



Stantec

Stantec Consulting Services Inc.
1 Moore Avenue
Buckhannon, WV 26201
Tel: (888) 830-1272
Fax: (304) 472-6239

September 24, 2008

West Virginia Department of Environmental Protection
Office of Abandoned Mine Lands
601 57th Street, SE – Box 20
Charleston, West Virginia 25304-2345

RECEIVED

08 SEP 22 PM 2:37

PURCHASING DIVISION
STATE OF WV

Attention: Mr. Nick Estes, P.E., Design Administrator

Dear Mr. Estes:

Reference: Crooked Run Number Five Design Services

Please find enclosed an Expression of Interest (EOI) for Stantec Consulting Services Inc. to perform engineering services for Crooked Run Number Five Design Services, P.O. Number DEP 14387, West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands (WVAML) reclamation project. Stantec Consulting Services Inc. is a 9,000 member engineering company with two offices in West Virginia at Charleston and Buckhannon. Please review the enclosed completed "AML Consultant Confidential Qualification Questionnaire", "AML and Related Project Experience Matrix", and Purchasing Affidavit for Stantec to perform engineering services for the Crooked Run Number Five Design Services project.

Stantec (formerly R.D. Zande and Associates, Inc.) has Expression of Interest (EOI) specific experience successfully completing projects for the WVAML Program; for the West Virginia Department of Environmental Protection, Office of Special Reclamation; for the Ohio Department of Natural Resources (ODNR) AML Program; and for the West Virginia Conservation Agency. In addition, Stantec has employee EOI-specific experience completing other Projects for the WVAML Program. Our AML Project experience includes surveying and mapping; subsurface investigations; slope stability analyses, design, and stabilization; groundwater and surface water testing, analyses, and reporting; refuse and overburden neutralization calculations and design; wet mine seals and modified wet mine seals with bat gates designs; mass balanced earthwork quantities; structure demolition and removal plans; site drainage design including hydrologic and hydraulic studies for bridges, natural stream designs; channels, ditches, pipes and box culverts; civil site design; sediment control; and revegetation plans as well as construction plans and specifications. Approximately half of these projects involved passive acid mine drainage treatment designs ranging from simple limestone beds to complex interactive systems that boost AMD pH to precipitate metals, settle and filter dissolved metals, and polish effluent water with alkalinity prior to release of near neutral waters from the Project area. In addition, Stantec designed the first active alkaline treatment system for the State of West Virginia (Special Reclamation), which is nearing completion with start-up operations currently underway.

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EOI-Specific AML reclamation and related experience competed for the WVDEP includes:

1.	WVDEP Emergency AML: Laurel Valley (Daniels) Landslide;		
\$284,000	13,000 C.Y. Earthwork	Surveying and Mapping	Construction Plans and
Eng.	182 L.Ft. "V" Ditches	200 L.Ft. Subs. Drain	Specifications, Geotechnical
Estimate	696 L.Ft. Culverts	Debris Removal	Subsurface Investigation,
		Existing and Proposed Slope	Cost Estimates, Project
		Stability Analysis	Mapping, Hydrologic
		Sediment Control Plan	Investigation, Revegetation
		Revegetation 4.0 Acs.	Plan, Project Reporting and
			Invoicing
2.	WVDEP: Weaver Portals and Mine Drainage, Phase I and Phase II;		
\$2,200,000	162,821 C.Y. Earthwork	14 Wet Mine Seals	Construction Plans and
Eng.	6,543 L.Ft. "V" Ditches	1,170 L.Ft. Subs. Drain	Specifications, Geotechnical
Estimate	1,947 L.Ft. Flt Btm Ditches	Debris Removal	Subsurface Investigation, Cost
	321 L.Ft. Culverts	De-watering Plan	Estimates, Project Mapping,
		Six Limestone Beds	Hydrologic Investigation,
		w/Aluminators and Flush Ponds	Revegetation Plan, Project
			Reporting and Invoicing
3.	WVDEP: Price Hill Airshaft and Buildings;		
\$627,000	1,300 C.Y. Earthwork	2 Vertical Mine Seals	Construction Plans and
Bid	53 "V" Ditches	Structure Demolition and	Specifications, Geotechnical
Estimate	42 L.Ft. Grouted "V" Ditches	Debris Removal	Subsurface Investigation, Cost
	20 L.Ft. Flat Bottom Ditches	Refuse Re-Soiling Plan	Estimates, Project Mapping,
	150 L.Ft. Subsurface Drain	De-watering Plan	Hydrologic Investigation,
		Access Road Improvement	Revegetation Plan, Project
		and Construction	Reporting and Invoicing
4.	WVDEP: Nixon Run AMD;		
\$250,000	1,800 C.Y. Earthwork	1 Wet Mine Seal with Bat Gate	Construction Plans and
Bid	240 "V" Ditches	Structure Demolition and	Specifications, Geotechnical
Estimate	601 L.Ft. Grouted "V" Ditches	Debris Removal	Subsurface Investigation,
	387 L.Ft. Culverts	De-watering Plan	Cost Estimates, Project
	75 L.Ft. Subsurface Drain		Mapping, Hydrologic
			Investigation, Revegetation
			Plan, Project Reporting and
			Invoicing

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Reference: Crooked Run Number Five Design Services

Some EOI-specific experience completed for the West Virginia Conservation Agency includes:

1. Laurel Lake Sediment Removal Project;
\$800,000 Bid Estimate **77,000 C.Y. Earthwork**
90 L.Ft. Flat Bottom Ditches
Off-Site Disposal Area
Traffic control Plan
Utility and DOH Coordination
Debris Removal
Refuse Removal Plan
De-watering Plan
Access Road
Improvement and Construction
Construction Plans and Specifications,
Geotechnical Subsurface Investigation, **Cost Estimates**, Project Mapping, Hydrologic Investigation, **Revegetation Plan**, Project Reporting and Invoicing
2. North Fork Hughes River Stream Bank Stabilization Project:
\$15,000 Bid Estimate Mid-Channel Bar Removal
Structure Stabilization
350 L.Ft. by 9 Ft. high Riprap Revetment Stream Bank Protection
Construction Plans and Specifications,
Geotechnical Subsurface Investigation, **Cost Estimates**, Project Mapping, Hydrologic Investigation, **Revegetation Plan**, Project Reporting and Invoicing
3. Parchment Valley Stream Bank Protection Project:
\$25,000 Bid Estimate 3,100 C.Yds. Excavation
600 L.Ft. by 15 Ft. high Riprap Revetment
Stream Bank Protection
Construction Plans and Specifications,
Geotechnical Subsurface Investigation, **Cost Estimates**, Project Mapping, Hydrologic Investigation, **Revegetation Plan**, Project Reporting and Invoicing

At the request of WVDEP, Stantec can provide Quality Control/Quality Assurance and Construction Observation for the Crooked Run Number Five Design Services project. Stantec routinely provides QA/QC services to governmental agencies, public and private companies, and individuals. Some Project-Specific design and associated QA/QC experience includes:

1. WVDEP: Gladly Fork Mining D-35-82 Bond Forfeiture \$3.0M Active Alkaline Treatment Plant;
\$3,100,000 Bid Estimate Active Alkaline Treatment Plant - Single Train to Treat
1,000 GPM
Construction Plans and Specifications Project Mapping
Hydrologic Investigation
Concrete Aeration Basin
Concrete Flocculator
Concrete Settling Basin
Concrete Sludge Thickener
Concrete Geo-Tube Slab
Bridge over Stonecoal Creek
Construction Inspection:
Concrete testing and reporting, Compaction testing and reporting, Full Time Construction Observation and Reporting
2. WVCA: Fisher-Mill Creek Bank Stabilization;
\$284,000 Eng. Est. **148 L.Ft. Drilled Pile and Lag Wall**,
Ground Water and Surface Water Diversions
Construction Inspection:
Concrete testing and reporting, Compaction testing and reporting, Full Time Construction Observation and Reporting
Construction Plans and Specifications,
Project Mapping,
Hydrologic Investigation
Geotechnical Investigation Existing and Proposed Slope Stability

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Reference: Crooked Run Number Five Design Services

The above Projects demonstrate some of our Project-Specific and Project-Related experience and details a "one-stop shopping" solution for the Crooked Run Number Five Design Services project. Projects outlined in our attached AMLCCQQ provide more details on the above Projects as well as others completed by Stantec and our employees for the West Virginia Department of Environmental Protection AML and Special Reclamation Programs; the Ohio Department of Natural Resources AML Program; the West Virginia Conservation Agency; and others. Stantec also has employee experience with numerous Small Operators Assistance Program Applications for surface and deep mine applications in West Virginia and Maryland, as well as over 438 hydrologic investigations for Special Reclamation on bond forfeited sites, all involving hydrologic and geologic investigations and Probable Consequences of Mining in different geologic and hydrologic settings across the State.

Stantec can allot three (3) design teams to this project. Design Team leaders are: Gregory Linder, P.E., Will Thornton, P.E., and Jay Hollen, P.E. Each design team will have necessary support personnel including CADD Operators, Staff Engineers, Survey Crews, and other support personnel to ensure the project is completed within WVDEP timeframes. In addition, Randy Calkins will serve as AML Corporate Manager.

We are very excited about the opportunity to continue our working relationship with the West Virginia Department of Environmental Protection and look forward to providing engineering services on this most important Project. We believe no other company can meet our quality of work, which, when coupled with our experience, allows us to be more efficient and therefore very cost competitive. Our Buckhannon office has successfully completed other AML projects near these sites and is located only 35 miles from the project sites and will respond quickly, effectively, and in the most economical way. If chosen, our primary objective will be to address WVAML needs complimented by other professionals in varying fields of expertise available on an "as needed" basis from our pool of over 9,000 professionals in Surveying and Mapping, Civil and Site Engineering, Geotechnical Engineering, and Construction.

Should any questions arise, or if we can supply additional information or be of further service to you, the Purchasing Division, or the West Virginia Department of Environmental Protection, please contact me anytime at (304) 472-7140.

Respectfully Submitted,

STANTEC CONSULTING SERVICES INC. (Formerly R.D. Zande and Associates, Inc.)



Dennis E. Miller, Principal

Tel: (304) 472-7140

Fax: (304) 472-6239

Dennis.Miller@stantec.com

Attachment: Stantec EOI for the Crooked Run Number Five Design Services Project



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

Request for Quotation

RFQ NUMBER
DEP14387

PAGE
1

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

RFQ COPY TYPE NAME/ADDRESS HERE STANTEC CONSULTING SERVICES INC. 1 Moore Avenue Buckhannon, WV 26201

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

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
08/21/2008				

BID OPENING DATE: 09/24/2008 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOF	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	JB		906-29		
				CROOKED RUN #5 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 CROOKED RUN #5 PROJECT IN HARRISON COUNTY, WEST VIRGINIA, PER THE FOLLOWING BID REQUIREMENTS AND ATTACHED SPECIFICATIONS.		
				BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THIS CONTRACT IS AUTOMATICALLY NULL AND VOID AND IS TERMINATED WITHOUT FURTHER ORDER.		

Dennis E. Miller		SEE REVERSE SIDE FOR TERMS AND CONDITIONS	
SIGNATURE	TELEPHONE (304) 472-7140	DATE September 24, 2008	
TITLE Principal	FBN 11-2167170	ADDRESS CHANGES TO BE NOTED ABOVE	

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

**GENERAL TERMS & CONDITIONS
REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)**

1. Awards will be made in the best interest of the State of West Virginia.
2. The State may accept or reject in part, or in whole, any bid.
3. All quotations are governed by the *West Virginia Code* and the *Legislative Rules* of the Purchasing Division.
4. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125.00 registration fee.
5. All services performed or goods delivered under State Purchase Orders/Contracts are to be continued for the term of the Purchase Order/Contract, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods, this Purchase Order/Contract becomes void and of no effect after June 30.
6. Payment may only be made after the delivery and acceptance of goods or services.
7. Interest may be paid for late payment in accordance with the *West Virginia Code*.
8. Vendor preference will be granted upon written request in accordance with the *West Virginia Code*.
9. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
10. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
11. The laws of the State of West Virginia and the *Legislative Rules* of the Purchasing Division shall govern all rights and duties under the Contract, including without limitation the validity of this Purchase Order/Contract.
12. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
13. **BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, this Contract may be deemed null and void, and terminated without further order.
14. **HIPAA Business Associate Addendum:** The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, and available online at the Purchasing Division's web site (<http://www.state.wv.us/admin/purchase/vrc/hipaa.htm>) is hereby made part of the agreement. Provided that, the Agency meets the definition of a Covered Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.
15. **West Virginia Alcohol & Drug-Free Workplace Act:** If this Contract constitutes a public improvement construction contract as set forth in Article 1D, Chapter 21 of the West Virginia Code ("The West Virginia Alcohol and Drug-Free Workplace Act"), then the following language shall hereby become part of this Contract: "The contractor and its subcontractors shall implement and maintain a written drug-free workplace policy in compliance with the West Virginia Alcohol and Drug-Free Workplace Act, as set forth in Article 1D, Chapter 21 of the West Virginia Code. The contractor and its subcontractors shall provide a sworn statement in writing, under the penalties of perjury, that they maintain a valid drug-free work place policy in compliance with the West Virginia Alcohol and Drug-Free Workplace Act. It is understood and agreed that this Contract shall be cancelled by the awarding authority if the Contractor: 1) Fails to implement its drug-free workplace policy; 2) Fails to provide information regarding implementation of the contractor's drug-free workplace policy at the request of the public authority; or 3) Provides to the public authority false information regarding the contractor's drug-free workplace policy."

INSTRUCTIONS TO BIDDERS

1. Use the quotation forms provided by the Purchasing Division.
2. **SPECIFICATIONS:** Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as **EQUAL** to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
3. Complete all sections of the quotation form.
4. Unit prices shall prevail in cases of discrepancy.
5. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
6. **BID SUBMISSION:** All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications:
Department of Administration, Purchasing Division, 2019 Washington Street East, P.O. Box 50130,
Charleston, WV 25305-0130

EXPRESSION OF INTEREST

CROOKED RUN #5
Requisition #DEP14387

Part 1 GENERAL INFORMATION

1.1 Purpose:

The Acquisition and Contract Administration Section of the Purchasing Division "State" is soliciting Expression(s) of Interest (EOI) for the West Virginia Department of Environmental Protection (WVDEP), Office of Abandoned Mine Lands & Reclamation (AML), from qualified firms to provide architectural/engineering services as defined in section two (2) and three (3) and construction monitoring services during the construction phase of the project as defined by the **Scope of Work**. Construction Inspection by the firm will be at the option of WVDEP/AML.

1.2 Project:

The mission or purpose of the project described in sections 2 & 3 is to provide design services for the following:

Crooked Run #5:

Installation of wet mine seals in nine (9) mine portals. Any other portals discovered during construction will be properly addressed.

Installation of bat gate mine seals in two (2) mine portals. Any other portals discovered during construction will be properly addressed.

Reclaim highwall area by placing mine spoil and any available material against the face to establish the approximate original contour.

Construct drainage control channels and underdrains to carry the water safely off-site.

Regrade and cover all refuse material with at least twelve (12) inches of top soil.

Provide for the elimination of an impoundment that formed on the bench adjacent to portals. This should be accomplished by dewatering the mine pit and filling in the pit area with backfill material to provide positive drainage to a natural drain.

Dismantle and remove all buildings, equipment and debris from the site to an approved disposal site.

Condition and revegetate all areas disturbed by construction.

1.3 Format:

All responses should be submitted in a loose-leaf, three ring binder. The response should be presented in concise format which defines the corporation history and the experience, qualifications, and performance data of the firm's staff as requested by the AML Consultant Confidential Qualification Questionnaire (CCQQ), Attachment "B" and the AML and Related Project Experience Matrix (RPEM), Attachment "C".

Electronic copies of the above referenced documents Attachment "B" and Attachment "C" are available online for registered vendors at:
<http://www.state.us.wv/admin/purchase/newbul.htm>

1.4 Inquiries:

Additional information inquiries regarding this EOI must be submitted in writing to the State Buyer with the exception of questions regarding proposal submission, which may be oral. The deadline for written inquiries is identified in the Schedule of Events, Section 1.16. All inquiries of specification clarification must be addressed to:

Charles Bowman, Buyer
Purchasing Division
P.O. Box 50130
Charleston, WV 25305-0130
Fax: (304) 558-4115
charles.a.bowmanjr@wv.gov

The firm, or anyone on the firm's behalf, is not permitted to make any contact whatsoever with any member of the evaluation committee. Violation may result in rejection of the EOI. The State Buyer named above is the sole contact for any and all inquiries after this EOI has been released.

1.5 Vendor Registration:

Firms participating in this process should complete and file a **Vendor Registration and Disclosure Statement** (Form WV-1) and remit the registration fee. Firm is not required to be a registered vendor in order to submit an EOI, but the **successful firm must register and pay the fee prior to the issuance of an actual contract.**

1.6 Oral Statements and Commitments:

Firm must clearly understand that any verbal representations made or assumed to be made during any oral discussions held between firm's representatives and any State personnel are **not** binding. Only the information issued in writing and added to the Expression of Interest specifications file by an official written addendum is binding.

1.7 Economy of Preparation:

EOI's should be prepared simply and economically, providing a straightforward, concise description of firm's abilities to satisfy the requirements of the EOI. Emphasis should be placed on completeness and clarity of content. Example projects referred to in a firm's EOI's submittal should address projects that are similar in scope to that of the EOI. **Firms must complete the CCQQ and RPEM as included in Section 4.2 of this EOI.**

- 1.8 **Labeling of the Sections:** The response sections should be labeled for ease of evaluation.

1.9 **Submission:**

1.9.1 State law requires that the original expression shall be submitted to the Purchasing Division. All copies to the Purchasing Division must be submitted **prior** to the date and time stipulated as the opening date. All expressions will be date and time stamped on the Purchasing Division official time clock to verify time and date of receipt.

1.9.2 Firms mailing expressions should allow sufficient time for mail delivery to ensure timely arrival. The Purchasing Division **CANNOT** waive or excuse late receipt of an expression which is delayed and late for any reason according West Virginia State Code §5A-3-11. Any EOI received after the bid opening time and date will be immediately disqualified in accordance with State law and the Legislative Rule 148-CSR-1.

Submit:

One original plus (1) convenience copy and (1) copy on CD to:
Purchasing Division
2019 Washington Street, East
P.O. Box 50130
Charleston, WV 25305-0130

The outside of the envelope or package(s) should be clearly marked:

Buyer: CB-23
Req#: DEP14387
Opening Date: 09/24/2008
Opening Time: 1:30 pm

1.10 **Rejection of Expressions:**

The State shall select the best value solution according to §5G-1-3 of the West Virginia State Code. However, the State reserves the right to accept or reject any or all expressions and to reserve the right to withdraw this Expression of Interest at any time and for any reason. Submission of, or receipt by the State of Expressions confers no rights upon the firm nor obligates the State in any manner.

1.11 **Incurring Costs:**

The State and any of its employees or officers shall not be held liable for any expenses incurred by any firm responding to this EOI for expenses to prepare, deliver, or to attend the short-list interviews.

1.12 **Addenda:**

If it becomes necessary to revise any part of this EOI, an official written addendum will be issued by the State to all potential firms of record.

1.13 Independent Price Determination:

A contract will not be considered for award if the negotiated price was not arrived at independently without collusion, consultation, communication, or agreement as to any matter relating to prices with any competitor.

1.14 Price Quotations: No "price" or "fee" quotation is requested or permitted in the response.**1.15 Public Record:****1.15.1 Submissions are Public Record.**

All documents submitted to the State Purchasing Division related to purchase orders/contracts are considered public records. All EOI's submitted by firms shall become public information and are available for inspection during normal official business hours in the Purchasing Division Records and Distribution center after the expressions have been opened.

1.15.2 Written Release of Information.

All public information may be released with or without a Freedom of Information request, however, only a written request will be acted upon with duplication fees paid in advance. Duplication fees shall apply to all requests for copies of any document. Currently the fees are \$0.50/page, or a minimum of \$10.00 per request, whichever is greater.

1.15.3 Risk of Disclosure.

The only exemptions to disclosure of information are listed in West Virginia Code §29B-1-4. Primarily, only trade secrets as submitted by a firm are the only exemption to public disclosure. The submission of any information to the State by a firm puts the risk of disclosure on the firm. The submission of any information to the State by a vendor puts the risk of disclosure on the vendor. The State does not guarantee non-disclosure of any information to the public.

1.16 Schedule of Events:

Release of EOI.....08/21/2008

EOI Opening Date.....09/24/2008

1.17 Mandatory Pre-bid Conference:

Not applicable

1.18 Bond Requirements:

Not applicable

1.19 Purchasing Affidavit:

West Virginia State Code §5A-3-10a (3) (d) requires that all firms submit an Affidavit regarding any debt owed to the State and licensing and confidentiality certifications. The Affidavit **must** be signed and submitted prior to award. It is preferred that the Affidavit be submitted with the EOI.

PART 2

OPERATING ENVIRONMENT

2.1 Location:

Directions to Crooked Run #5:

From Philippi travel to Clarksburg via US Rt. 50, traveling west, take the West Pike Street Exit, turn right and travel North on Rts. 19 & 20 for 1.2 miles, then turn left onto the Crooked Run Road (CR 19/10). Travel 6/10 mile to a locked, double metal gate on the left.

Location Map is attached (Attachment A1).

2.2 Background:

Firms are to be licensed Architectural/Engineering Firms (A/E) and should be familiar with, and have a successful track record of design of similar projects. The anticipated contract will be for "full-service" A/E design. Aspects of the design are to include, but not be limited to, Civil, Structural, Geological and Hydrological.

*The successful A/E will be responsible for **Design** of the following:*

Crooked Run #5:

The first area of concern, Site #1, consists of four (4) collapsed and discharging portals where the uncontrolled drainage from the portals are damaging property. Field tests of the AMD indicates a pH of 6.0 and Fe > 10 mg/Liter.

The second area of concern, Site #2, consists of one (1) partially collapsed portal, discharging approximately 100 gpm. Mine drainage, along with normal surface runoff from the strip mine area, flows through a 24" PVC culvert under Crooked Run Road, and continues down a grassed lined channel along the edge of property lines; at this point it enters Crooked Run. Sediment build-up at the end of the channel also causes part of the property to flood. The erosion and the possibility of mine blow-out are concerns of the owners.

The third area of concern, Site #3, consists of one (1) partially collapsed portal, discharging approximately 2-3 gpm, with a small pond in front of the portal measuring

about 20' X 30' in length.

The fourth area of concern, Site #4, consists of four (4) acres of small to medium size subsidence depressions above a field.

The fifth area of concern, Site #5, consists of one (1) acre of mostly unvegetated refuse, one (1) partially open portal, and miscellaneous mining debris and metal. The refuse pile has been leveled by the landowner and now covers about 150' X 200' in length. The open portal is a 4-5 feet high X 12 feet in width and extends back for a least 15-20 feet, posing a potential health and safety hazard.

The sixth area of concern, Site #6, consists of two (2) refuse areas, at least three (3) collapsed mine portals, one (1) sloped entry portal, and a large discharge of mine drainage. This location has the concern of a possible blow-out. Seepage from the collapsed portals has created a small wetland in front of the mines. Collectively the discharge was estimated at 100 gpm, pH of 5.5 with Fe >10 mg/Liter.

Preliminary design documents will be due 90 days from the issuance of the Purchase Order.

PART 3 PROCUREMENT SPECIFICATIONS

3.1 General Requirements:

Firm must submit a completed CCQQ (Attachment "B") and RPEM (Attachment "C") as per Section 4.2

3.2 Project Description:

Scope of Work:

Crooked Run #5:

Installation of wet mine seals in nine (9) mine portals. Any other portals discovered during construction will be properly addressed.

Installation of bat gate mine seals in two (2) mine portals. Any other portals discovered during construction will be properly addressed.

Reclaim highwall area by placing mine spoil and any available material against the face to establish the approximate original contour.

Construct drainage control channels and underdrains to carry the water safely off-site.

Regrade and cover all refuse material with at least twelve (12) inches of top soil.

Provide for the elimination of an impoundment that formed on the bench adjacent to portals. This should be accomplished by dewatering the mine pit and filling in the pit area with backfill material to provide positive drainage to a natural drain.

Dismantle and remove all buildings, equipment and debris from the site to an approved disposal site.

Condition and revegetate all areas disturbed by construction.

