

**ORIGINAL**

**EXPRESSION OF INTEREST FOR  
PROFESSIONAL ENGINEERING DESIGN  
SERVICES AND CONSTRUCTION  
MONITORING SERVICES FOR THE MEASLE  
FORK REFUSE AREA DESIGN PROJECT  
RFQ NO. DEP14763**

*Prepared for:*

**West Virginia Department of Environmental Protection**  
Department of Environmental Protection  
Office of Abandoned Mine Lands and Reclamation  
601 57<sup>th</sup> Street, SE  
Charleston, West Virginia 25304

*Prepared by:*

**Potesta & Associates, Inc.**  
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Signature: *Dana L. Burns*

Project No. 0101-09-0425

September 24, 2009

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WV PURCHASING  
DIVISION

**POTESTA**

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**1.0 QUALIFICATIONS**

**1.1 Corporate History and Experience**

Potesta & Associates, Inc. (POTESTA) proposes to provide professional engineering design services and construction monitoring services to the West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands & Reclamation (WVDEP, AML). These services will consist of attendance at pre-bid and pre-construction conferences, construction monitoring, providing an updated revised Engineer's Cost Estimate, review of plan and specification and other miscellaneous services as may be required for the Measle Fork Refuse Area Design Project located in Wyoming County, West Virginia. The project will consist of:

- ◆ Creating diversion channels, ditches and/or underdrains to transport drainage.
- ◆ Providing stream bank protection.
- ◆ Regrading/reclaiming of refuse areas.
- ◆ Reclaiming and revegetating all areas disturbed during construction.

POTESTA is an engineering and environmental consulting firm providing professional services to deliver innovative, cost-effective solutions to complex problems. Our firm is multi-disciplinary and has a diversified practice covering engineering (civil, chemical, environmental, geotechnical, mechanical, and mining), permitting, site characterization and remediation, and general environmental consulting. Civil/site and geotechnical engineering are areas of extensive expertise at POTESTA. We have worked on numerous large projects (university dorms to power plant foundations) throughout the region. Our 15 registered professional engineers have over 250 years of experience among them and are supported by a large group of engineers, designers, surveyors and a landscape architect. Regulatory liaison and environmental compliance are areas of exceptional strength for POTESTA as the President of the company is a former director of the West Virginia Department of Natural Resources, and a Vice President is a former director of the West Virginia Division of Environmental Protection.

Our clients include state, local, and federal government agencies, mining companies, manufacturers, utility companies, waste management companies, chemical companies, architects, attorneys, financial institutions, insurance companies, land developers, and construction companies.

We carry a full line of insurance coverage including general liability, errors and omissions, and workers' compensation; Insurance and Workers Compensation Certificates are included in **Appendix A**. We also have quality control procedures to assist in providing our clients with quality projects.

POTESTA offers the following professional services.

- ▶ 404 Permit Preparation and Negotiation
- ▶ Acid Mine Drainage Control
- ▶ Asbestos Inspection
- ▶ Benthic and Biological Studies
- ▶ CADD Services (AutoCAD 2007, Various Software Design Packages, Digitizing and Plotting)
- ▶ Chemical Engineering
- ▶ Civil Engineering
- ▶ Clean Air Act Compliance
- ▶ Construction Monitoring
- ▶ Corporate Environmental Management
- ▶ Design of Slurry Impoundments and Refuse Disposal Sites
- ▶ Dewatering Plans
- ▶ Environmental Engineering
- ▶ Environmental Impact Studies
- ▶ Environmental Site Assessments
- ▶ Environmental Audits
- ▶ Environmental Engineering
- ▶ Erosion and Sedimentation Control Plans
- ▶ Expert Witness and Litigation Support
- ▶ Feasibility Studies
- ▶ Foundation Design
- ▶ Geological Services
- ▶ Geotechnical Engineering
- ▶ Ground and Surface Water Sampling
- ▶ Groundwater Investigation and Remediation
- ▶ Groundwater Protection Plans
- ▶ Hazardous Waste Management
- ▶ Hydrologic and Hydraulic Evaluations
- ▶ In-Situ and Ex-Situ Biostimulation/Bioaugmentation
- ▶ Landfill Design and Land Use and Natural Resource Planning
- ▶ Landfill Closure Plans
- ▶ Land Use and Natural Resource Planning
- ▶ Mining Engineering
- ▶ Multimedia Sampling (Air, Fly Ash, Rock, Soil, Water)
- ▶ Pollution Prevention and Waste Minimization Planning
- ▶ Permitting (Air, FERC, Fly Ash Haulback, Mining, NPDES, Quarry and Solid and Hazardous Waste)
- ▶ Post Reclamation Land Uses
- ▶ Pre-Blast and Pre-Subsidence Surveys
- ▶ Preparation of Construction Documents (Calculations Brief, Construction Drawings, Contractor's Bid Sheet, Engineer's Cost Estimate, QA/QC Manual and Technical Specifications)
- ▶ Reclamation Design and Planning
- ▶ Reclamation Liability Assessments
- ▶ Regulatory Liaison Services
- ▶ Risk-Based Environmental Assessment
- ▶ SARA Title III, TIER II and Form R Inventory and Reporting
- ▶ Sewer Line Design
- ▶ Site Characterization and Remediation Planning
- ▶ Site Design/Planning
- ▶ Soil Science/Agronomy
- ▶ Spill Prevention Control and Countermeasure Plans
- ▶ Stabilization and Closure of Waste Impoundments
- ▶ Stormwater Management and Permitting
- ▶ Stream Benthic Macro-Invertebrate Surveys and Toxicity Evaluations
- ▶ Stream and Water Restoration
- ▶ Subsidence Studies
- ▶ Subsurface Investigations
- ▶ Surface and Groundwater Monitoring, Statistical Analysis and Reporting
- ▶ Surveying (Traditional and Global Positioning System)
- ▶ UST Closure and Site Remediation
- ▶ UST Installation Monitoring

- ▶ Waste Facility Permitting and Design
- ▶ Waste Disposal Design
- ▶ Water Line Design
- ▶ Water/Wastewater Treatment Design
- ▶ Wetland Investigation and Delineation, Mitigation Design and Monitoring

POTESTA has the following staff in our Charleston, West Virginia office:

- 16 Engineers, Including 11 Professional Engineers
- 19 Scientists (Biologists, Ecologists, Environmental Scientists, Etc.)
- 3 Geologists/Hydrogeologists/Geological Scientist
- 1 Hydrologist
- 10 Surveyors
- 6 CADD Operators/Designers
- 7 Technicians/Construction Monitors
- 2 Chemists
- 23 Support and Other Staff

POTESTA, since starting in 1997, has grown to over 100 employees in three offices. Included are 15 registered professional engineers (R.P.E.'s), three registered professional licensed land surveyors (P.L.S.'s), one registered professional geologist, and two PhD's whose specialties include aquatic biology and water quality. POTESTA has assembled a team that has historically served WVDEP, AML on numerous AML projects. In fact our staff has worked on over 75 AML projects for WVDEP (and more in other states) on four different WVDEP, AML contracts dating back into the mid 1980's. We have an ongoing workload with WVDEP, AML.

POTESTA will perform the work for this project from our Charleston, West Virginia office. Our proximity to WVDEP's Charleston office will facilitate immediate response to your needs and allow meetings to be attended within minutes notice; in addition, we can draw upon support from our Morgantown office which also has experience with AML projects. POTESTA emphasizes that we will make a priority commitment to this project.

POTESTA has completed projects involving Civil, Structural, Geological, Hydrological and Reclamation Engineering; Land Use and Natural Resource Planning; Soil Science/Agronomy; Hydrology/Geology; Stream and Water Restoration; and Post Reclamation Land Uses. We also have open ended statewide contracts with the West Virginia Division of Highways (WVDOH) for survey services and asbestos inspection services. In addition, we have the preeminent staff in West Virginia for addressing issues regarding water quality and regulatory issues since (a) two of our principals are former heads of the state environmental regulatory agency and one was also chief of the water quality regulatory agency, and, (b) we have several PhD's and others with degrees whose specialty is water quality. As a result, POTESTA will provide the required expertise to complete this AML project in a timely, economical, and efficient manner.

POTESTA has assembled a successful team of employees that have historically worked on WVDEP, AML projects. In fact, our staff has 100+ years experience working on WVDEP, AML projects and AML projects in other states. Our staff's direct knowledge of the AML program guidelines and personnel, our familiarity with the applicable state regulations, and our commitment to success will benefit WVDEP, AML.

POTESTA has 10+ employees with experience on WVDEP, AML projects. POTESTA employees have worked on and have experience in the following WVDEP, AML projects:

- ◆ Assessment of Contamination (e.g., PCB's, asbestos)
- ◆ Demolition of Structures
- ◆ Diversion of Stormwater
- ◆ Identifying and Controlling Acid Mine Drainage
- ◆ Landslides
- ◆ Mine Fires
- ◆ Passive Acid Mine Drainage Treatment
- ◆ Reclamation of Refuse Piles
- ◆ Sealing Mine Portals
- ◆ Stream Relocations
- ◆ Subsidence Assessment and Remediation
- ◆ USCOE Permitting
- ◆ Water Line Design
- ◆ Water Supply Feasibility Studies and Design
- ◆ Inventory of Residential Water Supplies
- ◆ Wetland Assessments

POTESTA has completed several AML projects and projects similar to a WVDEP, AML type project. These include water line design and construction administration and observation, design and permitting of refuse piles and slurry impoundments, evaluating mine drainage from pre-SMCRA sites, reclamation designs for WVDEP, LCAP, landslides, stream monitoring, development of grading plans, mine reclamation liability assessments, watershed assessments including evaluation of impact from AMD including AMD from pre-SMCRA sites, detention pond designs, wetland studies, mine site design and permitting and design of numerous storm water structures.

**Appendix B** contains the executed Request for Quotation form and Purchasing Affidavit form.

The following describes POTESTA's qualifications for the surveying, aerial mapping, subsurface exploration, and laboratory services necessary for this project:

POTESTA proposes to utilize our own survey crews on this project. POTESTA will perform all of the surveying required for this contract using in-house personnel. POTESTA has three licensed professional surveyors with over 40 years of combined surveying experience. Our surveyors are experienced in all aspects of surveying such as topographic mapping, boundary and property surveys, and construction surveys for layout of work, record drawings, and quantity measurements.

POTESTA's surveyors use state-of-the-art "Field to Finish" equipment such as total station instruments, data collectors, AutoCAD 2008, Autodesk Land Desktop 2007 and Autodesk Civil 3D 2008 design software, computer hardware for data management, and a Hewlett Packard Designjet 5500 color ink jet plotter.

POTESTA is equipped with modern surveying instruments allowing efficient data processing and accurate gathering of field information. Total station instruments equipped with data collectors are utilized for complete field-to-office automation allowing for high levels of productivity in the field. The latest versions of software are then used to process survey data and create drawings or required end products.

POTESTA utilizes state of the art computers and hardware, networked through Windows NT, for interfacing of drafting and surveying departments. Thus, drawing and surveying data files can be shared efficiently.

Surveys and mapping are completed to the standards as outlined by the National Map Standards as well as other applicable quality standards.

Additional information on POTESTA's corporate history and experience is included in the AML Consultant Confidential Qualification Questionnaire included in **Appendix C**.

## **1.2 Experience, Qualifications, and Performance Data of Primary Staff**

Primary staff POTESTA commits to this contract and their roles are as follows:

Mr. Dana L. Burns, PE, Vice President at POTESTA, will serve as principal-in-charge for this project. Mr. Burns has served as project manager or principal-in-charge on three open end contracts for WVDEP, AML from 1986 through 1997 totaling over 65 projects. In addition, Mr. Burns has served as the principal-in-charge for four other WVDEP, AML projects since 2003. Mr. Burns' experience includes 30 years of civil and environmental engineering and related projects including water line extensions, sealing portals, regrading refuse, site assessments, mine fires, preliminary feasibility evaluations, detailed design, and preparation of construction drawings, specifications, and bid documents. Mr. Burns will ensure that the AML workload is properly supported.

Messrs. Mark Kiser, P.E., and Terence Moran, P.E., will serve as a project manager/design team leader. Mr. Kiser has served as a project manager/project engineer for over 35 AML projects in West Virginia. Mr. Kiser has 25 years experience in civil and environmental engineering projects including evaluation, design, preparation of plans and specifications, and construction administration. He has worked on over 65 AML projects as well as extensive experience with the coal industry. Mr. Kiser performs constructability reviews on our projects during and after design. Mr. Kiser is currently POTESTA's project manager for POTESTA's WVDEP, LCAP contract. Mr. Moran has served as project manager/project engineer or assisted with over 60 AML projects in West Virginia and Virginia. Mr. Moran has 20 years experience in civil and environmental

engineering projects, including evaluation, design, preparation of plans and specifications, and construction administration. Mr. Moran has co-authored multiple papers, including one on the abatement of AMD at the Omega Mine site and another on evaluating AMD of AML sites during preacquisition site assessments. Messrs. Kiser and Moran have worked on AML projects that addressed such technical issues as AMD, sealing portals, regrading refuse, diverting stormwater, landslides, subsidence and water supply. Messrs. Kiser and Moran are both familiar with requirements of AML projects and will ensure that WVDEP is satisfied with POTESTA's work by ensuring that proper QA/QC and timeliness are adhered to.

**NOTE: Since POTESTA has 15 professional engineers (P.E.), a combined significant track record with AML projects, POTESTA believes it can handle a substantial AML workload. Hence, POTESTA can adequately staff the Measle Fork Refuse Area Design Project. POTESTA can assign an additional four design teams to other AML projects if asked to do so.**

POTESTA has four other P.E.s with AML and related design experience in Messrs. Vince Ammirato, Bill Drinkard, Patrick Ward, and Ryan McGlothen, who will also serve as design team leaders. Their individual experiences and capabilities are discussed in further detail later in this section and in **Appendix D**.

In addition to the design team leaders, POTESTA has an additional project manager/project engineer in Mr. Chris Grose who has worked on numerous WVDEP, AML projects. Mr. Grose will serve as POTESTA's geotechnical scientist for work on this contract. Mr. Grose currently oversees aspects of geotechnical work at POTESTA and worked on WVDEP, AML projects from 1990 to 1997. Mr. Grose will evaluate slope stability issues with respect to regraded coal refuse, landslide abatement, or other steep slope applications.

Abbreviated personal history statements of primary staff and more detailed descriptions of staff experience are presented in the AML Consultant Confidential Qualification Questionnaire in **Appendix C**, and the AML and Related Project Experience Matrix in **Appendix D**.

### **1.3 Experience, Qualifications, and Performance Data of Other Staff**

POTESTA has a staff of over 100 technical and support personnel. Combined with our team of highly experienced subcontractors, POTESTA is exceptionally well suited to: (1) complete surveying and mapping; (2) perform geotechnical services including subsurface exploration and laboratory analysis; (3) design drainage diversion structures such as mine seals, reinforced concrete caps over vertical openings, channels and culverts, perform regrading plans for the refuse areas, and design dewatering plans, if necessary; (4) develop engineering drawings, contract specifications, permit applications and other contract documents; and (5) attend a pre-bid meeting and preconstruction conference as may be required for the Measle Fork Refuse Area Design Project. POTESTA can conduct all design engineering work required for this project with present personnel.



