EXPRESSION OF INTEREST

DEP14620
Site Characterization Study, Leachate Management & Closure Cap Design and Quality Assurance/Quality Control

Capon Springs Landfill
Hampshire County, West Virginia

TRIAD Proposal 07-09-8097

Presented To:

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

Presented By:

TRIAD ENGINEERING, INC.
200 Aviation Drive
Winchester, VA 22603

April 30, 2009

200 Aviation Dr.
Winchester, VA 22602
Phone 540-667-9300
FAX 540-667-2260
www.triadeng.com

TRIAD ENGINEERING, INC.

April 30, 2009

Mr. Charles A. Bowman, Jr.
State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

RE: EXPRESSION OF INTEREST – DEP14620
Site Characterization Study, Leachate Management and Closure Cap Design
and Quality Assurance/Quality Control for the Capon Springs Landfill
Hampshire County, West Virginia
TRIAD Proposal 07-09-8097

Dear Mr. Bowman:

Enclosed herewith is one (1) printed original Expression of Interest (EOI) which is bound in a 3-ring binder in accordance with the instructions contained in the RFQ. We have also included three (3) CDs, each of which contains a .pdf of the EOI and a .pdf of the Purchasing Affidavit. The original executed Affidavit is attached to this letter.

We appreciate the opportunity to submit this EOI, and we look forward to a favorable review of our qualifications. If you have any questions or require any additional information, please do not hesitate to contact us.

Sincerely,

TRIAD ENGINEERING, INC.

Randy L. Moulton, P.E.
President & CEO

Attachment

Enclosures

RFQ No. DEP14620

STATE OF WEST VIRGINIA
Purchasing Division

024

PURCHASING AFFIDAVIT

VENDOR OWING A DEBT TO THE STATE:
West Virginia Code §5A-3-10a provides that: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate.

PUBLIC IMPROVEMENT CONTRACTS & DRUG-FREE WORKPLACE ACT:
If this is a solicitation for a public improvement construction contract, the vendor, by its signature below, affirms that it has a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the ***West Virginia Code***. The vendor **must** make said affirmation with its bid submission. Further, public improvement construction contract may not be awarded to a vendor who does not have a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the ***West Virginia Code*** and who has not submitted that plan to the appropriate contracting authority in timely fashion. For a vendor who is a subcontractor, compliance with Section 5, Article 1D, Chapter 21 of the ***West Virginia Code*** may take place before their work on the public improvement is begun.

ANTITRUST:
In submitting a bid to any agency for the state of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the state of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the state of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the state of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership or person or entity submitting a bid for the same materials, supplies, equipment or services and is in all respects fair and without collusion or fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

LICENSING:
Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agencies or political subdivision. Furthermore, the vendor must provide all necessary releases to obtain information to enable the Director or spending unit to verify that the vendor is licensed and in good standing with the above entities.

CONFIDENTIALITY:
The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf.

Under penalty of law for false swearing (***West Virginia Code*** §61-5-3), it is hereby certified that the vendor affirms and acknowledges the information in this affidavit and is in compliance with the requirements as stated.

Vendor's Name: Triad Engineering, Inc.

Authorized Signature: _____ Date: 4/29/09

Randy L. Moulton, PE
President and CEO

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RE: EXPRESSION OF INTEREST – DEP14620
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and Quality Assurance/Quality Control for Capon Springs Landfill
Hampshire County, West Virginia
TRIAD Proposal 07-09-8097

Dear Mr. Bowman:

Triad Engineering, Inc. (TRIAD) is pleased to present this Expression of Interest to provide Landfill Site Characterization, Closure Design, and Construction Inspection services for the Capon Springs Landfill. We have prepared this proposal in response to Request for Quotation No. DEP14620 dated April 2, 2009. Herein, we have provided the following information:

- Our experience in landfill site characterization, assessment and design services.
- A description of our project team and how they will be organized to complete the work. Resumes of team members are also provided.
- Our approach to the project including an outline of project phases.
- A description of our internal project quality control and cost control systems.

We are confident that this information meets your needs at this time, and we look forward to a favorable review of our qualifications. If you have any questions or require any additional information, please do not hesitate to contact us.

Sincerely,

TRIAD ENGINEERING, INC.

Randy L. Moulton, P.E.
President & CEO

CONTENTS

CORPORATE HISTORY AND EXPERIENCE

TRIAD is a regional engineering firm providing services in the areas of geotechnical, civil, environmental, and mining engineering; surveying and mapping; construction quality control; and other related earth-science disciplines. The firm has provided services on thousands of projects of varying size and complexity since beginning operations in 1975. Our clients include governmental agencies, industrial manufacturing companies, contractors, architects, engineers, developers, and institutional clients.

Our firm was founded in 1975 in Morgantown, West Virginia by three civil engineers from West Virginia University. A second office was opened in Charleston, West Virginia in 1979. TRIAD expanded into the northern Virginia area in 1988 with offices in Winchester and Harrisonburg, Virginia, and began operations in Pennsylvania in 1990 with an office in Greensburg. Most recently TRIAD has opened offices in Hagerstown, Maryland and Purcellville, Virginia.

Facilities and equipment available to support our staff have grown substantially during the past thirty three years. We have developed a fleet of drill rigs and support vehicles to meet the needs of our field operations. Well equipped material testing laboratories are maintained to provide support for our geotechnical engineering and construction related projects. Our laboratories are supplied with testing equipment necessary to perform a wide range of tests on soil, rock, concrete, aggregate, water, asphalt, and other similar construction materials. Each office maintains secure computer networks to support CADD functions, hydrogeologic evaluations, landfill water balance modeling, surface water drainage design, stability analysis, survey data reduction, and mapping. These broad in-house capabilities give us better control over project schedule, quality, and cost, thereby minimizing problems that can occur when engineering firms are forced to coordinate efforts among a number of subcontractors.

TRIAD was previously selected by WVDEP to complete two, three-year LCAP closure design contracts, and therefore, our staff is completely familiar with the work required under this contract. During our previous six years of contract work with LCAP, TRIAD successfully completed eight separate landfill projects similar or identical to this project. Because LCAP design projects are geotechnically oriented, our expertise in geotechnical engineering, geology, and civil engineering design make us particularly well qualified to provide the requested services.

LANDFILL PROJECT EXPERIENCE

Our experience and capabilities as a geotechnical engineering and earth-science firm brought about our development as a waste management design firm more than twenty years ago. TRIAD was providing a variety of geotechnical engineering and hydrogeologic services related to the construction of synthetic and soil liners for one of our long term clients, Union Carbide Corporation (now Dow Chemical). Based on our performance on previous projects, they requested that we design and permit a new hazardous waste landfill for their Sistersville, West Virginia facility. Utilizing our in-house capabilities and expertise in geotechnical engineering, geology, drilling, material

testing, and civil engineering, we brought the project to completion on time and within budget. TRIAD completed all phases of the necessary hydrogeologic and borrow-soil investigations, as well as engineering design, permitting, and regulatory agency liaison services. From that point forward, our firm continued to grow steadily in the direction of waste management design services.

Since that time, TRIAD has completed a variety of solid waste and hazardous waste landfill designs, upgrades, and closures. The majority of this work has been performed for West Virginia landfills, and mandated by the requirements of 33CSR1. Most of our engineering work has also included full-time construction quality control (QC) inspection and final engineering certification of construction.

It is doubtful that any other West Virginia firm can demonstrate the depth and variety of landfill engineering and QC experience that TRIAD can bring to this project. With this extensive experience in design engineering, contract document preparation, and QC inspection, we are expertly qualified to provide these services for proper closure and reclamation of the Capon Springs Landfill. Appendix A contains an abbreviated list of numerous landfill closure and other waste management projects completed by our firm.

PROJECT TEAM

TRIAD currently maintains a staff of approximately 230 personnel. This includes civil, environmental, geotechnical, and mining engineers; geologists and hydrogeologists; landscape architects; biologists; environmental scientists; and chemists. Our technical support and administrative staff includes designers, CADD technicians, surveyors, engineering technicians, drillers, construction inspectors and clerical personnel. The majority of our professional and technical staff has been with the company for many years. We pride ourselves in a very low turnover rate, which adds to continuity and enhances the level of productivity and experience afforded by our company.

Since our first foray into landfill design more than 25 years ago, TRIAD has developed a waste management design team which possesses a wide range of technical and regulatory expertise related to solid waste. Geologists, engineers, construction inspectors, environmental technicians, surveyors, designers and CADD technicians cooperate in the development of complete landfill project packages. Their work includes:

- Feasibility studies
- Facility siting
- Engineering design
- Surveying and layout
- Construction management
- Design/construction alternatives
- Soils and geologic investigation
- Technical specifications
- Construction inspection
- Engineering certification

Our geologists share a large body of knowledge and experience regarding the soil, rock, and groundwater indigenous to West Virginia. They are particularly aware of the impact which geology and groundwater can have on the design, construction, and closure of a waste management facility.

Our soils engineers, in cooperation with our materials testing laboratories, routinely assess the suitability of on-site soils for construction of low permeability hydraulic barriers and other closure cap components. Our technical staff cooperates with our clients and several regulatory agencies in the on-going development of new techniques for the design, testing and specification of low permeability barriers. We believe TRIAD is on the cutting edge of technology in this field. We utilize the methods developed by Dr. David Daniel at Drexel University to provide a compaction-moisture-permeability window for construction of the low permeability component layers required for composite liner and cap systems.

Our material testing laboratories are well-equipped to provide the testing needed to develop the "Daniel's window" for low permeability soil components. TRIAD continues to develop new and better laboratory test methods, and improves upon methods already developed by US EPA and the state regulatory agencies. Our laboratories routinely participate in certification programs administered by the US Army Corps of Engineers, American Society of Testing and Materials (ASTM), American Association of State Highway and Transportation Officials (AASHTO) and the West Virginia Department of Transportation.

The firm maintains an experienced, well-trained staff of construction inspectors who work with our engineering staff, as well as landfill owners and contractors in the field. They typically are present at landfill construction sites on a full-time basis to ensure that the soil and synthetic liners and closure caps designed by our firm are constructed in accordance with the appropriate specifications.

Our surveying department also provides support to the design team, directing the layout and construction of base grades, checking liner component thicknesses, and checking grades and alignments on leachate collection piping and surface water drainage systems. They routinely perform annual topographic surveys of current landfill progress to determine compliance with required grades, permit limits, and to determine volume of filling.

Our design/drafting team utilizes electronically stored data from our survey crews, or from aerial photography, to generate three-dimensional computer models of our landfill projects. The use of three dimensional CADD models allows our engineers to easily make changes to our design in response to client needs, regulatory agency comments, or previously unknown site constraints. Performing our design in the three-dimensional system allows us to calculate cut and fill quantities, thereby ensuring that materials handling is kept to a minimum. Our CADD systems generate clear, easy-to-read drawings which help to assure more expeditious regulatory agency approval.

TRIAD has assembled a team of individuals with broad waste management experience to provide services under this contract. The majority of the Project Team is located in the Winchester, Virginia office. The following persons have been assigned as members of the team for the Capon Springs Landfill project:

- **Randy L. Moulton, P.E., Project Manager** - Mr. Moulton served as the project manager for the Grant County Landfill Closure under the LCAP program, is currently the project manager for the Morgan County Landfill project and he will

provide project management for the Capon Springs Landfill project. He has extensive experience in geotechnical evaluations related to design of municipal solid waste (MSW) and construction demolition debris (CDD) landfills. In addition, he has served as a project manager on several dam and impoundment design projects as well as numerous large geotechnical investigations for a variety of facilities.

- **John M. Meeks, P.G., Senior Level Assessment Reviewer** - Since joining TRIAD in 1990, John Meeks has served on the design team for almost every landfill project undertaken. Mr. Meeks has approximately 20 years of experience in technical design, project management, and construction oversight of landfill projects. Mr. Meeks will be involved in reviewing the final characterization and assessment report before it is issued.

- **Daniel R. Hamric, P.E., Senior Level Engineering Reviewer** - Mr. Hamric has been involved in geotechnical evaluations and construction of several landfill projects, in addition to management of geotechnical design work related to dams and impoundments. Mr. Hamric will be responsible for overall review of engineering work for the project.

- **Robert M. Sykes, C.P.G., Characterization and Assessment** - Mr. Sykes will be responsible for evaluating groundwater characteristics at the site and assessment of groundwater quality as determined from sampling and testing monitoring wells.

- **Jeffrey H. Mitchell, C.P.G., L.R.S., Assessment and Technical Review** - Mr. Mitchell will also be involved in assessment of groundwater characteristics at the site and will be providing in-house QA and technical review of the characterization and assessment study report.

- **Kevin Stemple, P.E., Geotechnical Field Explorations** - Mr. Stemple will be responsible for management of field explorations for the project, including test borings, test pits, monitoring wells, and evaluation of potential borrow pits.

- **Dennie D. Dunlap, III, P.E., Civil Design and Stormwater Management** - Mr. Dunlap will be involved in grading, design of any access roads, and design of surface water collection systems, including stormwater management (SWM) ponds or basins. He will also be responsible for NPDES permitting for any SWM facilities which are necessary.

- **David F. Spriggs, P.S., Project Surveyor** - Mr. Spriggs will coordinate with the aerial mapping firm and will manage all aspects of the base mapping phase of the project.

- **Lloyd C. Winters, C.E.T., Laboratory Testing and Construction QA/QC** - Mr. Winters will manage all laboratory materials testing during design and construction. In addition, he will be involved in monitoring and inspection of any geosynthetic liners which are required during closure cap construction.

Please refer to the Personnel Matrix in Appendix B which summarizes team member names, professional registration, specialty(s) or roles under this contract, and years of experience. Resumes which provide detailed information regarding the education and experience of all individuals who will perform services under this contract are also included in Appendix B.

PROJECT APPROACH

Based on our current understanding of the work requirements for the Capon Springs Landfill and our experience with several similar projects, we believe that the work can be subdivided into five phases. Work elements associated with each phase are discussed in more detail herein.

Surveying and Mapping

Prior to beginning site assessment and engineering design, it will be necessary to have reliable and accurate mapping over the project area, including any potential borrow areas and areas where leachate storage or treatment may occur. TRIAD will team with our aerial photography subcontractor (Keddal Aerial Mapping) to determine appropriate ground control locations prior to flying the site. TRIAD will then establish aerial mapping targets using GPS survey equipment and personnel from our Winchester, Virginia office to minimize travel expenses. Our field crew will also verify the legal boundaries of the property, and these will also be shown on the base map.

After the site is flown, our subcontractor will provide mapping for field review and verification. After all field data is confirmed, final digital and hard copy files will be provided to TRIAD. These files will form the basis for our base mapping.

Site Characterization Study

After accurate mapping is available, TRIAD will conduct a site reconnaissance visit in cooperation with the WVDEP project manager. During our site reconnaissance, we will examine and discuss the following features:

- Interim cap system
- Existing surface water drainage controls
- Potential leachate release areas
- Nearby receiving streams and other sensitive receptors
- Potential borrow areas
- Existing monitoring wells

Following our site visit, TRIAD will generally discuss our proposed site characterization plan with the WVDEP project manager and subsequently provide a written scope of work for approval.