3.3 Special Terms and Conditions:

3.3.1 *Bid and Performance Bonds:* Not Applicable

3.3.2 *Insurance Requirements:* \$1,000,000 Professional Liability with the WVDEP listed as additional insured. #DEP14387 must be listed on Insurance Certificate.

3.3.3 *License Requirements:* Workers Compensation Certificate upon award.

3.4 General Terms and Conditions:

By signing and submitting the EOI, the successful firm agrees to be bound by all the terms contained in Section Three (3) of this EOI.

3.4.1 *Conflict of Interest:*

Firm affirms that it, its officers or members or employees presently have no interest and shall not acquire any interest, direct or indirect which would conflict or compromise in any manner or degree with the performance or its services hereunder. The firm further covenants that in the performance of the contract, the firm shall periodically inquire of its officers, members and employees concerning such interests. Any such interests discovered shall be promptly presented in detail to the Agency.

3.4.2 *Prohibition Against Gratuities:*

Firm warrants that it has not employed any company or person other than a bona fide employee working solely for the firm or a company regularly employed as its marketing agent to solicit or secure the contract and that it has not paid or agreed to pay any company or person any fee, commission, percentage, brokerage fee, gifts or any other consideration contingent upon or resulting from the award of the contract. For breach or violation of this warranty, the State shall have the right to annul this contract without liability at its discretion, and/or to pursue any other remedies available under this contract or by law.

3.4.3 *Certifications Related to Lobbying:*

Firm certifies that no federal appropriated funds have been paid or will be paid, by or on behalf of the company or an employee thereof, to any person for purposes of influencing or attempting to influence an officer or employee of any Federal entity, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any Federal contract, grant, loan, or cooperative agreement.

If any funds other than federally appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee or any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the firm shall complete and submit a disclosure form to report the lobbying.

010

Firm agrees that this language of certification shall be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub recipients shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this contract was made and entered into.

3.4.4 Vendor Relationship:

The relationship of the firm to the State shall be that of an independent contractor and no principal-agent relationship or employer-employee relationship is contemplated or created by the parties to this contract. The firm as an independent contractor is solely liable for the acts and omissions of its employees and agents.

Firm shall be responsible for selecting, supervising and compensating all individuals employed pursuant to the terms of this EOI and resulting contract. Neither the firm nor any employees or contractors of the firm shall be deemed to be employees of the State for any purposes whatsoever.

The Firm shall be exclusively responsible for payment of employees and contractors for all wages and salaries, taxes, withholding payments, penalties, fees, fringe benefits, professional liability insurance premiums, contributions to insurance and pension or other deferred compensation plans, including but not limited to Workers' Compensation and Social Security obligations, and licensing fees, etc. and the filing of all necessary documents, forms and returns pertinent to all of the foregoing.

The Firm shall hold harmless the State, and shall provide the State and Agency with a defense against all claims including but not limited to the foregoing payments, withholdings, contributions, taxes, social security taxes and employer income tax returns.

The firm shall not assign, convey, transfer or delegate any of its responsibilities and obligations under this contract to any person, corporation, partnership, association or entity without expressed written consent of the Agency.

3.4.5 *Indemnification:*

The firm agrees to indemnify, defend and hold harmless the State and the Agency, their officers, and employees from and against: (1) Any claims or losses for services rendered by any subcontractor, person or firm performing or supplying services, materials or supplies in connection with the performance of the contract; (2) Any claims or losses resulting to any person or entity injured or damaged by the firm, its officers, employees, or subcontractors by the publication, translation, reproduction, delivery, performance, use or disposition of any data used under the contract in a manner not authorized by the contract, or by Federal or State statutes or regulations; (3) Any failure of the firm, its officers, employees or subcontractors to observe State and Federal laws, including but not limited to labor and wage laws.

3.4.6 *Contract Provisions:*

After the most qualified firm is identified, and fee negotiations are concluded, a formal contract document will be executed between the State and the firm. The order of precedence is the contract, the EOI and the firm's response to the EOI.

3.4.7 *Governing Law:*

This contract shall be governed by the laws of the State of West Virginia. The firm further agrees to comply with the Civil Rights Act of 1964 and all other applicable laws (Federal, State or Local Government) regulations.

3.4.8 *Compliance with Laws and Regulations:*

The firm shall procure all necessary permits and licenses to comply with all applicable laws, Federal, State or municipal, along with all regulations, and ordinances of any regulating body.

The firm shall pay any applicable sales, use, or personal property taxes arising out of this contract and the transactions contemplated thereby. Any other taxes levied upon this contract, the transaction, or the equipment, or services delivered pursuant here to shall be borne by the contractor. It is clearly understood that the State of West Virginia is exempt from any taxes regarding performance of the scope of work of this contract.

3.4.9 *Subcontracts/Joint Ventures:*

The State will consider the firm to be the sole point of contact with regard to all contractual matters. The firm may, with the prior written consent of the State, enter into written subcontracts for performance of work under this contract; however, the firm is totally responsible for payment of all subcontractors.

3.4.10 *Term of Contract:*

This contract will be effective (date set upon award) and shall extend until the scope of work is complete or for one (1) consecutive twelve (12) month period. The contract may be renewed upon mutual consent for two (2) consecutive years one (1) year

periods or until such reasonable time as may be necessary to obtain a new contract or to complete work.

3.4.11 Non-Appropriation of Funds:

If the Agency is not allotted funds in any succeeding fiscal year for the continued use of the service covered by this contract by the West Virginia Legislature, the Agency may terminate the contract at the end of the affected current fiscal period without further charge or penalty. The Agency shall give the firm written notice of such non-allocation of funds as soon as possible after the Agency receives notice. No penalty shall accrue to the Agency in the event this provision is exercised.

3.4.12 Contract Termination:

The State may terminate any contract resulting from this EOI immediately at any time the firm fails to carry out its responsibilities or to make substantial progress under the terms of this EOI and resulting contract. The State shall provide the firm with advance notice of performance conditions, which are endangering the contract's continuation. If after such notice the firm fails to remedy the conditions contained in the notice, within the time contained in the notice, the State shall issue the firm an order to cease and desist all work immediately.

The State shall be obligated only for services rendered and accepted prior to the date of the notice of termination. The contract may also be terminated upon mutual agreement of the parties with thirty (30) days prior notice.

3.4.13 Changes:

If changes to the original contract become necessary, a formal contract change order will be required. Prior to any work being performed, the change must be negotiated and approved by the State, the Agency and the firm. An approved contract change order is defined as one approved by the Purchasing Division and approved as to form by the West Virginia Attorney General's Office prior to the effective date of such amendment. **NO CHANGE SHALL BE IMPLEMENTED BY THE FIRM UNTIL THE FIRM RECEIVES AN APPROVED WRITTEN CHANGE ORDER.**

3.4.14 Invoices, Progress Payments, & Retainage:

The Firm shall submit invoices, in arrears, to the Agency at the address on the face of the purchase order labeled "Invoice To" pursuant to the terms of the contract. Progress payments may be made at the option of the Agency based on percentage of work completed if so defined in the final contract. Any provision for progress payments must also include language for a minimum 10% retainage until the final deliverable is accepted.

If progress payments are permitted, firm is required to identify points in the work plan at which compensation would be appropriate. Progress reports must be

submitted to Agency with the invoice detailing progress completed or any deliverables identified. Payment will be made only upon approval of acceptable progress or deliverables as documented in the firm's report. Invoices may not be submitted more than once monthly and State law forbids payment of invoices prior to receipt of services.

The firm will invoice for completed work on an approved WVDEP form. If the purchase order has more than one project, a separate invoice must be provided for each project.

3.4.15 Liquidated Damages:

According to West Virginia State Code §5A-3-4(8), firm agrees that liquidated damages shall be imposed at the rate of N/A per workday, for failure to provide deliverables at the agreed upon date identified in the final contract. This clause shall in no way be considered exclusive and shall not limit the State or Agency's right to pursue to any other additional remedy to which the State or Agency may have legal cause for action including further damages against the firm.

3.4.16 Record Retention (Access & Confidentiality):

Firm shall comply with all applicable Federal and State of West Virginia rules and regulations, and requirements governing the maintenance of documentation to verify any cost of services or commodities rendered under this contract by the firm. The firm shall maintain such records a minimum of five (5) years and make available all records to Agency personnel at firm's location during normal business hours upon written request by Agency within 10 days after receipt of the request.

Firm shall have access to private and confidential data maintained by Agency to the extent required for firm to carry out the duties and responsibilities defined in this contract. Firm agrees to maintain confidentiality and security of the data made available and shall indemnify and hold harmless the State and Agency against any and all claims brought by any party attributed to actions of breach of confidentiality by the firm, subcontractors, or individuals permitted access by the firm.

PART 4 EVALUATION & AWARD

4.1 Evaluation and Award Process:

- a) Expressions of Interest will be evaluated and awarded in accordance with §5G-1-3 "Contracts for architectural and engineering services; selection process where total project costs are estimated to cost two hundred fifty thousand dollars or more."

"In the procurement of architectural and engineering services for projects estimated to cost two hundred and fifty thousand dollars or more the director of purchasing shall encourage such firms engaged in the lawful practice of

the profession to submit an expression of interest, which shall include a statement of qualifications, and performance data and may include anticipated concepts and proposed methods of approach to the project. All such jobs shall be announced by public notice published as a Class II legal advertisement in compliance with the provisions of article three [§59-3-1 et seq.] A committee comprised of three to five representatives of the agency initiating the request shall evaluate the statements of qualifications and performance data and other material submitted by the interested firms and select three firms which in their opinion are the best qualified to perform the desired service. Interviews with each firm selected shall be conducted and the committee shall conduct discussions regarding anticipated concepts and the proposed methods of approach to the assignment. The committee shall then rank in order of preference no less than three professional firms deemed to be the most highly qualified to provide the services required, and shall commence scope of service and price negotiations with the highest qualified professional firm for architectural or engineering services or both. Should the agency be unable to negotiate a satisfactory contract with the professional firm considered to be the most qualified, at a fee determined to be fair and reasonable, price negotiations with the firm of second choice shall commence. Failing accord with the second most qualified professional firm, the committee shall undertake price negotiations with the third most qualified professional firm. Should the agency be unable to negotiate a satisfactory contract with any of the selected professional firms, it shall select additional professional firms in order of their competence and qualifications and it shall continue negotiations in accordance with this section until an agreement is reached."

- b) The evaluation criteria and assigned point values are as follows:

The criteria and assigned point values are as follows:

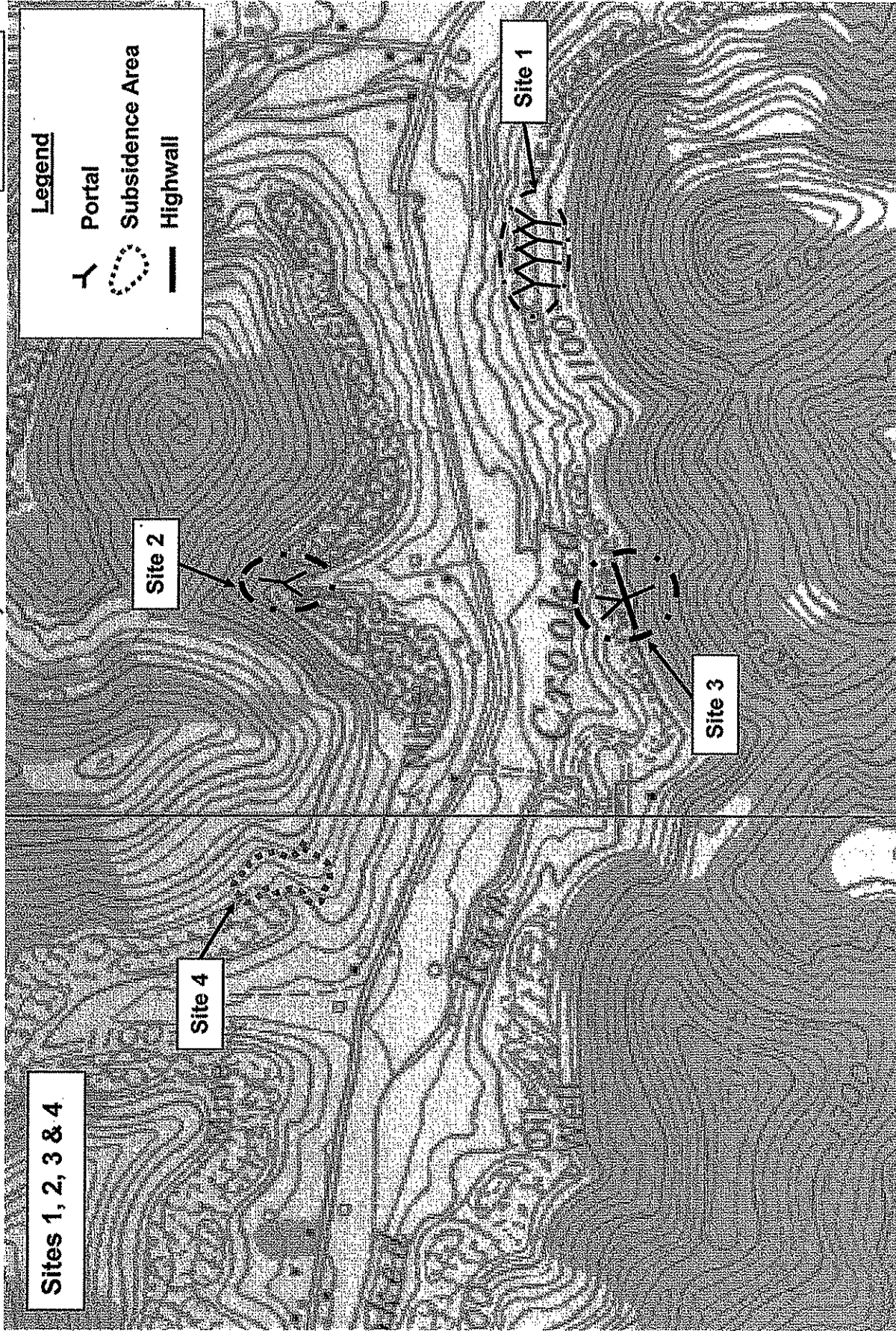
- A. WV Registered Professional Engineers (Civil or Mining)
In the Primary Office 20 points
 - B. Reclamation Engineering design experience of the Primary Office's
WVRPE as it relates to the specific project problem areas 25 points
 - C. Available WV-AML Design Teams within the Primary Office
(A Design team should consist of one Project Engineer (Civil or Mining),
one CAD person and availability of other support personnel as required by the
particular project) 20 points
 - D. The Oral Interview (See Section 4.3 of this EOI) 35 points
- 4.2 (a) AML Consultant Confidential Qualification Questionnaire (CCQQ) must be
completed to be eligible (See Attachment "B").
- (b) AML and Related Project Experience Matrix (RPEM) must also be completed
to be eligible (See Attachment "C").
- 4.3 Interviews as stated in 4.1 "Evaluation and Award Process" will be conducted
with the three firms selected as the most qualified by the WVDEP Selection
Committee. The Committee will schedule the interviews.

The format for the interviews will be a 15-30 minute PowerPoint presentation
consisting, at a minimum, of the following:

- Corporate/personnel experience as it relates to the project or projects
- Proposed project management plan
- Key personnel available for the proposed work
- Proposed subcontractors (mapping, geotechnical, etc.)
- Product quality control
- Project cost control

Project Location Map
Crooked Run #5; WV-5768

Map 1 of 2



Sites 1, 2, 3 & 4

Site 2

Site 4

Site 1

Site 3

Clarksburg Quad
Latitude: 39° 18' 41"

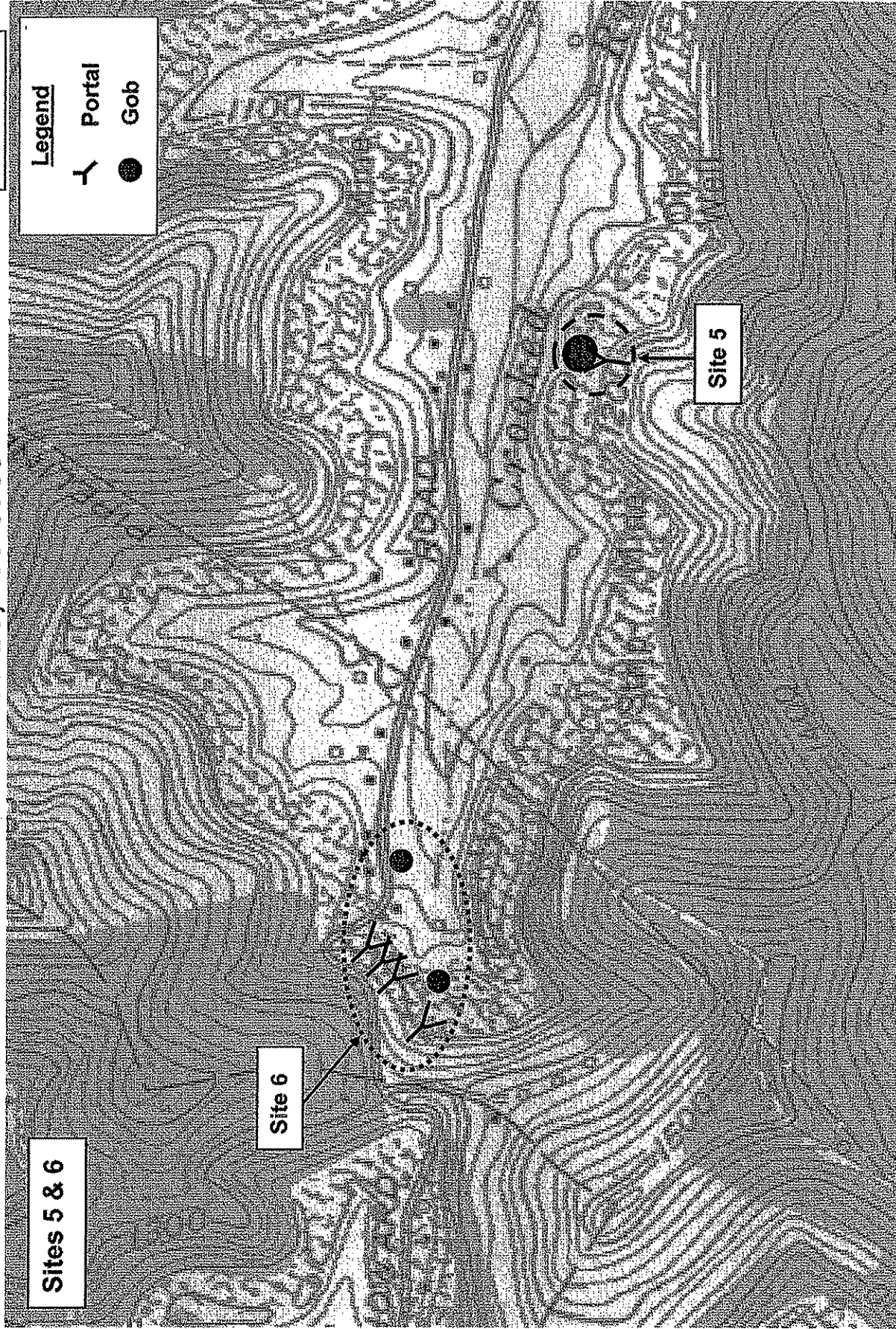
Harrison County
Longitude: 80° 22' 30"

Scale: 1 inch = 1,000 Feet

016

Project Location - Topographic Map
Crooked Run #5; WV-5768

Map 2 of 2



Sites 5 & 6

Site 6

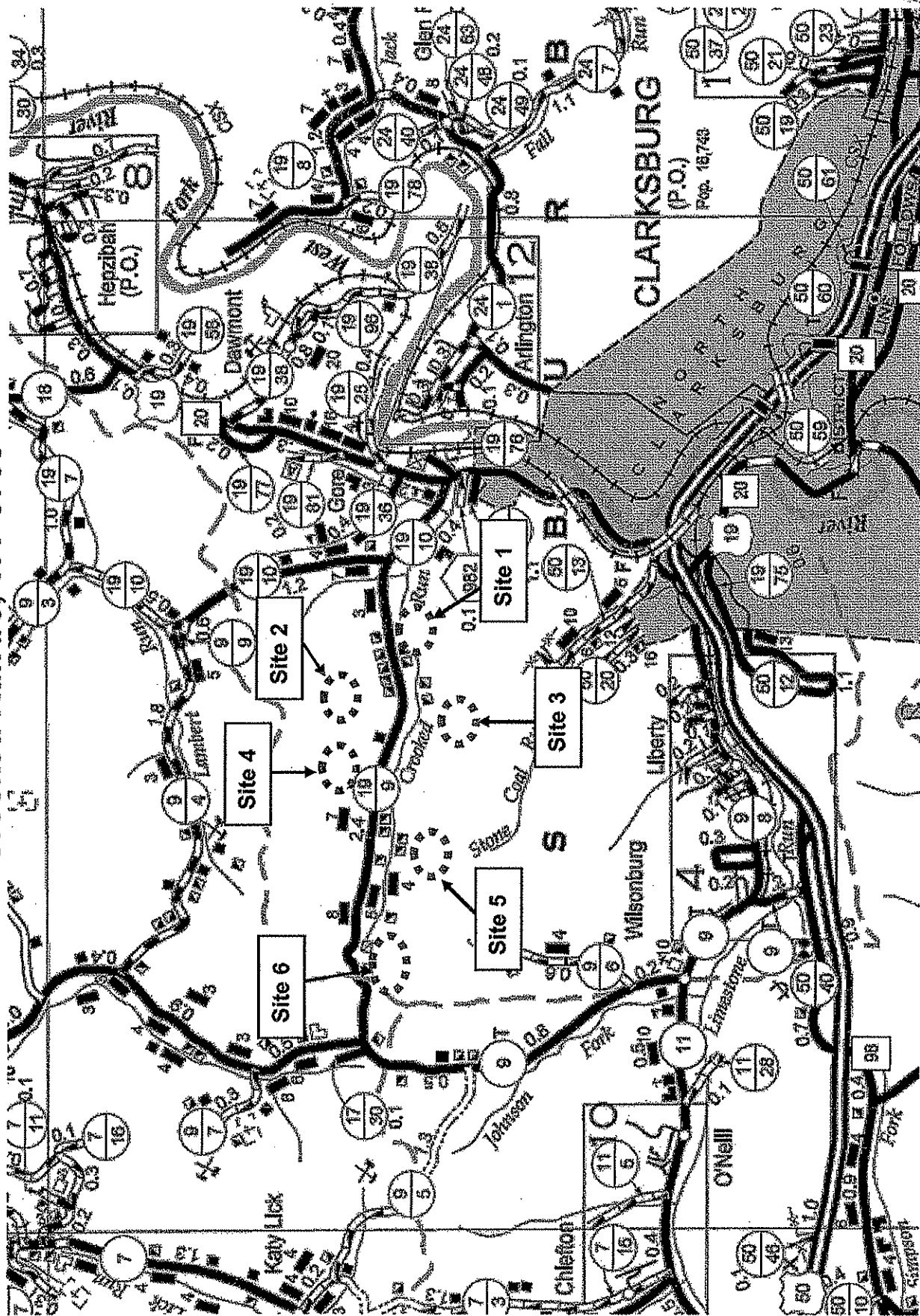
Site 5

Wolf Summit Quad
Latitude: 39° 18' 41"

Harrison County
Longitude: 80° 22' 30"

Scale: 1 inch = 1,000 Feet

Project Location - County Highway Map
Crooked Run #5; WV-5768



Wolf Summit Quad

Harrison County

WEST VIRGINIA DEPARTMENT		ENVIRONMENTAL PROTECTION		Attachment "B"	
AML CONSULTANT CONFIDENTIAL QUALIFICATION QUESTIONNAIRE					
PROJECT NAME		DATE (DAY, MONTH, YEAR)		FEIN	
1. FIRM NAME		2. HOME OFFICE BUSINESS ADDRESS		3. FORMER FIRM NAME	
4. HOME OFFICE TELEPHONE		5. ESTABLISHED (YEAR)		6. TYPE OWNERSHIP Individual Corporation Partnership Joint-Venture	
				6a. WV REGISTERED DBE (Disadvantaged Business Enterprise) YES NO	
7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE					
8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM		8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS			
9. PERSONNEL BY DISCIPLINE					
-- ADMINISTRATIVE		-- ECOLOGISTS		-- LANDSCAPE ARCHITECTS	
-- ARCHITECTS		-- ECONOMISTS		-- MECHANICAL ENGINEERS	
-- BIOLOGIST		-- ELECTRICAL ENGINEERS		-- MINING ENGINEERS	
-- CADD OPERATORS		-- ENVIRONMENTALISTS		-- PHOTOGRAMMETRISTS	
-- CHEMICAL ENGINEERS		-- ESTIMATORS		-- PLANNERS: URBAN/REGIONAL	
-- CIVIL ENGINEERS		-- GEOLOGISTS		-- SANITARY ENGINEERS	
-- CONSTRUCTION INSPECTORS		-- HISTORIANS		-- SOILS ENGINEERS	
-- DESIGNERS		-- HYDROLOGISTS		-- SPECIFICATION WRITERS	
-- DRAFTSMEN				-- TOTAL PERSONNEL	
TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: _____					
*RPEs other than Civil and Mining must provide supporting documentation that qualifies them to supervise and perform this type of work.					
10. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE? YES NO					

11. OUTFIT KEY CONSULTANTS/SUB-CONSULTANTS ANTICIPATED TO BE USED. ATTACH "AWL CONSULTANT Confidential Qualification Questionnaire".