POTESTA's project managers will be supported by a team of engineers, scientists, surveyors, hydrologists, geologist/hydrogeologists, biologists, CADD operators, and other support personnel from POTESTA's staff. Included are geotechnical scientists and geotechnical engineers such as Mr. Chris Grose and Mr. Patrick Ward, P.E., who have both worked on numerous AML projects in the early to mid 1990's; project engineers such as Daniel Lipscomb, P.E., Ryan McGlothen, P.E., Robert Ammirato, E.I.T., Jarrett Smith, P.E., and Kenneth Kinder, P.E.; Mr. Vince Ammirato, P.E., a civil engineer with an emphasis in structural engineering who has extensive experience in design of reinforced concrete and steel structures; Mr. Bill Drinkard, P.E., a mining engineer whom has worked on numerous projects involving earthwork, site drainage, AMD, mine land reclamation, calculations, plans and specifications and construction administration; Mr. Denny Kohler, an environmental scientist who was in charge of surface mine reclamation for a major coal company for 18 years and has prepared numerous reclamation plans including reclamation of a coal waste impoundment in Kanawha County; Mr. Victor Dawson, P.L.S., who has worked on developing mapping or performing construction layout on projects dating back into the late 1980's; and POTESTA's team of CADD Operators whom have also worked on AML projects.

Abbreviated personal history statements of key personnel are presented in the AML Consultant Confidential Qualification Questionnaire presented in **Appendix C**. Additional information is included in Section 1.4 "Management Plan and Location of Facilities."

Our corporate and staff's experience involves civil (including water supply systems), structural, geological, hydrological, environmental, mining, geotechnical, and reclamation engineering; land use and natural resource planning; soil science/agronomy; hydrology/geology; surface/underground coal mining; environmental and ecological principles in land reclamation, stream and water restoration, and post reclamation land uses; and contract administration. Our capabilities, qualifications and expertise in design of AML projects are further exemplified in **Appendix E - Service Briefs** and **Appendix F- Project Abstracts**.

POTESTA provides multi-disciplinary services and can perform all of the professional services required under this contract.

## **1.4 Management Plan and Location of Facilities**

### **Management Plan**

POTESTA's proposed project organization chart including key staff and subcontractors is shown by Figure 1 in **Appendix G**. Work will be performed at POTESTA's Charleston, West Virginia office or on-site as may be required. Our Charleston location is convenient with respect to WVDEP's Charleston office; the effort will be supported by our Morgantown office if needed.

POTESTA's professional, technical, and support staff have extensive experience on water supply and WVDEP, AML projects. We are well qualified to serve WVDEP on this project. We stand ready to commit the personnel and resources required to complete this project in a timely, technically sound,

and cost-efficient manner. POTEESTA's large staff size will allow us to work on this project on an accelerated schedule if necessary.

As shown by Figure 1 in **Appendix G**, POTEESTA's principal-in-charge will be responsible for contract management (administration) and shall coordinate and direct all aspects of the project. The principal-in-charge will review the proposed project, assign a project manager, assemble a project team and appoint key staff to develop a proposed scope of work. The principal-in-charge and project manager will visit the site with WVDEP, AML to review site conditions and the proposed services to be completed and guide the preparation of a detailed proposal and cost estimate. A written proposal including a detailed scope of work and an associated manhour and cost estimate will then be prepared and submitted to WVDEP, AML for review. The project manager will review the proposal with the WVDEP, AML including a task-by-task discussion of work items and the related costs. Upon WVDEP, AML's approval of the proposal, the project manager will arrange for the start of project activities. The principal-in-charge will provide the project manager the required staff necessary to complete the project activities, will review the project budget and schedule during performance of the project, and will provide a final QA/QC review of the documents prior to submittal to the WVDEP, AML. Mr. Dana Burns, P.E. will serve as the principal-in-charge on this project. Day-to-day project activities for this project will be performed under the direction of our project manager, Mr. Mark Kiser, P.E. Mr. Terence Moran, P.E. will serve as a "backup" project manager for quality assurance/quality control. The project manager will develop a detailed step-by-step project work plan so that the project activities are completed in a correct manner, on-budget, and on-time. They will also review work products at intermediate points and prior to project completion. They will conduct project status reports which may include weekly meetings, memos, or telephone calls with the WVDEP, AML project manager as required. The project manager will supervise the day to day work in progress, will coordinate with POTEESTA's subcontractors to provide necessary services, and review work products at intermediate points and prior to submittal to the WVDEP, AML.

POTEESTA will utilize the appropriate classification of staff to conduct activities required for the project. Our large, experienced staff allows us to respond quickly, provides flexibility, and will provide for the opportunity of high level input from in-house experts on complex multi-disciplinary projects. Our normal method of staffing projects is to assign a small project team with total responsibility for completion of the work to the client's satisfaction and budget. Where necessary, the team can draw on the expertise available within POTEESTA's large staff. POTEESTA offers a large staff with the efficiency and rates normally associated with a small firm.

WVDEP, AML has indicated that 90 days are required for submittal of deliverables for the Measle Fork Refuse Area Design Project. We stand ready to meet your time frame. We can provide up to four design teams to complete the required engineering services with an additional two design teams as "backup" to be utilized if needed. The assignment tasks are noted on the design team descriptions on Figure 1 in **Appendix G**. If needed, we can accelerate your schedule.

### **Project Budget Control**

The project manager will be responsible for monitoring the project budget and keeping the principal-in-charge informed of its status. POTEESTA's staff enters time into POTEESTA's Timetrax computer system on a daily and/or weekly basis. POTEESTA's project managers can access Timetrax at any time, thus allowing "real-time" control of project costs. In addition, field representatives routinely keep track of subcontractor costs on a daily basis. Thus we can, in effect, keep track of the total project costs on a weekly basis. Our subcontractors commonly invoice at monthly intervals and there is seldom a discrepancy between our field representative's pay items and our subcontractor's invoice.

### **Schedule Control**

Direct responsibility for schedule control lies with the project manager. Initially, the project manager will review schedule requirements (understood to be 90 days for submittal of preliminary design documents) to see how they can be achieved given the anticipated scope of work. As the project progresses, the project manager will monitor progress and compare it with the established schedule on a weekly basis keeping the principal-in-charge aware of the schedule's status. In this manner, the principal-in-charge can make staff adjustments to allow the project manager to maintain the project schedule. If circumstances develop that make it impossible to maintain the project schedule, the project manager will contact the WVDEP project manager to develop a mutually acceptable adjustment to the schedule and/or work plan.

### **Location of Facilities**

POTEESTA will complete the work under this contract in our Charleston, West Virginia office. Our subcontractors are located in the Charleston area or other strategic regions and are quite familiar with the coalfields of West Virginia where the Measle Fork Refuse Area Design Project is located. Our close proximity to WVDEP's Charleston office will allow the project to be completed in a timely, economical manner as well as provide WVDEP, AML with easy access to us.

### **Quality Assurance/Quality Control**

Submittals to the WVDEP will be reviewed and commented on by the project manager and the principal-in-charge prior to submittal to the WVDEP. Both the project managers and the principal-in-charge have worked on numerous WVDEP, AML projects, and thus understand the level of detail and expectations for WVDEP, AML projects. POTEESTA utilizes standardized Quality Assurance/Quality Control (QA/QC) practices such as consistency checks, color coding of checked copies/calculations, and review of method of measurements versus quantity tallies to insure QA/QC expectations are met.

## 2.0 CLOSING

We look forward to continuing to serve WVDEP, AML on the Measle Fork Refuse Area Design Project and bring it to completion. Our commitment is to provide quality service, rapid response and project completion, and to exceed your expectations for services performed under this project. We believe the track record of our professionals demonstrates our ability and commitment.

# ACORD CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YY)

4/16/09

**PRODUCER**

Wells Fargo Ins. Services  
of West Virginia, Inc.  
P.O. Box 1551  
Charleston WV 25326-1551  
(304) 346-0611

**INSURED**

Potesta & Associates, Inc.  
7012 MacCorkle Avenue SE  
Charleston, WV 25304

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

**COMPANIES AFFORDING COVERAGE**

COMPANY	<b>A</b> Travelers Indemnity Co of Amer
COMPANY	<b>B</b> Travelers Property Cas Ins Co
COMPANY	<b>C</b> Travelers Indemnity Company
COMPANY	<b>D</b> Farmington Casualty Company

**COVERAGES**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOT WITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
A	<b>GENERAL LIABILITY</b>	680-2343N448	3/07/09	3/07/10	GENERAL AGGREGATE \$ 2,000,000 PRODUCTS-COMP/OP AGG \$ 2,000,000 PERSONAL & ADV INJURY \$ 1,000,000 EACH OCCURRENCE \$ 1,000,000 FIRE DAMAGE (Any one fire) \$ 300,000 MED EXP (Any one person) \$ 5,000
X	COMMERCIAL GENERAL LIABILITY CLAIMS MADE X OCCUR OWNER'S & CONTRACTOR'S PROF				
B	<b>AUTOMOBILE LIABILITY</b>	BA-2344N193	3/07/09	3/07/10	COMBINED SINGLE LIMIT \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE \$
	<b>GARAGE LIABILITY</b>				AUTO ONLY - FA ACCIDENT \$ OTHER THAN AUTO ONLY: EACH ACCIDENT \$ AGGREGATE \$
	ANY AUTO				
C	<b>EXCESS LIABILITY</b>	CUP-2583T455	3/07/09	3/07/10	EACH OCCURRENCE \$ 3,000,000 AGGREGATE \$ 3,000,000
X	UMBRELLA FORM OTHER THAN UMBRELLA FORM				
D	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b>	UB-2584T347	3/07/09	3/07/10	X (WC STATUTORY LIMITS) OTHER EL EACH ACCIDENT \$ 1,000,000 EL DISEASE-POLICY LIMIT \$ 1,000,000 EL DISEASE-EA EMPLOYEE \$ 1,000,000
	THE PROPRIETOR/ PARTNERS/EXECUTIVE OFFICERS ARE: <input type="checkbox"/> INCL <input type="checkbox"/> EXCL				
	OTHER				

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS

**CERTIFICATE HOLDER**

Evidence of Insurance  
00000

**CANCELLATION**

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

*Sherry K. Hersman*  
Sherry K. Hersman

ACORD 25-S (1/95)

© ACORD CORPORATION 1988

CERTIFICATE: 010/001/ 00186

## **IMPORTANT**

If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

## **DISCLAIMER**

The Certificate of Insurance on the reverse side of this form does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.



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

# Request for Quotation

RFQ NUMBER  
**DEP14763**

PAGE  
**1**

ADDRESS CORRESPONDENCE TO ATTENTION OF  
**CHUCK BOWMAN  
 304-558-2157**

**RFQ COPY**  
 TYPE NAME/ADDRESS HERE  
 Potesta & Associates, Inc.  
 7012 MacCorkle Avenue, SE  
 Charleston, WV 25304

**ENVIRONMENTAL PROTECTION  
 DEPARTMENT OF  
 OFFICE OF AML&R  
 601 57TH STREET SE  
 CHARLESTON, WV  
 25304 304-926-0499**

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
09/03/2009				

BID OPENING DATE: **09/24/2009** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	JB		906-29		
<p>MEASLE FORK REFUSE AREA DESIGN</p> <p>EXPRESSION OF INTEREST</p> <p>THE WEST VIRGINIA PURCHASING DIVISION, FOR THE AGENCY, THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, IS SOLICITING EXPRESSIONS OF INTEREST FOR PROFESSIONAL ENGINEERING DESIGN SERVICES AND CONSTRUCTION MONITORING SERVICES AT THE MEASLE FORK REFUSE AREA PROJECT IN WYOMING COUNTY, WEST VIRGINIA, PER THE FOLLOWING BID REQUIREMENTS AND ATTACHED SPECIFICATIONS.</p> <p>BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THE STATE MAY DEEM THIS CONTRACT NULL AND VOID AND TERMINATE SUCH CONTRACT WITHOUT FURTHER ORDER.</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE *Dana L. Burns* TELEPHONE (304) 342-1400 DATE September 24, 2009

TITLE Vice President FEIN 311509066 ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

STATE OF WEST VIRGINIA  
Purchasing Division**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: Potesta & Associates, Inc.  
Authorized Signature: *Dana L. Burns* Date: September 24, 2009



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

PROJECT NAME  
 Measle Fork Refuse Area Design

DATE (DAY, MONTH, YEAR)  
 24, September, 2009

FEIN  
 311509066

1. FIRM NAME  
 Potesta & Associates, Inc.

2. HOME OFFICE BUSINESS ADDRESS  
 7012 MacCorkle Avenue, SE  
 Charleston, West Virginia 25304

3. FORMER FIRM NAME  
 N/A

4. HOME OFFICE TELEPHONE  
 (304) 342-1400

5. ESTABLISHED (YEAR)  
 1997

6. TYPE OWNERSHIP  
 Individual Corporation  
 Partnership Joint-Venture  
 YES NO

6a. WV REGISTERED DBE  
 (Disadvantaged Business Enterprise)  
 YES NO

7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE

7012 MacCorkle Avenue, SE, Charleston, WV 25304 / (304) 342-1400 / Dana L. Burns / 87

8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM  
 Ronald R. Potesta, President  
 Dana L. Burns, Vice President and Treasurer  
 Laidley Eli McCoy, Vice President and Secretary  
 N/A

9. PERSONNEL BY DISCIPLINE

- |                           |                          |                           |                             |
|---------------------------|--------------------------|---------------------------|-----------------------------|
| 16 ADMINISTRATIVE         | 3 ECOLOGISTS             | 1 LANDSCAPE ARCHITECTS    | 1 STRUCTURAL ENGINEER       |
| ARCHITECTS                | 1 ECONOMISTS             | 1 MECHANICAL ENGINEERS    | 10 SURVEYORS                |
| 10 BIOLOGIST              | ELECTRICAL ENGINEERS     | 2 MINING ENGINEERS        | 1 TRANSPORTATION ENGINEERS  |
| 8 CADD OPERATORS          | 1 ENVIRONMENTAL ENGINEER | PHOTOGRAMMETRISTS         | 1 INFORMATION TECHNOLOGIST  |
| 1 CHEMICAL ENGINEERS      | ESTIMATORS               | PLANNERS: URBAN/REGIONAL  | 1 SAFETY/INDUSTRIAL HYGIENE |
| 17 CIVIL ENGINEERS        | 3 GEOLOGISTS             | 1 SANITARY ENGINEERS      | 2 CHEMIST                   |
| 6 CONSTRUCTION INSPECTORS | HISTORIANS               | 3 SOILS ENGINEERS         | OTHER                       |
| 1 DESIGNERS               | 1 HYDROLOGISTS           | 2 SPECIFICATION WRITERS   |                             |
| DRAFTSMEN                 | 1 TOXICOLOGIST           | 7 ENVIRONMENTAL SCIENTIST |                             |
|                           |                          |                           | 102 TOTAL PERSONNEL         |

TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: 11

\*RPEs other than Civil and Mining must provide supporting documentation that qualifies them to supervise and perform this type of work.

