



GAI Consultants, Inc.
 Charleston Office
 500 Summers Street 3rd Fl Charleston, WV 25301
 Tel 304.926.8100 Fax 304.926.8180
 www.gaiconsultants.com

To: **WV Purchasing Division**
2019 Washington Street, East
PO Box 50130
Charleston, WV 25305-0130

Date: August 7, 2007

Proj. No.: E070935

Attn:

Re: **EOI for Price Hill**

We are sending you the materials listed below:

Copies	Date	Description
2	08/06/07	EOI for Price Hill – Raleigh County.
1	08/06/07	CD of EOI for Price Hill – Raleigh County.

cc:

Remarks:

Signed:

Name: **Charles F. Straley, P.E., P.S.**

Title: **Project Manager**

Transmittal Letter

**EXPRESSION OF INTEREST
ENGINEERING SERVICES REQUIRED
FOR THE PRICE HILL COMPLEX PROJECT
RALEIGH COUNTY, WEST VIRGINIA
DEP14131**

Issuing Office:

West Virginia Department of Environmental Protection
Office of Abandoned Mine Lands and Reclamation
601 57th Street, S.E.
Charleston, West Virginia 25304

By:

GAI Consultants, Inc.
500 Summers Street, 3rd Floor
Charleston, West Virginia 25301
(304) 926-8100

Project E070935

August 6, 2007



gai consultants

August 6, 2007

Project E070935

Purchasing Division
2019 Washington Street, East
Charleston, West Virginia 25305

RE: Expression of Interest
Engineering Services Required for the
Price Hill Complex
DEP14131

Gentlemen:

GAI Consultants, Inc. (GAI) welcomes the opportunity to submit our proposal in response to your Request for Expression of Interest DEP14131 to provide professional engineering services. These services will result in the development of mapping, engineering drawings, contract specifications, and other contract documents required for the Price Hill Complex project in Raleigh County, West Virginia.

GAI is exceptionally well qualified to provide the State with the above referenced services offered at the most favorable terms from both a technical and cost standpoint. The work under this contract will be performed in our Charleston, West Virginia office. The Charleston office has provided the State with quality engineering services for the abatement of problems arising from abandoned mine lands since opening in 1985. We have served the State on previous West Virginia Department of Environmental Protection – Abandoned Mine Land (WVDEP-AML) open-end contracts and other contracts from 1986 to the present. As a result of this long-term experience, GAI can provide the required expertise, continuity and conformance to program guidelines established by the WVDEP-AML.

GAI welcomes you to visit our facilities located at 500 Summers Street, 3rd Floor, Charleston, West Virginia 25301.

GAI has:

- on staff four West Virginia registered civil and mining engineers who will review, stamp, and sign all work and contract documents.
- available staff of civil and mining engineers, CADD operators, surveyors, geologists, and biologists with extensive experience in reclamation engineering, hydrology, and geology; and
- extensive experience in surface and underground coal mining, environmental, ecological principles, stream restoration and mitigation, and contract administration.

Project E07935
August 6, 2007

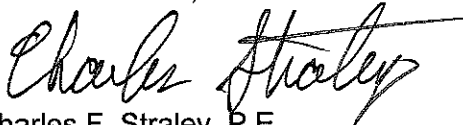
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In summary, GAI will provide the most favorable terms as a result of:

- Exceptional qualifications/previous 20 years of in-state AML experience,
- Local, Charleston presence with excellent access to the project site and AML offices,
- Efficient and experienced personnel, and
- Competitive and favorable rates.

We look forward to continuing our relationship with WVDEP-AML.

Sincerely,
GAI Consultants, Inc.



Charles F. Straley, P.E.
Project Manager



C. Elwood Penn, IV, P.E.
Branch Manager

Enclosure



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GAI Consultants

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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
 DEP14131

PAGE
 1

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

RFQ COPY

TYPE NAME/ADDRESS HERE

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
07/26/2007				

BID OPENING DATE: 08/07/2007 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
001	1	JB		968-77		
PRICE HILL COMPLEX THE WEST VIRGINIA PURCHASING DIVISION, FOR THE AGENCY, THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, IS SOLICITING EXPRESSIONS OF INTEREST FOR PROFESSIONAL DESIGN SERVICES FOR THE SEALING OF A VERTICAL MINE SHAFT AND CONVEYANCE OF WATER TO THE NATURAL WATERWAY AT THE PRICE HILL COMPLEX SITE NEAR MT. HOPE, (FAYETTE CO.) WV, PER THE FOLLOWING BID REQUIREMENTS AND THE ATTACHED SPECIFICATIONS. BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THIS CONTRACT IS AUTOMATICALLY NULL AND VOID, AND IS TERMINATED WITHOUR FURTHER ORDER. ***** THIS IS THE END OF RFQ DEP14131 ***** TOTAL:						

RECEIVED
 2007 AUG -7 A 11: 52
 PURCHASING DIVISION
 STATE OF WV

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE: *Charles Stratus* TELEPHONE: 304-926-8100 DATE: 8/6/07
 TITLE: Staff Engineer FEIN: 25-1260999 ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ INSERT NAME AND ADDRESS IN SPACE ABOVE LABELLED 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 is automatically null and void, and is 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.

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.

SIGNED BID TO:

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

EXPRESSION OF INTEREST
Price Hill Air Shaft and Buildings
Requisition #DEP14131

002

Part 1

GENERAL INFORMATION

1.1 Purpose:

The Acquisition and Contract Administration Section of the Purchasing Division (State) for the agency, the West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands & Reclamation (AML), is soliciting Expression(s) of Interest (EOI) from qualified firms to provide 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 as follows:

- 1) Provide for the design of backfilling and sealing one (1) vertical mine shaft seal and conveyance of water to the natural drainway.
- 2) Provide for demolition of concrete structures and the removal and disposal of the remains of these structures and other old mining related buildings.
- 3) Provide for the regrade and revegetation of the area.

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 corporate 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 CCQQ document is available online for registered vendors at: <http://www.state.wv.us/admin/purchase/newbul.htm>

1.4 Inquiries:

Additional information regarding the submission of proposal for this EOI can be obtained by contacting the following Buyer:

Chuck Bowman, Buyer
Purchasing Division
2019 Washington Street, East
P.O. Box 50130
Charleston, WV 25305-0130
Ph: (304) 558-0492 Fax: (304) 558-4115
cbowman@wvadmin.gov

Absolutely NO contact shall be made by the firm with any member of AML or the evaluation 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. A firm is not required to be a registered vendor in order to submit an EOI, but the **successful firm must** register and pay the registration fee prior to the award of an actual purchase order/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 is **not** binding. Only the information issued in writing and added to the EOI specifications file by an official written addendum are binding.

1.7 **Economy of Preparation:**

The EOI 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 submittal should address projects that are similar in scope to that of the EOI. **Firms must complete the CCOQ and RPEM as included in Section 4.2 of this EOI.**

1.8 **Labeling of EOI Sections:**

The response sections should be labeled.

1.9 **Submission:**

1.9.1 State law requires that the original EOI shall be submitted to the State. All copies to the State must be submitted **prior** to the date and time stipulated as the opening date. All EOI's will be dated and time stamped on the State's official time clock to verify time and date of receipt.

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

Submit:

One original plus one copy 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: 23
Req#: DEP14131
Opening Date: 08/07/2007
Opening Time: 1:30 pm

1.10 Rejection of EOI:

The State will 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 EOI's and to reserve the right to withdraw at any time and for any reason. Submission of, or receipt by the State of EOI's confers no rights upon the bidder 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 bidder 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 bidders 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 permitted in the response.

1.15 Public Record:**1.15.1 Submissions are Public Record.**

All documents submitted to the State related to purchase orders/contracts are considered public records after the submittals have been opened. All responses or offers submitted by firms shall become public information and are available for inspection during normal official business hours in the State Records and Distribution center after the documents have been microfilmed.

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 which ever is greatest.

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 bidder 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 State will make a reasonable effort not to disclose information that is within the guidelines of §29B-1-4 and is properly labeled "proprietary information not for public disclosure". The State does not guarantee non-disclosure of any information to the public.

1.16 **Schedule of Events:**

Release of the EOI	07/26/2007
Expression of Interest Opening Date	08/07/2007
Approximate Short Listing Due Date	08/08/2007
Estimated Date for Interviews (wk of?)	08/13/2007
Final Ranking Due Date	08/17/2007
Approximate Award Date	08/21/2007

Design Must Be Completed by September 21, 2007.

1.17 **Mandatory Prebid Conference:**

Not Applicable

1.18 **Bond Requirements:**

Not Applicable

1.19 **No Debt Affidavit:**

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

Part 2 OPERATING ENVIRONMENT

1 **Location:**

The Problem Area is located off State Route 19 near Mt. Hope in Fayette County, WV. The Price Hill Complex site is located along the west side of Dunloup Creek near Price Hill.

Directions to the site: Traveling south on St. Rt. 19 to the Maple Fork road exit, turn left unto County Route 1 and travel .2 mile to the intersection of State Route 16. Turn left (North) onto State Route 16 and travel 5 miles. Turn right at the Backroads Bar & Grill. Proceed .2 mile and turn right onto the gravel road. This is Tutwiler Lane. The site is located behind the light green building on the left side of the road approximately 50 yards beyond the chain link fence over the hill.

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 **Mapping and Design** of the following:*

- 1) Provide for the design of backfilling and sealing one (1) vertical mine shaft seal and conveyance of the mine water to the natural drainway.

- 2) Provide for demolition of concrete structures and the removal and disposal of the remains of these structures and other old mining related buildings.
- 3) Provide for the regrade and revegetation the area.

Preliminary design documents will be due 30 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 RFEM (Attachment "C") in Section 4.2

3.2 **Scope of Work:**
 The scope of the project described in Sections 2 & 3 is as follows:

- 1) Provide for the design of backfilling and sealing one (1) vertical mine shaft seal and conveyance of mine water to the natural drainway.
- 2) Provide for demolition of concrete structures and the removal and disposal of the remains of these structures and other old mining related buildings.
- 3) Provide for the regrade and revegetation the area.

- 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. #DEP14125 must be listed on Insurance Certificate.
 - 3.3.3 *License Requirements:* Workers Compensation Certificate upon award.
 - 3.3.4 *Litigation Bond:* Not Applicable

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 Department of Environmental Protection.

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.

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 *Firm Relationship:*

The relationship of the firm to the State will 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 any and 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.

Firm shall be exclusively responsible for the payment to his/her employees and subcontractors 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.

Firm shall hold harmless the State, and shall provide the State and AML with a defense against any and 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 Department of Environmental Protection./AML.

3.4.5 Indemnification:

The firm agrees to indemnify, defend and hold harmless the State and AML, 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 Laws & Compliance:

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 (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 firm. 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. Such reasonable time shall not exceed twelve (12) consecutive months.

3.4.11 *Non-Appropriation of Funds:*

If the Department of Environmental Protection/AML 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 Department of Environmental Protection/AML may terminate the contract at the end of the affected current fiscal period without further charge or penalty. AML shall give the firm written notice of such non-allocation of funds as soon as possible after AML receives notice. No penalty shall accrue to AML 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 period contained in the notice, the State shall issue the firm an order to cease and desist any and 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, AML, and the firm. An approved contract change order is defined as one approved by the State and approved as to form by the West Virginia Attorney General's Office prior to the effective date of such amendment. **NO CHANGES SHALL BE IMPLEMENTED BY THE FIRM UNTIL SUCH TIME AS THE FIRM RECEIVES AN APPROVED WRITTEN CHANGE ORDER.**

3.4.14 *Invoices, Progress Payments, & Retainage:*

The firm shall submit invoices, in arrears, to the WVDEP/AML 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 AML on the basis of 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 the AML 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.

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 \$100.00 per day, 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 AML's right to pursue to any other additional remedy to which the State or AML 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 firm. The firm shall maintain such records a minimum of five (5) years and make available all records to AML personnel at firm's location during normal business hours upon written request by AML within 10 days after receipt of the request.

Firm shall have access to private and confidential data maintained by AML 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 AML against any and all claims brought by any party attributed to actions of breach of confidentiality by the firm, sub-contractors, or individuals permitted access by the firm.

Part 4

EVALUATION & AWARD

4.1 **Evaluation and Award Process:**

(a) **EOI 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 (EOI), 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, Chapter Fifty-nine of this code. 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 best qualified to perform the desired service: **Provided**, that on projects funded wholly or in part by school building authority monies, in accordance with Sections 15 and 16, Article 9-D, Chapter 18 of this Code, two of said three firms shall have had offices within this state for a period of at least one year prior to submitting an EOI regarding a project funded by school building authority monies. 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 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: **Provided, however,** that county boards of education may either elect or start the selection process over in the original order preference or it may 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) Expressions of Interest submitted will be evaluated by a committee of three (3) to five (5) representatives of the agency in accordance with §5G-1-3.

The committee as stated will evaluate all submittals and by consensus select three (3) firms, in their opinion, are best qualified to perform the desired service. These selections will be based from the statements of qualifications and performance data and other material submitted by the interested firms.

The committee shall rank, in order of preference, each of the three (3) selected firms. Each of the three (3) firms shall begin with a score of one hundred.

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 a 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").

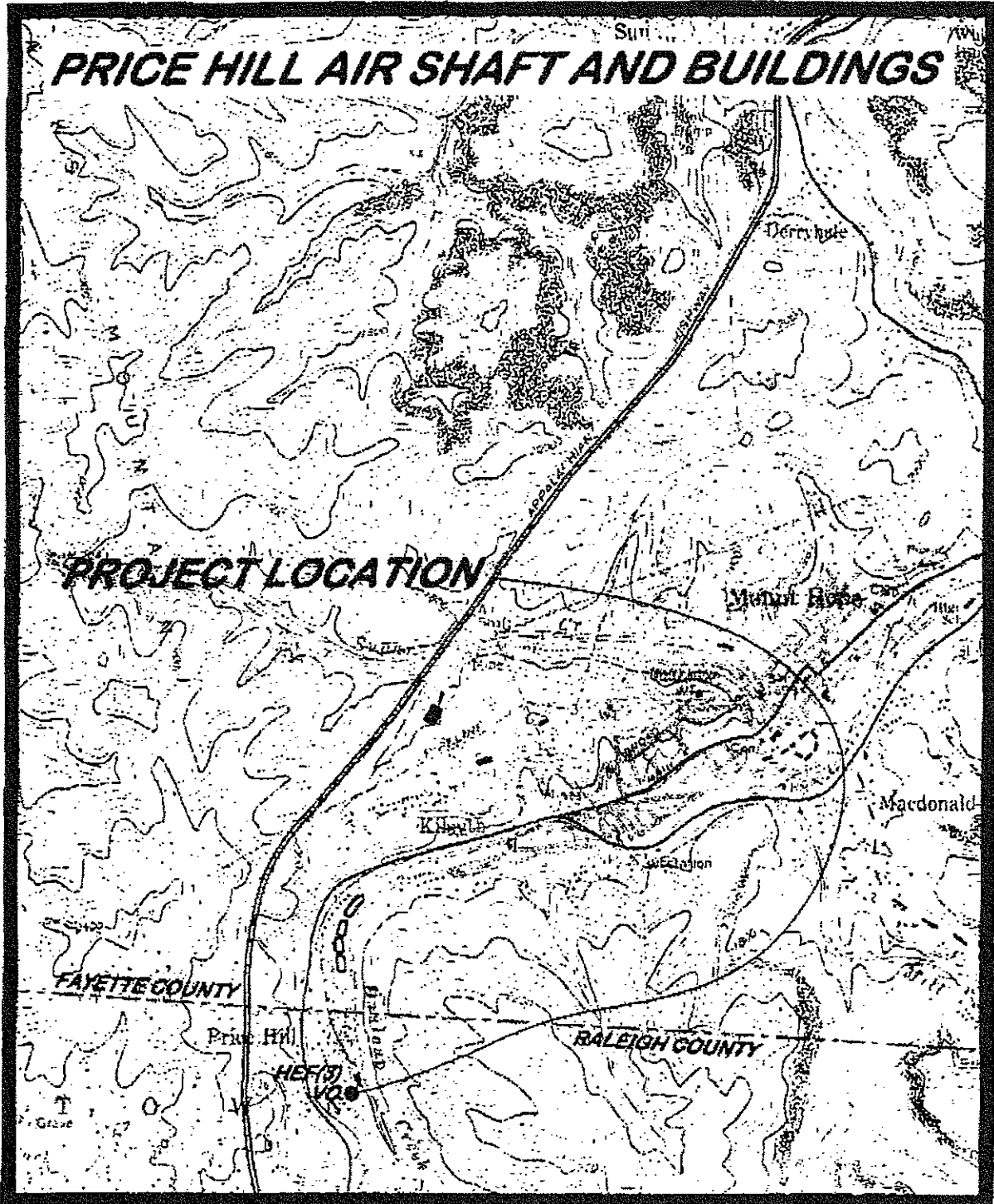
(b) AML and Related Project Experience Matrix (RPEM) must also be completed to be eligible (See Attachment "C").

