipeline repair along the pipeline right-of-way. TERRADON representatives serves as the compaction specialist for both the landslide repair and the roadway projects in both West Virginia and Pennsylvania. Staff provided real-time field management support for project engineers and project managers. Environmental professionals provided environmental monitoring including sediment and erosion control.

**Private Oil & Gas Company** 

Environmental Technician providing third party environmental inspection of erosion and sedimentation control and NPDES permit requirements. Conducts daily walking inspections of sediment BMP's and silt fence with documentation. Daily reports submitted to construction supervisor and company representatives of deficiencies and corrections. Daily progress reports are kept on site at construction trailer and weekly summary observation reports are submitted via email to the oil and gas company and construction company representatives.

## Chesapeake Energy Aquatic Resource Assessments/Wetland Delineation

Served as a qualified individual for assessing approximately 250 well locations. Tasks included conducting field survey for wetland indicators (soil, vegetation, and hydrology) in accordance with US Army Corps of Engineers methodology, flagging and surveying wetland boundaries and preparation of reports detailing filed activities and findings for USACE. Also aided in Nationwide, Office of Land and Stream, and WVDOH permitting when project conditions warranted permitting.

# Putnam County Development Authority Wetland Mitigation Re-Grading

Served as an inspector for the construction of a 2.5 acre wetland mitigation project located in the Putnam Business Park in Putnam County, WV. Tasks included documenting daily progress and relaying field observations and information to project coordinators.

Wyoming County NPDES Permit Modification

Served as a qualified individual to modify existing NPDES permits for Wyoming County by helping to produce Storm Water Pollution Prevention Plans (SWPPP) and Groundwater Pollution Prevention Plans (GWPPP) for different facilities located around the county.



B.A. Accounting, Marshall University

Engineering & Construction Management, West Virginia State University

## WORK EXPERIENCE

2009 - Present TERRADON Corporation

Thrasher Engineering

Day & Zimmerman

Ghosh Engineering

#### **CERTIFICATIONS**

WVDOH Aggregate

WVDOH Compaction

WVDOH Portland Cement Inspector

WVDOH Portland Cement Technician

OSHA 10-Hour Construction Safety and Health

WVDOH Bridgemont Certification—Level III

OPEC SafeLandUSA Michael Ward serves as a Senior Field Technician for TERRADON Corporation. He has provided construction management, construction observation, testing and inspection services in the engineering industry for 30 years. Ward serves as a third-party independent inspector, or the owner's representative for municipal, commercial and industrial projects. He has extensive experience in heavy highway construction, underground utilities, soils, asphalt, concrete, grout, auger cast piles, and anchor testing.

#### **PROJECT EXPERIENCE**

Above Ground Storage Tank Inspections (WV SB 37 Compliance)
Senior Inspector for approximately 1,800 Above Ground Storage Tank
inspections. Task included field inspection of AST's and certification of tanks
for WVDEP compliance.

**Tucker County Landfill** 

Completed QAJQC services for the construction of a new cell. He was responsible for onsite observation, testing, verification and reporting of all piping, erosion control, HDPE and clay liner systems, leachate collection and management of a permanent leachate pond and additional sediment pond.

The Summit Bechtel Family National Scouting Reserve
Senior inspector who oversaw QA/QC on 14 miles of new road construction
built per WVDOH specifications; installation of 64 miles of underground
utilities including 21 miles of waterline, 24 miles of sewer line, 17 miles of
electric and 2 miles of gas; installation of the largest grey/ Blackwater
sewage system east of the Mississippi. The camp also had 600 acres
cleared, grubbed and graded with 28 miles of drainage swales including
erosion and sediment controls. The work also included the testing of over
7,000 CY of structural concrete and over 5,000000 CY of mass excavation
and compaction. In addition 4 earthen dams were built with over 800,000 CY
of embankment.

City of Dunbar Wastewater Treatment Plant

Construction Manager and Field Inspector 10M Wastewater treatment plant and storm and sanitary line upgrades for the City of Dunbar, WV and the West Virginia Department of Environmental Protection. Contracts 2&3 installation of storm conduit and wastewater piping Inspection of 50,000 ft. of waste water and sanitary piping. 48" to 6". Excavation depths 6' to 28' monitoring excavation, backfill and compaction procedures and road repairs to ensure compliance with approved plans and specifications, inspection for alignment, grade and leakage. Extensive documentation and resolve of any complaints concerning construction activities.

(Private Client) Foundation Contract

Served as Project Manager and Inspector for a 250' x 250' footprint that included installation of 700 + auger cast piles and an 18" reinforced hydrostatic foundation slab. Provided construction management services and daily site inspections.

