

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

## Charleston, WV 25305-0130

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Potesta & Associates, Inc.

7012 MacCorkle Avenue, SE

Charleston, WV 25304

#### Solicitation

NUMBER DEP16435 PAGE 1

ADDRESS CORRESPONDENCE TO ATTENTION OF

FRANK WHITTAKER 304-558-2316

ENVIRONMENTAL PROTECTION
DEPARTMENT OF
OFFICE OF AML&R

0 CHARLESTON, WV

25304 304-926-0499

DATE PRINTED 1:30PM 12/03/2013 BID OPENING TIME 01/02/2014 BID OPENING DATE AMOUNT UNIT PRICE ITEM NUMBER QUANTITY UOP NO. LINE 906-29 JB 0001 1 Morgantown atrport subsidence ii design EXPRESSION OF INTEREST 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 MORGANTOWN WEST VIRGINIA II IN MONGALIA COUNTY, AIRPORT SUBS PER THE FOLLOWING BID REQUIREMENTS AND ATTACHED \$PECIFICATIONS. DEP16435 \*\*\*\*\* TOTAL: THIS IS THE END OF RFQ 01/02/14 01:05:00PM West Virginia Purchasing Division DATE January 2, 2014 TELEPHONE 342-1400 (304)SIGNATURE Luna ADDRESS CHANGES TO BE NOTED ABOVE

### ORIGINAL

# EXPRESSION OF INTEREST FOR PROFESSIONAL ENGINEERING DESIGN SERVICES AND CONSTRUCTION MONITORING SERVICES FOR THE MORGANTOWN AIRPORT SUBSIDENCE II PROJECT RFQ NO. DEP16435

#### 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.

125 Lakeview Drive Morgantown, West Virginia 26508 Phone: (304) 225-2245 Fax: (304) 225-2246 E-mail: potesta@potesta.com

Project No. 0102-13-0533

January 2, 2014



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# EXPRESSION OF INTEREST FOR PROFESSIONAL ENGINEERING DESIGN SERVICES AND CONSTRUCTION MONITORING SERVICES FOR THE MORGANTOWN AIRPORT SUBSIDENCE II PROJECT RFQ NO. DEP16435

#### 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 a revised Engineer's Cost Estimate, review of plan and specification and other miscellaneous services as may be required for the Morgantown Airport Subsidence II Project located in Monongalia County, West Virginia. The project will consist of:

- Subsurface stabilization of subsidence.
- Revegetation of disturbed areas.

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, geotechnical and mining engineering are areas of extensive expertise at POTESTA. We have worked on numerous engineering projects (ranging from site grading and drainage plans for university dorms and commercial/presidential developments, to power plant foundations to mine layouts/reclamation of abandoned mine lands) throughout the region. Our 17 registered professional engineers have over 300 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 Explorations
- 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 Morgantown, West Virginia office:

- 4 Engineers, Including 3 Professional Engineers
- 5 Scientists (Biologists, Ecologists, Environmental Scientists, Etc.)
- 2 CADD Operators/Designers
- 1 Support and Other Staff

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

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

POTESTA, since starting in 1997, has grown to over 100 employees in three offices. Included are 17 registered professional engineers (R.P.E.'s), three registered professional licensed land surveyors (P.L.S.'s), 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 80 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 environmental remediation 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 two PhD's and numerous others with master's 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 Solicitation, Certification and Signature Page, Addendum Acknowledgement 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. We have three survey crews and the capability to add a fourth crew if necessary.

POTESTA's surveyors use state-of-the-art "Field to Finish" equipment such as total station instruments, Trimble R-8 Glonass, data collectors, AutoCAD 2010, Autodesk Land Desktop and Autodesk Civil 3D 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 numerous other WVDEP, AML projects since 2003. Mr. Burns' experience includes over 31 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.

Mr. David B. Sharp, PE, will serve as a project manager/design team leader. Mr. Sharp is the Branch Manager of POTESTA's Morgantown office. Mr. Sharp is a registered professional engineer in Maryland, West Virginia, Pennsylvania, Ohio, and Kentucky. Mr. Sharp has over 15 years of experience with engineering and environmental consulting projects throughout the region. Mr. Sharp obtained his bachelor's and master's degrees from West Virginia University and has spent a large part of his career involved with geotechnical engineering, construction observation/management, and

municipal projects. Mr. Sharp has worked on and managed numerous projects involving mine permitting, mine reclamation, acid mine drainage, hydrology, geotechnical stability analysis, and many other components that would typically be encountered on an abandoned mine reclamation project. Many of these projects have included preliminary planning and assessments, as well as geotechnical engineering, assessments of potential treatment technologies, and preparation of bidding and construction documents.

Mr. Brian Burns, PE, will serve as a project engineer and the primary contact for the Morgantown Airport Subsidence II Project. Mr. Burns has over seven years full-time experience and has worked on several WVDEP-AML projects, as well as projects with similar scope for other public and private entities, including acid mine drainage treatment. Tasks related to AML type work include sealing portals, regrading refuse areas, storm water design, geotechnical subsurface explorations, civil/site design, permitting, as well as detailed design and preparation of construction drawings, technical specifications, bid documents and construction pre-bid meetings. Additional to AML reclamation work, acid mine drainage treatment projects involving passive treatment systems including open limestone channels, limestone leach beds, steel slag leach beds, and aerobic wetlands have been completed by Mr. Burns serving in various responsibilities, from support to project management.

Mr. Chad Griffith, PE, has worked as a project manager for multiple surface mining permits. Mr. Griffith has over seven years of engineering experience and his work has involved civil design aspects including drainage structures, storm water control, and haul road design to name a few.

Messrs. Mark Kiser, P.E., and Terence Moran, P.E., will serve as project advisors if needed. Mr. Kiser has served as a project manager/project engineer for over 40 AML projects in West Virginia. Mr. Kiser has over 27 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 21 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 preaquisition 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 17 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 Morgantown Airport Subsidence II Project.

POTESTA has three other P.E.s with AML and related design experience in Messrs. Vince Ammirato, Bill Drinkard and Patrick Ward. Their individual experiences and capabilities are discussed in further detail later in this section and in  $\bf Appendix\ D$ .

POTESTA has an additional project manager/project engineer in Mr. Chris Grose who has worked on numerous WVDEP, AML projects. Mr. Grose has 22 years of experience and 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 Morgantown Airport Subsidence II 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; project engineers such as Jason Gandee, Robert Ammirato, P.E., Jarrett smith, P.E., 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. 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 contained in **Appendix G**. Work will be performed at POTESTA's Morgantown, West Virginia office or on-site as may be required. Our Morgantown office will be supported, if needed, by our Charleston office.

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. POTESTA's large staff size will allow us to work on this project on an accelerated schedule if necessary.

POTESTA'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 POTESTA's subcontractors to provide necessary services, and review work products at intermediate points and prior to submittal to the WVDEP, AML.

POTESTA 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 POTESTA's large staff. POTESTA offers a large staff with the efficiency and rates normally associated with a small firm.

WVDEP, AML has indicated that 60 days are required for submittal of deliverables for the Morgantown Airport Subsidence II Project. We stand ready to meet your timeframe.

#### **Project Budget Control**

The project manager will be responsible for monitoring the project budget and keeping the principal-in-charge informed of its status. POTESTA's staff enters time into POTESTA's Timetrax computer system on a daily and/or weekly basis. POTESTA'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 60 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**

POTESTA will complete the work under this contract in our Morgantown, West Virginia office. Our subcontractors are located in the Morgantown area or other strategic locations and are quite familiar with the coalfields of West Virginia where the Morgantown Airport Subsidence II Project is located.

#### **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. POTESTA 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 Morgantown Airport Subsidence II 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.



#### CERTIFICATE OF LIABILITY INSURANCE 208807

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the

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(Mandatos	ry in NU)	N/A			03/07/2014	E.L. EACH ACCIDENT	OTH- ER	
DESCRIPT	cribe under TION OF OPERATIONS below						\$	1,000,000
Profess	ional (Claims Mada)	_	CDV 674070			E.L. DISEASE - EA EMPLO	OYEE \$	1,000,000
Foliution	n Liability		CPV-674379-0314 CPV-674370-0314	03/15/2013	03/15/2014	E.L. DISEASE - POLICY LIN \$5,000,000/\$75,000 deduction	MIT \$	1,000,000
		1		03/15/2013	03/15/2014	\$5,000,000/\$75,000 deductil	ble ble	
CRIPTION OF	F OPERATIONS / LOCATIONS / VEHICLI Coverage	75 (4)			1		-1-	- 1
dience of (	Coverage	S (Attach	ACORD 101, Additional Rema	rks Schedule, if more space i	S required)			
hence of (	Coverage			no schedule, if more space i	s required)			
								- 1
								- 1
								- 1
TIEICATE	HOLDER							- 1
TIFICATE	HOLDER			CANCELLATION				- 1
lence of C	overage							
				SHOULD ANY OF T	HE ABOVE DES	CRIBED POLICIES BE C		
				THE EXPIRATION	DATE THERE	CRIBED POLICIES BE C EOF, NOTICE WILL PROVISIONS	ANCELLED BE	FORE
				ACCORDANCE WIT	THE POLICY	PROVISIONS.	BE DELIVERE	DIN
				AUTHORIZED REPRESENT	Gram/	0 1		

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WF	EST VIRGINIA DEPARTM	MENT ENVIRONMENTAL	DDOTECTION	
AMI	L CONSULTANT CONFID	ENTIAL QUALIFICATION Q	OTTECTION	7-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1
PROJECT NAME  Morgantown Airport Subsident	DATE (DAY, MO)	ONTH, YEAR) 2, January, 2014	FEIN 3115090	Attachment "B'
1. FIRM NAME  Potesta & Associates, Inc.	7012 Mad	CE BUSINESS ADDRESS	3. FORMER FIRM NAME	
4 7700	E ECHAPITCHED (VEAD)	ston, West Virginia 25304	N/A	
(304) 342-1400	5. ESTABLISHED (YEAR)  1997	6. TYPE OWNERSHIP Individual Corpora Partnership Joint-V	ation (Disadvant Venture Enterprise	
7. PRIMARY AML DESIGN OFFICE: A	ADDRESS/ TELEPHONE/ PER	CON THE CHARGE / NO AMI DEC	YES	NO
7012 MacContil 2		JON IN CHARGE/ NO. APIL DED.	IGN PERSONNEL EACH OF	FFICE
7012 MacCorkle Avenue, SE, C	Charleston, WV 25304 /	(304) 342-1400 / Dana L. B	Burns / 87	
8. NAMES OF PRINCIPAL OFFICERS Ronald R. Potesta, President	OR MEMBERS OF FIDM	8a. NAME, TITLE, & TELE		DDTMCTDATC
Dana L. Burns, Vice President Laidley Eli McCoy, Vice Pres 9. PERSONNEL BY DISCIPLINE	nt and Treasurer	N/A		EVINCIEWID
2. LEVOCHMEN BI DISCILLING				
10 BIOLOGIST  8 CADD OPERATORS 1 CHEMICAL ENGINEERS 17 CIVIL ENGINEERS 6 CONSTRUCTION INSPECTORS 1 DESIGNERS 1	3 ECOLOGISTS 1 ECONOMISTS ELECTRICAL ENGINEERS 1 ENVIRONMENTAL ENGINEE ESTIMATORS 3 GEOLOGISTS HISTORIANS 1 HYDROLOGISTS 1 TOXICOLOGIST	1 LANDSCAPE ARCHITEC 1 MECHANICAL ENGINER 2 MINING ENGINEERS PHOTOGRAMMETRISTS PLANNERS: URBAN/RE 1 SANITARY ENGINEERS 3 SOILS ENGINEERS 2 SPECIFICATION WRIT 7 ENVIRONMENTAL SCI	EERS 10 SURVEYO S 1 TRANSPOR EEGIONAL 1 SAFETY/ ES 2 CHEMIST OTHER	RTATION ENGINEERS ATION TECHNOLOGIST INDUSTRIAL HYGIENE
TOTAL NUMBER OF WV REGISTE *RPEs other than Civil and supervise and perform this	la Mining must provide a	EERS IN PRIMARY OFFICE: upporting documentation that	$\frac{102}{11}$ TOTAL and the qualifies them to	L PERSONNEL
A HAG BUTG TOTAM VICTORIA				1
O. HAS THIS JOINT-VENTURE WORKER	D TOGETHER BEFORE?	☐ YES ☐ NO N/A	A	

11. OUT 'E KEY CONSULTANTS/SUB-C	ONSULTANTS ANTICIPATED TO USED. Attach "AMI	Congultant Confidential outli
		Consultant Confidential Qualification
NAME AND ADDRESS:	SPECIALTY:	WODVED WITH BEFORE
Digital Graphic Mapping		WORKED WITH BEFORE
172 Imboden Drive, Suite 13	Aerial Photography and Mapping	
Winchester, Virginia 22603	and Mapping	X Yes
NAME AND ADDRESS:	SPECIALTY:	No
Sturm Environmental Services, Inc.		WORKED WITH BEFORE
Brushy Fork Road	Environmental and Coal Related Laboratory	
Bridgeport, West Virginia 26330	Environmental and Coal Related Laboratory	X Yes
NAME AND ADDRESS:	SPECIALTY:	No
Test Boring Services	SI DEIALTT.	WORKED WITH BEFORE
140 Mong Road	Soil and Rock Boring	
Scenery Hill, Pennsylvania 15360	Soft and Rock Borning	X Yes
NAME AND ADDRESS:	SPECIALTY:	No
CTL of WV, Inc.	SPECIALIT:	WORKED WITH BEFORE
510 C Street	Soils and Concrete Testing	
South Charleston, West Virginia 25303	Sons and Concrete Testing	X Yes
,g 25505		
NAME AND ADDRESS:	SPECIALTY:	No
	SPECIALIT:	WORKED WITH BEFORE
		Yes
NAME AND ADDRESS:	SPECIALTY:	No
	SI BOINETT.	WORKED WITH BEFORE
		Yes
NAME AND ADDRESS:	SPECIALTY:	No
	Steries 1,	WORKED WITH BEFORE
		Yes
NAME AND ADDRESS:	SPECIALTY:	No
	or Bonnibi I .	WORKED WITH BEFORE
		Yes
NAME AND ADDRESS:	SPECIALTY:	No
		WORKED WITH BEFORE
		Yes
		No

Is your firm experienced in Abandoned Mine Lan Remediation/Mine Reclamation Engineering? 12. Description and Number of Projects: POTESTA's principal-in-charge, Dana L. Burns, P.E. and two YES project managers, Messrs. Mark Kiser, P.E. and Terence Moran, P.E. have each worked on over 70 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. Is your firm experienced in Soil Analysis? В. Description and Number of Projects: POTESTA's staff is experienced in all aspects of soil analysis, YES 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 NO Is your firm experienced in hydrology and hydraulics? Description and Number of Projects: POTESTA's staff is experienced in hydrology and hydraulics as YES it relates to AML projects in West Virginia. POTESTA's staff has worked on over 70 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 Does your firm produce its own Aerial Photography and Develop Contour Mapping? D. Description and Number of Projects: POTESTA's staff routinely develop contour mapping for use with YES 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 NO

- Is your firm experienced in domestic waterline sign? (Include any experience your firm has in evaluation of aquifer degradation as a result mining.)
  - Description and Number of Projects: POTESTA's staff is exceptionally experienced at domestic waterline design. POTESTA's staff has worked on waterline designs and water treatment plant designs for municipalities, WVDEP AML, and private utilities. POTESTA'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 degradation 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. POTESTA has performed over 40 water line design projects totaling several hundred miles of installed water line.