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

11. OUTSIDE KEY CONSULTANTS/SUB-CONSULTANTS ANTICIPATED TO BE USED. Attach "AML Consultant Confidential Questionnaire".

NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
Digital Graphic Mapping 172 Imboden Drive, Suite 13 Winchester, Virginia 22603	Aerial Photography and Mapping	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
NAME AND ADDRESS: Sturm Environmental Services, Inc. Brushy Fork Road Bridgeport, West Virginia 26330	SPECIALTY: Environmental and Coal Related Laboratory	WORKED WITH BEFORE <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
NAME AND ADDRESS: Test Boring Services 140 Mong Road Scenery Hill, Pennsylvania 15360	SPECIALTY: Soil and Rock Boring	WORKED WITH BEFORE <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
NAME AND ADDRESS: CTL of WV, Inc. 510 C Street South Charleston, West Virginia 25303	SPECIALTY: Soils and Concrete Testing	WORKED WITH BEFORE <input type="checkbox"/> Yes <input type="checkbox"/> No
NAME AND ADDRESS: _____ _____ _____	SPECIALTY: _____	WORKED WITH BEFORE <input type="checkbox"/> Yes <input type="checkbox"/> No
NAME AND ADDRESS: _____ _____ _____	SPECIALTY: _____	WORKED WITH BEFORE <input type="checkbox"/> Yes <input type="checkbox"/> No
NAME AND ADDRESS: _____ _____ _____	SPECIALTY: _____	WORKED WITH BEFORE <input type="checkbox"/> Yes <input type="checkbox"/> No
NAME AND ADDRESS: _____ _____ _____	SPECIALTY: _____	WORKED WITH BEFORE <input type="checkbox"/> Yes <input type="checkbox"/> No

12. A Is your firm experienced in Abandoned Mine Land Remediation/Mine Reclamation Engineering?

YES

Description and Number of Projects: POTESTA's principal-in-charge, Dana L. Burns, P.E. and two project managers, Messrs. Mark Kiser, P.E. and Terence Moran, P.E. have each worked on over 65 AML projects dating back to 1986, including landslide investigation and abatement, mine subsidence stabilization projects, acid mine drainage treatment, refuse piles, mine drainage, mine portal seal, and water supply projects. POTESTA has 15 staff with experience on AML projects. POTESTA's principal engineers have extensive experience with preparing design plans for refuse piles. Many of the previous AML projects won reclamation awards including: Bear Run Refuse; Kimball Refuse Piles; Owings Mine Complex; Pine Creek (Omar) Refuse; Turner-Douglas Complex; Grass Run Refuse. These projects were completed by Dana Burns, Mark Kiser, and Terry Moran.

NO

B. Is your firm experienced in Soil Analysis?

YES

Description and Number of Projects: POTESTA's staff is experienced in all aspects of soil analysis, including geotechnical and environmental soil analysis. POTESTA's staff has worked on 30+ AML projects involving soil science, including slope stability and revegetation. POTESTA is experienced in soil analysis as it relates to this project. POTESTA's principal engineers have developed and implemented plans for nutrient and lime requirements testing to determine revegetation requirements, acid-base accounting of rock samples to evaluate the potential of excavated materials to generate acidity, and analysis of coal refuse to determine the potential for reprocessing.

NO

C. Is your firm experienced in hydrology and hydraulics?

YES

Description and Number of Projects: POTESTA's staff is experienced in hydrology and hydraulics as it relates to AML projects in West Virginia. POTESTA's staff has worked on over 65 AML projects that involved sizing channels, culverts, and waterlines. POTESTA has developed well over 100 storm water management plans for mines, industrial facilities and new site development projects throughout West Virginia.

NO

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

YES

Description and Number of Projects: POTESTA's staff routinely develop contour mapping for use with design. We subcontract aerial mapping development, but complete the ground control necessary for developing mapping. On smaller projects, we perform the topographic survey work and subsequently develop the contour mapping. POTESTA has completed 200+ mapping development projects in the last five years.

NO

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

YES

Description and Number of Projects: POTEESTA's staff is exceptionally experienced at domestic waterline design. POTEESTA's staff has worked on waterline designs and water treatment plant designs for municipalities, WVDEP AML, and private utilities. POTEESTA's staff includes one project manager, Terence C. Moran, PE, who has managed design of numerous AML waterlines, including 20+ mile Cow Creek-Sarah Ann Extension and 30+ mile/2,800 GPM Water Treatment Plant Mill Creek Regional Water Supply project. We are also exceptionally well qualified to evaluate aquifer degradation, including aquifer degradation by AML sites. Our staff has worked on 80+ evaluations of aquifer degradation. POTEESTA has performed over 35 water line design projects totaling several hundred miles of installed water line.

NO

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

YES

Description and Number of Projects: POTEESTA has completed numerous projects addressing acid mine drainage evaluation and abatement design. POTEESTA's staff has worked on 30+ projects involving AMD evaluation and 10+ projects involving AMD abatement design. In both cases, many of the projects involved AML sites. We have worked extensively with Anker Energy, Dominion Generation, and the WVDOH, among others with acid-base accounting evaluations and the subsequent development of plans to prevent/abate AMD generation. Additionally, we worked extensively with Elk Run Coal Company to devise a plan to limit AMD generation and to treat the remaining AMD.

NO

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Burns, Dana L. Vice President	21	30	19
Brief Explanation of Responsibilities			
Mr. Burns will serve as principal-in-charge for this project with his significant experience with AML type projects. Mr. Burns has served as the project manager or principal-in-charge on three open end contracts for WVDEP, AML from 1986 through 1997, totaling over 60 projects. He will ensure the personnel required to efficiently complete this project will be identified. He will coordinate contract issues with the State of West Virginia.			
EDUCATION (Degree, Year, Specialization)			
MS, 1979, Civil Engineering with Environmental Engineering Emphasis BS, 1978, Civil Engineering			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS			
West Virginia Coal Association American Society of Civil Engineers West Virginia Association of Consulting Engineers American Consulting Engineering Council - Trans Committee			
REGISTRATION (Type, Year, State)			
PE, 1985, WV PS, 1995, WV			
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Kiser, D. Mark Chief Engineer	18	25	19
Brief Explanation of Responsibilities			
As Chief Engineer, with significant experience in coal refuse stabilization design and mine portal closures and drainage channelization, he will serve as a project manager. Mr. Kiser will also provide constructability reviews and QA/QC for the various draft submissions and final construction documents.			
EDUCATION (Degree, Year, Specialization)			
BS, 1984, Civil Engineering			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS			
REGISTRATION (Type, Year, State)			
PE, 1990, WV PE, 1998, IN PE, 1998, SC Licensed Remediation Specialist, 1998, WV			

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Moran, Terence C. Senior Engineer I	17	20	20

Brief Explanation of Responsibilities

Mr. Moran will serve as project manager coordinating interaction between the WVDEP, design team members, and subconsultants. Mr. Moran has served as a project engineer/project manager for over 60 AML projects in West Virginia between 1989 and 1999. More recently, he has served as principal engineer and project manager for WVDEP-AML projects including water studies and reclamation plans. He will set the schedule and ensure it is met on a weekly basis. He will also serve as one of the principal designers of the reclamation design solution.

EDUCATION (Degree, Year, Specialization)

MS, 1989, Civil Engineering  
BS, 1987, Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

American Society of Civil Engineers

REGISTRATION (Type, Year, State)

PE, 1996, WV  
PE, 1998, VA

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Taylor, Patrick A. Senior Engineer II	19	19	14

Brief Explanation of Responsibilities

Mr. Taylor will serve as a project engineer, including completing field work, design, and preparation of drawings, technical specifications, bid forms, and cost estimates. Mr. Taylor has project engineer experience in AML projects consisting of emergency slide remediation, refuse fill and slurry pond reclamation, abandoned portal closures, and slurry pond reclamation. Mr. Taylor also served as a branch manager for a private consulting firm responsible for surface mining permitting, design and reclamation.

EDUCATION (Degree, Year, Specialization)

MS, 2006, Engineering Management  
BS, 1988, Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

American Society of Civil Engineers

REGISTRATION (Type, Year, State)

PE, 1994, WV

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	
Gandee, Jason G. Project Engineer	1+	2	

Brief Explanation of Responsibilities

As project engineer, Jason will field verify project mapping, acquire utility information, develop grading plans, evaluate soil borrow areas, perform hydrologic and hydraulic design calculations, develop contract drawings and specifications. Mr. Gandee has worked on five AML projects over the last year.

EDUCATION (Degree, Year, Specialization)

BS, 2007, Civil Engineering Technology

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	
Bria, R. Scott CAD Designer	2+	7	

Brief Explanation of Responsibilities

As a CAD Designer, Scott will assist in reducing survey data and preparing base mapping, compile all drawings, develop grading plans, compute volumes, generate cross sections and profiles, customize details and offer support to engineering staff.

EDUCATION (Degree, Year, Specialization)

1997, Certificate of Drafting

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

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

NAME & TITLE (Last, First, Middle Int.)  Fore, Shawn J.	YEARS OF AML DESIGN EXPERIENCE:  1+	YEARS OF AML RELATED DESIGN EXPERIENCE:  7	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
	YEARS OF EXPERIENCE		

Brief Explanation of Responsibilities

Surveying, reduce survey data and prepare base mapping, compiling drawing packages, develop grading plans, cross sections, profiles and computing volumes. Create details and assist in design.

EDUCATION (Degree, Year, Specialization)

Certificate (Microstation/CAD 1080 Hours), Ben Franklin, Charleston, WV  
 Certificate (AutoCAD - 4 Months), Carver Career, Charleston, WV  
 Certificate (Civil 3D), Imagineite Technologies, Cleveland, OH  
 Certificate (Dreamweaver - Website Design), Garnet  
 Attended WV State College 2 Years, Emphasis on CADD/Drafting

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

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

NAME & TITLE (Last, First, Middle Int.)  Lipscomb, Daniel H. Engineer II	YEARS OF AML DESIGN EXPERIENCE:  1	YEARS OF AML RELATED DESIGN EXPERIENCE:  3	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:  3
	YEARS OF EXPERIENCE		

Brief Explanation of Responsibilities

Mr. Lipscomb has extensive experience in design and permitting of water supply systems and interaction with the public to gain easements. Mr. Lipscomb also has significant experience in subsurface explorations and soil evaluations.

EDUCATION (Degree, Year, Specialization)

BS, 2002, Civil Engineering Technology

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

PE, 2008, WV



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

NAME & TITLE (Last, First, Middle Int.)  Potesta, Ronald R. President	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
	YEARS OF EXPERIENCE		

Brief Explanation of Responsibilities

As President, Mr. Potesta directs the full resources of the firm to meet the complete requirements of this project for WVDEP.

EDUCATION (Degree, Year, Specialization)

MS, 1975, Economics with a Concentration in Mineral Economics, Econometrics, and Micro Economics  
BS, 1971, Business Administration

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

Commissioner, Ohio River Valley Water Sanitation Commission; Board of Directors, WV Chapter of the Nature Conservancy; National Institute for Chemical Studies; WV Environmental Institute; WV Manufacturers Association

REGISTRATION (Type, Year, State)

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

NAME & TITLE (Last, First, Middle Int.)  McCoy, Laidley Eli Vice President	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
	YEARS OF EXPERIENCE		

Brief Explanation of Responsibilities

Dr. McCoy will serve as a back-up principal-in-charge. In addition, Dr. McCoy manages the entire environmental and natural science division of the company. He will coordinate required environmental support services for the completion of this reclamation design.

EDUCATION (Degree, Year, Specialization)

PhD, 1981, Aquatic Ecology  
MS, 1974, Biological Science  
BS, 1972, Zoology

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE	
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:
Grose, Christopher A. Senior Engineering Associate	15	20
Brief Explanation of Responsibilities  Mr. Grose will coordinate the drilling and geotechnical analysis for slope stability design, identification of borrow sites for soil cover, and investigation and design of solutions for subsurface hydrogeology within the deep mines and recommendations for mine seals.		
EDUCATION (Degree, Year, Specialization)  MS, 1990, Geological Engineering BS, 1988, Civil Engineering		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS American Society of Civil Engineering Association of Engineering Geology Society of American Military Engineers  REGISTRATION (Type, Year, State)  Licensed Remediation Specialist, 1998, WV		
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)		
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE	
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:
Ammirato, Vincent J. Senior Engineer I	2	12
Brief Explanation of Responsibilities  Mr. Ammirato will provide structural engineering that may be required for this project. His extensive background with Columbia Gas in plant design and pipeline distribution will be well suited for the possible structural requirements this project may have.		
EDUCATION (Degree, Year, Specialization)  BS, 1970, Civil Engineering		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS  REGISTRATION (Type, Year, State) PE, 1980, WV PE, 1992, PA PE, 1992, OH PE, 1993, VA		

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE	
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:
Ward, Patrick E. Senior Engineer I	6	12
		YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 4

Brief Explanation of Responsibilities

Mr. Ward will serve as a project engineer and has extensive experience on WVDEP, AML projects, having served as a project engineer on refuse piles, mine drainage, and subsidence projects in the early to mid-1990's.

EDUCATION (Degree, Year, Specialization)

MS, 1992, Civil Engineering (Geotechnical)  
BS, 1990, Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)  
PE, 1997, WV

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE	
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:
McGlothen, Ryan K. Senior Engineer	2	13
		YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 9

Brief Explanation of Responsibilities

Mr. McGlothen will serve as a project engineer on this project. Mr. McGlothen will assist with design calculations and preparation of the drawings and technical specifications. He has extensive experience with slope stability, earthwork design, and monitoring of drilling, as well as hydrologic and hydraulic design.