Upon approval, TRIAD will mobilize drilling equipment from our Winchester, Virginia office to conduct any subsurface investigation necessary to characterize waste limits, potential borrow soils, groundwater, and bedrock conditions at the site. Samples of groundwater from existing monitoring wells, samples from surface run-off channels, and

samples from potential leachate seeps will be obtained for laboratory analysis. Laboratory testing will be completed by our subcontract analytical laboratory, Pace Analytical Services, Inc., a WVDEP approved laboratory.

Sufficient data will be obtained during the course of our site assessment to generate a report that will describe current conditions at the site and provide a proposed cost effective remedial approach. Our report will include:

- Overall site map depicting relevant features
- Description of groundwater quality and flow patterns
- Description of site geology and soils
- Evaluation of existing cover soil
- Evaluation of available borrow soils, including quantity and quality
- Description of surface water drainage
- An evaluation of potential impacts to nearby surface water, groundwater, and other potential sensitive receptors
- Our recommended approach to final closure of the landfill

Design Engineering and Permitting

After review and approval of our Site Assessment Report by WVDEP, TRIAD will begin preliminary engineering of a closure solution. We anticipate that submittals will be made to WVDEP at the 30% complete, 90% complete, and 100% complete stage of design. Our design package will generally include the following elements:

- Existing Conditions and Topography
- Survey Layout Plan
- Erosion and Sediment Control
- Base Grading Plan
- Final Grading Plan
- Closure Cap Details
- Surface and Stormwater Management Plan
- Sediment Control Structure Plans and Details
- Leachate Collection/Storage System Plans and Details
- Miscellaneous Details
- Supporting Calculations
- Construction Specifications

Construction Cost Estimate and Bidding

Upon completion of final plans and specifications, the expected cost of the work will be estimated. This cost evaluation will be made using unit cost data from various sources (i.e. previous bids on similar projects, information solicited from material suppliers, Means unit costs, etc.). The final cost estimate will be discussed with the WVDEP project manager and, whenever necessary, revisions to the plans and specifications will be made to bring the estimated costs in line with the project budget.

After an estimated construction budget is established, TRIAD will assist WVDEP in the advertisement and bidding of the work. The TRIAD project manager and project

engineer will attend the pre-bid meeting to show the job to prospective contractors, and will assist the WVDEP project manager with the review and analysis of bids.

Construction Quality Control Inspection

TRIAD project team personnel and construction inspectors from the Winchester, Virginia office will make regular visits to the project site as appropriate and necessary during construction. TRIAD inspectors will conduct quality control tests at the frequency provided in the specifications and will evaluate the contractor's work for compliance with the specifications. The TRIAD design engineer will be available as necessary to visit the site with the WVDEP project manager to evaluate progress and/or to solve problems which may develop during the course of construction. We typically suggest bi-weekly progress meetings at the site to review work which has been completed to date, outline concerns or deficiencies (if applicable), respond to questions from the Contractor and receive information regarding submittals and schedule updates.

Upon completion of the construction, our engineer will conduct a final inspection with the WVDEP project manager and the contractor to develop a punch list as necessary to ensure that all elements of the project are completed in accordance with the plans and specifications.

PROJECT QUALITY CONTROL AND COST CONTROL SYSTEM

The project manager will be responsible for monitoring and controlling project schedule, budget, and quality. Prior to beginning the project, Mr. Moulton will cooperate with the WVDEP project manager to prepare a Project Management Plan. The Project Management Plan document guides and records execution of the project from beginning to final completion. As work progresses, the project manager will evaluate progress on a weekly basis to compare actual project progress with the established work schedule. If these reviews indicate that a schedule problem is developing, the project manager will explore options for correcting the situation. If circumstances develop that will make it impossible to maintain the original schedule, the WVDEP project manager will be immediately informed of the situation and a mutually satisfactory schedule adjustment will be made.

Personnel time and expense charges are maintained and allocated to projects on a weekly basis. Using this data, together with his knowledge of subcontractor costs, the project manager will also review project budget status on a weekly basis. This information is available at the project manager's desktop via our automated accounting and project management software. The percent of work completed will be compared to the percent of costs incurred in order to quickly identify any budget problems which may develop. If potential budget problems are identified, they will be evaluated by the project manager and the WVDEP project manager will be immediately informed of the problems and causes. If justified, a mutually agreeable budget revision will be prepared or the work scope will be revised to conform to the original budget, based on the nature of the problem.

Weekly project meetings will be held between the TRIAD project manager, the senior engineer, and other relevant staff as appropriate to generally review project schedule and budget, and also to review work product for completeness, accuracy, and conformance with the project requirements. Triad maintains a two-tiered quality review system. The first tier requires the staff person who generates work to have their work product reviewed by a peer. Any revisions required by the peer review are completed prior to moving to the second tier. In the second tier review, a senior level technical person must review and sign off on the quality of all work. Generally, this review will be conducted by Dan Hamric, P.E., for engineering work and John Meeks, P.G., L.R.S., for site assessment work. However, other senior level staff may complete these reviews as necessary to maintain efficient work flow.

SUMMARY

As indicated in this proposal and the accompanying CCQQ, TRIAD maintains the staff, equipment and other resources to complete most projects totally in house. Staff from the Winchester, Virginia office will perform the work on this project so that we can minimize travel costs and more efficiently utilize the time allowed for the project.

We plan to utilize technical strengths and experience housed in particular office locations to supplement expertise available in the Winchester office. Ultimate technical oversight and guidance for this project will come from our Winchester, Virginia office. However, John Meeks in our St. Albans office will be heavily involved in a review capacity, due to his extensive landfill design experience. Correspondence between offices for purposes of technical oversight, including the transfer of specifications and drawings, will be accomplished via VPN, FTP, and e-mail. We routinely transfer text and CADD files between offices for review and editing.

The Landfill Project Experience listing in Appendix A demonstrates our experience and ability to complete a wide variety of landfill projects, from initial design to site assessment and closure. Due to our in-house multi-disciplinary capabilities, very few subcontractors are required, and this results in greater efficiency and economy for our clients. We strongly believe that you will conclude that TRIAD is one of the most capable and experienced landfill consulting firms in West Virginia.

Appendix A

Landfill Project Experience

LANDFILL PROJECT EXPERIENCE

Project Name Location	Contact Phone No.	Services Provided
MORGAN COUNTY LANDFILL Morgan County, WV	Mr. Mark Church (304) 872-3800	Closure Design; Permit document preparation; Borrow soils investigation; Site characterization and evaluation (groundwater, waste limits); Closure construction inspection; Aerial photography and development of contour mapping; Construction drawings & specifications; Closure construction cost estimate; Construction bid preparation and management **(Currently working on this project)**
DONS DISPOSAL Charleston, WV	Mr. Clyde Bennett (304) 872-3800	Closure Design; Permit document preparation; Borrow soils investigation; Site characterization and evaluation (groundwater, waste limits); Closure construction inspection; Aerial photography and development of contour mapping; Construction drawings & specifications; Closure construction cost estimate; Construction bid preparation and management
CITY OF BUCKHANNON CLOSURE CAP Buckhannon, WV	Mr. Mark Church (304) 872-3800	Closure Design; Permit document preparation; Borrow soils investigation; Site characterization and evaluation (groundwater, waste limits); Closure construction inspection; Aerial photography and development of contour mapping; Construction drawings & specifications; Closure construction cost estimate; Construction bid preparation and management
CITY OF BUCKHANNON LEACHATE COLLECTION Buckhannon, WV	Mr. Mark Church (304) 872-3800	Leachate treatment feasibility study; Borrow soils investigation; Laboratory soils & permeability testing; Leachate sampling and testing; Site design; Leachate lift station design; Sewer design; Construction drawings & specifications; Construction cost estimate; Construction bid preparation and management
MCDOWELL COUNTY LANDFILL Roderfield, WV	Mr. Clyde Bennett (304) 872-3800	Closure Design; Permit document preparation; Borrow soils investigation; Site characterization and evaluation (groundwater, waste limits); Closure construction inspection; Aerial photography and development of contour mapping; Construction drawings & specifications; Closure construction cost estimate; Construction bid preparation and management

Project Name Location	Contact Phone No.	Services Provided
GRANT CO. LANDFILL Petersburg, WV	Mr. Mark Church (304) 872-3800	Closure Design; Permit document preparation; Borrow soils investigation; Site characterization and evaluation (groundwater, waste limits); Closure construction inspection; Aerial photography and development of contour mapping; Construction drawings & specifications; Closure construction cost estimate; Construction bid preparation and management
ERO LANDFILL Mason Co., WV	Mr. Clyde Bennett (304) 872-3800	Closure Design; Permit document preparation; Borrow soils investigation; Site characterization and evaluation (groundwater, waste limits); Closure construction inspection; Aerial photography and development of contour mapping; Construction drawings & specifications; Closure construction cost estimate; Construction bid preparation and management; Monitoring well installation; Wetland treatment system design
MINGO CO. LANDFILL Mingo Co., WV	Mr. Clyde Bennett (304) 872-3800	Closure Design; Permit document preparation; Borrow soils investigation; Site characterization and evaluation (groundwater, waste limits); Closure construction inspection; Aerial photography and development of contour mapping; Construction drawings & specifications; Closure construction cost estimate; Construction bid preparation and management
NORTH LANDFILL Marietta, OH	Mr. Tim King (304) 747-3763	Closure Design; Permit document preparation; Borrow soils investigation; Site characterization and evaluation (groundwater, waste limits); Closure construction inspection; Aerial photography and development of contour mapping; Construction drawings & specifications; Closure construction cost estimate; Construction bid preparation and management
GOFF MOUNTAIN LANDFILL Institute, WV	Mr. Steve Graves (304) 767-6613	Closure Design; Permit document preparation; Borrow soils investigation; Site characterization and evaluation (groundwater, waste limits); Closure construction inspection; Aerial photography and development of contour mapping; Construction drawings & specifications; Closure construction cost estimate; Construction bid preparation and management

Project Name Location	Contact Phone No.	Services Provided
FREDERICK COUNTY CDD LANDFILL Winchester, VA	Mr. Harvey E. (Ed) Strawsnyder (540) 665-5643	Aerial photography and development of contour mapping; Geotechnical Investigation; Monitoring well installation; Construction drawings & specifications; Permit document preparation; Construction inspection of several cells
LOCAL SANITATION SERVICE Morehead, KY	Mr. Steve Hodges (606) 784-6544	Closure Design; Permit document preparation; Borrow soils investigation; Site characterization and evaluation (groundwater, waste limits); Closure construction inspection; Aerial photography and development of contour mapping; Construction drawings & specifications; Closure construction cost estimate; Construction bid preparation and management
FREDERICK COUNTY SANITARY LANDFILL Winchester, WV	Mr. Harvey E. (Ed) Strawsnyder (540) 665-5643	Geotechnical and hydrogeologic studies; Laboratory soils & permeability testing; Monitoring plan preparation; Groundwater sampling and testing; Monitoring well installation; Construction monitoring and testing of numerous cells
PRICHARD LANDFILL Prichard, WV	Mr. Rick Maynard (304) 648-5925	Closure Design; Permit document preparation; Borrow soils investigation; Site characterization and evaluation (groundwater, waste limits); Closure construction inspection; Aerial photography and development of contour mapping; Construction drawings & specifications; Closure construction cost estimate; Construction bid preparation and management
SYCAMORE LANDFILL Hurricane, WV	Mr. Charles A. Forth (304) 562-2611	Closure Design; Permit document preparation; Borrow soils investigation; Site characterization and evaluation (groundwater, waste limits); Closure construction inspection; Aerial photography and development of contour mapping; Construction drawings & specifications; Closure construction cost estimate; Construction bid preparation and management
NUMBER 1 LANDFILL Sistersville, WV	Ms. Tina Adams (304) 652-3211	Closure Design; Permit document preparation; Borrow soils investigation; Site characterization and evaluation (groundwater, waste limits); Closure construction inspection; Aerial photography and development of contour mapping; Construction drawings & specifications; Closure construction cost estimate; Construction bid preparation and management; Monitoring well installation

Project Name Location	Contact Phone No.	Services Provided
HOLTZ IMPOUNDMENT So. Charleston, WV	Mr. Jerome Cibrik (304) 747-2987	Closure Design; Permit document preparation; Borrow soils investigation; Site characterization and evaluation (groundwater, waste limits); Closure construction inspection; Aerial photography and development of contour mapping; Construction drawings & specifications; Closure construction cost estimate; Construction bid preparation and management; Monitoring well installation
NUMBER 3 LANDFILL Sistersville, WV	Ms. Tina Adams (304) 625-3211	Site feasibility study; Monitoring well installation and hydrogeologic studies; Closure Design; Permit document preparation; Borrow soils investigation; Site characterization and evaluation (groundwater, waste limits); Closure construction inspection; Aerial photography and development of contour mapping; Construction drawings & specifications; Closure construction cost estimate; Construction bid preparation and management Liner compatibility study
NUMBER 2 LANDFILL Sistersville, WV	Ms. Tina Adams (304) 625-3211	Engineering design; Synthetic and soil liner construction inspection; Permit document preparation; Aerial surveying and ground control; Construction cost estimate and construction bid document preparation; Monitoring well installation
RHONE-POULENC CLOSURES Institute, WV	Mr. George Kennedy (304) 747-6870	Closure design; Site investigation; Borrow material study; Surveying and topographic mapping; Lab testing; Construction inspection; Engineering certification; Annual hydrogeologic analysis

Appendix B

Personnel Matrix
Project Team Resumes

PERSONNEL MATRIX

RFQ No. DEP14620
Capon Springs Landfill

Name	Registration	Specialty or Project Role	Experience
Randy Moulton	Professional Engineer	Landfill Design; Geotechnical; Project Manager	31
John Meeks	Professional Geologist	Landfill Design; Hydrogeology; Senior Level Assessment Review	29
Daniel Hamric	Professional Engineer	Landfill Design; Geotechnical; Senior Level Engineering Review	22
Robert Sykes	Professional Geologist	Hydrogeology; Site Characterization; Assessment	31
Jeffrey Mitchell	Professional Geologist	Hydrogeology; Technical Assessment Review	24
Kevin Stemple	Professional Engineer	Geotechnical; Field Explorations	14
Dennie Dunlap	Professional Engineer	Civil Design; Stormwater Management Design	13
David Spriggs	Professional Surveyor	Surveying Services Manager; Base Mapping	31
Lloyd Winters	Certified Well Driller NICET	Monitoring Well Installation; Liner Inspections; Laboratory Services Manager - Winchester	32
Mark Whitacre		Landfill Design; CADD Designer/Drafter	25
Jeff Gallaher		Landfill Design; CADD Designer/Drafter	22

Randy L. Moulton, P.E.