NO

YES

- F. Is your firm experienced in Acid Mine Drainage Evaluation and Abatement Design?
  - Description and Number of Projects: POTESTA has completed numerous projects addressing acid mine drainage evaluation and abatement design. POTESTA'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.

dat but keep to eggentials)	PRINCIPALS AND ASSOCIATE ES	PONSIBLE FOR AML PROJECT	DESIGN (Furnish same)
dat Jut keep to essentials)		1100001	besign (Furnish compl
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
Burns, Dana L.	YEARS OF AML DESIGN EXPERIENCE	E: YEARS OF AML RELATED DESI	TON The second s
Vice President		EXPERIENCE:	or Borndbird
Tee Tresidenc	22	31	WATERLINE DESIGN
Brief Explanation of Responsibiliti			EXPERIENCE: 20
Mr. Burns will serve as principal-i	n charge for the		
Mr. Burns has served as the project	m-charge for this project with	th his significant experie	ence with AMI, type projects
1386 Unrough 1997 totaling orres co		and chief open end cont	Eracts for Wilder and f
1986 through 1997, totaling over 60 project will be identified. He wil	projects. He will ensure the	ne personnel required to e	efficiently complete this
project will be identified. He will	1 coordinate contract issues	with the State of West Vi	rainia
EDUCATION (Degree, Year, Specializat			921124.
MS, 1979. Civil Engineering	ith Davis		
MS, 1979, Civil Engineering will BS, 1978, Civil Engineering	tth Environmental Engineering	g Emphasis	
, o, civil Engineering			
MEMBERSHIP IN PROFESSIONAL ORGANIZAT			
West Virginia Coal Association	TIONS	REGISTRATION (Type, Yea	r Stato
American Cogisty of G' in	1	(1)pc, ica	i, scace)
American Society of Civil Engi	neers	PE, 1985, WV	
West Virginia Association of C	onsulting Engineers	PS, 1995, WV	
American consulting Engineering	og Council - Trang Committee		
13. PERSONAL HISTORY STATEMENT OF PR data but keep to essentials)	INCIPALS AND ASSOCIATES RESE	ONGIDIE FOR AM PROTEST	
data but keep to essentials)	1201	OUR THE LOK WHIT PROJECT D	ESIGN (Furnish complete
MAME & TITLE (Last, First, Middle Int.)		VENDO OF THE	
	YEARS OF AML DESIGN EXPERIENCE	YEARS OF EXPERIENCE : YEARS OF AML RELATED DESIG	
		I LEAKS OF AMI, PRIATED DECTO	YEARS OF DOMESTIC
Kiser, D. Mark		TELEVITED DESIG	- DOMESTIC
Kiser, D. Mark Chief Engineer	19	EXPERIENCE:	WATERLINE DESIGN
Chief Engineer	19	TELEVITED DESIG	- DOMESTIC
Chief Engineer	19	EXPERIENCE:	WATERLINE DESIGN
Chief Engineer Brief Explanation of Responsibilitie	19 s	EXPERIENCE: 26	WATERLINE DESIGN EXPERIENCE: 20
Chief Engineer  Brief Explanation of Responsibilitie	19 S	EXPERIENCE: 26	WATERLINE DESIGN EXPERIENCE: 20
Chief Engineer  rief Explanation of Responsibilitie  s Chief Engineer, with significant rainage channelization, he will gove	experience in coal refuse sta	EXPERIENCE: 26  abilization design and mir	WATERLINE DESIGN EXPERIENCE: 20
Chief Engineer rief Explanation of Responsibilitie s Chief Engineer, with significant rainage channelization, he will gove	experience in coal refuse sta	EXPERIENCE: 26  abilization design and mir	WATERLINE DESIGN EXPERIENCE: 20
Chief Engineer rief Explanation of Responsibilitie s Chief Engineer, with significant rainage channelization, he will ser A/QC for the various draft submission	experience in coal refuse sta ve as a project manager. Mr ons and final construction do	EXPERIENCE: 26  abilization design and mir	WATERLINE DESIGN EXPERIENCE: 20
Chief Engineer  rief Explanation of Responsibilitie s Chief Engineer, with significant rainage channelization, he will ser A/QC for the various draft submission	experience in coal refuse sta ve as a project manager. Mr ons and final construction do	EXPERIENCE: 26  abilization design and mir	WATERLINE DESIGN EXPERIENCE: 20
Chief Engineer rief Explanation of Responsibilitie s Chief Engineer, with significant rainage channelization, he will ser A/QC for the various draft submission DUCATION (Degree, Year, Specialization)	experience in coal refuse sta ve as a project manager. Mr ons and final construction do	EXPERIENCE: 26  abilization design and mir	WATERLINE DESIGN EXPERIENCE: 20
Chief Engineer rief Explanation of Responsibilitie s Chief Engineer, with significant rainage channelization, he will ser A/QC for the various draft submission	experience in coal refuse sta ve as a project manager. Mr ons and final construction do	EXPERIENCE: 26  abilization design and mir	WATERLINE DESIGN EXPERIENCE: 20
Chief Engineer rief Explanation of Responsibilitie s Chief Engineer, with significant rainage channelization, he will ser A/QC for the various draft submission DUCATION (Degree, Year, Specialization) BS, 1984, Civil Engineering	experience in coal refuse stave as a project manager. Mr ons and final construction do	EXPERIENCE: 26  abilization design and mir	WATERLINE DESIGN EXPERIENCE: 20
Chief Engineer  rief Explanation of Responsibilitie  s Chief Engineer, with significant rainage channelization, he will ser A/QC for the various draft submission (Degree, Year, Specialization)  BS, 1984, Civil Engineering	experience in coal refuse stave as a project manager. Mr ons and final construction do	EXPERIENCE: 26  abilization design and mir . Kiser will also provide ocuments.	WATERLINE DESIGN EXPERIENCE: 20  ne portal closures and constructability reviews and
Chief Engineer rief Explanation of Responsibilitie s Chief Engineer, with significant rainage channelization, he will ser A/QC for the various draft submission DUCATION (Degree, Year, Specialization) BS, 1984, Civil Engineering	experience in coal refuse stave as a project manager. Mr ons and final construction do	EXPERIENCE: 26  abilization design and mir. Kiser will also provide ocuments.  REGISTRATION (Type, Year	WATERLINE DESIGN EXPERIENCE: 20  ne portal closures and constructability reviews and
Chief Engineer rief Explanation of Responsibilitie s Chief Engineer, with significant rainage channelization, he will ser A/QC for the various draft submission (Degree, Year, Specialization) BS, 1984, Civil Engineering	experience in coal refuse stave as a project manager. Mr ons and final construction do	EXPERIENCE: 26  abilization design and mir. Kiser will also provide ocuments.  REGISTRATION (Type, Year PE, 1990, WV	WATERLINE DESIGN EXPERIENCE: 20  ne portal closures and constructability reviews and
Chief Engineer rief Explanation of Responsibilitie s Chief Engineer, with significant rainage channelization, he will ser A/QC for the various draft submission DUCATION (Degree, Year, Specialization) BS, 1984, Civil Engineering	experience in coal refuse stave as a project manager. Mr ons and final construction do	EXPERIENCE: 26  abilization design and mir. Kiser will also provide ocuments.  REGISTRATION (Type, Year PE, 1990, WV PE, 1998, IN	WATERLINE DESIGN EXPERIENCE: 20  ne portal closures and constructability reviews and
Chief Engineer rief Explanation of Responsibilitie s Chief Engineer, with significant rainage channelization, he will ser A/QC for the various draft submission DUCATION (Degree, Year, Specialization)	experience in coal refuse stave as a project manager. Mr ons and final construction do	EXPERIENCE: 26  abilization design and mir. Kiser will also provide ocuments.  REGISTRATION (Type, Year PE, 1990, WV PE, 1998, IN PE, 1998, SC	WATERLINE DESIGN EXPERIENCE: 20  ne portal closures and constructability reviews and

13. PEP VAL HISTORY STATEMENT OF P	RINCIPALS AND ASSOCIATE PER	PONSIBLE FOR AML PROJECT DESIG	
dat but keep to essentials)	ESF	ONSIBLE FOR AML PROJECT DESIG	N (Furnish compl
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
Moran Torrer G	YEARS OF AML DESIGN EXPERIENCE	: YEARS OF AML RELATED DESIGN	l was a
Moran, Terence C. Senior Engineer		EXPERIENCE:	YEARS OF DOMESTIC
Senior Engineer	18	21	WATERLINE DESIGN EXPERIENCE: 21
Brief Explanation of Responsibilities			EXPERIENCE: 21
•			
Mr. Moran will serve as project mana subconsultants. Mr. Moran has serve	ager coordinating interaction	between the WVDEP, design tea	am members and
Detween 1989 and 1999 More march	, , , , , , , , , , , , , , , , , , ,	occ manager for over 60 AMI, n	rojects in Work III
TICIUGING WOLFE STIMING and wools		JCT WING DIO IECE IIIAIIAIIA	r for WVDEP-AML projects
including water studies and reclamat will also serve as one of the principal states.	pal designers of the regions	schedule and ensure it is met	on a weekly basis. He
		cion design solution.	
EDUCATION (Degree, Year, Specializat	cion)		
MS, 1989, Civil Engineering			
BS, 1987, Civil Engineering			
MEMBERSHIP IN PROFESSIONAL ORGANIZAT	IONS	REGISTRATION (Time	
American Cociety Cociety		REGISTRATION (Type, Year, St	ate)
American Society of Civil Engi	neers	PE, 1996, WV	1
12 DEDCONAL LITCHON		- Company of the Comp	
13. PERSONAL HISTORY STATEMENT OF PR data but keep to essentials)	INCIPALS AND ASSOCIATES RESPO	NSIBLE FOR AML PROJECT DESIGN	(Francisk )
NAME & TITLE (Last B)		INOUGH DESIGN	(Furnish complete
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
Taylor, Patrick A.	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN	YEARS OF DOMESTIC
Senior Engineer	20	EXPERIENCE:	WATERLINE DESIGN
		20	EXPERIENCE: 15
Brief Explanation of Responsibilities	5		
Mr. Taylor will serve as a project er technical specifications, bid forms,	agino au de 1 1		
technical specifications, bid forms, consisting of emergency slide remedia	and cost ostimate	field work, design, and prepa	aration of drawings
COMPARED THE OF PROPERTY OF ACTION AND AND AND AND AND AND AND AND AND AN		PIO ICCL CITATION DYNA	Clendo in AMI
Prairy police reclamation Mr marriage	_ 7 2	pond reclamation, abandoned p	portal closures, and
slurry pond reclamation. Mr. Taylor surface mining permitting, design and	reclamation.	ger for a private consulting f	firm responsible for
Aller States Procedure Communication and Communi			
EDUCATION (Degree, Year, Specializati	on)		
MS, 2006, Engineering Managemen	+		
BS, 1988, Civil Engineering			
MEMBERSHIP IN PROFESSIONAL ORGANIZATI	ONS	REGISTRATION (Type, Year, Sta	
		Type, Year, Sta	te)
American Codiates - F at 13			
American Society of Civil Engin	eering		
American Society of Civil Engin	eering	PE, 1994, WV	

13. PER NAL HISTORY STATEMENT OF PR data but keep to essentials)	INCIDALS AND ASSOCIATION		
data but keep to essentials)	INCIPALS AND ASSOCIATE, KES	PONSIBLE FOR AML PROJECT DESIGN	V (Furnish complete
NAME & TITLE (Last, First, Middle Int.)			
	YEARS OF AML DESIGN EXPERIENCE	YEARS OF EXPERIENCE	
Gandee, Jason G.		E: YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC
Project Engineer	5	5	WATERLINE DESIGN
Brief Explanation of Responsibilitie			EXPERIENCE:
As project engineer, Jason will field evaluate soil borrow areas, perform is specifications.	d verify project many		
evaluate soil borrow areas, perform	avdrologic and hydraulic day	Equire utility information, dev	elop grading plans
evaluate soil borrow areas, perform specifications. Mr. Gandee has worke	ed on five AML projects over	sign calculations, develop cont	ract drawings and
		the last year.	
EDUCATION (Degree, Year, Specializat:	ion)		
BS, 2007, Civil Engineering Ted	-1		
, sor, civil Engineering Tea	ennology		
MEMBERSHIP IN PROFESSIONAL ORGANIZATI	ONC		
	OND	REGISTRATION (Type, Year, Sta	ate)
		10000	000000-000000 <b>1€</b>
13. PERSONAL HISTORY STATEMENT OF PRI	NCIPALS AND ASSOCIATES PROP	0)10	
13. PERSONAL HISTORY STATEMENT OF PRI data but keep to essentials)	ABBOCIATES RESPO	ONSIBLE FOR AML PROJECT DESIGN	(Furnish complete
NAME & TITLE (Last, First, Middle Int.)			
Patricipal	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF EXPERIENCE	
Potesta, Ronald R. President		YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC
riesident			WATERLINE DESIGN EXPERIENCE:
Brief Explanation of Responsibilities			EXPERIENCE:
As President, Mr. Potesta directs the	full recourage of the st		
As President, Mr. Potesta directs the WVDEP.	rail lesources of the firm	to meet the complete requireme	nts of this project for
			r-syste for
EDUCATION (Pages a			
EDUCATION (Degree, Year, Specialization	on)		
MS, 1975. Economics with a Const			
MS, 1975, Economics with a Conce BS, 1971, Business Administrati	entration in Mineral Economi	cs, Econometrics, and Micro Eco	onomics
EMBERSHIP IN PROFESSIONAL ORGANIZATIO	NS	D.D.G.T.G.T.G.	
Commissioner, Ohio River Wallow	Water G	REGISTRATION (Type, Year, Stat	ce)
Think a brown a board of the rectors	[1] [7] [7] [1] [7] [7] [7] [7] [7] [7] [7] [7] [7] [7		
Environmental Institute; WV Manu	facturers Association		