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

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

YES Description and Number of Projects:

NO

B. Is your firm experienced in Soil Analysis?

YES Description and Number of Projects:

NO

C. Is your firm experienced in hydrology and hydraulics?

YES Description and Number of Projects:

NO

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

YES Description and Number of Projects:

NO

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

YES Description and Number of Projects:

NO

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

YES Description and Number of Projects:

NO

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	
Brief Explanation of Responsibilities			
EDUCATION (Degree, Year, Specialization)			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	
Brief Explanation of Responsibilities			
EDUCATION (Degree, Year, Specialization)			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, State)	

14. P: IDE A LIST OF SOFTWARE AND EQUIPMENT AVAILABLE IN ' PRIMARY OFFICE WHICH WILL BE USED TO COMPLETE AML
D. GN SERVICES

15. C ENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATE ENGINEER OF RECORD

PROJECT NAME, TYPE AND LOCATION

NAME AND ADDRESS OF OWNER

NATURE OF YOUR FIRM'S RESPONSIBILITY

ESTIMATED CONSTRUCTION COST

PERCENT COMPLETE

TOTAL NUMBER OF PROJECTS:

TOTAL ESTIMATED CONSTRUCTION COSTS: \$

1

ESTIMATED CONSTRUCTION COST

YEAR

CONSTRUCTED
(YES OR NO)

WATER RESOURCES

126

STATE OF WEST VIRGINIA
Purchasing Division**PURCHASING AFFIDAVIT**

029

VENDOR OWING A DEBT TO THE STATE:

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

PUBLIC IMPROVEMENT CONTRACTS & DRUG-FREE WORKPLACE ACT:

West Virginia Code §21-1D-5 provides that: Any solicitation for a public improvement construction contract shall require each vendor that submits a bid for the work to submit at the same time an affidavit that the vendor has a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the West Virginia Code. A public improvement construction contract may not be awarded to a vendor who does not have a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the West Virginia Code and who has not submitted that plan to the appropriate contracting authority in timely fashion. For a vendor who is a subcontractor, compliance with Section 5, Article 1D, Chapter 21 of the West Virginia Code may take place before their work on the public improvement is begun.

ANTITRUST:

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

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

LICENSING:

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

CONFIDENTIALITY:

The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures and rules. Vendors should visit www.state.wv.us/admin/purchase/privacy for the Notice of Agency Confidentiality Policies.

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

Vendor's Name: _____

Authorized Signature: _____ Date: _____

11.	OUTSIDE KEY CONSULTANTS / SUB-CONSULTANTS ANTICIPATED TO BE USED. Attach "AML Consultant Confidential Qualification Questionnaire".				
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE:			
Novel Geo-Environmental, PLLC 806 B Street St. Albans, West Virginia 25177	Subsurface drilling investigation-geotechnical engineering – soil, rock, coal physical property testing	<table border="1"> <tr> <td>X</td> <td></td> </tr> </table> YES NO		X	
X					
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE:			
Sturm Environmental Services P.O. Box 650 Bridgeport, WV 26330	Chemical analysis of soil, rock, and coal	<table border="1"> <tr> <td>X</td> <td></td> </tr> </table> YES NO		X	
X					
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE:			
Aerocon Photogrammetric Services, Inc. 4515 Glenbrook Road Willoughby, OH 44094	Aerial Photography Developing mapping from aerial photography	<table border="1"> <tr> <td>X</td> <td></td> </tr> </table> YES NO		X	
X					
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE:			
		<table border="1"> <tr> <td></td> <td></td> </tr> </table> YES NO			
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE:			
		<table border="1"> <tr> <td></td> <td></td> </tr> </table> YES NO			
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE:			
		<table border="1"> <tr> <td></td> <td></td> </tr> </table> YES NO			
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE:			
		<table border="1"> <tr> <td></td> <td></td> </tr> </table> YES NO			

12.	☒ Yes ☐ No Is your firm experienced in Abandoned Mine Lands Remediation / Mine Reclamation Engineering? Description and Number of Projects: Corporate Experience: Thirty Two (32) Projects Stantec has successfully completed thirty two (32) AML Reclamation projects. See Sheets 4 through 7 for a detailed listing of the projects, including the tasks involved with each project.
B.	☒ Yes ☐ No Is your firm experienced in Soil Analysis? Description and Number of Projects: Corporate Experience: Over 200, including Forty Eight (48) AML and AML Related Projects Stantec has successfully completed over 200 soil analysis projects, ranging in size and complexity. In addition, Stantec has completed twenty three (23) AML and AML related Soil Analysis projects. See Sheet 9 for a detailed listing of the AML and related projects, including the tasks involved with each project.
C.	☒ Yes ☐ No Is your firm experienced in Hydrology and Hydraulics? Description and Number of Projects: Corporate Experience: Seventy Five (75), including Thirty Two (32) AML and AML Related Projects Stantec has successfully completed seventy five (75) hydrology and hydraulics projects, including studies associated with bridges, box culverts, pipes, ditches, and sediment and other ponds. In addition, Stantec has completed thirty two (32) AML and AML Related Hydrology and Hydraulics projects. See Sheet 10 for a detailed listing of the projects, including the tasks involved with each of the AML and AML related projects.
D.	☒ Yes ☒ No Does your firm produce its own Aerial Photography and Develop Contour Mapping? Description and Number of Projects: Corporate Experience: Forty Nine (49), including Thirty Two (32) AML and AML Related Projects Stantec subcontracts development of aerial photography to Aerocon Photogrammetric Services and has successfully set aerial photographic control points on numerous engineering projects by GPS and Conventional Surveying techniques. Stantec has also developed topographic and planimetric maps from GPS and Conventional Surveying techniques and supplemented topographic and planimetric features on mapping developed by aerial mapping firms. In addition, Stantec has completed thirty two (32) AML and AML related mapping projects. See Sheet 11 for a detailed listing of the AML and AML related projects, including the tasks involved with each project.
E.	☒ Yes ☐ No Is your firm experienced in Domestic Waterline Design? (Include any experience your firm has in evaluation of aquifer degradation as a result of mining.) Description and Number of Projects: Corporate Experience: One Hundred Twenty Two (, including Nineteen (19) AML-Related Projects Stantec has successfully completed One Hundred Twenty Two (122) Domestic Waterline projects. In addition, Stantec has completed Nineteen (19) AML-related Domestic Waterline Projects. See Sheet 12 for a detailed listing of the projects, including the tasks involved with each project.
F.	☒ Yes ☐ No Is your firm experienced in Acid Mine Drainage Evaluation and Abatement Design? Description and Number of Projects: Corporate Experience: fourteen (14) Projects; Employee Experience Seventeen (17) Projects Stantec has successfully completed fourteen (14) Acid Mine Drainage Evaluation and Abatement Design projects. See Sheet 13 and 14 for a detailed listing of the projects, including the tasks involved with each project.

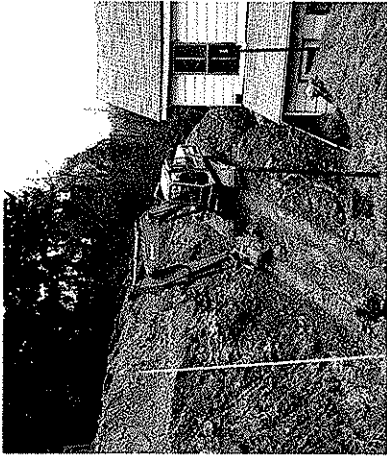
12. ^A ☒ ^{es} ☐ ^{No} Is your firm experienced in Abandoned Mine Lands Remediation / Mine Reclamation Engineering?

Description and Number of Projects: Corporate Experience thirty Two (32) Projects

CORPORATE EXPERIENCE:

1. <i>Hampton Number Four Maintenance</i>	Reclamation design of a failed refuse fill approximately 600 feet high (in elevation). The site consists of one (1) slip area and an erosion channel up to 40-feet deep in some areas that traverses the centermost portion of the fill area. Acid mine drainage seeps (field pH = 2.5 S.U.) impacts Spruce Laurel Fork, a high quality trout stream. The Scope of Work Letter and associated engineering Cost proposal has been submitted and we await a P.O. from Purchasing to begin this Project. The project will involve Topographic Surveying; Subsurface Geological Investigation; Surface and Groundwater Testing and Reporting; Generation of Construction Mapping; Hydrologic and Hydraulic Studies and design for Ditches and Pipes; Sediment Control Design; Revegetation Plan. Construction Plans and Specifications; Engineers Cost Estimate, Bid Schedule, and Calculation Brief; Initial On-Site, Preliminary Design, Pre-Bid, and Pre-Construction Meetings; Monthly Reports and Invoicing.
2. <i>Howesville Sites</i>	Reclamation design of two (2) sites with 4,000 linear feet of highwall with seventeen (17) wet mine seals; and 30 acres of revegetation. Topographic Surveying; Subsurface and Geological Investigation (five (5) piezometers installed) are complete. Mapping; Water and Soil Testing; Preliminary and Final Design are on-going. Construction Plans and Specifications; Engineers Cost Estimate, Bid Schedule, and Calculation Brief; Initial On-Site, Preliminary Design, Pre-Bid, and Pre-Construction Meetings; Monthly Reports and Invoicing will be completed.
3. <i>Sandy Run Highwall and Portals</i>	Reclamation design of 1,850 linear feet of highwall with five (5) wet mine seals; and 15 acres of revegetation. Topographic Surveying; Subsurface and Geological Investigation (three (3) piezometers installed) are complete. Mapping; Water and Soil Testing; Preliminary and Final Design on-going. Construction Plans and Specifications; Engineers Cost Estimate, Bid Schedule, and Calculation Brief; Initial On-Site, Preliminary Design, Pre-Bid, and Pre-Construction Meetings; Monthly Reports and Invoicing will be completed.
4. <i>Wilsie-Rosedale, Sugar Creek PSD Waterline Feasibility Study I.D. No. 324</i>	17.0 Mile Waterline Extension Feasibility Study – I.D. No. 324, involving 175 Residents. Surface and Ground Water Testing and Reporting; Public and Private Record Search; Hydrologic and Geologic Field and Record Investigation and Report; Water Analyses Interpretation and Evaluation; Ground Water Contamination Mitigation Alternatives with Estimated Construction Costs; and Initial On-Site Meeting, Preliminary Report, Final Report, Monthly Reports, and Invoicing.
5. <i>Laurel Valley (Daniels) Landslide Emergency AML Project</i>	Reclamation design of a 4.0 acre landslide from an abandoned surface mine resting against the Daniels house; 13,000 yards of earthwork; Geotechnical Subsurface Investigation; Existing and Proposed Slope Stability Analysis; Hydrologic and Hydraulic Studies for ditches and culverts; Sediment Control; Revegetation Design. Construction Plans and Specifications; Engineers Cost Estimate, Bid Schedule, and Calculation Brief; Initial On-Site, Preliminary Design, Pre-Bid, and Pre-Construction Meetings; Monthly Reports and Invoicing.
6. <i>Price Hill Airshaft/Buildings (Price Hill Complex)</i>	Reclamation design of a 1.5 acre abandoned deep mine shaft site; 1,300 yards of earthwork; suspected vertical mine shaft investigation and sealing (if present); capping another vertical mine shaft with ability to discharge up to 12 cfs of mine water; demolishing several concrete and cut stone ruins; garbage removal, stockpiling and burying on-site refuse. Subsurface Investigation for seating of caps; mine water testing; Hydrologic and Hydraulic Studies for ditches and existing culverts; Sediment Control; Revegetation Design. Construction Plans and Specifications; Engineers Cost Estimate, Bid Schedule, and Calculation Brief; Initial On-Site, Preliminary Design, Pre-Bid, and Pre-Construction Meetings; Monthly Reports and Invoicing.
7. & 8. <i>Weaver Portals and Highwall, Phases I and II:</i>	Reclamation design of 4,200 linear feet of highwall with 97,000 yards of earthwork; twenty (20) wet mine seals; six AMD treatment limestone beds with "Aluminators", and 35 acres of revegetation. Topographic Surveying; Subsurface Geological Investigation (six (6) piezometers installed); Surface and Groundwater Testing and Reporting; Supplement and Generation of Mapping; Hydrologic and Hydraulic Studies and design for twenty five (25) Ditches and ten (10) Pipes; Sediment Control Design; Revegetation Plan. Construction Plans and Specifications; Engineers Cost Estimate, Bid Schedule, and Calculation Brief; Initial On-Site, Preliminary Design, Pre-Bid, and Pre-Construction Meetings; Monthly Reports and Invoicing.
9. <i>Old Bridgeport Hill Mine Drainage, Phase II:</i>	Reclamation design including four (4) Wet Mine Seals and Drainage Facilities to capture and convey mine drainage around businesses and residents along a half-mile stretch of Old Bridgeport Hill Road. Topographic Surveying; Subsurface Geological Investigation (Piezometer Installation); Surface and Ground Water Testing and Reporting; Generation of Mapping; Reclamation Design with earthwork quantities; Design and Hydrologic and Hydraulic Studies for nine (9) Ditches, eight (8) Pipes, one (1) Subsurface Drain, and four (4) Inlets; Sediment Control Design; Revegetation Plan. Construction Plans and Specifications; Engineers Cost Estimate, Bid Schedule, and Calculation Brief; Initial On-Site, Preliminary Design, Pre-Bid, and Pre-Construction Meetings; Monthly Reports and Invoicing.

12.	Is your firm experienced in Abandoned Mine Lands Remediation / Mine Reclamation Engineering? Description and Number of Projects: Corporate Experience (Cont.): Twenty Seven (27) Projects	Yes No
	CORPORATE EXPERIENCE:	
10. Nixon Run AMD:	The site consists of one (1) open portal into the abandoned Consol 32 Mine that is discharging acid mine drainage (AMD). Preliminary average estimates of AMD flow from the open portal is 235 gallons per minute exhibiting a pH of 3.2 with acidity concentrations around 150 mg/l, iron concentrations around 11 mg/l, aluminum concentrations around 8 mg/l, and manganese concentrations less than 2 mg/l. Topographic Surveying; Subsurface Geological Investigation (Piezometer Installation); Surface and Ground Water Testing and Reporting; Reclamation Design with earthwork quantities; Design and Hydrologic and Hydraulic Studies for nine 905 L.Ft. Ditches, four (4) Pipes, one (1) Subsurface Drain, Sediment Control Design; and Revegetation Plan. Construction Plans and Specifications; Engineers Cost Estimate, Bid Schedule, and Calculation Brief; Initial On-Site, Preliminary Design, Pre-Bid, and Pre-Construction Meetings; Monthly Reports and Invoicing.	
11. Arlington (Cox) Drainage:	Reclamation design to alleviate ground water impacts to the Cox Residence involving Two (2) Wet Mine Seals; Hydrologic and Hydraulic Studies and design for 198 feet of Subsurface Drains, two (2) Ditches, and one (1) Pipe; Mine Dewatering and AMD Treatment Plan; Sediment Control Plan; and Revegetation Plan. Construction Plans and Specifications; Engineers Cost Estimate, Bid Schedule, and Calculation Brief; Initial On-Site, Preliminary Design, Pre-Bid, and Pre-Construction Meetings; Monthly Reports and Invoicing.	
12. James and Amanda Taylor Waterline Feasibility Study I.D. No. 309	1.0 Mile Waterline Extension Feasibility Study – I.D. No. 309, involving ten (10) Residents. Surface and Ground Water Testing and Reporting; Public and Private Record Search; Hydrologic and Geologic Field and Record Investigation and Report; Water Analyses Interpretation and Evaluation; Ground Water Contamination Mitigation Alternatives with Estimated Construction Costs; and Initial On-Site Meeting, Preliminary Report, Final Report, Monthly Reports, and Invoicing.	
13. Gladly Fork Mining, Inc. (Permit D-35-82) Bond Forfeiture	Active AMD Treatment Facility – Involved the design of a \$3,000,000.00 AMD plant design that incorporated a single treatment train capable of handling 1,000 gallons per minute of alkaline mine drainage with 15 ppm of total iron and included necessary piping and seating for a second treatment train if future needs arise. The project also involved relining existing boreholes to eliminate mine discharge interruptions, design and construction of 2,500 linear feet of gravity fed plant intake line from the boreholes to the plant site, and an active chemical treatment plant. The treatment plant included an aeration basin (concrete), flocculator (concrete), chemical feed building, settling basin (concrete), sludge thickener (concrete), and geo-tube sludge disposal system with overflow catchment and re-treatment capabilities.	
14. Poplar Ridge / Morrison Ridge Waterline Feasibility Study – I.D. No. 298:	Waterline Extension Feasibility Study – I.D. No. 298, involving 21 Residences. Surface and Ground Water Testing and Reporting; Public and Private Record Search; Hydrologic and Geologic Field and Record Investigation and Report; Water; On-Site Meeting and interviews, Monthly Reports, and Invoicing.	
15. Summit Park PSD Waterline Feasibility Study – I.D. No. 288:	2.75 Mile Waterline Extension Feasibility Study – I.D. No. 288, involving 167 Residences and Businesses. Surface and Ground Water Testing and Reporting; Public and Private Record Search; Hydrologic and Geologic Field and Record Investigation and Report; Water Analyses Interpretation and Evaluation; Ground Water Contamination Mitigation; Soil Sampling; Project Mapping; Alternatives with Estimated Construction Costs; and Initial On-Site Meeting, Preliminary Report, Final Report, Executive Summary, Monthly Reports, and Invoicing.	
16. Murray City AMD and Art Project:	Reclamation design for abandoned portals discharging Acid Mine Drainage. Topographical Surveying; Mapping; Subsurface Investigation (Piezometer Installation and Soils Testing); Passive Acid Mine Drainage Treatment System including two (2) SAPS, two (2) Precipitate Ponds, One (1) Flush Pond, Mine Pool Stabilization Pond and Overflow Treatment Pond; Design and Hydrologic and Hydraulic Studies for Construction in Floodway (Local Flood Plain Coordination and Permit), thirteen (13) Ditches and six (6) Spillways; Design of a Wet Mine Seal; Incorporation of Art Component to Satisfy Funding; Interim Grading Plan to allow relocation of a high pressure gas line; Sediment Control Plan; Revegetation Design; Environmental Permits; Construction Plans and Specifications; Calculation Brief with Quantity Calculations; Engineers Cost Estimate; Initial On-Site, 50%, 90%, Check Set, and Final Design Meetings; Monthly Reports and Invoicing.	
17. Nutters Tipple D-716:	Reclamation design of a 7.2 Acre Bond Forfeiture Coal Tipple Site; Surveying; Geotechnical (Slope Stability) Investigation; Coal Analysis; HazMat Materials (2 UST's, 8 AST's, R-R Ties, 55-Gallon Drums, Refrigerators, Stained Soil); Debris Removal Plan; Design and Hydrologic and Hydraulic Studies for Subsurface Drain; two (2) Ditches, and a Channel Design; Sediment Control Plan; Revegetation Plan; Calculation Brief with Quantity Computations; Engineers Cost Estimate; Construction Plans and Specifications; Initial, 50%, 90%, Final Design Meetings; Monthly Reports and Invoicing.	

12.		Is your firm experienced in Abandoned Mine Lands Remediation / Mine Reclamation Engineering?		Description and Number of Projects: Corporate Experience (Cont.): Twenty Seven (27) Projects
☒	Yes	☐	No	
CORPORATE EXPERIENCE:				
18. <i>Hodgesville PSD Waterline Feasibility Study – I.D. No. 275:</i>	1.2 Mile Waterline Extension Feasibility Study – I.D. No. 275, involving Seventeen (17) Residents. Surface and Ground Water Testing and Reporting; Public and Private Record Search; Hydrologic and Geologic Field and Record Investigation and Report; Water Analyses Interpretation and Evaluation; Ground Water Contamination Mitigation Alternatives with Estimated Construction Costs; and Initial On-Site Meeting, Preliminary Report, Final Report, Monthly Reports, and Invoicing.			
19. <i>McElwain Waterline Feasibility Study – I.D. No. 271:</i>	0.64 Mile Waterline Extension Feasibility Study – I.D. No. 271, involving One (1) Resident. Surface and Ground Water Testing and Reporting; Public and Private Record Search; Hydrologic and Geologic Field and Record Investigation and Report; Water Analyses Interpretation and Evaluation; Ground Water Contamination Mitigation Alternatives with Estimated Construction Costs; and Initial On-Site Meeting, Preliminary Report, Final Report, Monthly Reports, and Invoicing.			
20. <i>Fairmont (Hendrickson) Subsidence:</i>	Subsidence investigation of Hendrickson Residence involving Geologic Subsurface Investigation; review and compilation of three previous reports; Field Surveying; Public and Private Record Search; Hydrologic and Geologic Field and Record Investigation and Report; Structure and Support Area Mitigation Alternatives; and Initial On-Site Meeting, Preliminary Report, Final Report, Monthly Reports, and Invoicing.			
21. <i>Flint Run East Acid Mine Drainage Reclamation:</i>	Phase I Reclamation design of a 171-Acre Coal Refuse Area, design reclamation of spoil piles, treatment and discharge plan for ponds and lakes filled with AMD, passive AMD treatment design, including a SAPS, Wetland, Limestone Bed, Steel Slag Leach Beds, and Open Limestone Channels. GPS, Topographic Surveying; supplement of available aerial mapping; Design and Hydrologic and Hydraulic Studies for four (4) Channels, three (3) Ditches, and seven (7) Spillways, Design of eight (8) Impoundments (Three Flush Ponds, Sediment Pond, SAPS Pond, Fresh Water Pond, and Steel Slag Pond); Sediment Control Design; Revegetation Design; Environmental Permits; Construction Plans and Specifications, Calculation Brief with Quantity Calculations; Engineers Cost Estimate; Initial On-Site, 50%, 90%, Check Set, and Final Design Meetings; Monthly Reports and Invoicing.			
22. <i>Danehart Acid Mine Drainage Reclamation:</i>	Reclamation design on a 2.0 Acre Slope Failure Five (5) Feet from a Residence; Surveying (Property and Topographic); Geotechnical (Slope Failure) Investigation; Surface and Ground Water Testing; Mapping; Reclamation Design with Pier and Lag Retaining Wall Design; Design and Hydrologic and Hydraulic Studies for a Ditch, a Subsurface Drain, Culvert Design; Sediment Control Plan; Revegetation Plan; Calculation Brief with Quantity Computations; Engineers Cost Estimate; Construction Plans and Specifications; Initial, 50%, 90%, Check Set, and Final Design Meetings; Monthly Reports and Invoicing.			
23. <i>Midvale Coal Number 7:</i>	35 Acre Coal Tipple and Coal Refuse Disposal Fill Area; GPS and Topographic Surveying; Subsurface Investigation; Coal Analysis; Soil Borrow Analysis; HazMat Investigation (PCB's, Drums, Pails, Stained Soils); Mapping; Calculation Brief with Quantity Computations; Initial On-Site, 50%, 90%, Final Design Meetings; Monthly Reports and Invoicing.			
				