EDUCATION (Degree, Year, Specialization)

BS, 1996, Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)  
PE, 2002, WV

American Society of Civil Engineers

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	
Kohler, Dennis J. Staff Scientist I	9	35	
Brief Explanation of Responsibilities			
Mr. Kohler will serve as a project scientist for issues regarding reclamation, including revegetation. Mr. Kohler has extensive experience with the coal mining, having worked for the coal industry for numerous years and being directly responsible for reclamation of surface operations for over 15 years.			
EDUCATION (Degree, Year, Specialization)			
BS, 1977, Environmental Science and Resource Management			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS			
REGISTRATION (Type, Year, State)			

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	
Sedosky, Timothy B. Staff Scientist I		14	
Brief Explanation of Responsibilities			
Mr. Sedosky will review the site for possible wetlands and delineate, as required, wetland areas to be impacted by potential reclamation activities. He will prepare required permit applications to the WVDNR, WVDEP, and USCOE for wetland disturbance and mitigation.			
EDUCATION (Degree, Year, Specialization)			
BS, 1995, Wildlife and Fisheries Resource			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS			
REGISTRATION (Type, Year, State)			

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

NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
<p><b>Litwinowicz, Dennis L.</b> Staff Scientist I</p> <p>Brief Explanation of Responsibilities</p> <p>Mr. Litwinowicz will serve as a project geologist, including observation of subsurface exploration activities and assistance on evaluation of other geologic activities.</p>			
<p><b>EDUCATION (Degree, Year, Specialization)</b></p> <p>BS, 1980, Geology and Mineralogy</p>			
<p><b>MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS</b></p> <p>American Association of Petroleum Geologists</p> <p>REGISTRATION (Type, Year, State)</p> <p>Certified Petroleum Geologist, 1984</p>			
<p>13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)</p>			
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
<p><b>Dawson, Victor M.</b> Survey Supervisor</p> <p>Brief Explanation of Responsibilities</p> <p>Mr. Dawson will coordinate required surveying for aerial mapping control if needed, establish construction benchmarks, topographic surveys, boundary surveys and/or property and deed research, survey of boring locations and profiling significant existing drainage courses not clearly defined in the aerial mapping. Mr. Dawson will reduce survey data and create topographic mapping for AML projects.</p>			
<p><b>EDUCATION (Degree, Year, Specialization)</b></p> <p>AS, 1983, Surveying</p>			
<p><b>MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS</b></p> <p>American Congress Surveying and Mapping</p> <p>West Virginia Association of Land Surveyors</p> <p>North Carolina Society of Surveyors</p> <p>South Carolina Society of Surveyors</p> <p>REGISTRATION (Type, Year, State)</p> <p>PS, 1988, NC</p> <p>PS, 1989, SC</p> <p>PS, 1993, WV</p>			

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE	
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:
Osborne, Ralph E. CADD Designer	9	33
		YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 17

Brief Explanation of Responsibilities

Mr. Osborne will provide the CADD support in preparation of construction drawings for the project. He will also reduce survey data at booster station and water storage tank sites to provide sufficient mapping to complete the design.

EDUCATION (Degree, Year, Specialization)

AS, 1983, Mining Technology

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE	
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:
Sankoff, Michael B. CADD Designer/Supervisor	9	22
		YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 11

Brief Explanation of Responsibilities

Mr. Sankoff will provide the CADD support in preparation of construction drawings for the project. He will reduce survey data to provide sufficient mapping to complete the design.

EDUCATION (Degree, Year, Specialization)

BS, 1987, Industrial Management  
AS, 1986, Drafting and Design Engineering Technology  
AS, 1986, Mechanical Engineering Technology

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

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

NAME & TITLE (Last, First, Middle Int.)  Ammirato, Robert J. Engineer	YEARS OF AML DESIGN EXPERIENCE:  3	YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN EXPERIENCE:  6	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:  6
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Brief Explanation of Responsibilities

Mr. Ammirato will serve as a project engineer for the project. His responsibilities will include hydraulic calculations, layout, drawing preparation, design, technical specifications, bid forms, cost estimates, and field work. He has extensive experience in water supply and waste water system design, permitting, and regulations. Mr. Ammirato was the project engineer on our Borderland (Matney) Portals project.

EDUCATION (Degree, Year, Specialization)

BS, 1999, Mechanical Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

EIT, 1999, VA

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

NAME & TITLE (Last, First, Middle Int.)  Kinder, Kenneth K. Engineer	YEARS OF AML DESIGN EXPERIENCE:  3	YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN EXPERIENCE:  7	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:  5
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Brief Explanation of Responsibilities

Mr. Kinder has extensive experience in hydrologic and hydraulic design as well as subsurface explorations, design of coal ash disposal facilities and preparation of cost estimates.

EDUCATION (Degree, Year, Specialization)

BS, 2003, Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

PE, 2008, WV

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Smith, Jarrett M. Engineer II	4	6	6

Brief Explanation of Responsibilities

Mr. Smith has been involved extensively with development of hydrologic and hydraulic calculations including preparation of NPDES stormwater construction permits. He also has significant expertise in the development of site grading plans and quantity/cost estimates. Mr. Smith was the project engineer on our Taylorville (Cantrell) Drainage AML project.

EDUCATION (Degree, Year, Specialization)

BS, 2002, Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

National Society of Professional Engineers

REGISTRATION (Type, Year, State)

PE, 2008, WV

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Drinkard, William F. III Senior Engineer I	6	35	9

Brief Explanation of Responsibilities

Mr. Drinkard will serve as a project engineer and has extensive coal industry design experience in refuse disposal areas, mine facility construction utilities, access roads, drainage controls, and portal closings. In addition, Mr. Drinkard will prepare NPDES permit applications for construction activities and other required storm and mine drainage calculations.

EDUCATION (Degree, Year, Specialization)

MS, In Progress, Environmental Engineering  
MBA, 1981, Business Administration  
BS, 1980, Mining Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)  
PE, 1981, WV  
PS, 1992, WV



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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	
Junker, David N. Senior Scientist I		20	
Brief Explanation of Responsibilities			
Mr. Junker will provide as needed geological/hydrogeological services for this project.			
EDUCATION (Degree, Year, Specialization)			
MS, 1990, Hydrogeology and Geology BS, 1973, Geology			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS			
National Groundwater Association		REGISTRATION (Type, Year, State) Registered Professional Geologist, 1993, KY Licensed Remediation Specialist, 1998, WV	

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

Microsoft Office XP (Excel, Access, Word, PowerPoint)

WordPerfect 11

Adobe PageMaker 7 (Publication Software)

MicroStation (Allows users to create 3D models of permanent assets - the models and all of their components are electronic simulations of real-world objects); used for CADD drawing preparation.

Autodesk Land Desktop 2007 (3D modeling software that provides topo analysis, real-world coordinate systems, volume totals, roadway geometry.)

Haestad Methods (Numerous software packages used for designing storm water structures [e.g., channels, culverts, ponds, etc.] and water distribution systems.)

MapTech, Terrain Navigator (Combines regional collections of topo maps with powerful PC navigation software for 2D/3D viewing, customizing, printing and GPS use.)

AutoCAD, 2007 and 2008 Used for preparing CADD drawings.

Softdesk 8.0 Civil/Survey Design Software

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

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
Jessop Highway #10 AML Reclamation of Highwalls, Preston County, WV	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	Preparation of reclamation plan, drawings, specifications, bid form, engineer's construction cost estimate, and calculations brief.	\$1,357,000	99%
Lando (Edwards) Drainage, AML Reclamation of Refuse Pile and Drainage Problems, Mingo County, WV	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	Preparation of reclamation plan, drawings, specifications, bid form, engineer's construction cost estimate, and calculations brief.	\$352,000	95%
Taylorville (Cantrell) Drainage, AML Reclamation of Acid Mine Drainage Problems, Mingo County, WV	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	Preparation of reclamation plan, drawings, specifications, bid form, engineer's construction cost estimate, and calculations brief.	\$241,000	95%
Borderland (Matey) Portals, AML Reclamation of Mine Portals, Mingo County, WV	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	Preparation of reclamation plan, drawings, specifications, bid form, engineer's construction cost estimate, and calculations brief.	\$94,000	95%
Fairmont East Mine Drainage, AML Reclamation of Acid Mine Drainage, Fairmont, WV	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	Preparation of reclamation plan, drawings, specifications, bid form, engineer's construction cost estimate, and calculations brief.	\$100,000	80%
Sundial Refuse Piles, AML Reclamation of Coal Refuse Piles, Raleigh County, WV	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	Preparation of reclamation plan, drawings, specifications, bid form, engineer's construction cost estimate, and calculations brief.	\$4,800,000	99%

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

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
Rachel Refuse, AML Reclamation of Mining Complex, Farmington, WV	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	Preparation of reclamation plan, drawings, specifications, bid form, engineer's construction cost estimate, and calculations brief.	Unknown	50%
May Portal, AML Reclamation Mine Portal/Fill Slippage Project, Buchanan County, VA	Virginia Dept. of Mines, Minerals & Energy PO Drawer 900 Big Stone Gap, VA 24219	Rehabilitate former AML mine portal closure that had drainage and slip failure. Preparation of reclamation plan drawings, specifications, bid form, engineer's construction cost estimate, and calculations brief.	\$130,000	95%
Lick Creek Waterline Extension - Phase I, Boone County, WV	Boone County PSD PO Box 287 Danville, WV 25053	Design and permitting associated with extension of waterline including preparation of drawings, specifications, and contract documents and administration.	\$1,200,000	99%
Town of Ceredo Water Distribution System Upgrade - Contract No. 1, Ceredo, WV	Town of Ceredo PO Box 691 Ceredo, WV 25507	Design and permitting associated with extension of waterline including preparation of drawings, specifications, and contract documents and administration.	\$831,000	99%
Town of Ceredo Water Distribution System Upgrade - Contract No. 2, Ceredo, WV	Town of Ceredo PO Box 691 Ceredo, WV 25507	Design and permitting associated with extension of waterline including preparation of drawings, specifications, and contract documents and administration.	\$885,000	99%

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

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
Hatfield-McCoy/Water Ways Waterline Extension, Boone County, WV	Boone County PSD PO Box 287 Danville, WV 25053	Design and permitting associated with extension of waterline including preparation of drawings, specifications, and contract documents and administration.	\$900,000	99%
Landfill Closure Design, Various Environmental Remediation Projects Nitro, WV	Solutia, Inc. 1 Monsanto Road Nitro, WV 25143	Preparation of closure designs, construction drawings and specifications, environmental sampling, and regulatory liaison.	\$4,000,000	70%
The Villages at Coolfont, Morgan County, WV	Berkeley Springs Develop, LLC 99 N. Washington Ave. Berkeley Springs, WV	Engineering design and permitting for 1300 home community including water treatment plant and distribution system, wastewater treatment plant and collection system, roads, stormwater management system, and property surveys.	\$50,000,000 Excluding Home Construction Costs	80% (Design)
Fort Martin Power Station Coal Combustion By-Product Landfill Expansion, Monongalia County, WV	Allegheny Energy Supply 800 Cabin Hill Drive Greensburg, PA 15601	Wetland delineation, engineering design, and permitting for a 100-acre landfill including synthetic liner system, leachate pumpback system, stormwater management system, access roadways, and QA/QC monitoring.	\$10,000,000	100% (Design)  40% (QA/QC Monitoring)

TOTAL NUMBER OF PROJECTS:

15 (POTESTA has completed well over 1000 projects.)

TOTAL ESTIMATED CONSTRUCTION COSTS:

\$74,890,000

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

PROJECT NAME, TYPE AND LOCATION	NATURE OF FIRMS RESPONSIBILITY	NAME AND ADDRESS OF OWNER	ESTIMATED COMPLETION DATE	ESTIMATED CONSTRUCTION COST	
				ENTIRE PROJECT	YOUR FIRMS RESPONSIBILITY
Bradshaw Schools Site Utilities	Design Water Supply and Sanitary Sewer Systems	ZMM, Inc. 222 Lee Street, W. Charleston, WV 25302	2009	\$60,000,000	\$750,000
Charleston Greenspace Project	Site Utilities, Stormwater Management and Agency Coordination	Andropogon Associates, Ltd. 10 Shurs Lane Philadelphia, PA 19127	2008	\$750,000	\$20,000

17. C. LETTED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM, AS THE DESIGNATED ENGINEER OF RECORD

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
Wash Branch Waterline Extension, Boone County, WV	Massey Coal Services 315 70 <sup>th</sup> Street, SE Charleston, WV 25304	\$550,000	2008	Yes
Spruce Laurel Stream Monitoring, Boone County, WV	WVDEP - AML 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	\$3,000,000 (Est.)	2008	Yes
Fleming Landfill Sewer Line, 2 Miles of Sewer Line, Kanawha County, WV	WVDEP - AML 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	\$1,100,000	2008	Yes
Pocahontas County Landfill Expansion, Closure, and Operations Consulting, Dunmore, WV	Pocahontas County Solid Waste Authority 910-C Tenth Avenue Marlinton, WV 24454	\$400,000	2008	Yes
Site Assessment and Closure/Capping Plan for Jackson County Landfill, Ripley, WV	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	\$3,000,000	2008	Yes
Georges Creek Rockslide Retaining Wall, Kanawha County, WV	WVDEP, AML 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	\$430,000	2005	Yes
William Nursing Home Landslide Retaining Wall, Mingo County, WV	WVDEP, AML 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	\$2,500,000	2005	Yes
Fisher Ridge Waterline Extension - Phase II, Putnam County, WV	Putnam County Commission 3389 Winfield Road Winfield, WV 25213	\$400,000	2004	Yes
Stephens Auto/Betsy Lane Waterline Extension, Boone County, WV	Boone County PSD PO Box 287 Danville, WV 25053	\$250,000	2005	Yes

17. COMPLETE WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM WAS THE DESIGNATED ENGINEER OF RECORD

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	COMPLETED (YES OR NO)
Trace Branch at Robinson Waterline Extension, Boone County, WV	Boone County PSD PO Box 287 Danville, WV 25053	\$250,000	2006	Yes
Six Mile to Corridor G Waterline Extension, Boone County, WV	Boone County PSD PO Box 287 Danville, WV 25053	\$600,000	2006	No
Jones Creek Waterline Extension, Boone County, WV	Boone County PSD PO Box 287 Danville, WV 25053	\$750,000	2006	Yes
City of Philippi Relocation of Waterline, Philippi, WV	City of Philippi PO Box 460 Philippi, WV 26416	\$1,000,000	2004	No
Mifflin-Sharples Waterline Extension, Logan County, WV	West Virginia American Water PO Box 1906 Charleston, WV 25327	\$600,000	2006	Yes
Mountain Laurel Potable Water Supply Extension, Logan County, WV	Mingo-Logan Coal Company PO Box E Sharples, WV 25183	\$450,000	2006	Yes



18. CANCELED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM HAS BEEN A SUB-CONSULTANT TO OTHER FIRMS (INDICATE PHASE OF WORK FOR WHICH YOUR FIRM WAS RESPONSIBLE)						
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST OF YOUR FIRM'S PORTION	YEAR	CONSTRUCTED (YES OR NO)	FIRM ASSOCIATED WITH	
Blackwell Field Redevelopment, Charleston, WV	University of Charleston 2013 MacCorkle Ave. SE Charleston, WV 25304	\$100,000	2005	Yes	BBL Carlton	
Benedum Residence Hall Replacement, Charleston, WV	University of Charleston 2013 MacCorkle Ave. SE Charleston, WV 25304	\$2,200,000	2004	Yes	BBL Carlton	
Dundon Bridge Replacement, Clay, WV	West Virginia Division of Highways Capitol Complex, Bldg 5 Charleston, WV 25305	Unknown	2004	No	Modjeski and Masters, Inc.	
UC Pharmacy School, Charleston, WV	University of Charleston 2013 MacCorkle Ave. SE Charleston, WV 25304	\$6,000,000 Our Fee \$55,000	2006	Yes	Pray Construction Company	

19. Use this space to provide any additional information description of resources supporting your firm's qualifications to perform work for the West Virginia . andoned Mine Lands Program.