13. PER NAL HISTORY STATEMENT OF P	RINCIPALS AND ASSOCIATE AND		
13. PER NAL HISTORY STATEMENT OF P. data but keep to essentials)	ASSOCIATE, RESI	PONSIBLE FOR AML PROJECT DESIG	N (Furnish complete
NAME & TITLE (Last, First, Middle Int.)			_
	YEARS OF AML DESIGN EXPERIENCE	YEARS OF EXPERIENCE : YEARS OF AML RELATED DESIGN	
McCoy, Laidley Eli Vice President		EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Brief Explanation of Responsibilitie	es		
Dr. McCoy will serve as a back-up pr natural science division of the comp completion of this reclamation design	rincipal-in-charge. In addit Dany. He will coordinate req yn.	ion, Dr. McCoy manages the en uired environmental support s	tire environmental and ervices for the
EDUCATION (Degree, Year, Specializat	ion)		
PhD, 1981, Aquatic Ecology MS, 1974, Biological Science BS, 1972, Zoology			
MEMBERSHIP IN PROFESSIONAL ORGANIZAT	TONS		
	TOND	REGISTRATION (Type, Year, St	cate)
13. PERSONAL HISTORY STATEMENT OF PR data but keep to essentials)	INCIPALS AND ASSOCIATES RESPO	NSIDIE FOR ME PRO	
NAME ( MITTIE )		MOIBLE FOR AML PROJECT DESIGN	(Furnish complete
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
Grose, Christopher A.	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN	VEADO OF THE
Senior Engineering Associate	16	EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 12
Brief Explanation of Responsibilities			EXPERIENCE: 12
Mr. Grose will coordinate the drillin sites for soil cover, and investigati recommendations for mine seals.	ng and geotechnical analysis : on and design of solutions fo	for slope stability design, is or subsurface hydrogeology wi	dentification of borrow thin the deep mines and
EDUCATION (Degree, Year, Specializati	on)		
MS, 1990, Geological Engineerin BS, 1988, Civil Engineering			
EMBERSHIP IN PROFESSIONAL ORGANIZATION	ONG		
American Society of Civil Engine	o o milio -	REGISTRATION (Type, Year, Sta	ate)
Association of Engineering Geolo Society of American Military Eng	~~··	Licensed Remediation Sp	
			o prince application to the second

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATE. RESPONSIBLE FOR AML PROJECT DESIGN (Furnish completed adata but keep to essentials)  NAME & TITLE (Last, First, Naddle Int.) Senior Engineer  Brief Explanation of Responsibilities  Mr. Ammirato will provide structural engineering that may be required for this project. His extensive background with this project may have.  EDUCATION (Degree, Year, Specialization)  BS, 1970, Civil Engineering  MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS  REGISTRATION (Type, Year, State) PR. 1982, OH PR. 1983, VA PR. 1984, WA PR. 1984, WA PR. 1984, WA PR. 1985, OH PR. 1985, OH PR. 1985, OH PR. 1986, WA PR. 1986, WA PR. 1988,	13. PER VAL HISTORY STATEMENT OF I	PRINCIPALS AND ASSOCIATE		
AMME & TITLE (Last, First, Niddle Int.) Ammirato, Vincent J. Senior Engineer  Ammirato, Vincent J. Senior Engineer  Brief Explanation of Responsibilities  Mr. Ammirato will provide structural engineering that may be required for this project. His extensive background with closurbia 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, 1982, PA  PE, 1992, OH  PE, 1993, VA  P	data but keep to essentials)	TRINCIPALS AND ASSOCIATE, XES	PONSIBLE FOR AML PROJECT DESIGN	(Furnish comple
Ammirato, Vincent J. Senior Engineer  Brief Explanation of Responsibilities  Mr. Ammirato will provide structural engineering that may be required for this project. His extensive background with chis project may have.  EDUCATION (Degree, Year, Specialization)  BS, 1970, Civil Engineering  MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS  REGISTRATION (Type, Year, State)  PER 1992, OH PF, 1992, OH PF, 1992, OH PF, 1992, OH PF, 1993, VA  13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)  NAME & TITLE (dast, First, Middle Int.)  Ward, Patrick E. Senior Engineer  Mard, Patrick E. Senior Engineer  Mr. Ward will serve as a project engineer and has extensive experience on WVDEP, AML projects, having served as a project engineer and subsidence projects in the early to mid-1990's.  EMBERSHIP IN PROFESSIONAL ORGANIZATIONS  REGISTRATION (Type, Year, State)  PER 1982, OH PF, 1992, O	NAME & TITLE (Last, First, Middle Int.)			
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Ward, Patrick E. Senior Engineer  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  PEARS OF EXPERIENCE:  YEARS OF AML RELATED DESIGN EXPERIENCE:  WATERLINE DESIGN EXPERIENCE:  4  WATERLINE DESIGN EXPERIENCE:  WATERLINE DESIGN EXPERIENCE:  A PEARS OF AML RELATED DESIGN EXPERIENCE:  WATERLINE DESIGN EXPERIENCE:  A PEARS OF AML RELATED DESIGN EXPERIENCE:  WATERLINE	13. PERSONAL HISTORY STATEMENT OF DE	TMCTDALC AND ACCOUNT		
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Ward, Patrick E. Senior Engineer  6  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)	(=dbe, filbe, middle int.)	VENDO OF THE	YEARS OF EXPERIENCE	
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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)	Senior Engineer	6		WATERLINE DESIGN
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EDUCATION (Degree, Year, Specialization)  MS, 1992, Civil Engineering (Geotechnical)  BS, 1990, Civil Engineering  MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS  REGISTRATION (Type, Year, State)	Brief Explanation of Responsibilitie	S		
EDUCATION (Degree, Year, Specialization)  MS, 1992, Civil Engineering (Geotechnical)  BS, 1990, Civil Engineering  MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS  REGISTRATION (Type, Year, State)	Mrs. Nord			
EDUCATION (Degree, Year, Specialization)  MS, 1992, Civil Engineering (Geotechnical)  BS, 1990, Civil Engineering  MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS  REGISTRATION (Type, Year, State)	project engineer as a project eng	ineer and has extensive exper	cience on WVDED AMI product	,
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MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS  REGISTRATION (Type, Year, State)		ion)		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS  REGISTRATION (Type, Year, State)	MS. 1992 Civil Engineering (g			1
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS  REGISTRATION (Type, Year, State)	BS, 1990, Civil Engineering (G	eotechnical)		I
REGISTRATION (Type, Year, State)	A STREET HOUSE ASSESSED AS A SECOND OF THE STREET AS A			ı
REGISTRATION (Type, Year, State)	MEMBERSHIP IN PROFESSIONAL ORGANIZAT	TONG		1
	OKOMITATI	TOTAD	REGISTRATION (Type, Year, State	ce)
PE, 1997, WV				
			PE, 1997, WV	

13. PERL NAL HISTORY STATEMENT OF P. data but keep to essentials)  NAME & TITLE (Last, First, Middle Int.)				compre	-
(base, First, Middle Int.)	WILLIAM CO.	YEARS OF EXI	PERIENCE		
Schloeter, Jhonattan W. Project Engineer	YEARS OF AML DESIGN EXPERIENC	E: YEARS OF AML REEE EXPERIENCE:	LATED DESIGN	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:	
Brief Explanation of Responsibilitie	a g			DATE DRIENCE.	5
As project engineer, Jhonattan will evaluate soil borrow areas, perform specifications.		g, acquire utilit sign calculations	y information, , develop cont	, develop grading p cract drawings and	lans,
EDUCATION (Degree, Year, Specializat	ion)				
BS, 2005, Civil Engineering Te AS, 2005, Architectural					
MEMBERSHIP IN PROFESSIONAL ORGANIZAT	IONS	REGISTRATION (	Pimo Vocas Gi		
			rype, rear, St	ate)	
13. PERSONAL HISTORY STATEMENT OF DE	INCIDAL C. AND				
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AME & TITLE (Last, First, Middle Int.)  Litwinowicz, Dennis L.	INCIPALS AND ASSOCIATES RESP	YEARS OF EXPE	ERIENCE	YEARS OF DOMESTIC	
AME & TITLE (Last, First, Middle Int.)		YEARS OF EXP	ERIENCE ATED DESIGN	YEARS OF DOMESTIC WATERLINE DESIGN	
AME & TITLE (Last, First, Middle Int.)  Litwinowicz, Dennis L.  Senior Scientist	YEARS OF AML DESIGN EXPERIENCE	YEARS OF EXPE	ERIENCE	YEARS OF DOMESTIC	
Litwinowicz, Dennis L. Senior Scientist  rief Explanation of Responsibilities	YEARS OF AML DESIGN EXPERIENCE	YEARS OF EXPERIENCE:	ERIENCE ATED DESIGN 30	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:	
Litwinowicz, Dennis L. Senior Scientist  rief Explanation of Responsibilities	YEARS OF AML DESIGN EXPERIENCE	YEARS OF EXPERIENCE:	ERIENCE ATED DESIGN 30	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:	
AME & TITLE (Last, First, Middle Int.)  Litwinowicz, Dennis L.  Senior Scientist  rief Explanation of Responsibilities  r. Litwinowicz will serve as a proje ssistance on evaluation of other geo	YEARS OF AML DESIGN EXPERIENCE  cet geologist, including obselogic activities.	YEARS OF EXPERIENCE:	ERIENCE ATED DESIGN 30	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:	
AME & TITLE (Last, First, Middle Int.)  Litwinowicz, Dennis L.  Senior Scientist  rief Explanation of Responsibilities  r. Litwinowicz will serve as a proje ssistance on evaluation of other geo	YEARS OF AML DESIGN EXPERIENCE  cet geologist, including obselogic activities.	YEARS OF EXPERIENCE:	ERIENCE ATED DESIGN 30	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:	
Litwinowicz, Dennis L. Senior Scientist  rief Explanation of Responsibilities  r. Litwinowicz will serve as a projection of other geo  DUCATION (Degree, Year, Specialization of Specialization)  BS, 1980, Geology and Mineralog	YEARS OF AML DESIGN EXPERIENCE  cot geologist, including obselogic activities.  on)	YEARS OF EXPI	ERIENCE ATED DESIGN 30 rface explorat	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:	
Litwinowicz, Dennis L. Senior Scientist  rief Explanation of Responsibilities  r. Litwinowicz will serve as a projessistance on evaluation of other geo  DUCATION (Degree, Year, Specializati  BS, 1980, Geology and Mineralog  EMBERSHIP IN PROFESSIONAL ORGANIZATION	YEARS OF AML DESIGN EXPERIENCE  cct geologist, including obsologic activities.  on)  y	YEARS OF EXPI	ERIENCE ATED DESIGN 30 rface explorat	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:	
Senior Scientist  Brief Explanation of Responsibilities  Mr. Litwinowicz will serve as a projection of other geometric services on evaluation of other geometric properties.  DUCATION (Degree, Year, Specialization)	YEARS OF AML DESIGN EXPERIENCE  cct geologist, including obsologic activities.  on)  y	YEARS OF EXPERIENCE:  EXPERIENCE:  Ervation of subsu	ERIENCE ATED DESIGN 30 rface explorat	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:	

13. PER JAL HISTORY STATEMENT OF F data but keep to essentials)	PRINCIPALS AND ASSOCIATE. CEST	ONGIDIE EOD NG DDO	
NAME & MITTER		ONSIBLE FOR AML PROJECT DESIG	N (Furnish complete
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
Dawson, Victor M. Survey Supervisor	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN
Brief Explanation of Responsibiliti		28	EXPERIENCE: 12
Mr. Dawson will coordinate required topographic surveys, boundary surves significant existing drainage cours and create topographic mapping for EDUCATION (Degree, Year, Specializate)	es not clearly defined in the AML projects.	control if needed, establish esearch, survey of boring locaterial mapping. Mr. Dawson	construction benchmarks ations and profiling will reduce survey data
AS, 1983, Surveying	,		
MEMBERSHIP IN PROFESSIONAL ORGANIZAT American Congress Surveying ar West Virginia Association of I North Carolina Society of Surv South Carolina Society of Surv	nd Mapping Jand Surveyors Teyors Teyors	REGISTRATION (Type, Year, St PS, 1988, NC PS, 1989, SC PS, 1993, WV	
<ol> <li>PERSONAL HISTORY STATEMENT OF PR data but keep to essentials)</li> <li>AME &amp; TITLE (Last, First, Middle Int.)</li> </ol>	INCIPALS AND ASSOCIATES RESPON	NSIBLE FOR AML PROJECT DESIGN	(Furnish complete
Sankoff, Michael B. CADD Designer/Supervisor rief Explanation of Responsibilitie	10	YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN EXPERIENCE: 23	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 12
r. Sankoff will provide the CADD supurvey data to provide sufficient map	pport in preparation of constr pping to complete the design.	uction drawings for the proje	ect. He will reduce
DUCATION (Degree, Year, Specializat:  BS, 1987, Industrial Management AS, 1986, Drafting and Design F AS, 1986, Mechanical Engineerin	Engineering Technology ng Technology		
MBERSHIP IN PROFESSIONAL ORGANIZATI	ONS	REGISTRATION (Type, Year, Sta	te)

13. PER NAL HISTORY STATEMENT OF PR data but keep to essentials)	TNCIPALS AND ASSOCIABLE		
data but keep to essentials)	THETTALD AND ASSOCIATE, RESP	ONSIBLE FOR AML PROJECT DESIGN	(Furnish complete
NAME & TITLE (Last, First, Middle Int.)			
in a supplied that the supplied	VEADS OF AMI DESTRUCT	YEARS OF EXPERIENCE	
Ammirato, Robert J. Engineer	YEARS OF AML DESIGN EXPERIENCE	: YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 7
Brief Explanation of Responsibilitie	S		
Mr. Ammirato will serve as a project calculations, layout, drawing preparawork. He has extensive experience in Mr. Ammirato was the project engineer EDUCATION (Degree, Year, Specializate	engineer for the project. ation, design, technical spe n water supply and waste wate r on our Borderland (Matney)	cilications, pld forms, cost es	ude hydraulic stimates, and field and regulations.
(Dogree, Tear, Specializat:	ion)		
BS, 1999, Mechanical Engineerin	ng		
MEMBERSHIP IN PROFESSIONAL ORGANIZATI	ONC		1
OKOMVIZATI	LONS	REGISTRATION (Type, Year, Sta	ite)
		PE, 2010, WV	
13. PERSONAL HISTORY CTATEMENT OF THE			
13. PERSONAL HISTORY STATEMENT OF PRI data but keep to essentials)	NCIPALS AND ASSOCIATES RESPO	NSIBLE FOR AML PROJECT DESIGN	/Purniah
NAME & MINIS		THOUSE DESIGN	(Fulfilsh complete
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
W-1	YEARS OF AML DESIGN EXPERIENCE:	VEADO OF THE	
Kinder, kenneth K.		PVDEDTENCE	YEARS OF DOMESTIC
Staff Engineer	4		WATERLINE DESIGN EXPERIENCE: 6
Brief Explanation of Responsibilities			EXPERIENCE: 6
Mr. Kinder has extensive experience is coal ash disposal facilities and prepare	n hydrologic and hydraulic daration of cost estimates.	esign as well as subsurface exp	plorations, design of
EDUCATION (Degree, Year, Specialization	on)		
BS, 2003, Civil Engineering			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIO	ONG		- 1
OROMIDATIO	7170	REGISTRATION (Type, Year, Stat	ce)
		PE, 2008, WV	