TUNNELTON (DILLSWORTH) LANDSLIDE Gabion Basket Wall Installation behind Dillsworth Residence		SAULS RUN STRIP AND LANDSLIDE AML related slip threatening residences along Sauls Run		

12.	A. (Cont.) Is your firm experienced in Abandoned Mine Lands Remediation / Mine Reclamation Engineering? ☒ Yes ☐ No		Description and Corporate Experience: Thirty One (31) WVAML Projects; One (1) Special Rec Project – Twelve (12) ODNR Projects Number of Projects: Employee Experience: Additional (12) AML Projects and Various Other Mine Reclamation Projects
AML, MINE RECLAMATION ENGINEERING CORPORATE AND EMPLOYEE EXPERIENCE: <i>Randy Calkins, Project Manager, WVAML Design – FortyFour (44) Completed Projects – Three (3) Preliminary Design Projects; Thirty One (31) Mine Reclamation Engineering Projects.</i> WVAML – Completed Designs – 1. Hampton Number Four Maintenance; 2. Howesville Sites; 3. Sandy Run Highwall and Portals; 4. Wilsie Rosedale Waterline Feasibility Study, I.D. 324; 5. Laurel Valley (Daniels) Landslide; 6. Price Hill Airshaft/Buildings; 7. Weaver Portals and Highwall Phase I; 8. Weaver Portals and Highwall Phase II; 9. Nixon Run AMD; 10. Fairmont (Hendrickson) Subsidence; 11. Tunnelton (Dillsworth) Landslide; 12. Arlington (Cox) Drainage; 13. Sauls Run Strip and Landslide; 14. Taylor Waterline Extension Feasibility Study-I.D. No. 309; 15. Poplar Ridge Waterline Feasibility Study-I.D. No. 298; 16. Summit Park Waterline Feasibility Study-I.D. No. 288; 17. Hodgesville PSD Waterline Extension-I.D. No. 275; 18. McElwain Waterline Feasibility Study-I.D. No. 271; 19. Old Bridgeport Hill Mine Drainage, Phase II; 20. Adaland Tipple and Refuse; 21. Bismark Strip Drainage and Refuse; 22. Brownton School Refuse; 23. Burdock Highwall; 24. Clarksburg (Ryder Avenue) Drainage; 25. Conners Highwall; 26. Francis Drainage and Refuse; 27. Muddy Creek Tipple Complex; 28. Pringle Drainage; 29. Superior Hydraulics; 30. Thomas (Euclid Avenue) Subsidence; 31. Zebs Creek Highwall. – <i>Preliminary Designs:</i> 1. Amigo Smokeless Refuse; 2. Austin Highwall; 3. Slab Fork Mine Dump. Special Reclamation – Gladly Fork Mining, Inc., D-35-82 Bond Forfeiture. Mine Reclamation Engineering – Surface Mine Applications (WV – S.O.A.P. Applications) – S.O.A.P. Numbers 201, 205, 206, 208, 209, 210, 211, 212, 213, 214, 216, 217, 221, 230, 233, 236, 238, 247, 249, 250, 251, 260, 267, 268, and 273. Deep Mine Applications (WV – S.O.A.P. Applications) S.O.A.P. Numbers 202, 207, 239, 241, 257, and 271. Ohio AML – Completed Designs – 1. Flint Run Acid Mine Drainage, 4. Danehart Acid Mine Drainage, 5. Nutters Tipple D-716, 6. Lake Milton Investigation, 7. Midvale Coal Number 7, 8. Linden Acid Mine Drainage Bioremediation, 9. Glen Castle Reclamation, 10. Misco Burning Gob, 11. Ferris Forfeiture, 12. Brown Subsidence <i>Dennis Miller, Survey Manager, Twenty-Sever (27) Projects:</i> 1. Hampton Number Four Maintenance; 2. Howesville Sites; 3. Sandy Run Highwall and Portals; 4. Laurel Valley (Daniels) Landslide; 5. Price Hill Complex; 6. Adaland Tipple and Refuse; 7. Barkers Ridge Highwall; 8. Bismark Strip Drainage and Refuse; 9. Bridge Run; 10. Brownton School Refuse; 11. Camp Run; 12. Conners Highwall; 13. Dawmont AML; 14. Francis Drainage and Refuse; 15. Muddy Creek Tipple Complex; 16. Pine Bluff Tipple Site; 17. Philip Thorn Highwall; 18. Rainelle AML; 19. SCS Reclamation; 20. Shegon Refuse Pile; 21. Shoemaker Landslide; 22. Superior Hydraulics; 23. Taylor Creek Impoundment; 24. Taylor Creek Tipple Complex; 25. Tibbs Run Portal; 26. Masontown No. 4 AML; 27. Rosemont Highwall and Portals			
			
Reclaimed Highwall ZEBS CREEK HIGHWALL - near Elkins, Randolph County, WV		Stabilized Refuse Pile MUDDY CREEK TIPPLE COMPLEX - near Mt. Storm, Grant County, WV	

12. Is your firm experienced in Soil Analysis?

Yes	☒
No	☐

Description and Number of Projects: Numerous Projects Involving Physical Properties of Soil Including Soil Stability Investigations, Design of Soil Fill Slopes, as well as Chemical Properties of Soils including Revegetation Plans.

CORPORATE EXPERIENCE:

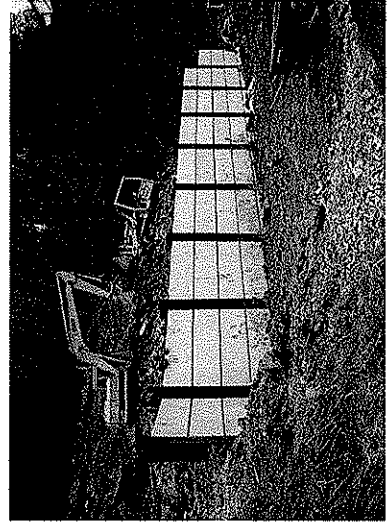
AML – Laurel Valley (Daniels) Landslide; Price Hill Airshaft/Buildings; Fairmont (Hendrickson) Subsidence; Tunnelton (Dillsworth) Landslide; Sauls Run Strip and Landslide; Nutters Tipple D-716; Danehart Acid Mine Drainage; Lake Milton Investigation. **WVCA** – Fisher-Mill Creek Bank Stabilization; Harmons Creek Bank Stabilization; Parchment Valley Bank Stabilization; North Fork Hughes River Bank Stabilization. **Landfills** – Franklin County Sanitary Landfill Capping and Closure Plan; Bobmeyer Landfill Capping and Closure Plan; Fayette County Sanitary Landfill #3 Capping and Closure Plan; Hardin County Sanitary Landfill Capping and Closure Plan; Allied Sanitary Landfill Capping and Closure Plan; Triangle Landfill Capping and Closure Plan; Coshocot Landfill Capping and Closure Plan; B & E Landfill Capping and Closure Plan; Westerville Landfill Capping and Closure Plan. **Road Design** – U.S. Route 35 Couch to Coast Guard Station; Lawrence County Route 7; Corridor H, Section 6 Davis to Bismark; Williams Road Widening; Journal Street Extension; Frantz Road; Maxtown Road; Alum Creek Drive. **Quality Control / Quality Assurance Projects** – Gladly Fork Permit D-35-82 Bond Forfeiture; ODNR Racine Docks; Fisher Mill Creek bank Stabilization; Hazelton Federal Prison; Clifford Hollow Bridge; Corridor H Job 123; Corridor H Job 125; Corridor H at Baker; Mon-Fayette Bridge; Glenville Federal Prison.

AML – Laurel Valley (Daniels) Landslide; Price Hill Airshaft/Buildings; Gladly Fork Mining, Inc. D-35-82 Bond Forfeiture; Weaver Portals and Highway Phase I and II; Nixon Run AMD; Tunnelton (Dillsworth) Landslide; Sauls Run Strip and Landslide; Old Bridgeport Hill Mine Drainage, Phase II; Flint Run East Acid Mine Drainage Reclamation; Murray City AMD and Art Project; Flint Run Acid Mine Drainage Reclamation; Danehart Acid Mine Drainage; Midvale Coal Number 7; Nutters Tipple D-716; Lake Milton Investigation. **Landscape Architecture Projects (with soil and vegetation designs)** – Willowbrook Linear Parkway; Willowbrook Conceptual Park Plan; Northgate Commercial Development; Montgomery Park; Tartan Fields Golf Course; Hoff Woods Park; Meri-Mac Park; Bridlewood Park; Friendship Park.

AML, MINE RECLAMATION ENGINEERING EMPLOYEE EXPERIENCE:

Randy Calkins, Project Manager, WVAML Design - Thirty One (31) Completed Projects; Numerous Mine Reclamation Engineering Projects:

WVAML – *Completed Designs* – 1. Hampton Number Four Maintenance; 2. Howesville Sites; 3. Sandy Run Highway and Portals; 4. Wilsie Rosedale Waterline Feasibility Study, I.D. 324; 5. Laurel Valley (Daniels) Landslide; 6. Price Hill Airshaft/Buildings; 7. Weaver Portals and Highway Phase I; 8. Weaver Portals and Highway Phase II; 9. Nixon Run AMD; 10. Fairmont (Hendrickson) Subsidence; 11. Tunnelton (Dillsworth) Landslide; 12. Arlington (Cox) Drainage; 13. Sauls Run Strip and Landslide; 14. Taylor Waterline Extension Feasibility Study-I.D. No. 309; 15. Poplar Ridge Waterline Feasibility Study-I.D. No. 298; 16. Summit Park Waterline Feasibility Study-I.D. No. 288; 17. Hodgesville PSD Waterline Extension-I.D. No. 275; 18. McElwain Waterline Feasibility Study-I.D. No. 271; 19. Old Bridgeport Hill Mine Drainage, Phase II; 20. Adaland Tipple and Refuse; 21. Bismark Strip Drainage and Refuse; 22. Brownston School Refuse; 23. Burdock Highway; 24. Clarksburg (Ryder Avenue) Drainage; 25. Connors Highway; 26. Francis Drainage and Refuse; 27. Muddy Creek Tipple Complex; 28. Pringle Drainage; 29. Superior Hydraulics; 30. Thomas (Euclid Avenue) Subsidence; 31. Zebs Creek Highway.



Installation of retaining wall designed to provide slope stability.

DANEHART ACID MINE DRAINAGE RECLAMATION PROJECT

Near York, Belmont County, OH

12.

Is your firm experienced in hydrology and hydraulics?

X

Yes

No

Description and Number of Projects: Numerous Projects Involving H & H Studies for Flood Plain Improvements, Impoundments, Road Bridges, Pipes, Culverts, Box Culverts, Ditches, Channels, and Channel Relocations and Restoration using Natural Stream Design Techniques.

CORPORATE EXPERIENCE:

AML – Weaver Portals and Highwall Phase I & II; Flint Run East Acid Mine Drainage Reclamation; Murray City AMD and Art Project; Flint Run Acid Mine Drainage Reclamation; Lake Milton Investigation. **SPEC REC** – Gladly Fork Mining, Permit D-35-82, **NPDES and Waste Permits (Sediment Control Structures)** – C.J. Martin Enterprises; A.F. Wendling Inc.; Pope Properties; Deer Park Development; Fairfax Trucking (Corridor H); Mountaineer Grading (Upper Tract to Petersburg Road); Allwood Construction (Philippi Bypass); Odom Construction Job 123 (4 Waste Permits); Odom Construction Job 125 (1 Waste Permit); C.J. Martin Enterprises Waste Permit; Mountaineer Grading (Moorefield Junction Road). **WVCA** – Fisher-Mill Creek Bank Stabilization, Laurel Lake Sediment Removal, Kraut Creek H&H Investigation, Harmons Creek Bank Stabilization, Parchment Valley Bank Stabilization, North Fork Hughes River Bank Stabilization, Spencer Flood Plain Improvement Study, Logan County Flood Plain Improvement Project.

SPEC REC – Gladly Fork Mining, Permit D-35-82, **Others** - Route 35 (Mason County); Mile Branch Bridge; Upper Tract bridge; Buffalo Creek Bridge; Sawmill Parkway Pedestrian Crossing; Southwest Dublin Traffic Calming; LAW-7-02.17; LIC-40-44-930; FRA-70-13-12; FRA-315-00.30R; SHE-CR-41-3.14; PER-93-33.26B; MEG-143-11.29; Children's Home Road Bridge; PIC/FRA-23-12.92/0.00; CR 23 over Elk Fork; HIG-138-24.36; Ranger Road over Georges Creek; CR24A over the Hocking River; CR24 over the Hocking River; HIG-28-2.80; PER-93-12.40; GUE-209-5.73; CR 41 over the Miami River; I670(S) over Conrail; B&O and N&W Railroads; 4th Street Connector over Conrail and B&O Railroads; I670 over Alum Creek; I670 over 5th Street.

AML – Laurel Valley (Daniels) Landslide; Price Hill Airshaft/Buildings; Weaver Portals and Highwall Phase I & II; Nixon Run AMD; Tunnelton (Dillsworth) Landslide; Arlington (Cox) Drainage; Sauls Run Strip and Landslide; Old Bridgeport Hill Mine Drainage, Phase II; Flint Run East Acid Mine Drainage Reclamation; Murray City AMD and Art; Flint Run Acid Mine Drainage Reclamation; Danehart Acid Mine Drainage; Nutters Tipple D-716; Lake Milton Investigation. **SPEC REC** – Gladly Fork Mining, Permit D-35-82. **Road Design** – U.S. Route 35; Lawrence Route 7; Corridor H, Section 6 Davis to Bismark; Williams Road Widening; Journal Street Extension; Frantz Road; Maxtown Road; Alum Creek Drive.

404, 401 Certification and **Natural Stream Design** of over 72,000 lineal feet of streams; Oxford Mining Company – New Lexington North Mine, Adamsville Mine; Sands Hill Coal Company – Pearce Mine, Mead/Coffin Mine, Circle Drive Mine, 300 Pit Mine, Big Valley Mine; Waterloo Coal Company, Inc – Winchester Mine, Westlake Mine, Mead/Simm Mine, Allied Wets Mine; U.S. Rte. 35 600 linear feet. **WVCA** – Fisher-Mill Creek Bank Stabilization, Laurel Lake Sediment Removal; Kraut Creek H&H Investigation, Harmons Creek Bank Stabilization, Parchment Valley Bank Stabilization, North Fork Hughes River Bank Stabilization, Spencer Flood Plain Improvement Study, Logan County Flood Plain Improvement Project.

AML, MINE RECLAMATION ENGINEERING EMPLOYEE EXPERIENCE:

Randy Calkins, Project Manager, WVAML Design - Twenty Six (26) Completed Projects – Three (3) Preliminary Design Projects; Mine Reclamation Eng.:

WVAML – *Completed Designs* - 1. Adaland Tipple and Refuse; 2. Bismark Strip Drainage and Refuse; 3. Brownston School Refuse; 4. Burdock Highwall; 5. Clarksburg (Ryder Avenue) Drainage; 6. Connors Highway; 7. Francis Drainage and Refuse; 8. Muddy Creek Tipple Complex; 9. Pringle Drainage; 10. Superior Hydraulics; 11. Thomas (Euclid Avenue) Subsidence; 12. Zebs Creek Highway. **Mine Reclamation Engineering** – Surface Mine Applications (WV – S.O.A.P. Applications) – S.O.A.P. Numbers 201, 205, 206, 208, 209, 210, 211, 212, 213, 214, 216, 217, 221, 230, 233, 236, 238, 247, 249, 250, 251, 260, 267, 268, and 273. Deep Mine Applications (WV – S.O.A.P. Applications) S.O.A.P. Numbers 202, 207, 239, 241, 257, and 271

H & H Studies
for Pipes,
Culverts, Box
Culverts



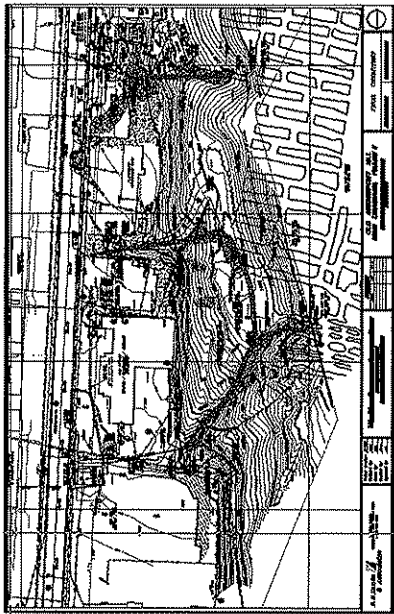
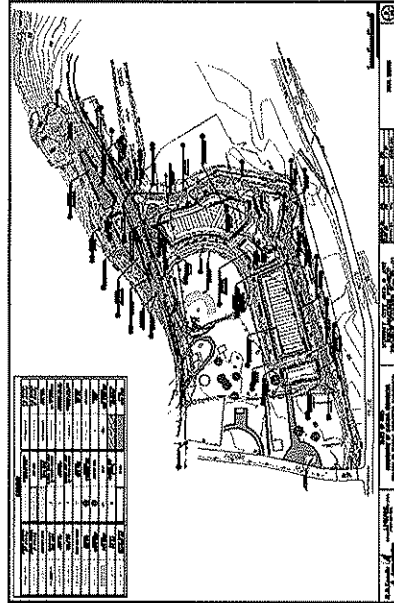
Fabri-form Ditch.

BURDOCK HIGHWALL
Near Elk Garden,
Grant County, WV



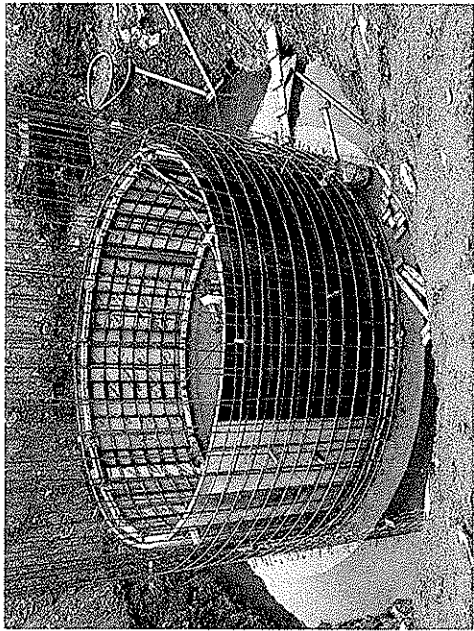
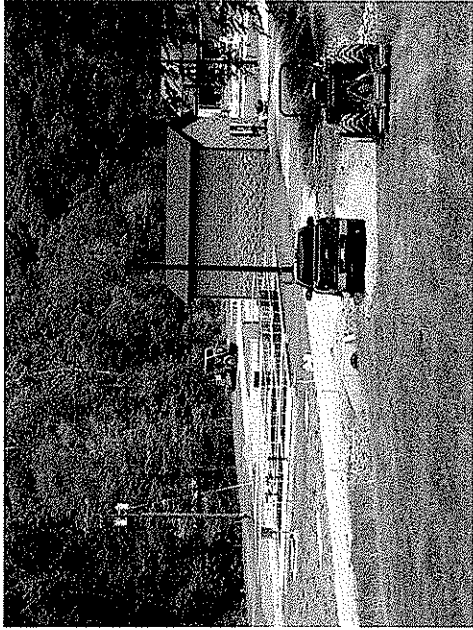
Rock riprap channel.

NUTTERS TIPPLE, D-716
Near New Statesville,
Perry County, OH

12.		Does your firm produce its own Aerial Photography and De Description and Number of Projects: Numerous Projects Developing Contour Mapping from Conventional and GPS Surveying. Aerial Photography and Associated Mapping Subcontracted to Aerocon Photogrammetric Services.		Contour Mapping? Yes No		
		X X				
Contour Mapping from GPS and Conventional Surveying Techniques		CORPORATE EXPERIENCE: AML - Hampton Number Four Maintenance; Howesville Sites; Sandy Run Highway and Portals; Laurel Valley (Daniels) Landslide; Price Hill Airshaft/Buildings; Weaver Portals and Highway, Phase I & II; Nixon Run AMD; Tunnelton (Dillsworth) Landslide; Arlington (Cox) Drainage; Sauls Run Strip and Landslide; Fairmont (Hendrickson) Subsidence; Old Bridgeport Hill Mine Drainage, Phase II; Flint Run East Acid Mine Drainage Reclamation; Murray City AMD and Art Project; Flint Run Acid Mine Drainage Reclamation; Danehart Acid Mine Drainage; Nutters Tipple D-716; Lake Milton Investigation; Midvale Coal Number 7; Linden Acid Mine Drainage Bioremediation; Glen Castle Reclamation; Misco Burning Gob; Ferris Forfeiture; Brown Subsidence. SPEC REC - Gladly Fork Mining, Permit D-35-82. WVCA - Fisher-Mill Creek Bank Stabilization, Laurel Lake Sediment Removal, Kraut Creek H&H Investigation, Harmons Creek Bank Stabilization, Parchment Valley Bank Stabilization, North Fork Hughes River Bank Stabilization, Spencer Flood Plain Improvement Study, Logan County Flood Plain Improvement Project. NPDES and Waste Permits - C.J. Martin Enterprises; A.F. Wendling Inc.; Pope Properties; Deer Park Development; Fairfax Trucking (Corridor H); Mountaineer Grading (Upper Tract to Petersburg Road); Allwood Construction (Philippi Bypass); Odom Construction Job 123 (4 Waste Permits); Odom Construction Job 125 (1 Waste Permit); C.J. Martin Enterprises Waste Permit; Mountaineer Grading (Moorefield Junction Road). Others - Glenville Federal Prison Pistol Range; BBL Carlton State Office Consolidation Complex Site; West Virginia Wesleyan College Site; Unlimited Futures Site; Dollar Tree Site; Jim Waggle Site; John Jenkins Site. AML, MINE RECLAMATION ENGINEERING EMPLOYEE EXPERIENCE: <i>Randy Calkins, Project Manager, WVAML Design - twenty six (26) Completed Projects - Three (3) Preliminary Design Projects, Mine Reclamation Engineering:</i> WVAML - Completed Designs - 1. Adaland Tipple and Refuse; 2. Bismark Strip Drainage and Refuse; 3. Brownnton School Refuse; 4. Burdock Highway; 5. Clarksburg (Ryder Avenue) Drainage; 6. Connors Highway; 7. Francis Drainage and Refuse; 8. Muddy Creek Tipple Complex; 9. Pringle Drainage; 10. Superior Hydraulics; 11. Thomas (Euclid Avenue) Subsidence; 12. Zebs Creek Highway. <i>Preliminary Designs:</i> 1. Amigo Smokeless Refuse; 2. Austin Highway; 3. Slab Fork Mine Dump. Mine Reclamation Engineering - Surface Mine Applications (WV - S.O.A.P. Applications) - S.O.A.P. Numbers 201, 205, 206, 208, 209, 210, 211, 212, 213, 214, 216, 217, 221, 230, 233, 236, 238, 247, 249, 250, 251, 260, 267, 268, and 273. Deep Mine Applications (WV - S.O.A.P. Applications) S.O.A.P. Numbers 202, 207, 239, 241, 257, and 271. <i>Dennis Miller, Survey Manager, Twenty-One (21) Projects:</i> WVAML - 1. Adaland Tipple and Refuse; 2. Barkers Ridge Highway; 3. Bismark Strip Drainage and Refuse; 4. Bridge Run; 5. Brownnton School Refuse; 6. Camp Run; 7. Connors Highway; 8. Dawmont AML; 9. Francis Drainage and Refuse; 10. Muddy Creek Tipple Complex; 11. Pine Bluff Tipple Site; 12. Philip Thorn Highway; 13. Rainelle AML; 14. SCS Reclamation; 15. Shegon Refuse Pile; 16. Shoemaker Landslide; 17. Superior Hydraulics; 18. Taylor Creek Impoundment; 19. Taylor Creek Tipple Complex; 20. Tibbs Run Portal; 21. Masontown No. 4 AML				
Contour Mapping from GPS and Conventional Surveying Techniques		 Mapping generated from conventional surveying OLD BRIDGEPORT HILL MINE DRAINAGE Near Bridgeport, Harrison County, WV	 Mapping generated from conventional and GPS survey techniques. MURRAY CITY AMD AND ART PROJECT Near Murray City, Hocking County, OH			