Federal Building and Courthouse, Charleston, WV Serving as Project Coordinator, provided construction management services from the pre-design through post construction phases of the \$80,000,000 project.



# WORK EXPERIENCE

TERRADON Corporation 2010—Present

HC Nutting 1990-1996 2000-2012

#### CERTIFICATIONS

WVDOH Compaction Inspection

WVDOH Portland Cement/Concrete

WVDOH Asphalt Plant Technician

WVDOH Asphalt Field Technician Compaction

WVDOH Aggregate Inspector

Nuclear Radiation Safety Officer

FAA Eastern Regional Laboratories List

PTI—Post-Tensioning Institute Level #2

OSHA 10-Hour Construction Safety and Health

SafeLand Training

Chris Morris is a Senior Inspector for TERRADON Corporation. He is responsible for quality control testing and inspection for WVDOT, commercial, and residential construction projects throughout West Virginia. He interfaces with site owners (public and private) and contractors to complete testing and inspection projects.

Morris is responsible for monitoring contractor's work for conformance to the design plans, specifications and general permit requirements; experience tracking daily quantities, completing daily inspection reports, reviewing payment requisitions and maintaining field sketchbooks and as -built drawings.

#### PROJECT EXPERIENCE

Charleston Landfill—Charleston, WV - Observation and Density Control

Above Ground Storage Tank Inspections (WV SB 37 Compliance) Served as Senior Inspector for approximately 1,800 Above Ground Storage Tank inspections. Task included field inspection of AST's and certification of tanks for WVDEP compliance.

Mingo County Airport, Williamson, WV Primary QA Technician

Western Regional Jail, Barboursville, WV Owners QA Technician of Auger Cast Pile Installation

AEP John Amos Plant, Winfield, WV

QA/QC mass concrete pours for large mat foundations and contractor's QC of controlled fill and various concrete placement.

AEP Glen Lynn Power Plant, Glen Lynn, VA Observation and Density Control

Charleston Landfill—Charleston, WV Observation and Density Control

Raleigh Memorial Airport, Beckley, WV Observation and Density Control

Winfield Locks and Dam, Winfield, WV Observation and Density Control

Blennerhassett Bridge, Parkersburg, WV QA/QC for all facets of construction of new bridge

AEP Kyger Creek Power Plant, Cheshire, OH Observation and Density Control



B.S. Geology West Virginia University

#### WORK EXPERIENCE

2017—Present TERRADON Corporation

2014-2017 Hendricks Resources

2011-2014 Norwest Corporation

2010-2011 CORE Environmental

2001-2010 WVDEP/DLR/OER

1999-2001 Britton Engineering

1986-1999 Denex Corporation

## LICENSES & CERTIFICATIONS

Professional Geologist

Andrew Robinson, a Licensed Professional Geologist and former Licensed Remediation Specialist, is a Senior Geologist and Environmentalist and Project Manager at TERRADON. Robinson is experienced in the oversight of soil and groundwater sampling, underground storage tank inspections and installations, and environmental inspections at former industrial sites. Robinson is qualified to provide accurate reporting and certification recommendations relating to environmental compliance, conduct feasibility studies and analysis, and perform testing and inspection services on various projects.

## PROJECT EXPERIENCE

Project Manager in the Division of Land Restoration
Office of Environmental Remediation for an eleven (11) county area.
Managed over two-hundred (200) Leaking Underground Storage sites across the middle portion of West Virginia. Directly responsible for the monitoring of Petroleum contamination at these sites. Worked directly with contractors and consultants driving site contamination clean-ups, including site inspections, free product recovery, site assessment activities, monitoring well installation, orphaned underground storage tank removals, contaminated soil removal, contaminated groundwater removal and confirmatory soil/water sampling. Responsible for oversight and coordination of all site project activities with the parties conducting the site work and for oversight and coordination of state contractors performing state-lead project activities. Successively closed over one-hundred (100) active leak sites with "no further action" status in nine years.

Project Manager in the Division of Land Restoration Office of Environmental Remediation for an eleven (11) county area. Managed thirty (30) Voluntary Remediation and Redevelopment sites in West Virginia. Perform oversight of work in the areas of site assessment, conceptual problem models, fate and transport models, human health and ecological risk assessments, future land-use planning, risk characterization, risk management, remedy selection, public participation, remediation activities and final attainment confirmation. Reviewed subsurface hydrological flows and groundwater contamination associated with toxic chemical and petroleum releases. Coordinated all activities through negotiation and utilization of a series of legal documents including remediation agreements, land use covenants, deed restrictions and certificates of completion. Coordinated with all other state and federal agencies to ensure that all legal documents are in full compliance with relevant air, waste, and water laws and regulations and participated in public forums/meetings.