13. PERL JAL HISTORY STATEMENT OF PR data but keep to essentials)	RINCIPALS AND ASSOCIATE ARCH	ONGIDIE	
	ASSOCIATEL XESP	ONSIBLE FOR AML PROJECT DESIGN	V (Furnish complete
NAME & TITLE (Last, First, Middle Int.)		VEADO OF TVD	
	YEARS OF AML DESIGN EXPERIENCE	YEARS OF EXPERIENCE : YEARS OF AML RELATED DESIGN	
Smith, Jarrett M.		EXPERIENCE:	YEARS OF DOMESTIC
Staff Engineer	5	7	WATERLINE DESIGN EXPERIENCE: 7
Brief Explanation of Responsibilitie	G.		JAT BRIBNES.
Mr. Smith has been involved extensiv preparation of NPDES stormwater cons	ely with development of hydro	ologic and had a	
preparation of NPDES stormwater cons grading plans and quantity/cost estimates	truction permits. He also ha	as significant exporting in the	ons including
grading plans and quantity/cost estimates cons	mates. Mr. Smith was the pro	oject engineer on our Tayloryi	e development of site
Project.		James on our raylorvi	ile (Cantrell) Drainage
EDUCATION (Degree, Year, Specializat:	ion)		
	1011)		
BS, 2002, Civil Engineering			1
MEMBERSHIP IN PROFESSIONAL ORGANIZAT			
THE PROPESSIONAL ORGANIZATION	IONS	REGISTRATION (Type, Year, Sta	ate)
National Society of Professiona	al Engineers		
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	at highleets	PE, 2008, WV	1
			I
13. PERSONAL HISTORY STATEMENT OF PRI data but keep to essentials)	NCIPALS AND ASSOCIATES RESPO	NCIPLE FOR AMI PRO THEM	
data but keep to essentials)		MSIBLE FOR AML PROJECT DESIGN	(Furnish complete
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
Davis and the second se	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN	VIII
Burns, Brian L. Staff Engineer		EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN
	2	4	EXPERIENCE: 6
Brief Explanation of Responsibilities			
Mr. Burns has extensive experience wi handling and treatment.	th site grading plans and sto	ormwater management He also	hag armoni
nanding and creatment.		Jemeire. He diso	has experience with AMD
EDUCATION (Degree, Year, Specialization	onl		1
	OII)		
BS, 2004, Civil Engineering			1
MINDE			ı
MEMBERSHIP IN PROFESSIONAL ORGANIZATION	ONS	REGISTRATION (Type, Year, Sta-	to)
		type, rear, Sta	ce)
		PE, 2009, WV	

13. PER NAL HISTORY STATEMENT OF PR data but keep to essentials)	RINCIPALS AND ASSOCIATE SECTION	ONGTOIN TOP 11					
	THE PART ADDOCTATE. RESE	ONSIBLE FOR AML PROJECT DESIGN	V (Furnish complete				
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE					
~ ! 66!!!	YEARS OF AMI DECICAL EXPEDITATION I						
Griffith, Chad		EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN				
Staff Engineer	1	3	EXPERIENCE: 6				
Brief Explanation of Responsibilitie	L s						
Mr. Griffith has extensive experience mine plans and permitting.		d stormwater management. He a	lso has experience with				
EDUCATION (Degree, Year, Specializat	ion)						
BS, 2004, Civil Engineering							
MEMBERSHIP IN PROFESSIONAL ORGANIZAT	IONS	DEG T GED T ET CAN					
		REGISTRATION (Type, Year, St.	ate)				
		PE, 2009, WV					
13. PERSONAL HISTORY STATEMENT OF PR data but keep to essentials)	INCIPALS AND ASSOCIATES RESPO	ONGIDIE EOD AM DECTEO					
		MSIBLE FOR AML PROJECT DESIGN	(Furnish complete				
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE					
Desiral- and said and	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN	VENDO OF DOMESTIC				
Drinkard, William F. III Senior Engineer	_	EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN				
	7	30	EXPERIENCE: 10				
Brief Explanation of Responsibilities	3						
Mr. Drinkard will serve as a project areas, mine facility construction uti Mr. Drinkard will prepare NPDES permi drainage calculations.	engineer and has extensive c lities, access roads, draina t applications for construct	oal industry design experience ge controls, and portal closin ion activities and other requi	e in refuse disposal gs. In addition, red storm and mine				
EDUCATION (Degree, Year, Specializati	on)						
MS, 2003, Environmental Enginee MBA, 1981, Business Administrat BS, 1980, Mining Engineering	ring						
MEMBERSHIP IN PROFESSIONAL ORGANIZATI	ONS	REGISTRATION (Type, Year, Sta PE, 1981, WV PS, 1992, WV	te)				

14. PRO DE A LIST OF SOFTWARE AND EQUIPMENT AVAILABLE IN DESIGN SERVICES  PRIMARY OFFICE WHICH WILL BE USED TO COMPLETE ALL.
DESIGN SERVICES  DESIGN SERVICES  PRIMARY OFFICE WHICH WILL BE USED TO COMPLETE ALL.
Microsoft Office 2003 (Excel, Access, Word, PowerPoint) and Microsoft Office 2010 (Excel, Access, Word, PowerPoint)
WordPerfect 11
Adoba Baranalan a (p. 131
Adobe PageMaker 8 (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.
Haestead 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 topographic maps with powerful PC navigation software for 2D/3D viewing, customizing, printing and GPS use.)
AutoCAD, 2012 Used for preparing CADD drawings (3D modeling software that provides topographic analysis, real-world coordinate systems, volume totals, roadway geometry.)
2012 Civil/Survey Design Software

115.	CIIR	T.	ACTTVTTTEC	ONT	THETTOTE	TIOTTO	-			The second second		The ballion of	The second of the second of the second	_
	COIL	-41	ACTIVITIES	OIA	WHICH	YOUR	F.TKW	IS	THE	DESIGNATE.	_NGINEER	OF	RECORD	_

PROJECT NAME, TYPE AND	NAME AND ADDRESS OF	NA BUDE OF THE		
LOCATION Sundial Refuse Piles,	OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
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.	\$4,000,000	Project is Under Construction
Design, Various Environmental Remediation Projects Nitro, WV  The Villages at	Solutia, Inc. 1 Monsanto Road Nitro, WV 25143  Berkeley Springs	Preparation of closure designs, construction drawings and specifications, environmental sampling, and regulatory liaison.	\$4,000,000	85%
Coolfont, Morgan County, WV  Flipping Hollow	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	98% (Design)
Complex Mercer 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.	\$160,000	98%
Wayne County, WV		Preparation of reclamation plan, drawings, specifications, bid form, engineer's construction cost estimate, and calculations brief.	\$1,220,000	95%

15. CUR 'T ACTIVITIES	ON WHICH YOUR FIRM IS TH	HE DESIGNATE	'NGINEER OF	RECORD	
PROJECT NAME, TYPE AND LOCATION	OWNER	NATURE OF RESPON	YOUR FIRM'S	ESTIMATED CONSTRUCTION	PERCENT COMPLETE
MacArthur Subsidence Raleigh County, WV	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	Preparation reclamation drawings, specificate form, enging construction estimate, a calculation	n plan, ions, bid neer's on cost and	\$3,400,000	98%
Logan County PSD Feasibility Study Logan County, WV	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	Preparation	n of y study and	\$400,000	90%
Wilderness PSD Feasibility Study Nicholas County, WV	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	Preparation feasibility engineer's construction estimate.	study and	\$450,000	10%
FOTAL NUMBER OF PROJECTS					
			TOTAL ESTIMA	TED CONSTRUCTION COSTS:	
/ (POTESTA has com	pleted well over 1000 pr	ojects.)			\$63,630,000

PROJECT NAME, TYPE	NATURE OF FIRMS	NAME AND ADDRESS			
AND LOCATION	RESPONSIBILITY	NAME AND ADDRESS OF OWNER	ESTIMATED COMPLETION DATE	ESTIMATED CON	STRUCTION COST
Armstrong Mineral	Ct Oxemuse to an Danis			ENTIRE PROJECT	YOUR FIRMS RESPONSIBILIT
Wool Plant, Jackson County, WV	Stormwater Design and Permitting	Armstrong Industries 2500 Columbia Ave. Lancaster, PA 17604		Unknown	\$20,000 (fee)

DPO TECT NAME WARD	ST 5 YEARS ON WHICH YOUR FIRM	AS THE DESIGNATED ENGINEER OF RECORD	)	
PROJECT NAME, TYPE AND LOCATION Peach Ridge Complex, AML	OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
Reclamation of Refuse Pile and Mine Portals, McDowell County, WV	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	\$500,000		Yes
Measle Fork Refuse Pile, AML Reclamation of Refuse Pile and Drainage Problems, Wyoming County, WV	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	\$1,200,000		Yes
Georges Creek Portals, AML Reclamation of Acid Mine Drainage Problems, Mingo County, WV	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	\$250,000		Yes
Putney Impoundment, AML Reclamation of Mine Portals, Mingo County, WV	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	\$226,000		Yes
Kopperston (John's Branch) Refuse Emergency, AML Reclamation of Refuse Pile Drainage, Wyoming County, WV	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	\$1,300,000		Yes
Marmet (Wells Drive) Landslide Emergency Project, AML Reclamation of Landslide, Kanawha County, IV	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	\$475,000		Yes
Marmet (Clark) Drainage, AML Reclamation of Drainage, Kanawha County, WV	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	\$100,000		Yes
Pringle Run#2, AML Declamation of Refuse Pile, Portals, and Structures, Preston County, WV	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	\$675,000		Yes
roject, Buchanan County, VA	Virginia Dept. of Mines, Minerals & Energy PO Drawer 900 Big Stone Gap, VA 24219	\$130,000		Yes
xtension - Phase I, Boone	Boone County PSD PO Box 287 Danville, WV 25053	\$1,200,000		Yes

JJECT NAME, TYPE	ST 5 YEARS ON WHICH YOUR FIRM	AS THE DESIGNATED ENGINEER OF RECO	RD	
AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	COL RUCTEI
Town of Ceredo Water Distribution System Upgrade - Contract No. 1, Ceredo, WV	Town of Ceredo PO Box 691 Ceredo, WV 25507	\$831,000		Yes
Town of Ceredo Water Distribution System Upgrade - Contract No. 2, Ceredo, WV	Town of Ceredo PO Box 691 Ceredo, WV 25507	\$885,000		Yes
Hatfield-McCoy/Water Ways Waterline Extension, Boone County, WV	Boone County PSD PO Box 287 Danville, WV 25053	\$900,000		Yes
Fort Martin Power Station Coal Combustion By-Product Landfill Expansion, Monongalia County, WV	Allegheny Energy Supply 800 Cabin Hill Drive Greensburg, PA 15601	\$24,000,000		Yes
Jessop Highwall #10 AML Reclamation of Highwalls, Preston County, WV	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	\$1,357,000	2009	Yes
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	\$352,000	2009	Yes
Taylorville (Cantrell) Drainage, AML Reclamation of Acid Mine Drainage Problems, Mingo County, WV	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	\$241,000	2009	Yes
Borderland (Matey) Portals, AML Reclamation of Mine Portals, Mingo County, WV	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	\$94,000	2009	Yes
ML Reclamation of Acid Mine	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	\$100,000	2009	Yes

17. C LETED WORK WITHIN LAS	ST 5 YEARS ON WHICH YOUR FIR'	AS THE DESIGNATED ENGINEER OF RECOR	2D	
AND LOCATION Rachel Refuse, AML	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CO. PRUCTED (YES OR NO)
Reclamation of Mining Complex, Farmington, WV	601 57 <sup>th</sup> Street, SE Charleston, WV 25304	\$300,000	2010	Yes
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
Closure/Capping Plan for	WVDEP 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	\$3,000,000	2008	Yes

18. C PLETED WORK W	WITHIN LAST 5 YEARS ON WHO	ICH YOUR FIR. AAS BEEN A SUB-CO	MSIII.TANT	TO OTHER ETRMS	(TYPE GO
OF WORK FOR WHI		(BLE)	TIDOLIANI	10 OTHER FIRMS	(INDICAT. PHASE
PROJECT NAME, TYPE	NAME AND ADDRESS	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED	TITOM AGGGGGG
AND LOCATION	OF OWNER	OF YOUR FIRM'S PORTION	Line	(YES OR NO)	FIRM ASSOCIATED
Bradshaw Schools	Design Water Supply and	\$750,000	2009	Yes	WITH
Site Utilities	Sanitary Sewer Systems		2005	165	ZMM, Inc.
1					1
					1
Charleston	Cito Heilit			1	1
Greenspace Project	Site Utilities, Stormwater Management	\$20,000	2008	Yes	Andropogon
	and Agency Coordination				Associates, Ltd.
	ligency cooldinacton				
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9. U	this space to provide any additional information description of resources supporting way find
40	a fileactons to perform work for the West Virginia andoned Mine Lands Program.
Po	otesta & Associates, Inc.'s (POTESTA) "Expression of Interest for Professional Engineering Design Services and
Co	onstruction Monitoring Services for the Morgantown Airport Subsidence II Project" supports this questionnaire i
b1	toviding Potesta's qualifications and and are a substituted if Project" supports this questionnaire in
FI	rotection, Office of Abandoned Mine Lands and Reclamation on this project. In summary, POTESTA.
1.	. Has assembled a team of in-bourge newspapers
	have worked on over 75 AML projects.
2.	Has a large local staff with a unique multidiscipline technical emphasis (including civil engineering, structural engineering, geological engineering, hydrological engineering, missing missing and staff with a unique multidiscipline technical emphasis (including civil engineering,
	structural engineering, geological engineering, hydrological engineering, mine land reclamation, with a strong and 12 hours which a unique multidiscipline technical emphasis (including civil engineering, emphasis on water quality and aquatic life and toxicity). Two members of portegrates the first strong and 12 hours with a strong and 12 hours
	emphasis on water quality and aquatic life and toxicity). Two members of POTESTA's staff have their Ph.D.'s,
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 - Passive Acid Mine Drainage Treatment
	- Demolition of Structures - Reclamation of Refuse Piles
	- Diversion Structures - Sealing Mine Portals
	- Identifying Acid Mine Drainage - Stream Relocations
	- Inventory of Residential Water Supplies - Subsidence Assessment and Remediation - Landslides - USCOE Permitting
	- Mine Fires - 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 75+ AML projects.
5.	Offices located in Charleston W
	Offices located in Charleston, West Virginia in close proximity to WVDEP's Charleston office, with offices in Morgantown, West Virginia close to WVDEP Philippi office and Winchester, Virginia.
6.	Staff has had a positive relationship with MUDED and
	Staff has had a positive relationship with WVDEP, AML in the past, which we would like to continue.
	foregoing is a statement of facts.
natu:	re:
nted	Name: Dana L. Burns
rroca	