Potesta & Associates, Inc.'s (POTESTA) "Expression of Interest for Professional Engineering Design Services and Construction Monitoring Services for the Measle Fork Refuse Area Design Project" supports this questionnaire in providing POTESTA's qualifications and resources for serving the West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands and Reclamation on this project. In summary, POTESTA:

1. Has assembled a team of in-house personnel and subcontractors who have historically worked on AML projects. POTESTA's in-house staff includes 15 Professional Engineers including 11 in the primary office, three of whom have worked on over 65 AML projects.
2. Has a large local staff with a unique multidiscipline technical emphasis (including civil engineering, structural engineering, geological engineering, hydrological engineering, mine land reclamation, with a strong emphasis on water quality and aquatic life and toxicity). Two members of POTESTA's staff have their Ph.D.'s, and 12 have their Masters Degree.
3. Has 15+ employees with experience on WVDEP AML projects. POTESTA employees have worked on and have experience in the following type of WVDEP AML projects:
  - Water Supply Feasibility Studies and Design
  - Assessment of Contamination (e.g., PCB's, asbestos)
  - Demolition of Structures
  - Diversion Structures
  - Identifying Acid Mine Drainage
  - Inventory of Residential Water Supplies
  - Landslides
  - Mine Fires
  - Passive Acid Mine Drainage Treatment
  - Reclamation of Refuse Piles
  - Sealing Mine Portals
  - Stream Relocations
  - Subsidence Assessment and Remediation
  - USCOE Permitting
  - Wetland Assessments
4. Can handle a substantial AML workload (more than our competitors) since POTESTA has two Professional Engineer (P.E.) Project Managers each with experience on 65+ AML projects.
5. Office is located in Charleston, West Virginia in close proximity to WVDEP's Charleston office, with offices in Morgantown, West Virginia and Winchester, Virginia.
6. Staff has had a positive relationship with WVDEP, AML in the past, which we would like to continue.

20. The foregoing is a statement of facts.

Signature: Dana L. Burns

Printed Name: Dana L. Burns

Title: Vice President

Date: September 24, 2009

# POTESTA & ASSOCIATES, INC.

## *Civil Engineering and Design*

Potesta & Associates, Inc. (POTESTA) helps clients evaluate and plan projects by completing the following types of preliminary investigations and analyses.

- Phase I environmental site assessments
- Floodplain determination
- Geotechnical explorations including soil, bedrock, and groundwater characterization
- Foundation recommendations
- Monitoring well systems and site characterization plans
- Boundary, topographical and photogrammetric surveys
- Utility planning
- Earthwork evaluations including volume analysis
- Opinion of probable costs/engineer's construction cost estimates

Once the project has been determined feasible, POTESTA's design professionals complete preliminary and final designs. Frequent communication is made with the client and any other design professionals to review completed activities and obtain input for the design process. Our goal is to provide our services to achieve or exceed our clients' expectations.

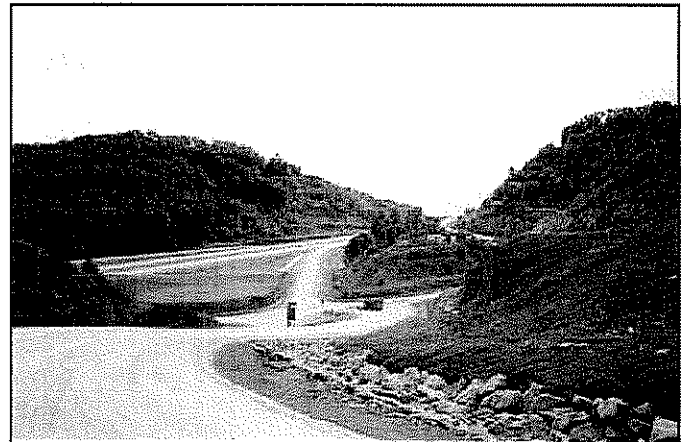
Our **design services** include:

- Erosion and sediment control plans
- Earth retaining structures design
- Geometric site layout
- Grading and drainage plans, including excavation and fill optimization
- Access road design
- Hydraulic structure design
- Water and sewer design
- Slope stability analysis
- Subsurface drainage system design
- Construction drawings, specifications and contract document preparation

POTESTA offers experienced environmental engineers and scientists to prepare applications for various environmental permits that may be required. These services include:

- Stormwater management permit/erosion and sediment control plans
- Office of Air Quality Permit to Construct
- Wetland delineation and permits
- National Pollutant Discharge Elimination System (NPDES) permits
- Floodplain management permits
- Groundwater protection plans
- Spill prevention control and countermeasure plans
- Environmental site assessments
- Environmental impact statements

POTESTA routinely provides professional services throughout construction of our projects. These services include survey layout, construction management, construction monitoring, record drawing preparation, and bid evaluation assistance.



**POTESTA & ASSOCIATES, INC.**

7012 MacCorkle Avenue, S.E. • Charleston, West Virginia 25304

Phone: (304) 342-1400 Fax: (304) 343-9031 • [www.potesta.com](http://www.potesta.com)

Regional Offices: Morgantown, West Virginia and Winchester, Virginia

## POTESTA & ASSOCIATES, INC.

### *Computer Aided Drafting and Design*

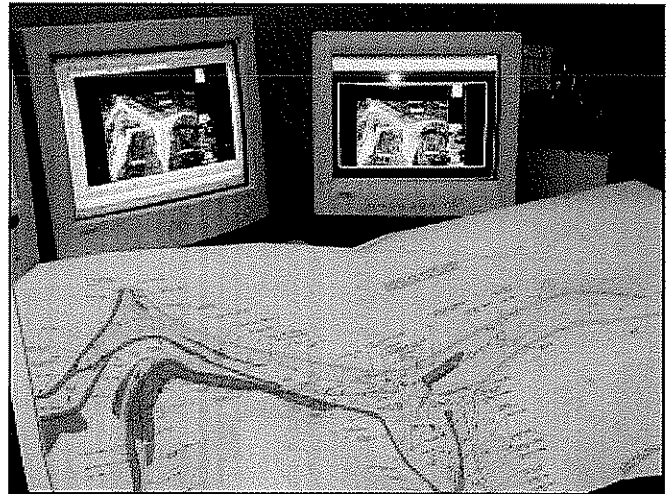
The Potesta & Associates, Inc. (POTESTA) computer-aided drafting and design (CADD) department provides state-of-the-art design and drafting services for in-house engineering and environmental consulting projects. We also provide personnel to clients who have a temporary need for additional drafting manpower. These services may be performed at your location or our office as required.

The CADD department utilizes the latest drafting/design software and computer hardware to maintain productivity at the high levels that clients demand and expect. We utilize AutoCAD, AutoCAD Land Development Desktop 3 civil/survey design software, and Microstation to prepare, revise, and manipulate drawings and engineering data efficiently. Drawings and figures are produced using a Hewlett Packard 1050c Plus color ink jet plotter. POTESTA's experienced and trained professionals allow clients' projects and assignments to be completed rapidly and at reasonable cost.

Our CADD services include:

- Survey data manipulation including development of topographic mapping, cross sections, profiles, isopach drawings, etc.

- Site design including grading plans, drainage plans, utilities plans, right-of-way plans, etc.
- Roadway design
- Water and sewer design
- Permit drawings, maps, and exhibits
- Earthwork and planimetric quantity development
- Two and three dimensional graphics



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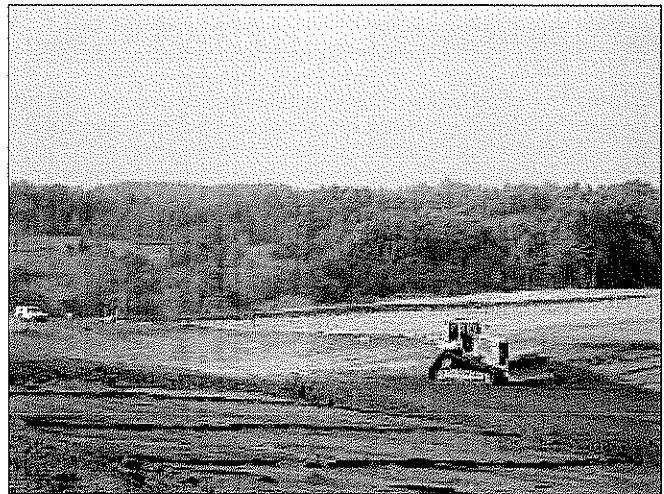
## *Construction Monitoring*

Potesta & Associates, Inc. (POTESTA) provides construction monitoring and construction management services to assist clients in achieving regulatory and contractual compliance; to document that contractor activities are in compliance with design requirements; and to serve as an extension of clients' staff. POTESTA can provide full-time or part-time field services utilizing one or more engineers or technicians.

Regulatory compliance is often best documented by providing full-time construction monitoring services for a construction project. POTESTA can assist clients in observation of construction activities and documenting compliance. Our typical involvement in such projects includes:

- Conducting a pre-construction review of design and contract documents to identify potential problem areas, and consultation with the owner or client to develop strategies or procedures to avoid anticipated problems.
- Assistance in contractor selection. POTESTA can recommend construction contractors who specialize in the type of work associated with the project and can assist in bid evaluation by reviewing proposed quantities, unit costs, lump sum costs, and any proposed exceptions or qualifiers for the project. POTESTA can conduct pre-bid conferences to help contractors understand project requirements. We can also conduct pre-construction conferences prior to the start of the project to help establish lines of communication, review detailed plans, discuss testing requirements and establish proper reporting procedures.

- POTESTA can provide surveying for construction layout, measurement for payment quantities, and documentation of as-built conditions. Survey results are downloaded to form computer-aided drafting (CAD) drawings allowing the efficient preparation of record drawings and any subsequent evaluations required.



- Construction monitoring can include field testing to document compliance such as field density tests, concrete testing, sampling of materials for laboratory analysis, and documentation of site conditions and work performed on a daily basis or as required.
- Preparation of summary of construction reports including photographs, videotape documentation, test results, daily construction logs, industrial hygiene monitoring, and other documentation as may be required by the client.
- Preparation of certifications as may be required.



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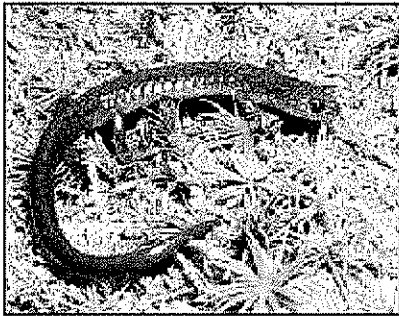
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# POTESTA & ASSOCIATES, INC.

## *Endangered Species Consultation*

The Endangered Species Act (ESA) requirements can delay if not halt important projects. Being able to respond promptly and thoroughly to the Fish and Wildlife Service's (Service) requests for an evaluation of probable project impacts on either endangered species, threatened species, or species of concern can facilitate needed regulatory approvals.



Potesta & Associates, Inc. (POTESTA) has extensive experience in biological assessments (BA) related to the ESA. We utilize a combination of in-house professionals and recognized experts to complete projects for our clients. This arrangement allows us to provide a work product which is acceptable to the Service.

For the last several years, our office has worked with natural gas transmission companies preparing environmental reports which include assessments and remediation of impacts to rare, threatened, and endangered species. POTESTA's biologists have worked on natural gas projects within the core summer roosting and maternity range of the Indiana bat. This work provided the firm's biologists with considerable experience in identifying suitable Indiana bat habitat in Ohio, Kentucky, Virginia, and West Virginia. Other biologists within our office also have experience in bat surveys, echo location, bat identification and mussel surveys.

We have established professional relationships with local and regional experts on projects in our region. These relationships allow us to have access to recognized experts on the appropriate species on an as-needed basis. The advantage to the client is that

this approach allows us to select the best individual for the task at hand.

These experts have specialized in the study of their species of interest for many years and are familiar with the life cycle, habitat requirements and sampling techniques for the species. POTESTA supplements these individuals with our experienced field staff, who are intimately familiar with the project, to constitute an effective team to respond quickly to threatened and endangered species issues. POTESTA provides final reports with additional information obtained from the noted expert, as well as relevant mapping and other supporting information.

This team approach allows for a complete evaluation of the potential impact a project may have on a species of concern. The most basic level of services in this area is a partial evaluation based only on literature reviews. An intermediate level of effort would be the literature review and a thorough field review of the project site to evaluate habitat. A complete evaluation would include the literature review, habitat evaluation, and extensive field collection program during the appropriate season of the year. Our subcontractors have the appropriate permits to collect the species in question.



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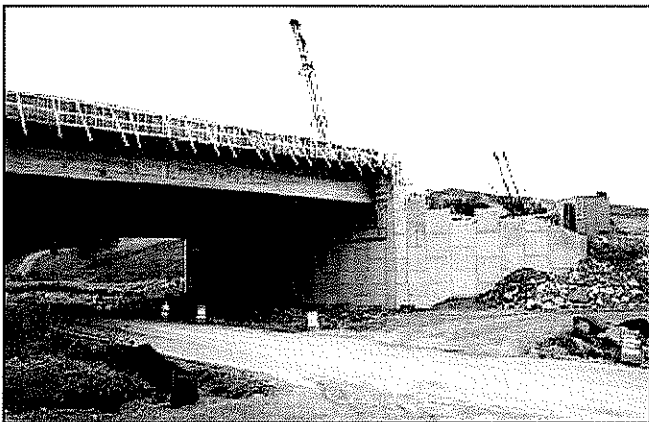
# POTESTA & ASSOCIATES, INC.

## *Geotechnical Engineering*

Potesta & Associates, Inc.'s (POTESTA) engineers and geologists have extensive experience related to the geotechnical engineering and geological disciplines. These areas include subsurface investigations, monitoring well and piezometer installations, foundation design recommendations, slope stability analysis, and remedial designs as they relate to construction, mining, waste disposal, environmental remediation, and other projects.

### SUBSURFACE INVESTIGATIONS

POTESTA's diverse staff of engineers and geologists is experienced in the many different facets of subsurface investigations. Our usual procedure is to attend an initial meeting with the client to establish requirements and expectations, conduct a preliminary site reconnaissance, and develop a recommended exploration program for your review and approval. Supplemental information from the local area is then obtained from readily available sources to assist the engineer or geologist in making final recommendations.



POTESTA can provide field engineers and geologists who are knowledgeable using the latest

technologies to assist in collecting and analyzing samples. Our knowledge of the proper procedures and familiarity with local conditions allows office and field personnel to adjust the investigative plan if unanticipated field conditions are found.

Our staff is familiar with the following items which can be associated with subsurface exploration:

- Drilling and Rock Coring Techniques (augers, rotary bits, Geoprobe™, etc.)
- Sample Collection Methods (split spoons, Shelby tubes, Geoprobe™ sleeves, etc.)
- Classification and Logging of Soil and Rock Samples
- Monitoring Well and Piezometer Installation

### SLOPE STABILITY ANALYSIS AND REMEDIAL DESIGN

Slope stability is often a major concern during the design and construction phases of many projects, especially those located in the Appalachian terrain. POTESTA's engineers are familiar with the various methods utilized to predict slope stability and are capable of performing the related analyses. Slope stability is critical for many projects such as analysis of existing or proposed soil embankments, rock fills, dam analysis and design, landfill design and operation, estimating the causation of slope failure, and designing remedial measures. Analyses can involve circular or sliding block methods, interface friction angles, and estimation of the strength parameters of the soil or rock. Slope stability analyses are performed on one of the most technologically advanced computer programs available and can be modified using site specific data.