Federal Bureau of Public Debt – City of Parkersburg
Served as Project Manager for the State of West Virginia for the clean-up
of a former coal gasification plant/railyard. Fast tracked site through the
Voluntary Remediation Redevelopment Program. Monitored site clean-up
activities of two large 1850's brick in ground storage tanks containing
creosote contaminated soil. Oversight Water well installation and
groundwater testing. Attained site specific clean-up standard with land use
covenant and soil/pavement cap over affected areas of the site. Worked in
concert with the City of Parkersburg and all regulatory agencies to reach
"Certificate of Completion" status. Work completed for the building of the
multimillion dollar Bureau of Public Debt facility now located on-site,
employing several hundred workers.



M.S. Physical & Applied Science— Emphasis in Geology, Marshall University

B.S. Geology, Marshall University

# WORK EXPERIENCE

2015—Present TERRADON Corporation

#### **CERTIFICATIONS**

Machine Tool Technology

Scuba Diving

#### **ASSOCIATIONS**

American Association of Petroleum Geologists (AAPG)

Geological Society of America (GSA)

Clayton Gue joined TERRADON as a Staff Geologist in 2015. As a Geo-Environmental team member, Gue applies environmental and geology skills to engineering uses; assesses slope stability; interprets various borehole data (e.g., bulk groundwater monitoring density, gamma ray, etc.); and collects various field data (stratigraphic section measurement, Brunton use, data presentation on topographic base maps, etc.). He is proficient in various software programs related to scientific study, including: PETRA, ArcGIS, IDRISI SELVA (Remote Sensing), Surfer, Rockware.

#### PROJECT EXPERIENCE

Phase I Environmental Site Assessments

Performed site visits and prepared reports for over 35 Phase I ESAs under supervision of a Licensed Remediation Specialist.

Cabin Creek Health Care System NEPA Environmental Assessment Provided technical scientific evaluation for the proposed development of a new healthcare facility. Prepared NEPA EA to determine environmental impacts of land development action and analyzed a broad set of parameters including biodiversity, environmental justice, wetlands, air and water pollution, traffic, geotechnical risks, public safety issues, public comment, and hazardous substance issues in order to determine whether to prepare and Environmental Impact Statement of a Finding of No Significant Impact.

West Virginia State University NEPA Environmental Assessment Performed site environmental assessment, research, and reporting to determine environmental impacts associated with biodiversity -endangered and threatened species, wetlands and aquatic resources, history and cultural/archeological resources, air and water quality, traffic, public health and safety, hazardous materials, land use, floodplain encroachment, socioeconomic issues, noise pollution, public services and utilities, and public opinion/comments.

New Fairmont State Police Detachment Communications
Conducted Cultural Resource Coordination with West Virginia Division
of Culture and History, WV State Historic Preservation Society, Tower
Coordination under FCC Form 620, and Tribal Coordination. Assisted with
Archeological Phase I Assessment.

Wetland, Waters of the US Delineation, and Endangered Species Under Senior Environmental Managers, provided wetland and waters of the US delineations and permitting support to numerous private development and public clients. Prepared Nation Wide Permits, Individual 404 Permits to Army Corps of Engineers, WV 401 Water Quality Certification, Compensatory Mitigation Plans, and Alternative Analysis Plans. Tanyard Station Commercial Development- Prepared Aquatic Resource/ Wetland Delineation Report, conducted Stream Assessments for proposed mitigation area, prepared Compensatory Mitigation Report, and assisted in the preparation of the Alternative Analysis Report. Coordinated with USACE -Huntington District as per Section 404 of the Individual Clean Water Act. Eplin Aquatic Resource Assessment/Wetland Delineation - Assisted as a Qualified Individual and helped assess a 7 acre site located along the Ohio River in Mason County, West Virginia. Task included conducting field survey for wet-land indicators (soil, vegetation, and hydrology) in accordance with US Army Corps of Engineers methodology, flagging and surveying wetland boundaries and preparation of report detailing filed activities and findings for USACE. Also, prepared Compensatory Mitigation Concept and assisted with Nationwide Permitting.