12.	X No es No	Is your firm experienced in domestic waterline experience? (If you include experience your firm has in evaluation of aquifer degradation as a result of mining.) Description and Number of Projects: Numerous Domestic Waterline Experience Projects and Projects with Evaluation of Aquifers.
CORPORATE EXPERIENCE:		
Waterline Extension Feasibility Studies	AML – 1. Wilsie-Rosedale Waterline Extension Feasibility Study – I.D. No. 324; 2. James and Amanda Taylor Waterline Extension Feasibility Study – I.D. No. 309; 3. Poplar Ridge/Morrison Ridge Waterline Feasibility Study – I.D. No. 298; 4. Summit Park PSD Waterline Extension Feasibility Study – I.D. No. 288; 5. Hodgesville PSD Waterline Extension Feasibility Study – I.D. No. 275; 6. Charles L. and Donice J. McElwain Waterline Feasibility Study – I.D. No. 271. SPEC REC – Gladly Fork Mining, Permit D-35-82.	
Aquifer Degradation Investigation	AML (Mining Related) – Weaver Portals and Highway; Flint Run Acid Mine Drainage Reclamation; Lake Milton Investigation; Danehart Acid Mine Drainage; Other – Remining in Ohio: Hydrologic Background Sampling Options; New Wellfield Development, Village of Frazeyburg; Wellfield Expansion, Village of Commercial Point; Groundwater Observation Well Network Evaluation and Improvements Statewide; Installation of Monitoring Wells, Columbus South Wellfield Improvements: RI/FS, Eau Claire Municipal Well Field.	
Domestic Waterline Experience	Private - Pope Properties Cross Lanes; Odom Construction Corridor H Job 123. Public – Southwest Bloom Township Water Line Improvements; Alum Creek Pump Station; Lithopolis Water Treatment Plant; Kenton Water Treatment Plant; Frazeyburg Water Treatment Plant; Cedar Hill Road Waterline Study; Logan Water System Modeling; James Road Waterline; Dublin Road Waterline; Seeds-Zuber Road Waterline Extension; Young Road Waterline Extension; McKinley Avenue 48" Water Main Design; Madeira-Riverside Drive Waterline; U.S. Route 33 Water System Improvements-12" Waterline Extension; West Logan Lift Station Upgrade; Zahn's Corner Industrial Park Water System Improvements; Elevated Water Storage Tanks for various municipalities	
EMPLOYEE EXPERIENCE:		
Domestic Waterline Experience	James Hollen, Waterline Design Project Engineer, Numerous Projects: Southwest Bloom Township Water Line Improvements; Elkins Road PSD, Upshur County, WV; Water System Upgrade, Upshur County Airport, WV; Water System Upgrade, Philippi, WV; Water System Upgrade, Clay County, WV; Water System Upgrade, Ivydale and Clay, WV; Water System Upgrade, Belington, WV; Water System Upgrade, Thomas, WV; Water storage Facility, WV American Water Co., Gassaway, WV; Reservoir Replacement, Davis, WV; Water System Upgrade, Davis, WV; Water and Wastewater System Upgrade, Petersburg, WV	
Waterline distribution system design. SOUTH BLOOM TOWNSHIP WATERLINE EXTENSION Near South Bloom, Fairfield County, OH		

12.	Is your firm experienced in Acid Mine Drainage Evaluation ?		Abatement Design?
	Yes	No	
	☒	☐	
Description and Number of Projects: Corporate Experience – Three (3) WVDEP AML Projects, Six (6) Ohio AML Projects; One (1) Ohio Watershed Organization – Employee Experience – Three (3) WVAML Projects – Thirteen (13) Bond Forfeiture Projects.			
CORPORATE EXPERIENCE:			
1. <i>Glady Fork Mining, Inc. (Permit D-35-82) Bond Forfeiture</i>	Active AMD Treatment Facility – Involved the design of a \$3,000,000.00 AMD plant design that incorporated a single treatment train capable of handling 1,000 gallons per minute of alkaline mine drainage with 15 ppm of total iron and included necessary piping and seating for a second treatment train if future needs arise. The project also involved relining existing boreholes to eliminate mine discharge interruptions, design and construction of 2,500 linear feet of gravity fed plant intake line from the boreholes to the plant site, and an active chemical treatment plant. The treatment plant included an aeration basin (concrete), flocculator (concrete), chemical feed building, settling basin (concrete), sludge thickener (concrete), and geo-tube sludge disposal system with overflow catchment and re-treatment capabilities. Treated water limits are 0.50 ppm iron average, 0.75 ppm iron maximum.		
2,3. <i>Weaver Portals and Highwall, Phase I & II:</i>	WVDEP AML – Twenty (20) collapsed portals contribute approximately 95 gpm of pH 3.2, 200 mg/l acidity, 10 mg/l iron, 20 mg/l aluminum, and 2 mg/l manganese to Beaver Creek. Designed passive acid mine drainage treatment systems consisting of Open Limestone Channels and six (6) Limestone Beds with engineered “Aluminator” piping systems. The project also included 97,000 Yards Earthwork, 20 Wet Mine Seals, 25 Ditches, 10 Pipes, Sediment Control Plan, and 35 acre Revegetation Plan. Construction Plans and Specifications; Engineers Cost Estimate, Bid Schedule, and Calculation Brief; Initial On-Site, Preliminary Design, Pre-Bid, and Pre-Construction Meetings; Monthly Reports and Invoicing.		
4. <i>Nixon Run AMD, Old Bridgeport Hill, and Arlington (Cox) Drainage</i>	WVDEP AML – Designed Mine Dewatering and AMD Discharge Treatment Plans.		
5. <i>Flint Run East Acid Mine Drainage Reclamation:</i>	Ohio AML – Phase I – Designed passive acid mine drainage treatment system for “worst” acid mine drainage in the State of Ohio. Water Quality was pH 3.0, acidity from 1,600 to 6,000 mg/l, iron from 200 to 600 mg/l, aluminum from 30 to 250 mg/l, and manganese from 5 to 55 mg/l. Designs include Open Limestone Channels; Sediment Pond, SAPS Pond, Wetland, Horizontal Limestone Bed, Fresh Water Pond, Steel Slag Leach Bed, and three (3) Flush Ponds; up-gradient diversion of ground water around refuse fills; cover high infiltration areas, alkaline amendment for coal refuse cover and vegetation; sediment control design; vegetation design; environmental permits; Construction Plans and Specifications; Calculation Brief with Quantity Calculations; Engineers Cost Estimate; Initial On-Site, 50%, 90%, Check Set, and Final Design Meetings; monthly reports and invoicing.		
6. <i>Flint Run Acid Mine Drainage Reclamation:</i>	Ohio AML – Report and Investigation with cost/benefit analysis to mitigate “worst” acid mine drainage in Ohio. Project included two (2) month hydrologic investigation; impounded water and sediment investigation; chemical treatment (AquaFix or hydrated lime) for AMD discharges; passive treatment options for AMD discharges: eliminating AMD discharge sites by backfilling operations; reducing AMD flows by diverting up-gradient ground waters; cover high infiltration areas; alkaline amendment for coal refuse cover and to support vegetation; open limestone channels; steel slag leach beds; aerobic wetlands; limestone filter beds; limestone polishing leach bed; open limestone drainage ditches and channels; and vegetation plan.		
7. <i>Danehart Acid Mine Drainage Reclamation:</i>	Ohio AML – Acid mine drainage caused a failed slope in close proximity to Danehart residence. Design included earthwork mass balance, 75 foot long by 10 foot high pier and lag retaining wall design; subsurface drain to treat AMD; ditch and channel design; and vegetation plan.		
8. <i>Lake Milton Investigation:</i>	Ohio AML – 220 Ac.Ft. Impoundment Investigation to mitigate embankment “piping” leak. Impounded water is lightly buffered AMD that required design of SAPS to mitigate impounded and discharged waters. Design included “pump and treat” and “gravity discharge and treat” options while repairing embankment and constructing SAPS. After repair, discharged waters were used to drive steel slag leach bed for additional alkaline addition to the watershed.		
9. <i>Nutters Tipple D-716:</i>	Ohio AML – Alkaline amendment for coal refuse cover and vegetation; encapsulation of coal refuse by subsurface drains and surface diversions to reduce water contact and reaction with coal refuse and eliminate generation of AMD.		
10. <i>Linden AMD Bioremediation:</i>	Ohio AML – Developed mapping for design of AMD treatment systems.		

12.	F. (Cont.)	Is your firm experienced in Acid Mine Drainage Evaluation and Abatement Design? Description and Number of Projects: Corporate Experience – Three (3) WVDEP AML Projects, Six (6) Ohio AML Projects, One (1) Ohio Watershed Organization – Employee Experience – Three (3) WVAML Projects – Thirteen (13) Bond Forfeiture Projects.
	Yes	
	No	
11. <i>Murray City AMD and Art Project:</i>		Monday Creek Restoration Watershed Group – Geologic and hydrologic and hydraulic investigation to seat AMD passive treatment systems within and next to a floodplain. Water Quality was pH 2.8, acidity 608 mg/l, iron 106 mg/l, aluminum 47 mg/l, manganese 7 mg/l, and flow of 163 gpm. Design, construction plans, specifications, operating manuals for the Murray City AMD and Art Project including Wet Mine Seals, a Mine Pool Stabilization Pond, Overflow Treatment Pond, two stage SAPS Pond or Vertical Flow Wetland, two Precipitate Ponds, and a Flush Pond to passively treat AMD from two nearby deep mine portals, site drainage ditches and channels, cut/fill grading design, vegetation plan, environmental permits; Construction Plans and Specifications; Calculation Brief with Quantity Calculations; Engineers Cost Estimate; On-Site, 50%, 90%, Check Set, and Final Design Meetings; monthly reports and invoicing. EMPLOYEE EXPERIENCE: <i>Randy Calkins, Project Manager, WVAML Design - Twenty (22) Completed Projects</i> WVAML – Completed Designs – 1. Bismark Strip Drainage and Refuse; 2. Francis Drainage and Refuse; 3. Muddy Creek Tipple Complex; 4. Zebs Creek Highway; SPEC REC - 438 Bond Forfeiture Sites; Aerobic Wetland Design: S. Kelly Industries, Allison Engineering, Phase I, Z & F Development Company, Peter Rosati complaint, Kodiak Land Company, Greendale Coal Company, Claytex Coal Company, Kittle Flats, and Pierce Coal and Construction. Anaerobic Wetland Design: Pierce Coal and Construction, Z & F Development Company, Keister Coal Company, and Lobo Capitol, Inc. Anoxic Limestone Drain: Z & F Development Company, Lobo Capitol, Inc., Kittle Flats, Pierce Coal and Construction, and Greendale Coal Company
		
SPEC REC: Gladly Fork Mining, Permit D-35-82 Bond Forfeiture Sludge Thickener for alkaline mine drainage active chemical treatment facility. Along Stonecoal Creek near Buckhannon West Virginia.		SPEC REC: Gladly Fork Mining, Permit D-35-82 Bond Forfeiture alkaline mine drainage active chemical treatment facility. Along Stonecoal Creek near Buckhannon West Virginia.

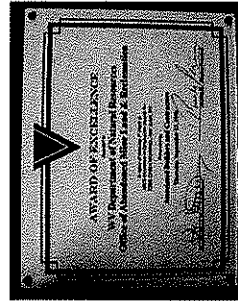
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES	RESPONSIBLE FOR AML DESIGN (Furnish complete data but keep tentative)		
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Linder, Gregory, P.E. Buckhannon, WV Office	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	
	4	9	0
Brief Explanation of Responsibilities: TEAM ONE LEADER - Project Engineer and Signatory - expression of interest response, Project scope of work document and associated engineering cost estimate, invoicing, and monthly progress reports. Designer - MicroStation, AutoCAD, SurvCAD, and Haestads Operator. Specification Writer, Calculation Brief, Bid Estimate, Microsoft Word and Excel Operator. WV AML Experience: Howesville Sites; Sandy run Highway and Portals; Laurel Valley (Daniels) Landslide; Price Hill Airshaft/Buildings; Weaver Portals and Highway, Phase I and II; Nixon Run AMD; Tunnelton (Dillsworth) Landslide; Sauls Run Strip and Landslide; SPEC REC: Gladys Fork Mining, Permit D-35-82; WVCA: Fisher-Mill Creek Bank Stabilization, Laurel Lake Sediment Removal, Kraut Creek H&H Investigation, Harmons Creek Bank Stabilization, Parchment Valley Bank Stabilization, North Fork Hughes River Bank Stabilization, Spencer Flood Plain Improvement Study, Logan County Flood Plain Improvement Project. EOI Experience: Mr. Linder has been involved with the engineering design involving channel restoration, geotechnical analysis, site reclamation, and utility relocation of over 24 bridges, including highway, railway, and pedestrian bridges. Mr. Linder is also experienced with environmental studies including endangered bat studies, watershed management plans, and environmental assessments. Mr. Linder's projects include: U.S. Route 35 Couch to Coast Guard Station; Corridor H, Section 6 Davis to Bismark; North Shore Connector, Allegheny County, PA; Headsville Bridge Replacement, Mineral Co., WV; NJ Route 18 Extension; S.R. 836 Extension, Miami-Dade County, FL; Bridge Design Group B, Allegheny Co., PA; Sharon Heights Connector, Mingo Co., WV; PA Route 28 Galleria Mall Interchange; Bridge Design Group H, Allegheny Co., PA; Star City Bridge, Monongalia Co., WV; S.R. 0022 over Stoney Run, Westmoreland Co., PA; S.R. 0309 over Church Road, Montgomery Co., PA; S.R. 0056 over Stony Creek, Cambria Co., PA; Rail Rehabilitation Akron and Canton, OH; Cranberry Interchange, Butler Co., PA; Mon/Fayette Expressway, Washington Co., PA; U.S. Route 33, Hocking and Athens Co., OH. Related EOI Experience: Environmental projects include: Enterprise/Interstate 79 Connector Environmental Assessment, including Indiana Bat survey and assessment; Southern Beltway, Allegheny and Washington Co., PA. Short-eared Owl observation; Meldahis Undercut, Wood Co., WV. Soil contamination survey; C&O Flats, Staunton, VA. Propane tank and railroad tie removal; Nelsonville Bat Survey, Nelsonville, OH; North Fork Watershed Management Plan, Pendleton and Grant Cos., WV. Water resources, forest management, wetland documentation, sedimentation and flood prevention; Deegan Lake Dam and Hinkle Lake Dam, Harrison Co., WV. Environmental permit work for dam rehabilitation.			
Education (Degree, Year, Specialization): Fairmont State College, B.S. Biology West Virginia University, B.S. Civil Engineering Level One Natural Stream Design, August 2002 Level Two Natural Stream Design, May 2003 Level Three Natural Stream Design, June 2003 Level Four Natural Stream Design, July 2003			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS: American Society of Highway Engineers, Vice-President, North Central WV Chapter			
Registration (Type, Year, State): Registered Professional Engineer, 2003, West Virginia Registered Professional Engineer, 2006, Pennsylvania Registered Professional Engineer, 2006, Kentucky			

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATE		RESPONSIBLE FOR AML DESIGN (Furnish complete data but keep track of initials)	
NAME & TITLE (Last, First, Middle Init.)		YEARS OF EXPERIENCE	
Thornton, William S., P.E. Charleston, WV Office		YEARS OF AML DESIGN EXPERIENCE: 1	YEARS OF AML RELATED DESIGN EXPERIENCE: 15 YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 15
Brief Explanation of Responsibilities: TEAM TWO LEADER - Project Engineer and Signatory - expression of interest response, Project scope of work document and associated engineering cost estimate, invoicing, and monthly progress reports. Designer -- AutoCAD, SurvCAD, and Haestads Operator. Specification Writer, Calculation Brief, Bid Estimate, Microsoft Word and Excel Operator.			
WV AML Experience: Hampton Number four maintenance; Price Hill Airshaft/Buildings.			
Related AML Design: U.S. Route 35 Couch to Coast Guard Station; City of Montgomery Sidewalk Replacement, I-77 Camden Interchange to Staunton Avenue Interchange, Corridor H Section 7, I-79 Bridgeport to Meadowbrook Road, Corridor H Section 12 and Section 01, ODOT-Ashtabula Grade Separation, ODOT-MIA-75, U.S. Route 52 Kermit Bypass, U.S. Route 19 Corridor L Upgrade Muddely, Meadowbrook Road, WVDOH Engineering Services (On Call), Raleigh County Airport, Yeager Airport, Ripley Town Bridge Replacement, I-64 Cross Lanes Ramp B Expansion, Mon-Fayette Expressway, Marmet Pony Truss Bridge Replacement,			
Education (Degree, Year, Specialization): B.S., 1989, Civil Engineering			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS: American Society of Civil Engineers WV Section Past President Charleston Branch Past President American Council of Engineering Companies of WV Transportation Committee Plan Presentation Sub-committee Technical Publications Sub-committee Appointments: Sanitary Board City of Montgomery Montgomery City Engineer Advisory Board Community and Technical College, WVU Institute of Technology		Registration (Type, Year, State): Professional Engineer: 1994 West Virginia #12364 2000 Ohio #E-65227 2001 Virginia #35591 Professional Surveyor: 1996 West Virginia #1642	

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES	RESPONSIBLE FOR AML DESIGN (Furnish complete data but keep essentials)		
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
Hollen, III, James S., P.E. Buckhannon, WV Office	YEARS OF AML DESIGN EXPERIENCE: 4	YEARS OF AML RELATED DESIGN EXPERIENCE: 14	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 15
Brief Explanation of Responsibilities: TEAM THREE LEADER - Project Engineer and Signatory - expression of interest response, Project scope of work document and associated engineering cost estimate, invoicing, and monthly progress reports. Designer - MicroStation, AutoCAD, SurvCAD, and Haestads Operator. Specification Writer, Calculation Brief, Bid Estimate, Microsoft Word and Excel Operator. WV AML experience: Wilsie-Rosedale Waterline Extension Feasibility Study - I.D. No. 324; Old Bridgeport Hill Mine Drainage, Phase I and Phase II; Flint Run East Acid Mine Drainage Reclamation Project; Nixon Run AMD, James and Amanda Taylor Waterline Feasibility Study; Poplar Ridge/Morrison Ridge Waterline Extension Feasibility Study - I.D. No. 298; Summit Park Waterline Extension Feasibility Study - I.D. No. 288; Hodgesville Waterline Extension Feasibility Study (I.D. No. 275); Charles and Donice McElwain Waterline Extension feasibility Study (I.D. No. 271) Related AML Design: Southwest Bloom Township Water Line Improvements; Pope Properties Cross Lanes; Odom Construction Corridor H Job 123; Elkins Road PSD, Upshur County, WV; Water System Upgrade, Upshur County Airport, WV; Water System Upgrade, Philippi, WV; Water System Upgrade, Clay County, WV; Water System Upgrade, Ivydale and Clay, WV; Water System Upgrade, Belington, WV; Water System Upgrade, Thomas, WV; Water Storage Facility, WV American Water Co., Gassaway, WV; Reservoir Replacement, Davis, WV; Water System Upgrade, Davis, WV; Water and Wastewater System Upgrade, Petersburg, WV; West Virginia State College - Institute, WV - Economic Assessment of an Anaerobic Digester Pilot Plant. Deer Creek Development - Buckhannon, WV - NPDES permit for a new housing development. Consolidated State Office Building - Huntington, WV - Site Design, Preparation of contract documents, and the preparation of the NPDES permit for this new state office building. Pope Properties - Cross Lanes, WV - design of both water distribution system and sanitary sewer collection system, preparation of contract documents, and the preparation of the NPDES permit for this apartment complex system.			
Education (Degree, Year, Specialization): B.S., 2000, Civil Engineering Technology; B.S., 1991, Architectural Engineering Technology			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS: Sanitary Sewer Board Member for the City of Buckhannon, West Virginia		Registration (Type, Year, State): E.I., 2002, West Virginia P.E., 2008, West Virginia No. 17727	

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES (Furnish complete data but keep to essence)	
NAME & TITLE (Last, First, Middle Initial)	
Parsons, Herbert L. III., P.E. Buckhannon, WV Office	
YEARS OF AML DESIGN EXPERIENCE: 0	
YEARS OF AML RELATED DESIGN EXPERIENCE: 14	
YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 0	
Brief Explanation of Responsibilities: Staff Engineer and Signatory – Hydrology, Site Design. Designer – AutoCAD, SurvCAD, and Haestads Operator. Specification Writer, Calculation Brief, Bid Estimate, Microsoft Word and Excel Operator. Related AML Design: Floodplain Management Studies – Lawson Drainage, Morgantown, WV; Partridge Subdivision, Loudin County, Va. Site Design – Evergreen Meadows, Loudin County, Va.; Heiskell Car Wash, Henderson Property, Loudin County, Va.; Holly Meadows, Leesburg, Va. Roads – Raspberry Falls Route 1170 Street Design, Leesburg, Va.; Red Cedar Route 621 Improvements, Leesburg, Va.; RHRE Route 719 Frontage Improvements, Round Hill, Va. Other – Carmike Cinemas Site Plan, Morgantown, WV; St. John The Apostle Catholic church, Leesburg, Va.; Red Cedar Subdivision, Loudin County, Va.; Greenwood Commons Subdivision, Loudin County, Va.; Nestled Oak Subdivision, Morgantown, WV; Raspberry Falls Golf and Hunt Club, Loudin County, Va.; Elco Park Recreation Improvements, Arthurdale, WV; Ida Lee tennis center, Leesburg, Va.; Raspberry Falls Golf and Hunt Club Conference and Training Center, Loudin County, Va.; Holly Meadows Subdivision, Leesburg, Va.	
Education (Degree, Year, Specialization): B.S., 1994, Civil Engineering	
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:	
American Society of Civil Engineers Engineers and Surveyors Institute National Society of Professional Engineers West Virginia Society of Professional Surveyors	
Registration (Type, Year, State): P.E., 2002, West Virginia, 015279 P.E., 1998, Virginia, 033680 P.E., 2003, Pennsylvania, PE070521E P.S., 2002, West Virginia, 2895	

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML DESIGN (Furnish complete data but keep tentatives)	
NAME & TITLE (Last, First, Middle Int.)	
Calkins, Randolph M., P.S. Buckhannon, WV Office	
YEARS OF AML DESIGN EXPERIENCE:	YEARS OF RELATED DESIGN EXPERIENCE:
13	30
YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:	
0	
Brief Explanation of Responsibilities: CORPORATE AML MANAGER - Project Manager and Principal Designer - ALL FIELD AND OFFICE RELATED WORK, including expression of interest response, Project scope of work document and associated engineering cost estimate, invoicing, and monthly progress reports. Designer - AutoCAD, SurvCAD, and Haestads Operator. Specification Writer, Calculation Brief, Bid Estimate, Microsoft Word and Excel Operator. WVAML experience: PROJECTS COMPLETED - Hampton Number Four Maintenance; Howesville Sites, Sandy Run Highwall and Portals; Wilsie-Rosedale Waterline Extension Feasibility Study - I.D. No. 324; Laurel Valley (Daniels) Landslide; Price Hill Airshaft/Buildings; Weaver Portals and Highwall, Phase I and II; Old Bridgeport Hill Mine Drainage, Phase II; Nixon Run AMD; Arlington (Cox) Drainage; Fairmont (Hendrickson) Subsidence; Tunnelton (Dillsworth) Landslide; Sauls Run Strip and Landslide; Taylor Waterline Extension Feasibility Study-I.D. No. 309; Poplar Ridge Waterline Extension Feasibility Study-I.D. No. 298; Summit Park Waterline Extension Feasibility Study-I.D. No. 288; Hodgesville PSD Waterline Extension Feasibility Study-I.D. No. 275; McElwain Waterline Feasibility Study-I.D. No. 271; Adaland Tipple and Refuse; Bismark Strip Drainage and Refuse; Brownnton School Refuse; Burdook Highwall; Clarksburg (Ryder) Avenue Drainage; Conners Highwall; Francis Drainage and Refuse; Muddy Creek Tipple Complex; Pringle Drainage; Superior Hydraulics; Thomas (Euclid Avenue) Subsidence; Zebs Creek Highwall; PRELIMINARY DESIGN WORK - Amigo Smokeless Refuse; Austin Highwall; Slab Fork Mine Dump. Ohio AML Experience: Flint Run East Acid Mine Drainage Reclamation Project; Murray City AMD and Art Project; Danehart Acid Mine Drainage Reclamation; Ferris Forfeiture; Flint Run Acid Mine Drainage Reclamation; Glen Castle Reclamation; Lake Milton Investigation; Linden Acid Mine Drainage Bioremediation; Midvale Coal Number 7; Misco Burning Gob; Nutters Tipple D-716. Related AML Design: SPEC REC: Gladly Fork Mining Permit D-35-82; WVCA: Fisher-Mill Creek Bank Stabilization, Laurel Lake Sediment Removal, Harmons Creek Bank Stabilization, Parchment Valley Bank Stabilization, North Fork Hughes River Bank Stabilization; WV Small Operators Assistance Program (25 applications), Maryland Small Operators Assistance Program (1 application), WV Bond Forfeiture Program (438 sites), various waste permits for Corridor H (15 permits), Grafton Coal Company (12 years experience with surface and deep mines) Education (Degree, Year, Specialization): A.S. Surveying Technology, 1970, Surveying Level One Natural Stream Design, September 2002 Level Two Natural Stream Design, May 2003 401 / 404 Permit Training, WVDOH, January 2003	
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:	
Registration (Type, Year, State): Registered Professional Surveyor, 1979, West Virginia	



