Michael Baker Jr., Inc.
A Unit of Michael Baker Corporation

5088 West Washington Street
Second Floor
Charleston, WV 25313

304.769.0821 Phone
304.769.0822 Fax

July 23, 2013

Mr. Frank Whittaker
State of West Virginia Department of Administration
Purchasing Division
2019 Washington Street, East
Charleston, West Virginia 25305-0103

Re: Expression of Interest for Professional Engineering Services
Wolfpen (Carpenter) Portals, Kanawha County, West Virginia
RFQ Number: DEP16288

Dear Mr. Whittaker:

Michael Baker Jr., Inc. (Baker) is pleased to present our response to your EOI related to the Professional Engineering services for the above referenced project in Kanawha County. Baker is honored to have built a 30-year relationship with the West Virginia Department of Environmental Protection (WVDEP), helping to solve complex mining and environmental challenges. Since 1983, we have worked together on more than 40 projects, and **have successfully received local and national recognition for our efforts.** At Baker, we don't take the past for granted, but rather, look forward to opportunities to enhance the services we offer to the WVDEP. We have assembled a team of experienced personnel who have performed on previous similar assignments. Our proposed team members have also provided similar services for numerous mine reclamation and related projects over the years for a variety of clients as reflected in the enclosed documentation.

Mr. Charles D. Stover has recently joined the staff of Baker to provide technical assistance and guidance for all reclamation projects. Mr. Stover is the former Acting Chief and Design Administrator for the WVDEP AML/AMD Program, and most recently, the Reclamation Specialist Supervisor for the Charleston Regional Office of the WVDEP Office of Special Reclamation. His long standing history in mine reclamation will add valuable technical insight to our team. Mr. Stover's presence will help Baker be better prepared to address the remediation issues and contribute to more efficient and cost-effective solutions.

Baker's staff is experienced with all aspects of mine reclamation projects. We have provided similar services to the WVDEP, as well as the Pennsylvania DEP, the Ohio DNR and the U.S. Office of Surface Mining to name a few. We feel that our combination of regional experience, familiarity with the site, close proximity and Mr. Stover's specific knowledge and expertise is unique to Baker and we are confident we can provide efficient, timely, personal, cost effective, and quality solutions for the WVDEP on this assignment.

We look forward to a favorable review of our qualifications and the opportunity to personally present our proposed approach to this important project. Should you have any questions or require additional information, please feel free to contact me or Mr. Stover at (304) 769-0821 or by e-mail, pfogarty@mbakercorp.com or Charles.stover@mbakercorp.com.

Very truly yours,

Michael Baker Jr., Inc.

Patrick W. Fogarty, P.E., P.S., LEED® GA
Practice Manager

Charles D. Stover
AML Program Coordinator

Creating Value ... Delivering Solutions.

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

Solicitation

NUMBER	PAGE
DEP16288	1

ADDRESS CORRESPONDENCE TO ATTENTION OF:
FRANK WHITTAKER
304-558-2316

VENDOR
RFQ COPY
TYPE NAME/ADDRESS HERE
Michael Baker Jr., Inc.
5088 West Washington Street
Charleston, West Virginia 25313

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

DATE PRINTED
06/19/2013

BID OPENING DATE: 07/23/2013 BID OPENING TIME 1:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	JB		906-29	N/A	N/A

WOLFPEN (CARPENTER) PORTALS DESIGN

EXPRESSION OF INTEREST

THE WEST VIRGINIA PURCHASING DIVISION, FOR THE AGENCY, THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, IS SOLICITING EXPRESSIONS OF INTEREST FOR PROFESSIONAL ENGINEERING DESIGN SERVICES AND CONSTRUCTION MONITORING SERVICES AT THE WOLFPEN (CARPENTER) PORTALS PROJECT IN KANAWHA COUNTY, WEST VIRGINIA PER THE FOLLOWING BID REQUIREMENTS AND ATTACHED SPECIFICATIONS.

****** THIS IS THE END OF RFQ DEP16288 ****** TOTAL: N/A

SIGNATURE Jennifer E. Hall | TELEPHONE 304-769-0821 | DATE July 23, 2013

TITLE Assistant Vice President | FEIN 25-1228638 | ADDRESS CHANGES TO BE NOTED ABOVE

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

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

Solicitation

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5088 West Washington Street
Charleston, West Virginia 25313

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

DATE PRINTED
07/03/2013

BID OPENING DATE: 07/23/2013 BID OPENING TIME 1:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT

ADDENDUM NO. 1

ADDENDUM IS ISSUED:

1. TO ADDRESS AND CORRECT PROJECT LOCATION IN SECTION THREE OF THE SPECIFICATION AS PER THE ATTACHED REVISED DOCUMENTATION TO READ: KANAWHA COUNTY.

2. TO PROVIDE ADDENDUM ACKNOWLEDGEMNT. THIS DOCUMENT SHOULD BE SIGNED AND RETURNED WITH YOUR BID. FAILURE TO SIGN AND RETURN MAY RESULT IN THE DISQUALIFICATION OF YOUR BID.