President & Chief Executive Officer

EDUCATION

BS, Civil Engineering	West Virginia University, Morgantown, WV, 1976
MS, Civil Engineering (Geotechnical)	West Virginia University, Morgantown, WV, 1980

REGISTRATIONS AND LICENSES

Registered Professional Engineer	Virginia, West Virginia, Maryland, Pennsylvania, North Carolina

DIRECT WORK EXPERIENCE AND PRIMARY RESPONSIBILITIES

Triad Engineering, Inc., Winchester, VA	President & CEO/Principal Engineer April, 2005 - Present
Triad Engineering, Inc. Winchester, VA	Sr. VP/Branch Manager/Principal Engineer 1989 – April, 2005
Triad Engineering, Inc. Morgantown, WV	Senior Engineer/Project Engineer/Staff Engineer 1978 - 1989
Triad Engineering, Inc. Morgantown, WV	Staff Engineer/Engineering Technician 1975 - 1977 (Summers)
West Virginia University Morgantown, WV	Teaching Fellow 1976 - 1978 (Fall/Spring Semesters)
Michael Baker, Jr., Inc. Charleston, WV	Drilling Inspector Summer, 1974

CURRENT POSITION RESPONSIBILITIES

Mr. Moulton is a Principal Engineer and is currently the President & CEO of Triad Engineering, Inc. In this capacity, Mr. Moulton is responsible for corporate contract administration and overall quality control and technical quality assurance of projects undertaken by the company. Specific technical activities include preparation of geotechnical proposals, review and/or preparation of subsurface exploration programs, evaluation of geotechnical data and review and preparation of detailed geotechnical reports. Technical specialties also include design of deep foundations, in particular rock-socketed caissons, design of various types of retaining walls, evaluation of groundwater and seepage problems, and design of earth and earth-rock dams. Mr. Moulton has also been responsible for managing design of corrective measures at a sanitary landfill under the Landfill Corrective Action Program (LCAP) in West Virginia and characterization and design of remedial measures for an old landfill in Shenandoah County, Virginia.

PROJECT EXPERIENCE SUMMARY

Grant County Landfill, *Petersburg, WV*
Served as manager for several design projects for this LCAP facility. Work initially included design of interim corrective measures for fugitive leachate seeps, failing leachate collection lagoons, and inadequate stormwater management. Further work included design of a leachate sewer system including two grinder pump stations, force main and gravity line to eliminate pump and haul expense and deliver leachate to the local sewer system. The final design and construction project included a permanent closure cap, additional leachate interceptor trenches, passive gas vents, and additional stormwater management facilities to comply with NPDES requirements.

Old Shenandoah County Landfill, *Edinburg, VA*
Project Manager for characterization of old unlined landfill which was contributing to contamination of the underlying groundwater table. The work included design of passive gas vents, leachate interceptor drainage blankets, additional cap grading and drainage, and design of a gravity sewer to carry leachate to an existing treatment lagoon.

New Shenandoah County Solid Waste Landfill, *Shenandoah County, VA*
As Principal Engineer, served as the project manager for detailed geotechnical investigation of an area for construction of a new sanitary landfill situated in karst geologic terrain. Field explorations included test pits, conventional test borings, seismic refraction surveying, microgravity surveying and air-track probes to explore anomalies detected by geophysical methods. The work also included design of preventative reinforcement measures for specific areas underlain by solutioning channels and seams so that the double liner system would remain intact in the event of subsidence. This was the first sanitary landfill proposed in a documented karst setting to be approved for construction by the Commonwealth of Virginia Department of Environmental Quality (DEQ).

Winchester Medical Center, *Winchester, VA*
As Principal Engineer, responsible for preparation and/or review of numerous proposals and detailed reports for geotechnical investigations at this growing regional hospital. Activities involve meeting with facilities design and construction management personnel, interaction with architectural firm and construction management firm, review of all technical data and evaluation of foundation construction alternatives. The new hospital was completed in 1990, and new facilities which have been added since then, including an imaging center, a same day surgi-center, an additional day care center, two 3-story medical office buildings, several operating rooms, an expanded emergency department and a 4-story parking garage. Worked closely with the structural engineer on the parking garage project to develop reinforced strip footings designed using modulus of subgrade reaction in lieu of drilled piers, saving over $100,000 in foundation construction costs.

Lakewood Dam, *Mineral County, WV*
Prime designer for a 72-foot high earth dam with a normal 60-foot water depth, creating a 43-acre reservoir for a lakefront residential community south of Cumberland, Maryland. Comprehensive services included surveying and aerial mapping, subsurface exploration, laboratory testing, hydrologic and hydraulic analyses, seepage analyses, stability evaluations and preparation of construction drawings and contract documents. Special considerations included a dam break analysis with routing of the flood wave downstream to evaluate impact on an existing railroad embankment. An innovative pond drain device, consisting of high strength HDPE pipe with a hydraulically actuated valve, eliminated the need for a typical reinforced concrete riser and reinforced concrete pressure pipe. A principal spillway weir and concrete lined channel were nested in an open emergency spillway channel excavated into hard bedrock. This combination resulted in appreciable construction cost savings for the Owners. TRIAD also provided construction monitoring, materials testing and contract administration during construction of the project.

West Virginia University Business & Economics Building, *Morgantown, WV*
Senior Engineer for geotechnical investigation of old football stadium site for construction of a new four-story classroom building for the WVU College of Business & Economics. The site was underlain by old fill which was placed over weak and compressible glacial lake deposited soils. An additional complicating factor involved construction of two levels below grade on one side of the building. The excavation which was required to construct this project necessitated design and construction of a sheet pile wall with post-tensioned tiebacks to protect an historic classroom building up the hill. Design recommendations included caissons bearing in two different bedrock units (to maximize economy) and preparation of lateral pressure diagrams for design of the laterally loaded caissons.

National Research Center for Coal and Energy, *Morgantown, WV*
Senior Engineer for geotechnical investigation of a site for construction of this new multi-story research facility underlain by expansive (pyritic) shale. These materials caused severe damage to the older adjacent engineering sciences building. Accordingly, innovative foundation design approach was required to reduce the potential for heave and associated structural distress. Final foundations consisted of drilled piers (caissons) with post-tensioned rock anchors stressed to apply a foundation pressure roughly twice the anticipated maximum heave pressure.

Stafford County Public Schools (SCPS), *Stafford County, VA*
Over the past 15 years, served as Contract Manager and Principal Engineer for numerous new schools under five different open-ended contracts negotiated using the Qualifications Based Selection (QBS) process. Responsibilities have included preparation of task order proposals and fee estimates, development of subsurface exploration programs, review of field and laboratory data, preparation and review of geotechnical reports and general quality assurance supervision for construction monitoring and testing projects involving new schools and additions to existing schools. Serves as the primary TRIAD contact with the Supervisor for Design and Construction of SCPS.

Allegany County Detention Facility, *Cumberland, MD*
Served as senior geotechnical engineer for investigation of a site for a new county prison facility. The structure was of cast-in-place concrete, pre-cast concrete units and masonry construction, resulting in relatively heavy foundation loads. Required evaluation of alluvial (water-deposited) soils in flood plain with relatively shallow groundwater. Also involved in consultation during construction inspection and testing services phase.

General Motors Distribution Facility, *Berkeley County, WV*
Principal and engineer in charge of geotechnical engineering, civil engineering, and surveying of new 400,000 square feet distribution facility.

John M. Meeks, P.G., L.R.S.

Branch Manager/Senior Geologist

EDUCATION

BS, Geology	West Virginia University, Morgantown, WV, 1980
Graduate Studies	Marshall University Graduate College

REGISTRATIONS AND LICENSES

Professional Geologist	Kentucky (No. 556)
Licensed Remediation Specialist	West Virginia (No. 008)

DIRECT WORK EXPERIENCE AND PRIMARY RESPONSIBILITIES

Triad Engineering, Inc., St. Albans, WV	Branch Manager/Senior Geologist 2001 - Present
Triad Engineering, Inc., St. Albans, WV	Environmental Services Manager/Senior Geologist 1990 - 2001
WV Office of Waste Management, Charleston, WV	Assistant Chief 1985 - 1990
UTD Corp., Elkins, WV	Staff Geologist 1982 - 1985
GSI, Inc., Huntington, WV	Staff Geologist 1980 – 1982

PROFESSIONAL ORGANIZATION/ASSOCIATIONS

Air & Waste Management Association, WV Chapter
WV Chamber of Commerce, Environmental Committee – Former Waste Team Chair
WVDEP Waste Roundtable – Founding Member
Putnam County Chamber of Commerce – Education Committee and Ambassador Committee

CURRENT POSITION RESPONSIBILITIES

Mr. Meeks is currently a practicing Senior Geologist and Branch Manager of the St. Albans office of Triad. In this capacity, Mr. Meeks is responsible for technical quality and management control of all projects in the region. His technical work includes environmental assessment of groundwater, surface water, and soil; waste management facility design and permitting; brownfield redevelopment projects; wetland mitigation design and permitting; and remediation system design and implementation. Mr. Meeks also gained a thorough knowledge of environmental regulatory requirements through his experience with WV Division of Environmental Protection, where he supervised statewide enforcement of waste management regulations; including hazardous waste and solid waste regulatory programs, as well as underground storage tank regulations. Prior to his tenure at WV Division of Environmental Protection, Mr. Meeks managed environmental assessment projects throughout West Virginia and the central Appalachian region. Mr. Meeks is an occasional guest lecturer and educator regarding brownfield redevelopment, wetland treatment systems, groundwater assessment and remediation, and other environmental topics at community and business associations, technical conferences, and college courses.

PROJECT EXPERIENCE SUMMARY

ERO Landfill Characterization and Interim Closure, *WVDEP-LCAP, Charleston, WV*
As Project Manager and Senior Geologist, managed and assisted in the characterization and interim closure of the ERO Landfill facility. This included a complete hydrogeologic site evaluation and monitoring well installation, surveying and mapping, waste limit determination, borrow soil investigation, and design of the storm water management system, access road, leachate collection system, and constructed wetland leachate treatment system. Following design and permitting, served as Project Manager for construction Quality Control inspection. Prepared research paper describing the design and operation of the constructed wetland leachate treatment system that was selected for presentation at the national conference of the Solid Waste Association of North America.

Mingo County Landfill Interim Closure, *WVDEP-LCAP, Charleston, WV*
As Project Manager and Senior Geologist, managed and assisted in the interim closure of the Mingo County Landfill facility. This included surveying and mapping, waste limit determination, and design of the storm water management system, leachate collection system, and leachate storage system. Following design and permitting, served as Project Manager for construction Quality Control inspection.

City of Buckhannon Landfill Characterization and Interim Closure, *WVDEP-LCAP, Charleston, WV*
As Project Manager and Senior Geologist, managed and assisted in the characterization and interim closure of the City of Buckhannon Landfill facility. This included a limited hydrogeologic site evaluation based on existing wells, surveying and mapping, waste limit determination, borrow soil investigation, and design of the storm water management system, leachate collection system, and leachate storage system. Following design and permitting, served as Project Manager for construction Quality Control inspection.

City of Buckhannon Landfill Final Closure, *WVDEP-LCAP, Charleston, WV*
As Project Manager and Senior Geologist, managed and assisted in the final closure of the City of Buckhannon Landfill facility. This included design of the final closure cap system, including interfacial friction evaluation and testing of the various cap components. Following design and permitting, served as Project Manager for construction Quality Control inspection.

Don's Disposal Service Landfill Characterization and Closure, *WVDEP-LCAP, Charleston, WV*
As Project Manager and Senior Geologist, managed and assisted in the characterization and final closure of the Don's Disposal Service Landfill facility. This included a limited hydrogeologic site evaluation based on existing wells, surveying and mapping, waste limit determination, borrow soil investigation, and design of the storm water management system, leachate extraction wells, leachate collection system, and leachate storage system.

McDowell County Landfill Closure, *WVDEP-LCAP, Charleston, WV*
As Project Manager and Senior Geologist, managed and assisted in the characterization and final closure of the McDowell County Landfill facility. This included limited surveying and mapping, borrow soil investigation, and design of the storm water management system, leachate collection system, and leachate storage system. Following design and permitting, served as Project Manager for construction Quality Control inspection.

Landfill Closure and Expansion Design, *Private Owner, Prichard, WV*
As Project Manager and Senior Geologist, managed and assisted in the preparation of permitting and design documents for closure of an existing disposal area and development of an adjacent expansion area. This included a complete hydrogeologic site evaluation and monitoring well installation, surveying and mapping, waste limit determination, borrow soil investigation, and design of storm water management system, leachate collection system, and leachate storage system. Following design and permitting, served as Project Manager for construction Quality Control inspection.

Landfill Closure and Expansion Design, *Private Owner, Hurricane, WV*
As Project Manager and Senior Geologist, managed and assisted in the preparation of permitting and design documents for closure of an existing disposal area and development of an adjacent expansion area. This included a complete hydrogeologic site evaluation and monitoring well installation, surveying

and mapping, waste limit determination, borrow soil investigation, and design of storm water management system, leachate collection system, and leachate storage system. Following design and permitting, served as Project Manager for construction Quality Control inspection.

Landfill Expansion, *Private Owner, Ashland, KY*
As Project Manager and Senior Geologist, managed and assisted in the preparation of permitting and design of a vertical expansion (VEX) of an existing landfill facility. This included construction of rock/earthen berms along the margins of the existing facility. The VEX application consisted of engineering plans, cross sections, details, and supporting calculations. Two important elements of the application included a demonstration that adequate soils were available, and that the presence of previous underground mining did not compromise the structural soundness of the berms.

Landfill Expansion, *Private Owner, Morehead, KY*
As Project Manager and Senior Geologist, managed and assisted in the preparation of permitting and design documents for closure of an existing disposal area and development of an adjacent expansion area. This included surveying and mapping, waste limit determination, borrow soil investigation, and design of storm water management system, leachate collection system, and leachate storage system. Following design and permitting, served as Project Manager for construction Quality Control inspection.

Union Carbide Corporation (DOW Chemical), *South Charleston, WV*
Provided technical and project management services to plant personnel and the Remediation Technologies Group from 1990 through present:

- As a Project Manager, leading a team of engineers and scientists evaluating and preparing remedial design drawings and construction documents for closure of a Superfund landfill unit located at the former Marietta, OH plant. Project scope included evaluation of alternative cover designs and design of a specialized leachate collection and pumping system. Subsequent work included onsite inspection and certification of the construction.
- As Project Manager, currently responsible for budget and schedule in the oversight of closure of three Superfund units at the former Marietta, OH facility. Our firm's responsibilities include Assistant Site Superintendent and Quality Assurance Officer, providing liaison with representatives of surrounding manufacturing facilities as well as state and federal regulatory officials, interpretation of plans and specifications prepared by others, redesign of certain elements to optimize cost and performance, and preparation of certification documents for US EPA and state regulatory representatives.
- As Senior Geologist, upgrading and redesigning a groundwater extraction system at a former RCRA unit where disposal of wastes had impacted groundwater quality. Project included removal, redesign, and replacement of seven existing recovery wells; evaluation and selection of compressed air actuated product and groundwater pumps, design of compressed air distribution and waste removal system piping; design and retrofit of oil/water separator; evaluation and selection of electrical systems and controls.

Daniel R. Hamric, P.E.