B.S. Industrial Relations. West Virginia University Institute of Technology

### WORK **EXPERIENCE**

**TERRADON** Corporation 2013-Present

#### CERTIFICATIONS

TRET Level III Inspector

OSHA 10-hour Construction Safety and Health Course

American Heart Association-First Aid, CPR, and AED

WVDOH Aggregate Sampler

WVDOH Asphalt Field

**WVDOH** Compaction Tech

#### ACCREDIDATIONS

Co-Author. Mammoth Cave Construction Difficulties Technical Paper

## GREG HARVEY SENIOR INSPECTOR/CONSTRUCTION MANAGER

Greg Harvey is an experienced designer and construction manager for a wide variety of civil engineering projects. Major design and construction projects with which Mr. Harvey has been involved include water and sanitary system upgrades, buildings, roadway design, drainage design, site design, abandoned mine land reclamation, permitting, property surveys, construction administration, and oversight.

## RELEVANT PROJECT EXPERIENCE

S&S Landfill, Clarksburg WV (now owned by Waste Management) QA/QC and Inspection which included but was not limited to; Earthwork, Drainage, Concrete and HDPE Liner. Various projects included 3 new MSW cells and one cell that was tied into an existing cell. Total cost was approximately \$9M.

Nicholas County Landfill, Craigsville WV

Environmental Study for WV LCAP Program which included but was not limited to; Field work and Final report preparation.

Fayette County Landfill Closure, Cunard WV

Design, QA/QC and Inspection which included but was not limited to: Earthwork, Drainage, Concrete and HDPE Liner. The Project was a landfill closure under WVLCAP program.

McDowell County Landfill Closure

Project Management/ Construction Management, Design, QA/QC and Inspection which included but was not limited to; Earthwork, Drainage. Concrete and HDPE Liner. The Project was a landfill closure under WVLCAP program.

City of Mongomery 6th Ave Pump Station Upgrade

Resident Project Representative on \$1+ Million sanitary sewer project, responsible for daily quantities, inspection, testing, interface between owner and contractor, and change orders. Additionally responsible for interpretation of drawings and specifications.

Hawks Nest Dam, Brookfield Renewable Energy

Site Manager during \$11 million anchoring project, responsible for all aspects of the Construction Administration of the project including but not limited to Safety and Environmental requirements, onsite training, invoicing, quantities, management of inspectors and technicians, interaction with regulatory agencies (USACE, FERC, WVDEP).

New River Gorge National River Historic Nuttalburg Town Site,

Stabilize Historic Mine Structure

Construction Management Representative responsible for construction drawing and specification reviews, developing project cost estimates, coordinating and negotiating with Contractor, ensuring compliance with the construction drawings and specifications, keeping daily reports, coordination with the design engineer, contractor and National Park Service and verifying quantities and pay estimates.

Union Carbide/ Dow Chemical Environmental Remediation Project Construction management of a \$40 Million remediation project which involved the removal of phenol and monochloric benzene from a stream and the construction of 4 hazardous landfills and stream bank stabilization. Coordinated with the US EPA, Ohio EPA and the plants industrial

neighbors.

City of Montgomery Waste Water System Improvements Resident Project Representative Services during the construction phase of the 3 Construction Contracts of upgrades to the Montgomery Sanity Sewer Plant which included the construction of a 2-story building and the installation of a belt press system, storm and sanitary line construction and pump station upgrades.

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102 East Maple Ave. Fayetteville				
120 S. 2 <sup>nd</sup> Street, Clarksburg, W	U 26201 / 204.755 9201 / T	acon Achum, ACT A	, г.Б, г.Б / Z р Стести / 4	Deonle
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OF FIRM		PRINCIPALS	, <del>«</del> 122211	
Virginia L. King, Owner, C	hief Financial Officer	Ashley Lioi, PE	,	
Bill Hunt, President	mei i maneiai Officei	304-755-8291	•	
Bill Hunt, President		304-733-8291		
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3 CADD OPERATORS	ENGINEERS	ENGINE		
CHEMICAL ENGINEERS	3 ENVIRONMENTAL	ISTS MINING		_OTHER
6 CIVIL ENGINEERS	_ ESTIMATORS	ENGINEE	RS	_
17 CONSTRUCTION	3 GEOLOGIST	PHOTOG	RAMMETRI	ISTS
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Qualification Questionnaire".	iolary for each titin. Each p	arnorpaung mm mus	r combiere a	Consultant Confidential
10a. HAS THIS JOINT-VENTU	RE WORKED TOGETHER	R BEFORE? Y	ES	NO