********** END OF ADDENDUM NO. 1 **********

SIGNATURE Russell Hall TELEPHONE 304-769-0821 DATE July 23, 2013

TITLE Assistant Vice President FEIN 25-1228638 ADDRESS CHANGES TO BE NOTED ABOVE

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

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

Solicitation

NUMBER	PAGE
DEP16288	2

ADDRESS CORRESPONDENCE TO ATTENTION OF:
FRANK WHITTAKER
304-558-2316

VENDOR
RFQ COPY
TYPE NAME/ADDRESS HERE

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

DATE PRINTED
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BID OPENING DATE: 07/23/2013 BID OPENING TIME 1:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	JB		906-29	N/A	N/A
WOLFPEN (CARPENTER) PORTALS DESIGN						
****** THIS IS THE END OF RFQ DEP16288 ****** TOTAL:						N/A

SIGNATURE Russell Hall
TELEPHONE 304-769-0821
DATE July 23, 2013
TITLE Assistant Vice President
FEIN 25-1228638
ADDRESS CHANGES TO BE NOTED ABOVE

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

SOLICITATION NUMBER: DEP16288
Addendum Number: 1

The purpose of this addendum is to modify the solicitation identified as ("Solicitation") to reflect the change(s) identified and described below.

Applicable Addendum Category:

[ ] Modify bid opening date and time

[ ] Modify specifications of product or service being sought

[ ] Attachment of vendor questions and responses

[ ] Attachment of pre-bid sign-in sheet

[✓] Correction of error

[ ] Other

Description of Modification to Solicitation:

1. To correct project location in Section 3 of the Specifications , to read: Kanawha County.
2. To provide Addendum Acknowledgement.

Additional Documentation: Documentation related to this Addendum (if any) has been included herewith as Attachment A and is specifically incorporated herein by reference.

Terms and Conditions:

1. All provisions of the Solicitation and other addenda not modified herein shall remain in full force and effect.

2. Vendor should acknowledge receipt of all addenda issued for this Solicitation by completing an Addendum Acknowledgment, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

ATTACHMENT A

EXPRESSION OF INTEREST
WOLFPEN (CARPENTER) PORTALS
DEP16288

SECTION THREE: PROJECT SPECIFICATIONS

1. **Location:** Agency is located at 601 57th Street, SE, Charleston, WV 25304 and the Project is located in Kanawha County, WV.

   Directions to Site: Travel North on I-77 from Charleston, WV. Turn right onto Exit 106 – Edens Fork Exit. At the end of the ramp turn left and travel 0.20 miles to Kanawha Two Mile Road, turn right on this road. Travel 0.20 miles on this road to Rich Fork Road, then turn right. Travel 2.3 miles on this road (Rich Fork Road), to Thaxton Construction Supply Yard on left. Turn left and travel 0.10 miles to SOL Lane. Travel up this steep road 0.20 miles to the end of the asphalt road to a gated bench to the right. The portals are located to the left and right on this old bench/logging road.

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

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

   Design of drainage conveyances.
   Installation of mine seals..
   Re-vegetation of disturbed areas.

   Preliminary design documents will be due 60 days (or less) from the issuance of the Purchase Order.

3. **Qualifications and Experience:** Vendors will provide information regarding its employees, such as staff qualifications and experience in completing similar projects; references; copies of any staff certifications or degrees applicable to this project; proposed staffing plan; descriptions of past projects completed entailing the location of the project, project manager name and contact information, type of project, and what the project goals and objectives where and how they were met.

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
AML CONSULTANT QUALIFICATION QUESTIONNAIRE

Attachment "B"

PROJECT NAME	DATE (DAY, MONTH, YEAR)	FEIN
Wolfpen (Carpenter) Portals Kanawha County, West Virginia DEP16288	July 23, 2013	25-1228638

1. FIRM NAME	2. HOME OFFICE BUSINESS ADDRESS	3. FORMER FIRM NAME
Michael Baker Jr., Inc.	4301 Dutch Ridge Road Beaver, Pennsylvania 15009	

4. HOME OFFICE TELEPHONE	5. ESTABLISHED (YEAR)	6. TYPE OWNERSHIP	6a. WV REGISTERED DBE (Disadvantaged Business Enterprise)
304-769-0821	1940	Individual Corporation Partnership Joint-Venture	YES NO

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

Michael Baker Jr., Inc./ 5088 West Washington Street, Charleston, WV 25313 / 304.769.2154 / Russell E. (Rusty) Hall, PE, PS / 7 (Charleston, WV); William D. Trimbath, PE / 25 (Beaver, PA)

8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM	8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS
Russell E. (Rusty) Hall, Assistant Vice President, 304.769.0821	William D. Trimbath, Vice President, 724.495.4302

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

227 ADMINISTRATIVE	3 ECOLOGISTS	1 LANDSCAPE ARCHITECTS	35 STRUCTURAL ENGINEERS
11 ARCHITECTS	1 ECONOMISTS	7 MECHANICAL ENGINEERS	17 SURVEYORS/Technicians
3 BIOLOGISTS	4 ELECTRICAL ENGINEERS	2 MINING ENGINEERS	5 TRAFFIC ENGINEERS
60 CADD OPERATORS/DESIGNERS	26 ENVIRONMENTALISTS	1 PHOTOGRAMMETRISTS	77 ENGINEERING TECHNICIANS
1 CHEMICAL ENGINEERS	2 ESTIMATORS	6 PLANNERS: URBAN/REGIONAL	33 PROJECT MANAGERS
46 CIVIL ENGINEERS	17 GEOLOGISTS	3 SANITARY ENGINEERS	38 GIS SPECIALISTS
62 CONSTRUCTION INSPECTORS / Mgrs.	2 HISTORIANS	7 SOILS ENGINEERS	79 OTHER
0 DESIGNERS	10 HYDROLOGISTS	7 SPECIFICATION WRITERS	793 TOTAL PERSONNEL (Beaver and Moon Township, PA and Charleston, WV Offices)
0 DRAFTSMEN			

TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: 12

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

10. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE?	_YES _NO N/A

11. OUTSIDE KEY CONSULTANTS / SUB-CONSULTANTS ANTICIPATED TO BE USED. Attach "AML Consultant Confidential Qualification		
NAME AND ADDRESS: NGE Consulting (IF Required) 650 MacCorkle Avenue West St. Albans, WV 25177	SPECIALTY: Drilling and Soil/Rock Analysis	WORKED WITH BEFORE __X__ Yes (9+ years) ______ 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

12. RELEVANT EXPERIENCE. Include number of projects per each discipline

A. Are your firm's personnel experienced in Abandoned Mine Lands Remediation / Mine Reclamation Engineering?

YES

Description and Number of Projects:

Baker has been assisting state and federal agencies with abandoned mine restoration and acid mine drainage remediation since 1977. Baker's experience began with Operation Scarlift and now includes well over 200 AML/AMD remediation projects ranging from subsidence control, mine sealing, reclamation of mine refuse piles, strip pit and highwall regrading; drainage improvements, revegetation, stream relocation, restoration of streams and wetlands, natural streambed design, landslide correction, and replacement of water supplies affected by abandoned mine lands to abatement of AMD problems. These services are accomplished by providing a "one-stop-shop" of professionals including engineers, geologists, surveyors, and environmental scientists to address essentially any issue that may be encountered on an AML project. These professionals combine diverse experience in:

- Mining
- Geotechnical
- Geology
- Hydraulics & Hydrology
- Groundwater
- Water Treatment
- Water Line Design & Supply
- Grading
- Earthwork Balance
- Stormwater Management
- E&S Control
- Sustainable Design
- Hazardous Waste Remediation
- Surveying
- Mapping
- Field Reconnaissance
- Project Management
- Quality Control

Baker has been assisting West Virginia Department of Environmental Protection with Abandoned Mine Lands Remediation/Mine Reclamation Engineering design services ever since WVDEP initiated its AML Reclamation Program in 1983. In addition to WVDEP, we have also assisted PADEP with AML reclamation and AMD remediation designs. The "AML and related Project Experience Matrix" table provided at the end of this CCQQ shows our experience on AML related projects for different state agencies and for private clients.

NO

B. Are your firm's personnel experienced in soil analysis?

YES

Description and Number of Projects:

Baker has conducted in-house soil analysis for over 60 years. We take pride in our work which starts with a geologic literature review to identify and review available references which characterize the site soils and other factors influencing the development and condition of the soils. The task is followed by a geotechnical reconnaissance which is essentially a site view by a Baker geologist or geotechnical engineer to characterize the site soil conditions. Lastly and as appropriate, a subsurface investigation is conducted to collect and identify site soils and assign appropriate engineering descriptions which are in turn utilized for soil analysis.

In designing AML reclamation projects, generally three types of soil analysis are needed. These analyses may include: a) geotechnical analysis/soil classification, b) soil analysis for revegetation potential (pH, Acid Base Accounting, Nutrients) and c) soil analysis for hazardous materials. Baker is involved in selecting and collecting the soil samples and analyzing the results of laboratory testing as required for design. Laboratory testing is performed by a subcontractor. Of the thirty (30) most recent AML projects, Baker was involved in soil analysis for 19 projects. Baker has also prepared reprocessing potential evaluations of coal refuse sites (10 projects) which required evaluation of mine refuse based on laboratory test results. Refuse testing for these projects included refuse float/sink and proximate analysis, with results evaluated by Baker to determine BTU content and reprocessing potential.

NO

12. RELEVANT EXPERIENCE. Include number of projects per each discipline

C. Are your firm's personnel experienced in hydrology and hydraulics?

YES Description and Number of Projects:

Baker's hydrology and hydraulic staff for OSR/AML remediation design are experts in the application of hydraulic models that include HEC-1, HEC-2, HEC-RAS, HY8, TR20, TR55, HAESTADS PONDS 2, FLOWMASTER, HYDROFLOW, KYPIPE 2, CYBERNET, SEDCAD 4, UNET, and DAMBRK. Baker applies this experience to services such as stormwater management; culvert analysis; hydrologic and hydraulic studies; storm sewer design; floodplain modeling; channel design; watershed planning; energy dissipation; and waterline extension and distribution.

Expertise in hydrology and hydraulics is essential in any AML reclamation/remediation design. Of the thirty (30) most recent AML projects, twenty six (26) projects needed hydrology/hydraulics expertise of the AML/AMD design group and 100% of this work was conducted in-house.

NO

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

YES Description and Number of Projects:

Since 1983 Baker has been designing AML/AMD remediation projects for WVDEP. For all the projects to date, Baker was provided by WVDEP with contour maps developed from aerial photography of the project site. Baker's responsibility was to verify the topographic map by check field surveying.