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



SCALE: 1"=2000'

RALEIGH COUNTY

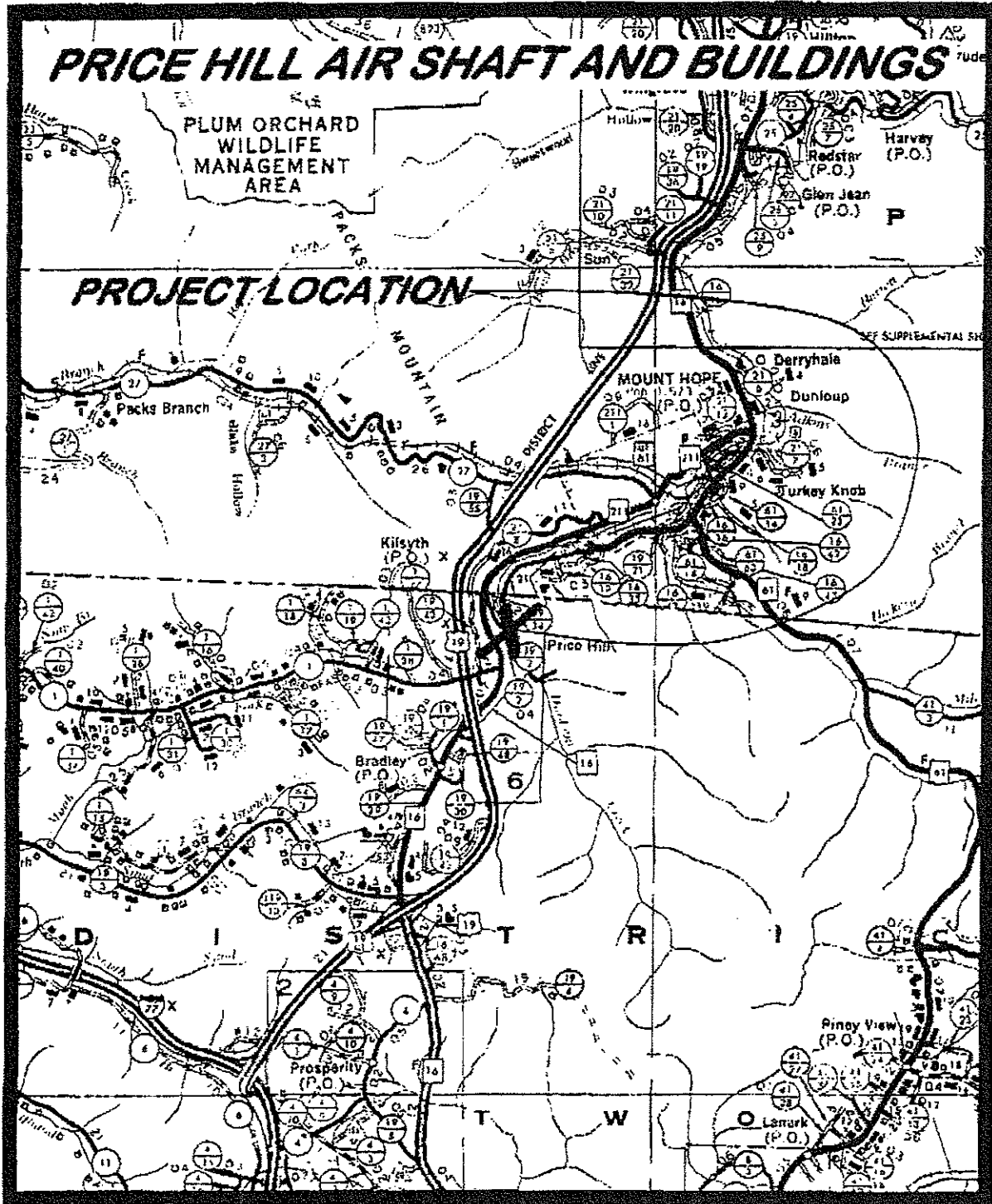
OAK HILL QUAD.

LATITUDE 37°52'47"

**DASHED LINE IS POTENTIAL PROJECT
LIMITS FOR OFF SITE BORROW AND
DISPOSAL AREAS.**

LONGITUDE 81°11'12"

HIGHWAY LOCATION MAP



1"=1 MILE

RALEIGH, FAYETTE COUNTY HIGHWAY MAPS

AML CONSULTANT CONFIDENTIAL QUALIFICATION QUESTIONNAIRE Attachment "B"

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: _____ 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	—	LANDSCAPE ARCHITECTS	—	STRUCTURAL ENGINEERS
ARCHITECTS	—	MECHANICAL ENGINEERS	—	SURVEYORS
BIOLOGIST	—	MINING ENGINEERS	—	TRAFFIC ENGINEERS
CADD OPERATORS	—	PHOTOGRAMMETRISTS	—	OTHER
CHEMICAL ENGINEERS	—	PLANNERS: URBAN/REGIONAL	—	
CIVIL ENGINEERS	—	SANITARY ENGINEERS	—	
CONSTRUCTION INSPECTORS	—	SOILS ENGINEERS	—	
DESIGNERS	—	SPECIFICATION WRITERS	—	TOTAL PERSONNEL
DRAFTSMEN	—		—	

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

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

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

data but keep to essentials)

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

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 AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:
YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:

Brief Explanation of Responsibilities

EDUCATION (Degree, Year, Specialization)
--

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)

YEARS OF AML DESIGN EXPERIENCE:

YEARS OF EXPERIENCE

YEARS OF AML RELATED DESIGN EXPERIENCE:

YEARS OF DOMESTIC WATERLINE 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 AML DESIGN EXPERIENCE:

YEARS OF EXPERIENCE

YEARS OF AML RELATED DESIGN EXPERIENCE:

YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:

Brief Explanation of Responsibilities

EDUCATION (Degree, Year, Specialization)

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

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

15. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATING 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: \$

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

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	COMPLETED (YES OR NO)

18. C LETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIF WAS BEEN A SUB-CONSULTANT TO OTHER FIRMS (INDICA PHASE
 OF WORK FOR WHICH YOUR FIRM WAS RESPONSIBLE)

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST OF YOUR FIRM'S PORTION	YEAR	CONSTRUCTED (YES OR NO)	FIRM ASSOCIATED WITH

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.

20. The foregoing is a statement of facts.

Signature: _____

Title: _____

Date: _____

Printed Name: _____

AML and RELATED PROJECT EXPERIENCE MATRIX

PROJECT	Exp. Basis C-Corp. P-Professional	Additional Info Provided in Section (g) **	PROJECT EXPERIENCE REQUIREMENTS															PRIMARY STAFF PARTICIPATION/CAPACITY *** (M=Management P=Professional)							
			Mine Reclamation Surface	Mine Reclamation Deep	Mine Reclamation	Port/Shaft Closure	Hydrologic/Hydraulic Design/Eval.	Remining Evaluation	Mine/Refuse Fire Abatement	Subsidence Investigation Mitigation	Hazardous Waste Disposal	Project Specifications	Water Quality Evaluation/Mitigation/ Replacement	Construction Inspection/Managem ent	Water Treatment	Equipment/Structure Removal	Stream Restoration	Geotechnical/Stability							

* List whether project experience is corporate or personnel based or both.

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

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

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

West Virginia Code §5A-3-10a states: 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 owned is an amount greater than one thousand dollars in the aggregate.

DEFINITIONS:

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

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

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

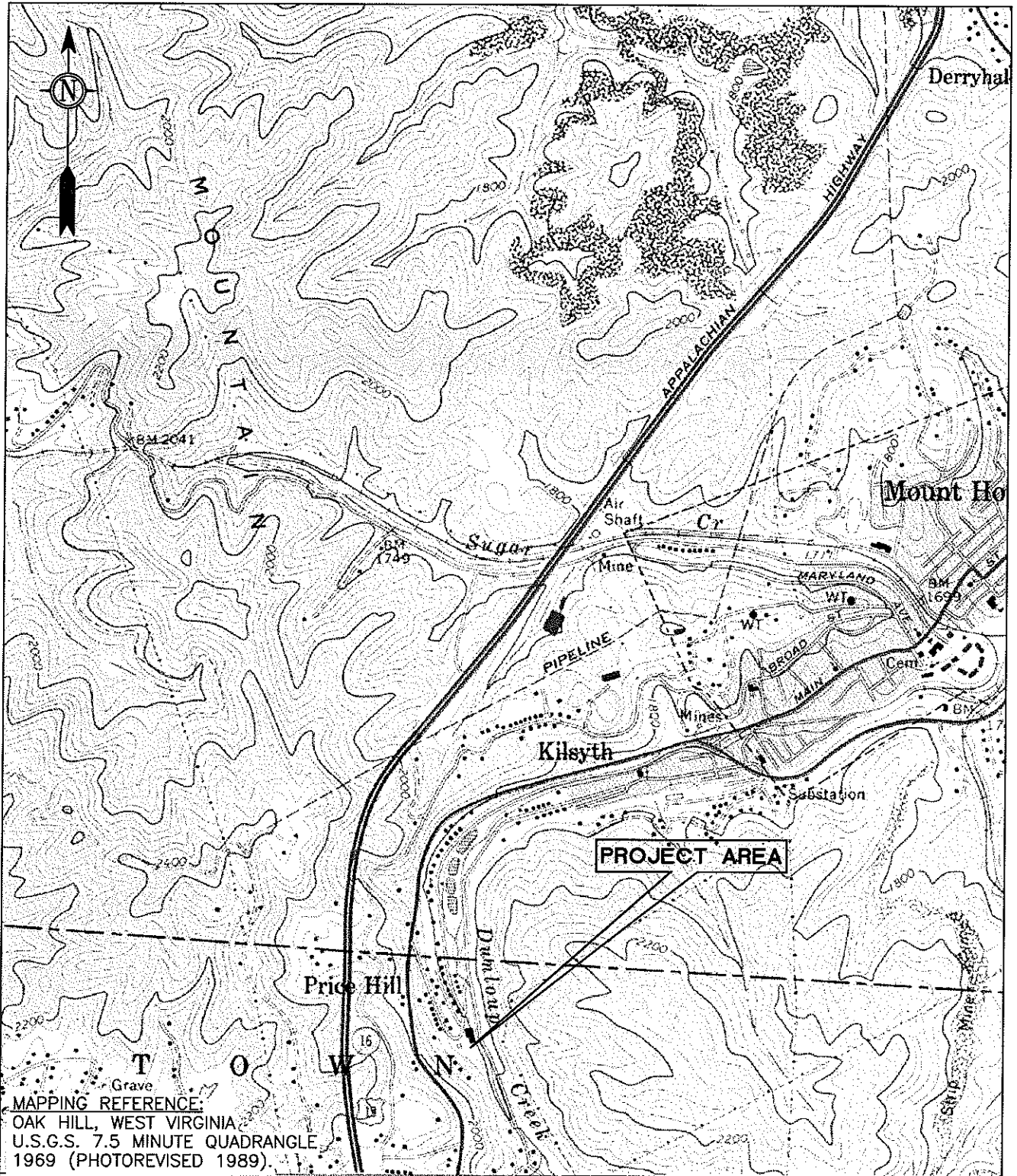
LICENSING: Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance 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 are in compliance with the requirements as stated.

Vendor's Name: GAT Consultants, Inc.

Authorized Signature: Charles Straluz Date: 8/6/2007

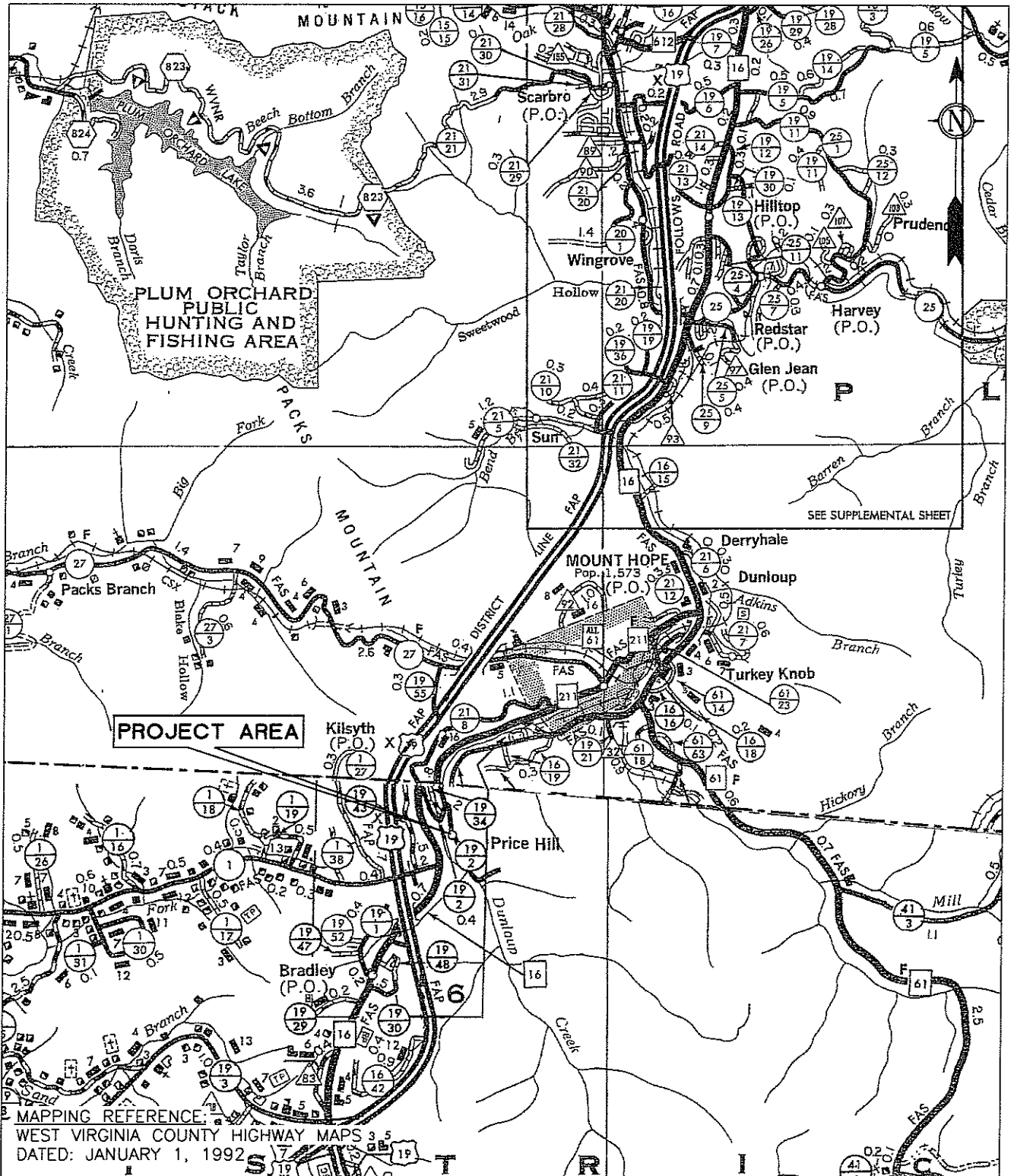


MAPPING REFERENCE:
 OAK HILL, WEST VIRGINIA
 U.S.G.S. 7.5 MINUTE QUADRANGLE
 1969 (PHOTOREVISED 1989).