1998 Associated Builders and Contractors Award of Excellence for Zebs Creek Highwall AML Design.

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML DESIGN (Furnish complete data but keep track of initials)			
NAME & TITLE (Last, First, Middle Init.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Miller, Dennis E., P.S. Buckhannon, WV Office	8	9	0
Brief Explanation of Responsibilities: Survey Manager – ALL FIELD RELATED WORK, including field survey of topographic and planimetric project information. Generate or supplement mapping for the Project area. Designer - AutoCAD, SurvCAD, and Haestads Operator. Specification Writer, Calculation Brief, Bid Estimate, Microsoft Word and Excel Operator. WV AML Experience: Hampton Number Four Maintenance; Howesville Sites, Sandy Run Highwall and Portals; Laurel Valley (Daniels) Landslide; Price Hill Airshaft/buildings; Weaver Portals and Highwall, Phase I and II; Old Bridgeport Hill Mine Drainage, Phase II; Nixon Run AMD; Arlington (Cox) Drainage; Fairmont (Hendrickson) Subsidence; Tunnelton (Dillsworth) Landslide; Sauls Run Strip and Landslide; Adaland Tipple and Refuse; Bismark Strip Drainage and Refuse; Brownnton School Refuse; Burdock Highwall; Clarksburg (Ryder) Avenue Drainage; Conners Highwall; Francis Drainage and Refuse; Muddy Creek Tipple Complex; Pringle Drainage; Superior Hydraulics; Thomas (Euclid Avenue) Subsidence; Zebs Creek Highwall; Bridge Run, Philip Thorn Highwall, Rainelle AML, SCS Reclamation, Shegon Refuse Pile, Taylor Creek Tipple Complex, Tibbs Run Portal, Masontown. Ohio AML Experience: Flint Run East Acid Mine Drainage Reclamation Project; Murray City AMD and Art Project; Danehart Acid Mine Drainage Reclamation; Ferris Forfeiture; Flint Run Acid Mine Drainage Reclamation; Glen Castle Reclamation; Lake Milton Investigation; Linden Acid Mine Drainage Bioremediation; Midvale Coal Number 7; Misco Burning Gob; Nutters Tipple D-716. Related AML Design: SPEC REC: Gladly Fork Mining Permit D-35-82; WVCA: Fisher-Mill Creek Bank Stabilization, Laurel Lake Sediment Removal, Kraut Creek H&H Investigation, Harmons Creek Bank Stabilization, Parchment Valley Bank Stabilization, North Fork Hughes River Bank Stabilization, Spencer Flood Plain Improvement Study, Logan County Flood Plain Improvement Project. WV Bond Forfeiture Program (438 sites), various waste permits for Corridor H (15 permits), Clarksburg U.S. Postal Facility, Grant Town Power Plant, U.S. Route 19 Bridge Layout, Salem Bridge Layout, Webster Bridge Layout, Corridor H (4 Sections), Project Impact Bench Marks, numerous property and topographic mapping projects.			
Education (Degree, Year, Specialization): A.S., 1989, Surveying			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS: West Virginia Contractor's Association West Virginia Association of Land Surveyors West Virginia Associated Builders Upshur County Chamber of Commerce		Registration (Type, Year, State): Registered Professional Surveyor, 1994, West Virginia	

13. PERS' L HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATE'		RESPONSIBLE FOR AML DESIGN (Furnish complete data but keep tc antials)	
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
Steele, Garland W., P.E., P.S. Charleston, WV Office		YEARS OF AML DESIGN EXPERIENCE: 8	YEARS OF AML RELATED DESIGN EXPERIENCE: 33
YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 5			
Brief Explanation of Responsibilities: Engineer of Record and Geotechnical Manger - Design and implement subsurface investigation work. In-field testing of physical properties of soil, rock, coal materials, and soil, rock, and coal samples for laboratory physical testing. Data entry and review slope stability analysis results, review physical testing laboratory results. WVAML experience: Hampton Number Four Maintenance; Price Hill Airshaft/Buildings; Weaver Portals and Highwall, Phase I and II; Fairmont (Hendrickson) Subsidence; Tunnelton (Drillsworth) Landslide; Arlington (Cox) Drainage; Sauls Run Strip and Landslide; Old Bridgeport Hill Mine Drainage, Phase II; Hodgesville Waterline Extension Feasibility Study (I.D. No. 275); Charles and Donice McElwain Waterline Feasibility Study (I.D. No. 271). As Director of the Materials Control and Soil and Testing Division of the WV Department of Highways, he coordinated several WVAML projects with WVDOH projects and goals. Related AML Design: Director, Materials Control, Soil and Testing Division (1965 - 1977), WV Department of Highways, For 12 years, Mr. Steele managed this Division which had six major sections - Structural Steel, Concrete, Bituminous, Soils, Aggregates, and Administrative. The Division was responsible for all physical and chemical materials testing performed by the Department as needed by the Department's Construction, Maintenance, Traffic, Design, and Geotechnical Units. At its peak, Mr. Steele supervised a staff of 275, which included approximately 250 technical and professional personnel. Mr. Steele has made significant contributions to many professional organizations (ASTM, AASHTO, and TRB) involved with developing materials criteria. SPEC REC: Gladly Fork Mining Permit D-35-82; WVCA: Fisher-Mill Creek Bank Stabilization, Laurel Lake Sediment Removal, Kraut Creek H&H Investigation, Harmons Creek Bank Stabilization, Parchment Valley Bank Stabilization, North Fork Hughes River Bank Stabilization, Spencer Flood Plain Improvement Study, Logan County Flood Plain Improvement Project.			
Education (Degree, Year, Specialization): B.A., 1956, Engineering			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS: Member, American Society for Testing and Materials (Board of Director (1992 - 1994), Committee on Standards (Past Chairman), Concrete and Concrete Aggregates (Past Chairman), Road and Paving Materials (Chairman 1982-1983) American Association of State Highway and Transportation Officials - Subcommittee on Materials (Past Vice-Chairman), Material Reference Laboratory Council (AMRL) (Past Chairman), Pipe, Culverts, Conduits, and Drains (Past Chairman) Member, American Concrete Institute Member, West Virginia Society of Professional Engineers Member, National Society of Professional Engineers Member, West Virginia Society of Civil Engineers Member, American Society of Civil Engineers			
Registration (Type, Year, State): Registered Professional Engineer, 1960, West Virginia Registered Professional Engineer, 1960, Virginia Licensed Professional Surveyor, 1999, West Virginia			

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES		RESPONSIBLE FOR AML DESIGN (Furnish complete data but keep tentative)	
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
		YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Tin, Mat B., P.E. Columbus, OH Office		0	26
Brief Explanation of Responsibilities: Principal and Technical Advisor – Regulatory requirements and permitting. Mr. Tin has over 26 years of experience in all facets of environmental programs and a demonstrated understanding of ever-changing regulations. He participates extensively on Ohio EPA's program and administrative task forces while maintaining close contact with all levels of staff in Director's and Program Offices, including all five (5) district offices. As Principal, Mr. Tin oversees all projects handled by the project managers in the Environmental Department. He takes the lead position on complex and high profile projects where alternative and innovative solutions are required. In addition, he has extensive experience in providing expert testimony in water and wastewater related cases for PTT's and NPDES permits including public hearings, Environmental Board of Review hearings, and court cases. Mr. Tin served the Ohio Environmental Protection Agency in the following positions: • Chief of the Division of Water Pollution Control • Coordinator of the Clean Water Act • Manager of the Public Wastewater Section • Chief of the Division of Construction Grants During his tenure as Chief of the Division of Water Pollution Control, he was responsible for the state's NPDES permits, compliance tracking, enforcement, pretreatment, operator certification, engineering plan review, federal construction grants, and state revolving loan fund programs. Mr. Tin also gained considerable experience in the formulation and implementation of public involvement programs as they pertain to civil works projects. In addition, he was appointed coordinator of the Clean Water Act for Ohio EPA's water programs and was Ohio's representative to the Technical Committee of the Ohio River Valley Sanitation Commission (ORSANCO). Mr. Tin finalized Ohio's standards for package treatment plants (Greenbook), Land Application of Sludge Manual, Compost Policy, and the state's Pretreatment Program. Mr. Tin also assisted the EPA Groundwater Division and the Division of Solid and Hazardous Waste during their establishment, and provided guidance for the development and implementation of both the rule-making process (policy-setting process) and the programs themselves.			
Education (Degree, Year, Specialization): B.S., Civil Engineering, The Ohio State University, 1973		Registration (Type, Year, State): Professional Engineer, Ohio (#43034)	
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS: • Water Environmental Federation • Ohio EPA-PAG • Surface Water Task Force • Infrastructure Task Force • American Water Works Association • National Society for Professional Engineers • Ohio Society for Professional Engineers • Petroleum Underground Storage Tank Release Compensation Board • Ohio Chamber of Commerce • Columbus Chamber of Commerce • OACE • Chairman, Environmental Committee • Eastern Vocational Schools • Chairman, Environmental Management Curriculum			

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES		RESPONSIBLE FOR AML DESIGN (Furnish complete data but keep first initials)	
NAME & TITLE (Last, First, Middle Init.)		YEARS OF EXPERIENCE	
Espy, John W., P.E. Columbus, OH Office		YEARS OF AML DESIGN EXPERIENCE: 2	YEARS OF AML RELATED DESIGN EXPERIENCE: 24
		YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 5	
Brief Explanation of Responsibilities: Hydrologist – Channel, Ditch, and Culvert design. Ohio AML Experience: Price Hill Complex; Murray City AMD and Art Project; Flint Run East Acid Mine Drainage Reclamation; Flint Run Acid Mine Drainage Reclamation; Lake Milton Investigation; Danehart Acid Mine Drainage Reclamation. Related AML Design: Mr. Espy designed and completed hydrologic and hydraulic calculations on several bridges including: Sawmill Parkway Pedestrian Crossing, Southwest Dublin Traffic Calming, LAW-7-02.17, LIC-40-44.930, FRA-70-13.12, FRA-315-00.30R, SHE-CR-41-3.14, FRA-12-2.94, PER-93-33.26B, MEG-143-13.77, MEG-143-11.76, MEG-143-11.29, Children's Home Road Bridge, PIC/FRA-23-12.92/0.00, CR 23 over Elk Fork, HIG-138-24.36, Rager Road over Georges Creek, COL-30-5.90, CR24A over the Hocking River, CR24 over the Hocking River, HIG-28-2.80, PER-93-12.40, GUE-209-5.73, CR 41 over the Miami River, I670(S) over Conrail, B&O and N&W Railroads, 4th Street Connector over Conrail and B&O Railroads, I670 over Alum Creek, I670 over 5th Street, 5th Street over Alum Creek, UNI-33-0041 L/R, UNI-33-0092, COS-206-0603, Southwest Licking Wastewater Treatment Plant, Frazeyburg Water Treatment Tank, Fisher District Water Tank, Wellington Estates Elevated Water Tank, Southwest Licking Wastewater Treatment Plant, Sanitary Sewer System Improvements, Columbus Zoo, 6 Million Gallon Water Treatment Plant			
Education (Degree, Year, Specialization):		M.S., 1976, Civil Engineering - B.S., 1970, Civil Engineering	
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:		Registration (Type, Year, State): Professional Engineer, 1977, Ohio	

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE			YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:		
Tonkery, Aaron P., E.I. Buckhannon, WV Office	5	5		0
Brief Explanation of Responsibilities: Staff Engineer – Develop and perform quantity calculations; Develop Hydrologic and Hydraulic design data; Water, soil, coal, and hazmat sampling; Technical report and calculation brief preparation; Develop data for engineers estimate. WV AML experience: Old Bridgeport Hill Mine Drainage; Hodgesville Waterline Feasibility Study (I.D. No. 275); Charles and Domic McElwain Waterline Feasibility Study (I.D. No. 271) Ohio AML Experience: Flint Run East Acid Mine Drainage Reclamation Project; Murray City AMD and Art Project; Danehart Acid Mine Drainage Reclamation, Flint Run Acid Mine Drainage Reclamation, Lake Milton Investigation, Nutters Tipple D-716. Related AML Design: SPEC REC: Gladys Fork Mining Permit D-35-82; WVCA: Fisher-Mill Creek Bank Stabilization, Laurel Lake Sediment Removal, Kraut Creek H&H Investigation, Harmons Creek Bank Stabilization, Parchment Valley Bank Stabilization, North Fork Hughes River Bank Stabilization, Spencer Flood Plain Improvement Study, Logan County Flood Plain Improvement Project. West Virginia State College – Institute, WV - Economic Assessment of an Anaerobic Digester Pilot Plant. Deer Creek Development – Buckhannon, WV - NPDES permit for this new housing development. Consolidated State Office Building – Huntington, WV - NPDES permit for this new state office building. Lease Offices of Bunker Hill – Bunker Hill, WV - sediment control plan for the office site. Pope Properties – Cross Lanes, WV - sanitary sewer for this apartment complex system. Port Columbus International Airport – Columbus, OH - proposed gravity sewer, allocated to existing and proposed facilities. Also assisted in the design of the pump required to meet the demands of the project				
Education (Degree, Year, Specialization): B.S., 2000, Civil Engineering Technology				
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:				
				Registration (Type, Year, State): E.I., 2003, West Virginia

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML DESIGN (Furnish complete data but keep essentials)			
NAME & TITLE (Last, First, Middle Init.) Ionnides, Gerry Columbus, OH Office	YEARS OF EXPERIENCE		
	<table border="1"> <tr> <td>YEARS OF AML DESIGN EXPERIENCE: 3</td> <td>YEARS OF AML RELATED DESIGN EXPERIENCE: 16</td> <td>YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 10</td> </tr> </table>	YEARS OF AML DESIGN EXPERIENCE: 3	YEARS OF AML RELATED DESIGN EXPERIENCE: 16
YEARS OF AML DESIGN EXPERIENCE: 3	YEARS OF AML RELATED DESIGN EXPERIENCE: 16	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 10	
Brief Explanation of Responsibilities: Laboratory Manager including organic and inorganic soil, rock, and water analysis. Ohio AML Experience: Flint Run East Acid Mine Drainage Reclamation Project; Murray City AMD and Art Project; Danehart Acid Mine Drainage Reclamation; Flint Run Acid Mine Drainage Reclamation; Lake Milton Investigation; Midvale Coal Number 7; Nutters Tipple D-716. WV AML experience: Old Bridgeport Hill Mine Drainage; Hodgesville Waterline Feasibility Study (I.D. No. 275); Charles and Donice McElwain Waterline Feasibility Study (I.D. No. 271). Related AML Design: Laboratory Chief of Ohio EPA, Interim Director Ohio EPA, Assistant Director Ohio EPA, Ohio EPA Division of Environmental Services Chief, Ohio EPA Environmental Manager IV, Environmental Scientist III, Chemist II and Environmental Scientist II			
Education (Degree, Year, Specialization): MBA, 1995, Business - M.S., 1975, Ohio State University - B.S., 1970, Ohio State University			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS: <table border="1"> <tr> <td></td> <td>Registration (Type, Year, State): N/A</td> </tr> </table>			Registration (Type, Year, State): N/A
	Registration (Type, Year, State): N/A		

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATE		RESPONSIBLE FOR AML DESIGN (Furnish complete data but keep track of initials)	
NAME & TITLE (Last, First, Middle Init.)		YEARS OF EXPERIENCE	
Schnell, Michael, P.E. Columbus, OH Office		YEARS OF AML DESIGN EXPERIENCE: 0	YEARS OF AML RELATED DESIGN EXPERIENCE: 13
YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 0			
Brief Explanation of Responsibilities: Design Engineer and Technical Advisor			
Related AML Design: Mr. Schnell has 13 years of experience in the field of environmental and mining engineering. He has an additional 12 years of highway and civil engineering design experience that encompasses roadways, drainage structured, waterlines, catch basins, etc. Mr. Schnell was extensively involved in all facets of coal mine operations and reclamation in the State of Kentucky. His reclamation duties involved the design and reclamation of surface and deep mines, which included the design of dams, large earth moving projects, surveying of underground mines, and dealing with several government agencies regulating the mining industries, including OSM, MSHA, AML, and KY DNR. He served as Chief Engineer for five coal companies in Southeastern Kentucky with one of his primary responsibilities being to ensure that each company complied with all applicable regulations. His project experience and responsibilities included the following: • Mine structures • Tipples • Processing (cleaning) plants • Deep and strip mine permits • In charge of all surveying • Underground surveys • Maintained mine maps • Dealing with all regulatory authorities • Using and writing industry-specific computer programs • Strip mines – largest was 500 acres. Mr. Schnell was responsible for all the reclamation design, sediment control ponds, hollow fills, mountaintop removals King Coal Company, Arjay KY: As Chief Engineer, Mr. Schnell coordinated all permitting and mapping activities associated with surface and underground coal mining operations. Design of Coal Mining Operations, Kentucky: As Associate Engineer, Mr. Schnell was extensively involved in all technical designs of surface and underground mining operations for various clients in Kentucky.			
Education (Degree, Year, Specialization):		A.S., 1967, Southern Technical Institute, Civil Engineering	
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:		Registration (Type, Year, State): Registered Professional Engineer, 1975 Kentucky (#11705)	

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML DESIGN (Furnish complete data but keep essentials)	
NAME & TITLE (Last, First, Middle Int.)	
45 CADD Operators	YEARS OF AML DESIGN EXPERIENCE: 5
YEARS OF EXPERIENCE	
YEARS OF AML RELATED DESIGN EXPERIENCE: Varies	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: Varies
Brief Explanation of Responsibilities: CADD Draftsperson including generation of topographic mapping or supplementation of existing mapping, cross sections, detail sheets, tax map overlays, Project Manager or Staff Engineer design compilation. AutoCAD, SurvCAD, and Haestads Operator. Calculation Brief Details and Drawings, Microsoft Word and Excel Operator. WV AML experience: Hampton Number Four Maintenance; Howesville Sites, Sandy Run Highway and Portals; Wilsie-Rosedale Waterline Extension Feasibility Study - I.D. No. 324; Laurel Valley (Daniels) Landslide; Price Hill Airshaft/Buildings; Weaver Portals and Highway, Phase I and II; Old Bridgeport Hill Mine Drainage, Phase II; Nixon Run AMD; Arlington (Cox) Drainage; Fairmont (Hendrickson) Subsidence; Tunnelton (Drillsworth) Landslide; Sauls Run Strip and Landslide; Taylor Waterline Extension Feasibility Study-I.D. No. 309; Poplar Ridge Waterline Extension Feasibility Study-I.D. No. 298; Summit Park Waterline Extension Feasibility Study-I.D. No. 288; Hodgesville PSD Waterline Extension Feasibility Study-I.D. No. 275; McElwain Waterline Feasibility Study-I.D. No. 271; Bridge Run; Camp Run; Philip Thorn Highway; Rainelle AML; SCS Reclamation; Shegon Refuse Pile; Taylor Creek Tipple Complex; Tibbs Run Portal; Masontown AML. Ohio AML Experience: Flint Run East Acid Mine Drainage Reclamation Project; Murray City AMD and Art Project; Danehart Acid Mine Drainage Reclamation; Ferris Forfeiture; Flint Run Acid Mine Drainage Reclamation; Glen Castle Reclamation; Lake Milton Investigation; Linden Acid Mine Drainage Bioremediation; Midvale Coal Number 7; Misco Burning Gob; Nutters Tipple D-716. Related AML Design: SPEC REC; Gladly Fork Mining Permit D-35-82; WVCA: Fisher-Mill Creek Bank Stabilization, Laurel Lake Sediment Removal, Kraut Creek H&H Investigation, Harmons Creek Bank Stabilization, Parchment Valley Bank Stabilization, North Fork Hughes River Bank Stabilization, Spencer Flood Plain Improvement Study, Logan County Flood Plain Improvement Project. Various waste permits for Corridor H (15 permits), numerous topographic and property surveys, Pope Properties Waterline and Wastewater Extension, Nitro, WV	
Education (Degree, Year, Specialization): CADD Operators - B.S., varies, Civil Engineering Technology, 1 Operator - B.S. 1996, Engineering Technology, Others - Experience	
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:	
Registration (Type, Year, State): N/A	

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATE		RESPONSIBLE FOR AML DESIGN (Furnish complete data but keep to initials)	
NAME & TITLE (Last, First, Middle Init.)		YEARS OF EXPERIENCE	
39 Survey Crews	7	YEARS OF AML RELATED DESIGN EXPERIENCE:	30+
YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:		30+	
Brief Explanation of Responsibilities: Three (3) fully equipped survey crews can obtain field data to develop topographic mapping or to supplement available aerial mapping. These crews can also use GPS survey techniques to bring horizontal and vertical control to the Project site or control for aerial photography operations. All field data is electronically gathered, to eliminate errors and blunders, and can be directly downloaded into our computer workstations. Field to finish modules of our SurvCADD software recognize field entered codes that control line work ensuring proper points are connected, proper break lines area established prior to contour generation, and greatly reduces CADD time. WV AML experience: Hampton Number Four Maintenance; Howesville Sites, Sandy Run Highwall and Portals; Laurel Valley (Daniels) Landslide; Price Hill Airshaft/Buildings; Weaver Portals and Highwall, Phase I and II; Old Bridgeport Hill Mine Drainage, Phase II; Nixon Run AMD; Arlington (Cox) Drainage; Fairmont (Hendrickson) Subsidence; Tunnelton (Dillsworth) Landslide; Sauls Run Strip and Landslide; Taylor Waterline Extension Feasibility Study-I.D. No. 309; Poplar Ridge Waterline Extension Feasibility Study-I.D. No. 298; Summit Park Waterline Extension Feasibility Study-I.D. No. 288; Hodgesville PSD Waterline Extension Feasibility Study-I.D. No. 275; McElwain Waterline Feasibility Study-I.D. No. 271; Bridge Run; Camp Run; Philip Thorn Highwall; Rainelle AML; SCS Reclamation; Shegon Refuse Pile; Superior Hydraulics; Taylor Creek Tipple Complex; Tibbs Run Portal; Masontown. Ohio AML Experience: Flint Run East Acid Mine Drainage Reclamation Project; Murray City AMD and Art Project; Danchart Acid Mine Drainage Reclamation; Ferris Forfeiture; Flint Run Acid Mine Drainage Reclamation; Glen Castle Reclamation; Lake Milton Investigation; Linden Acid Mine Drainage Bioremediation; Midvale Coal Number 7; Misco Burning Gob; Nutters Tipple D-716. Related AML Design: SPEC REC; Gladly Fork Mining Permit D-35-82; WVCA; Fisher-Mill Creek Bank Stabilization, Laurel Lake Sediment Removal, Kraut Creek H&H Investigation, Harmons Creek Bank Stabilization, Parchment Valley Bank Stabilization, North Fork Hughes River Bank Stabilization, Spencer Flood Plain Improvement Study, Logan County Flood Plain Improvement Project; various waste permits for Corridor H (15 permits), numerous topographic and property surveys, Pope Properties Waterline and Wastewater Extension, Nitro, WV			
Education (Degree, Year, Specialization):		12 Party Chiefs – Associate Degrees Civil Engineering or Surveying Technology.	
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:		Registration (Type, Year, State): N/A	

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

275 Computer Workstations

3 Robotic Total Stations and 18 Surveying Electronic Total Stations

18 Field Survey Data Collectors

6 Survey Grade GPS Survey Instruments (complete with base and 2 rovers each)

AutoCAD Versions 2008, 2006, 2002, 2000i, Map 4.0, Map 5.0, version 14.0

SurvCADD versions 2008, 2006, XML2, CES, 98

Eagle Point Engineering Software

AutoCAD Land Development

Bentley MicroStation with InRoads

ESRI ArcView GIS (Version 3.2) and Mapping Software (Version 8.3)