Senior Engineer/Vice President

EDUCATION

BS, Civil Engineering	West Virginia University, Morgantown, WV, 1985
MS, Civil Engineering	West Virginia University, Morgantown, WV, 1987

REGISTRATIONS AND LICENSES

Professional Engineer	Virginia, West Virginia, Maryland, North Carolina, Pennsylvania, Washington, DC

NRMCA Plant Certification Program – Inspecting Engineer

DIRECT WORK EXPERIENCE AND PRIMARY RESPONSIBILITIES

Triad Engineering, Inc. Winchester, VA	Senior Engineer, Vice President 1989 - Present
Chattahoochee Geotechnical Consultants, Inc. Leesburg, VA	Staff/Project Engineer 1988 - 1989
Oosterbaan Associates, P.C. Bethesda, MD	Staff Engineer 1987 - 1988
West Virginia University Civil Engineering Dept. Morgantown, WV	Graduate Research Assistant 1986 - 1987
Triad Engineering, Inc. Morgantown, WV	Field/Lab Technician Summers 1983 to 1986

CURRENT POSITION RESPONSIBILITIES

Mr. Hamric is currently a Senior Engineer at the Winchester office of Triad Engineering. In the engineering capacity, Mr. Hamric is responsible for technical quality and management control of select geotechnical engineering projects in the region. His responsibilities include management and preparation of subsurface investigations and testing programs, Professional-In-Charge of laboratory testing services, report preparation, preparation of technical proposals and fee estimates, management of personnel, and consultation on a variety of geotechnical related design and/or construction problems. Mr. Hamric's expertise in the geotechnical engineering department includes slope stability analyses, dam design and evaluation, pavement design and evaluation, landfill construction, assessment and remediation of karst features related to new construction.

PROJECT EXPERIENCE SUMMARY

Frederick County Landfill Frederick County, VA
As the QA/QC Engineer for overseeing construction of 6 new sanitary cells and 3 new construction demolition debris (CDD) cells, responsible for proposal preparation, coordination of field and laboratory testing services, setup and execution of field clay test pad programs, consultation, and review of laboratory test results and daily field reports, and final report preparation.

Shenandoah University, Winchester, VA
As Senior Engineer, responsibilities included development of subsurface programs for several construction projects including 5 multi-story buildings, roadway and bridges, and a new football stadium. A portion of the campus was underlain by karst terrain. Responsibilities also included review of field and laboratory data, report preparation, and overseeing remediation of severe spring conditions during construction of the 7-story performing arts building.

Shepherd College, Shepherdstown, W V
As Senior Engineer, responsibilities included development of subsurface programs for several design projects including 3 multi-story buildings, a building addition, football stadium addition, and evaluation of a sinkhole beneath a residence hall. The entire campus was underlain by karst terrain. Multiple investigative phases were conducted for several of the buildings due to the karst terrain. Responsibilities also included review of field and laboratory data, report preparation, consultation, and foundation inspections of the multi-story structures.

Silver Lake Dam, Frederick County, VA
Prime designer for a 30-foot high earth dam for recreational purposes at a site located west of Winchester, Virginia. Comprehensive services included surveying and aerial mapping, subsurface exploration, laboratory testing, hydrologic and hydraulic analyses, seepage analyses, stability evaluations and preparation of construction drawings and contract documents. Special considerations included an extensive wetlands delineation, dam break analysis with routing of the flood through a downstream dam in series and impact analysis. The principal spillway was comprised of a concrete pipe with anti-seep collars while the emergency spillway included a weir, box culvert, and grouted rip-rap lined exit channel. Also responsible for preparation of permitting documents through VA dam safety division. Triad also provided construction monitoring, materials testing and contract administration during construction of the project.

Lake St. Clair Dam, Frederick County, VA
Project Manager and Senior Engineer for this dam modification design which includes an evaluation of design alternatives to bring the existing dam into compliance with VA dam safety regulations. Design alternatives include modification of the existing emergency spillway, construction of a new principal spillway, and/or re-grading of the existing embankment. Project also included development of scope to abandon the old CMP principal spillway. Work included performance of all analyses and grading details, report, construction plans, and technical specifications. Also responsible for preparation of permitting documents through VA dam safety division. Triad provided construction monitoring, materials testing and contract administration during construction of the project.

Robert M. Sykes, C.P.G.

Senior Environmental Geologist

EDUCATION

BS, Geology	Virginia Polytechnic Institute and State University, Blacksburg, VA, 1978

CERTIFICATIONS, REGISTRATIONS, LICENSES, AND TRAINING

Certified Professional Geologist	Virginia
Authorized Onsite Soil Evaluator (AOSE)	Virginia
Licensed Asbestos Inspector	Maryland, Virginia, West Virginia
Licensed Asbestos Management Planner	Maryland, Virginia, West Virginia
40-Hour Hazardous Materials Site Worker	(OSHA 29 CFR Part 1910.120)

DIRECT WORK EXPERIENCE AND PRIMARY RESPONSIBILITIES

Triad Engineering, Inc. Winchester, Virginia	Senior Environmental Geologist 1980 - Present
Thompson & Litten Wise, Virginia	Staff Geologist 1978 - 1980

PROFESSIONAL ORGANIZATION/ASSOCIATIONS

Association of Environmental & Engineering Geologists, Member
National Ground Water Association, Member

CURRENT POSITION RESPONSIBILITIES

Mr. Sykes is currently a Senior Environmental Geologist for the Winchester, Virginia office of Triad Engineering, Inc. In this capacity, Mr. Sykes is responsible for technical and field management aspects of specific environmental projects in the region. This work includes landfill groundwater and gas monitoring design and implementation; preparation and submission of landfill monitoring reports; asbestos inspections and management plans; the planning and execution of subsurface and hydrogeologic investigations, including fracture trace analysis and pump tests; drain field evaluations; and petroleum tank release characterizations, risk assessments, remedial design, and reimbursement of costs through the Virginia Petroleum Storage Tank fund (VPSTF).

PROJECT EXPERIENCE SUMMARY

Shenandoah County Sanitary Landfill, Woodstock, VA
As Environmental Geologist/Project Manager, performs the landfill groundwater and gas monitoring design and implementation and reporting to the Virginia Department of Environmental Quality. The design of these systems was performed to differentiate between the old closed landfill, the existing operational landfill, and the new expansion area, all of which are located within the same property confines. Due to groundwater contamination from the unlined landfill area, characterization of the individual contaminant constituents was performed and corrective action plans submitted to the Virginia Department of Environmental Quality. Mr. Sykes has been performing environmental services for the landfill since 1995.

Frederick County Sanitary Landfill, Winchester, VA
As Environmental Geologist/Project Manager, performs the landfill groundwater monitoring and reporting to the Virginia Department of Environmental Quality. This reporting includes the Annual Groundwater Report, Alternate Source Demonstration Reports when certain groundwater constituents exhibit statistical exceedances, and groundwater monitoring reports. Mr. Sykes has been performing environmental services for the landfill since 1994.

Page County Sanitary Landfill, Stanley, VA
As Environmental Geologist/Project Manager, sampled groundwater monitoring wells and characterized groundwater at the old landfill site in Stanley, VA. Since 2006, Mr. Sykes has assisted Page County in reviewing laboratory analysis for waste acceptance.

War Memorial Hospital (WMC), *Berkeley Springs, WV*
As Environmental Geologist/Project Manager, Mr. Sykes supervised the assessment and remediation of heating oil from the groundwater surface which resulted from a leaking underground storage tank (UST). Abatement actions were performed under the supervision of U.S. EPA Region III which included removal of a 12,000-gallon heating oil UST, excavating cutoff trenches, and utilizing automatic free product skimmers and a trench drain system to remove the heating oil from the groundwater surface. After significant reduction in the quantity of oil seepage, the active collection system was converted to a passive collection system connected directly to the trench drain. In excess of 10,000 gallons of heating oil were recovered during the remediation operations and a case closure notification was obtained from the U.S. EPA Region III.

Town of Hillsboro, *Hillsboro, VA*
As Environmental Geologist, was contracted to locate potential high yield well locations by fracture trace analysis, which relies primarily on the use of stereo aerial photographs to delineate the location of subsurface fractures or lineaments that may serve as conduits for groundwater flow and recharge. In addition to the fracture trace analysis, geologic research and field verification of the potential high yield well sites established by the fracture trace analysis was performed.

Former Woolen Mill, *Winchester, VA*
As Environmental Geologist/Licensed Asbestos Inspector, performed a Phase II Environmental Site Assessment (ESA) to identify and investigate environmental concerns related to the project site. Also, performed a complete asbestos inspection and solicited bids from asbestos abatement contractors to remove asbestos containing materials prior to demolition of the building.

Fahnestock Rental Property, *Winchester, VA*
As Environmental Geologist/Project Manager, worked with the Virginia Department of Environmental Quality to characterize and remediate heating oil contamination resulting from a leaking UST. Approximately 10 feet of floating free product (heating oil) was detected within the drinking water well at the project site. A site characterization was performed to determine the extent of the vapor, residual, and dissolved phase contamination phases; a risk assessment to determine potential risk to human health and the environment, and design of a corrective action plan to remove free product from the groundwater surface.

Shull's Plumbing & Heating, *Dayton, VA*
As Senior Environmental Geologist/Project Manager, worked with the Virginia Department of Environmental Quality to remediate gasoline impacted groundwater using a dual phase treatment system. This project site is in the vicinity of the Town of Dayton municipal well. Characterization, extraction, and treatment of the gasoline contaminated groundwater were critical to prevent migration of the contaminant to the municipal well. After long term operation of the treatment system and a detailed final risk assessment, this pollution complaint case was successfully closed.

Shenandoah Valley Flea Market, *New Market, VA*
As Senior Environmental Geologist/Project Manager, is working with the Virginia Department of Environmental Quality to characterize and remediate heating oil contamination resulting from a leaking 3,000-gallon aboveground storage tank. The released heating oil migrated to the Flea market drinking water well resulting in an approximate 60-foot thickness of oil floating on the groundwater surface within this well. Immediate free product recovery operations were initiated and extensive groundwater characterization was performed. Based on results of the groundwater characterization, a new drinking water well was sited and drilled. Further groundwater characterization and remediation are being performed due to potential/impacted down gradient receptors.

Jeffrey H. Mitchell, V.P., C.P.G., L.R.S.

Environmental Services Manager

EDUCATION

BS, Geology	West Virginia University, Morgantown, WV, 1985
Post-Graduate Studies, Geology	West Virginia University, Morgantown, WV

CERTIFICATIONS, REGISTRATIONS, LICENSES, AND TRAINING

Certified Professional Geologist	Virginia
Licensed Remediation Specialist	West Virginia
Registered Professional Geologist	North Carolina, Pennsylvania, Tennessee
Licensed Asbestos Inspector	Maryland, Virginia, West Virginia
40-Hour Hazardous Materials Site Worker	(OSHA 29 CFR Part 1910.120)
Environmental Site Assessments for Commercial Real Estate	ASTM International

DIRECT WORK EXPERIENCE AND PRIMARY RESPONSIBILITIES

Triad Engineering, Inc. Winchester, VA	Environmental Services Manager 2000 - Present
Triad Engineering, Inc. Winchester, VA	Senior Environmental Geologist 1998 - 2000
Triad Engineering, Inc. Winchester, VA	Environmental Geologist 1990 - 1998
Triad Engineering, Inc. Harrisonburg, VA	Staff/Project Geologist 1988 - 1990
West Virginia University Department of Geology and Geography Morgantown, WV	Graduate Teaching Assistant 1985 - 1986

PROFESSIONAL ORGANIZATION/ASSOCIATIONS

Air & Waste Management Association, Member
American Institute of Professional Geologists, Member
Association of Environmental & Engineering Geologists, Member
National Ground Water Association, Member

CURRENT POSITION RESPONSIBILITIES

Mr. Mitchell is currently the Environmental Services Manager for the Eastern Operations Region of Triad Engineering, Inc. based in Winchester, Virginia and is a corporate Vice President. In this capacity, Mr. Mitchell is responsible for the management, technical quality, and report review aspects for environmental services in the Eastern Operations Region.

PROJECT EXPERIENCE SUMMARY

Veterans Administration Medical Center (VAMC), Martinsburg, WV
As a Licensed Remediation Specialist, supervised the Expanded Site Assessment to identify the source of volatiles and semi-volatile compounds, including chlorinated solvents, in the groundwater at this Formerly Used Defense Site (FUDS). The Expanded Site Assessment included a review of all available U.S. EPA and West Virginia Department of Environmental Protection file information; meetings with VAMC personnel and consultants; site reconnaissance; and preparing a Site Assessment Work Plan.

Former Shepherdstown Dump, Shepherdstown, WV
As a Licensed Remediation Specialist, supervised the Site Assessment, Risk Assessment, and Remedy Selection and Evaluation of this site as defined under the West Virginia Voluntary Remediation and Redevelopment Act Guidance Manual. Contaminants of concern included volatiles in the groundwater and soil, and heavy metals in the soil. An extensive site assessment of the soil and groundwater was required as well as both human and ecological risk assessment. The project included sampling of soils and groundwater; preparation of contaminant distribution maps; fate and transport modeling of heavy metals in soil to groundwater; and risk assessment calculations for residential and non-residential future land use scenarios using Superfund RAGS methodologies; and remedy selection and cost evaluation.

Browning Equipment Company, Inc., *Purcellville, VA*
As Senior Environmental Geologist, obtained letter of "Case Closure" from the Commonwealth of Virginia, Department of Environmental Quality in response to petroleum hydrocarbon contaminants in groundwater and soil. Project included sampling of soils and groundwater; fate and transport modeling of volatile organic vapors to on-site structures and groundwater contaminant migration to municipal water wells; risk assessment calculations; ex-situ remediation of severely contaminated soils; and design of a natural attenuation groundwater remediation plan.

Old Standard Quarry, Millville, Jefferson County, WV
As the Licensed Remediation Specialist, obtained two individual Certificates of Completion under the West Virginia Voluntary Remediation Program between 2002 and 2005. This site, which was a former quarry and cement manufacturing plant, is being re-developed for mixed residential/commercial use.

Jefferson Orchards, Inc. (Paynes Ford Station), *Kearneysville, Jefferson County, WV*
As the Licensed Remediation Specialist, supervised the development and implementation of Site Assessment and Remedial Action Work Plans for the re-development of a former apple orchard for residential use through the West Virginia Voluntary Remediation Program.

Bryarly Manor Orchard, Inwood, *Berkeley County, WV*
As the Licensed Remediation Specialist, supervised the development and implementation of Site Assessment work plans for the re-development of an apple orchard for commercial use through the West Virginia Voluntary Remediation Program.

Kevin D. Stemple, P.E.

Geotechnical Department Manager, Senior Engineer

EDUCATION

BS, Civil Engineering	West Virginia University, 1995

REGISTRATIONS AND LICENSES

Professional Engineer	Virginia, West Virginia, Maryland, Pennsylvania

DIRECT WORK EXPERIENCE AND PRIMARY RESPONSIBILITIES

Triad Engineering, Inc. Winchester, VA	Geotechnical Department Manager 2005 - Present
Triad Engineering, Inc. Winchester, VA	Senior Engineer 2002 - 2005
Triad Engineering, Inc. Winchester, VA	Project Engineer-QA/QC Engineer 1999 - 2002
Triad Engineering, Inc. Winchester, VA	Staff Engineer 1996 - 1999

CURRENT POSITION RESPONSIBILITIES

Mr. Stemple is currently a Senior Engineer and Geotechnical Department Manager in the Winchester office of Triad Engineering. In this capacity, Mr. Stemple is responsible for technical quality and management of geotechnical projects and overall financial management of the department. His technical work includes bearing capacity and settlement analyses, geophysical study implementation and analysis, shallow and deep foundation analysis and design, slope stability analyses, hydraulic and hydrologic evaluation for dam design, and preparation/review of geotechnical reports. His work also includes implementation and supervision of field drilling programs for the projects under his charge. Mr. Stemple's duties also include assisting in managing the construction monitoring and testing department. His duties include client consultation, billing and invoice review and consultation on more critical and detailed construction problems.