FIGURE 1

LOCATION MAP PRICE HILL COMPLEX PROJECT RALEIGH COUNTY, WEST VIRGINIA	DWN. <u>JTG</u>	DATE <u>08/06/2007</u>	
	APPD. <u>CFS</u>	CHKD. <u>CFS</u>	<u>XX</u> TASK NO.
WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF ABANDONED MINE LANDS CHARLESTON, WEST VIRGINIA	E070935 PROJECT NO./DASH NO.		
	SCALE: <u>1" = 2000'</u>		<u>E-A1</u> DRAWING NO.
			 REV



MAPPING REFERENCE:
 WEST VIRGINIA COUNTY HIGHWAY MAPS 3 5
 DATED: JANUARY 1, 1992



FIGURE 2

LOCATION MAP PRICE HILL COMPLEX PROJECT RALEIGH COUNTY, WEST VIRGINIA	DWN. <u>JTG</u> DATE <u>08/06/2007</u>	
	APPD. <u>CFS</u>	CHKD. <u>CFS</u> XX TASK NO.
WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF ABANDONED MINE LANDS CHARLESTON, WEST VIRGINIA	E070935 PROJECT NO./DASH NO.	
	SCALE: 1" = 1 MILE E-A2 DRAWING NO. 	

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

AML CONSULTANT CONFIDENTIAL QUALIFICATION QUESTIONNAIRE

Attachment "B"

PROJECT NAME:
Price Hill Complex

DATE (DAY, MONTH, YEAR)
06, August, 2007

FEIN
25-1260999

1. FIRM NAME
GAI Consultants, Inc.

2. HOME OFFICE BUSINESS ADDRESS
385 E. Waterfront Drive
Homestead, Pennsylvania 15120

3. FORMER FIRM NAME
NA

4. HOME OFFICE TELEPHONE
412-476-2000

5. ESTABLISHED (YEAR)
1958

6. TYPE OWNERSHIP
Corporation

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

7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE
500 Summers Street, 3rd Floor, Charleston, WV 25301 / C. Elwood Penn, IV, P.E. / 19 Charleston, 13 Monroeville 304/926-8100

8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM
C. Elwood Penn, IV, P.E., Branch Manager

8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS
Gary M. DeJidas, P.E., President, 412/476-2000
Lawrence R. Dodds, P.E., Senior Vice President, 412/476-2000

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

82 ADMINISTRATIVE	4 ECOLOGISTS	4 LANDSCAPE ARCHITECTS	18 STRUCTURAL ENGINEERS
0 ARCHITECTS	2 ECONOMISTS	1 MECHANICAL ENGINEERS	17 SURVEYORS
8 BIOLOGIST	0 ELECTRICAL ENGINEERS	2 MINING ENGINEERS	4 TRAFFIC ENGINEERS
47 CADD OPERATORS	33 ENVIRONMENTALISTS	0 PHOTOGRAMMETRISTS	145 OTHER
2 CHEMICAL ENGINEERS	8 ESTIMATORS	10 PLANNERS: URBAN/REGIONAL	
40 CIVIL ENGINEERS	9 GEOLOGISTS	2 SANITARY ENGINEERS	
93 CONSTRUCTION INSPECTORS	2 HISTORIANS	18 SOILS ENGINEERS	
32 DESIGNERS	3 HYDROLOGISTS	4 SPECIFICATION WRITERS	590 TOTAL PERSONNEL
0 DRAFTSMEN			

TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: 4
 *RPEs other than Civil and Mining must provide supporting documentation that qualifies them to supervise and perform this type of work.

GAI can field three separate teams (P.E. and CADD operator as defined by EOI) from its Charleston office. However, only one team is expected for this project. GAI has completed all of its AML projects since 1986 from the Charleston office.

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

11. OUTSIDE KEY CONSULTANTS/SUB-CONSULTANTS ANTICIPATED TO BE USED. Attach "AML Consultant Confidential Qualification Questionnaire" for each if copy is not on file with AML.

<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE</p> <p>_____ Yes _____ No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE</p> <p>_____ Yes _____ No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE</p> <p>_____ Yes _____ No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE</p> <p>_____ Yes _____ No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE</p> <p>_____ Yes _____ No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE</p> <p>_____ Yes _____ No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE</p> <p>_____ Yes _____ No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE</p> <p>_____ Yes _____ No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE</p> <p>_____ Yes _____ No</p>

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

YES Description and Number of Projects: GAI has completed 119 projects for the WV-AML Program (18 in the last five years). GAI has completed over 150 projects for all AML Programs (WV, PA, VA, MD, OSM). These projects include but are not limited to design of abandoned refuse piles, abandoned portals, demolition of facilities, design of drainage control structures, and revegetation plans.

NO

B. Is your firm experienced in Soil Analysis?

YES Description and Number of Projects: GAI has completed many (over 200) projects that required soil analysis for revegetation plans, acid/base counts, foundation, stability analysis, engineering properties, etc. Most of the 119 WV-AML projects required some type of soil analysis. GAI has completed some analysis in-house and used subconsultants at other times depending on requirements.

NO

C. Is your firm experienced in hydrology and hydraulics?

YES Description and Number of Projects: GAI has completed numerous (300+) projects which involve hydrology and hydraulics including projects that were AML/mining related. Most of the 119 WV-AML projects required hydrology and hydraulic evaluations and design for drainage control structures, mine hydraulic level, mainstream event, water transmission, sediment control, etc. GAI is also experienced and trained in natural stream restoration and wetland mitigation.

NO

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

YES Description and Number of Projects: GAI has produced contour mapping on most of its 119 AML projects. We subcontract our aerial photography, if none is available. We do not anticipate aerial photography being needed to complete this project.

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: GAI has completed over 70 projects involving domestic waterline design of which 42 were for the WV-AML program. This has included aquifer degradation evaluation and waterline design, Public Service District interaction, PSC requirements, Health Department permits, etc. to include field surveys, field inspection, and public hearings and meetings. **Aquifer degradation and waterline design** was the primary components of these projects.

NO

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

YES Description and Number of Projects: GAI has completed over 100 AMD evaluations and abatement designs of which 25 were for the WV-AML program; however, AMD was a consideration on most of its 119 WV-AML projects. GAI is noted and published for some of its designs and projects to include grouting programs, SAP installations and other innovative abatement designs.

NO

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

<p>NAME & TITLE (Last, First, Middle Int.) Fenn, IV, C. Elwood Branch Manager</p>	<p>YEARS OF AML DESIGN EXPERIENCE: 5</p>	<p>YEARS OF AML RELATED DESIGN EXPERIENCE: 25</p>	<p>YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 5</p>
<p>Brief Explanation of Responsibilities Mr. C. Elwood Penn, IV, P.E., Branch Manager will serve as Contract Administrator. He will be responsible for the overall management and performance of the project. He will review the work directive, visit the site along with the WVDEP to better familiarize himself with site conditions and work requirements, and then guide the preparation of the scope of work and cost proposal by GAI staff. A written proposal including a detailed cost estimate (manhours and expenses associated with the project) will then be prepared and submitted to the WVDEP for their review. Upon WVDEP's approval of the proposal, Mr. Penn will arrange for the start of the work. Included will be project staffing, arrangement and detailing of the scope of services to be provided by GAI's subcontractors, and review of project budget and schedule. Mr. Penn will generally supervise the work in progress and review work products at intermediate points and finally prior to submittal to the WVDEP and will be responsible for maintaining liaison with the WVDEP Project Manager including project status reports as required.</p> <p>EDUCATION (Degree, Year, Specialization) B.S. 1985 Civil Engineering</p>			
<p>MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS American Society of Civil Engineers Society of American Military Engineers National Society of Professional Engineers</p>			
<p>13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)</p>			
<p>NAME & TITLE (Last, First, Middle Int.) Straley, Charles F. Project Manager</p>	<p>YEARS OF AML DESIGN EXPERIENCE: 16</p>	<p>YEARS OF AML RELATED DESIGN EXPERIENCE: 22</p>	<p>YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 14</p>
<p>Brief Explanation of Responsibilities Mr. Straley will be responsible for day-to-day project activities and guidance of the GAI staff. His main activities will include development of detailed step-by-step project work plans to ensure the project activities are completed on-budget and on-time, review of the work products at intermediate points and at project completion, providing guidance and direction to project staff, as well as engineering and design work. Mr. Straley will be responsible for preparation of construction drawings, technical specifications, calculations and cost estimates. He will oversee the geotechnical aspects of the project, including but not limited to subsurface exploration, foundation and embankment design, and slope stability.</p>			
<p>EDUCATION (Degree, Year, Specialization) B.S. 1986 Civil Engineering M.S. 1988 Geotechnical Engineering</p>			
<p>MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS Society of American Military Engineers</p> <p>REGISTRATION (Type, Year, State) 1992 Professional Engineer (WV, OH, KY, NC) 1996 Professional Land Surveyor, WV</p>			

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Green, Jason T. CADD Operator	12	12	12
Brief Explanation of Responsibilities			
Mr. Green will be responsible for activities that will include development of project drawings, transferring survey data to project plans, and development of project details.			
EDUCATION (Degree, Year, Specialization) A.A.S., 2002, Engineering Technology			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS			
Society of American Military Engineers			
REGISTRATION (Type, Year, State) NICET Level I & II			
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Doyle, Michael CADD Operator	12	12	12
Brief Explanation of Responsibilities			
Mr. Doyle will be responsible for activities that will include development of project drawings, transferring survey data to project plans, and development of project details.			
EDUCATION (Degree, Year, Specialization) A.A.S., 1995, Computer Drafting			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS			
REGISTRATION (Type, Year, State)			

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle int.)	YEARS OF EXPERIENCE		YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 10
Hemme, James A. Project Engineer	YEARS OF AML DESIGN EXPERIENCE: 10	YEARS OF AML RELATED DESIGN EXPERIENCE: 18	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 10
Brief Explanation of Responsibilities			
Mr. Hemme will be responsible for preparation of construction drawings, technical specifications, calculations and cost estimates. He will oversee hydraulic/hydrology aspects of the project, including but not limited to stormwater management, erosion and sediment control, and mine discharge.			
EDUCATION (Degree, Year, Specialization)			
B.S. 1989 Civil Engineering			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS			
REGISTRATION (Type, Year, State) 1992 Professional Engineer (WV, KY) 2000 Licensed Remediation Specialist WV			
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle int.)	YEARS OF EXPERIENCE		YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 5
Young, Mark D. Project Engineer	YEARS OF AML DESIGN EXPERIENCE: 5	YEARS OF AML RELATED DESIGN EXPERIENCE: 9	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 5
Brief Explanation of Responsibilities			
Mr. Young will be responsible for preparation of construction drawings, technical specifications, calculations and cost estimates. He will oversee hydraulic/hydrology aspects of the project, including but not limited to stormwater management, erosion and sediment control, and mine discharge.			
EDUCATION (Degree, Year, Specialization)			
B.S. 1998 Civil Engineering			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS			
REGISTRATION (Type, Year, State) 19 Professional Engineer WV, KY, IN, OH National Environmental Protection (NEPA) Training			

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Young, Jonathon G. Environmental Specialist	6	11	6

Brief Explanation of Responsibilities

Mr. Young will be responsible for providing services related to natural resources, including but not limited to wetland delineation, benthic studies, wetland restoration or mitigation, endangered species and stream restoration.

EDUCATION (Degree, Year, Specialization)

- B.S. 1994 Wildlife and Fisheries Resources Management
- M.S. 1997 Range and Wildlife Sciences

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

111th Engineer Brigade

REGISTRATION (Type, Year, State)

- U.S. Army Corps of Engineers
Wetland Delineation and Management Training
Wetland Plant Identification Course

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Schoolcraft, Ann E. Environmental Specialist	8	8	8

Brief Explanation of Responsibilities

Ms. Schoolcraft will be responsible for providing services related to natural resources, including but not limited to wetland delineation, benthic studies, wetland restoration or mitigation, endangered species and stream restoration.

EDUCATION (Degree, Year, Specialization)

- B.S. 1997 Biological Science
- M.S. 1999 Biological Science, Aquatic Ecology

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

- U.S. Army Corps of Engineers
Wetland Delineation and Management Training

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Gray, Thomas A. Engineering Manager II	19	30	16
Brief Explanation of Responsibilities			
Mr. Gray will provide expertise in the areas of coal refuse reclamation, mine subsidence and AMD remediation.			
EDUCATION (Degree, Year, Specialization)			
B.S. 1973 Mining Engineer			
M.B.A. 1977 Business Administration			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS			
Society of American Military Engineers			
Society of Mining, Metallurgy, and Exploration			
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Newman, F. Barry Manager - Geotechnical/Structural	19	37	10
Brief Explanation of Responsibilities			
Mr. Newman will provide expertise in the areas of geotechnical engineering, including but not limited to landslides, retaining wall design, slope stability and subsidence.			
EDUCATION (Degree, Year, Specialization)			
B.S. 1968 Civil Engineering			
M.S. 1970 Civil Engineering			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS			
American Society of Civil Engineers			
REGISTRATION (Type, Year, State)			
1974 Professional Engineer (PA, WV, CO, IN, MD, TX)			

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

NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
19	39	10	10
<p><i>Bruhn, Robert W.</i> Staff Consultant</p> <p>Brief Explanation of Responsibilities</p> <p>Mr. Bruhn will provide expertise in the areas of subsurface investigation, soil and rock mechanics, and subsidence.</p> <p>EDUCATION (Degree, Year, Specialization) B.S. 1967 Geology M.S. 1969 Civil Engineering A.B.D. Civil Engineering</p> <p>MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS American Society of Civil Engineers Association of Engineering Geologists Society of Mining Engineers</p> <p>REGISTRATION (Type, Year, State) 1982 Professional Engineer, (PA)</p>			
<p>13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)</p>			
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
19	33	10	10
<p><i>Michalski, Stan R.</i> Senior Staff Geologist</p> <p>Brief Explanation of Responsibilities</p> <p>Mr. Michalski will provide expertise in the areas of geologic studies, mine fire investigations and impoundments.</p> <p>EDUCATION (Degree, Year, Specialization) B.S. 1967 Earth and Planetary Science M.A. 1975 Resource Management MLIS 2004 Library and Information Science</p> <p>MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS Association of Engineering Geologist</p> <p>REGISTRATION (Type, Year, State) 1995 Professional Geologist, (PA)</p>			