Baker has a survey and photogrammetric department with a staff of 82. Baker routinely performs aerial photography and contour mapping for federal and several state agencies as well as for private clients. Baker's Survey and Photogrammetric Department is as old as the company itself; however, Baker always brings the latest technology to the table. Fixed, mobile and aerial LiDAR equipment are "state-of-the-art" tools that Baker can offer to add efficiencies to the field mapping process and enhance quality. During the last five years, Baker has completed more than 50 mapping projects. Some examples are listed as follows:

Updating Boundary/Site Improvements and Utility Survey – 23 LPOEs, North and South US Borders, US-VISIT (Photogrammetric Mapping and Surveying Services)

Rio Grande Valley Border Fence Boundary Surveys, Cameron and Hidalgo Counties, TX, U.S. Army Corps of Engineers, Fort Worth District (Metes and Bounds Surveys and Legal Deed Descriptions)

Land Port of Entry (LPOE) Aerial Mapping Refresh, North and South US Borders , Department of Homeland Security, US-VISIT (Mapping)

Sewer Infrastructure Location/Verification, Allegheny County, PA, 3 Rivers Wet Weather, Inc., (GPS or Conventional Survey Data by Others)

12. RELEVANT EXPERIENCE. Include number of projects per each discipline

Open-End Contract for Surveying and Photogrammetric Mapping Services, Statewide Pennsylvania, Pennsylvania Department of Transportation (Through a series of nine open-end contracts, Baker has been providing surveying and mapping services to PennDOT continuously since 1986. Our current contract E01292 runs through November 2012)

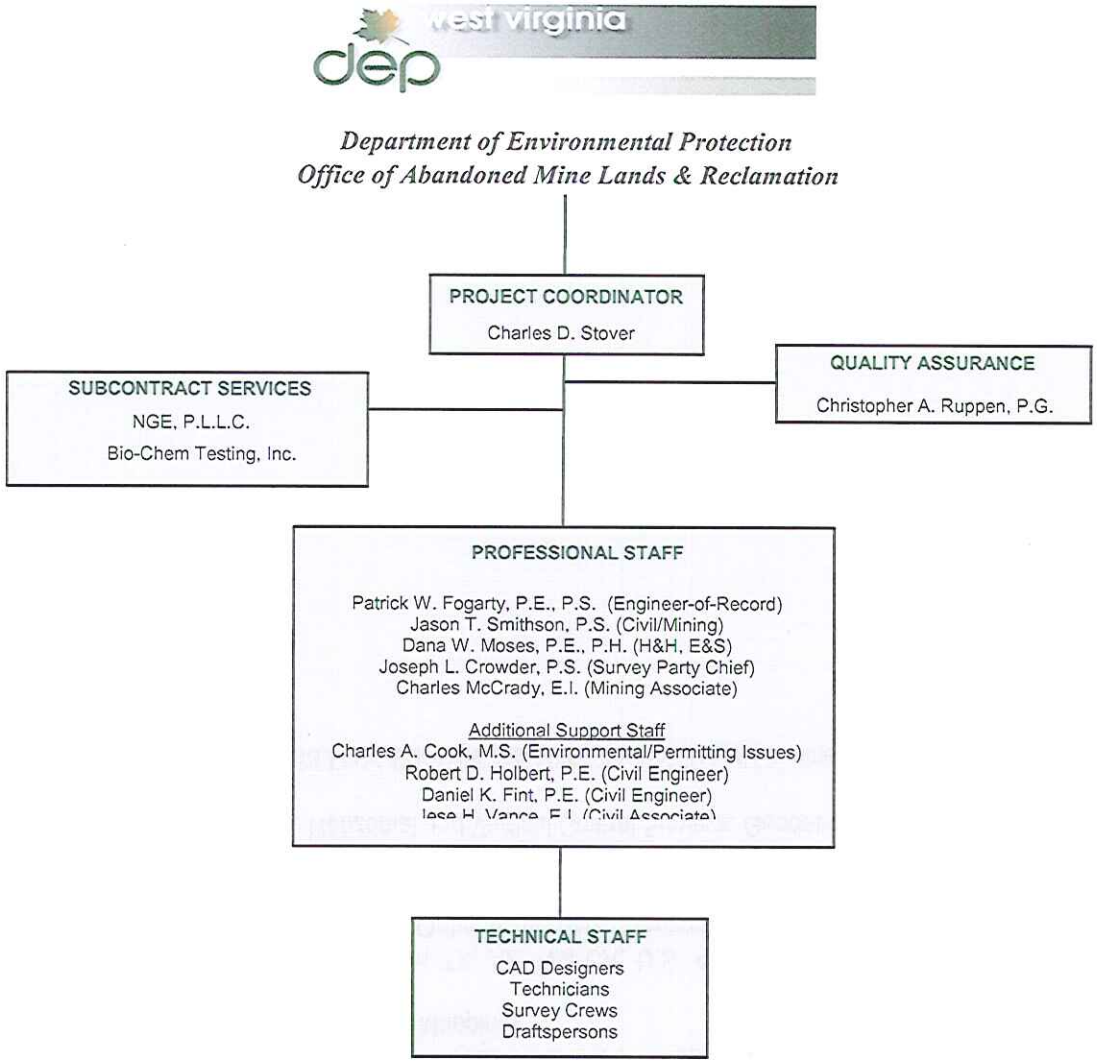
Indefinite Delivery Contract A/E for Multidiscipline & Related Services for Dept. of Homeland Security and other Civil/Military Projects, U.S. Army Corps of Engineers, Fort Worth District (Surveying and Mapping)

Border Fence Project – PF225, Various Locations in TX, AZ, NM CA, U.S. Army Corps of Engineers, Fort Worth District (Aerial Photography, Analytical Aerotriangulation, Stereo Mapping Compilation, Digital Orthophotography, Horizontal and Vertical Control Surveys, Geodetic Surveys)

Land Port of Entry (LPOE) Aerial Mapping Refresh, North and South US Borders, Department of Homeland Security, US-VISIT (Aerial Photography, Stereo Mapping Compilation/Topographic Mapping, Horizontal and Vertical Control Surveys, Geodetic Surveys)

Aerial Photography, Contour Mapping, and Field Surveys are at the core of Baker's business and expertise.