11. OUTSIDE KEY CONSULTANTS/ SUB-CONSULTANTS ANTICIPATED TO BE USED.					
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE			
Tuck Mapping Services	Aerial Photography and				
1928 Wildcat Road	Topographic Mapping	YES NO			
P.O. Box 760					
Big Stone Gap, VA 24219					
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE			
REIC	Laboratory Analysis of Water				
PO Box 286	Samples	YES NO			
Beaver, WV 25813					
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE			
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		YES NO			

12. A. Is your firm experienced in (Solid Waste Landfill Closure Design)?

## **YES Description and Number of Projects:**

Reference Pages 5-14 of SOQ

B. Is your firm experienced in Solid Waste landfill site characterization assessment and evaluation?

## **YES** Description and Number of Projects:

Reference Pages 5-14 of SOQ

C. Is your firm experienced in landfill closure construction inspection?

## **YES** Description and Number of Projects:

Reference Pages 5-14 of SOQ

D. Is your firm experienced in Aerial Photography and the Development of Contour Mapping?

#### YES Description and Number of Projects:

TERRADON subcontracts these services to Tuck Mapping.

E. Is your firm experienced in evaluating ground water contamination, such as may be associated with landfills?

## YES Description and Number of Projects:

Reference pages 5-14 of SOQ

F. Is your firm experienced in Landfill Closure cost estimating?

YES Description and Number of Projects:

Reference pages 5-14 of SOQ

13. PERSONAL HISTORY STATMENT	13. PERSONAL HISTORY STATMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR					
LANDFILL CLOSURE DESIGN (describe project) (Furnish Complete data but keep to essentials)						
NAME& TITLE (Last, first, Middle	YEARS OR EXPERIENCE					
Int.)						
James, John, W., PE	YEARS OF (type) YEARS OF (type) YEARS OF (name type)					
	EXPEIRENCE: EXPEIRENCE: EXPEIRENCE:					
	10					
7 1 07 1 1 07 11111	1	1				

Brief Explanation of Responsibilities:

Mr. James' project responsibilities include: studies and designs for landfills and environmental facilities; surface and ground water studies and remediation; design of liners for landfills and various impoundments; earth and rockfill dams; roads; highways and bridges; numerous foundation investigations; foundation investigations and designs ranging in size from small projects to major industrial complexes; storm drainage facilities; airport facilities; landslide analysis and correction; and forensic engineering

EDUCATION (DEGREE, YEAR, SPECIALIZATION) **BS Civil Engineering, 1968, Geotechnical** 

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS: American Society of Civil Engineers Society of American Military Engineers

REGISTRATION (Type, Year, State) **Professional Engineer, WV** 

13a.PERSONAL HISTORY STATMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (name type of design or work) (Furnish complete data but keep to essentials)

NAME & TITLE (Last,	`	YEARS OF EXPEIRENCE			
First, Middle Int.)	YEARS OF YEARS OF YEARS OF				
Clutter, Mark, A.	EXPEIRCENE (name	EXPEIRENCE (name	EXPEIRENCE (name		
	type):	type):	type):		
	16				
		<u> </u>			

Brief Explanation of Responsibilities:

Mark Clutter is a Project Manager/Design Engineer who is experienced in preparing construction documents and associated permitting for numerous projects throughout Kentucky, Ohio, and West Virginia including: creating erosion and sediment control plans, storm water management, design of impoundment closures, slope stability analysis, field surveying, drawings and specification preparation, design, design drafting, construction inspection, quality control testing, shop drawing review, project management, contract administration, permitting, and report preparation.

Clutter's landfill experience adheres to the WVDEP's Landfill Closure Assistance Program (LCAP) for landfill designs and construction, including all closure-related activities such as: leachate management control, sediment and erosion, gas management, groundwater

monitoring, and a final cover on non-composite lined la	indfills.
EDUCATION (Degree, Year, Specialization) BS Civil Engineering Technology, 2000, Geotechnical A.A.S. Civil Engineering Technology A.A.S. Drafting/Design Engineering Technology	
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)