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

NAME & TITLE (Last, First, Middle Int.)		YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Frech, Kerry L. Senior Staff Engineer		10	25	10
Brief Explanation of Responsibilities				
Mr. Frech will provide expertise in the area of hydrology and hydraulics, including but not limited to stormwater management and modeling of drainage systems.				
EDUCATION (Degree, Year, Specialization)				
B.S. 1977 Civil Engineering				
M.Eng. 1978 Environmental Engineering				
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS				
American Society of Civil Engineers				
American Water Resources Association				
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)				
NAME & TITLE (Last, First, Middle Int.)		YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Gower, Thomas R. Staff Geologist		16	30	10
Brief Explanation of Responsibilities				
Mr. Gower will provide expertise in the area of geology and subsurface investigations.				
EDUCATION (Degree, Year, Specialization)				
B.S. 1974 Geology				
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS				
Association of Engineering Geologists				
REGISTRATION (Type, Year, State)				
Professional Geologist, 1989 (AR, PA)				

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

NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
10	16	10	10
<p>Reese, George T. Lead Environmental Specialist</p> <p>Brief Explanation of Responsibilities</p> <p>Mr. Reese will provide expertise in evaluation of endangered species, wetland evaluation and habitat assessment and restoration.</p>			
<p>EDUCATION (Degree, Year, Specialization)</p> <p>B.S. 1984 Biological Sciences</p> <p>M.S. 1989 Biology</p>			
<p>MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS</p> <p>Ecological Society of America</p> <p>Wilson Ornithological Society</p>			
<p>13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)</p>			
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
12	29	12	12
<p>Queen, Terry W. Senior Technician</p> <p>Brief Explanation of Responsibilities</p> <p>Mr. Queen will be responsible for collecting field data including but not limited to water samples, soil borrow samples, refuse samples, and verification of mapping.</p>			
<p>EDUCATION (Degree, Year, Specialization)</p> <p>1986 Math and Physical Education Classwork</p> <p>1992 Drafting and Design</p>			
<p>MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS</p> <p>REGISTRATION (Type, Year, State) Troxler Nuclear Densometer Certification WVDOH Portland Cement Concrete and Compaction</p>			

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

Equipment: HP 1050C Plotter Software: AutoCAD

Digital Planimeters (2) MicroStation

HP Digital Cameras Microsoft Word

Minolta Photocopier/Printer Microsoft Excel

Nikon DTM-450 Total Stations Water CAD

Nikon DTM-550 Total Stations Sewer CAD

Gorman Global Positioning Unit Flowmaster

TR-55

Numerous Hydrology/Hydraulic Models

Maptech (Professional)

REAME (Slope Stability)

Hydrocalc Hydraulics

GeoPack Design

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
Whites Run Highway & Portals Randolph County	WV Department of Environmental Protection Office of Abandoned Mine Lands and Reclamation	Preparation of reclamation plan	\$1,016,875.00	90%
McAlpin Eroding Dump Phase II and Phase III Raleigh County	WV Department of Environmental Protection Office of Abandoned Mine Lands and Reclamation	Preparation of reclamation plan for 11 sites	\$3,500,000	99%
Community of Preston Waterline Extension Preston County	WV Department of Environmental Protection Office of Abandoned Mine Lands and Reclamation	Design of 1.8 miles of waterline	\$342,000	99%
Bearwallow Branch Refuse Pile McDowell County	WV Department of Environmental Protection Office of Abandoned Mine Lands and Reclamation	Preparation of reclamation plan for 7 sites	2,000,000	99%
Romney Bridge Romney, WV	WV Division of Highways	Design of Bridge	15,000,000	80%
TOTAL NUMBER OF PROJECTS: 5 (primary office)			TOTAL ESTIMATED CONSTRUCTION COSTS:	\$21,858,875.00

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM WAS THE DESIGNATED ENGINEER OF RECORD	PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST (in thousands)	YEAR	CONSTRUCTED (YES OR NO)
<p>Logan (Marcum) Drainage Emergency Project, Logan County, West Virginia</p> <p>The scope of work involves emergency evaluation and investigation to develop a method to collect and discharge the seepage from the coal seam and conveyance to a downstream drainage system. Construction plans and specifications were developed.</p>	<p>West Virginia Division of Environmental Protection, Abandoned Mine Lands Program Charleston, West Virginia</p>	<p>\$47 (Fee)</p>	<p>2006</p>	<p>YES</p>	
<p>Bud/Alpoca Waterline Extension Feasibility Study, Wyoming County, West Virginia</p> <p>The scope of work included interviewing local residents and government officials; collecting and analyzing surface and private water supply samples; researching water quality records; designing and costing remedial measures; calculating the percentage of wells that had been degraded by mining activity; and summarizing the findings in a report.</p>	<p>West Virginia Division of Environmental Protection, Abandoned Mine Lands Program Charleston, West Virginia</p>	<p>\$32 (Fee)</p>	<p>2006</p>	<p>NA</p>	
<p>Nuriya/Maben Waterline Extension Feasibility Study, Wyoming County, West Virginia</p> <p>The scope of work included interviewing local residents and government officials; collecting and analyzing surface and private water supply samples; researching water quality records; designing and costing remedial measures; calculating the percentage of wells that had been degraded by mining activity; and summarizing the findings in a report.</p>	<p>West Virginia Division of Environmental Protection, Abandoned Mine Lands Program Charleston, West Virginia</p>	<p>\$32 (Fee)</p>	<p>2006</p>	<p>NA</p>	

<p>Herndon Heights Waterline Extension Feasibility Study Wyoming County, West Virginia</p> <p>The scope of work included interviewing local residents and government officials; collecting and analyzing surface and private water supply samples; researching water quality records; designing and costing remedial measures; calculating the percentage of wells that had been degraded by mining activity; and summarizing the findings in a report.</p>	<p>West Virginia Division of Environmental Protection, Abandoned Mine Lands Program Charleston, West Virginia</p>	<p>\$32 (Fee)</p>	<p>2006</p>	<p>NA</p>
<p>Handley/Upper Creek Drainage Project, Kanawha County, West Virginia</p> <p>The reclamation plan included dewatering the underground impoundment(s) and creating diversion ditches to redirect the drainage around structures to the nearby stream. Regrading the areas behind the retaining wall, revegetating, and providing proper drainage for all disturbed areas is also included in the plan.</p>	<p>West Virginia Division of Environmental Protection, Abandoned Mine Lands Program Charleston, West Virginia</p>	<p>\$61 (Fee)</p>	<p>2005</p>	<p>YES</p>
<p>Latrobe (Gibson) Landslide Emergency Project, Logan County, West Virginia</p> <p>The scope of work involved emergency evaluation and investigation to develop alternatives to reduce slopes, eliminate instability, and provide for controlled drainage. Once an alternative was selected, construction plans and specifications were developed.</p>	<p>West Virginia Division of Environmental Protection, Abandoned Mine Lands Program Charleston, West Virginia</p>	<p>\$76 (Fee)</p>	<p>2005</p>	<p>YES</p>

<p>Ven's Run Maintenance Proj., Harrison, County, West Virginia</p> <p>The scope of work involves stabilizing the slopes and provide for controlled drainage. It is GAI's initial approach to the abatement of the landslide is to provide a proposed reclamation plan that will grade the slide in place as much as practical and not conduct a total removal of material.</p>	<p>West Virginia Division of Environmental Protection, Abandoned Mine Lands Program Charleston, West Virginia</p>	<p>\$135 (Fee)</p>	<p>2007</p>	<p>No</p>
<p>Community of Preston - State Route 72 Waterline, Preston County, West Virginia</p> <p>The scope of work included the preparation of construction documents for a water transmission line. The total length of waterline is approximately 1.1 miles.</p>	<p>West Virginia Division of Environmental Protection, Abandoned Mine Lands Program Charleston, West Virginia</p>	<p>\$39 (Fee)</p>	<p>2007</p>	<p>No</p>
<p>Kingwood 52/6 Water Supply Extension, Preston County, West Virginia</p> <p>The scope of work included the preparation of construction documents for a water transmission line. Included in the distribution system is a 96,000 gallon water storage and a booster pump station. The total length of waterline is approximately 13 miles.</p>	<p>West Virginia Division of Environmental Protection, Abandoned Mine Lands Program Charleston, West Virginia</p>	<p>\$121 (Fee)</p>	<p>2005</p>	<p>YES</p>
<p>Helen Portals, Raleigh County, West Virginia</p> <p>The scope of work included the preparation of construction documents for four sites, consisting of abandoned mine portals, unstable refuse piles, small impoundment, and demolition of a mining related structure. The project also included re-establishing a stream by natural stream techniques.</p>	<p>West Virginia Division of Environmental Protection, Abandoned Mine Lands Program Charleston, West Virginia</p>	<p>\$71 (Fee)</p>	<p>2004</p>	<p>YES</p>

18. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM HAS BEEN A SUB-CONSULTANT TO OTHER FIRMS (INDICATE PHASE OF WORK FOR WHICH YOUR FIRM WAS RESPONSIBLE)

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST OF YOUR FIRM'S PORTION	YEAR	CONSTRUCTED (YES OR NO)	FIRM ASSOCIATED WITH
NA					

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.

Please see attached "Brief Firm History and Experience" for more details of qualifications.

20. The foregoing is a statement of facts.
 Signature: Charles Stroup Jr Title: Branch Manager Date: August 6, 2007
 Printed Name: C. Elwood Penn, IV, P.E.

NOTE: THIS DOCUMENT WILL BECOME VOID AFTER DECEMBER 31 IN CALENDAR YEAR OF DATE HEREON.

AML and RELATED PROJECT EXPERIENCE MATRIX											PRIMARY STAFF PARTICIPATION/CAPACITY *** M=Management P=Professional														
PROJECT	Exp. Basis C=Corp. P=Personnel	Additional Info Provided in Section(s) **	PROJECT EXPERIENCE REQUIREMENTS														Mapping	C. Elwood Penn, IV, PE	Charles F. Straley, PE	James A. Herme, PE					
			Abandoned Surface Mine Reclamation	Abandoned Deep Mine Reclamation	Portal/Shaft Closure	Hydrologic/Hydraulic Design/Eval.	Remining Evaluation	Mine/Refuse Fire Abatement	Subsidence Investigation Mitigation	Hazardous Waste Disposal	Project Specifications	Water Quality Evaluation/Mitigation/Replacement	Construction Inspection/Management	Water Treatment	Equipment/Structure Removal	Stream Restoration					Geotechnical/Stability				
Logan (Marcum) Drainage	C/P		X	X																	M	M/P			
Bud Alpoca	C/P			X																		M/P	M/P	P	
Nuriva Maben	C/P																					M/P	M/P	P	
Herndon Heights	C/P																					M/P	M/P	P	
Handley/Upper Creek	C/P		X	X																		M	M/P	M/P	P
Titus Road	C/P		X																			M	M/P	M/P	P
American Legion	C/P		X																			M	M/P	M/P	P
Cogar	C/P			X																		M	M/P	M/P	P
East Branch Phase II	C/P		X																			M	M/P	M/P	P
West Branch Headwaters	C/P		X	X					X													M	M/P	M/P	P
Lake Milton Reclamation	C/P		X																			M	M/P	M/P	P
Middleton Run Reclamation	C/P		X																			M	M/P	M/P	P
Larrobe (Gibson) Landslide	C/P																					M	M/P	M/P	P
Lodestar Energy	C/P		X	X																		M	M/P	M/P	P
Ven's Run Maintenance	C/P		X																			M	M/P	M/P	P
War Waterline	C/P																					M	M/P	M/P	P
Clarks Gap	C/P																					M	M/P	M/P	P
War (Dash) Impoundment	C/P																					M	M/P	M/P	P
Whites Run	C/P		X	X																		M	M/P	M/P	P
Helen Portals	C/P		X	X																		M	M/P	M/P	P
Bearwallow Branch	C/P	3	X	X																		M	M/P	M/P	P
Ned's Branch Impoundment	C/P	3	X	X																		M	M/P	M/P	P
McAlpin Phase II & III	C/P	3	X	X																		M/P	M/P	M/P	P

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

AML and RELATED PROJECT EXPERIENCE MATRIX													PRIMARY STAFF PARTICIPATION/CAPACITY *** M=Management P=Professional									
PROJECT	Exp. Basis C=Corp. P=Personnel	Additional Info Provided in Section(s) **	PROJECT EXPERIENCE REQUIREMENTS												C. Ewood Penn, IV, PE	Charles F. Straley, PE	James A. Hemme, PE					
			Abandoned Surface Mine Reclamation	Abandoned Deep Mine Reclamation	Portal/Shaft Closure	Hydrologic/Hydraulic Design/Eval.	Remining Evaluation	Mine/Refuse Fire Abatement	Subsidence Investigation Mitigation	Hazardous Waste Disposal	Project Specifications	Water Quality Evaluation/Mitigation/ Replacement	Construction Inspection/Management	Water Treatment				Equipment/Structure Removal	Stream Restoration	Geotechnical/Stability Mapping		
McAlpin Phase I	C/P	3	X	X	X	X											X	M/P	M/P	P		
Community of Preston	C/P	3			X	X												X	M/P	M/P	P	
Kingwood 52/6	C/P	3			X	X												X	M	M/P		
Micajah Ridge	C/P	3			X	X													M/P	M/P		
Glen Rogers	C/P	3			X	X													M/P	M/P		
Rt. 20 / Gould	C/P	3			X	X													M/P	M/P		
Elkins/Buckhannon	C/P	3			X	X													M/P	M/P		
Laurel Creek	C/P	3	X	X	X	X				X								X	M/P	M/P		
Superior	C/P	3										X							P	P		
Wash. Heights Review	C/P	3			X	X													P	P		
Gaymont	C/P	3			X	X													P	P		
Hornity Creek	C/P	3			X	X													P	P		
Elk Creek / Verner	C/P	3			X	X													P	P		
Orlando Mining	C/P	3										X							P	P		
Scotch Hill	C/P	3																	P	P		
Camp Run AMD	C/P	3	X	X	X	X													X	X	P	
Mahan	C/P	3	X		X	X													X	X	M/P	
Johnsons Knob	C/P	3	X	X	X	X				X									X	X	P	
Carolina	C/P	3	X	X	X	X				X									X	X	P	
Hutchinson	C/P	3	X	X							X									M/P	M/P	
Fairmont (Grandstaff)	C/P	3	X	X							X									M/P	M/P	
City of Summersville	C/P	3				X														P	P	
Reynoldsville	C/P	3				X													X	M	M/P	P

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

AML and RELATED PROJECT EXPERIENCE MATRIX													PRIMARY STAFF PARTICIPATION/CAPACITY *** M=Management P=Professional										
PROJECT	Exp. Basis C=Corp. P=Personnel *	Additional Info Provided in Section(s) **	PROJECT EXPERIENCE REQUIREMENTS												C. Elwood Penn, IV, PE	Charles F. Straley, PE	James A. Hemme, PE						
			Abandoned Surface Mine Reclamation	Abandoned Deep Mine Reclamation	Portal/Shaft Closure	Hydrologic/Hydraulic Design/Eval.	Remining Evaluation	Mine/Refuse Fire Abatement	Subsidence Investigation Mitigation	Hazardous Waste Disposal	Project Specifications	Water Quality Evaluation/Mitigation/ Replacement	Construction Inspection/Management	Water Treatment				Equipment/Structure Removal	Stream Restoration	Geotechnical/Stability	Mapping		
Urso Subsidence	C/P		X						X				X							M/P			
Mill Creek Phase II	C/P														X								
Duncan Hill Subsidence	C/P		X																				
Cora Mine Drainage II	C/P		X												X								
Covey Creek Mine	C/P		X						X														
Vivian	C/P		X							X													
Kimball	C/P		X							X													
Hampden Bridge	C/P																						
Bear Run Refuse	C/P		X							X													
Beaver Creek	C/P																						
Charleston Landslide	C/P		X																				
Garrison Complex	C/P																						
Cassidy Fork	C/P																						
Mulberry Fork Landslide	C/P		X																				
Beckley Subsidence	C/P																						
Courtright Highwall	C/P		X																				

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

INTRODUCTION

GAI Consultants, Inc., (GAI) proposes to provide engineering services to the West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands and Reclamation (WVDEP - AML). These services will result in the development of mapping, engineering drawings, contract specifications, and other contract documents as may be required for the letting of construction project for the Price Hill Complex.