# AML AND RELATED PROJECT EXPERIENCE MATRIX

								P	roject Exp	perience I	Requiren	nents														Primary	Staff Par	rticipation	n/Capacity	y						
Project	Exp. Basis C=Corporate P=Personal	Additional Information Provided in Section(s)	Abandoned Surface Mine Reclamation	Abandoned Deep Mine Reclamation	Portal/Shaft Closure	Hydrologic/Hydraulic Design/Evaluation	Remining Evaluation	Mine/Refuse Fire Abatement	Subsidence Investigation Mitigation	Hazardous Waste Disposal	Project Specifications	Water Quality Evaluation/Mitigation/	Keplacement Construction	nspection/Management	Water Treatment	Equipment/Structure Removal	Stream Restoration	Geotechnical/Stability	Dana L. Burns	D. Mark Kiser	Terence C. Moran	William F. Drinkard	Vincent J. Ammirato	Jason Gandee	Chris A. Grose	Michael Sankoff	Kenneth Kinder	Jarrett Smith	Robbert Ammirato	Pat Taylor	Brian L. Burns	David B. Sharp	Scott A. Bolyard	Chad Griffith	Peter Potesta	honattan Schloeter
Flippin Hollow Complex	С			V	V	V			<del>                                     </del>		V	+-	+ -	=						М																5
East Lynn II MacArthur Subsidence	C			V	~	~					V						~		100 M	M				P	-	-			P							
Logan County PSD Water Feasibility Study	C			V	-	-				-		V							M					P		<u> </u>										P
Wilderness PSD Water Feasibility Study	C				+		-	+		-	_	V	+				-		М					P												P
Sundial (Hatfield) Refuse Piles Re-Bid	С			V	~	~					V	1		_	_	V		V		M		1		P		D										
Mill Creek Refuse Pile John's Branch Coal Refuse Dam (Kopperston)	C			V		V					V							V		M				P		P										
Clay-Roane PSD Water Feasibility Study	C			V	<b>_</b>	~		~			~							~		M				P		P								-	P	$\vdash$
Burnsville PSD Water Feasibility Study	C			-		_		-	-			V	+	-	_	-			M	24				P		P									P	
Brandonville/Pisgah Water Feasibility Study	С			V								V			_	_			M M	M M				P P	-				-							
Cuzzart/4-H Water Feasibility Study Hudson/Mt. Nebo Water Feasibility Study	C			~	-							V							M	M				P									-			
Jessop Highwall #10	C	F	-	~	V	_			-	-	.,	~							М	М				P									-			$\overline{}$
Lando (Edwards) Drainage	C	F	V	V	V	~					~		+	-	_			~		M M				P												-
Taylorville (Cantrell) Drainage	С	F		~	~	V					V			+-						M				P P				n								
Borderland (Matney) Portals Peach Ridge Complex	C	F		~	~	V					V									M				1				P	P							
Measle Fork Refuse	C		~	~	~	~					V		-	_		V				M				P		P			-				-		-	
Georges Creek Portals	С	F		V	~	V					~	-	-	+-	-	~	~	~		M				P		P			P							
Putney Impoundment	С		~	V	~	V					V		1	+			~	~		M M				P		P			P							
Kopperston (John's Branch) Refuse Emergency Marmet (Wells Drive) Landslide Emergency	C		~			V					V									M				Г				P								
Marmet (Clark) Drainage	C			~	V	~	_				V							~		M			P		P	P		1	P				-			
Pringle Run #2	C		~	V	V	-					V	-	-	-		v				M				P		P										
Mountain Run Refuse and Portals - AML	С				V	V					V					7		V	M	M M			-	P		P										
Dream Mountain AMD Project - Friends of the Cheat Gary Connor AMD - Friends of the Cheat	C					~					V	V		V				~	141	141									-		P P	M	P			
Fairmont East Mine Drainage	C			~		~					~	~		V	/																P	M	P P			_
Rachel Refuse	C	F	V			V	~				~	-	+	-		_				M				P									-			
Iaeger Water Feasibility Study	С			V								~	_	+			-			M	M			P P		P										
Burnwell, Standard, and Collinsdale Water Line Extension	С	F		~							V	-	~											P		P										
Morrisvale Cameo Preliminary Engineering	C												-								M					P			P							
May Portal (Virginia AML)	C	F		V	V	V					~	~		-		_					M					P			P							
Webster County Water Studies	С					V						V		+		~	-		-					P						M						
Mill Creek Phase III Waterline and Water Treatment Plant - AML	P					~					~	~			,						2.2							P		M						
Cow Creek - Sarah Ann Phase III Water Line Extension	P													-	-			~			M															
Godby Branch Water Line Extension	P			S		-															M			i								- 1				
Putnam County Commission - Fisher Ridge Phase II	C												-	-						P	M													-		
Boone County PSD - Lick Creek Water Line Extension	С													1				_	M M		M M					P P		P								
Boone County PSD - Joes Creek Water Line Extension	С																		М		M					P						-				
Boone County PSD - Six Mile Extension/Corridor G	С														+				M	+	M					P										
Boone County PSD - Trace Branch/Robinson Water Line Extension	С																						-						-							
Boone County PSD - Stephens Auto/Betsy Lane Water Line Extension	С															-			M		M					P										
Town of Ceredo - Water Distribution System Upgrade	C																		М		M					P										
WVAWC - Mifflin/Sharples Water Line Extension	C												-	-		_			M		M					P			P	P						
Town of Ceredo - Cemetery Hill Upgrade	С														-		-	-	M		M					P			P							
WVAWC - Putnam County Water Supply Extension	P										V									-	M															
WVAWC - Kanawha County Water Supply Extension WVAWC - Cabell County Water Supply Extension	P P					~					V										M						+	-								
City of Philippi Upgrade to Water Distribution System	C	F				~					V										M													-		
Philippi Water Line Relocation for WVDOH Bypass	C					~					V		-			-			M		P					P										
WVAWC - Route 60	С					V				-	~	V				_			M M	P	P					P										
WVAWC - Route 60 Contract 4 WVAWC - Buff Creek/Trace Fork	С					V					V	V						-	M	P	-					P P			-							
WVAWC - Buff Creek/Trace Fork WVAWC - Poca River	C					V					V	V							M	P					+	P				-						
I OCU TUYCI	C					~					~	V	~						M	P						P								_		

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								Pi	roject Ex	perience R	leguirem	ents						1							Primary	Staff Pa	rticinatio	n/Capaci	tv					January 2,	, 2014
				1	Г	Ι						1	-	Т			_	-						*	** M=N	Managem	ent P=	Profession	nal						
Project	Exp. Basis C=Corporate P=Personal *	Additional Information Provided in Section(s)	Abandoned Surface Mine Reclamation	Abandoned Deep Mine Reclamation	Portal/Shaft Closure	Hydrologic/Hydraulic Design/Evaluation	Remining Evaluation	Mine/Refuse Fire Abatement	Subsidence Investigation Mitigation	Hazardous Waste Disposal	Project Specifications	Water Quality Evaluation/Mitigation/ Replacement	Construction Inspection/Management	Water Treatment	Equipment/Structure Removal	Stream Restoration	Geotechnical/Stability	Dana L. Burns	D. Mark Kiser	Terence C. Moran	William F. Drinkard	Vincent J. Ammirato	Jason Gandee	Chris A. Grose	Michael Sankoff	Kenneth Kinder	Jarrett Smith	Robbert Ammirato	Pat Taylor	Brian L. Burns	David B. Sharp	Scott A. Bolyard	Chad Griffith	Peter Potesta	honattan Schloeter
WVAWC - Cabell County Contract 6	С			_		V	I	+						-																					5
WVAWC - Cabell County Contract 7	C			_	-	~			-	+	~	~	~	-	-		-	M	P	P					P			T	Ī						
WVAWC - Fisher's Ridge Extension	С			1	-	V			1		V	~	V		+	+		M	P	P	-	ļ			P										
WVAWC - Summers County Extension	С					V				1	~	~	V	-	-	-	-	M	- D	P		ļ			P			P		-					
WVAWC - Glade Springs Village	С					V					V	V	~				<del>                                     </del>	M	P	+		-													
WVAWC - Spite Road	С					~					V	V	V				_	M	F	P	-	-				-		-							
Beaver Creek Waterline Extension - AML	P			-							V	V						M	1	P	-	-		P		-		+	-						
Cassity Fork Water Supply Extension - AML Gualey River Area Water Line Extension - AML	P		-	-							~	~						М	P	P				P		-		-				-		$\rightarrow$	
Heizer/Manila Creek Water Line Extension - AML			-	-		-			-		~	~				1				M								<del>                                     </del>						$\rightarrow$	
Study - AML	P										V	V								M														$\rightarrow$	
Reynoldsville/Wallace Water Supply Extension - AML	P					V					~	_			1	1	-			M															
Weaver-Junior Phase II Water Supply - AML	Р					V		-		-				-	-																	1			
Washington Heights to Jeffrey Phase II Water Study -				-	-			_				~			-					M															-
AML	P					V						~					-			M															
Reynoldsville, Wallace, and Clarksburg Phase II Water	р					_									-	-			+		-							-							
Study - AML	_ '											~								M															
Reynoldsville, Wallace, and Clarksburg Phase I Water Study - AML	P											~								<b>—</b>								-						$\rightarrow$	
Weaver-Junior Phase I Water Study - AML	P			-																M															
Gauley River Phase I Water Study - AML	P				_							V			-					M													-	-+	
Upper Rum Creek Phase II Water Study - AML	P					V						~		-	-	-			P	M														-	
Crooked Creek Phase II Water Study - AML	Р					V						~			-					M	-														
Mill Creek Regional Phase II Water Study - AML	P					~						~			-	<del>                                     </del>		-	ļ	M	-														
Cow Creek - Sarah Ann Phase II Water Study - AML	P					~						V			1				<del>                                     </del>	M							-								
Phase I Water Studies Brooke and Fayette Counties (2 Projects) - AML	P											~						,,	-									-							
Mill Creek Regional Water Project Phase II Water												_						M	P	P												- 1			
Study (Boone, Lincoln and Logan Counties) - AML	P					~						~						М	P	р														$\rightarrow$	
Godby Branch Phase II Water Study - AML	P					~						~					·	М		p	-														
Putnam County Phase I Water Studies (3 Projects) -	P																		P	<u> </u>	-														
AML Boone County Phase I Water Studies (10 Projects) -												~						M		P															
AML	P											~						M	P	P															
Phase II Water Feasibility Studies for Logan County (3 Projects) - AML	P					~						~						M	P																
Phase I Water Studies for Logan County (7 Projects) -	р																	М	P	P															
AML	Р											~						М	P	P				P											
Spruce Lick-Stream Flow Monitoring Project for Eastern Assoicated Coal Corp AML	P					~						~				V		М	P																
Massy Coal Co. AMD Pump Treatment System	С					~					V		-	~					1													-			
Martin County Coal Co. Stream Flow & Fish Surveys-	C					V								_	-			M						-											
Coldwater Creek Martin County Coal Co. Stream Flow & Fish Surveys-	- 0							_				~																							
Wolf Creek Watershed Martin County Coal Co. Stream Flow & Fish Surveys-	С					~						~																							
Rockcastle Creek	С					~						~																							
Martin County Coal Co. Stream Flow & Habitat Survey- Coldwater Creek Fork Watershed	С					~						V																						-	
Martin County Coal Co. Stream Flow & Habitat Survey- Wolf Creek Watershed	С					~						V																					-		_
Martin County Coal Co. Stream Flow & Habitat Survey- Rockcastle Creek Watershed	С					~						~										-		-											
Don's Disposal Landfill Stream Flow Measurement	P					~						~																							
Union Carbide Cooling Water Flow Measurement	C					~						~																							
Union Carbide Davis Creek Flow Measurement	С					~						~																							
Union Carbide Process Wastewater Flow Measurement	С					~						~																							
MDG-Wastewater Package Plant	С					~					~	~		~			V	M																	
WVDEP-Flows at Various Facilities	P					~						V		•			-	1V1					-		-		P								
Arch Coal- Pigeon Creek Stream Flow Measurement City of Charleston-Sanitary Sewer Flow Measurement	C					V						V												+	-			-	-						
Pison Development Sanitary Sewer Flow Measurement	C					V						~																					-		
Solutia-Storm Water Flow Measurement	C			-		~						V																	-	-		-		-	
Solutia-Groundwater Well Levels and Flow Estimates	C					~						~																							
												-																							

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Use this area to provide specific sections or pages if needed for reference.