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



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 OSR DESIGN EXPERIENCE:	YEARS OF OSR RELATED DESIGN EXPERIENCE:
Stover, Charles D. (Charlie) Program Coordinator	38	38

Brief Explanation of Responsibilities

Mr. Stover's state government career began as a WVDOH Construction Inspector for two years working mostly on bridge projects with the last project being the "Bigley Interchange Project" where three Interstate Highways converge in Charleston, W.Va. (I-77, I-79 & I-64). The next position was an Engineering Technician position with a new section of the WV Dept. of Natural Resources, Planning and Development Section's Coal Refuse and Dam Control Program. This was a "ground floor" position with the group being accumulated to regulate the dams and the coal refuse disposal statewide. He advanced to the Charleston District Engineer while with that group. When the new federal surface mine laws were passed in 1977 (SMCRA) this entire group was dissolved into the Reclamation Division and placed on Permit Review Teams to provide the expertise to each team for reviewing coal refuse disposal plans and dam designs for freshwater and coal slurry disposal facilities. After approximately four years of permit review, Mr. Stover accepted a position with the Abandoned Mine Lands Program (AML) in 1982 as an inspector which he held for about three years. In 1985, he accepted the position of Design Administrator for AML where he developed a process to employ various engineering consultants simultaneously to design AML projects to standards set up by AML. As his career developed he was made the Acting Chief of AML for approximately three years. The last eight years of his career was spent developing an additional office for the Special Reclamation Program to better utilize additional tax revenues that became available from a legislation action.

As Reclamation Specialist Supervisor (2003-2011) in the WVDEP-Office of Special Reclamation, Mr. Stover was responsible for:

- Setting up a new production unit to catch the program up on a backlog of projects utilizing additional tax revenues created by legislative action.
- Acquiring staffing needs (both clerical as well as technical employees (Reclamation Specialists)) to put this unit into production and begin the "catch up process.
- Responsible for seeing all reclamation designs were completed and submitted to the WV Purchasing Division for proper advertising. Meeting the interested contractors on-site and conducting a Pre-Bid Conference explaining all aspects of the design and show the project as well as answer any questions. Upon obtaining a successful bidder, conducted a Pre-Construction Conference to make sure that the contractor got started correctly and answered any questions that they may have about the design package.
- Made sure all construction on the OSR Projects was monitored and resolved any problems that arised during the construction phase.
- Saw that mine water discharges were monitored and adjusted to be in compliance with the Clean Water Act. This usually required some adjustments to active water treatment sites that have been installed throughout the region as well as "tweaking" some of the passive treatment sites that were built.
- Assured that the project database, as well as the water quality database, was maintained and kept up to date.

As Design Administrator / Acting Chief (1985 – 2003) in the WVDEP, Abandoned Mine Lands Program , Mr. Stover was responsible for:

- Developing a program to solicit design services from the engineering community for the Abandoned Mine Lands Program (AML). Developed an evaluation system to award contracts to the best qualified engineering consultants and provided the successful bidders with adequate information to allow them to provide services.
- Developed a review process to evaluate the designs submitted for accuracy and construction efficiency as well as economic viability.
- After design packages were accepted, scheduled a Pre-Bid Conference and conducted that conference with the consultant's representative.
- Solicited additional consultants to provide geotechnical services and surveying and mapping services.
- Served on a panel to review AML research proposals that were solicited by the Bureau of Mines various Research Centers. This panel was one of four State Programs that participated along with one representative from OSMRE and the four Directors of the BOM Research Centers. This panel reviewed these research proposals for the need that the AML Programs realized from their experience across the Nation.
- Represented the AML on the WV Water Supply Advisory Board developing a priority system to allot the limited funds that were available to various qualifying water supply projects. Served as Chair of that Board with other funding agencies involved.

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 OFOSR DESIGN EXPERIENCE:	YEARS OF OSR RELATED DESIGN EXPERIENCE:
Hall, Russell E. (Rusty) P.E., P.S. Civil Engineer (Assistant Vice President)	7	7

Brief Explanation of Responsibilities

Mr. Hall currently serves an Assistant Vice President of Michael Baker Jr., Inc., as well as Office Manager of our Charleston, WV office. He is an experienced transportation engineer who has been involved in numerous bridge and highway design projects in West Virginia for over 25 years. His project management responsibilities involve overseeing staff from project inception through completion, and ensuring that the clients' needs and requirements are met. He also has over nine years of office management experience. His office management responsibilities include financial oversight and accountability for a staff of over 40 engineers, scientists, and administrative personnel for Baker's Charleston office. His major strengths include organizing and managing a project team, quality control and quality assurance, and problem resolution. He provides overall direction and maintains direct communications with all clients. Mr. Hall is very proud of the fact that he has been able to spend his entire career in West Virginia working to address West Virginia's transportation needs.