This Expression of Interest is **formatted** in a clear, concise manner with the briefest description as possible conveying our expertise and knowledge. All components of the proposal follow in narrative and highlighted sections and as outlined in the AML Consultant Confidential Qualification Questionnaire (CCQQ).

The highlighted sections following are:

- Bidders Experience
- Subcontractors Discussion on:
 - Surveying and Mapping
 - Subsurface Investigation
 - Laboratory Services
- Design Engineering and Contract Document Preparation
- Qualifications of Personnel
- Corporate Specialized Experience and Demonstrated Experience
- Management Plan and Location of Facilities

GAI's Charleston, West Virginia office is exceptionally well qualified to provide the State with the above referenced services. GAI's Charleston office has a staff of **Four Professional Engineers, one Professional Surveyor**, and a team of geologists/hydrologists, environmental scientists, biologists, technicians, CADD operators, word processor operators, secretaries, and draftspersons. GAI's Charleston office has served the WVDEP on **previous** AML open-end and other contracts from 1986 to the present as well as several other pre-1986 AML projects. These **projects** include:

- Landslide investigations and repair,
- Coal refuse pile reclamation,
- Acid mine drainage (AMD) evaluation and treatment,
- Demolition plans,
- Mine portal reclamation,
- Stream Restoration
- Burning coal refuse piles, coal seams and underground mines,
- Coal refuse reprocessing evaluations,
- Subsidence investigations and stabilization plans,
- Water quality surveys and feasibility reports,
- Water supply system reviews,
- Water supply system designs,
- Wetlands replacement and development, and

- * Environmental liability assessments.

GAI also provides engineering services to the mining industry including:

- * Design of coal refuse disposal piles including impoundment structures,
- * Hydrologic/hydraulic design of erosion and sediment control devices,
- * Stream Restoration,
- * Soil analysis and revegetation plans,
- * Coal refuse reprocessing evaluations including mining and reclamation plans,
- * Construction monitoring services,
- * Design of excess overburden disposal fills, both conventional and durable rock fills,
- * Detailed reclamation plans,
- * Detailed subsurface/geotechnical investigations for foundation, subsidence, slope stability, and reserve analysis,
- * Mine closure plans/post-reclamation land use,
- * Permitting for deep and surface mine applications, NPDES, U.S. Army Corps of Engineers Section 404 permits, West Virginia Public Lands permits, air pollution control permits, etc.,
- * Probable hydrologic consequences (PHC) statement preparation,
- * Reclamation/environmental liability assessments in conjunction with property transfers, and
- * Subsidence control plans.

As a result of this experience, GAI will provide the required expertise to complete reclamation projects in a timely, economical, and efficient manner and will not require any subconsultants to be utilized on this project. Our direct knowledge of the AML program guidelines and personnel will also benefit the State.

GAI will perform the work under this contract in our **Charleston, West Virginia** office.

BIDDER EXPERIENCE

GAI Consultants, Inc., provides consulting services in geotechnical engineering, civil engineering, environmental engineering, mining-related design engineering, geology, hydrogeology, environmental science, economics, transportation systems and land-use planning, urban and site engineering, structural engineering, engineering mechanics, agronomy, anthropology and archaeology, and various related professional disciplines. The firm has experienced steady growth in both size and capabilities; and for the past fourteen years has been **rated among the top 200 engineering** and environmental firms in the nation by Engineering News Record (ENR).

GAI Consultants, Inc., is a full service civil, environmental and mining engineering firm headquartered in suburban Pittsburgh, Pennsylvania, with offices in Charleston, West Virginia; Philadelphia, Pennsylvania; Ft. Wayne, Indiana; Orlando and Jacksonville, Florida; Cincinnati, Ohio; and Richmond, Virginia. Established in 1958, GAI and its subsidiaries comprise an organization of over 500 engineers, scientists, and support personnel. With our in-house soils laboratories, surveying services and competent staff of professionals, GAI offers a comprehensive approach to engineering problems requiring a wide range of interdisciplinary skills. In the past 40+ years, we have designed and monitored the construction of numerous facilities and have conducted thousands of related geotechnical and hydrological investigations, many of which involved reclamation of abandoned mine lands. By successfully completing so many reclamation projects, GAI has obtained "expertise" status on an international basis for many type projects. For example, GAI recently completed a very large investigation into delineating the extent of the world's largest mine fire in the country of India. GAI was selected for the country of India mine fire project based upon qualifications only.

GAI's Charleston, West Virginia office opened in 1985. Since opening, our Charleston office has experienced steady growth. Currently, the Charleston office has four registered professional engineers and other experienced disciplines on staff. Clients served by the Charleston office include mining and industrial companies; federal, state, and local governmental agencies; engineers and architects; and private developers.

GAI has successfully served the WVDEP on previous AML contracts from 1986 to the present. We propose to utilize most of the same Charleston and Monroeville staff. See attached CCQQ.

Surveying and Mapping

To provide cost efficient and timely services for this contract, surveying services will be conducted by GAI's in-house surveyors. GAI routinely performs the following types of surveys which are relevant to the work possibly associated with this project.

- Aerial mapping control surveys including horizontal and vertical control and reference monuments,
- Topographic and planimetric surveys,
- Construction surveys including work layout staking, establishment of baselines and cross sections, profiles, etc.,
- Construction quantity measurement surveys,
- Detailed as-built documentation surveys,
- Property surveys including both surface and mineral estates, and
- Oil and gas surveying.

GAI presently operates up to three survey crews. GAI has made a commitment to provide timely surveying services.

GAI's survey crew utilizes Nikon DTM-450 and Nikon DTM-550 Total Stations. This is complimented by data collectors and Autocad workstations to generate plan views, profiles, cross sections and other engineering drawings. These CAD-generated drawings can then be utilized by GAI's CAD-drafting/design department for design.

All surveys conducted by GAI are completed under the supervision of a West Virginia licensed land surveyor. Surveying will also be performed under the general direction of a West Virginia registered professional engineer, the GAI project engineer and project manager. All surveys and mapping are completed to the standards as outlined by the National Map Standards, as well as other applicable quality standards to include AML specifications.

Subsurface Investigation

Based upon the information provided in the Expression of Interest, GAI is not proposing the use of any subsurface investigation subcontractor. Borrow area investigations will be conducted by GAI personnel, as has been the case in past projects.

Laboratory Services

GAI operates full-service soils and materials laboratories in our Philadelphia, Pennsylvania office.

GAI has the capability to analyze natural materials such as soil and rock, manufactured materials such as concrete and steel, and industrial waste materials. The soils and industrial waste analysis capabilities include classification tests, moisture content, grain size analysis, Atterberg limits, specific gravity, unit weight determinations, and chemical analyses. The characteristic test capabilities include relative density equipment for sample particle sizes to 3 inches in diameter; apparatus for constant- and falling-head permeability measurements in both horizontal and vertical directions, and for moisture-density relationships for both modified and standard densities. The compressibility of materials can be determined in a 2.5-inch diameter, one-dimensional consolidometer or a 2.5-inch diameter, one-dimensional Anteus consolidometer with back pressure and pore pressure capability. Also, volumetric consolidation can be determined isotropically or anisotropically. The strength parameters of soils and industrial/coal waste materials can be determined by unconfined compression, direct shear, or triaxial shear tests. The rock-testing capabilities include classification by visual inspections and petrographic analysis, unconfined compression, direct shear, and triaxial shear tests. GAI also maintains several nuclear densometer testing gauges to monitor field compaction.

Based upon the information provided in the Expression of Interest, GAI is not proposing the use of any other laboratory services.

Design Engineering and Contract Document Preparation

GAI has extensive experience in design engineering and the preparation of contract documents for AML reclamation and related projects. GAI prides itself in development of **simple, yet innovative, cost-efficient designs** that are easily implemented in the field during construction. Our experience gained on various types of West Virginia AML projects during the past 17 years will ensure this quality engineering continues.

GAI has prepared **over 80** construction packages for WVDEP-AML since 1985. Other West Virginia AML projects completed by GAI did not result in the preparation of construction drawings such as water quality surveys and feasibility reports and landslide investigations where it was determined that the problems were not mining related. GAI is completely familiar with WVDEP's guidelines for preparing construction drawings, technical specifications, and supporting documents. We are able to draw on a large collection of typical construction details contained within our computer aided drafting (CAD) library for the above types of AML projects. GAI also has various master specifications which we are able to draw from to create project specific specifications.

During the design engineering phase of our projects, GAI develops alternatives for the reclamation program and schedules meetings with WVDEP-AML to review options and select a mutually acceptable plan. We feel that this approach results in a more workable plan at an ultimately lower cost. We also perform a constructability review of each construction package by technical staff familiar with actual methods of construction. This review also expedites the overall reclamation plan.

QUALIFICATIONS OF PERSONNEL

GAI has a staff of over 500 technical support personnel. GAI's staff is particularly well suited to investigate problems associated with abandoned mine lands. We propose to utilize a staff of engineers (civil and mining), geologists, biologists, surveyors, and CADD operators to conduct the investigatory and design work backed by a group of management professionals.

Mr. C. Elwood Penn, IV, P.E., Branch Manager will serve as Contract Administrator in the Charleston office. Mr. Penn has worked with the industry and their related problems for **25 years**. Mr. Penn is very knowledgeable with WVDEP - AML guidelines and project expectations. His qualifications will result in direct benefits to the State in terms of quality and cost efficient completion of the project.

Mr. Charles F. Straley, P.E. will serve as Project Manager. Mr. Straley has managed and participated in the design and development of reclamation plans and feasibility studies for over **45** abandoned mine land projects for the WVDEP, Abandoned Mine Lands and Reclamation Program. Mr. Straley has a complete understanding of WVDEP - AML guidelines, specifications, and project expectations. He has a good working relationship with many of the AML staff.

Mr. James A Hemme, P.E. will serve as a Project Engineer. Mr. Hemme has participated in the design and development of reclamation plans and feasibility studies for over **10** abandoned mine land projects for the WVDEP, Abandoned Mine Lands and Reclamation Program. Mr. Good has a complete understanding of WVDEP - AML guidelines, specifications, and project expectations. He has a good working relationship with many of the AML staff.

Mr. Mark D. Young, P.E. will serve as a Project Engineer. Mr. Young has participated in the design and development of reclamation plans and feasibility studies for over **6** abandoned mine land projects for the WVDEP, Abandoned Mine Lands and Reclamation Program. Mr. Young has a complete understanding of WVDEP - AML guidelines, specifications, and project expectations.

All have relevant direct experience with mine reclamation, grading/drainage, feasibility studies, water study and design, stream restoration, and preparation of construction documents.

A team of staff engineers, geologists/hydrologists, environmental scientists, biologists, technicians, CADD operators, word processor operators, secretaries, and draftspersons will provide the expertise and manpower to complete the project. For special needs we can call on planners, land use specialists, natural resource specialists, soil scientists, archaeologists, architectural historians, and structural and material engineers.

**CORPORATE SPECIALIZED EXPERIENCE
AND DEMONSTRATED ABILITIES**

GAI has provided a wide variety of services to governmental agencies related to the reclamation of AML problems. GAI has served the WVDEP on open-end and other contracts from 1986 to the present. We have also completed numerous projects for the Office of Surface Mining, Reclamation and Enforcement (OSMRE) and AML programs in Pennsylvania, Ohio, Maryland, and Virginia.

MANAGEMENT PLAN & LOCATION OF FACILITIES

Management Plan

GAI's proposed project management plan is presented on Figure 1. The work will be performed in **GAI's Charleston, West Virginia office** which will allow ready access to the project area. Assistance, if and when needed will be provided by staff located in the Pittsburgh, Pennsylvania office of GAI. GAI's Charleston location is also convenient with respect to the WVDEP's Charleston location.

GAI's professional, technical and support staff have extensive experience on AML and related design projects and are extremely well qualified to serve the WVDEP on this contract. GAI stands ready to commit the personnel and resources required to complete the project in a timely, technically sound and cost efficient manner.

Contract Administration will be provided by **Mr. C. Elwood Penn, IV, P.E.** as shown in Figure 1. Mr. Penn will be responsible for overall management and performance of the project. He will review the work directive, visit the site along with the WVDEP to better familiarize himself with site conditions and work requirements accompanied by Mr. Gray or other appropriate staff, and then guide the preparation of the scope of work and cost proposal by GAI staff. He will also generally supervise the work in progress and review work products at intermediate points and finally prior to submittal to the WVDEP. In addition, Mr. Fioravante will be in charge of any contractual negotiations necessary through the process of the project.

Project Management will be provided by **Mr. Charles F. Straley, P.E., P.S.** as shown in Figure 1. Mr. Straley will be responsible for the day to day management and performance of the project. He will review the work directive and prepare the scope of work and cost proposal. A written proposal including a detailed cost estimate (manhours and expenses associated with the project) will then be prepared and submitted to the WVDEP for their review. Upon WVDEP's approval of the proposal, the Project Manager will arrange for the start of the work. Included will be project staffing, arrangement and detailing of the scope of services to be provided by GAI, and review of project budget and schedule. The Project Manager will generally supervise the work in progress and review work products at intermediate points and finally prior to submittal to the WVDEP and will be responsible for maintaining liaison with the WVDEP Project Manager including project status reports, as required.

Day-to-day project activities will be performed under the direction of the Project Manager by one of the **Project Engineers (Messrs. James A. Hemme, P.E. and Mark D. Young, P.E.)** as shown in Figure 1. They will be responsible for guidance of the GAI staff. Their main activities will include development of detailed step-by-step project work plans to ensure the project activities are completed on-budget and on-time, review of the work products at intermediate points and at project completion, providing guidance and direction to project staff, as well as engineering and design work.

GAI's large experienced staff permits us to respond quickly, provides flexibility, and permits high level input to the project's staff from in house experts. However, our method of staffing projects, as evidenced by our performance on prior projects for WVDEP-AML, is to assign a small team with total responsibility for completion of the work to the clients satisfaction and budget. Where necessary the team can draw on the expertise available within GAI's large staff.

Project Budget Control

The Project Manager will be responsible for monitoring the project budget. GAI's staff submits time sheets on a weekly basis. All charges including labor hours and other project expenses to a particular project are compiled in our data center and are distributed to the Project Manager by Wednesday of the following week. In this manner, we can keep close track of our project costs.