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								Pr	oject Exp	erience F	Requirem	ents												*	Primary ** M=N	Staff Par	rticipation	n/Capacity	y						
Project	Exp. Basis C=Corporate P=Personal *	Additional Information Provided in Section(s)	Abandoned Surface Mine Reclamation	Abandoned Deep Mine Reclamation	Portal/Shaft Closure	Hydrologic/Hydraulic Design/Evaluation	Remining Evaluation	Mine/Refuse Fire Abatement	Subsidence Investigation Mitigation	Hazardous Waste Disposal	Project Specifications	Water Quality Evaluation/Mitigation/ Replacement	Construction Inspection/Management	Water Treatment	Equipment/Structure Removal	Stream Restoration	Geotechnical/Stability	Dana L. Burns	D. Mark Kiser	Terence C. Moran	William F. Drinkard	Vincent J. Ammirato	Jason Gandee	Chris A. Grose	Michael Sankoff	Kenneth Kinder	Jarrett Smith	Robbert Ammirato	Pat Taylor	Brian L. Burns	David B. Sharp	Scott A. Bolyard	Chad Griffith	Peter Potesta	honattan Schloeter
Chemical Plant - Parkersburg, WV	C			<del>                                     </del>		V					V	-	=		1		-																		
Muddy Creek AMD Treatment System	С					V			<u> </u>		V	V		V	-			-																	
Sovern Run (Tinchnell) AMD Treatment System	С					~					V	V		V	1	<b>-</b>		-												P	M				
Evaluation of Mine Drainage from AML Sites as Part of Environmental Site Assessments for Jackson & Kelly	С	F										~						М		P										P	M				
Hawkins AMD - AML	P			V	~	~					V				-		V	M																	
Allen AMD - AML	P			~	~	~					V						V	M	P						P	-							-		
Omega Mine Complex Owings Mine Complex - AML	P P		~	V	<del> </del>	V			~		~			~			V			М					-	<del>                                     </del>									
Vindex Energy	C		-	V	~	~	~			~	~	-		V	~	V	V			M															
Dominion Resources - Upshur Enoxy Complex	C		V	~	-		-		-		~	V		V			V	M	P					P	P										
Osage AMD Treatment System	P										-	-		~	-		~	M	P	P				P	P										
Reliable Mine AMD Treatment System	P									-		<del>                                     </del>		V	1										-										
Upshur Passive AMD Treatment System	P													V											_										
Sundial Refuse - AML Williamson (Hatfield) Landslide - AML	С	F	~	V	~	~					~				V	~	V	М	М	P	P				P	<u> </u>				-					
Georges Creek (Lucas) Rockslide	C	F							~		~						~	М	М	P				P	P		P								
Solutia Landfill Closure Design for Various		F			-				~		~						V	M	M					P	P						-				
Environmental Remediation Projects	С					~				~	~	~	~	~			~	M	P					Р	р										
Kanawha Eagle Coal Refuse Disposal Impoundment	С	F				~					~		V				~	M	P		D.														
Pocahontas County Landfill Expansion, Closure, and	С					V												-12 12 129			P			P	P	P									
Operations Consulting											~	~	~	~			~	M	P			-			P										
Energy Services Site Development and Permitting Smith Bridge Replacement	C					~							V				V	M	P		P	P		P	P					-		-			
Corridor H, Section 6 Davis-Bismark	C				-												V	M						P											
Environmental Assessment and Closure/Capping Design					-												~	M	M					P											
for Fleming Landfill	С					~												M	P						P	Р									
Environmental Assessment and Closure/Capping Plan	С																			-	-					-									
for Jackson County Landfill																		М	M	P	-	1			P				ĺ						
Elkem Metals Jarrett Branch Landfill	С																	М	P		P			P	P								-		
Mine Water Treatability Study, Guyses Run of Tygart	С	F										V		V		~					-	***							-			_			
Valley River Coldwater Creek/Luigino's Food Processing Facility, Inc.	С					~					V		~					M M	P	P	P	р			P										
Construction Layout for Mahan Tipple and Refuse AML Maintenance Project	С	F																	-		1		-		Г										
Construction Layout for Lynn Brook (Boud) Drainage, AML Reclamation Project	С	F																												-+	-				
Grass Run Refuse	Р		~		-	~	~																												
Allen Sheridan Hazardous Facility (Asbestos)	P		V							~	~	~					~	M	P						P										
Elk City - Century-Volga Phase I/II Water Study - AML	Р											~						M M	P						P										
Camp Mohonegan Regrade - AML Comfort Run Coal Company (Asbestos) - AML	P		~			V	~				~	V		V		~	V	M	P						P										
Turner Douglas Complex - AML	P		~	~	V	V	-,			~								M															-		
Buffalo Creek No. 5 Refuse - AML	P		~		-	~	~				V			V			~	M	P					P	P										
Dawmont Mine Facility - AML	P		~	V	V	~	~				V			V	V		~	M M	P					-	P										
Helen (Lewis) Refuse - AML	P			V	V	V	V				V			•	~		-	M			-			P	P			-		_					
Upshur 10/15 Drainage - AML	P		~		V	~					V	~		V			-	M					-												
Madison Street Portals/Fairview Route 218 Portals - AML	P			~	~	~					~						~	М														-			
Summerlee Refuse Pile - AML	P		V		~	V	~																											- 1	
Duncan Hill Subsidence - AML	P		-	V	V	~	•		V	-	V	~		~		~	~	M	P	P				P					P						
Cora Mine Drainage No. II - AML	P			V	V	V			•		~						~	M M	P P	Р				P											
Covey Creek Mine Fire - AML	P			V				V									-	M	I.					P			-		120						
Vivian Refuse Pile - AML	P		~		~	V	V				V						V	M	P	P				P		-			Р						
Kimball Refuse Pile - AML Hampden (Smith) Landslide - AML	P P		~	~	~	~	~				~	V			V		~	М	P	P				P					P					-	
Bear Run Refuse - AML	P		~	~	~	~	-,				~						~	M						P					-						
Charleston (Ratcliffe) Landslide - AML	P		-	•	-	-	~				~			V	~	~	~	M	P					P					Р						
Garrison Complex - AML	P			V	~	V					V				V		~	M	P					P											
Mulberry Fork (Stover) Landslide - AML	P		~		legges and						~						V	M M	P		-			- P											
Beckley Subsidence - AML	P			V					~		V						~	M	P			-		P				-	P						
Courtright Highwall - AML	P		~			~					~				V		V	M	P	P		_		P	-			-		-					
Jonben (Haga) Subsidence - AML	P			~		~			~		~						V	M	P	P		-		P	$\rightarrow$										

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								Pi	roject Exp	perience R	Requiren	nents													Primary	Staff Pa	rticipation	n/Capacit	ty		_			January	
Project	Exp. Basis C=Corporate P=Personal	Additional Information Provided in Section(s)	Abandoned Surface Mine Reclamation	Abandoned Deep Mine Reclamation	Portal/Shaft Closure	Hydrologic/Hydraulic Design/Evaluation	Remining Evaluation	Mine/Refuse Fire Abatement	Subsidence Investigation Mitigation	Hazardous Waste Disposal	Project Specifications	Water Quality Evaluation/Mitigation/ Replacement	Construction Inspection/Management	Water Treatment	Equipment/Structure Removal	Stream Restoration	Geotechnical/Stability	Dana L. Burns	D. Mark Kiser	Terence C. Moran	William F. Drinkard	Vincent J. Ammirato	Jason Gandee	Chris A. Grose	Michael Sankoff W	Kenneth Kinder Besunder	Jarrett Smith	Robbert Ammirato	Pat Taylor	Brian L. Burns	David B. Sharp	Scott A. Bolyard	Chad Griffith	Peter Potesta	Jhonattan Schloeter
Belle Landslide - AML	P			V	V	V					~				+		V	M	P	P				P					P						
Holden (Padgett) Subsidence - AML	P			~	~	~			~		V						V	M		P					1		1	1	1						
Minden Drilling - AML Kitchen/Gibson Landslide - AML	P		~	-													~	M						P		1									
Gray and Iaquinta Subsidence - AML	P		├	V		-			V	-		-		-	1	-	V	M																	
St. John's Road Subsidence - AML	P			V	V	V			~	-	V			-	+		V	M	P	P															
High Coal Tipple - AML	P			V	V				-	-	~	1		_	V	+	V	M M	P	P						-	-								
Route 19/28 Subsidence - AML	P			~	~	~			V		V				+		V	M	r					-	-	-									
Omar Refuse Pile - AML	P		~	~	~	~	~	~			~						V	М	P					P				-	P						
Mt. Hope Subsidence - AML  Morgantown Airport Drainage/Subsidence - AML	P		-	~	-				V		~						V	M																	
Logan Drainage - AML	P		-	V	~	V			~	-	~	-		-	-		V	M																	
Huffman Street Subsidence - AML	P			1	-	-			V	1	V			-	+		V	M																	
Switzer Adams/Robinson Drainage - AML	P			V	~	V			1		V				1		V	M M									-								
Follansbee Drainage - AML	P			V	V	V					V						1	M							-		-								
Fairmont East Subsidence - AML	P	F		V					~		V						V	M														-			
Fairmont IV Subsidence - AML Vargo Drainage - AML	P			V	-	-			~		V						~	М																-	
Duck Creek Landslide - AML	P			V	V	V					~	-			-		~	M																	
Kistler Mine Fire - AML	P		-	V	V	V	-	V			~		~	-	-	-	V	M																	
Lefthand Fork Burning Refuse - AML	P		V		<u> </u>	-	~	V	_		~	-		-	V		~	М	) (	D															
Williamson Landslide - AML	P		V		1	V					V	1		-	-	-	V	М	M P	Р															
Harris AMD - AML	P			V	V	V					V			<b> </b>	+		~	IVI	M	P			_				P								
Wyoming County Landfill	P/C					~					V		V	V			V	М	P					P	P										
Jackson County Landfill	C					V					V			V			V	М	P	P					P							-	-+		
Kanawha Western Landfill Monongalia County Sanitary Landfill	P		V		-	~					~			V			~	М	P					P					-						
Fayette County Landfill	P		~		-	V					~			V		-	V	M	P					P					P						
Carolina Refuse - AML	P		~	~	V	V	~			V	V			~	-		V		M																
Majesty Mine Complex - AML	P		V	V	V	V	~	1000 - 1			~		-	V	V	V	~			M															
Grandstaff Subsidence - AML	P			V					V						+		V			M M															
Glen Morgan (Lilly) Site - AML	P			V		100000			V			~			1	<u> </u>	V			M										-					
Viers Highwall - AML	P		~	V	~	V						V					V			M											-				
Spruce Laurel Stream Flow Monitoring Project - AML	C					~						V						М		M															
Summit at Cheat Lake Residential Subdivision	C					~			~		~					V	V							P					P	P	М	P	P	Р	
Avery Court Hurricane Market Place	C					~					~								2511W/100//										P	P	M	P			
Pison Development - Mineral Wells	C				-	V								-										P			P								
Pison Development - Barboursville	C					V				-		-		-				M M			-			M			P				CAT I SOLVE TO THE				
Pison Development - Knollview	C					~						1	V	1		-		M			-			M			P								
Pison Development - Cross Roads 2	С					V							V	1				M						M M			P								
Pison Development - Elk Crossings	С					V												M						M											
Pison Development - Elkins	С					~		3 3 10					V					М						M								-	-		
Pison Development - Harrisville Pison Development - Point Pleasant	C		<u> </u>			~							V					М						M		P						P			
Pison Development - Kanawha Court	C				-	~									-			M						М											
Pison Development - Church Hill Village	C				-	-						V		-	-			M					202	M				P							
Grove Park - Campus View LLC	C					V			V		, en	-			-	-	~	M					M	- D						P		P			
North Hills Development - 600-Acre Property	С								V							-	V							P P						P	M	P	P	P	
Kenna Industrial Park	С					~									<b>†</b>		-	M	P					M			P				M				
Spring Hill	С			0		~							V						-			М		141			ľ	P		-					
Ives - Orchards Manor	C					~					20.00											M						P	-						
Ives - Littlepage Terrace Ives - Patrick Street	C					~																M						P				-			
Tucker County Industrial Park	C					~	-							-				-				M						P							_
Bradshaw Schools	C					~					V	-	V		-			M		M							P			P	P				
Marrowbone Waterline Extension - AML	P						V				V		~	-	-			М		M	P							P							
Ragland Waterline Extension - AML	P						~				V				<b>†</b>			$\vdash$											M						
Pigeon Creek Phase II Water Study - AML	Р						V				V											-							- \						
Wayne County Commission - Buffalo Creek Waterline	Р						V				1500																		M						
Extension	,						- 6				~																		P						
Birch River PSD Waterline Extension  Lincoln County Commission - Town of Harts Extension	P						V				V																		P						
Independence Coal	P						V				V																		P						
Nicholas Energy, Inc.	P					<del>                                     </del>	~				V						V																		
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List whether project experience is corporate or personnel based or both.

 Use this area to provide specific sections or pages if needed for reference.

 List Primary Design personnel and their functional capacity for the projects listed.

				T				Pi	roject Exp	erience R	Requiren	ents												*	Primary ** M=M	Staff Par	ticipation nt P=P	n/Capacity Profession	y al						
Project	Exp. Basis C=Corporate P=Personal *	Additional Information Provided in Section(s)		Abandoned Deep Mine Reclamation	Portal/Shaft Closure	Hydrologic/Hydraulic Design/Evaluation	Remining Evaluation	Mine/Refuse Fire Abatement	Subsidence Investigation Mitigation	Hazardous Waste Disposal	Project Specifications	Water Quality Evaluation/Mitigation/ Replacement	Construction Inspection/Management	Water Treatment	Equipment/Structure Removal	Stream Restoration	Geotechnical/Stability	Dana L. Burns	D. Mark Kiser	Terence C. Moran	William F. Drinkard	Vincent J. Ammirato	Jason Gandee	Chris A. Grose	Michael Sankoff	Kenneth Kinder	Jarrett Smith	Robbert Ammirato	Pat Taylor	Brian L. Burns	David B. Sharp	Scott A. Bolyard	Chad Griffith	Peter Potesta	
WV Bureau for Public Health - Drinking Water	Р											†						<u> </u>	<u> </u>	-					l I										+
Treatment Revolving Fund																				1									M	- 1					
WVIJDC - Water Technical Committee	P		-				~				V			~															M						+
WV Bureau for Public Health - Water/Sewer Construction Permit Program	P						~				~			~															M						+
WVIJDC Manager	P						~	1			V			V	1		<del>                                     </del>																		_
Vestmoreland Coal Company	P		V	~	V	V	V		V	V	V	~	V	V	V	~	V				P								P						
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Marfork Coal Company	P		V	~		V	V				V	V	V	V	V	V	~				P														
Elk Run Coal Company	P	F	~	V	V	V	V			~	V	V	V	V	V	_	~				P														
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Peabody Coal Company	C		V	V						~								M	Г		P														
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Jarwood Mine Complex	P		~			1									-		~		P	P	-								P						
Southern Ohio Coal - Pump Tests	Р		V	V							V				-		-	M M	P	P				P P											

List whether project experience is corporate or personnel based or both.
 Use this area to provide specific sections or pages if needed for reference.
 List Primary Design personnel and their functional capacity for the projects listed.