Drainage Improvements and Reclamation Measure Design for Four Abandoned Mine Sites, Kanawha County, West Virginia. *WVDEP - Office of AML&R.* Principal-In-Charge. Responsible for oversight of Project Management. Baker is providing surveying and mapping, field investigation, subsurface investigation, water testing and sampling, and conceptual, preliminary and final design for the reclamation of four abandoned mine sites that are affected by uncontrolled drainage, debris, and hazards from open portals. Baker is also providing bid phase and construction phase support for the remedial measures.

Engineering Design for Remediation of Crooked Run #5, Harrison County, West Virginia. *WVDEP - Office of AML&R.* Principal-In-Charge. Responsible for oversight of Project Management. Baker provided engineering services to remediate seven abandoned mine sites along Crooked Run Stream near Clarksburg, West Virginia. Services included field investigation and surveys; core boring and water sampling; conceptual, preliminary, and final design of remediation measures; and bid phase and construction phase support.

Engineering Services to Remediate Landslide Caused by Abandoned Mine Activity, McDowell County, West Virginia. *WVDEP - Office of AML&R.* Principal-In-Charge. Responsible for oversight of Project Management. Baker provided field investigation, engineering services, and construction support to remediate a landslide on private property caused by drainage from abandoned mine portals. Baker provided conceptual, preliminary, and final design documents for remedial drainage measures and provided support during construction.

Spruce Mine No. 1 Mountaintop Mining EIS, Logan County, West Virginia. *Arch Coal, Inc.* Principal-In-Charge. Responsible for oversight of Project Management. Spruce Mine No. 1 is the first mountaintop-mining project requiring an Environmental Impact Statement (EIS) by the U.S. Army Corps of Engineers (USACE). Baker was responsible for all aspects of the project, including agency and public scoping, and the production of the Draft EIS. Baker analyzed and assessed data and studies that were completed for and included in the SMCRA mine permit application.

Surface Mine Project Baseline Data Collection, Confidential Location, West Virginia. *Confidential Client.* Principal-In-Charge. Responsible for oversight of Project Management. Baker was responsible for conducting baseline data collection and reporting of a Phase I archeological survey, and historic resources view shed analysis. The project produced an approximate five-mile section of line and rough grading, as part of the post-mine land use. This initiative was of tremendous value as an innovative partnership that produces significant savings to the taxpaying public. Typical grade/drain projects in southern West Virginia cost as much as $25 million per mile, and it was anticipated that this initiative would save as much as $110 million in the cost to construct embankments for future highway construction.

EDUCATION (Degree, Year, Specialization)	
B.S., 1985, Civil Engineering, West Virginia University Institute of Technology	
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State) Professional Engineer, 1990, West Virginia Professional Surveyor, 1996, West Virginia

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 OSR DESIGN EXPERIENCE:	YEARS OF OSR RELATED DESIGN EXPERIENCE:
Fogarty, Patrick, W., P.E., P.S. Senior Engineer	17	27

Brief Explanation of Responsibilities

Mr. Fogarty is an Engineer and Surveyor responsible for the development of all types of civil, structural, environmental and transportation projects throughout West Virginia and surrounding states. He has more than 26 years of engineering experience and over seventeen years of experience with the WVDEP on AML planning, mapping and design assignments. Various types of AML projects include landslide correction include retaining wall design, site grading and drainage improvements, acid mine drainage collection and neutralization, water line upgrade and extensions, and various projects requiring site regrading and drainage upgrade. Work on these projects also included establishing horizontal and vertical control surveys for aerial photogrammetry mapping, baseline layout, referencing control points, generating check cross sections and site surveys including all physical and topographic features of each unique site civil design, utility relocations, property transfer, treatment design, and project management. Specific WVDEP/AML projects for which Mr. Fogarty has been personally responsible as Project Manager and Lead Design Engineer include the following:

WVDEP14387, Harrison County. *WVDEP - Office of AML&R.* Project Manager. Wet mine seals, the installation of bat gates, open limestone channel design, culvert and structure design, structure removal and reclamation grading at six (6) sites at the Crooked Run #5 Complex in Harrison County near Clarksburg.

WVDEP14176, Kanawha County. *WVDEP - Office of AML&R.* Project Manager. Wet mine seals, the installation of bat gates, open limestone channel design, culvert and structure design, structure removal and reclamation grading at four sites (Marmet (Wells Drive), Cabin Creek (Stapler), East Bank (Garten), and the Mill Hollow Complex) in eastern Kanawha County.

Morris Creek Watershed Association AMD Treatment, Montgomery. *Capitol Soil Conservation District.* Project Manager. Design of treatment systems for stream contamination due to pre-law mining activity within the Morris Creek Watershed near the City of Montgomery, West Virginia. Contamination sources were initially identified for four (4) particular areas within the watershed. Treatment systems were designed for each of the areas including: Stream Relocation and In-Stream Aeration (Upper Main Stem of Morris Creek), Anaerobic Wetland and Polishing Pond (Lower Main Stem of Morris Creek), Aerobic Wetland and Polishing Pond (Possum Hollow Branch of Morris Creek), and In-Stream Aeration (Black Snake Hollow of Morris Creek). The designs incorporated conventional and unconventional treatment processes for the removal of Iron, Manganese, Aluminum, and acidity. The assignment included the coordination of aerial photogrammetric mapping, geotechnical investigation, water sampling (for quality and flowrate) and the preparation of plans, specifications and individual property plats to include the treatment areas within the corporate boundary of the City of Montgomery.