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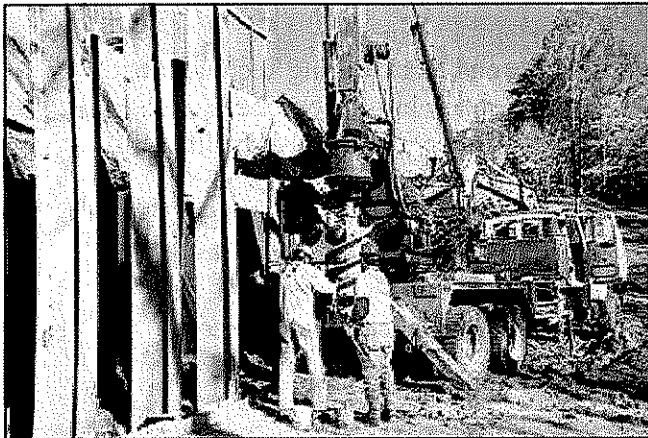
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POTESTA's engineers can also develop preventive measures during initial project design or recommendations to repair slope failures. Based upon the project circumstances, our engineers will consider various remedial measures such as regrading the site to obtain more suitable conditions, management of groundwater, and design of retaining structures. Our staff is familiar with a wide variety of retaining structures, including gabion baskets, soldier beam and lagging walls, sheet piles, reinforced concrete and reinforced earth slopes.



## FOUNDATION DESIGN RECOMMENDATIONS

POTESTA's staff has experience with various types of foundations and will recommend the appropriate type of foundation given the anticipated application and site conditions. The different types of foundations with which our staff is familiar are spread and strip footings, steel piles, auger-cast concrete piles, drilled piers, and reinforced mats.

Preliminary foundation design recommendations and cost analyses are commonly performed during the initial phases of a project to assist in determining project feasibility. As project planning progresses, the preliminary alternatives will be revised into a final recommendation which can then be incorporated into the project's construction documents or develop as an independent package for presentation to the contractor.

The final recommendation can include construction drawings, technical specifications, recommendations for allowable bearing capacity, engineer's construction cost estimate, and contractor's bid sheet.



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# POTESTA & ASSOCIATES, INC.

## *Hydrology and Hydraulics Design*

Our engineers have extensive experience in the application of hydrology and hydraulic principles to the design of real world systems. These applications include:

- Drainage structure sizing
  - Stream relocations
  - Culverts
  - Channels
- Pond and dam design
  - Sediment ponds and basins
  - Spillways
  - Design/rehabilitation
  - Slurry impoundments
  - Lagoons
  - Dams
- Detention and detention systems
  - Ponds
  - Pipes
  - Underground bladders
- Floodplain Management Permits/Approval
- Floodway studies
  - FEMA (Federal Emergency Management Agency)
  - NFIP (National Flood Insurance Program)
  - Flood elevation surveys/certifications
  - Flood routing
- Dam break analysis
- Hydrology surveys
- Stream gauging
- Rainfall and flow data collection
- Stormwater drainage system design
- Pressure pipe systems
- Stream restoration plans
- Natural Stream Channel Design/Restoration
- Expert witness testimony

To complete these types of applications, our engineers, scientists, and surveyors work jointly to develop an effective and economical solution to your situation. Their analyses use widely accepted computer models.



Potesta & Associates, Inc. typically uses the following computer modeling programs:

- HEC RAS
- HEC HMS
- TR-20/TR-55
- StormCAD
- Culvert Master
- Flow Master
- Pond-Pac
- CORMIX

We have provided these services to a wide variety of public and private sector clients. Our staff not only understands the technical details, but is very experienced in working with the various state, federal, and local regulatory agencies. We know the level of detail they require and can obtain the necessary approvals in a timely manner.



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Potesta & Associates, Inc. (POTESTA) offers its clients exceptional expertise and experience when it comes to the permitting process, including all phases of application preparation, negotiations, modifications, compliance and renewal at all levels of government. Our permit services cover air, mining, water and waste disposal permits.

### AIR

Our firm offers complete air permitting and consulting services to assist industry in complying with today's complex air quality regulations. Our staff has experience in identifying, characterizing and permitting air pollution sources for a variety of industries, including:

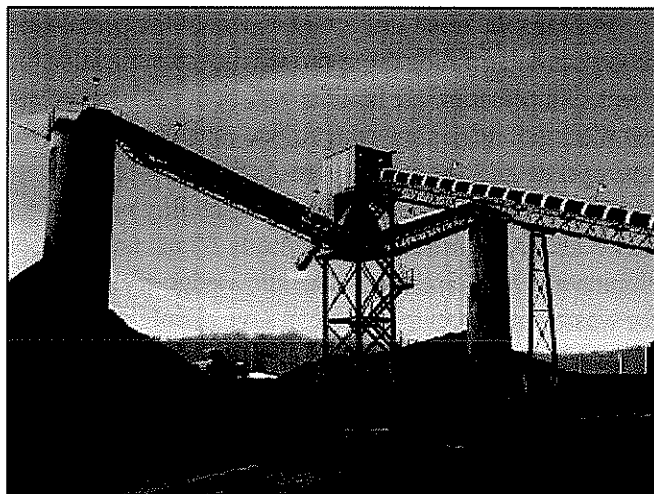
- Coating operations
- Petroleum and petrochemical operations
- Chemical manufacturing
- Manufacturing facilities
- Mining
- Quarries
- Natural gas compressor stations
- Electric utilities

Our air quality experts have comprehensive knowledge of federal, state and local regulations, as well as experience in complex Title V applications. Our services include identification of potential air pollution sources, development of control strategies, preparation of permit applications, emissions inventories, compliance audits and regulatory liaison.

At both the state and federal levels, we help clients interpret and comply with air regulations, including the New Source Performance Standards (NSPS) and National Emissions Standards for Hazardous Air Pollutants (NESHAPS). We can suggest emissions control strategies to meet both current and anticipated regulations, including BACT, MACT and LAER.

### MINING

In recent years, mining permits have become increasingly complex, requiring diverse expertise in mining techniques, engineering, environmental regulations, benthic studies, hydrogeology and hydrology. Our staff has broad experience in providing innovative solutions to various mining problems.



Although the objective of a permit application is to receive agency approval in a timely manner, the client does not benefit if the application does not allow for effective operations. We work with our clients to ensure that your operational needs are met while allowing for essential flexibility. Several members of our staff have mining industry experience, and they understand the requirements vital to an effective operation.

From the beginning of the permit process, POTESTA involves the reviewing agency to allow its concerns to be addressed prior to submittal of the application. Often, this reduces the need for review comments and revisions which could slow the approval process. Our thorough knowledge of the various phases and requirements of the permitting

*(see next page)*



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process, coupled with our technical expertise, may facilitate the approval of permits that are operation based and thus more acceptable to you.

Our staff members have the knowledge and expertise to develop modification submittals that are timely and cost effective. We can also expedite permit renewal applications with minimal input from our busy clients.

## WATER

The Clean Water Act regulates the discharge of pollutants into surface water through the National Pollutant Discharge Elimination System (NPDES). Potesta & Associates has extensive experience in water permitting projects, including industrial and municipal wastewater and storm water discharges.

Perhaps the most important aspect of the permitting process is determining the approach most beneficial to the client. Our personnel are familiar with both state and federal permitting strategies and can provide capable guidance for appropriate and applicable permits for a project.

Our staff specializes in reviewing facility wastewater flows and recommending methods of minimizing or eliminating these discharges. Our knowledge of alternatives for wastewater management can save clients money and potential liability.

We can help the client decide which type of permit coverage is required for a given project. Also, with our thorough understanding of state and federal wastewater permitting, we have been able to renegotiate numerous draft permits to achieve more acceptable requirements.

POTESTA can prepare a draft NPDES permit for submission to the appropriate agency. This gives the client more input regarding the permit requirements. Our personnel are experienced in permit writing and will work closely with agency staff to insure that the permit meets both regulatory requirements and the needs of our clients.

## WASTE

POTESTA is highly knowledgeable of the challenges faced in receiving a permit to allow proper disposal and/or use of your waste products. Our staff has experience with municipal and industrial solid waste and construction demolition waste and hazardous waste. They have designed landfills, transfer stations, recycling facilities, closure plans and corrective action plans.

We have experience in:

- Bioremediation
- Resource recovery
- Sludge handling/stabilization
- Utilization of coal combustion by-products
- Construction monitoring/management

Our staff of civil, geotechnical, environmental and mining engineers, geologists, hydrogeologists, biologists and surveyors strives to obtain the maximum flexibility for your facility, whether it is a new operation, the modification of an existing facility, or a permit renewal. Regulatory liaison assistance is a key component in our efforts.



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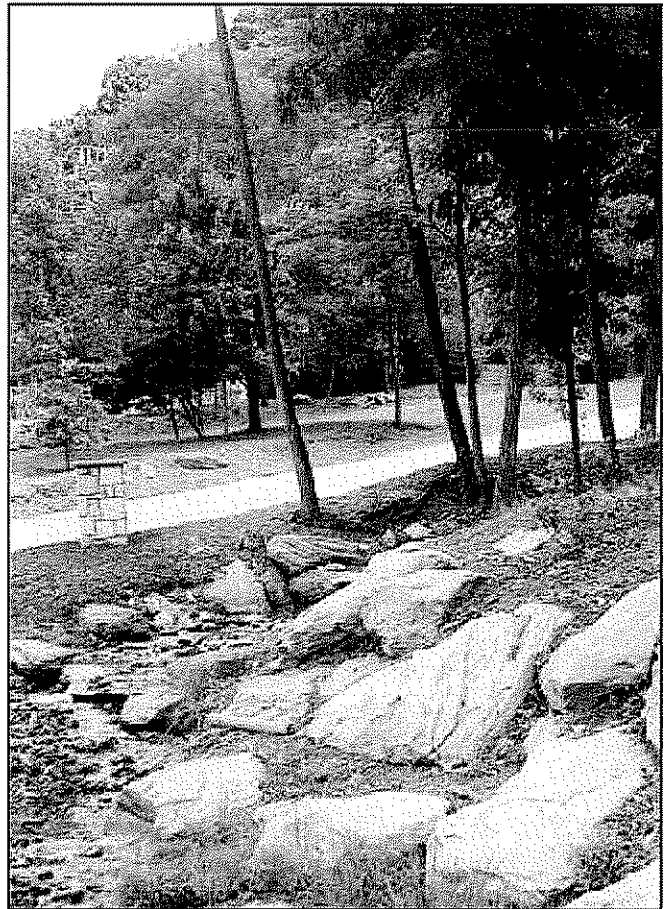
Potesta & Associates, Inc. has a significant body of work in site design for residential, commercial and industrial clients. Projects range from power plant siting to subdivision design. We have assisted numerous developers and development agencies with the creation of business industrial parks throughout West Virginia, and have been part of design teams for elementary, secondary and collegiate projects primarily associated with new building construction.

Our staff of civil, environmental, and geotechnical engineers; surveyors and environmental scientists can provide the following site planning and design services.

- Surveying - topo and boundary
- Base mapping from aerial photography
- Geotechnical engineering
- Land planning
- Environmental issues evaluation and mitigation
- Site grading
- Vehicular and pedestrian circulation
- Utility design
- Site features
- Stormwater management plans

Some clients who have used our site design services include:

- West Virginia Development Office
- Development Authorities: Tucker, Wood and Roane Counties
- Bright Enterprises
- BIDCO (Capital Area Development Corporation)
- University of Charleston
- Timberwolf Development Corporation
- West Virginia Department of Environmental Protection
- West Virginia Division of Natural Resources
- Marshall University
- Architects: Associated Architects, Bastian & Harris, Architects, SEM Partners



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# POTESTA & ASSOCIATES, INC.

## *Surveying and Mapping*

Our surveyors are experienced in many aspects of surveying such as topographic mapping, boundary surveys (rural/farms, city lots, and subdivisions) and ALTA surveys, control surveys, flood certificate surveys, well location surveys, and construction surveys for layout of work, record drawings, and quantity measurements. Related areas include courthouse research, preparation of right-of-way plans, and verification of property owners. Potesta & Associates, Inc. (POTESTA) has licensed professional surveyors registered in West Virginia, North Carolina, South Carolina, Ohio, Virginia, and Pennsylvania. Their total combined surveying experience comes to well over 50 years.

POTESTA's surveyors use state-of-the-art equipment such as Topcon total stations, Trimble R-8 GNSS, and SMI Version 8 data collectors with SMI software. Reduction and design software used includes AutoCAD, Softdesk Civil/Survey design, Autodesk Land Design, Microstation, and InRoads design software.

POTESTA is equipped with modern surveying instruments, allowing efficient data processing and accurate gathering of field information. Total station instruments equipped with data collectors are utilized for complete field-to-office automation allowing for high levels of productivity in the field. The latest versions of software are then used to process survey data and create drawings or required end products. These products can be supplied to our clients in AutoCAD and/or Microstation format.

Small topographic mapping projects can be completed in-house using the aforementioned process. Larger projects are better suited for mapping using aerial

photography.

POTESTA can provide the necessary surveying required for establishing ground control for aerial mapping. As a quality control measure, aerial mapping is field checked for accuracy by surveying cross sections or random points.

Surveys completed by POTESTA are performed by or under the direction of a professional licensed surveyor. Surveys and mapping are completed to the standards outlined by the National Map Standards as well as other



applicable quality standards.

Our staff is experienced in global positioning surveys (GPS). GPS equipment, Trimble R-8 GNSS, and existing base stations are among POTESTA's surveying tools. Based upon the site location and ultimate use of the survey information, a recommendation is made to the client as to whether or not traditional survey or GPS is most applicable to their project.



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# POTESTA & ASSOCIATES, INC.