KY Pipe Water and Sewer Line Software

Haestads Water CAD Water and Sewer Line Software

Haestads Culvert Master, Flow Master, Storm CAD

Terrain Navigator with seamless WV 7.5' USGS Quads and Sure Maps by Titan Systems

North American Green Erosion Control Blanket Software

Microsoft Office, including Word and Excel

Microsoft Project Scheduling Software

Primavera P3 Scheduling Software

Corel 98 Suite

Numerous HP, Canon, and Toshiba Ink Plotters and Printers

XSTABL version 5.2 Slope Stability Software

15. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD.				
PROJECT NAME, TYPE, AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
Hampton Number Four Maintenance Clothier, Boone County, WV	Mr. Dean Stiltner, Project Manager West Virginia Department of Environmental Protection 116 Industrial Drive Oak Hill, WV 25901	The project will involve Topographic Surveying; Subsurface Geological Investigation; Surface and Groundwater Testing and Reporting; Mapping; Hydrologic and Hydraulic Studies and design for Ditches and Pipes; Sediment Control Design; Revegetation Plan. Construction Plans and Specifications; Engineers Cost Estimate, Bid Schedule, and Calculation Brief; Initial On-Site, Preliminary Design, Pre-Bid, and Pre-Construction Meetings; Monthly Reports and Invoicing.	Unknown	0% (Design) 0% (Constr.)
Howesville Sites and Sandy Run Highway and Portals Kingwood District, Preston County, WV	Mr. Gregg Smith, P.E. West Virginia Department of Environmental Protection 105 South Railroad Street, Suite 310 Philippi, WV 26416	Reclamation design of three (3) sites with 8,000 linear feet of highway with twenty two (22) wet mine seals; and 45 acres of revegetation. Topographic Surveying; Subsurface and Geological Investigation (eight (8) piezometers installed) are complete. Mapping; Water and Soil Testing; Preliminary and Final Design are on-going. Construction Plans and Specifications; Engineers Cost Estimate, Bid Schedule, and Calculation Brief; Initial On-Site, Preliminary Design, Pre-Bid, and Pre-Construction Meetings; Monthly Reports and Invoicing will be completed.	Unknown	0% (Design) 0% (Constr.)
Wilstie-Rosedale, Sugar Creek PSD Waterline Extension Feasibility Study – I.D. No. 324	Mr. Gregg Smith, P.E. West Virginia Department of Environmental Protection 105 South Railroad Street, Suite 310 Philippi, WV 26416	Groundwater and Surface Water Investigation; Pre and Post SMRCA Mining Investigation; Resident Interviews, Mapping; Preliminary Investigation and Report; AML & R Grant Supporting Documents; Mapping and CADD	Unknown	0% (Design)
Laurel Valley (Daniels) Landslide West Milford, Harrison County, WV	Mr. Ron Lane, Emergency Program Manager West Virginia Department of Environmental Protection 105 South Railroad Street, Suite 310 Philippi, WV 26416	Surveying and Mapping 4.0 acre Residential Area; 13,000 Yards Mass Balance; Geotechnical Subsurface Investigation; Existing and Proposed Slope Stability Analyses; Regrading, Highway Backfill, H&H Investigation; Two Ditches; Four Pipes; Gravel and Concrete Driveway and Road Repair Design; Vegetation Design; Construction Plans and Specifications; Calculation Brief; Engineers Estimate; Reports and Invoicing.	\$284,000.00	100% (Design) 100% (Constr.)
Price Hill Airshaft/Buildings (Price Hill Complex) Raleigh County, WV	Mr. Dean Stiltner, Project Manager West Virginia Department of Environmental Protection 116 Industrial Drive Oak Hill, WV 25901	Surveying and Mapping 1.5 Acre Site; 1,300 Yards Mass Balance; Suspected Shaft Investigation; 2 Vertical Deep Mine Seals; Debris Removal Plan; Structure Demolition; Refuse Removal Plan; Sediment Control Design; Ditch Design; H&H Investigation Existing Pipes; Vegetation Design; Construction Plans and Specifications; Calculation Brief; Engineers Estimate; Reports and Invoicing.	\$ 425,000	100% (Design) 0% (Constr.)

CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNER			DATED ENGINEER OF RECORD (Cont.).		
PROJECT NAME , TYPE, AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE	
James & Amanda Taylor Waterline Feasibility Study – I.D. No. 309	Mr. Gregg Smith, P.E. West Virginia Department of Environmental Protection 105 South Railroad Street, Suite 310 Philippi, WV 26416	Groundwater and Surface Water Investigation; Pre and Post SMRCA Mining Investigation; Resident Interviews, Mapping; Preliminary Investigation and Report; AML & R Grant Supporting Documents; Mapping and CADD	\$ 512,000	100% Study 0% (Design)	
Glady Fork Mining, Inc. (Permit D-35-82) Bond Forfeiture Near Buckhannon, Upshur and Lewis Counties, WV	Mr. Charles Miller West Virginia Department of Environmental Protection 105 South Railroad Street, Suite 310 Philippi, WV 26416	Alkaline Mine Drainage Treatment Facility – \$3,000,000.00 AMD plant design that incorporated a single treatment train capable of handling 1,000 gallons per minute of alkaline mine drainage with 15 ppm of total iron and included necessary piping and seating for a second treatment train if future needs arise. Relining existing boreholes to eliminate mine discharge interruptions, design and construction of 2,500 linear feet of gravity fed plant intake line from the boreholes to the plant site, and an active chemical treatment plant. The treatment plant included an aeration basin (concrete), flocculator (concrete), chemical feed building, settling basin (concrete), sludge thickener (concrete), and geo-tube sludge disposal system with overflow catchment and re-treatment capabilities. Treated discharge 0.50 ppm iron average, 0.75 ppm iron maximum.	\$ 3,000,000	99%	
Weaver Portals and Highwall, Phase I and II WVAML Near Junior, Randolph County, WV	Mr. Gregg Smith, P.E. West Virginia Department of Environmental Protection 105 South Railroad Street, Suite 310 Philippi, WV 26416	Surveying and Mapping; 97,000 Yards Mass Balance; 20 Wet Mine Seals, Six Limestone Beds with Flush Ponds, H&H Studies for 25 Ditches, and 10 Pipes; Sediment Control Design; Vegetation Design; Construction Plans and Specifications; Calculation Brief; Engineers Estimate; Reports and Invoicing.	\$ 2,400,000	50% (Design 100% Complete)	
Summit Park PSD Waterline Extension Feasibility Study (I.D. No. 288) WVAML Bridgeport, Harrison County, WV	Mr. Gregg Smith, P.E. West Virginia Department of Environmental Protection 105 South Railroad Street, Suite 310 Philippi, WV 26416	Groundwater and Surface Water Investigation; Pre and Post SMRCA Mining Investigation; Resident Interviews, Mapping; Preliminary Investigation and Report; AML & R Grant Supporting Documents; Mapping and CADD	\$250,000.00 to \$1,100,000.00 (Estimated)	100% Study (Design 0% Complete)	
Fairmont (Hendrickson) Subsidence WVAML Fairmont, Marion County, WV	Mr. Michael Richardson, P.M. West Virginia Department of Environmental Protection 601 57 th Street, SE – Box 20 Charleston, WV 25304	Surveying and Mapping; Subsurface Investigation; Previous Reports Compilation; Pre and Post SMRCA Mining Investigation; Resident Interviews, Report of Findings; Mitigation Alternatives; Updates and Invoicing.	Unknown	100%	

CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DES.			ATED ENGINEER OF RECORD (Cont.).		PERCENT COMPLETE
PROJECT NAME, TYPE, AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST		
Tunnelton (Dillsworth) Landslide WVAML Tunnelton, Preston County, WV	Mr. Michael Richardson, P.M. West Virginia Department of Environmental Protection 601 57 th Street, SE – Box 20 Charleston, WV 25304	Surveying and Mapping; 84 foot long by 18 foot high Gabion Basket Retaining Wall Design; Groundwater and Surface Water Investigation; H&H Studies for 214 feet of Subsurface Drains, 2 Pipes, Manhole, and Drop Inlet; Traffic Control and Pavement Repair Plan; Sediment Control Design; Vegetation Design; Construction Plans and Specifications; Calculation Brief; Engineers Estimate; Reports and Invoicing.	\$ 323,000	100%	
Arlington (Cox) Drainage Clarksburg, Harrison County, WV	Mr. Michael Richardson, P.M. West Virginia Department of Environmental Protection 601 57 th Street, SE – Box 20 Charleston, WV 25304	Surveying and Mapping; Two (2) Wet Mine Seal Designs; Groundwater and Surface Water Investigation; H&H Studies for 198 feet of Subsurface Drains, 2 Ditches, and 1 Pipe; Mine Dewatering and AMD Treatment Plan, Sediment Control Design; Vegetation Design; Construction Plans and Specifications; Calculation Brief; Engineers Estimate; Reports and Invoicing.	\$294,000	100%	
Sauls Run Strip and Landslide Near Weston, Lewis County, WV	Mr. Michael Richardson, P.M. West Virginia Department of Environmental Protection 601 57 th Street, SE – Box 20 Charleston, WV 25304	Surveying and Mapping; Subsurface Investigation; 59,350 Yards of Balanced Earthwork; H&H studies and design for 2,764 feet of Ditches, 500 feet of Subsurface Drains, five (5) Pipes, and two (2) Headwalls; Traffic Control and Pavement Repair Plan; Sediment Control Design; and Vegetation design. Construction Plans and Specifications; Calculation Brief; Engineers Estimate; Reports and Invoicing.	\$ 980,000	100%	
Charles and Donice McElwain Waterline Extension Feasibility Study (I.D. No. 271) WVAML Cowen, Webster County, WV	Mr. Gregg Smith, P.E. West Virginia Department of Environmental Protection 105 South Railroad Street, Suite 310 Philippi, WV 26416	Groundwater and Surface Water Investigation; Pre and Post SMRCA Mining Investigation; Resident Interviews, Mapping; Preliminary Investigation and Report; AML & R Grant Supporting Documents; Mapping and CADD	\$ 104,000	100% (Study) (Design 0% Complete)	
Charles and Donice McElwain Waterline Extension Feasibility Study (I.D. No. 271) WVAML Cowen, Webster County, WV	Mr. Gregg Smith, P.E. West Virginia Department of Environmental Protection 105 South Railroad Street, Suite 310 Philippi, WV 26416	Groundwater and Surface Water Investigation; Pre and Post SMRCA Mining Investigation; Resident Interviews, Mapping; Preliminary Investigation and Report; AML & R Grant Supporting Documents; Mapping and CADD	\$ 104,000	100% (Study) (Design 0% Complete)	
Hodgesville PSD Waterline Extension Feasibility Study (I.D. No. 275) WVAML Buckhannon, Upshur County, WV	Mr. Gregg Smith, P.E. West Virginia Department of Environmental Protection 105 South Railroad Street, Suite 310 Philippi, WV 26416	Groundwater and Surface Water Investigation; Pre and Post SMRCA Mining Investigation; Resident Interviews, Mapping; Preliminary Investigation and Report; AML & R Grant Supporting Documents; Mapping and CADD	\$ 237,000	100% (Study) (Design 0% Complete)	

15. (Cont.) CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNER			NATURE OF YOUR FIRM'S RESPONSIBILITY			NATURE OF YOUR FIRM'S RESPONSIBILITY	
PROJECT NAME, TYPE, AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE			
Old Bridgeport Hill Mine Drainage, Phase II; WV AML Bridgeport, Harrison County, WV	Mr. Gregg Smith, P.E. West Virginia Department of Environmental Protection 105 South Railroad Street, Suite 310 Philippi, WV 26416	Surveying and Mapping; Construction Water Treatment and Controlled Release Plan, H&H Studies for Ditch, Pipe, and Drop Inlet Designs; design four Wet Mine Seals, Sediment Control Design; Vegetation Design; Construction Plans and Specifications; Calculation Brief; Engineers Estimate; Reports and Invoicing.	\$ 311,500	100%			
Flint Run East Acid Mine Drainage Reclamation Project; Ohio AML; Wellston, Jackson County, Ohio	Ms. Nancy Seger, P.E. Ohio Department of Natural Resources Division of Mineral Resources Management 1855 Fountain Square Court, Building H-2 Columbus, OH 43224	Mapping; Passive Acid Mine Drainage Treatment Design; H&H Studies for Impoundments, Channels, Ditch Designs; Sediment Control Design; Environmental Permits; Vegetation Design; Construction Plans and Specifications; Calculation Brief; Engineers Estimate; Reports and Invoicing.	\$ 2,041,000	100%			
Murray City AMD and Art Project; Watershed AML Project; Murray City, Hocking County, Ohio	Mr. Mike Steinmaus, Director Monday Creek Restoration Project P.O. Box 129 New Straitsville, OH 43766	Mapping; Passive Acid Mine Drainage Treatment Design; H&H Studies for Impoundments, Channels, Ditch Designs; Sediment Control Design; Environmental Permits; Vegetation Design; Construction Plans and Specifications; Calculation Brief; Engineers Estimate; Reports and Invoicing.	\$ 650,000	0% (Design 100% Complete)			
Flint Run Acid Mine Drainage Reclamation Project; Ohio AML; Wellston, Jackson County, Ohio	Ms. Nancy Seger, P.E. Ohio Department of Natural Resources Division of Mineral Resources Management 1855 Fountain Square Court, Building H-2 Columbus, OH 43224	Mapping; Passive Acid Mine Drainage Treatment Design options based on cost/benefit analysis; H&H Studies for Impoundments, Channels, Ditch Designs; Sediment Control Design; Environmental Permits; Vegetation Design; Calculation Brief; Engineers Estimate; Reports and Invoicing.	\$ 4,710,000	100%			
Fisher – Mill Creek Bank Stabilization Project Ripley, Jackson County, WV	Mr. Gene Saurborn, P.M. West Virginia Conservation Agency 4720 Brenda Lane Charleston, WV 25305	Surveying and Mapping; Subsurface Investigation Plan; Geotechnical Testing; Construction Plans and Specifications for 148-foot long Drilled Pile and Lag Wall; Bid Schedule; Engineers Estimate; Pre-Bid and Pre-Construction; Construction Inspection.	\$ 284,000	100%			
Laurel Lake Sediment Project Lenore, Mingo County, WV	Mr. Gene Saurborn, P.M. West Virginia Conservation Agency 4720 Brenda Lane Charleston, WV 25305	Surveying and Mapping; Subsurface Investigation Plan; Hydrographic Surveying; Geotechnical Testing; Construction Plans and Specifications for dredging 50,000 C.Y.; Park Access Road; Bid Schedule; Engineers Estimate	\$ 1,000,000	100%			
Berger – Harmon Creek Bank Stabilization Project Near Weirton, WV	Mr. Gene Saurborn, P.M. West Virginia Conservation Agency 4720 Brenda Lane, Building Five Charleston, WV 25305	Surveying and Mapping; Subsurface Investigation and Report of Findings; Alternatives for Mitigation including Buy-Out and 45-foot long by 12-foot high Gabion Basket Wall Design; Engineers Estimate	N/A	100%			

15. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATOR			ENGINEER OF RECORD (Cont.).	
PROJECT NAME , TYPE, AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
Danehart Acid Mine Drainage Reclamation Project; Ohio AML; Yorkville, Belmont County, Ohio	Mr. Scott McDiffitt, E.I. Ohio Department of Natural Resources Division of Mineral Resources Management 2050 East Wheeling Avenue Cambridge, OH 43725	Mapping; Subsurface Investigation; Geotechnical Testing; H&H studies for Channels, Ditch, Subsurface Drain Designs; Retaining Wall Design; Sediment Control Design; Environmental Permits; Vegetation Design; Construction Plans and Specifications; Calculation Brief; Engineers Estimate; Reports and Invoicing.	\$ 50,950	100%
Nutters Tipple D-716; Bond Forfeiture Reclamation Project; New Straitsville, Perry County, Ohio	Mr. Ron Trivisonno, P.E. Ohio Department of Natural Resources Division of Mineral Resources Management 1855 Fountain Square Court, Building H-2 Columbus, OH 43224	Mapping; Subsurface Investigation; Geotechnical Testing; H&H studies for Channels, Ditch, Subsurface Drain Designs; Sediment Control Design; Environmental Permits; Vegetation Design; Construction Plans and Specifications; Calculation Brief; Engineers Estimate; Reports and Invoicing.	\$ 96,247	100%
Weatherford Entrance Road Design Upshur Co., WV	Weatherford International, Ltd. 300 Summers St., Suite 820 Charleston, WV 25301	Surveying and Mapping, Road Approach Permit, Construction Plans and Specifications, Calculation Brief, Engineers Estimate, Reporting and Invoicing	\$ 750,000	75%
Upper Tract Bridge WVDOH Bridge Project Upper Tract, Pendleton County, WV	Mr. Chad Lowther, P.E. West Virginia Division of Highways Building 5, Room A317 1900 Kanawha Boulevard Charleston, WV 25305	Surveying and Mapping, H & H Study on South Branch of Potomac River, Road Approach and Bridge Design, Construction Plans and Specifications, Calculation Brief, Engineers Estimate, Reporting and Invoicing	\$ 1,400,000	100%
Buffalo Bridge WVDOH Bridge Project Buffalo, Putnam County, WV	Mr. Steve Campbell West Virginia Division of Highways District One 1334 Smith Street Charleston, WV 25305	Surveying and Mapping, H & H Study on Cross Creek, Road Approach and Bridge Design, Construction Plans and Specifications, Calculation Brief, Engineers estimate, Reporting and Invoicing	\$ 1,770,000	100%
Route 35 Project No. U327-35-12.02 WVDOH Road Project Couch to Coast Guard Road Mason County, WV	Mr. Chad Lowther, P.E. West Virginia Division of Highways Building 5, Room A317 1900 Kanawha Boulevard Charleston, WV 25305	Surveying and Mapping, H & H Study Box Culverts, Pipes, Road Design, Construction Plans and Specifications, Calculation Brief, Engineers estimate, Reporting and Invoicing	\$ 14,000,000	0% (Design 99% Complete)
Appalachian Corridor H, Section 6, Davis to Bismark; Four Lane Roadway; Grant County, WV	WVDOT, Division of Highways 1900 Kanawha Boulevard, East Charleston, WV 25305	Surveying, Subsurface Investigation, Slope Stability, H&H Studies for Box Culverts, Pipes, Construction Plans and Specifications for Four Lane Roadway	\$ 14,000,000	0% (Design 75% Complete)

15.		CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD (Cont.).			
PROJECT NAME , TYPE, AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE	
Mile Branch Truss Bridge WVDOH Bridge Project Jeager, McDowell County, WV	Mr. Chad Lowther, P.E. West Virginia Division of Highways Building 5, Room A317 1900 Kanawha Boulevard Charleston, WV 25305	Surveying and Mapping, H & H Study on Dry Fork, Road Approach and Bridge Design, Construction Plans and Specifications, Calculation Brief, Engineers estimate, Reporting and Invoicing	\$ 500,000	100%	
Davis Creek Bridge Construction Inspection	WVDOT Building 5, Room A317 1900 Kanawha Boulevard Charleston, WV 25305	I-64 Construction Observation	\$563,000	50%	
MCS&T Source Inspection	WVDOT Building 5, Room A317 1900 Kanawha Boulevard Charleston, WV 25305	On-Site Materials Control Sampling and Testing	\$50,000	60%	
Statewide Survey Contract	WVDOT Building 5, Room A317 1900 Kanawha Boulevard Charleston, WV 25305	Surveying on Task Order Basis for Topographical Mapping of Bridges, Intersections, and Safety Issues.	\$750,000	60%	
Coalfields Expressway	WVDOT Building 5, Room A317 1900 Kanawha Boulevard Charleston, WV 25305	Quantity Surveying on 13 miles of Four Lane Design/Build Highway	\$300,000	30%	
Greenland Gap Wind Mills	M A Mortenson P.O. Box 710 Minneapolis, MN 55440	Surveying, Access Road Design, Wind Mill Pad Design, Drainage Design, E & S Storm Water Management, NPDES Permitting, QA/QC	\$300,000,000	Design 100% Survey 60% QA/QC 60%	
TOTAL NUMBER OF PROJECTS: 47 (Others available upon request)			TOTAL ESTIMATED CONSTRUCTION COSTS: \$ 517,000,000+		

16. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS SERVING AS A SUB-CONSULTANT TO OTHERS.					
PROJECT NAME , TYPE, AND LOCATION	NATURE OF YOUR FIRM'S RESPONSIBILITY	NAME AND ADDRESS OF OWNER	ESTIMATED COMPLETION DATE	ESTIMATED CONSTRUCTION COST	
				ENTIRE PROJECT	YOUR FIRM'S RESPONSIBILITY
Christopher Hall Science Building Expansion; Buckhannon, West Virginia	Surveying, Subsurface and Geotechnical Investigation, Site design, Balanced Earthwork Grading, Utility Hook-ups, Drainage	West Virginia Wesleyan College c/o Zimmer Gunsul Frasca 1800 K Street Suite 200 Washington, DC 20006	2003	\$ 7,000,000.00	\$24,000.00
Summers County Board of Education New Talcott Elementary School Talcott, West Virginia	Surveying, Subsurface and Geotechnical Investigation, Site design, Balanced Earthwork Grading, Utility Design, Drainage	J. Dan Sneed & Associates, Inc. 101 North Kanawha Street Suite 203 Beckley, West Virginia 25801	2007	Unknown	\$22,500.00

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

PROJECT NAME & TYPE	LOCATION	NAME & ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
LAW-7-7.25 East Half R/W/Phase 1B - 2 Lane	Lawrence County OH	ODOT District 9 650 Eastern Ave Chillicothe OH 45601	\$23,000,000	2003	Currently under construction
Bulen Sycamore Sewer Maintenance of Traffic	Columbus, OH	Columbus Div of Sewers & Drains 910 Dublin Road Columbus, OH 43215	N/A	2003	Yes
A. F. Wendling Relocation Project Building and Site Design	Buckhannon, WV	A. F. Wendling, Inc. Relocation c/o Upshur County Development Authority Buckhannon, WV 26201	\$ 2,100,000.00	2003	No
State Office Consolidation Building - Site Design	Huntington, WV	State Office Consolidation Building c/o BBL Carlton, LLC P O Box 1153 Charleston, WV 25301	\$ 14,000,000.00	2003	Yes
Source Water Assessment Program; Aquifer Delineation and Potential Significant Contaminant Source Identification	Throughout the State of West Virginia	West Virginia Bureau for Public Health Environmental Engineering Division Source Water Assessment Unit 815 Quarrier Street Charleston, WV 25301-2616	\$19,000.00	2003	Yes
Marion County Risk Assessment; County-wide risk assessment of natural, technological, and man-made disasters	Marion County, West Virginia	Marion County Commission 200 Jackson Street Fairmont, West Virginia 26554	\$ 10,500.00	2003	Yes
Marshall County Risk Assessment; County-wide risk assessment of natural, technological, and man-made disasters	Marshall County, West Virginia	Marshall County Office of Emergency Services P O Drawer B Moundsville, West Virginia 26041	\$ 13,500.00	2003	Yes
Trabue Road Right of Way Acquisition	Columbus OH	Franklin County Engineer 970 Dublin Road Columbus OH 43215	N/A	2003	N/A