Norton-Harding-Jimtown PSD Waterline Extensions, Randolph County. *West Virginia Department of Environmental Protection.* Project Manager and Lead Designer. The assignment included the coordination of aerial photogrammetric mapping, geotechnical investigation, and the preparation of plans and specifications for planned extensions to three communities (Pumkintown, Mabie, and Green). The project consisted of approximately 30,000 feet of 6-inch and 8-inch PVC SDR 21 water pipe, one new 50 gpm booster pump station, one 100,000 gallon water storage tank, fire protection and other appurtenances.

Kilsyth (City of Mount Hope) Drainage Improvements, Fayette County. Drainage improvements to the intake site for the City of Mount Hope raw water pump station. The design of a circular reinforced concrete tank over a deep mine portal, the collection and rerouting of excess mine water and storm drainage. The design included phasing to assure continuous operation of the pump station during construction.

Chief Logan State Park AMD, Logan County. Wet mine seals and open limestone channel design for the treatment acid mine drainage at numerous locations within the State Park.

EDUCATION (Degree, Year, Specialization)
B.S., 1985, Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
American Society of Civil Engineers International Right of Way Association American Planning Association	Professional Engineer: 1990, WV; 1996, OH; 2000, KY Professional Surveyor, 1993, WV; 1996, OH; 2001, KY LEED Green Associate, 2012

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 OSR DESIGN EXPERIENCE:	YEARS OF OSR RELATED DESIGN EXPERIENCE:
Smithson, Jason T., P.S. Project Designer	11	8

Brief Explanation of Responsibilities

Since joining the company in 2006, Mr. Smithson has been assigned to the Civil Services Department and is currently a Project Designer. During his career, Mr. Smithson has performed geotechnical analysis, civil design, and environmental assignments and functioned as a survey party chief.

WVDEP14176, Kanawha County. Wet mine seals, the installation of bat gates, open limestone channel design, culvert and structure design, structure removal and reclamation grading at four sites (Marmet (Wells Drive), Cabin Creek (Stapler), East Bank (Garten), and the Mill Hollow Complex) in eastern Kanawha County.

WVDEP14387, Crooked Run #5, Harrison County. As a Senior Engineering Technician, performed research of geological data and mine maps, collected and reviewed water quality data, coordinated drilling activities, and assisted in the design of open limestone channels. Assisted in the development of construction plans and specifications for the project. The Crooked Run #5 project is comprised of six (6) work sites. These sites included numerous abandoned (draining) mine portals, refuse areas, a bench pond, trash dump areas and miscellaneous mine debris and subsidence areas.

Abandoned Mine Lands, Statewide Contract, Various Locations, West Virginia. As a Project Surveyor, Mr. Smithson provided services for topographic mapping for various Abandoned Mine Land (AML) projects throughout West Virginia. During these projects he provided topographic mapping and coordinated aerial photogrammetry. This data was incorporated in the design of landslide correction, retaining wall design, site grading, drainage improvements, acid mine drainage collection and neutralization, water line upgrade and extensions. Work on these projects also included: establishing horizontal and vertical control surveys for aerial photogrammetry mapping, baseline layout, referencing control points, generating check cross sections and site surveys including all physical and topographic features of each unique site.

West Virginia Department of Environmental Protection, Photogrammetric Control Surveys, Various Locations, West Virginia. Work performed by Mr. Smithson on these projects included establishing horizontal and vertical control surveys for aerial photogrammetry mapping, baseline layout, and referencing control points. This work was performed utilizing GPS and conventional survey methods.

Mine Safety and Health Administration - Martin County Coal, Slurry Impoundment Failure Investigation, Martin County, Kentucky. As a Project Geologist, Mr. Smithson's duties included the coordination of drilling activities with multiple drilling crews supported by a team of engineers and geologists. He supervised and participated in the subsurface investigation logging activities, the creation of bedrock contour maps, report preparation, and analytical testing on samples extracted from the drilling efforts.

CSX Hotels, Inc., d.b.a. The Greenbrier, White Sulphur Springs, West Virginia. As an Environmental/Geotechnical Geologist, Mr. Smithson was responsible for subsurface investigation activities, in an alluvium/karst aquifer type to determine overburden and bedrock descriptions and groundwater flow analysis, along with the supervision of multiple environmental delineation crews. As a Geologist, assisted the Licensed Remediation Specialist in performing site characterization investigations at the four parcels entered into the West Virginia Voluntary Remediation Program. Work tasks included performing Geoprobe® direct-push investigations, groundwater sampling, landfill gas monitoring, and surface water and sediment sampling.

USACE West Virginia Ordnance Works, Point Pleasant, WV. Performed as the technical manager for the former West Virginia Ordnance Works (WVOW) NPL Site located in Point Pleasant, WV consisting of over 8,000 acres. This site has two groundwater pump and treat systems that require weekly maintenance along with over 200 monitoring and extraction wells. Associated responsibilities included; preparing scopes of work and budgets, selecting consultants/contractors, overseeing consultant/contractor work, meeting with Region 3 EPA, WVDEP, and WVDNR and distributing work to others within the district when necessary.