PROJECT EXPERIENCE SUMMARY

Fairfield @ Clarendon Apartments, Arlington, VA
As Project Engineer, supervised all aspects of field and laboratory testing and performed various foundation analyses for a 13-story structure which included a below-grade, three (3) level parking deck. Field testing included numerous SPT borings with NQ rock coring to depths on the order of 120 feet and in-situ soil testing including dilatometer and electric cone penetrometer testing. Analyses for the project included settlement of conventional spread foundations and driven piles, sizing and penetration of friction piles, analysis of below-grade walls and determining infiltration rates for design of permanent de-watering measures.

O'Conner Tract Elementary & Middle Schools, Loudoun Co., VA
As Project Engineer, supervised all aspects of field and laboratory testing and performed various settlement analyses for the schools which were located in karst terrain. Field work included nearly 80 SPT borings with various amounts of NQ rock coring, numerous air-track probes and geophysical studies using multiple techniques. Due to the presence of numerous karst-related features, relocation of the structures based on the results of the field testing was required. As a public institution under close scrutiny, detailed and concise information was required to address any and all questions raised by the public and school board. In addition, close communication with the civil engineer was required such that the structures were properly located and positioned out of anomalous areas.

Berkeley Gateway Subdivision, Berkeley County, WV
As Senior Engineer was responsible for development and direction of detailed geotechnical investigation which included geophysical studies and air-track probes. The development which included both residential and commercial was situated in karst Terrain with several sink holes. Specific site design and sink hole remediation recommendations where required for the project.

Apple Mountain Lake Dam Modifications, Warren Co., VA
As Senior Engineer was responsible for development of dam modifications for 2 dams in the series. The modifications include new principal and emergency spillways and design of lake siphons. Modification also included abandonment and plugging of old principal spillways in place.

Winchester Gateway Shopping Center, Winchester, VA
As Senior Engineer was responsible for development and supervision of detailed geotechnical investigations and direction of Quality Control testing during the project. This development included construction of a new Martins Food store and several small retail structures. Future expansion within the development will include construction of hotels and additional retail space.

Stonewall Plaza Shopping Center, Frederick County, VA
As Senior Engineer, was responsible for development and supervision of detailed geotechnical investigation and direction of Quality Control testing during the project. This development included construction consisted of a new Martins Food store and several small retail structures. Future expansion within the development will include construction of additional retail space. Duties also included supervision of proof-drilling and pressure grouting operations associated with the Lowes structure.

Riverton Commons Shopping Center, Warren County, VA
As Senior Engineer, was responsible for development and management of the geotechnical exploration for the project which included numerous soil borings with rock coring, air-track probes and geophysical testing. The project included two major anchor chains (Lowes and Wal-Mart) with numerous small retail and restaurant structures. In addition, the project included development over an abandoned quarry that required over 60 feet of structural fill.

Dennie D. Dunlap III, P.E.

Civil Engineering Department Manager, Senior Engineer

EDUCATION

BS, Civil Engineering	Virginia Polytechnic Institute and State University, VA 1996

REGISTRATIONS AND LICENSES

Professional Engineer	Virginia (Registration No. 35809) West Virginia (Registration No. 16467) Maryland (Registration No. 32197)

DIRECT WORK EXPERIENCE AND PRIMARY RESPONSIBILITIES

Triad Engineering, Inc. Winchester, VA	Senior Engineer 2002 - Present
Triad Engineering, Inc. Harrisonburg, VA	Senior Engineer 2001 - 2002
Triad Engineering, Inc. Harrisonburg, VA	Project Engineer 1999 - 2001
Triad Engineering, Inc. Winchester, VA	Staff Engineer 1998 - 1999
Triad Engineering, Inc. Winchester, VA	Survey Instrument Person 1997 - 1998
Triad Engineering, Inc. Winchester, VA	Engineering Technician 1996 - 1997

CURRENT POSITION RESPONSIBILITIES

Mr. Dunlap is currently a Senior Engineer and the Civil Department Manager in the Winchester, Virginia office of Triad Engineering. In this capacity, Mr. Dunlap is responsible for technical quality and management of various civil design and land development projects. Specific technical activities pertaining to land development include conceptual site planning, sewage collection system design, water distribution design, site grading, erosion and sediment control, storm-water management, and highway design. His duties also include client consultation, preparation of civil design proposals, billing and invoice review, and construction management.

PROJECT EXPERIENCE SUMMARY

General Motors SPO, Martinsburg, WV
As Project Engineer, was responsible for preparation of construction site plan documents and detailed engineering reports for a new 450,000 sq. ft. warehouse facility. Activities included on-site sewage collection system design, storm-water management, water system design, and site grading. Additionally, an entrance road serving the site was designed to safely accommodate the increased traffic flow. On-site traffic flow was modeled using a computerized truck-turning simulation program to provide adequate space for maneuverability. Design also incorporated horizontal and vertical alignment of a new railway spur to provide delivery access to the new warehouse facility.

West Virginia University Waterfront Complex, Morgantown, WV
As Project Engineer, was responsible for preparation and review of civil construction drawings for multi-story hotel and conference center. Additionally, an on-site parking garage was provided for tenant and visitor parking. Since the site borders the Monongahela River, flood studies were carefully analyzed to determine the 500-year flood elevation and its relationship to on-site grading and building elevations. A plaza area between the two structures was designed to allow vehicular access and enhance the appearance through landscaping and architectural features.

Windstone Townhomes, Winchester, VA
Served as Senior Engineer for design of a 199-unit townhouse development. Responsibilities included conceptual planning, water and sewage systems design, site grading, road design, and storm-water management. Generation of construction documents and applications were coordinated with the appropriate agencies to obtain site plan approval and all necessary permits in a timely and efficient manner. A detailed cost estimate for installation and completion of site design features was developed for bonding purposes and to provide the Owner/Developer guidance during the bidding and contract negotiation phases.

H.P. Hood Warehouse Additions, Winchester, VA
As Senior Engineer, responsible for managing site design and permitting processes for multiple building additions to an existing 400,000 sq. ft. production facility. Tasks included design of storm and sanitary sewer systems, water systems design, erosion and sediment control, and design of multiple on-site storm-water management facilities.

Barber & Ross Manufacturing Facility, Winchester, VA
As Senior Engineer, responsible for project management of a 250,000 sq. ft. manufacturing and distribution facility. Project included road widening and turn lane improvements designed to VDOT specifications, onsite storm-water management facility design, waterline and sanitary sewer system extensions, and permitting assistance.

Associated Asphalt Facility, Martinsburg, WV
As Senior Engineer, responsible for site design of multi-tank asphalt production facility intended to serve the northern Shenandoah Valley. Tasks included design of parallel railway spurs served from the existing Winchester & Western Railroad, pavement and road design to accommodate heavy truck traffic, and design of multiple infiltration basins to handle storm-water management given existing topographic constraints.

Strasburg Green, Strasburg, VA
As Senior Engineer, responsible for all aspects of land development design for a 161-unit mixed use residential subdivision. The project included 110 single-family homes, 27 townhouses, and 24 apartment units. The site design also included a commercial element consisting of a bank, restaurant, and a community center. A nature trail was incorporated into the design of the subdivision to provide access and visibility to a river cutting through a portion of the property. The initial task involved going through a rezoning process and presenting the proposed development at numerous public meetings. Other tasks included sanitary pump station design, waterline extension and pressure calculations, storm and sanitary sewer design, site grading, and design of approximately 8000' of roadway to State standards.

David F. Spriggs, L.S., P.S.
Surveying Department Manager

REGISTRATIONS AND LICENSES

Land Surveyor	Virginia, West Virginia

DIRECT WORK EXPERIENCE AND PRIMARY RESPONSIBILITIES

Triad Engineering, Inc. Winchester, VA	Surveying Services Manager 1996 - Present
PHR&A Winchester, VA	Field Crew Coordinator/Survey Computer 1990 - 1996
PHR&A Fairfax, VA	Field Crew Chief/Survey Computer 1978 - 1990

CURRENT POSITION RESPONSIBILITIES

Mr. Spriggs is currently the Surveying Department Manager for the Winchester, Virginia office of TRIAD. In this capacity, Mr. Spriggs' responsibilities include complete management of the land surveying division, including client contact and relations, field crew management, office computations and drafting, field surveying, deed research, and preparation of plats.

PROJECT EXPERIENCE SUMMARY

WVDOH - Corridor "H", *Baker to Wardensville, WV*
Surveying for the boundary location of all affected properties for right-of-way acquisition, verification of existing aerial mapping with cross-sections at 100-meter intervals, stake-out of structure and roadway borings, cross sections of stream channels and stake-out of final centerline alignment.

WVDOH – Route 9, *Jefferson County, WV*
Surveyor for quality assurance surveying under construction inspection contract for one section of Route 9 (sub-consultant to E2SI).

Malcolm Pirnie, City of Winchester Water Line Replacement, *Winchester/Frederick County, VA*
As a Licensed Surveyor, managed all aspects pertaining to the surveying for the replacement and realignment of Winchester, Virginia's 16-mile water main. Project included establishing horizontal and vertical control, deed research on 300 abutting properties, prepare composite property maps, supplement aerial topography, preparation of all easement plats.

Stafford County Public Schools, *Stafford County, VA*
As Licensed Surveyor, managed all aspects related to the acquisition of property for future school sites. Project included deed research, horizontal and vertical control, boundary line determination, metes and bounds description composition and plat preparation on a 151acre tract of property.

***Central Coca-Cola Bottling Co. Inc.**, Frederick County, VA*
As Licensed Surveyor, managed all aspects related to the acquisition of property for a future business park and bottling plant. Project included deed research, horizontal and vertical control, boundary line determination, metes and bounds description composition and plat preparation on a 80 acre tract of property. Additional responsibilities included the accurate location of all improvements associated with the subdivision design for a future business park.

***General Excavating, Inc., VA State Route 3 Extension**, Culpeper County, VA*
As Licensed Surveyor, managed all aspects related to the construction on 3 miles of new highway construction. Projects included plan review, office computations for slope staking, road bed and storm water management measures construction and setting of new right of way monumentation.

***Mr. Bruce Feltner**, Frederick County, VA*
As Licensed Surveyor, managed all aspects related to the establishment of a rural subdivision of land. Projects included deed research, horizontal control, boundary line determination, metes and bounds description composition and subdivision plat preparation in accordance with Frederick County specifications on a 132-acre tract of property.

***Caldwell-Santmeyer, Loudoun County Public Schools**, Loudoun County, VA*
As Licensed Surveyor, managed all aspects related to the construction of three new elementary schools. Project included plan review and analysis, office computations for all infrastructure and building construction, and final record drawing preparation.

***M.A. Bongiovanni, Inc., Purcellville Waste Water Treatment Plant**, Loudoun County, VA*
As Licensed Surveyor, managed all aspects related to the recondition and new construction of a municipal waste water treatment plant. Project included plan review and comparison to existing facilities, office computations of all new, and adjustments to existing facilities, for accurate layout and construction.

***Oakcrest Builders, Windstone Town Houses**, Frederick County, VA*
As Licensed Surveyor, managed all aspects related to the acquisition of property and design of 199 new town houses on a 30-acre tact of land. Project included deed research, horizontal and vertical control, boundary line determination, metes and bounds description composition and plat preparation on a 30 acre tract of property. Additional responsibilities included the preparation of subdivision plats in accordance with local zoning and subdivision specifications and the office management and layout computations for construction.

***Winchester Parks and Recreation**, Winchester, VA*
Project Manager and Surveyor for open-ended contract providing land surveying services for the Winchester Parks and Recreation department.

***VDOT - Telegraph Road**, Alexandria, VA*
Surveying for location and design of widening project.

***VDOT - Braddock Road**, Fairfax County, VA*
Surveying for location and design of widening project.

***VDOT - U.S. Route 522**, Frederick County, VA*
Project Manager for survey lay-out services for construction phase of highway 522 project in Frederick County.

***Shenandoah University Stadium Access Road and Bridges**, Winchester, VA*
Surveyor in charge of stake-out of two bridges crossing Abram's creek and access road to the new football stadium.

Lloyd C. Winters, C.E.T.

Laboratory Services Manager

EDUCATION

Lord Fairfax Community College (1 year)

CERTIFICATION/LICENSING/TRAINING

Certified Engineering Technician - National Institute for Cert. of Engineering Tech. (NICET)
Certified Field Concrete Testing Technician - American Concrete Institute (ACI)
Certified Quality Control Personnel (Level I & II) - Precast Prestressed Concrete Institute (PCI)
Certified Compaction Technician - West Virginia Division of Highways
Certified Aggregate Inspector - West Virginia Division of Highways
Certified Portland Cement Concrete Technician - West Virginia Division of Highways
Certified Portland Cement Concrete Inspector - West Virginia Division of Highways
Certified Monitoring Well Driller - West Virginia Division of Environmental Protection
Certified Asphalt Paving Technician - Virginia Department of Transportation
Certified Soils & Compaction Technician - Virginia Department of Transportation
Certified Concrete Field Technician - Virginia Department of Transportation
Certified Soils Technician (Levels I & II) - Washington Area Council of Engineering Laboratories
Certified Laboratory Soils Technician – Washington Area Council of Engineering Laboratories
Certified Laboratory Concrete/Masonry Testing Technician – Washington Area Council of Engineering Laboratories
NRMCA Approved Plant Inspector
Certified Nondestructive Testing – Ultrasonic Testing (Level II)
Class B Contractor License (Environmental Monitoring Well & Highway/Heavy) - Virginia
Troxler Nuclear Moisture Density Gauge & Radiation Safety Officer Certification
F-Number Measurement System using a Dipstick Floor Profiler Certification
Building Officials & Code Administrators International, Inc. (BOCA) - Building General
40-Hour/8-Hour Hazardous Waste Operations/Supervisor Training OSHA 29 CFR 1910.120
NRMCA Approved Plant Inspector

EMPLOYMENT HISTORY

Laboratory Services Manager Winchester, VA	Triad Engineering, Inc. 1982 to Present
Laboratory Technician Gore, VA	Unimin Corporation 1977 to 1982

CURRENT POSITION RESPONSIBILITIES

Mr. Winters is currently the Manager of Laboratory Testing Services for the Winchester, Virginia office of Triad Engineering, Inc. Mr. Winters is responsible for supervising and reviewing all laboratory testing required for geotechnical and construction projects, as well as personally performing the more sophisticated testing programs. His involvement also includes sampling and laboratory testing programs performed on landfill, road construction, and monitoring well installation projects in West Virginia and Virginia.

PROJECT EXPERIENCE

Frederick County Landfill, Frederick County, Virginia
Performed inspection and destructive testing on the liners during the construction of new sanitary cells, since 1990.

Frederick County Public Schools, Frederick County, Virginia
Performs annual bleacher inspections for all county athletic facilities. Testing and inspection of structural framing to determine the seating remains safe for spectators.

Westminster Cantebury, Frederick County, Virginia
Performed post tension floor slab inspection and structural steel NDT during construction of multi-story addition.