## *Water and Wastewater Engineering*

Our professional staff is dedicated to providing quality engineering services for various types of water treatment and distribution systems, as well as wastewater management, collection and treatment systems. The following is a list of some of the services Potesta & Associates, Inc. is capable of providing:

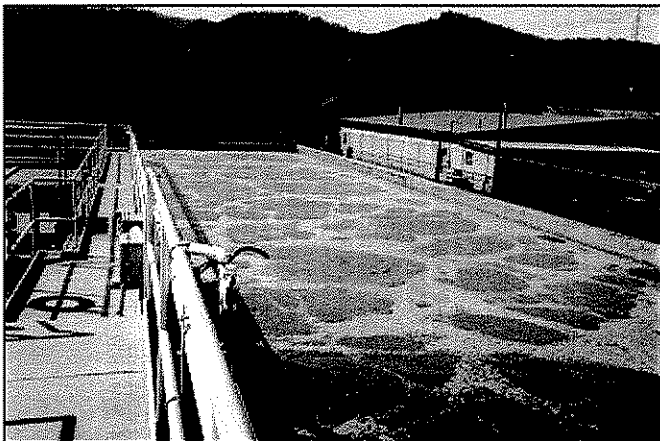
### WATER AND WASTEWATER DESIGN

- Feasibility studies
- Conceptual design
- Final design
- Bidding and construction
- Construction monitoring
- Wastewater audits
- Wastewater minimization studies
- Engineer's cost estimates
- Small flows design (traditional and innovative treatment systems for low volume flows)
- Sewage collection and treatment
- Water treatment and distribution
- Industrial wastewater treatment
- Remediation systems
- Landfill leachate treatment
- Storage tank design
- Flow measurement
- Surveying/GPS and mapping
- Permitting and regulatory liaison
- Combined sewer overflow (CSO) Management, sampling and modeling



### STORMWATER MANAGEMENT

- Hydraulic conveyance structure design (culverts, channels, drop inlets, etc.)
- Stormwater retention/detention pond design
- Stormwater pond modeling
- Floodplain identification and management strategies
- Hydrologic and hydraulic analysis and evaluations and modeling
- Construction monitoring
- Surveying
- Permitting and regulatory liaison



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Wetlands play a significant role in business and industry. These unique aquatic habitats can present problems with regard to development of properties because they are protected by the Clean Water Act.

Potesta & Associates, Inc. (POTESTA) has a qualified staff of scientists and engineers who are trained and experienced in the identification and permitting of wetlands, the mitigation of displaced wetlands and the design of constructed wetlands.

### INVESTIGATION AND DELINEATION

Wetland investigations and delineations are conducted by POTESTA's scientists as part of pre-development site investigation and environmental impact assessments. During a wetland investigation, the site is examined for the presence of wetland indicators, including specific hydrology, soils and vegetation. Any wetlands discovered are delineated in accordance with the U.S. Army Corps of Engineers Wetlands Delineation Manual (1987).

### PERMITTING

Once wetlands have been identified and delineated, POTESTA can prepare application packages for permits to fill and/or dredge these areas for further development. The U. S. Army Corps of Engineers (COE) is the agency responsible for granting wetland permits under Section 404 of the Clean Water Act. In addition to the COE permit, individual states must approve each permit granted, certifying that it meets the state's water quality standards.

Our employees have established working relationships with both the federal and state agencies in this region. We are very familiar with the data required and can work with the agencies to obtain timely review and issuance of permits.



### MITIGATION AND DESIGN

Wetland mitigation and design come into play when wetlands being displaced or filled are large enough to require mitigation under state and federal standards. In some cases, wetland mitigation can be achieved solely through the payment of a fee to a mitigation bank or fund, established for the creation, protection or enhancement of other wetland areas. In this case, POTESTA can prepare an appropriate mitigation offer and negotiate with state and federal authorities for its approval.

Depending upon the availability of suitable sites, wetland mitigation can also consist of the actual design and construction of new wetlands, or the enhancement of existing wetlands. Our staff includes qualified engineers experienced in the design of created wetlands. Working as a team with staff biologists, we can produce a cost-effective functional design for presentation to state and federal authorities. Once approved, we can provide monitoring of the construction of the new wetlands.



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*Project Abstract*

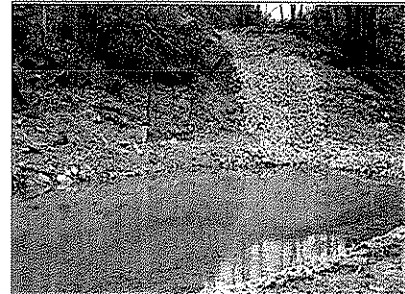
# **ACID MINE DRAINAGE TREATMENT PROJECTS-SOVERN RUN AND UPPER MUDDY CREEK**

**Friends of the Cheat**

*Preston County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by the Friends of the Cheat (FOTC) to provide design assistance for two acid mine drainage treatment projects located in Preston County, West Virginia. POTESTA's services included review and modifications of conceptual designs, topographic surveying, courthouse research for property boundaries, preparation of construction drawings and technical specifications, development of bidding documents, and construction observation.

The Upper Muddy Creek project involved acid mine drainage from four (4) areas that discharged into Muddy Creek upstream of where it crosses beneath State Route 3 (Brandonville Pike). Muddy Creek has been significantly impacted by acid mine drainage, but the upper portion is a trout stream. The proposed design includes the construction of four (4) limestone leach beds and nearly 1,500 feet of open limestone channel. The project is scheduled for completion in 2004.



The Sovern Run (Tichenell) project involved highly acidic discharge from one source and mildly acidic discharge from two sources. The design included a limestone leach area and an open limestone channel to provide treatment for the main acid mine drainage source. The mildly acidic sources included a limestone leach bed for treatment and two (2) steel slag leach dams to add excessive alkalinity to the water in an effort to provide a net neutralization effect upon its confluence with the high acidity drainage further downstream. The project is scheduled for completion in 2004.



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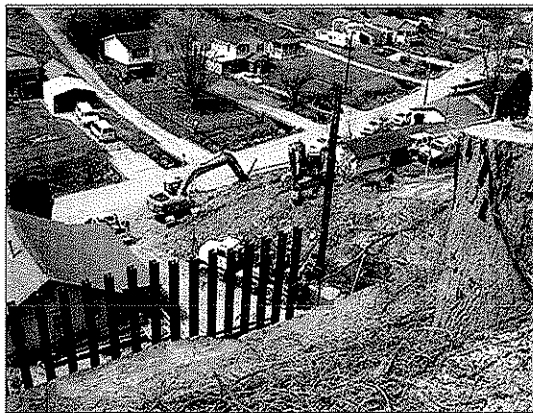
*Project Abstract*

# **GEORGE'S CREEK (LUCAS) LANDSLIDE MAINTENANCE**

## **West Virginia Department of Environmental Protection- Office of Abandoned Mine Lands**

*Kanawha County, West Virginia*

POTESTA was retained by the West Virginia Department of Environmental Protection - Office of Abandoned Mine Lands (WVDEP) to evaluate and perform geotechnical engineering services for a landslide related to historic mining activity which was threatening a nearby residential structure.



A portion of the existing hillside immediately adjacent to the rear of the residential structure was excavated prior to construction of the structure to a near vertical slope exposing weathered shale and a coal seam near the slope's base. The exposed coal seam was determined to be the No. 2 Gas seam which was reportedly mined in the 1950s. Some drainage was noted flowing from the coal seam and the resulting water was conveyed through a nearby culvert to Georges Creek. Attempts were made by WVDEP to excavate loose rock and soil from the hillside in an effort to improve stability of the slope. Following this initial work the slope continued to slough with periodic small slides and slope

movement believed to be caused by continued subsidence of the underground mine works.

POTESTA performed a subsurface exploration to assist in evaluating the landslide condition, including the type and condition of the rock located in the slope as well as the attitude, thickness and condition of the underlying coal seam. POTESTA survey crews also completed a topographic survey of the affected area including the surrounding residential structure, drains and wooded hillside. The remedial measures to correct the landslide area included the design of a 25-foot high steel soldier beam and concrete lagging retaining wall with sloped, compacted backfill constructed from on-site materials. The retaining wall design required the application of a rock anchor tie-back system due to mine voids existing at the base of the hillside slope that were encountered during the subsurface exploration

As part of the project, POTESTA assisted the WVDEP with contract administration and performed construction observation services during the construction phase.

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*Project Abstract*

**MAHAN TIPPLE AND REFUSE AML  
MAINTENANCE PROJECT  
Thaxton Construction Company**

*Fayette County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by Thaxton Construction Company to provide construction layout for the Mahan Tipple and Refuse Maintenance AML Project in Fayette County, West Virginia. Thaxton Construction Company had been contracted by the West Virginia Division of Environmental Protection (WVDEP) Office of Abandoned Mine Lands and Reclamation (AML) to perform maintenance on an AML refuse pile, originally reclaimed in the late 1980's, that had a significant failure near the toe of the refuse pile.

Proposed maintenance included excavation of material near the toe, installation of a rock buttress at the toe (approximately 1,000 cubic yards), installation of two grouted riprap channels totaling approximately 300 feet, and regrading and revegetation. Total proposed excavation was approximately 10,000 cubic yards. Construction documents for the project were prepared by another consultant.

POTESTA's tasks for the project included:

1. Construction layout of lines/grades for earthwork, including survey of "pre-construction" and "post-construction" cross sections.
2. Construction layout of proposed channels.
3. Computation of (or assistance with) certain as-built quantities, including earthwork, channels, and revegetation.
4. Submittal of "post-construction" cross section drawings depicting existing and final grades.

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*Project Abstract*

**RED JACKET REFUSE PILE CONSTRUCTION  
LAYOUT-AML RECLAMATION PROJECT**  
**Thaxton Construction Company**

*Mingo County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by Thaxton Construction Company to provide construction layout for the Red Jacket Refuse Pile AML Project in Mingo County, West Virginia. Thaxton Construction Company was contracted by the West Virginia Division of Environmental Protection (WVDEP) Office of Abandoned Mine Lands and Reclamation (AML) to perform reclamation on an AML refuse pile.

Proposed reclamation included regrading a 500-foot long coal refuse pile and revegetation. Construction documents were prepared by others.

POTESTA's tasks for the project include:

1. Survey of "pre-construction" and "post-construction" cross sections.
2. Computation of (or assistance with) certain as-built quantities, including earthwork and revegetation.
3. Submittal of "post-construction" cross section drawings depicting existing and final grades.

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*Project Abstract*

**EVALUATION OF MINE DRAINAGE FROM AML  
SITES, AS PART OF ENVIRONMENTAL SITE  
ASSESSMENT  
Jackson & Kelly, PLLC**

*McDowell County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by Jackson & Kelly to perform an environmental site assessment (ESA) of approximately 1,000 acres of mining property in McDowell County, West Virginia. The mining property consisted of Surface Mining Control and Reclamation Act (SMCRA) mining sites and pre-SMCRA mining sites (i.e., AML). Included in the ESA was an evaluation of mine drainage from the AML sites, as well as the SMCRA sites. AML sites included unreclaimed refuse piles, open and draining portals, and remnants of other mining structures. The intent of the mine drainage evaluation portion of the ESA was to identify acid mine drainage (AMD) sources on the property, and their potential liability for a property purchaser.

The evaluation of mine drainage included:

1. Records Review
2. Interviews with Regulators
3. Field Reconnaissance, Including Water Sampling

Records reviewed included the water quality sections of SMCRA permits (including attempting to identify documentation confirming whether AMD was from SMCRA or AML sites) and the 303(d) TMDL list of streams impaired by acid mine drainage. Regulatory officials were also asked about known AMD sites.

Field reconnaissance and water quality sampling was conducted to:

1. Identify and characterize mine drainage from pre-SMCRA (i.e., AML) and SMCRA mining operations.
2. Assess the quality of surface waters draining the property.

SMCRA sites were located based on the records review. Pre-SMCRA (i.e., AML) sites were located based on the records review, review of United States Geological Survey mapping, interviews with regulatory officials and other people familiar with the property, by chance encounter during the field reconnaissance, and by “chasing” low pH and/or high specific conductivity field readings and/or stream discoloration up a stream until a mine drainage source was identified.

## **Evaluation of Mine Drainage**

### **Page 2**

Streams and mine drainage sources were assessed via intensive field sampling including field sampling of most "unnamed tributaries" with follow-up water quality sampling/analyses of certain streams and mine drainage sources via a laboratory.

Field sampling primarily consisted of field readings of pH, specific conductivity, temperature, and visual estimates of flow. Laboratory analysis primarily consisted of pH, acidity, alkalinity, total iron, total aluminum, total manganese, total dissolved solid, total suspended solids, and sulfates.

A total of 24 field readings were taken with a follow-up 12 samples being collected for laboratory analyses. The water quality sampling confirmed a limited amount of AML AMD (actually alkaline, but with high total iron). However, the water quality sampling did not indicate that the AMD was causing violations of receiving stream water quality standards.

The results of the mine drainage evaluation were summarized in a report, along with other findings of the ESA.

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*Project Abstract*

# **EVALUATION OF MINE DRAINAGE FROM AML SITES, AS PART OF ENVIRONMENTAL SITE ASSESSMENT**

**Jackson & Kelly PLLC**

*Mingo County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by Jackson & Kelly to perform an environmental site assessment (ESA) of approximately 5,000 acres of mining property in Mingo County, West Virginia. The mining property consisted of Surface Mining Control and Reclamation Act (SMCRA) mining sites and pre-SMCRA mining sites (i.e., AML). Included in the ESA was an evaluation of mine drainage from the AML sites, as well as the SMCRA sites. AML sites included unreclaimed refuse piles, open and draining portals, and remnants of other mining structures. The intent of the mine drainage evaluation portion of the ESA was to identify acid mine drainage (AMD) sources on the property, and their potential liability for a property purchaser.

The evaluation of mine drainage included:

1. Records Review
2. Interviews with Regulators
3. Field Reconnaissance, Including Water Sampling

Records reviewed included the water quality sections of SMCRA permits (including attempting to identify documentation confirming whether AMD was from SMCRA or AML sites) and the 303(d) TMDL list of streams impaired by acid mine drainage. Regulatory officials were also asked about known AMD sites.

Field reconnaissance and water quality sampling was conducted to:

1. Identify and characterize mine drainage from pre-SMCRA (i.e., AML) and SMCRA mining operations.
2. Assess the quality of surface waters draining the property.

SMCRA sites were located based on the records review. Pre-SMCRA (i.e., AML) sites were located based on the records review, review of United States Geological Survey mapping, interviews with regulatory officials and other people familiar with the property, by chance

## EVALUATION OF MINE DRAINAGE

### Page 2

encounter during the field reconnaissance, and by “chasing” low pH and/or high specific conductivity field readings and/or stream discoloration up a stream until a mine drainage source was identified.

Streams and mine drainage sources were assessed via intensive field sampling including field sampling of most “unnamed tributaries” with follow-up water quality sampling/analyses of certain streams and mine drainage sources via a laboratory.

Field sampling primarily consisted of field readings of pH, specific conductivity, temperature, and visual estimates of flow. Laboratory analysis primarily consisted of pH, acidity, alkalinity, total iron, total aluminum, total manganese, total dissolved solid, total suspended solids, and sulfates.

A total of 29 field readings were taken with a follow-up 24 samples being collected for laboratory analyses. The water quality sampling confirmed AML AMD from several deep mine sites. However, the water quality sampling did not indicate that the AMD was causing violations of receiving stream water quality standards.

The results of the mine drainage evaluation were summarized in a report, along with other findings of the ESA.

**POTESTA & ASSOCIATES, INC.**

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*Project Abstract*

# **EVALUATION OF MINE DRAINAGE FROM AML SITES, AS PART OF ENVIRONMENTAL SITE ASSESSMENT**

**Jackson & Kelly, PLLC**

*McDowell County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by Jackson & Kelly to perform an environmental site assessment (ESA) of approximately 1,000 acres of mining property in McDowell County, West Virginia. The mining property consisted of Surface Mining Control and Reclamation Act (SMCRA) mining sites and pre-SMCRA mining sites (i.e., AML). Included in the ESA was an evaluation of mine drainage from the AML sites, as well as the SMCRA sites. AML sites included unreclaimed refuse piles, open and draining portals, and remnants of other mining structures. The intent of the mine drainage evaluation portion of the ESA was to identify acid mine drainage (AMD) sources on the property, and their potential liability for a property purchaser.