<del></del>	SURE QA/QC (Furnish con			
NAME & TITLE (last,	VIET DE CE ENDEDUDIGIE	YEARS OF EX		
first, middle Int.) Reed, Philip, W., PE	YEARS OF EXPERIENCE (name type): 26	YEARS OF EX (name type):	PEIKENCE	YEARS OR EXPEIRENC (name type):
infrastructure. Reed i	ndfills, commercial and i s responsible for engine se and permitting, in add	ering analysis	and mode	eling, design,
more than 20 years of EDUCATION (Degree, 1	f experience in landfill d Year, Specialization)			
more than 20 years of EDUCATION (Degree, 1988, Civil Engineering	f experience in landfill d Year, Specialization)	IONS R	struction.	TON (Type, Year, State
more than 20 years of EDUCATION (Degree, 1988, Civil Engineering MEMBERSHIP IN PROBLEM 13c. PERSONAL HISTORIAL HEAVY EARTH WOR	f experience in landfill d Year, Specialization) , Geotechnical	IONS R	EGISTRAT E, 2006, W E, 2006, VA	TON (Type, Year, State V A ES REPONSIBLE FO
more than 20 years of EDUCATION (Degree, 1988, Civil Engineering MEMBERSHIP IN PRO-	f experience in landfill d Year, Specialization) , Geotechnical FESSIONAL ORGANIZAT  ORY STATEMENT OF PRI	IONS R	EGISTRAT E, 2006, W E, 2006, V ASSOCIAT a complete c	TON (Type, Year, State V A ES REPONSIBLE FO

Bill Hunt is a Professional Geologist, Licensed Remediation Specialist and President at TERRADON Corporation. Hunt offers relevant experience in environmental documentation, investigations, and coordination with federal, state, and local agencies. He prepares Environmental Impact Statements, Environmental Assessments, Section 4(f) Evaluations, and other environmental technical documents. He supervises and participates in work plan development, field surveys, on-site monitoring, data collection, impact analysis, subconsultant management, public meeting organization and group presentations.

EDUCATION (Degree, Year, Specialization)	
MA Geography, 1985, Resource Management	
BS, Environmental Studies, 1981, Geology	
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
	PG, 1999, Indiana
	LRS, 2005, WV
	-

14. PROVIDE A LIST OF SOFTWARE AND EQUIPMENT AVAILABLE IN THE PRIMARY OFFICE
WHICH WILL BE USED TO COMPLETE THIS PROJECT (name project)
Microsoft Office (Excel, Access, Word, PowerPoint)
Haestead Methods Hydraulic Software for Channel, Culvert, and Pond Design
AutoCAD 2016, Civil 3D
HELP (Hydrologic Evaluation of Landfill Performance) Computer Model
NF1
Microstation V-8
TR-55 Software for Precipitation and Hydrologic Modeling
1 K-55 Software for Frecipitation and Hydrologic Wodening
HEC-HMS and HEC-RAS for Modeling of Watersheds and River/Stream Flows
THE C-LIAND and The C-RAD for infodeling of water sheds and reverbed a
Terrain Navigator (Regional Topographic Mapping Database)
Tell and Lie Library (Telliania Tabada alama ala
gINT Geotechnical and Environmental boring logs and well construction logs
Troxler Moisture Density Testing Gauge
Miscellaneous Concrete and Grout Testing Equipment
Digital Cameras for photo-documentation of construction activities
Monitoring Well Sampling and Gauging Equipment
DumpStat statistical analysis of groundwater quality data

			HE DESIGNATED ENC ILL CLOSURE OR CO	
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESOPNSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
Tucker County Landfill Cell 5 Extension	Tucker County Solid Waste Authority Davis, WV	Survey, Mapping, Subsurface Investigation, Groundwater Investigation and Monitoring, Cell Design and Construction monitoring and Certification	\$600,000	100% Complete
Tucker County Landfill Cell 6 New Cell Design and Construction	Tucker County Solid Waste Authority Davis, WV	Survey, Mapping, Subsurface Investigation, Groundwater Investigation and Monitoring, Major Permit Modification, Cell Design and Construction monitoring and Certification	\$720,000	100% Complete
Fucker County Landfill Cell 7A New Cell Design and Construction – 7 acre cell	Tucker County Solid Waste Authority Davis, WV	Survey, Mapping, Subsurface Investigation, Groundwater Investigation and Monitoring, Major Permit Modification, Certificate of Need, Cell Design and Construction Monitoring and Certification	\$840,000	100% Complete
HAM Sanitary Landfill Certificate of Need	HAM Sanitary Landfill Inc. Peterstown, WV	Part 1 – Solid Waste Facility Permit including geologic and hydrologic evaluation of the site.	\$158,000.00	100 % Complete
HAM Sanitary Landfill Part 2 – Solid Waste Facility Design Application	HAM Sanitary Landfill Inc. Peterstown, WV	Part 2 – Solid Waste Facility Design including Site design, leachate modeling, composite liner design, cell	\$950,000.00	100 % Complete