Various Mortgage Companies, Virginia and West Virginia
Performs HUD re-financing inspections to determine if the property meets HUD mortgage standards.

Construction Monitoring, Field Testing and Inspection Services for the following:
Apple Blossom Mall, Winchester, Virginia
Winchester Parking Garage, Winchester, Virginia
Winchester/Frederick County Joint Judicial Center, Frederick County, Virginia
Winchester Medical Center, Winchester, Virginia
Shenandoah Memorial Hospital, Woodstock, Virginia
Warren Memorial Hospital, Warren County, Virginia

Interstate 81 Resurfacing, Frederick, Shenandoah, Warren Counties, Virginia
Served as a quality control inspector for numerous asphalt projects along Interstate 81.

West Virginia Division of Highways, Various Locations, West Virginia
Performed quality control inspection for numerous roadway and bridge projects throughout the Eastern portion of West Virginia. Included soil testing and inspection, asphalt inspection, concrete testing and inspection and documentation.

Swearingon Access Road, Jefferson County, West Virginia
Performed project quality control inspection for the construction of access roadway, including inspection of soil, aggregate, and asphalt.

Multiple Secondary Road Resurfacing Projects, Frederick, Shenandoah, Warren Counties, Virginia
Performed quality control inspection of new asphalt overlay for multiple secondary roads.

Tabler Station Road, Jefferson County, West Virginia
Performed quality control inspection of construction of this new interchange along Interstate 81. Included inspection and testing of soils, aggregate, and asphalt.

Appendix C

Confidential Consultant Qualification Questionnaire

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
CONSULTANT CONFIDENTIAL QUALIFICATION QUESTIONNAIRE

PROJECT NAME	DATE (DAY, MONTH, YEAR)	FEIN
DEP14620 - Site Characterization Study, Leachate Management & Closure Cap Design and Quality Assurance / Quality Control for Capon Springs Landfill	APRIL 30, 2009	550592364

1. FIRM NAME	2. HOME OFFICE BUSINESS ADDRESS	3. FORMER FIRM NAME
TRIAD ENGINEERING, INC.	219 Hartman Run Road Morgantown, WV 26505	N/A

4. HOME OFFICE TELEPHONE	5. ESTABLISHED (YEAR)	6. TYPE OWNERSHIP	6a. WV REGISTERED DBE (Disadvantaged Business Enterprise)
304/296-2562	1975	Individual **CORPORATION** Partnership Joint-Venture	YES NO X

7. PRIMARY OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. PERSONNEL EACH OFFICE
200 Aviation Drive, Winchester, VA 22602 / (540)667-9300 / John Kent, PE / 64

8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM	8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS
Randy L. Moulton, P.E., President & CEO	

9. PERSONNEL BY DISCIPLINE **(Bold Lettering Indicates Minimum Design Team Members)**

13 **ADMINISTRATIVE**	— ECOLOGISTS	2 LANDSCAPE ARCHITECTS	1 STRUCTURAL ENGINEERS
— ARCHITECTS	— ECONOMISTS	1 MECHANICAL ENGINEERS	**20 SURVEYORS**
2 **BIOLOGIST**	— ELECTRICAL ENGINEERS	2 MINING ENGINEERS	44 OTHER
9 **CADD OPERATORS**	7 ENVIRONMENTALISTS	— PHOTOGRAMMETRISTS	230 TOTAL PERSONNEL
1 CHEMICAL ENGINEERS	3 **ESTIMATORS**	— PLANNERS: URBAN/REGIONAL	
11 **CIVIL ENGINEERS**	13 **GEOLOGISTS**	2 SANITARY ENGINEERS	
55 **CONSTRUCTION INSPECTORS**	— HISTORIANS	**24 SOILS ENGINEERS**	
13 **DESIGNERS**	2 **HYDROLOGISTS**	1 SPECIFICATION WRITERS	
4 DRAFTSMEN			

TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: 5
***RPEs other than Civil must provide supporting documentation that qualifies them to supervise and perform this type of work.**

10. If submittal is by joint venture, list participating firms & outline specific areas of responsibility (including administrative, technical, & financial) for each firm. Each participating firm must complete a "Consultant Confidential Qualification Questionnaire".

-NA-

10a. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE? ☐ YES ☐ NO **-NA-**

11. OUTSIDE KEY CONSULTANTS/SUB-CONSULTANTS ANTICIPATED TO BE USED.		
NAME AND ADDRESS: Keddal Aerial Mapping 1121 Boyce Road, Suite 3100 Pittsburgh, PA 15241 P: (724) 942-2881 F: (724) 942-2885 map@keddalaerial.com	SPECIALTY: Aerial Photography / Photogrammetry	WORKED WITH BEFORE __X__ Yes _____ No
NAME AND ADDRESS: Pace Analytical Services, Inc. 5203 Triangle Lane Export, PA 15632 P: (724) 733-1161 F: (724) 327-7793 www.pacelabs.com POC: Carin Ferris, Project Manager Carin.Ferris@pacelabs.com	SPECIALTY: Full organic / inorganic analyses in accordance with RCRA, NPDES, TSCA, 10 CFR 61 Waste Characterization and UST programs for a variety of matrices	WORKED WITH BEFORE __X__ 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. Is your firm experienced in Solid Waste Landfill Closure Design?

YES **Description and Number of Projects:** Triad has completed closure design services for the WVDEP (LCAP) and several private entities since 1990. Six (6) LCAP projects have been performed directly for the WVDEP, and at least nine (9) other closure designs have been completed for other clients. Triad is currently working on the Morgan County and Marion County Landfills.

NO

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

YES **Description and Number of Projects:** Triad has been involved in assessment projects since 1990. We have completed characterization assessment and evaluation studies on over twenty (20) projects.

NO

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

YES **Description and Number of Projects:** Triad has been involved in construction inspection of closures on over twenty (20) landfill projects for the WVDEP (LCAP) and several private clients sine 1990.

NO

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

YES **Description and Number of Projects:** Triad typically subcontracts the aerial photography and mapping. Triad lays out the targets in the field and conducts the survey for establishment of horizontal and vertical control used to develop the final mapping. It is estimated that we have completed several hundred similar types of mapping projects since the inception of the firm in 1975.

NO

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

YES **Description and Number of Projects:** Triad has been involved in sampling groundwater monitoring wells and evaluating contamination problems related to landfills since 1990. This type of assessment work has been conducted in conjunction with all fifteen (15) of our closure design projects, as well as several other landfills which are currently operational.

NO

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

YES **Description and Number of Projects:** Triad was responsible for preparation of closure cost estimates on all fifteen (15) of our closure design projects. As previously indicated, six (6) of these were LCAP projects which were performed under contract to the WVDEP.

NO

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES **RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (describe project)** (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF (type) EXPERIENCE:	YEARS OF (type) EXPERIENCE:	YEARS OF (type) EXPERIENCE:
Moulton, Randy L. Project Manager	31		

Brief Explanation of Responsibilities:
Mr. Moulton is the President & CEO of Triad Engineering, Inc. and is responsible for corporate contract administration and overall quality control and technical quality assurance of projects undertaken by the company. Mr. Moulton was responsible for managing design of corrective measures at the Grant County Landfill under the Landfill Corrective Action Program (LCAP) in West Virginia. This project included aerial mapping, design of a leachate collection system, pump station, force main, gravity sewer line, final cap, passive gas vents and permanent SWM facilities.

EDUCATION (Degree, Year, Specialization)
BS, 1976, Civil Engineering, West Virginia University, Morgantown, WV
MS, 1980, Civil Engineering (Geotechnical), West Virginia University, Morgantown, WV

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
	P.E., 1982, West Virginia P.E., 1987, Maryland P.E., 1989, Pennsylvania P.E., 1989, Virginia P.E., 1998, North Carolina

13. PERSONAL HISTORY STATEMENT 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, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF (type) EXPERIENCE:	YEARS OF (type) EXPERIENCE:	YEARS OF (type) EXPERIENCE:
Meeks, John M. Senior Level Assessment Reviewer	29		

Brief Explanation of Responsibilities:
Mr. Meeks is a Senior Geologist and Branch Manager of the St. Albans office of Triad, and he is responsible for technical quality and management control of all projects in the region. His technical work includes environmental assessment of groundwater, surface water, and soil; waste management facility design and permitting; brownfield redevelopment projects; and remediation system design and implementation. Mr. Meeks also has a thorough knowledge of environmental regulatory requirements through his experience with WV Division of Environmental Protection, where he supervised statewide enforcement of waste management regulations; including hazardous waste and solid waste regulatory programs, as well as underground storage tank regulations.

EDUCATION (Degree, Year, Specialization)
BS, 1980, Geology, West Virginia University, Morgantown, WV
Graduate Studies, Marshall University Graduate College, Huntington, WV

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
Air & Waste Management Association, WV Chapter **WV Chamber of Commerce, Environmental Committee** - Former Waste Team Chair **WVDEP Waste Roundtable** - Founding Member **Putnam County Chamber of Commerce**	P.G., 1993, Kentucky L.R.S., 1998, West Virginia

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES **RESPONSIBLE FOR LANDFILL CLOSURE QA/QC** (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF (type) EXPERIENCE:	YEARS OF (type) EXPERIENCE:	YEARS OF (type) EXPERIENCE:
Hamric, Daniel R. Senior Level Design Reviewer	22		

Brief Explanation of Responsibilities

Mr. Hamric is currently a Senior Engineer at the Winchester office of Triad Engineering. In the engineering capacity, Mr. Hamric is responsible for technical quality and management control of select geotechnical engineering and design projects in the region. His responsibilities include management and preparation of subsurface investigations and testing programs, Professional-In-Charge of laboratory testing services, report preparation, preparation of technical proposals and fee estimates, management of personnel, and consultation on a variety of geotechnical related design and/or construction problems. Mr. Hamric's expertise in the geotechnical engineering department includes slope stability analyses, dam design and evaluation, pavement design and evaluation, landfill construction, assessment and remediation of karst features related to new construction.

EDUCATION (Degree, Year, Specialization) Drafting Technology-1975
BS, 1985, Civil Engineering, West Virginia University, Morgantown, WV
MS, 1987, Civil Engineering (Geotechnical), West Virginia University, Morgantown, WV

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
	P.E., 1991, Virginia P.E., 1991, Maryland P.E., 1991, West Virginia P.E., 1992, Pennsylvania P.E., 1994, North Carolina

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES **RESPONSIBLE FOR HEAVY EARTH WORK CONSTRUCTION PROJECTS** (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF (type) EXPERIENCE:	YEARS OF (type) EXPERIENCE:	YEARS OF (type) EXPERIENCE:
Stemple, Kevin D. Senior Geotechnical Engineer	14		

Brief Explanation of Responsibilities

Mr. Stemple is currently a Senior Engineer and Geotechnical Department Manager in the Winchester office of Triad, and he is responsible for technical quality and management of geotechnical projects and overall financial management of the department. His technical work includes bearing capacity and settlement analyses, geophysical study implementation and analysis, shallow and deep foundation analysis and design, slope stability analyses, hydraulic and hydrologic evaluation for dam design, and preparation/review of geotechnical reports. His work also involves implementation and supervision of field drilling programs and assisting in managing the construction monitoring and testing department. His duties include client consultation, billing and invoice review and consultation on more critical and detailed construction problems.

EDUCATION (Degree, Year, Specialization)
BS, 1995, Civil Engineering, West Virginia University, Morgantown, WV

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
	P.E., 2001, Virginia P.E., 2001, Maryland P.E., 2001, West Virginia P.E., 2001, Pennsylvania P.E., 2008, North Carolina

14. PROVIDE A LIST OF SOFTWARE AND EQUIPMENT AVAILABLE IN THE PRIMARY OFFICE WHICH WILL BE USED TO COMPLETE THE SITE CHARACTERIZATION STUDY, LEACHATE MANAGEMENT & CLOSURE CAP DESIGN AND QUALITY ASSURANCE / QUALITY CONTROL FOR MORGAN COUNTY LANDFILL.

IN-HOUSE SOFTWARE

PCSTABL5M Slope Stability Software
Civil 3D CADD Software
Eagle Point Survey Software
HEC-1, HEC-HMS and HEC-RAS Flood Routing Software
Hydraflow Hydrographs and Hydraflow Storm Sewers SWM Software
Flowmaster SWM Software

LABORATORY TESTING EQUIPMENT

Triaxial Compression Machine, Manual Proctor Devices (standard & modified), Automatic Proctor Hammer, Turbidimeter, Hydrometers, pH Tester (soil & water), Electronic Scales Unconfined Compression Machine, Atterberg Limits Devices, Electrical Resistivity Meters, California Bearing Ratio Devices, Specific Gravity Devices, 2000 Degree Fahrenheit Oven, Permeability Cells and Back-Pressure Panel Boards, Consolidometer, Electronic Manometers,
Concrete Compressive Strength Equipment, Sieves and Sieve Shakers, Sample Splitters, Unit Weight Buckets, Slake Durability Machine, L.A. Abrasion Machine, Load Frames, Sodium Sulfate Soundness Test Equipment, Asphalt Test Equipment, Relative Density Test Apparatus

DRILLING EQUIPMENT

CME 550 Track-Mounted Drill Rig
CME 45 ATV-Mounted Drill Rig
Mobile B-53 Truck-Mounted Drill Rig
Deep Rock DR-150 4WD Truck-Mounted Drill Rig (with Down-Hole-Hammer)
Portable Grout Mixer and Pump

FIELD QA/QC TESTING EQUIPMENT

Troxler Nuclear Moisture-Density Gauges
Slump Cones (Concrete slump)
Pressure Meters (Concrete Air Content)
Concrete Thermometers
Concrete Cylinder Molds
Paint Thickness Gauges

FIELD SURVEYING EQUIPMENT

Topcon RTK GPS System
Topcon Electronic Total Stations (4)
Topcon and Sokkia Auto Levels (3)
HP Data Collectors (2)
Carlson Data Collector (1)
Misc. Prisms, Level Rods, Motorola 2-way Radios (6)

15. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD ASSOCIATED WITH OR RELATING TO **LANDFILL** CLOSURE OR CONSTRUCTION

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
Morgan County Landfill, Morgan County, WV	WVDEP Office of Waste Management 601 57th Street SE Charleston, WV 25304 Mr. March Church 304-926-0499	Site Characterization Study, Leachate Management and Closure Cap Design and Quality Assurance/Quality Control.	To be determined	15%
Shenandoah County Landfill, Edinburg, VA	Shenandoah County Mr. Brad Dellinger, Director 349 Landfill Road, Edinburg, VA 540-984-8573	Semi-Annual well sampling and testing; Analytical water testing	To be determined	Testing is on-going.
Frederick County Landfill, Frederick County, VA	Frederick County Mr. Ed Strawsnyder, PE Dir. of Public Works 107 N. Kent Street Winchester, VA 22601 540-665-5643	Semi-Annual well sampling and testing; QC monitoring and testing of new landfill cells.	To be determined	Well sampling and testing is on-going. New cell construction is 99% complete.
Jefferson County Landfill / Old Standard Quarry	Old Standard, LLC P.O. Box 341 Millwood, VA 22646 Mr. Herb Jonkers (703) 627-0935	Environmental Assessment; Cap Integrity Assessment; Groundwater Sampling; Hydrogeologic Study; Soil Sampling; Surface Water Sampling	To be determined	10%
WVDEP Superfund Landfill Assessments - Old Avtex Landfill Nitro, WV Rehe Landfill Reedsville, WV Hinton Landfill Hinton, WV 31st Street Landfill Huntington, WV	WVDEP 601 57th Street Charleston, WV 25301 POC: Ms. Pam Hayes (304) 926-0499 ext. 1273	Detailed site assessments; sampling and analysis plans, QA Project Plans, contamination studies, soil borings, soil/groundwater sampling, surface water / sediment sampling, well sampling, data validation, contaminants of concern, recommendations	To be determined	100%
WVDEP Superfund Landfill Assessments - South Charleston Landfill South Charleston, WV	WVDEP 601 57th Street Charleston, WV 25301 POC: Ms. Pam Hayes (304) 926-0499 ext. 1273	Detailed site assessments; sampling and analysis plans, QA Project Plans, contamination studies, soil borings, soil/groundwater sampling, surface water / sediment sampling, well sampling, data validation, contaminants of concern, recommendations	To be determined	90%

TOTAL NUMBER OF PROJECTS:	TOTAL ESTIMATED CONSTRUCTION COSTS: $
Six projects listed.	To be determined.

16. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS SERVING AS A SUB-CONSULTANT TO OTHERS RELATING TO LANDFILL CLOSURE OR CONSTRUCTION

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
Frederick County Solid Waste Transfer Station, Frederick, MD Sub to SCS Engineers	Forest conservation services, Geotechnical, Land surveying and QC monitoring and testing	Frederick County 9031 Reichsford Rd. Frederick, MD 21740 Mr. Michael G. Marschner 301-694-2568	2008	$5,000,000	Approximately $125,000

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM WAS THE DESIGNATED ENGINEER OF RECORD (LIST 5 TO 7)

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
Don's Disposal Landfill Closure Design Charleston, WV	WV DEP Office of Environmental Remediation - LCAP 601 57th Street, SE Charleston, WV 25304-2345 Mr. Clyde Bennett (304) 872-3800	$2,900,000	2005	Yes
McDowell County Landfill Landfill Closure Design Roderfield, WV	WV DEP Office of Environmental Remediation - LCAP 601 57th Street, SE Charleston, WV 25304-2345 Mr. Clyde Bennett (304) 872-3800	$2,300,000	2003	Yes
Number 1 Landfill Landfill Closure Design Sistersville, WV	Union Carbide Corporation Mr. Don Estep Sistersville, WV 26175 Mr. Okey Tucker (304) 652-3211	$500,000	2007	Yes
Number 2 Landfill Landfill Closure Design Sistersville, WV	Union Carbide Corporation Mr. Don Estep Sistersville, WV 26175 Mr. Okey Tucker (304) 652-3211	$750,000	2007	Yes
Goff Mountain Landfill Landfill Closure Design; Landfill Expansion Design Institute, WV	Bayer Crop Science Mr. Ross Parkman Post Office Box 1005 Institute, WV 25112 Mr. George Kennedy (304) 747-6870	$630,000	2006	No
Fayette County Landfill Detailed site assessment; hydrogeologic site investigation; closure feasibility study; borrow soils investigation Fayetteville, WV	Land Resource, LLC Roaring River Development 458 C Maple Lane Fayetteville, WV 25840 Mr. Tom Wagner (866) 469-5263	$650,000	2007	No

18. COMPLETED WORK WITHIN LAST 5 YEARS IN WHICH YOUR FIRM HAS BEEN A SUBCONSULTANT TO OTHER FIRMS (INDICATE PHASE OF WORK WHICH YOUR FIRM WAS RESPONSIBLE) List 5 to 7.

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
Shenandoah County Landfill, Edinburg, VA Cell Closure	Shenandoah County Mr. Brad Dellinger, Director 349 Landfill Road, Edinburg, VA 540-984-8573	N/A	2003	Yes	SCS Engineers
Rockingham County Landfill, Harrisonburg, VA Water Sampling and Testing.	Rockingham County 2 S. Main Street Harrisonburg, VA 22801 540-476-1111	N/A	2005	Yes	HSMM
40 West Landfill Construction, Hagerstown, MD Geotechnical, drilling, and lab testing	40 West Landfill 12630 Earth Care Road Hagerstown, MD 21740 Mr. Robert G. Davenport 240-313-2790	Triad's cost was $10,000.	2006	Yes	URS
Resh Road Phase II Landfill Closure, Hagerstown, MD Geotechnical, test pits, drilling and surveying.	Resh Road Landfill 16232 Elliott Parkway Williamsport, MD 21795 Mr. David Mason 240-313-2600	N/A	2007	Yes	URS
Frederick County Landfill, Frederick County, VA Convenience Center and Access Road Construction	Frederick County Mr. Ed Strawsnyder, PE Dir. of Public Works 107 N. Kent Street Winchester, VA 22601 540-665-5643	N/A	2006	Yes	Ricketts Construction Company

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 Department of Environmental Protection.

Triad currently maintains a staff of approximately 230 personnel. This includes civil, environmental, geotechnical, and mining engineers; geologists and hydrogeologists; landscape architects; biologists; environmental scientists; and chemists. Our technical support and administrative staff includes designers, CADD technicians, surveyors, engineering technicians, drillers, construction inspectors and clerical personnel. The majority of our professional and technical staff has been with the company for many years.

Facilities and equipment available to support our staff have grown substantially since the inception of the firm in 1975. We maintain a fleet of drill rigs and support vehicles to meet the needs of our field explorations. Our laboratories are supplied with testing equipment necessary to perform a wide range of tests on soil, rock, concrete, aggregate, water, asphalt, and other similar construction materials. Each office maintains secure computer networks to support CADD functions, hydrogeologic evaluations, landfill water balance modeling, surface water drainage design, stability analysis, survey data reduction, and mapping. With the exception of areal photogrammetric mapping and analytical water testing, Triad is equipped to complete work on this project without subcontractors. These comprehensive in-house capabilities afford us much better control over the project schedule, quality, and cost, thereby minimizing problems that can occur when engineering firms are forced to coordinate efforts among a number of subcontractors.

Triad was previously selected by WVDEP to complete two, three-year LCAP closure design contracts. Consequently, our staff is completely familiar with the work required under this contract. During our previous six years of contract work with LCAP, TRIAD successfully completed eight separate landfill projects similar or identical to this project. Because LCAP design projects are geotechnically oriented, our expertise in geotechnical engineering, geology, and civil engineering design make us particularly well qualified to provide the requested services.

The Winchester, Virginia office of Triad will perform the work on this project, with some technical review assistance from the St. Albans, West Virginia office. The Winchester office is located approximately 50 miles from the site, and this further enhances our ability to provide efficient, cost-effective services as compared to other firms in the region. We do not believe that any other West Virginia firm can demonstrate the depth and variety of landfill assessment, design engineering and QC experience that Triad can bring to this project. With this extensive experience in design engineering, contract document preparation, and QC inspection, we are expertly qualified to provide these services for proper closure and reclamation of the Capon Springs Landfill.

20. The foregoing is a statement of facts.

Signature: _____

Date: APRIL 30, 2009

Title: President & CEO

Printed Name: Randy L. Moulton, P.E.

15. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD ASSOCIATED WITH OR RELATING TO **LANDFILL** CLOSURE OR CONSTRUCTION

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
Morgan County Landfill, Morgan County, WV	WVDEP Office of Waste Management 601 57th Street SE Charleston, WV 25304 Mr. March Church 304-926-0499	Site Characterization Study, Leachate Management and Closure Cap Design and Quality Assurance/Quality Control. **(LCAP Design Services)**	To be determined	15%
Shenandoah County Landfill, Edinburg, VA	Shenandoah County Mr. Brad Dellinger, Director 349 Landfill Road, Edinburg, VA 540-984-8573	Semi-Annual well sampling and testing; Analytical water testing	To be determined	Testing is on-going.
Frederick County Landfill, Frederick County, VA	Frederick County Mr. Ed Strawsnyder, PE Dir. of Public Works 107 N. Kent Street Winchester, VA 22601 540-665-5643	Semi-Annual well sampling and testing; QC monitoring and testing of new landfill cells.	To be determined	Well sampling and testing is on-going. New cell construction is 99% complete.
Jefferson County Landfill / Old Standard Quarry	Old Standard, LLC P.O. Box 341 Millwood, VA 22646 Mr. Herb Jonkers (703) 627-0935	Environmental Assessment; Cap Integrity Assessment; Groundwater Sampling; Hydrogeologic Study; Soil Sampling; Surface Water Sampling	To be determined	10%
WVDEP Superfund Landfill Assessments - Old Avtex Landfill Nitro, WV Rehe Landfill Reedsville, WV Hinton Landfill Hinton, WV 31st Street Landfill Huntington, WV	WVDEP 601 57th Street Charleston, WV 25301 POC: Ms. Pam Hayes (304) 926-0499 ext. 1273	Detailed site assessments; sampling and analysis plans, QA Project Plans, contamination studies, soil borings, soil/groundwater sampling, surface water / sediment sampling, well sampling, data validation, contaminants of concern, recommendations	To be determined	100%
WVDEP Superfund Landfill Assessments - South Charleston Landfill South Charleston, WV	WVDEP 601 57th Street Charleston, WV 25301 POC: Ms. Pam Hayes (304) 926-0499 ext. 1273	Detailed site assessments; sampling and analysis plans, QA Project Plans, contamination studies, soil borings, soil/groundwater sampling, surface water / sediment sampling, well sampling, data validation, contaminants of concern, recommendations	To be determined	90%

TOTAL NUMBER OF PROJECTS:	TOTAL ESTIMATED CONSTRUCTION COSTS: $
Six projects listed.	To be determined.

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
CONSULTANT CONFIDENTIAL QUALIFICATION QUESTIONNAIRE

PROJECT NAME	DATE (DAY, MONTH, YEAR)	FEIN
DEP14620 - Site Characterization Study, Leachate Management & Closure Cap Design and Quality Assurance / Quality Control for Capon Springs Landfill	APRIL 30, 2009	550592364

1. FIRM NAME	2. HOME OFFICE BUSINESS ADDRESS	3. FORMER FIRM NAME
TRIAD ENGINEERING, INC.	219 Hartman Run Road Morgantown, WV 26505	N/A

4. HOME OFFICE TELEPHONE	5. ESTABLISHED (YEAR)	6. TYPE OWNERSHIP	6a. WV REGISTERED DBE (Disadvantaged Business Enterprise)
304/296-2562	1975	Individual **CORPORATION** Partnership Joint-Venture	YES NO X

7. PRIMARY OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. PERSONNEL EACH OFFICE
200 Aviation Drive, Winchester, VA 22602 / (540)667-9300 / John Kent, PE / 64

8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM	8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS
Randy L. Moulton, P.E., President & CEO	

9. PERSONNEL BY DISCIPLINE **(Bold Lettering Indicates Minimum Design Team Members)**

13 **ADMINISTRATIVE**	— ECOLOGISTS	2 LANDSCAPE ARCHITECTS	1 STRUCTURAL ENGINEERS
— ARCHITECTS	— ECONOMISTS	1 MECHANICAL ENGINEERS	20 **SURVEYORS**
2 **BIOLOGIST**	— ELECTRICAL ENGINEERS	2 MINING ENGINEERS	44 OTHER
9 **CADD OPERATORS**	7 ENVIRONMENTALISTS	— PHOTOGRAMMETRISTS	230 TOTAL PERSONNEL
1 CHEMICAL ENGINEERS	3 **ESTIMATORS**	— PLANNERS: URBAN/REGIONAL	
11 **CIVIL ENGINEERS**	13 **GEOLOGISTS**	2 SANITARY ENGINEERS	
55 **CONSTRUCTION INSPECTORS**	— HISTORIANS	24 **SOILS ENGINEERS**	
13 **DESIGNERS**	2 **HYDROLOGISTS**	1 SPECIFICATION WRITERS	
4 DRAFTSMEN			

TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: 5
***RPEs other than Civil must provide supporting documentation that qualifies them to supervise and perform this type of work.**

10. If submittal is by joint venture, list participating firms & outline specific areas of responsibility (including administrative, technical, & financial) for each firm. Each participating firm must complete a "Consultant Confidential Qualification Questionnaire".

-NA-

10a. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE? ☐ YES ☐ NO **-NA-**

11. OUTSIDE KEY CONSULTANTS/SUB-CONSULTANTS ANTICIPATED TO BE USED.		
NAME AND ADDRESS: Keddal Aerial Mapping 1121 Boyce Road, Suite 3100 Pittsburgh, PA 15241 P: (724) 942-2881 F: (724) 942-2885 map@keddalaerial.com	SPECIALTY: Aerial Photography / Photogrammetry	WORKED WITH BEFORE __X__ Yes _____ No
NAME AND ADDRESS: Pace Analytical Services, Inc. 5203 Triangle Lane Export, PA 15632 P: (724) 733-1161 F: (724) 327-7793 www.pacelabs.com POC: Carin Ferris, Project Manager Carin.Ferris@pacelabs.com	SPECIALTY: Full organic / inorganic analyses in accordance with RCRA, NPDES, TSCA, 10 CFR 61 Waste Characterization and UST programs for a variety of matrices	WORKED WITH BEFORE __X__ 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. Is your firm experienced in Solid Waste Landfill Closure Design?

YES **Description and Number of Projects:** Triad has completed closure design services for the WVDEP (LCAP) and several private entities since 1990. Six (6) LCAP projects have been performed directly for the WVDEP, and at least nine (9) other closure designs have been completed for other clients. Triad is currently working on the Morgan County and Marion County Landfills.

NO

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

YES **Description and Number of Projects:** Triad has been involved in assessment projects since 1990. We have completed characterization assessment and evaluation studies on over twenty (20) projects.

NO

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

YES **Description and Number of Projects:** Triad has been involved in construction inspection of closures on over twenty (20) landfill projects for the WVDEP (LCAP) and several private clients sine 1990.

NO

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

YES **Description and Number of Projects:** Triad typically subcontracts the aerial photography and mapping. Triad lays out the targets in the field and conducts the survey for establishment of horizontal and vertical control used to develop the final mapping. It is estimated that we have completed several hundred similar types of mapping projects since the inception of the firm in 1975.

NO

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

YES **Description and Number of Projects:** Triad has been involved in sampling groundwater monitoring wells and evaluating contamination problems related to landfills since 1990. This type of assessment work has been conducted in conjunction with all fifteen (15) of our closure design projects, as well as several other landfills which are currently operational.

NO

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

YES **Description and Number of Projects:** Triad was responsible for preparation of closure cost estimates on all fifteen (15) of our closure design projects. As previously indicated, six (6) of these were LCAP projects which were performed under contract to the WVDEP.

NO

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES **RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (describe project)** (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF (type) EXPERIENCE:	YEARS OF (type) EXPERIENCE:	YEARS OF (type) EXPERIENCE:
Moulton, Randy L. Project Manager	31		

Brief Explanation of Responsibilities:
Mr. Moulton is the President & CEO of Triad Engineering, Inc. and is responsible for corporate contract administration and overall quality control and technical quality assurance of projects undertaken by the company. Mr. Moulton was responsible for managing design of corrective measures at the Grant County Landfill under the Landfill Corrective Action Program (LCAP) in West Virginia. This project included aerial mapping, design of a leachate collection system, pump station, force main, gravity sewer line, final cap, passive gas vents and permanent SWM facilities.