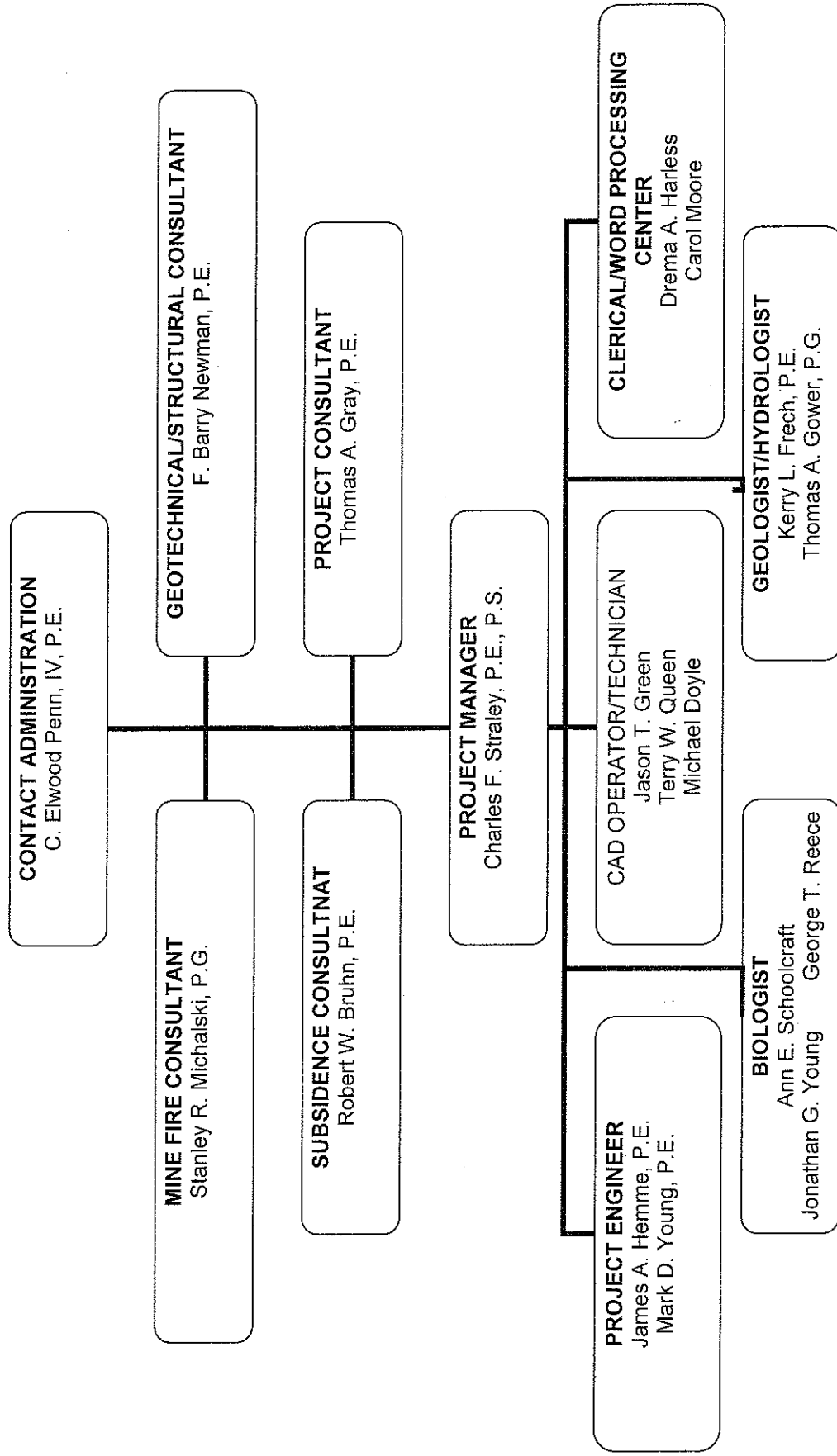
Schedule Control

Direct responsibility for schedule control lies with the Project Manager. Initially, the Project Manager will review the work directive schedule requirements to see if they can be complied with given the anticipated scope of work. As the project progresses, the Project Manager will monitor progress and compare it with the established schedule on a weekly basis. In this manner, the Project Manager can make staff adjustments to maintain the project schedule. If circumstances develop that make it impossible to maintain the project schedule, the Project Manager will contact the WVDEP Project Manager to develop a mutually acceptable adjustment to the schedule.

Location of Facilities

GAI proposes to complete work under this contract in our **Charleston, West Virginia office**. We feel that our close proximity to the WVDEP's Charleston office and the project area will allow the project to be completed in a timely, efficient manner.

FIGURE 1



**AML PROJECTS
WEST VIRGINIA DIVISION OF ENVIRONMENTAL PROTECTION**

Project No.: E060330.10
Title: Logan (Marcum) Drainage Emergency Project
Location: Logan County, West Virginia
Tasks: The scope of work involves emergency evaluation and investigation to develop a method to collect and discharge the seepage from the coal seam and conveyance to a downstream drainage system. Construction plans and specifications were developed.

Project No.: E060185.10
Title: Bud/Alpoca Waterline Extension Feasibility Study
Location: Wyoming County, West Virginia
Tasks: The scope of work included interviewing local residents and government officials; collecting and analyzing surface and private water supply samples; researching water quality records; designing and costing remedial measures; calculating the percentage of wells that had been degraded by mining activity; and summarizing the findings in a report.

Project No.: E060184.10
Title: Nuriva/Maben Waterline Extension Feasibility Study
Location: Wyoming County, West Virginia
Tasks: The scope of work included interviewing local residents and government officials; collecting and analyzing surface and private water supply samples; researching water quality records; designing and costing remedial measures; calculating the percentage of wells that had been degraded by mining activity; and summarizing the findings in a report.

Project No.: E060183.10
Title: Herndon Heights Waterline Extension Feasibility Study
Location: Wyoming County, West Virginia
Tasks: The scope of work included interviewing local residents and government officials; collecting and analyzing surface and private water supply samples; researching water quality records; designing and costing remedial measures; calculating the percentage of wells that had been degraded by mining activity; and summarizing the findings in a report.

Project No.: E050470.10
Title: Handley/Upper Creek Drainage Project
Location: Kanawha County, West Virginia
Tasks: The reclamation plan included dewatering the underground impoundment(s) and creating diversion ditches to redirect the drainage around structures to the nearby stream. Regrading the areas behind the retaining wall, revegetating, and providing proper drainage for all disturbed areas is also included in the plan.

- Project No.: E050287.10
Title: Latrobe (Gibson) Landslide Emergency Project
Location: Logan County, West Virginia
Tasks: The scope of work involved emergency evaluation and investigation to develop alternatives to reduce slopes, eliminate instability, and provide for controlled drainage. Once an alternative was selected, construction plans and specifications were developed.
- Project No.: E050212.10
Title: Ven's Run Maintenance Project
Location: Harrison, County, West Virginia
Tasks: The scope of work involves stabilizing the slopes and provide for controlled drainage. It is GAI's initial approach to the abatement of the landslide is to provide a proposed reclamation plan that will grade the slide in place as much as practical and not conduct a total removal of material.
- Project No.: E050126.10
Title: War Waterline Extension Feasibility Study
Location: McDowell County, West Virginia
Tasks: The scope of work included interviewing local residents and government officials; collecting and analyzing surface and private water supply samples; researching water quality records; designing and costing remedial measures; calculating the percentage of wells that had been degraded by mining activity; and summarizing the findings in a report.
- Project No.: E050123.10
Title: Clark's Gap Waterline Extension Feasibility Study
Location: Mercer and Wyoming Counties, West Virginia
Tasks: The scope of work included interviewing local residents and government officials; collecting and analyzing surface and private water supply samples; researching water quality records; designing and costing remedial measures; calculating the percentage of wells that had been degraded by mining activity; and summarizing the findings in a report.
- Project No.: 2004-134-10
Title: War (Dash) Impoundment
Location: McDowell County, West Virginia
Tasks: The scope of work included providing aerial mapping and ground survey for verification of two sites consisting of a small impoundment, several mine portals, and coal refuse disposal. In addition, stability analyses were performed on various scenarios for the elimination of the impoundment including subsurface investigation.
- Project No.: 2003-485-10
Title: Whites Run Highwall and Portal
Location: Randolph County, West Virginia
Tasks: The scope of work consist of preparing construction documents for the reclamation of 6,000 linear feet of highwall, three deep mine portals, a coal refuse spoil area, and treatment of acid mine drainage (AMD). The treatment of the AMD will utilize passive treatment techniques. The project also includes re-establishment of a stream by natural stream techniques.

Project No.: 2003-439-10
Title: Helen Portals
Location: Raleigh County, West Virginia
Tasks: The scope of work included the preparation of construction documents for four sites, consisting of abandoned mine portals, unstable refuse piles, small impoundment, and demolition of a mining related structure. The project also included re-establishing a stream by natural stream techniques.

Project No.: 2003-174-10
Title: Ned's Branch Impoundment (Phase II)
Location: Mingo County, West Virginia
Tasks: The scope of work included this preparation of construction documents for reclamation of the failed impoundment. The scope of work included regrading of refuse, eliminating impoundment capability, sealing of mine portals, stream restoration, highway relocation and construction management services for the above activities.

Project No.: 2003-154-10
Title: Bearwallow Branch Refuse Pile
Location: McDowell County, West Virginia
Tasks: The scope of work included the preparation of construction documents for reclamation of seven sites. The various sites consist of unstable refuse piles, abandoned mine portals, small impoundments, and miscellaneous structures.

Project No.: 2002-282-10
Title: Community of Preston - State Route 72 Waterline
Location: Preston County, West Virginia
Tasks: The scope of work included the preparation of construction documents for a water transmission line. The total length of waterline is approximately 1.1 miles.

Project No.: 2002-144-10
Title: Anchor Road Waterpumping, Storage and Distribution Feasibility Study
Location: Logan County, West Virginia
Tasks: The scope of work included interviewing local residents and government officials; collecting and analyzing surface and private water supply samples; researching water quality records; designing and costing remedial measures; calculating the percentage of wells that had been degraded by mining activity; and summarizing the findings in a report.

Project No.: 2002-143-10
Title: Standard, Paint Creek, Collinsdale Waterline Extension Feasibility Study
Location: Kanawha County, West Virginia
Tasks: The scope of work included interviewing local residents and government officials; collecting and analyzing surface and private water supply samples; researching water quality records; designing and costing remedial measures; calculating the percentage of wells that had been degraded by mining activity; and summarizing the findings in a report.

Project No.: 2002-138-10
Title: McAlpin Eroding Dump - Phase II
Location: Raleigh County, West Virginia
Tasks: The scope of work included the preparation of construction documents for eleven sites. The sites consisted of ten coal refuse piles (one of which is burning), numerous mine openings (both collapsed and open), old mine buildings, possible AMD, and various mine related debris.

Project No.: 2001-489-10
Title: McAlpin Eroding Dump - Phase I
Location: Raleigh County, West Virginia
Tasks: The scope of work included the preparation of construction documents for six sites. The sites consisted of six coal refuse piles, numerous mine openings (both collapsed and open), old mine buildings, possible AMD, and various mine related debris.

Project No.: 96-554-27
Title: Kingwood 52/6 Water Supply Extension
Location: Preston County, West Virginia
Tasks: The scope of work included the preparation of construction documents for a water transmission line. Included in the distribution system is a 96,000 gallon water storage and a booster pump station. The total length of waterline is approximately 13 miles.

Project No.: 96-554-26
Title: Micajah Ridge - Herndon Heights/Itman Waterline Extension Feasibility Study
Location: Wyoming County, West Virginia
Tasks: The scope of work included interviewing local residents and government officials; collecting and analyzing surface and private water supply samples; researching water quality records; designing and costing remedial measures; calculating the percentage of wells that had been degraded by mining activity; and summarizing the findings in a report.

Project No.: 96-554-25
Title: Water Feasibility Study, Glen Rogers Study Area
Location: Wyoming County, West Virginia
Tasks: Work included interviewing local residents and government officials; collecting and analyzing surface and private water supply samples; researching water quality records; designing and costing remedial measures; calculating the percentage of wells that had been degraded by mining activity; and summarizing the investigation in a report.

Project No.: 96-554-24
Title: Rt. 20 / Gould Community Waterline Extension Feasibility Study
Location: Upshur County, West Virginia
Tasks: The scope of work included interviewing local residents and government officials; collecting and analyzing surface and private water supply samples; researching water quality records; designing and costing remedial measures; calculating the percentage of wells that had been degraded by mining activity; and summarizing the findings in a report.

Project No.: 96-554-23
Title: Water Feasibility Study, Elkins/Buckhannon Study Area
Location: Upshur County, West Virginia
Tasks: Work included interviewing local residents and government officials; collecting and analyzing surface and private water supply samples; researching water quality records; designing and costing remedial measures; calculating the percentage of wells that had been degraded by mining activity; and summarizing the investigation in a report.

Project No.: 96-554-22
Title: Laurel Creek Subdivision Subsidence
Location: Raleigh County, West Virginia
Tasks: Preparation of construction documents for the Laurel Creek Subdivision Subsidence project in Beckley, West Virginia. Project involved subsurface investigation (including borehole camera work); sampling of mine water; injection plan layout for grouting under over 40 residences; surface water drainage structure, preparation of technical specifications, drawings, and engineer's cost estimate; and participation in pre-bid and pre-construction meetings.

Project No.: 96-554-21
Title: Superior (PocaLand) Complex
Location: McDowell County, West Virginia
Tasks: The assessment included a site reconnaissance, asbestos observations and sample analysis, lead-based paint observations and analysis, and limited surficial soil sample analysis. The assessment was concluded in a report to aid in evaluating the existing subsurface soil quality in the area to better understand the costs involved during reclamation efforts.

Project No.: 96-554-20
Title: Washington Heights to Jeffrey Waterline Extension
Location: Boone County, West Virginia
Tasks: The project involved a technical review plans and specifications presented by the WVAWC as part of the Boone County Public Service District: Regional Water Supply System. The plans included a total of seven contracts. The scope of work was to identify areas of the contracts that were within project limits set by a Phase II Water Feasibility Study conducted for the WVDEP and to determine the amount of of the contract costs that were the responsibility of the WVDEP. Included were field reconnaissance, review of plans, hydraulic calculations, and cost estimating.

Project No.: 96-554-19
Title: Water Feasibility Study, Gaymont, Edmond, and Winona Study Area
Location: Fayette County, West Virginia
Tasks: Work included interviewing local residents and government officials; collecting and analyzing surface and private water supply samples; researching water quality records; designing and costing remedial measures; calculating the percentage of wells that had been degraded by mining activity; and summarizing the investigation in a report.

Project No.: 96-554-17
Title: Water Feasibility Study, Hominy Creek Study Area
Location: Nicholas County, West Virginia
Tasks: Work included interviewing local residents and government officials; collecting and analyzing surface and private water supply samples; researching water quality records; designing and costing remedial measures; calculating the percentage of wells that had been degraded by mining activity; and summarizing the investigation in a report.

Project No.: 96-554-16
Title: Elk Creek / Verner Waterline Extension Feasibility Study
Location: Logan County, West Virginia
Tasks: The scope of work included interviewing local residents and government officials; collecting and analyzing surface and private water supply samples; researching water quality records; designing and costing remedial measures; calculating the percentage of wells that had been degraded by mining activity; and summarizing the findings in a report.

Project No.: 96-554-15
Title: Orlando Mining Facility
Location: Gilmer County, West Virginia
Tasks: The scope of work included preparation of a report identifying the results from an investigation/evaluation of the facilities and equipment at the site. The investigation included determining the value, usefulness and/or condition of the facilities and equipment.

Project No.: 96-554-14
Title: Scotch Hill / Miller Hill Water Supply Extension
Location: Preston County, West Virginia
Tasks: The scope of work included the preparation of construction documents for a water transmission line beginning at the existing hydropneumatic booster station. Included in the distribution system is a 96,000 gallon water storage. The total length of waterline is approximately 7.5 miles.

Project No.: 96-554-13
Title: Camp Run AMD
Location: Barbour County, West Virginia
Tasks: The scope of work included the preparation of construction documents for two sites. The sites consisted of ten to fifteen mine portals and mine drainage seep locations, one pond (to be drained), concrete tramway abutments (and debris), coal refuse, and various areas of saturated soil from mine drainage (one of which is sliding).

Project No.: 96-554-12
Title: Mahan Tipple and Refuse Maintenance
Location: Fayette County, West Virginia
Tasks: The scope of work included the preparation of construction documents for the repair of a sliding reclaimed coal refuse pile. The project consisted of installing a rock toe buttress and drainage channels

Project No.: 96-554-11
Title: Johnsons Knob
Location: Fayette County, West Virginia
Tasks: The scope of work included the preparation of construction documents for four sites. The sites consisted of five coal refuse piles totaling approximately twenty acres, numerous mine openings (consisting of auger hole and portals, both collapsed and open), six old mine buildings, possible AMD, and various mine related debris (including two old conveyors and a collapsed tipple).