# 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.





# Computer-Aided Drafting and Design

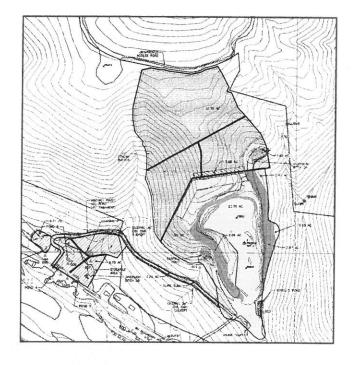
The Potesta & Associates, Inc. (POTESTA) computer-aided drafting and design (CADD) department provides state-of-the-art design and drafting services for in-house engineering and environmental consulting projects. We also provide personnel to clients who have a temporary need for additional drafting manpower. 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 the latest version in AutoCAD Civil 3D civil/survey design software to prepare, revise, and manipulate drawings and engineering data efficiently. Drawings and figures are produced using a Hewlett Packard 4000 and 5500 color ink jet plotters. 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.





# 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.



# **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 & 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.



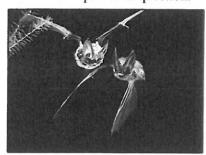
For the last several years, our office has worked with natural gas transmission companies preparing environmental reports which include assessments and remediation of impacts to rare, threatened, and endangered species. POTESTA's biologists have worked on natural gas projects within the core summer roosting 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.





# 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
- CulvertMaster
- FlowMaster
- PondPack
- 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.



# 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<sup>TM</sup>, etc.)
- Sample Collection Methods (split spoons, shelby tubes, Geoprobe<sup>TM</sup> 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.

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



# -Permitting Services

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
- Ouarries
- 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 process, coupled with our technical expertise, may





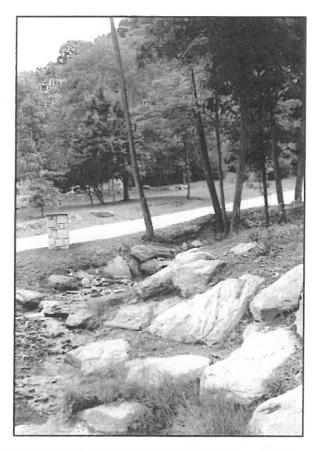
Potesta & Associates, Inc. has a significant body of work in site design for residential, commercial and industrial clients. Projects range from power plant siting to subdivision design. We have assisted numerous developers and development agencies with the creation of business industrial parks throughout 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



# Surveying and Mapping

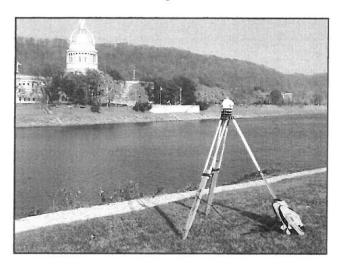
Our surveyors are experienced in many aspects of surveying such as topographic mapping, boundary surveys (rural/farms, city lots, and subdivisions), ALTA surveys, control surveys, flood certificate surveys, well location surveys, construction surveys for layout of work, record drawings, and quantity measurements. Related areas include courthouse preparation of right-of-way research, and verification of property owners. Potesta & (POTESTA) Associates. Inc. 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.

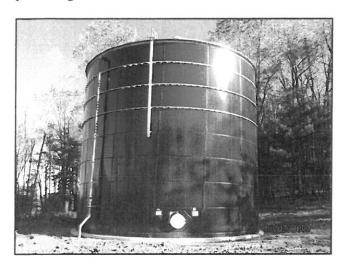


Surveys completed by POTESTA are performed by or under the direction of a professional licensed surveyor. Surveys and mapping are completed to the standards outlined by the National Map Standards, as well as other applicable quality standards.

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.

# 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:



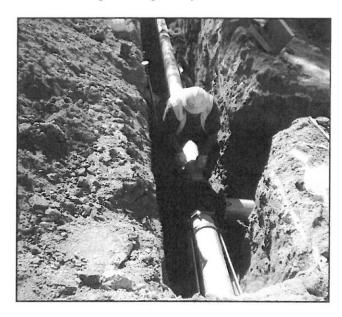
#### WATER AND WASTEWATER DESIGN

- 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



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 construction monitoring of the new wetlands.

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

Friends of the Cheat

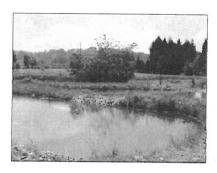
Preston County, West Virginia

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 sream. 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.





### POTESTA & ASSOCIATES, INC.

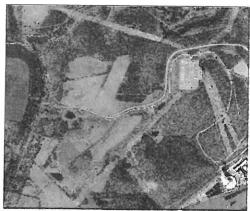
# ALLEGHENY ENERGY SUPPLY COMPANY, LLC – FORT MARTIN CCB LANDFILL PERMIT APPLICATION/CONSTRUCTION INSPECTION

# **Allegheny Energy Supply Company**

### Monongalia County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by Allegheny Energy Supply Company, LLC to develop a permit renewal application associated with a coal combustion by-product (CCB) landfill expansion. The project is located in Fort Martin, West Virginia. POTESTA developed a West Virginia/NPDES permit renewal application related to the existing portion of the Class F Industrial Landfill as well as encompassing the expansion area of just under 100 acres.

POTESTA prepared a solid waste/NPDES water pollution control permit including: supplemental evaluation of candidate sites for the expansion area; field exploration involving collection of soil, geological, and hydrological data; wetland and stream impact delineation; "permit level" design of the landfill expansion. In conjunction, the project included two additional sedimentation ponds and a proposed alternative landfill liner system. The capacity of the full expansion area is approximately 8.7 million cubic yards of CCB.



Aerial view of power plant and landfill site

POTESTA also performed construction observation/construction administration for the landfill project. Services provided by POTESTA included soil density testing, concrete testing, nondestructive and destructive testing for liner system. Over a period of more than 12 months, POTESTA provided one (1) to four (4) construction technicians to cover the

### POTESTA & ASSOCIATES, INC.

# **BEVINS LANDSLIDE EMERGENCY**

# Commonwealth of Virginia, Department of Mines, Minerals and Energy

### Buchanan County, Virginia

Potesta & Associates, Inc. (POTESTA) has been retained to provide professional engineering design services to the Commonwealth of Virginia, Department of Mines, Minerals and Energy, Abandoned

Mine Land Program (DMME-AML) under the Small Purchase Procurement Program for Professional Services (09AML06). These services will consist of developing an engineering report, construction plans and specifications, and a material schedule for the Bevins Landslide Emergency Project in Buchanan County, Virginia.

### The project will consist of:

- Stabilization/removal of a slide that has occurred behind the Bevins residence.
- Removal and disposal of slide material that has already been deposited on the old mine bench.
- Installation of temporary and permanent drainage control measures.
- Upgrade of the existing entrance roadway onto the mine bench where the Bevins residence is located.
- Installation of required erosion and sedimentation control measures including revegetation of disturbed areas of the site.





POTESTA will perform the surveying, subsurface exploration, and geotechnical design necessary to complete this project.

### POTESTA & ASSOCIATES, INC.

# **BORDERLAND (MATNEY) PORTAL**

# West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands

### Borderland, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the West Virginia Department of Environmental Protection's Office of Abandoned Mine Lands to prepare plans and specifications for installation of mine portal seals and a drainage system around a residence. The project consisted of correction of uncontrolled seepage from collapsed mine portals. The drainage presented problems for the property owners and was having an adverse impact on the environment. The discharge of impounded water from the underground mine works is a serious threat to life and property due to the potential it poses for a blow-out.





The project required six mine portal seals, three being double block wet seals and three conventional single block wet seals. Bat gates were installed in two seals. The portals were adjacent to a residence and required plans for drainage channels to divert discharge from the portals through the residence property to a nearby stream. Regrading and revegetation of all areas disturbed during construction were also required.

POTESTA prepared drawings, technical specifications, contractor's bid forms, engineer's construction cost estimate, and calculations brief for the project. POTESTA also attended

the pre-bid and pre-construction conferences to assist WVDEP with the project.

### POTESTA & ASSOCIATES, INC.

# BURNWELL (STANDARD/PAINT CREEK/COLLINSDALE) WATERLINE EXTENSION

## West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands

Eastern Kanawha County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the West Virginia Department of Environmental Protection's Office of Abandoned Mine Lands (WVDEP) to prepare a study evaluating possible water line extensions to the Collinsdale/Burnwell area from neighboring public water systems. The WVDEP will review the study and select the preferred option. An initial study requested by the WVDEP determined that the area was 100 percent impacted by pre-1977 mining activities. The study recommended construction of a water treatment plant near Burnwell. Upon further review, WVDEP determined that Collinsdale/Burnwell did not have the personnel or financial ability to operate and maintain a water treatment plant.



POTESTA performed a file review of the public water systems in the area to verify their production and financial capabilities. Meetings were held with the WVDEP and public water systems to address concerns regarding the additional customers and service line. Based upon the aforementioned and site visits, POTESTA will prepare a preliminary engineering report, including preliminary water design, and a West Virginia Infrastructure and Jobs Development Council Preliminary Application. The water line extension is expected to require approximately 48,000 LF of water line, one booster station, a tank, fire hydrants, meter assemblies, and miscellaneous valves and fittings.

POTESTA will design the water line extension selected by the WVDEP from the preliminary engineering report. The extension will be mapped, including locating utilities, public water systems connection points, identifying easements via tax maps, and surveying tank and booster station sites. POTESTA will prepare and submit the necessary "clearance" letter and permits for construction.

Geotechnical exploration and assessment will be performed for tank and booster sites. Boundary surveys and plats will be prepared for the property transfer of the tank and booster station sites, and POTESTA will perform a hydraulic evaluation to estimate the impact of the additional demand on the selected public water system.

POTESTA prepared drawings, technical specifications, contractor's bid forms, engineer's construction cost estimate, and calculations brief for the project. POTESTA also attended the pre-bid and pre-construction conferences to assist WVDEP with the project.

### POTESTA & ASSOCIATES, INC.

# 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

### POTESTA & ASSOCIATES, INC.

# 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:

- 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.

POTESTA & ASSOCIATES, INC.

# 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.

# FAIRMONT EAST MINE DRAINAGE

# West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands

### Fairmont, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the West Virginia Department of Environmental Protection's Office of Abandoned Mine Lands (WVDEP) to provide engineering services regarding the conveyance of mine seepage around residential areas and into the City of Fairmont's storm sewer system. The project area is located along Palatine Avenue and Mason Street. Abandoned underground mine works caused flooding problems along these streets.

POTESTA performed the following tasks to complete this project:

- · Mine map review
- Survey to develop mapping
- Subsurface exploration
- Design of mine drainage collection system and storm sewer system to convey runoff to the City of Fairmont's storm sewer system
- Design of collection system consisting of 15-inch corrugated plastic pipe to City of Fairmont's standards, including pavement overlay to impacted streets.





### POTESTA & ASSOCIATES, INC.

# FEASIBILITY STUDY AND PREPARATION OF FUNDING APPLICATION FOR WATER SYSTEM EXPANSION City of Philippi

### Philippi, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the City of Philippi to perform a feasibility study and subsequent funding application for a project involving upgrades to their existing potable water distribution system.

The project included the following:

- 402,000 gallon storage tank
- 16,000 gallon storage tank
- 600 gpm booster statio
- 300 gpm booster station
- 1,800 feet of 8" pipe
- 2,000 feet of 6" pipe
- Pressure reducing station

POTESTA prepared a preliminary engineering report and compiled the information necessary for a funding application with the United States Department of Agriculture - Rural Utilities Service (USDA-RUS). Additional services will included final design of the project components, preparation of construction drawings and technical specifications, permit applications, and nearly full-time construction monitoring.



### POTESTA & ASSOCIATES, INC.

# **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.

## POTESTA & ASSOCIATES, INC.

# 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.

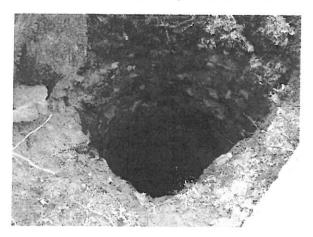
### POTESTA & ASSOCIATES, INC.

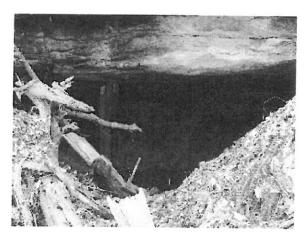
# **GEORGES CREEK PORTALS**

# West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands

Georges Creek, Kanawha County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the West Virginia Department of Environmental Protection's Office of Abandoned Mine Lands to design mine seals for abandoned mine openings along Georges Creek and U. S. Route 60.





Design included a total of 28 mine seals. The following types of seals were utilized:

- Urethane foam with applied mortar
- Typical West Virginia wet seals
- Wet seals with bat gates
- Dry seals

In addition to mine seals, the design included piping to convey mine drainage to receiving streams. The conveyance piping layout required two West Virginia Division of Highways road crossing permits. An underdrain was utilized to convey subsurface drainage.

### POTESTA & ASSOCIATES, INC.

# **JESSOP HIGHWALL #10**

# West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands

### Tunnelton, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the West Virginia Department of Environmental Protection (WVDEP) to prepare design plans and specifications to reclaim three abandoned mine land (AML) sites located near Tunnelton, West Virginia. Work to reclaim the three sites included sealing of abandoned mine portals, regrading of highwalls and collection of drainage from some of the abandoned mine portals and seeps. POTESTA utilized aerial mapping and ground survey to create topographic mapping of the sites.



### Site 1

- Regraded approximately 1,150 feet of highwall averaging approximately 25 feet in height.
- Monitored test borings at the proposed mine portal sites to determine the location and the depth of mine voids, and the amount of water in the voids.
- · Designed the closure of seven abandoned mine portals using a wet seal or bat gate mine seal.
- · Designed drainage channels to collect water from the mine portals to discharge into a nearby stream.
- Designed a mine portal collection system that included 18 HDPE manholes.
- · Incorporated a previously designed acid mine drainage collection and treatment system into our design.

#### Site 2

- Regraded approximately 7,500 feet of highwall averaging approximately 20 feet in height.
- Monitored test borings at the proposed mine portal sites to determine the location and depth of mine voids, and the amount of water in the voids.
- Designed the closure of three abandoned mine portals using a wet seal or modified mine seal.
- Designed drainage channels to collect water from the mine portals to discharge into a nearby stream.



### Site 3

 Designed an underdrain system behind a residence and garage to prevent damage to the structures from a seep discharging acid mine drainage.

POTESTA prepared drawings, technical specifications, contractor's bid forms, engineer's construction cost estimate, and calculations brief for the project. POTESTA also attended the pre-bid and pre-construction conferences to assist WVDEP with the project.