		construction drawings and QA/QC plan.		
Jackson County Sanitary Landfill WV LCAP Program Interim Closure Plan	Jackson County Solid Waste Authority P.O. Box 800 Ripley, WV	Interim Closure Plan including storm water and leachate management planning, sediment and leachate pond design	\$3,299,683	100 % Complete
Pine Creek Landfill WV LCAP Program	Pine Creek Omar Landfill, Inc. PO Box 99 Cora, WV 25614	designed the permanent closure plan including an additional cell, storm water management, capping, leachate management and storage tank, construction QC and certification for the abandoned landfill.	\$1,306,325	100 % Complete
Wyoming County Sanitary Landfill	Wyoming County Commission Wyoming County Courthouse PO Drawer 309 Pineville, WV 24874	site characterization; storm water management and leachate management design including storage tank, pump station and force main to POTW; slope stability; and Subtitle D Cap for the WVDEP	\$1,427,522	100 % Complete
TOTAL NUMBER			L ESTIMATED C	ONSTUCTION COSTS

	ACTIVITIES ON WHIC				SULTANT TO
PROJECT	NATURE OF	NAME	ESTIMATED		ED CONSTURCTION
NAME,	FIRMS	AND	COMPLETION		COST:
TYPE, AND	RESPONSIBILITY	ADDRESS	DATE		0051.
LOCATION	ICESI ONBIDICATI	OF OWNER	DAIL	-	
BOOMING		OI OWINER		ENTIRE	YOUR FIRMS
				PROJECT	RESPONSIBILITY
				INOUEGI	100000000000000000000000000000000000000
				ļ	
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	4				
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17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM WAS THE DESIGNATED ENGINEER OF RECORD (List 5 to 7)				
PROJECT NAME,	NAME AND	ESTIMATED	YEAR	CONSTRUCTED
TYPE AND	ADDRESS OF	CONSTRUCTION COST	12.20	(YES OR NO)
LOCATION	OWNER			(,
Manila Ridge	Putnam County		2012	Yes
Extension	Commission			
Engineering	3389 Winfield			
Poca, WV	Road			
1 UCA, W V	<del>-</del>			
	Winfield, WV			
	25213	40.25111	2012	
WV Air	WV American	\$2 Million	2013	Yes
National	Water			
Guard	Shared Services			
Design/Inspect	Center			
ion	P.O. Box 5609			
Charleston,	Cherry Hill, New			
WV	Jersey 08034			ls
Mallory	WVDEP/AML&R	\$500,000	2013	Yes
	601 57th Street SE	\$200,000	2013	1 03
(Gibson)			,	
Portals Design	Charleston, WV			
Mallory, WV	25304			
Montgomery	Sanitary Board Of	\$500,000		No
6th Ave. Pump	Montgomery			
Station	706 Third Avenue			
Montgomery,	Montgomery, WV			
WV WV	25136	İ		
Ham Sanitary	HAM Sanitary		2013	Yes
Landfill -			2013	1 68
	Landfill			
Peterstown	P.O. Box 576			
WV	Peterstown, WV			
	24963			
Northern	Northern Wayne	\$325,000	2013	No
Wayne County	County PSD			
PSD Force	P.O. Box 775			
Main	Lavallette, WV			
Replacement	25535			
Wayne, WV				
,,,, ,, ,				
TT 61 1	D 11 W	MAE 000 00	0010	3.7
Upper Glade	Beckley Water	\$35,000.00	2013	No
Creek Dam	Company			
Improvements	Po Box 2400			
	Beckley, WV			
	25802-2400			
Charleston	Alan Ives		2013	Yes

Danie	C			1
Replacement	Construction			
Housing	709 Patrick St			
	Charleston, WV,			
	25312	4200.000	0014	
Noise Wall in	ECA - Eastern	\$300,000	2014	
Pennsylvania	Operations			
	500 Corporate			
	Landing			
	Charleston, West			
	Virginia			
	25311-1264			
Edgewood	ECC	\$150,000	2014	
Country Club	1600 Edgewood	4150,000	2011	
Sissonville,	Drive			
WV	Charleston, WV			
' '	25302			
MOT-75-21.96	Ohio Department	\$400,000	2014	NO
Vandalia, OH	of Transportation	ψ 100,000	2011	1,0
, unuulu, oli	1980 W. Broad St.			
	Mailstop: 4100, 1st			
	Floor			
	Columbus, Ohio			
	43223			
	T3223			
Verizon	Verizon Wireless	\$200,000	2014	
Wireless Cell	18 Abele Road	<b>\$230,500</b>		
Tower	Bridgeville, PA			
Nitro, WV	15017			
111111111111111111111111111111111111111	13317			
Verizon	Verizon Wireless	\$200,000	2014	
Wireless Cell	18 Abele Road	<b>49</b>	-	
Tower	Bridgeville, PA			
Goldtown, WV	15017			
	- '			
West Virginia	State of West	\$25 Million	2014	YES
GSA Office	Virginia			
Complex	1900 Kanawha			
Fairmont, WV	Blvd E			
	Charleston, WV			
	25305			
Poca	Putnam County	\$12 Million	2014	YES
Elementary	Board of Education			
School	3022 Winfield Rd,			
Poca, WV	Winfield, WV			
, , , ,	25213			
Winfield	Putnam County	\$15 Million	2014	YES
, , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	- mining	ψ15 HIIIIVII	~VII	110