The evaluation of mine drainage included:

1. Records Review
2. Interviews with Regulators
3. Field Reconnaissance, Including Water Sampling

Records reviewed included the water quality sections of SMCRA permits (including attempting to identify documentation confirming whether AMD was from SMCRA or AML sites) and the 303(d) TMDL list of streams impaired by acid mine drainage. Regulatory officials were also asked about known AMD sites.

Field reconnaissance and water quality sampling was conducted to:

1. Identify and characterize mine drainage from pre-SMCRA (i.e., AML) and SMCRA mining operations.
2. Assess the quality of surface waters draining the property.

SMCRA sites were located based on the records review. Pre-SMCRA (i.e., AML) sites were located based on the records review, review of United States Geological Survey mapping, interviews with regulatory officials and other people familiar with the property, by chance encounter during the field reconnaissance, and by “chasing” low pH and/or high specific conductivity field readings and/or stream discoloration up a stream until a mine drainage source was identified.



## **Evaluation of Mine Drainage**

### **Page 2**

Streams and mine drainage sources were assessed via intensive field sampling including field sampling of most "unnamed tributaries" with follow-up water quality sampling/analyses of certain streams and mine drainage sources via a laboratory.

Field sampling primarily consisted of field readings of pH, specific conductivity, temperature, and visual estimates of flow. Laboratory analysis primarily consisted of pH, acidity, alkalinity, total iron, total aluminum, total manganese, total dissolved solid, total suspended solids, and sulfates.

A total of 24 field readings were taken with a follow-up 12 samples being collected for laboratory analyses. The water quality sampling confirmed a limited amount of AML AMD (actually alkaline, but with high total iron). However, the water quality sampling did not indicate that the AMD was causing violations of receiving stream water quality standards.

The results of the mine drainage evaluation were summarized in a report, along with other findings of the ESA.

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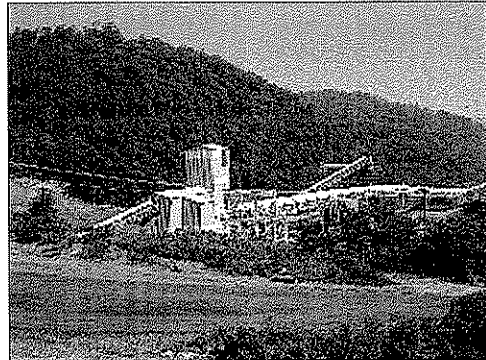
*Project Abstract*

# **GENERAL CONSULTING SERVICES**

## **Kanawha Eagle, LLC**

*Winifrede, West Virginia*

Kanawha Eagle, LLC operates a deep mine complex in eastern Kanawha County. Potesta & Associates, Inc. (POTESTA) has provided a wide variety of engineering services to assist in their day-to-day and long-term operations. Among the many services that have been provided are:



- ▶ Surveying.
- ▶ Design of new decant system including WVDEP and MSHA approvals.
- ▶ Redesign of Stages 6 and 7 of the slurry impoundment.
- ▶ Assistance with slurry injection permit.
- ▶ Compaction tests on the coarse coal refuse placement in both the slurry impoundment and the side hill embankment.
- ▶ Foundation recommendations for a new conveyor belt line and coal storage silos.
- ▶ Weekly inspections of the impoundment and preparation of quarterly reports.
- ▶ Performance of an environmental/reclamation liability assessment, including evaluation of abandoned mine lands (pre-1977 mining) on the property.
- ▶ Construction monitoring during rehabilitation of emergency spillway.
- ▶ Assistance with a permit modification including drainage calculations.
- ▶ Preparation and annual update of Emergency Response Plan.
- ▶ Modification of underdrain system.
- ▶ Ownership and control change for a river loadout.

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*Project Abstract*

**LYNN BROOK (BOYD) DRAINAGE AML  
RECLAMATION PROJECT  
J&B Excavating, Inc.**

*Kanawha County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by J&B Excavating, Inc. to provide construction layout for the Lynn Brook (Boyd) Drainage AML Project in Kanawha County, West Virginia. J&B Excavating, Inc. was contracted by the West Virginia Division of Environmental Protection (WVDEP) Office of Abandoned Mine Lands and Reclamation (AML) to perform reclamation on an AML landslide.

Proposed reclamation included mobilization and demobilization, construction layout, clearing and grubbing, unclassified excavation, permanent erosion control matting, channels, mine seals, subsurface drain, manhole, culvert headwall, sediment control, and revegetation. Total proposed excavation was approximately 5,540 cubic yards. Construction documents for the project were prepared by another consultant.

POTESTA's tasks for the project include:

1. Construction layout of lines/grades for earthwork, including survey of "pre-construction" and "post-construction" cross sections.
2. Computation of (or assistance with) certain as-built quantities, including earthwork, channels, and revegetation.
3. Submittal of "post-construction" cross section drawings depicting existing and final grades.

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*Project Abstract*

# **NEW WEST HOLLOW IMPOUNDMENT**

## **Kanawha Eagle Limited Liability Company**

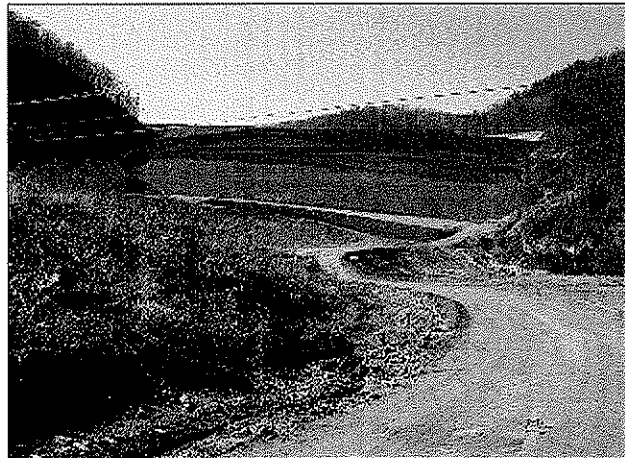
*Winifrede, West Virginia*

Potesta & Associates, Inc. (POTESTA) has provided a number of different services to Kanawha Eagle Limited Liability Company over the past three years. Kanawha Eagle operates a slurry impoundment and a coarse refuse side hill embankment with slurry cells. The following is a list of services provided:

- ▶ Development of new and/or revised staging plans for refuse disposal.
- ▶ Preparation of permit modifications that are required as a result of changes in the refuse disposal plans.
- ▶ Seven-day inspections at both refuse disposal facilities; required by MSHA.
- ▶ Annual certifications required by MSHA (for both facilities).
- ▶ Quarterly inspections and reports required by WVDEP (also for both facilities).
- ▶ Nuclear density testing of the coarse refuse used to construct the embankments.
- ▶ Decant pipeline design.
- ▶ Underdrain design.
- ▶ Construction monitoring.
- ▶ Surveying.
- ▶ Development and annual updating of the Monitoring and Emergency Warning Plan and Procedures.

POTESTA has also provided Kanawha Eagle with geotechnical services including exploratory drilling and foundation recommendations for a new refuse belt and two concrete silos.

POTESTA is currently preparing an Underground Injection Control permit (required by WVDEP, Office of Water Resources) for Kanawha Eagle so that they can dispose of slurry in an underground mine.



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*Project Abstract*

# **WILLIAMSON (HATFIELD) NURSING HOME LANDSLIDE MAINTENANCE**

**West Virginia Department of Environmental Protection-  
Office of Abandoned Mine Lands**

*Williamson, West Virginia*

POTESTA was retained by the West Virginia Department of Environmental Protection - Office of Abandoned Mine Lands (WVDEP) to evaluate and perform geotechnical engineering services for a landslide below the parking lot of the Mingo Manor Nursing Home and above the Hatfield residence. The project area was the site of a former WVDEP reclamation project 15 years earlier. The previous project included regrading of the mine spoil that had been formerly disposed of in this area as well as drainage improvements.



A landslide occurred in the hillside in December 2003, threatening damage to the residence at the base of the hillside, as well as causing damage to the nursing home parking lot at the top of the hillside and potentially threatening damage to structures at the nursing home facility.



POTESTA performed a subsurface exploration to assist in evaluating the landslide condition. The remedial measures to correct the landslide area included the design of a 456-foot steel soldier beam and concrete lagging retaining wall. The retaining wall included a rock anchor tie-back system to minimize the potential for additional settlement of the nursing home parking lot area and potential future damage to the structures within the nursing home facility.

As part of the project, POTESTA assisted the WVDEP with contract administration and performed construction observation services during the construction phase of the project.

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*Project Abstract*

# **TUPPERS CREEK-(LAYNE) LANDSLIDE AML RECLAMATION PROJECT**

## **Thaxton Construction Company**

*Kanawha County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by Thaxton Construction Company to provide construction layout for the Toppers Creek (Layne) Landslide AML Project in Kanawha County, West Virginia. Thaxton Construction Company was contracted by the West Virginia Division of Environmental Protection (WVDEP) Office of Abandoned Mine Lands and Reclamation (AML) to perform reclamation on an AML landslide.

Proposed reclamation included mobilization and demobilization, construction layout, quality control, site preparation, access road resurfacing, unclassified excavation, erosion control matting, gravity line, manholes, wet mine seals, underdrain, energy dissipater, erosion and sediment control, and revegetation. Total proposed excavation was approximately 2,600 cubic yards. Construction documents for the project were prepared by another consultant.

POTESTA's proposed tasks for the project include:

1. Construction layout of lines/grades for earthwork, including survey of "pre-construction" and "post-construction" cross sections.
2. Computation of (or assistance with) certain as-built quantities, including earthwork and revegetation.
3. Submittal of "post-construction" cross section drawings depicting existing and final grades.

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*Project Abstract*

# **CLENDENIN COMPRESSOR STATION LANDSLIDE EVALUATION/REPAIR**

## **Columbia Natural Gas**

*Clendenin, West Virginia*

POTESTA was retained by Columbia Natural Gas (Columbia) to evaluate and design remedial measures for a landslide at Columbia's Clendenin Compressor Station. The landslide was located adjacent to the office and maintenance building at the facility and threatened to damage the structure.

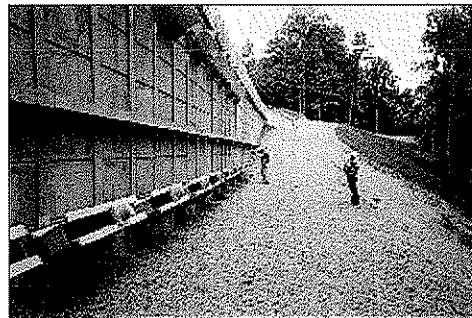
A landslide had occurred within the steep slope adjacent to the building in August 2002, threatening damage to the adjacent office and maintenance building.

POTESTA provided surveying services to map the project area and performed a subsurface exploration to assist in evaluating the landslide condition. The remedial measures to correct the landslide area included the design of an approximately 200-foot steel soldier beam and concrete lagging retaining wall. The retaining wall included a rock anchor tie-back system

As part of the project, POTESTA assisted Columbia with contract administration and performed construction observation services during the construction phase of the project.



*During construction*



*Finished wall with anchors*

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*Project Abstract*

## **LANDSLIDE STABILIZATION PROJECT**

### **Columbia Gas Transmission**

*Blue Creek, West Virginia*

Columbia Gas Transmission (Columbia) operates and maintains a natural gas storage field north of Charleston, West Virginia at Blue Creek. Potesta & Associates, Inc. (POTESTA) was contacted during the fall of 2004 to provide professional geotechnical services related to the preparation of a stabilization plan for a localized soil slope failure approximately one acre in size. The affected area was associated with a valve set and feeder line servicing a storage field well which was unhooked taking the well out of service.



POTESTA worked with Columbia over the winter of 2004-05 to design a regrading plan for the slide mass which included perimeter ditches and drainage control as well as the construction of an underdrain and toe-key for the slide. A high pressure gas main located immediately above the top of the slide had to remain in service. During the work the slide mass continued to move up the hill threatening the integrity of the active high pressure gas main. POTESTA worked with Columbia and the contractor during the regrading to provide an emergency plan to stabilize the gas main which included the excavation of sandstone riprap from an area immediately adjacent to the site which was utilized as buttressing material stabilizing the gas main and the slide area.



The project, which was finalized during the late winter months, resulted in many field changes which were coordinated with both the owner and the contractor to insure the integrity of the gas main resulting in the continued service of natural gas produced from the field during peak demand months.

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*Project Abstract*

# **MINE DRAINAGE TREATMENT SYSTEM**

## **Elk Run Coal Company**

*Boone County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by a large coal company to design a collection and treatment system for mine seeps from a previously reclaimed surface mine site. The mine seepage had levels of iron and manganese above allowable discharge levels, and the downstream area below the valley fill was limited in space available for treatment. POTESTA assisted the company in locating the problem seepage and designing a proposed treatment system. POTESTA's scope of work included:

- ▶ Field walkovers.
- ▶ Record and data reviews.
- ▶ Topographic surveying of the area proposed for the treatment system and location of the seeps.
- ▶ Measurement of seep flow rates.
- ▶ Detailed hydrologic and hydraulic modeling of the contributing watershed and anticipated base flow of mine seepage. Based on the initial calculations and space available on interconnected system of seven ponds was proposed. Interconnected pond hydraulic modeling was performed to determine the appropriate spillway sizes and estimated 100-year, 24-hour storm elevation.
- ▶ Excavation/grading plans for the seven pond systems including pond storage volumes and excavation quantities.
- ▶ Calculation of required liming rates to reduce iron and manganese to acceptable concentrations.
- ▶ Design of the pumping and piping network to collect the problem seepage and direct it to the proposed pond treatment system.

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# **MINE WATER TREATABILITY STUDY**

## **Eastern Associated Coal Corp.**

### *Guyses Run of Tygart Valley River, Marion County, West Virginia*

A major coal company was having difficulty meeting permit limits from an AMD treatment facility which discharged into a tributary of the Tygart Valley River. Several vendors had visited the site and attempted to meet the permit limits with an assortment of chemical treatment options. Potesta & Associates, Inc. (POTESTA) determined that the wastewater was supersaturated with carbon dioxide and that when the pH of the wastewater was adjusted the carbonate radical became insoluble and formed a precipitate on the bed of the stream. POTESTA did stream sampling (water chemistry and benthic macroinvertebrates), upstream and downstream of the discharge, to determine the extent of the impact on the discharge on the receiving stream. Substrate sampling plates were also placed in the stream to determine the rate of deposition on the streambed.

The field work and reporting were completed in 1998. POTESTA billed approximately \$10,000 to the client for this work. The overall project costs are unknown but the company spent approximately \$3,500,000 to construct the treatment facility.

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