# LANDO (EDWARDS) DRAINAGE

# West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands

### Lando, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the West Virginia Department of Environmental Protection's Office of Abandoned Mine Lands (WVDEP) for a project that included the regrading of mine spoil that had been formerly disposed of in this area, as well as installation of mine portal seals and drainage improvements. The project consisted of three sites:

- A refuse pile graded to flattened slopes and topped with a soil cover;
- Channeling and diverting into nearby streams some drainage affecting nearby residences; and,
- Rehabilitating two existing mine seals and installing one new mine seal.





POTESTA's work on the project included surveying and development of mapping, as well as development of the repair, drainage and reclamation plans.

POTESTA prepared drawings, technical specifications, contractor's bid form, engineer's construction cost estimate, and calculations brief for the project. POTESTA also attended the pre-bid and pre-construction conferences to assist WVDEP with the project.

# LANDSLIDE STABILIZATION PROJECT Columbia Gas Transmission

### Blue Creek, West Virginia

Columbia Gas Transmission (Columbia) operates and maintaines 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.

### POTESTA & ASSOCIATES, INC.

# 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.

### POTESTA & ASSOCIATES, INC.

## 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.

#### POTESTA & ASSOCIATES, INC.

# MAY PORTAL HOME LANDSLIDE MAINTENANCE Virginia Department of Mines, Minerals and Energy Abandoned Mine Land Unit

#### Buchanan County, Virginia

POTESTA was retained by the Virginia Department of Mines, Minerals and Energy – Abandoned Mine Lands (VAAML) to reestablish and stabilize a previously reclaimed deep mine portal site in Buchanan County, Virginia. The previous project included stabilization of a localized slide area, backfill and reclamation of the existing highwall; and construction of wet seals in the existing portals.

A slide area had developed above and within the limits of the highwall backfill material previously placed at the portal site. There were also reports that the riprap material used as the toe buttress provided habitat for snakes which were often seen at or near the existing residence. During heavy rainfall events, an existing ditch located near the toe of a previously reclaimed slope reached capacity and overflowed across the lawn areas of the adjacent residence. Riprap was also displaced in the primary riprap-lined drainage conveyance channel. There was also no defined ditch to convey mine discharge water from the wet mine seal area.





POTESTA prepared a regrading plan and design to re-stabilize the failed section of slide, including installing a new grouted riprap buttress; designing drainage at the toe of the buttress and around the existing residence; and restoring other problem drainage structures and areas that were installed as part of the original reclamation project. This work required the construction of a fence to protect the existing well house and adjacent occupied residence located on the site.

As part of the project, POTESTA assisted the VAAML with the contract bidding and evaluation of bids.

#### POTESTA & ASSOCIATES, INC.

# 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.

#### POTESTA & ASSOCIATES, INC.

# 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.

#### POTESTA & ASSOCIATES, INC.

# MOUNTAIN RUN REFUSE AND PORTALS West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands

#### Masontown, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the West Virginia Department of Environmental Protection's Office of Abandoned Mine Lands (WVDEP) to evaluate the Mountain Run Refuse and Portals project. This project consisted of 15 collapsed mine portals, five refuse piles covering three acres, and the demolition/removal of miscellaneous areas of mining debris, garbage, abandoned mine structures, and rail timbers. Our services included:

- Drilling of the refuse piles, mine portals and potential soil borrow areas
- Field survey to develop site mapping
- · Regrading of the refuse piles to stabilize the slopes
- Design of drainage control channels including a limestone channel to reduce acid mine drainage
- Design of five wet mine seals and 11 dry mine seals, with the wet seals including a modified outlet pipe to maintain the current discharge from the portal which is used as a portion of a local resident's water supply.



POTESTA prepared drawings, technical specifications, contractor's bid forms, engineer's construction cost estimate, and calculations brief for the project. POTESTA also attended the pre-bid and pre-construction conferences to assist WVDEP with the project.

#### POTESTA & ASSOCIATES, INC.

## 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.



#### POTESTA & ASSOCIATES, INC.

# PUCKETT/ELY CREEK ACID MINE DRAINAGE REMEDIATION PROJECT I

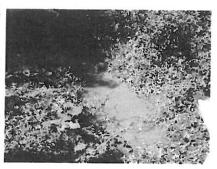
# Commonwealth of Virginia, Department of Mines, Minerals and Energy

Puckett Creek and Ely Creek Watersheds near St. Charles, Virginia

Potesta & Associates, Inc. (POTESTA) was selected by the Commonwealth of Virginia's Department of Mines, Minerals and Energy to develop an engineering report, construction plans and specifications, and a material schedule for Puckett/ElyCreek Acid Mine Drainage Remediation Project I. The project responsibilities are more specifically described as follows:



- Development of engineering reports and construction plans and specifications to remediate acid mine drainage (AMD) at three sites using AMD passive treatment systems.
- Final designs to meet Natural Resource Conservation Service (NRCS) practice standards and requirements from other agencies involved with this project, including Virginia Department of Transportation, U. S. Army Corps of Engineers, Virginia Department of Environmental Quality, Virginia Marine Resources Commission, Virginia Department of Game and Inland Fisheries, the U. S. Fish and Wildlife Service and the Daniel Boone Soil and Water Conservation District.
- Placement of spoil and sediments on previously disturbed areas identified by the Agency.
- Inclusion of stream habitat structures in plans and specifications where feasible.
- Provision of plans and specifications that include, but are not limited to, plan views, cross sections, maps, photographs, and drawings.



#### POTESTA & ASSOCIATES, INC.

### RACHEL REFUSE AND STRUCTURES

### West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands

#### Williamson, West Virginia

Potesta and Associates, Inc. (POTESTA) was retained by the West Virginia Department of Environmental Protection's Office of Abandoned Mine Lands (WVDEP) to evaluate three sites to upgrade access roads, regrade/cover all refuse material with at least twelve inches of topsoil, and to dismantle and remove all buildings, equipment and debris from the site. The project also included construction of drainage control structures to carry water safely off-site and revegetation of all areas disturbed by the construction.



Site 1 was regraded and all refuse was covered with one foot of soil. An access road for a gas well was regraded across this site.

Site 2 was a refuse pile located behind a residence. This area was regraded to lower the pile



by ten feet and flatten the slopes on the sides. A drainage ditch was placed between the refuse pile and the house.

Site 3 was an existing impoundment. The site was regraded to remove the dam and place a grouted riprap drainage system at an existing drainage structure. All buildings and debris were removed from this site.

POTESTA prepared drawings, technical specifications, contractor's bid forms, engineer's construction cost estimate, and calculations brief for the project. POTESTA also attended the pre-bid and pre-construction conferences to assist WVDEP with the project.

#### POTESTA & ASSOCIATES, INC.

# 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:

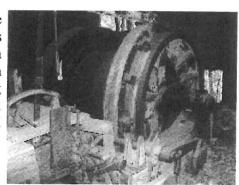
- 1. Survey of "pre-construction" and "post-construction" cross sections.
- 2. Computation of (or assistance with) certain as-built quantities, including earthwork and revegetation.
- 3. Submittal of "post-construction" cross section drawings depicting existing and final grades.

#### POTESTA & ASSOCIATES, INC.

# SUNDIAL (HATFIELD) REFUSE PILES West Virginia Department of Environmental ProtectionOffice of Abandoned Mine Lands

#### Raleigh County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the West Virginia Department of Environmental Protection's Office of Abandoned Mine Lands (WVDEP) to prepare a reclamation design for the Sundial Refuse Piles in Raleigh County, West Virginia. The site was a former mining complex and included four distinct refuse piles that lacked vegetation and were eroding, open mine portals, and abandoned structures such as hoist houses.



As part of this project, the following were completed:

- Ground survey
- Geotechnical exploration
- Preparation of construction drawings, technical specifications, bid form, and engineer's estimate of probable construction costs.

The reclamation design anticipated approximately 372,000 cubic yards of earthwork, 15,000 feet of drainage channel, 3,000 feet of underdrains, 26 mine seals, and demolition and removal of numerous structures, including historic mine cars.



The project was bid at a construction price of approximately \$3,700,000.

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

#### POTESTA & ASSOCIATES, INC.

## TAYLORVILLE (CANTRELL) DRAINAGE

### West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands

Mingo County, West Virginia



Potesta & Associates, Inc. (POTESTA) was retained by the West Virginia Department of Environmental Protection's Office of Abandoned Mine Lands (WVDEP) to evaluate and develop a reclamation design for mine drainage impacting a community in Taylorville, Mingo County, West Virginia. POTESTA completed field reconnaissance and surveying to develop topographic mapping, and prepared construction bid documents for the reclamation design.



The Taylorville project included three different sites. The first site included mine drainage along the hillside behind a mobile home. The second site included mine drainage impacting a driveway and parking area. The third site included mine drainage above a house.

POTESTA designed underdrains to collect and convey drainage from the first two sites to the West Virginia Division of Highways (DOH) right of way. Approximately 1,100 feet of new corrugated plastic pipe with DOH Type G drop inlets were designed to convey mine drainage to Pigeon Creek, while also

handling storm water from the DOH roadway. A standard wet mine seal was designed with riprap channels to handle the mine drainage at the third site.

POTESTA prepared drawings, technical specifications, contractor's bid forms, engineer's construction cost estimate, and calculations brief for the project. POTESTA also attended the pre-bid and pre-construction conferences to assist WVDEP with the project.

#### POTESTA & ASSOCIATES, INC.

# TAYLORVILLE (RAY) LANDSLIDE EMERGENCY

### West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands

#### Mingo County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands (WVDEP) to develop a stabilization plan for a landslide project at Taylorville, Mingo County, West Virginia. Following a period of heavy precipitation, a landslide occurred on a steep hillside behind a mobile home. The landslide pushed the mobile home off its foundation and destroyed a one-room extension along the rear of the mobile home.



POTESTA surveyed the landslide area to develop topographic mapping, prepared a stabilization plan to remove the landslide soils and backfill the area with a rock buttress. The stabilization plan also included an underdrain at the base of the rock buttress to convey drainage to the Taylorville (Cantrell) project drainage system. The plan called for 2,000 cubic yards of unclassified excavation, 1,750 cubic yards of shot rock backfill (buttress construction), 200 cubic yards of soil cover, and 400 feet of underdrain.

POTESTA prepared drawings, technical specifications, contractor's bid form, engineer's construction cost estimate, and calculations brief for the project. POTESTA also attended the pre-bid and pre-construction conferences to assist WVDEP with the project.

# 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 Tuppers 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.

#### POTESTA & ASSOCIATES, INC.

## WILLIAMSON (HATFIELD) NURSING HOME LANDSLIDE MAINTENANCE

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

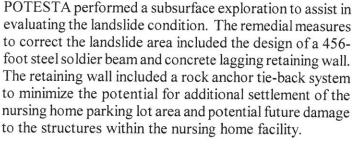
#### Williamson, West Virginia

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.





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

#### POTESTA & ASSOCIATES, INC.

# West Virginia Department of Environmental Protection Office of Abandoned Mine Lands & Reclamation

#### Principal-in-Charge

Dana L. Burns, PE – 30 Yrs.

#### **Project Manager**

Dave Sharp, PE – 15 Yrs.

# Field Reconnaissance, Preliminary Design, and Final Design of Reclamation Plan, Preparation of Construction Documents

Chad Griffith, PE – 7 Yrs.
Brian Burns, PE – 6 Yrs.
Vincent Ammirato, PE – 36 Yrs.
Jarrett Smith, PE – 7 Yrs.
Patrick Ward, PE – 19 Yrs.
Kenneth Kinder, PE – 7 Yrs.
Patrick Taylor, PE – 22 Yrs.
Bill Drinkard, PE – 29 Yrs.
Robert Ammirato, PE - 8 Yrs.
Jason Gandee – 7 Yrs.
Jhonattan Schloeter – 8 Yrs.

# Soils, Geological, and Hydrological Evaluations

Dave Sharp, PE – 15 Yrs. Chris Grose – 21 Yrs. Dennis Litwinowicz – 30 Yrs. Chris Jackson – 11 Yrs.

#### **Subcontractors**

Drilling of Soil Borings, Laboratory Soils, and Water Testing

#### Surveying

Victor Dawson, PS – 29 Yrs. Brad Starkey – 22 Yrs. Charles Shaffer – 11 Yrs. Todd Cadle – 11 Yrs.

#### **Construction Monitoring**

Robert Lamm – 12 Yrs.
Pat Love – 7 Yrs.
Gary Bridgette – 7 Yrs.

#### **CAD Designers**

Scott Bolyard – 19 Yrs. George Durbin – 1 Yr. Michael Sankoff – 21 Yrs. Brian Leedy – 11 Yrs.

#### Project Advisors (as needed)

D. Mark Kiser, PE – 26 Yrs. Terence C. Moran, PE – 20 Yrs.

# Figure 1

REQ No.	DEP16435
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#### STATE OF WEST VIRGINIA Purchasing Division

#### **PURCHASING AFFIDAVIT**

MANDATE: Under W. Va. Code §5A-3-10a, 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: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

**EXCEPTION:** The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

#### **DEFINITIONS:**

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

#### WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: Potesta & Associates, Inc.	
Authorized Signature: Dana L. Burns	Date: January 2, 2014
State of West Virginia County of Kanawha, to-wit:	
Taken, subscribed, and sworn to before me this 2_ day of	January, 20 <u>14</u> .
AFFIX SEAL HERE  OFFICIAL SEAL  STATE OF WEST VIRGINIA  NOTARY PUBLIC  Rhonda L. Henson  1978 Wolf Pen Drive  Charleston, WV 25312  My Cummission Expires Feb. 14, 2014	LIC Ahonda Likenson  Purchasing Affidavit (Revised 07/01/2012)

### **CERTIFICATION AND SIGNATURE PAGE**

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

Potesta & Associates, Inc. (Company)  Lana Laurns
(Authorized Signature)
Dana L. Burns, PE / Vice President
(Representative Name, Title)
(304) 342-1400 (304) 343-9031
(Phone Number) (Fax Number)
January 2, 2014 (Date)

# ADDENDUM ACKNOWLEDGEMENT FORM SOLICITATION NO.: DEP16435

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

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

	Numbers Received: ox next to each addendum received	ved)	(No addenda received.)		
	Addendum No. 1		Addendum No. 6		
	Addendum No. 2		Addendum No. 7		
	Addendum No. 3		Addendum No. 8		
	Addendum No. 4		Addendum No. 9		
	Addendum No. 5		Addendum No. 10		
I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.					
		Pote	sta & Associates, Inc.		
			Company		
			Dana L. Burns		
			Authorized Signature		
		Janu	ary 2, 2014		
			Date		

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

Revised 10/02/2013