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YC FIRM WAS DESIGNATED THE ENGINEER OF RECORD.					
PROJECT NAME & TYPE	LOCATION	NAME & ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
Waverly Connector Study	Waverly OH	City of Waverly 201 W North Street Waverly OH 45690	N/A	2003	N/A
Duffy Road	Fairfield County OH	Fairfield County Engineer 210 E Main Street Lancaster OH	\$350,000	2003	Yes
SR 31-Woods @ Mill Valley		Dominion Homes 5000 Tuttle Crossing Blvd Dublin OH 43016	\$250,000	2003	Yes
South Court Street Connector Study -- planning study	Circleville OH	City of Circleville 127 S Court Street Circleville OH 43113	\$1,800,000	2003	N/A
Holt Road Widening -- turn lanes	Columbus, OH	Franklin County Engineer 970 Dublin Road Columbus OH 43215	\$196,000	2003	Yes
Big Run South Road Widening -- turn lanes	Columbus OH	Franklin County Engineer 970 Dublin Road Columbus, OH 43215	\$142,000	2003	Yes
Marysville Bridge Inspection	Marysville, OH	City of Marysville 125 E Sixth Street Marysville, OH 43040	N/A	2003	N/A
Pickerington WWTP Structural design	Pickerington OH	City of Pickerington 100 Lockville Road Pickerington OH 43147	\$10,000,000	2003	No
Big Run Sanitary Subtrunk, R/W Acquisition	Columbus OH	City of Columbus 910 Dublin Road Columbus, OH 43215	N/A	2003	N/A
Gerlaugh Road R/W Acquisition	Clark County OH	Clark County Engineer	N/A	2003	N/A
FRA 270-29.41 right of way	Delaware, OH	ODOT District 6 400 E William Street	N/A	2003	N/A

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH Y FIRM WAS DESIGNATED THE ENGINEER OF RECORD.					
PROJECT NAME & TYPE	LOCATION	NAME & ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
		Delaware, OH 43015			
FRA 270-0.60 Interstate Improvements	Delaware, OH	ODOT District 6 400 E William Street Delaware, OH 43015	\$2,000,000	2003	Yes
Lithopolis Water Treatment Plant, structural design	Lithopolis OH	Village of Lithopolis Lithopolis OH	\$5,500,000	2003	Yes
Greene County Airport	Xenia, OH	Greene County Airport Authority 140 N Valley Road Xenia OH 43585	\$3,400,000	2003	Yes
Erie-Ottawa Regional Airport, Access Road Extension	Port Clinton OH	Erie-Ottawa Regional Airport Authority 3255 E State Road Port Clinton OH 43452	\$180,000	2003	Yes
Alum Creek Drive, Obetz OH, 1.03 miles widening 2-lane to 5-lane urban arterial	Obetz, OH	Village of Obetz 4175 Alum Creek Dr. Obetz, OH 43207	\$ 4,234,000	2004	No
County Line Road West Roadway extension	Westerville, OH	City of Westerville 64 E Walnut St Westerville OH 43081	\$5,000,000	2004	No
Upper Tract Bridge	WV	WVDOH	\$2,000,000	2004	No
Horseshoe Road – E bridge Replacements/Realignments	Fairfield County OH	Fairfield County Engineer Lancaster, OH	\$850,000	2004	No
Sharp Road – Bridge Replacement	Fairfield County OH	Fairfield County Engineer Lancaster, OH 43130	\$300,000	2004	No
ASTM Transaction screening & Phase I Environmental Assessment	Buckhannon, WV	A E, Inc.	\$20,500	2005	N/a
Laurel Lake Remediation, Mingo	Mingo County WV	WV Conservation Agency	N/A	2005	

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

PROJECT NAME & TYPE	LOCATION	NAME & ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
County, WV					
Dolls Run Slab Bridge		Gannett Fleming	\$27,000		Yes
Glick Avery Marley Roundabout	Dublin, Ohio	City of Dublin 5800 Shier-Rings Rd. Dublin, OH 43016	\$1,400,000	2005	Yes
Maxtown Road Extension	Westerville, Ohio	City of Westerville 64 East Walnut Street Westerville, Ohio 43081	\$3,500,000	2005	Yes
LUC-24-13.98 – Pedestrian Bridge	Toledo, Ohio	Toledo MetroParks Toledo, OH	\$1,200,000	2005	Yes
Spindler Road		M/I Homes 3 Easton Road Columbus, Ohio 43219	\$600,000	2005	Yes
Laurel Lake Remediation	Mingo County, West Virginia	WV Conservation Agency	N/A	2005	Yes
Mill Creek Bank Stabilization	Jackson County, West Virginia	WV Conservation Agency	N/A	2005	Yes
Harmons Run Bank Stabilization	West Virginia	WV Conservation Agency	N/A	2005	Yes
Tunnelton (Dillsworth)Landslide	Preston, County, West Virginia	WVDEP-Office of Abandoned Mine Lands	N/A	2005	Yes
Sauls Run Strip & Landslide Reclamation	Lewis County, West Virginia	WVDEP-Office of Abandoned Mine Lands	N/A	2005	Yes
Arlington (Cox) Drainage, Harrison County, WV	Harrison County, West Virginia	WVDEP-Office of Abandoned Mine Lands	N/A	2005	Yes

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM WAS DESIGNATED THE ENGINEER OF RECORD.					
PROJECT NAME & TYPE	LOCATION	NAME & ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
Cairo Bank Stabilization	West Virginia	WV Conversation Agency-Little Kanawha District	N/A	2005	Yes
Sunbury Village Square Signals	Sunbury, Ohio	Village of Sunbury PO Box 508 Sunbury, Ohio 43074	\$2,700 (fee)	2005	Yes
LUC-24-13.98 – Pedestrian Bridge	Toledo, OH	Toledo Metro Parks 5100 West Central Ave Toledo, OH 43615	\$1,200,000	2006	Yes
3rd Avenue Improvements	Huntington, WV	City of Huntington 800 5th Avenue Huntington, WV 25701	\$3,200,000	2006	Yes
Southwest Traffic Calming	Dublin, Ohio	City of Dublin 5800 Shier-Rings Road Dublin OH 43017	\$1,500,000	2006	???
Tara Hill Traffic Calming	Dublin, OH	City of Dublin 5800 Shier-Rings Road Dublin, OH 43017	\$770,000 \$267,000 (fee)	2006	Yes
Britton Parkway	Hilliard OH	City of Hilliard 3800 Municipal Way Hilliard, OH 43026	\$10,000,000	2006	Yes
Willow Brook Village Turn Lanes	Delaware, OH	City of Delaware 1 South Sandusky St. Delaware, OH 43015	\$400,000	2006	Yes
East Broad Street & Bannockburn Boulevard Signal	Columbus, OH	City of Columbus 109 N Front St Columbus, OH 43215	\$20,000 (fee)	2006	No
Lancaster Pike Signal Coordination	Circleville, OH	City of Circleville 127 S Court Street Circleville, OH 43113	\$12,000 (fee)	2006	Yes
Refugee Road/Eastland Mall	Columbus, OH	City of Columbus 109 N Front St Columbus, OH 43215	\$250,000 (fee)	2006	No

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH Y ¹ FIRM WAS DESIGNATED THE ENGINEER OF RECORD.					
PROJECT NAME & TYPE	LOCATION	NAME & ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
Village Square Signals	Sunbury, OH	Village of Sunbury PO Box 508 Sunbury, OH 43074	\$215,000	2005	Yes
Hyland-Croy-Brand Road	Dublin, OH	City of Dublin 5800 Shier-Rings Road Dublin, OH 43017	\$27,000	2006	No
Huntington Signal System Study	Huntington, WV	KYOVA Planning Comm. 720 4th Ave Huntington, WV 25701	\$90,000	2006	No
Alkire Road/Harrisburg Pike – Turn Lane	Columbus, OH	Franklin County Engineer 970 Dublin Road Columbus, OH 43215	\$119,000	2006	Yes
US 42 & Slack Road Signal	Delaware, OH	City of Delaware 1 South Sandusky St Delaware, OH 43015	\$140,000	2006	Yes
ATH-144-2.65 Relocation	Athens Co., OH	ODOT District 10 338 Muskingum Drive Marietta, OH 45750	\$8,000,000	2006	Yes
FRA-270-0.60	Franklin Co., OH	ODOT District 6 400 E William Street Delaware, OH 43015	\$3,000,000	2006	No
Knox Street right-of-way acquisition	Westerville, OH	City of Westerville State Street Westerville OH 43081	\$6,500 (fee)	2006	No
Upper Valley Road Right of way acquisition	Clark Co., OH	Clark County Engineer 4075 Laybourne Road Springfield, OH 45505	\$35,000 (fee)	2006	Yes
Norwich Street Right of way acquisition	Hilliard, OH	City of Hilliard 3800 Municipal Way Hilliard, OH 43026	\$14,250 (fee)	2006	No
Mile Branch Bridge Bridge design	McDowell Co., WV	WVDOT Building 5 1900 Kanawha Blvd., East Charleston, WV 25305	\$650,000	2006	Yes
Corridor H Construction Inspection	Hardy Co., WV	WVDOT Building 5 1900 Kanawha Blvd., East Charleston, WV 25305	\$12,500,000	2006	Yes
Colloden RR	Cabell Co., WV	WVDOT	\$2,700,000	2006	Yes

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH Y ¹ FIRM WAS DESIGNATED THE ENGINEER OF RECORD.					
PROJECT NAME & TYPE	LOCATION	NAME & ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
Bridge Inspection		Building 5 1900 Kanawha Blvd., East Charleston, WV 25305			
Davis Creek Bridge Construction Inspection	Kanawha Co., WV	WV DOT Building 5 1900 Kanawha Blvd., East Charleston, WV 25305	\$6,300,000	2006	Yes
Upper Tract Bridge Design - Construction Engineering Review	Pendleton Co., WV	WV DOT Building 5 1900 Kanawha Blvd., East Charleston, WV 25305	\$6,500,000	2006	Yes
Glady Fork Mine Treatment Plant	Upshur Co., WV	WV DEP-Office of Special Reclamation 601 57th St, SE-Box 20 Charleston, WV 25340	\$3,000,000	2006	Yes
Greenland Gap Wind Farm	Grant Co., WV	MA Mortenson Co. 700 Meadow Lane North Minneapolis, MN 55422	\$50,000,000	2006	Yes
Nixon Run	Harrison Co., WV	WV DEP, Office of Abandoned Mine Lands 601 57 th St. SE, Box 20 Charleston, WV 25340	\$252,000	2007	Yes
James and Amanda Taylor Waterline Feasibility Study	Preston Co., WV	WV DEP, Office of Abandoned Mine Lands 601 57 th St. SE, Box 20 Charleston, WV 25340	\$512,000	2007	Pending
HIG-62-14.69 Corridor/Safety Study	Hillsboro, OH	ODOT District 9 650 Eastern Avenue Chillicothe, OH 45601	\$240,000 (fee)	2007	N/A
Huy Road Resurfacing Lehner Road Resurfacing & Drainage	Clinton Twp, OH	Franklin County Engineer 980 Dublin Road Columbus, OH 43215	\$150,000	2007	Huy Rd - Yes Lehner Rd - No
MEIGS-124-56.02 Preliminary Engineering Study	Meigs Co., OH	ODOT District 10	\$250,000 (fee)	2007	N/A
2007 Street Improvements	Obetz, OH	Village of Obetz	\$210,000	2007	Yes

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH Y' FIRM WAS DESIGNATED THE ENGINEER OF RECORD.					
PROJECT NAME & TYPE	LOCATION	NAME & ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
Alum Creek Drive & Groveport Road Resurfacing/Pavement Rehab.	Obetz, OH	Village of Obetz	\$196,000	2007	Yes
Iuka Ravine Resurfacing	Columbus, OH	City of Columbus 910 Dublin Road Columbus, OH 43215	\$1,000,000	2007	No
Sawmill Road & Hard Road Intersection Improvements	Columbus/Dublin, OH	City of Dublin 5800 Shier-Rings Road Dublin, OH 43017	\$1,900,000	2007	No
Tara Hill Post Traffic Calming Study	Dublin, OH	City of Dublin 5800 Shier-Rings Road Dublin, OH 43017	N/A	2007	N/A
Eiterman Road Speed Study	Dublin, OH	City of Dublin 5800 Shier-Rings Road Dublin, OH 43017	N/A	2007	N/A
Stygler Rd. & US 62 Intersection Study	Gahanna, OH	City of Gahanna	N/A	2007	N/A
Stygler Rd. & US 62 Controller Replacement	Gahanna, OH	City of Gahanna	N/A	2007	N/A
Hard Rd. & Claddaugh Rd. Study	Dublin, OH	City of Dublin 5800 Shier-Rings Road Dublin, OH 43017	N/A	2007	N/A
Perimeter Loop & Holt Road Study	Dublin, OH	City of Dublin 5800 Shier-Rings Road Dublin, OH 43017	N/A	2007	N/A
Hillsdowne Road Study	Westerville, OH	City of Westerville	N/A	2007	N/A
Teays Valley Middle School Traffic Study		Teays Valley Local School District	N/A	2007	N/A
SR 161 & High School Drive Signal Upgrade	Dublin, OH	City of Dublin 5800 Shier-Rings Road Dublin, OH 43017	\$210,000	2007	No
Georgesville Road Turn Lane Improvements	Columbus, OH	City of Columbus 109 N. Front St. Columbus, OH 43215	\$75,000 (fee)	2007	No
Dana Avenue & I-71 Traffic Impact & Interchange Modification Studies	Cincinnati, OH	ODOT District 8 505 South SR 741 Lebanon, OH 45036 (and City of Cincinnati)	\$63,000 (fee)	2007	N/A
Bridge Street & Riverside Drive Intersection Improvement Study	Dublin, OH	City of Dublin 5800 Shier-Rings Road	\$43,000 (fee)	2007	N/A

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH Y() FIRM WAS DESIGNATED THE ENGINEER OF RECORD.					
PROJECT NAME & TYPE	LOCATION	NAME & ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
Avery Muirfield Drive & Tullymore Drive Intersection Improvement Study	Dublin, OH	Dublin, OH 43017 City of Dublin 5800 Shier-Rings Road Dublin, OH 43017	\$64,000 (fee)	2007	N/A
SR 317 Traffic Study Traffic Impact Study	Columbus, OH	ODOT District 6 400 East Williams Street Delaware, OH 43015	\$16,000 (fee)	2007	N/A
Cosgray Road Turn Lane Improvements	Hilliard, OH	Rockford Homes 999 Polaris Parkway Columbus, OH 43240	\$230,000	2007	Yes
Larcomb Road Bridge Replacement	Delaware, OH	Delaware County Engineer 50 Channing Street Delaware, OH 43015	\$535,000	2007	Yes
London Culvert Replacement	London, OH	City of London Safety-Service Director 6 East Second Street London, OH 43140	\$180,000	2007	Yes
DEF/HEN-24-12.03 Two New Bridges	Defiance, OH	ODOT District One 1885 McCullough Street Lima, OH 45801	\$3,124,000	2007	Under Construction
Sugar Creek Access Road Private Road and Bridge	Greene Co., OH	Malcolm Pirnie 1900 Polaris Parkway, Suite 2000 Columbus, OH 43240	\$260,000	2007	Under Construction
Clime Road Widening Right of Way Acquisition	Columbus, OH	Franklin County Engineer 910 Dublin Road Columbus, OH 43215	\$72,300 (fee)	2007	N/A
London-Groveport Road Right of Way Acquisition	Grove City, OH	City of Grove City 4035 Broadway Grove City, OH	\$99,350 (fee)	2007	N/A

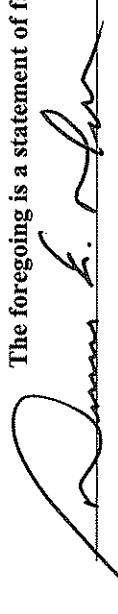
18. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOU PHASE OF WORK FOR WHICH YOUR FIRM WAS RESPONSIBLE).			FIRM HAS BEEN A SUB-CONTRACTOR TO OTHER FIRMS (INI DATE		
PROJECT NAME, TYPE, AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST OF YOUR FIRM'S PORTION	YEAR	CONTRACTED (YES OR NO)	FIRM ASSOCIATED WITH
Group Nine Intersection Improvements Traffic Design	City of Columbus 109 N. Front Street Columbus, Ohio 43015	\$45	1997	Yes	Dynotec Engineering
Morse Bethel Road Connector Right-of-Way Studies	City of Columbus 109 N. Front Street Columbus, Ohio 43015	N/A	1998	N/A	Burgess & Niple

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

Stantec (formerly R. D. Zande and Associates, Inc.) can provide one-stop shopping for the West Virginia Abandoned Mine Lands Program. Work, including surveying, development of mapping from field surveys, site design, CADD operations, water testing, hazmat testing, calculations, plans, and specifications associated with this task order contract completed in-house. Stantec carefully selected sub-contractors, successfully used in the past, to perform drilling and chemical testing of soils, rock, and coal that have experience and are extremely familiar with WVAML Projects. Stantec has EOI-specific corporate and employee experience with highwall reclamation engineering, mine seals, drainage control structures and facilities, passive treatment of AMD, debris and waste handling and disposal plan, and revegetation of drastically disturbed areas. Stantec also has EOI-experience in surveying and mapping, subsurface investigations, H & H studies, construction plans and specifications, calculations, conducting associated bid meetings, and necessary reports and invoicing procedures. Stantec has corporate experience on thirty two (32) WVAML Projects, twelve (12) ODNR AML projects, and employee experience on another fifteen (15) WVAML Projects. In addition, Stantec has completed eight (8) AML Related projects for the West Virginia Conservation Agency. Stantec personnel stay abreast of current developments and technological advances in Abandoned Mine Lands reclamation and acid mine drainage by attending seminars and symposiums on the subjects. In the past, Stantec has attended the WV Surface Mining Task Force Symposium in Morgantown, WV; the National Association of Abandoned Mine Lands Symposium in Athens, OH; West Virginia University Natural Stream Restoration Program in Morgantown, WV; 404/401 Permit Training in Charleston, WV; and State and Local Mitigation Planning in Buckhannon, sponsored by FEMA and WVOES.

20. The foregoing is a statement of facts.

The foregoing is a statement of facts.

Signature:  TITLE: Office Manager, Principal DATE: September 24, 2008

Printed Name: Dennis E. Miller, P.S., Office Manager, Principal

ATTACHMENT "C" - CROOKED RUN NUMBER FIVE DESIGN										ICES - AML AND RELATED PROJECT EXPERIENCE MATRIX																				
PROJECTS			PROJECT EXPERIENCE REQUIREMENTS										PRIMARY STAFF PARTICIPATION/CAPABILITY																	
			EXP. BASIS C=Corporation P=Personal		Additional Info 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	Hazardous Waste Disposal	Project Specifications	Water Quality Evaluation/Mitigation/ Reclamation	Construction Inspection / Management	Water Treatment	Equipment / Structure Removal	Stream Restoration	Geotechnical/Stability	Greg Linder, P.E. Project Manager	Will Thomton, P.E. Project Manager	Jay holten, P.E. Project Manager	Randy Calkins, P.S. Designer	Aaron Tonkey, E.I. Staff Engineer	Garland Steele, P.E. QA/QC Manager	6 Survey Crews	10 CAD Operators	
Hampton #4 Maintenance*			C	Pg. 4	X				X					X	X				X	X		M			P	P	P	P	10 CAD Operators	
Hovesville Sites*			C	Pg. 4	X				X					X	X				X	X		M			P		P	P	P	
Sandy Run Highway and Portals*			C	Pg. 4	X				X					X	X				X	X		M			P		P	P	P	
Wilkie-Rosedale Waterline Feasibility I.D. # 324*			C	Pg. 4					X						X			X			X			M	P	P				
Laurel Valley (Daniels) Landslide*			C	Pg. 4	X				X					X						X	X		M		P		P	P	P	
Price Hill Airshaft/Buildings*			C	Pg. 4		X	X	X	X					X	X		X	X	X		X		M							
Glady Fork AMD Trmt. Plant. ****			C	Pg. 5		X			X					X	X		X	X			X		M				P	P	P	P
Weaver Portals, Ph. I & II*			C	Pg. 4	X	X	X	X						X	X	X	X	X			X		M		P	P	P	P	P	P
Nixon Run AMD*			C	Pg. 5	X	X	X	X						X	X	X	X	X	X	X	X		M		P	P	P	P	P	P
Taylor Waterline Feasibility, I.D. # 309*			C	Pg. 5					X						X			X					M		P	P	P	P	P	P
Poplar Ridge Waterline Feasibility, I.D. # 298*			C	Pg. 5					X						X			X					M		P	P	P	P	P	P
Summit Park Waterline Feasibility I.D. # 288*			C	Pg. 5					X						X			X					M		P					P
Fairmont (Hendrickson) Subsidence*			C	Pg. 6			X							X	X						X		M		P					P
Tunnelton (Dillsworth) Landslide*			C	Pg. 7		X	X	X	X					X	X				X		X		M		P	M	P	P	P	P
Arlington (Cox) Drainage*			C	Pg. 5		X	X	X	X					X	X				X		X		M		P	P	P	P	P	P
Sauks Run Strip and Landslide*			C	Pg. 7	X				X					X	X				X	X			M		P	P	P	P	P	P
Hodgesville Waterline Feasibility I.D. # 275*			C	Pg. 6					X						X			X					M		P	P	P	P	P	P
McElwain Waterline Feasibility I.D. # 271*			C	Pg. 6					X						X			X					M		P	P	P	P	P	P
Old Bridgeport Hill Mine Drainage, Ph II*			C	Pg. 4	X	X	X	X						X	X	X	X	X	X	X	X		M		P	P	P	P	P	P
Flint Run East Acid Mine Drainage**			C	Pg. 6	X				X					X	X	X	X	X	X	X	X		M		P	P	P	P	P	P
Murray City AMD and Art Project***			C	Pg. 5		X	X	X	X					X	X	X	X	X	X	X	X		M		P	P	P	P	P	P
Daneshart Acid Mine Drainage**			C	Pg. 6	X				X					X	X	X	X	X			X		M		P	P	P	P	P	P
Nutters Tipple Bond Forfeiture**			C	Pg. 5	X				X					X	X	X	X	X	X	X	X		M		P	P	P	P	P	P
Lake Milton Acid Mine Drainage*			C	Pg. 7	X				X					X	X	X	X	X	X	X	X		M		P	P	P	P	P	P
Midvale Coal AML**			C	Pg. 6	X									X	X								M				P	P	P	P
Laurel Lake Sediment Removal*****			C	Pg. 31					X	X				X	X				X	X	X		M		P	P	P	P	P	P
Fisher-Mill Creek Bank Stabilization*****			C	Pg. 31					X	X				X	X				X	X	X		M		P	P	P	P	P	P
Bismark Strip Drainage*			P	Pages 8 10	X	X	X	X	X					X	X			X	X	X	X		M							
Brownnton Schl Refuse*			P	Pages 8 10	X				X					X	X				X	X	X		M							
Ryder Ave Drainage*			P	Pages 8 10	X	X	X	X	X					X	X						X		M							
Conners Highway*			P	Pages 8 10	X				X					X	X				X	X	X		M							
Francis Drainage & Refuse*			P	Pages 8 10	X	X	X	X	X					X	X			X	X	X	X		M							
Muddy Creek Tipple*			P	Pages 8 10	X	X	X	X	X					X	X			X	X	X	X		M							
Superior Hydraulics*			P	Pages 8 10		X	X	X	X					X	X			X	X		X		M							
Euclid Ave. Subsidence*			P	Pages 8 10	X	X	X	X	X					X	X			X	X		X		M							
Zebbs Creek Highway*			P	Pages 8 10	X				X					X	X					X	X		M							

* West Virginia AML Project

** Ohio AML Project

*** Ohio Watershed Group Project

****West Virginia Spec Rec Project

*****West Virginia Conservation Agency

* West Virginia AML Project ** Ohio AML Project *** Ohio Watershed Group Project ****West Virginia Spec Rec Project *****West Virginia Conservation Agency

STATE OF WEST VIRGINIA
Purchasing Division**PURCHASING AFFIDAVIT**

029

VENDOR OWING A DEBT TO THE STATE:

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

PUBLIC IMPROVEMENT CONTRACTS & DRUG-FREE WORKPLACE ACT:

West Virginia Code §21-1D-5 provides that: Any solicitation for a public improvement construction contract shall require each vendor that submits a bid for the work to submit at the same time an affidavit that the vendor has a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the West Virginia Code. A public improvement construction contract may not be awarded to a vendor who does not have a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the West Virginia Code and who has not submitted that plan to the appropriate contracting authority in timely fashion. For a vendor who is a subcontractor, compliance with Section 5, Article 1D, Chapter 21 of the West Virginia Code may take place before their work on the public improvement is begun.

ANTITRUST:

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

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

LICENSING:

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

CONFIDENTIALITY:

The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures and rules. Vendors should visit www.state.wv.us/admin/purchase/privacy for the Notice of Agency Confidentiality Policies.

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

Vendor's Name: STANTEC CONSULTING SERVICES INC.

Authorized Signature: 

Date: September 24, 2008

Dennis E. Miller, Principal