EDUCATION (Degree, Year, Specialization)
BS, 1976, Civil Engineering, West Virginia University, Morgantown, WV
MS, 1980, Civil Engineering (Geotechnical), West Virginia University, Morgantown, WV

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
	P.E., 1982, West Virginia P.E., 1987, Maryland P.E., 1989, Pennsylvania P.E., 1989, Virginia P.E., 1998, North Carolina

13. PERSONAL HISTORY STATEMENT 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, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF (type) EXPERIENCE:	YEARS OF (type) EXPERIENCE:	YEARS OF (type) EXPERIENCE:
Meeks, John M. Senior Level Assessment Reviewer	29		

Brief Explanation of Responsibilities:
Mr. Meeks is a Senior Geologist and Branch Manager of the St. Albans office of Triad, and he is responsible for technical quality and management control of all projects in the region. His technical work includes environmental assessment of groundwater, surface water, and soil; waste management facility design and permitting; brownfield redevelopment projects; and remediation system design and implementation. Mr. Meeks also has a thorough knowledge of environmental regulatory requirements through his experience with WV Division of Environmental Protection, where he supervised statewide enforcement of waste management regulations; including hazardous waste and solid waste regulatory programs, as well as underground storage tank regulations.

EDUCATION (Degree, Year, Specialization)
BS, 1980, Geology, West Virginia University, Morgantown, WV
Graduate Studies, Marshall University Graduate College, Huntington, WV

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
Air & Waste Management Association, WV Chapter **WV Chamber of Commerce, Environmental Committee** - Former Waste Team Chair **WVDEP Waste Roundtable** - Founding Member **Putnam County Chamber of Commerce**	P.G., 1993, Kentucky L.R.S., 1998, West Virginia

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES **RESPONSIBLE FOR LANDFILL CLOSURE QA/QC** (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF (type) EXPERIENCE:	YEARS OF (type) EXPERIENCE:	YEARS OF (type) EXPERIENCE:
Hamric, Daniel R. Senior Level Design Reviewer	22		

Brief Explanation of Responsibilities

Mr. Hamric is currently a Senior Engineer at the Winchester office of Triad Engineering. In the engineering capacity, Mr. Hamric is responsible for technical quality and management control of select geotechnical engineering and design projects in the region. His responsibilities include management and preparation of subsurface investigations and testing programs, Professional-In-Charge of laboratory testing services, report preparation, preparation of technical proposals and fee estimates, management of personnel, and consultation on a variety of geotechnical related design and/or construction problems. Mr. Hamric's expertise in the geotechnical engineering department includes slope stability analyses, dam design and evaluation, pavement design and evaluation, landfill construction, assessment and remediation of karst features related to new construction.

EDUCATION (Degree, Year, Specialization) Drafting Technology-1975
BS, 1985, Civil Engineering, West Virginia University, Morgantown, WV
MS, 1987, Civil Engineering (Geotechnical), West Virginia University, Morgantown, WV

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
	P.E., 1991, Virginia P.E., 1991, Maryland P.E., 1991, West Virginia P.E., 1992, Pennsylvania P.E., 1994, North Carolina

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES **RESPONSIBLE FOR HEAVY EARTH WORK CONSTRUCTION PROJECTS** (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF (type) EXPERIENCE:	YEARS OF (type) EXPERIENCE:	YEARS OF (type) EXPERIENCE:
Stemple, Kevin D. Senior Geotechnical Engineer	14		

Brief Explanation of Responsibilities

Mr. Stemple is currently a Senior Engineer and Geotechnical Department Manager in the Winchester office of Triad, and he is responsible for technical quality and management of geotechnical projects and overall financial management of the department. His technical work includes bearing capacity and settlement analyses, geophysical study implementation and analysis, shallow and deep foundation analysis and design, slope stability analyses, hydraulic and hydrologic evaluation for dam design, and preparation/review of geotechnical reports. His work also involves implementation and supervision of field drilling programs and assisting in managing the construction monitoring and testing department. His duties include client consultation, billing and invoice review and consultation on more critical and detailed construction problems.

EDUCATION (Degree, Year, Specialization)
BS, 1995, Civil Engineering, West Virginia University, Morgantown, WV

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
	P.E., 2001, Virginia P.E., 2001, Maryland P.E., 2001, West Virginia P.E., 2001, Pennsylvania P.E., 2008, North Carolina

14. PROVIDE A LIST OF SOFTWARE AND EQUIPMENT AVAILABLE IN THE PRIMARY OFFICE WHICH WILL BE USED TO COMPLETE THE SITE CHARACTERIZATION STUDY, LEACHATE MANAGEMENT & CLOSURE CAP DESIGN AND QUALITY ASSURANCE / QUALITY CONTROL FOR MORGAN COUNTY LANDFILL.

IN-HOUSE SOFTWARE

PCSTABL5M Slope Stability Software
Civil 3D CADD Software
Eagle Point Survey Software
HEC-1, HEC-HMS and HEC-RAS Flood Routing Software
Hydraflow Hydrographs and Hydraflow Storm Sewers SWM Software
Flowmaster SWM Software

LABORATORY TESTING EQUIPMENT

Triaxial Compression Machine, Manual Proctor Devices (standard & modified), Automatic Proctor Hammer, Turbidimeter, Hydrometers, pH Tester (soil & water), Electronic Scales Unconfined Compression Machine, Atterberg Limits Devices, Electrical Resistivity Meters, California Bearing Ratio Devices, Specific Gravity Devices, 2000 Degree Fahrenheit Oven, Permeability Cells and Back-Pressure Panel Boards, Consolidometer, Electronic Manometers,
Concrete Compressive Strength Equipment, Sieves and Sieve Shakers, Sample Splitters, Unit Weight Buckets, Slake Durability Machine, L.A. Abrasion Machine, Load Frames, Sodium Sulfate Soundness Test Equipment, Asphalt Test Equipment, Relative Density Test Apparatus

DRILLING EQUIPMENT

CME 550 Track-Mounted Drill Rig
CME 45 ATV-Mounted Drill Rig
Mobile B-53 Truck-Mounted Drill Rig
Deep Rock DR-150 4WD Truck-Mounted Drill Rig (with Down-Hole-Hammer)
Portable Grout Mixer and Pump

FIELD QA/QC TESTING EQUIPMENT

Troxler Nuclear Moisture-Density Gauges
Slump Cones (Concrete slump)
Pressure Meters (Concrete Air Content)
Concrete Thermometers
Concrete Cylinder Molds
Paint Thickness Gauges

FIELD SURVEYING EQUIPMENT

Topcon RTK GPS System
Topcon Electronic Total Stations (4)
Topcon and Sokkia Auto Levels (3)
HP Data Collectors (2)
Carlson Data Collector (1)
Misc. Prisms, Level Rods, Motorola 2-way Radios (6)

15. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD ASSOCIATED WITH OR RELATING TO **LANDFILL** CLOSURE OR CONSTRUCTION

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
Morgan County Landfill, Morgan County, WV	WVDEP Office of Waste Management 601 57th Street SE Charleston, WV 25304 Mr. March Church 304-926-0499	Site Characterization Study, Leachate Management and Closure Cap Design and Quality Assurance/Quality Control. **(LCAP Design Services)**	To be determined	15%
Shenandoah County Landfill, Edinburg, VA	Shenandoah County Mr. Brad Dellinger, Director 349 Landfill Road, Edinburg, VA 540-984-8573	Semi-Annual well sampling and testing; Analytical water testing	To be determined	Testing is on-going.
Frederick County Landfill, Frederick County, VA	Frederick County Mr. Ed Strawsnyder, PE Dir. of Public Works 107 N. Kent Street Winchester, VA 22601 540-665-5643	Semi-Annual well sampling and testing; QC monitoring and testing of new landfill cells.	To be determined	Well sampling and testing is on-going. New cell construction is 99% complete.
Jefferson County Landfill / Old Standard Quarry	Old Standard, LLC P.O. Box 341 Millwood, VA 22646 Mr. Herb Jonkers (703) 627-0935	Environmental Assessment; Cap Integrity Assessment; Groundwater Sampling; Hydrogeologic Study; Soil Sampling; Surface Water Sampling	To be determined	10%
WVDEP Superfund Landfill Assessments - Old Avtex Landfill Nitro, WV Rehe Landfill Reedsville, WV Hinton Landfill Hinton, WV 31st Street Landfill Huntington, WV	WVDEP 601 57th Street Charleston, WV 25301 POC: Ms. Pam Hayes (304) 926-0499 ext. 1273	Detailed site assessments; sampling and analysis plans, QA Project Plans, contamination studies, soil borings, soil/groundwater sampling, surface water / sediment sampling, well sampling, data validation, contaminants of concern, recommendations	To be determined	100%
WVDEP Superfund Landfill Assessments - South Charleston Landfill South Charleston, WV	WVDEP 601 57th Street Charleston, WV 25301 POC: Ms. Pam Hayes (304) 926-0499 ext. 1273	Detailed site assessments; sampling and analysis plans, QA Project Plans, contamination studies, soil borings, soil/groundwater sampling, surface water / sediment sampling, well sampling, data validation, contaminants of concern, recommendations	To be determined	90%

TOTAL NUMBER OF PROJECTS:	TOTAL ESTIMATED CONSTRUCTION COSTS: $
Six projects listed.	To be determined.

16. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS SERVING AS A SUB-CONSULTANT TO OTHERS RELATING TO LANDFILL CLOSURE OR CONSTRUCTION

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
Frederick County Solid Waste Transfer Station, Frederick, MD Sub to SCS Engineers	Forest conservation services, Geotechnical, Land surveying and QC monitoring and testing	Frederick County 9031 Reichsford Rd. Frederick, MD 21740 Mr. Michael G. Marschner 301-694-2568	2008	$5,000,000	Approximately $125,000

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM WAS THE DESIGNATED ENGINEER OF RECORD (LIST 5 TO 7)

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
Don's Disposal Landfill Closure Design Charleston, WV	WV DEP Office of Environmental Remediation - LCAP 601 57th Street, SE Charleston, WV 25304-2345 Mr. Clyde Bennett (304) 872-3800	$2,900,000	2005	Yes
McDowell County Landfill Landfill Closure Design Roderfield, WV	WV DEP Office of Environmental Remediation - LCAP 601 57th Street, SE Charleston, WV 25304-2345 Mr. Clyde Bennett (304) 872-3800	$2,300,000	2003	Yes
Number 1 Landfill Landfill Closure Design Sistersville, WV	Union Carbide Corporation Mr. Don Estep Sistersville, WV 26175 Mr. Okey Tucker (304) 652-3211	$500,000	2007	Yes
Number 2 Landfill Landfill Closure Design Sistersville, WV	Union Carbide Corporation Mr. Don Estep Sistersville, WV 26175 Mr. Okey Tucker (304) 652-3211	$750,000	2007	Yes
Goff Mountain Landfill Landfill Closure Design; Landfill Expansion Design Institute, WV	Bayer Crop Science Mr. Ross Parkman Post Office Box 1005 Institute, WV 25112 Mr. George Kennedy (304) 747-6870	$630,000	2006	No
Fayette County Landfill Detailed site assessment; hydrogeologic site investigation; closure feasibility study; borrow soils investigation Fayetteville, WV	Land Resource, LLC Roaring River Development 458 C Maple Lane Fayetteville, WV 25840 Mr. Tom Wagner (866) 469-5263	$650,000	2007	No

18. COMPLETED WORK WITHIN LAST 5 YEARS IN WHICH YOUR FIRM HAS BEEN A SUBCONSULTANT TO OTHER FIRMS (INDICATE PHASE OF WORK WHICH YOUR FIRM WAS RESPONSIBLE) List 5 to 7.

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
Shenandoah County Landfill, Edinburg, VA Cell Closure	Shenandoah County Mr. Brad Dellinger, Director 349 Landfill Road, Edinburg, VA 540-984-8573	N/A	2003	Yes	SCS Engineers
Rockingham County Landfill, Harrisonburg, VA Water Sampling and Testing.	Rockingham County 2 S. Main Street Harrisonburg, VA 22801 540-476-1111	N/A	2005	Yes	HSMM
40 West Landfill Construction, Hagerstown, MD Geotechnical, drilling, and lab testing	40 West Landfill 12630 Earth Care Road Hagerstown, MD 21740 Mr. Robert G. Davenport 240-313-2790	Triad's cost was $10,000.	2006	Yes	URS
Resh Road Phase II Landfill Closure, Hagerstown, MD Geotechnical, test pits, drilling and surveying.	Resh Road Landfill 16232 Elliott Parkway Williamsport, MD 21795 Mr. David Mason 240-313-2600	N/A	2007	Yes	URS
Frederick County Landfill, Frederick County, VA Convenience Center and Access Road Construction	Frederick County Mr. Ed Strawsnyder, PE Dir. of Public Works 107 N. Kent Street Winchester, VA 22601 540-665-5643	N/A	2006	Yes	Ricketts Construction Company

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 Department of Environmental Protection.

Triad currently maintains a staff of approximately 230 personnel. This includes civil, environmental, geotechnical, and mining engineers; geologists and hydrogeologists; landscape architects; biologists; environmental scientists; and chemists. Our technical support and administrative staff includes designers, CADD technicians, surveyors, engineering technicians, drillers, construction inspectors and clerical personnel. The majority of our professional and technical staff has been with the company for many years.

Facilities and equipment available to support our staff have grown substantially since the inception of the firm in 1975. We maintain a fleet of drill rigs and support vehicles to meet the needs of our field explorations. Our laboratories are supplied with testing equipment necessary to perform a wide range of tests on soil, rock, concrete, aggregate, water, asphalt, and other similar construction materials. Each office maintains secure computer networks to support CADD functions, hydrogeologic evaluations, landfill water balance modeling, surface water drainage design, stability analysis, survey data reduction, and mapping. With the exception of areal photogrammetric mapping and analytical water testing, Triad is equipped to complete work on this project without subcontractors. These comprehensive in-house capabilities afford us much better control over the project schedule, quality, and cost, thereby minimizing problems that can occur when engineering firms are forced to coordinate efforts among a number of subcontractors.

Triad was previously selected by WVDEP to complete two, three-year LCAP closure design contracts. Consequently, our staff is completely familiar with the work required under this contract. During our previous six years of contract work with LCAP, TRIAD successfully completed eight separate landfill projects similar or identical to this project. Because LCAP design projects are geotechnically oriented, our expertise in geotechnical engineering, geology, and civil engineering design make us particularly well qualified to provide the requested services.

The Winchester, Virginia office of Triad will perform the work on this project, with some technical review assistance from the St. Albans, West Virginia office. The Winchester office is located approximately 50 miles from the site, and this further enhances our ability to provide efficient, cost-effective services as compared to other firms in the region. We do not believe that any other West Virginia firm can demonstrate the depth and variety of landfill assessment, design engineering and QC experience that Triad can bring to this project. With this extensive experience in design engineering, contract document preparation, and QC inspection, we are expertly qualified to provide these services for proper closure and reclamation of the Capon Springs Landfill.

20. The foregoing is a statement of facts.

Signature: _____

Date: APRIL 30, 2009

Title: President & CEO

Printed Name: Randy L. Moulton, P.E.