Middle School Winfield, WV  Courtyard Hotel Charleston, WV	Board of Education 3022 Winfield Rd, Winfield, WV 25213 VIM, Inc. P.O. Box 359 123 North Court Street Fayetteville, WV 25840	\$14 Million	2014	YES
Gerrardstown Middle School Gerrardstown, WV	Berkley County Board of Education 401 S Queen St, Martinsburg, WV 25401	\$13 Million	2014	YES
South Preston PK-8 School Tunnelton, WV	Preston County Board of Education 731 Preston Drive Kingwood, WV 26537	\$13 Million	2014	YES
Leading Creek Elementary School	Lewis County Board of Education 239 Court Avenue Weston, WV 26452	\$13 Million	2014	YES
Advantage Valley Advanced Technology Center South Charleston, WV	WV Higher Education Policy Commission 1018 Kanawha Boulevard, E., Suite 700 Charleston, WV 25301	\$15 Million	2014	YES
Cabell County Bus Garage Lesage, WV	Cabell County Board of Education WV Higher Education Policy Commission 1018 Kanawha Boulevard, E., Suite 700 Charleston, WV 25301	\$10 Million	2014	YES
Energy Corporation of America Charleston,	Energy Corporation of America 501 56th Street SE	\$12 Million	2014	YES

WV	Charleston, West Virginia 25304			
East Hardy High School	Hardy County Board of Education 510 Ashby Street Moorefield, WV 26836	\$15 Million	2014	YES
WVSU Student Housing Institute, WV	West Virginia State University 5000 Fairlawn Ave, Dunbar, WV 25112	\$16 Million	2014	YES
Weisburg Applied Sciences Building Huntington, WV	Marshall University One John Marshall Drive Huntington, WV 25755	\$30 Million	2014	YES
Smith Fastener South Charleston	Smith Fastener 7500 MacCorkle Ave., SE P.O. Box 4356 Charleston, West Virginia 25364	\$10 Million	2014	YES

18. COMPLETED WORK WITHIN LAST 5 YEARS IN WHICHYOUR FIRM HAS BEEN A					
SUBCONSULT	SUBCONSULTANT TO OTHER FIRMS (INDICATE PHASE OF WORK WHICH YOUR FIRM WAS				
RESPONSIBLE	E) LIST 5 TO 7.			.,	
PROJECT	NAME AND	ESTIMATED	YEAR	CONSTRUCTED	FIRM
NAME,	ADDRESS OF	CONSTRUCTI		(YES OR NO)	ASSOCIATED
TYPE AND	OWNER	ON COST OF			WITH
LOCATION		YOUR FIRM'S			
		PORTION			
Summit	Boy Scouts of	\$50,000,000	2013	Yes	Trinity
Bechtel	America				Works/Arro
Reserve	PO Box 152079,				w WV, Inc.
<b>Boy Scouts</b>	Irving, TX				
of America	75015-		i		
Glen Jean,					
WV					
WV	WV Higher	\$15,000,000	2014	Yes	ET Boggess
Northern	Education Policy				Architects
Advanced	Commission				
Technolog	1018 Kanawha				
y Center	Boulevard, East,				
	Suite 700				
	Charleston, WV				
	25301				

19. Use this space to provide any additional information or description of resources supporting your firm's qualifications to perform work for the WV Department of Environmental Protection.

TERRADON CORPORATION is well qualified to provide all of the services as described in the Scope of Services of the Request for Qualifications to include: the study of the existing leachate holding tanks and ponds to see if they meet requirements of applicable rules and if there would be an economical advantage to modify existing structures including improvements or replacement as well as potential reduction in water generation. TERRADON is experienced in providing these and similar services on various projects throughout the state for the agency.

20. The foregoing is a statement of facts	
Signature: Q oe The Title: MAR KOTING PCP	Date: <u>5-22-18</u>
Printed Name: AHLEY S DO SM	