Project No.: 96-554-10
Title: Carolina Refuse
Location: Marion County, West Virginia
Tasks: The project consisted of two sites. The sites consisted of a refuse pile totaling approximately three acres, various non-mine related debris, and two concrete mine shafts with some various debris.

Project No.: 96-554-09
Title: Omega Mine Complex Project
Location: Monongalia County, West Virginia
Tasks: The project involved writing a final report to the Electric Power Research Institute to include a comparison of the pre- and post-injection water quality data, the results of a post-construction benthic survey, and the results of an analysis of data from injection operations.

Project No.: 96-554-08
Title: Omega Mine Complex Completion
Location: Monongalia County, West Virginia
Tasks: The scope of work included the preparation of construction documents for a booster station upgrade as part of the Omega Mine Complex project. Hydraulic analyses were performed, new pumps were selected, and a demonstration was made that the new pumps had higher efficiencies than the old pumps. Construction documents for the booster station upgrade and pressure reducing assembly were prepared.

Project No.: 96-554-06
Title: Hutchinson Subsidence
Location: Fairmont, West Virginia
Tasks: Preparation of construction documents for the Hutchinson Subsidence project in Fairmont, West Virginia. Project involved subsurface investigation (including borehole camera work); sampling of mine water; injection plan layout for grouting under three residences; preparation of technical specifications, drawings, and engineer's cost estimate; and participation in pre-bid and pre-construction meetings.

Project No.: 96-554-05
Title: Fairmont (Grandstaff) Subsidence
Location: Fairmont, West Virginia
Tasks: Evaluation of potential subsidence effects for the Grandstaff Subsidence project in Fairmont, West Virginia. Project involved subsurface investigation (including borehole camera work); sampling of mine water; and preparation of a report describing the findings of the above investigations.

Project No.: 96-554-04
Title: City of Summersville (Rt. 39)
Location: Nicholas County, West Virginia
Tasks: The project included the review of another consultants water feasibility study report and determination if the findings of the report were accurate.

Project No.: 96-554-03
Title: Reynoldsville, Wallace, and Clarksburg Water Supply Extension Project
Location: Harrison County, West Virginia
Tasks: The project included a feasibility/rate analysis, design of 9,400 feet of 8-inch water line, 33,000 feet of 6-inch water line, 12,200 feet of 2-inch water line, a 96,000 gallon (nominal) water storage tank, and other appurtenances, selection, surveying, and geotechnical investigation of a water storage tank site, and preparation of construction documents, regulatory permit applications, and an engineer's report.

Project No.: 96-554-02
Title: Mill Creek Regional Water Supply Extension Project
Location: Logan County, West Virginia
Tasks: Preparation of construction documents for the construction of water transmission lines, a water distribution system, two water storage tanks, a booster station, two hydropneumatic tanks, and a water treatment plant. The total length of water line to be constructed was approximately 34 miles.

Project No.: 96-554-01
Title: Majesty Mine Complex
Location: Barbour County, West Virginia
Tasks: Preparation of construction documents for the reclamation of the Majesty Mine Complex. The Majesty Mine Complex was an abandoned mine site which included old mine structures, open mine portals, unreclaimed refuse piles and an extensive highwall, existing wetlands and ponds, and numerous seeps producing acid mine drainage (AMD).

Project No.: 93-198-25
Title: Phase II Water Feasibility Study, Washington Heights to Jeffrey Study Area
Location: Boone County, West Virginia
Tasks: Phase II water feasibility study for private water supplies in the Washington Heights to Jeffrey Study Area in Boone County, West Virginia. Work included interviewing local residents and government officials; collecting and analyzing surface and private water supply samples; researching water quality records; designing and costing remedial measures; calculating the percentage of wells that had been degraded by mining activity; and summarizing the findings in a report. Work was completed on a "fast track" schedule.

Project No.: 93-198-24
Title: Evaluation of Construction Documents, Gauley River Water Line Extension
Location: Fayette and Nicholas Counties, West Virginia
Tasks: Evaluation of construction documents for the Gauley River Water Line Extension, to be funded by AML. Evaluation included a review of technical specifications and drawings; evaluation of hydraulics; completion of letter summarizing the evaluation; and meetings to discuss the evaluation.

Project No.: 93-198-23
Title: Evaluation of Construction Documents, Heizer/Manila Creek Water Line Extension
Location: Putnam County, West Virginia
Tasks: Evaluation of construction documents for the Heizer/Manila Creek Water Line Extension, to be funded by AML. Evaluation included a review of technical specifications and drawings; evaluation of hydraulics; completion of letter summarizing the evaluation; and meetings to discuss the evaluation.

Project No.: 93-198-22
Title: Owings Mine Complex
Location: Harrison County, West Virginia
Tasks: (1) Evaluation of water quality and potential passive AMD treatment system design at the Owings Mine Complex Site. Project included identification of monitoring points (streams and AMD discharges); sampling and analysis of monitoring points for a 3-month period; preparation of a report summarizing the findings; and conceptual design of passive AMD treatment system including costs.

(2) Preparation of construction documents including subsurface investigation; surveying; refuse processing evaluation; grading and drainage design for four refuse piles and various other refuse areas; design of seals for eighteen mine portals; and preparation of technical specifications, drawings, and engineer's cost estimate.

Project No.: 93-198-21
Title: Omega Mine Complex
Location: Monongalia County, West Virginia
Tasks: Preparation of construction documents for the Omega Mine Complex project in Monongalia County, West Virginia. The project involved the injection of coal combustion byproduct grouts into mine workings to help alleviate the generation of AMD. Work included subsurface investigation; surveying; grout mix evaluation; acid-base accounting analysis of overburden and coal; and preparation of drawings, technical specifications and engineer's cost estimate.

Project No.: 93-198-20
Title: Mill Creek - Isom Community
Location: Logan County, West Virginia
Tasks: Design of water system to service approximately 800 residents of the Mill Creek-Isom Community in Logan County, West Virginia. Work included sizing of water treatment plant, 4 water tanks, 4 booster stations, 1 pressure reducing valve, and approximately 23 miles of water line. Construction cost was estimated at approximately \$5,500,000.

Project No.: 93-198-19
Title: Phase II Water Feasibility Study, Weaver-Junior Study Area
Location: Randolph and Upshur Counties, West Virginia
Tasks: Phase II water feasibility study for private water supplies in the Weaver-Junior Study Area in Randolph and Upshur Counties, West Virginia. Work included interviewing local residents and government officials; collecting and analyzing surface and private water supply samples; researching water quality records; designing and costing remedial measures; calculating the percentage of wells that had been degraded by mining activity; and summarizing the investigation in a report.

Project No.: 93-198-18
Title: Phase II Water Feasibility Study, Reynoldsville, Wallace, and Clarksburg Study Area
Location: Harrison County, West Virginia
Tasks: Phase II water feasibility study for private water supplies in the Reynoldsville, Wallace, and Clarksburg Study Area in Harrison County, West Virginia. Work included interviewing local residents and government officials; collecting and analyzing surface and private water supply samples; researching water quality records; designing and costing remedial measures; calculating the percentage of wells that had been degraded by mining activity; and summarizing the investigation in a report.

Project No.: 93-198-17
Title: Mainella Subsidence
Location: Marion County, West Virginia
Tasks: Preparation of construction documents for the Mainella Subsidence project in Fairmont, West Virginia. Project involved subsurface investigation (including borehole camera work); sampling of mine water; injection plan layout for grouting under three residences; preparation of technical specifications, drawings, and engineer's cost estimate; and participation in pre-bid and pre-construction meetings. Approximately 15 injection holes were proposed at an estimated construction cost of approximately \$138,000.

Project No.: 93-198-15
Title: Glen Morgan Subsidence
Location: Raleigh County, West Virginia
Tasks: Preparation of construction documents for the Glen Morgan Subsidence project near Beckley, West Virginia. Project included subsurface investigation (including borehole camera work); base mapping development; sampling of mine water; injection plan layout for grouting under one residence; preparation of technical specifications, drawings, and engineer's cost estimate; and participation in pre-bid and pre-construction meetings. Estimated construction cost was approximately \$164,000.

Project No.: 93-198-14
Title: Harris AMD
Location: Harrison County, West Virginia
Tasks: Preparation of construction documents for the Harris AMD site in Harrison County, West Virginia. Project included subsurface investigation; surveying; sampling of mine discharges; design of channels, wet seals, and drain pipes; preparation of technical specifications, drawings and engineer's cost estimate; and participation in pre-bid and pre-construction meetings. Bid construction cost was approximately \$65,000.

Project No.: 93-198-13
Title: Lefthand Fork (See) Burning Refuse
Location: Logan County, West Virginia
Tasks: Preparation of construction documents for Lefthand Fork (See) Burning Refuse project. Project included subsurface investigation including temperature probe readings; surveying; refuse processing evaluation; grading and drainage design for regrading of refuse pile; delineation of burning refuse areas; design of excess material disposal site; completion of IBR for relocating existing bonded haul road; preparation of technical specifications, drawings, and engineer's cost estimate; and participation in pre-bid and pre-construction meetings. Bid construction cost was approximately \$940,000.

Project No.: 93-198-12
Title: Madison Street/Fairview Route 218 Portals
Location: Marion County, West Virginia
Tasks: Work performed on this project was an extension of activities as described on Project No. 88-460-21.

Project No.: 93-198-11
Title: Summerlee Refuse - Post Construction Water Quality
Location: Fayette County, West Virginia
Tasks: Water sample collection, analysis, and evaluation at the reclaimed Summerlee Refuse site. Findings were summarized in a report.

Project No.: 93-198-10
Title: Cow Creek - Sarah Ann Water Supply Extension Project
Location: Logan County, West Virginia
Tasks: Preparation of construction documents for the Cow Creek - Sarah Ann Water Supply Extension project in Logan County, West Virginia. Project included subsurface investigation; design of three water tanks, three booster stations, one master meter assembly, and approximately 19 miles of waterline; preparation of technical specifications, drawings, and engineer's cost estimate; and participation in pre-bid and pre-construction meetings. Bid construction cost was approximately \$4,800,000.

Project No.: 93-198-09
Title: Godby Branch Water Supply Extension
Location: Logan County, West Virginia
Tasks: Preparation of construction documents for the Godby Branch Water Supply Extension project. Project included subsurface investigation; surveying; design of water tank, booster station, and approximately 2.5 miles of water line; preparation of technical specifications, drawings, and engineer's cost estimate; and participation in pre-bid and pre-construction meetings. Bid construction cost was approximately \$680,000.

Project No.: 93-198-08
Title: Phase II Water Feasibility Study, New Haven Study Area
Location: Fayette County, West Virginia
Tasks: Phase II water feasibility study for private water supplies in the New Haven Study Area in Fayette County, West Virginia. Work included interviewing local residents and government officials; collecting and analyzing surface and private water supply samples; researching water quality records; designing and costing remedial measures; calculating the percentage of wells that had been degraded by mining activity; and summarizing the findings in a report. Conceptual design of water system included sizing a water treatment plant, 1 booster station, 5 water tanks, and approximately 87 miles of water line. Estimated construction cost was approximately \$13,800,000.

Project No.: 93-198-07
Title: Phase II Water Feasibility Study, Gauley River Study Area
Location: Fayette and Nicholas Counties, West Virginia
Tasks: Phase II water feasibility study for private water supplies in the Gauley River Study Area in Fayette and Nicholas Counties, West Virginia. Work included interviewing local residents and government officials; collecting and analyzing surface and private water supply samples; researching water quality records; designing and costing remedial measures; calculating the percentage of wells that had been degraded by mining activity; and summarizing the investigation in a report.

Project No.: 93-198-06
Title: Phase II Water Feasibility Study, Heizer and Manila Creek Community
Location: Putnam County, West Virginia
Tasks: Phase II water feasibility study for private water supplies in the Heizer and Manila Creek Community in Putnam County, West Virginia. Work included interviewing local residents and government officials; collecting and analyzing surface and private water supply samples; researching water quality records; designing and costing remedial measures; calculating the percentage of wells that had been degraded by mining activity; and summarizing the findings in a report.

Project No.: 93-198-05
Title: Phase I Water Feasibility Study, Reynoldsville, Wallace, & Clarksburg Study Area
Location: Harrison County, West Virginia
Tasks: Phase I water feasibility study of the Reynoldsville, Wallace, & Clarksburg Study Area in Harrison County, West Virginia to evaluate the potential for pre-1977 mining activity to have degraded the water supplies of residents. Work included interviews, record searches, field reconnaissance, and preparation of remedial action cost estimates. A report summarizing the findings was submitted.

Project No.: 93-198-04
Title: Phase I Water Feasibility Study, Weaver-Junior Study Area
Location: Randolph and Upshur Counties, West Virginia
Tasks: Phase I water feasibility study of the Weaver-Junior Study Area in Randolph and Upshur Counties, West Virginia to evaluate the potential for pre-1977 mining activity to have degraded the water supplies of residents. Work included interviews, record searches, field reconnaissance, and preparation of remedial action cost estimates. A report summarizing the findings was submitted.

Project No.: 93-198-03
Title: Phase I Water Feasibility Study, Matheny Hill Study Area
Location: Harrison County, West Virginia
Tasks: Phase I water feasibility study of the Matheny Hill Study Area in Harrison County, West Virginia to evaluate the potential for pre-1977 mining activity to have degraded the water supplies of residents. Work included interviews, record searches, field reconnaissance, and preparation of remedial action cost estimates. A report summarizing the findings was submitted.

Project No.: 93-198-02
Title: Duncan Hill Subsidence No. 2
Location: Harrison County, West Virginia
Tasks: Completed subsidence evaluation investigation at the Duncan Hill Subsidence No. 2 project site in Clarksburg, West Virginia. Work included subsurface investigation; mapping development; surveying; records review; water sampling; and preparation of a report summarizing the findings. The report did not recommend stabilization for the structures in the project area, due to a lack of evidence that subsidence was causing problems.

Project No.: 93-198-01
Title: Urso Subsidence
Location: Fairmont, West Virginia
Tasks: Field reconnaissance, resident interviews, videotape surveys of existing conditions, subsurface investigation, surveying, and subsequent evaluation to determine if mine subsidence was affecting structures within a several block area of Fairmont. Ultimately, stabilization program was limited to 5.4 acre area with approximately 28 residences and businesses. Construction documents, including drawings, technical specifications, and engineer's cost estimate were prepared. Proposed construction included approximately 140 injection holes and 18,000 cubic yards of injection material. Construction cost was estimated at approximately \$1,200,000.

Project No.: 88-460-24
Title: Phase I Water Feasibility Studies
Location: Brooke County, along Gauley River in Fayette County & Nicholas Counties, and New Haven area (around Hico) in Fayette County, West Virginia.
Tasks: Preliminary investigation of 3 separate communities to evaluate the possibility that pre-1977 mining activity degraded water supplies. The investigation included a review of mining records, existing water quality data, and conductance of resident interviews to assess possible impacts. Separate reports were prepared for each community, documenting findings and providing a cost estimate for extending public water supply systems.

Project No.: 88-460-23
Title: Phase II Water Feasibility Study, Mill Creek Study Area
Location: Boone, Lincoln, and Logan Counties, West Virginia
Tasks: Phase II water feasibility study for private water supplies in the Boone County Community, Lincoln County Community, and Logan County Community all encompassed in the Mill Creek Study Area. Work included interviewing local residents and government officials; collecting and analyzing surface and private water supply samples; researching water quality records; designing and costing remedial measures; calculating the percentage of wells that had been degraded by mining activity; and summarizing the findings in separate reports for each community. Estimated construction cost for extending a public water supply to residents of the Mill Creek Study Area was approximately \$15,400,000 and included 1 water treatment plant, 1 booster station, 7 water storage tanks, and approximately 40 miles of water line.

Project No.: 88-460-22
Title: Phase II Water Feasibility Study, Godby Branch Community
Location: Logan County, West Virginia
Tasks: Phase II water feasibility study for private water supplies in the Godby Branch Community in Logan County, West Virginia. Work included interviewing local residents and government officials; collecting and analyzing surface and private water supply samples; researching water quality records; designing and costing remedial measures; calculating the percentage of wells that had been degraded by mining activity; and summarizing the findings in a report.

Project No.: 88-460-21
Title: Madison Street/Fairview Route 218 Portals
Location: Marion County, West Virginia
Tasks: Preparation of construction documents for the Madison Street/Fairview Route 218 Portals project. Work included subsurface investigation; surveying; design of wet mine seals and associated drains at multiple sites; preparation of technical specifications, drawings, and engineer's cost estimate; and participation in pre-bid and pre-construction meetings.

Project No.: 88-460-20
Title: Summerlee Refuse Project
Location: Fayette County, West Virginia
Tasks: Preparation of construction documents for the Summerlee Refuse pile project. Project included subsurface investigation; surveying; water quality sampling; grading and drainage design for regrading and revegetation of 60 acre refuse pile, 2 impoundments, and 2 ponds; preparation of technical specifications, drawings, and engineer's cost estimate; and participation in pre-bid and pre-construction meetings.

Project No.: 88-460-19
Title: Putnam County Phase I Water Studies
Location: Two communities in Putnam County, West Virginia
Tasks: Preliminary investigation of the Manila Creek and Heizer Creek areas of Putnam County to determine the possibility of pre-1977 mining activity degrading water supplies. Study included review of historical mining records, geological data, and resident interviews to assess possible impacts. Report prepared documenting findings and a cost estimate for extending public water supply system.

Project No.: 88-460-18
Title: Boone County Phase I Water Studies
Location: Various communities in Boone County, West Virginia
Tasks: Preliminary investigation of the Greenview/Big Branch, Ramage/Six Mile Creek, Secoal/Jeffrey/Obes Branch, Hewett Creek/Missouri Fork, and Meadowfork communities of Boone County to determine the possibility of pre-1977 mining activity degrading water supplies. Study included review of historical mining records, geological data, and resident interviews to assess possible impacts. Reports prepared documenting findings and cost estimates for extending public water supply systems.

Project No.: 88-460-17
Title: Duncan Hill Subsidence
Location: Clarksburg, West Virginia
Tasks: Field reconnaissance, resident interviews, videotape surveys of existing conditions, subsurface investigation, borehole video camera surveys, and surveying to determine whether subsidence was affecting numerous homes, water tank, and YMCA over a 16 acre area. Development of report documenting that damages to water tank and YMCA were not subsidence related. Preparation of stabilization plan including plans, specifications, etc., for residential area.

Project No.: 88-460-16
Title: Phase II Logan Water Feasibility Study
Location: Logan County, West Virginia
Tasks: Investigation to determine the percentage of residents in the Cow Creek, Crooked Creek and Upper Rum Creek communities whose ground water supplies had been degraded by pre-1977 mining activity. Field reconnaissance, mine map and mine permit records search, interviews, water sampling and analysis, and classification via piper diagrams were conducted.

Project No.: 88-460-15
Title: Cora Mine Drainage No. II
Location: Logan County, West Virginia
Tasks: Mine drainage abatement project included drilling and water analysis with subsequent design of several mine seals with piping and channels to convey flow to the receiving stream. Project included boring and jacking pipeline under railroad.

Project No.: 88-460-14
Title: Covey Creek Mine
Location: Logan County, West Virginia
Tasks: Field reconnaissance, historical records review, and subsurface investigation to determine extent of mine fire and to develop options for remediation.

Project No.: 88-460-13
Title: Logan Phase I Water Study
Location: Logan County, West Virginia
Tasks: Preliminary investigation of the Clothier, Cow Creek, Crooked Creek, Godby Branch, Godby Heights, Upper Rum Creek, and Whitman Creek/Holden communities to determine the possibility of pre-1977 mining activity degrading the water supplies of the communities. Field reconnaissance, interviews, and mining and water quality record searches were conducted, and a remedial cost estimate was provided with reports summarizing the findings for each community.

Project No.: 88-460-12
Title: Vivian Refuse Pile
Location: Vivian, West Virginia
Tasks: Subsurface investigation, surveying, and design for reclamation of a large coal refuse pile and two mine entries. Plans, specifications, cost estimate, coal refuse reprocessing evaluation, and supporting documents for regrading over 150,000 cubic yards of refuse, surface water control, mine seals, and riprap toe protection were completed.

Project No.: 88-460-11
Title: Kimball Refuse Piles
Location: Kimball, West Virginia
Tasks: Subsurface investigation, surveying and design for reclamation of 3 coal refuse piles and six mine entries. Design included replacement of a water well and related supply piping for the town of Kimball. Completed preparation of plans, specifications, cost estimate, coal refuse reprocessing report, West Virginia Department of Health permit for new well, and other supporting documents for reclaiming this large site with over ½ million cubic yards of regrading.

Project No.: 88-460-10 & 88-460-09
Title: Hampden (Smith) Bridge
Location: Mingo County, West Virginia
Tasks: Design of metal arch culvert to replace a bridge to allow access to a landslide repair project. Development of plans and specifications were on a fast-track schedule.

Project No.: 88-460-08
Title: Bear Run Refuse
Location: Gilmer County, West Virginia
Tasks: Field reconnaissance to establish project limits, develop reclamation options, and collect water quality information to design a wetlands reclamation project. Subsurface investigation, surveying, and development of aerial mapping for 160 acres were conducted. Plans, specifications, cost estimate, reprocessing evaluation and report, and permit application assistance to develop reclamation plan for 13 former coal refuse disposal ponds/impoundments and 3 refuse piles were completed. Plan included developing and enhancing wetlands.

Project No.: 88-460-07
Title: Beaver Creek Waterline Extension
Location: Barbour and Randolph Counties, West Virginia
Tasks: The project included design of a 1.5 mile, 6-inch diameter water line extension including fire hydrants, stream crossings, and service to 13 residents. Preparation of plans, specifications, cost estimate, and supporting documents were completed.

Project No.: 88-460-06
Title: Charleston (Ratcliffe) Landslide
Location: Kanawha County, West Virginia
Tasks: The project included subsurface investigation; research of mine mapping; and determination if the slide was due to mining.

Project No.: 88-460-05
Title: Garrison Complex
Location: Garrison, Boone County, West Virginia
Tasks: Subsurface investigation, surveying, and design for the removal of a railroad embankment posing a water impounding hazard were conducted. Project also included several mine entries and surface water runoff control channels. Plans, specifications, cost estimate, and supporting documents were prepared.

- Project No.: 88-460-04
Title: Cassity Fork Water Supply Extension
Location: Randolph County, West Virginia
Tasks: The project consisted of a water study to document existing water quality and impacts due to mining, subsurface investigations, surveying, and design of an 8-mile waterline extension including booster station, reservoir, pressure reducing valves, and provision for fire flow. Preparation of plans, specifications, cost estimate and supporting documents, and a review of contractor submittals during construction were conducted.
- Project No.: 88-460-03
Title: Mulberry Fork (Stover) Landslide
Location: Fayette County, West Virginia
Tasks: The project included subsurface investigation and design of corrective measures for a landslide.
- Project No.: 88-460-02
Title: Beckley (Queen Street) Subsidence
Location: Beckley, West Virginia
Tasks: Subsurface investigation to determine if mine subsidence was responsible for damages experienced by a home was conducted. Preparation of a report documenting that subsidence was not responsible for the observed damage was completed.
- Project No.: 88-460-01
Title: Courtright Highwall
Location: Bridgeport, West Virginia
Tasks: Work performed on this project was an extension of activities as described for 86-181-23.
- Project No.: 86-181-23
Title: Courtright Highwall
Location: Bridgeport, West Virginia
Tasks: The project included a subsurface investigation to determine extent of landslide and whether mining related, field surveying to establish topographic mapping and control, and subsequent design of landslide repair alternatives. Design ultimately selected included a reinforced slope using stabilizing grid. Landslide contained 400,000 cubic yards of material.
- Project No.: 86-181-22
Title: Jonben (Haga) Subsidence
Location: Jonben, West Virginia
Tasks: Subsidence control on an emergency basis including sinkhole backfilling and drainage control. Project included drilling to determine the extent of mining and subsidence, field surveying to develop topographic mapping, and development of a backfilling and drainage plan.

Project No.: 86-181-21
Title: Belle (Malcolm) Landslide
Location: Belle, West Virginia
Tasks: Landslide stabilization including excavation of slide mass, sealing of several mine entries, and drainage controls. Project included drilling, sampling, and piezometer installation and monitoring to develop project plans and specifications.

Project No.: 86-181-20
Title: Holden (Padgett) Subsidence
Location: Whitman Junction, West Virginia
Tasks: The project included subsurface investigation to determine extent of mine workings, development of stabilization plan including drainage channels/pipes, and mine seals. Construction documents were prepared, and participation in pre-bid and pre-construction meetings was completed.

Project No.: 86-181-19
Title: Minden Mine Fire
Location: Minden, West Virginia
Tasks: The project included subsurface investigation to determine source and extent of underground fire.

AML PROJECTS
WEST VIRGINIA DEPARTMENT OF ENERGY

Project No.: 86-181-18
Title: Williamson (Elias) Landslide - Emergency
Location: Williamson, West Virginia
Tasks: Subsurface investigation and determination of whether or not a landslide threatening 1 home was mining related with subsequent development of plans for a retaining wall were conducted.

Project No.: 86-181-17
Title: Kitchen/Gibson Landslide - Emergency
Location: Boone County, West Virginia
Tasks: Subsurface investigation and determination of whether or not a landslide threatening 4 homes was mining related were conducted.

Project No.: 86-181-16
Title: Doug Gray Subsidence
Location: Fairmont, West Virginia
Tasks: Subsidence control by injecting grout to fill mine voids. Project included exploratory drilling and sampling including both vertical and angle borings with the subsequent development of a grouting program to support homes and businesses in Fairmont, West Virginia.

Project No.: 86-181-15
Title: St. John's Road Subsidence
Location: Brooke County, West Virginia
Tasks: Subsurface investigation and development of specifications and construction drawings for remedial work on mine subsidence affecting 30 acres and 50 homes were conducted.

Project No.: 86-181-14
Title: High Coal Tipple
Location: Boone County, West Virginia
Tasks: The project included development of specifications and construction drawings for remedial work on 16 mine portals and an abandoned tipple and its several associated structures.

Project No.: 86-181-12
Title: Route 19/28 Subsidence
Location: Harrison County, West Virginia
Tasks: The project included subsurface investigation and development of construction specifications and drawings, and topographic mapping for remedial work on mine subsidence affecting a road.

Project No.: 86-181-10
Title: Omar Refuse Piles
Location: Logan County, West Virginia
Tasks: The project included subsurface investigation and development of specifications and construction drawings for remedial work on regrading 5 refuse piles with over 330,000 cubic yards of earthwork, and sealing 6 mine portals and a large vertical shaft.

Project No.: 86-181-09
Title: Mt. Hope (Sawyer) Subsidence
Location: Fayette County, West Virginia
Tasks: The project included subsurface investigation and development of construction specifications and drawings, and topographic mapping for remedial work on mine subsidence affecting 1 home.

Project No.: 86-181-08
Title: Morgantown Airport Drainage
Location: Morgantown, West Virginia
Tasks: The project included subsurface investigation and development of construction specifications and drawings, and some topographic mapping for remedial work on mine subsidence effecting a day care center and an airport access road, and for closure of 4 mine portals below the end of a runway.

Project No.: 86-181-07
Title: Logan Drainage Project
Location: Logan, West Virginia
Tasks: The project included subsurface investigation and development of construction specifications and drawings, and some topographic mapping for remedial work on 4 mine portals, a mine seep, and 400 feet of abandoned conveyor with its headhouse and loadout platform.

Project No.: 86-181-06
Title: Huffman Street Subsidence
Location: Fairmont, West Virginia
Tasks: The project included subsurface investigation and development of construction specifications and drawings for remedial work on mine subsidence affecting 20 homes.

Project No.: 86-181-05
Title: Switzer/Adams/Robinson Drainage
Location: Logan County, West Virginia
Tasks: The project included subsurface investigation and development of construction specifications, drawings, and topographic mapping for remedial work on 3 mine portals, including the design of an energy dissipator with associated piping under railroad and state highway.

Project No.: 86-181-04
Title: Follansbee (Hultsburg) Drainage
Location: Brooke County, West Virginia
Tasks: The project included subsurface investigation and development of construction specifications and drawings for remedial work on acid mine drainage problems.

Project No.: 86-181-03
Title: Fairmont East Subsidence
Location: Fairmont, West Virginia
Tasks: The project included subsurface investigation and development of construction specifications and drawings for remedial work on mine subsidence affecting 125 homes on 20 acres.

Project No.: 86-181-02
Title: Fairmont IV
Location: Fairmont, West Virginia
Tasks: The project included subsurface investigation to determine if subsidence of 3 homes was related to mining and subsequent development of construction specifications and drawings for remedial work on the subsidence.

Project No.: 86-181-01
Title: Hawkins AMD
Location: Harrison County, West Virginia
Tasks: The project included subsurface investigation and development of construction specifications, drawings and topographic mapping for remedial work on acid mine drainage emanating from mine portals following a "blow-out" and causing a large saturated area above 5 homes.

Project No.: 86-107
Title: Kistler Refuse and Mine Fire Extinguishment Program
Location: Logan County, West Virginia
Tasks: The project included subsurface investigation and development of construction specifications and drawings for extinguishment through grout injection, and subsequent construction monitoring.

Project No.: 85-354
Title: Rebrook Street Drainage
Location: Clarksburg, West Virginia
Tasks: The project included subsurface investigation and development of construction specifications and drawings for remedial work on acid mine drainage from 2 mine portals which was effecting a house and its garage, and subsequent construction monitoring.

Project No.: 85-289
Title: Hurricane Fork/Five-Mile Fork Burning Coal Seams
Location: Kanawha County, West Virginia
Tasks: The project included subsurface investigation and development of costs which would be associated with extinguishment.

Project No.: 84-192
Title: Duck Creek Landslide
Location: Gilmer County, West Virginia
Tasks: The project included subsurface investigation, development of construction specifications and drawings, and construction monitoring for remedial work on a landslide resulting from uncompacted strip bench spoils.

**AML PROJECTS
WEST VIRGINIA DEPARTMENT OF NATURAL RESOURCES**

Project No.: 85-113
Title: Kingmont Complex Reclamation
Location: Marion County, West Virginia
Tasks: The project included development of specifications and construction drawings for sealing 4 mine portals and demolishing a steel river truss and buildings associated with an abandoned deep-mine complex.

Project No.: 84-289
Title: Fairmont No. 2 Subsidence
Location: Fairmont, West Virginia
Tasks: The project included report with recommendations after a subsurface investigation to determine whether or not subsidence of 3 homes was mining related, and subsequent development of specifications and construction drawings.

Project No.: 84-265 and 266
Title: Green's Run Highwall and Marrara Spoil Area Reclamation Projects
Location: Preston County, West Virginia
Tasks: The project included subsurface investigation with test-pits and development of specifications and construction drawings for reclaiming 30 acres of strip mine with 3 highwalls, 6 refuse piles, and 2 access roads.