EDUCATION (Degree, Year, Specialization)	
B.S., 1999, Geology	
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State) Licensed Professional Surveyor, 2007, WV OSHA 40-Hour HAZWOPER Certification, 1999, 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 OSR DESIGN EXPERIENCE:	YEARS OF OSR RELATED DESIGN EXPERIENCE:
Moses, Dana W, P.E., P.H., C.F.M. Mining/Hydraulic Engineer	4	13

Brief Explanation of Responsibilities

Mr. Moses is a Registered Professional Engineer and Mining Engineer at Baker. Mr. Moses has an extensive knowledge of all aspects of surface and underground mining. His experience includes design of ponds, roads, and other structures associated with mining projects, as well as completion of permit applications for mining operations (SMA, NPDES, etc.). Mr. Moses is also a Certified Floodplain Manager with extensive experience in hydraulics/hydrology, SWORA analysis, and natural stream design. Some of the specific projects he was involved in include:

WVDEP14176, Kanawha County. *WVDEP - Office of AML&R.* Wet mine seals, the installation of bat gates, open limestone channel design, culvert and structure design, structure removal and reclamation grading at four sites (Marmet (Wells Drive), Cabin Creek (Stapler), East Bank (Garten), and the Mill Hollow Complex) in eastern Kanawha County.

WVDEP14387, Harrison County. *WVDEP - Office of AML&R.* Wet mine seals, the installation of bat gates, open limestone channel design, culvert and structure design, structure removal and reclamation grading at six (6) sites at the Crooked Run #5 Complex in Harrison County near Clarksburg.

Numerous Mine Projects, West Virginia. Civil Associate. Provided engineering and permitting services needed for development of the site grading, surface water management, erosion/sedimentation control, and ultimate site reclamation. Permitting activities include SMA, 401, 402/NPDES, 404, and PLC permit application completion, including engineering design and environmental regulation compliance, and oversight through approval. Responsible for all phases of the project.

EDUCATION (Degree, Year, Specialization)
B.S., 2002, Civil Engineering
M.B.A., 2004, Marshall University

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
American Society of Civil Engineers American Society of Military Engineers	Professional Engineer, 2008, WV Professional Hydrologist, 2010 Certified Floodplain Manager, 2007

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 OSR DESIGN EXPERIENCE:	YEARS OF OSR RELATED DESIGN EXPERIENCE:
Crowder, Joseph L., P.S. Senior Surveyor	11	20

Brief Explanation of Responsibilities

Since joining Baker, Mr. Crowder has been responsible for performing various duties including field surveying for the reclamation of abandoned mine lands and natural stream design, mine permitting, water feasibility studies, and municipal services. He currently oversees all field surveying activities for the Charleston office.

WVDEP14387, Harrison County. *WVDEP - Office of AML&R.* Wet mine seals, the installation of bat gates, open limestone channel design, culvert and structure design, structure removal and reclamation grading at six (6) sites at the Crooked Run #5 Complex in Harrison County near Clarksburg.

WVDEP14176, Kanawha County. *WVDEP - Office of AML&R.* Wet mine seals, the installation of bat gates, open limestone channel design, culvert and structure design, structure removal and reclamation grading at four sites (Marmet (Wells Drive), Cabin Creek (Stapler), East Bank (Garten), and the Mill Hollow Complex) in eastern Kanawha County.

Water Well Sampling, DuPont, near Washington Works Plant, Wood County, WV. Assisted in gathering data from residents, locating potential sample points, such as old drilled water wells, cisterns, and springs. Assisted in actual water sampling using various methods - bailers, air pumps, etc.

Winfield ACF Site, ACF/U.S. Army Corps of Engineers, Winfield, WV. Work included Boundary, Topographic, Construction Layout, and Sample Point Layout of 15 acres along the Kanawha River. This project had over 12,000 sample points laid out on a 3' grid.

Poor Charlie, Riverside Site, Glasgow, WV; Poor Charlie, Sattes Site, Nitro, WV; Poor Charlie, Cramer Metals Site, Parkersburg, WV. Work included Boundary, Topographic, Location and Boring Stakeout of various VERA sites and adjoining properties.

Elkem Metals Disposal Facility, Elkem Metals, Alloy, WV. Work included Control Network, Boundary, Topographic Surveys, and yearly volume reports.

Solutia, Nitro, WV. Work included Boundary, Topographic and Location Surveys for various projects, disposal facility caps, charcoal filtering systems, and monitoring well control network throughout the site and adjoining properties.

Landfill Surveys, Various Locations, West Virginia. Work included Control Network, Boundary and Topographic Surveys for expansion of cells and yearly volume reports, Construction Layout and baseline stakeout for landfill closure. Locations included:

Nicholas County Landfill, Summersville, WV; Pocahontas County Landfill, Pocahontas County, WV; Fleming Landfill, WVDEP, Sissonville, WV; Cunard Landfill, WVDEP, Fayetteville, WV; Mingo County Landfill, Mingo County, WV; Mercer County Landfill, Mercer County, WV

Cogentrix Energy, Cogentrix, Marshall County, WV. Work included GPS control survey of project area, boundary survey of 292 acres, topographic survey of 177 acres for site construction, courthouse research. Survey Supervisor.

Big Sandy Peaker Plant, Constellation Power, Cabell County, WV. Work included GPS control survey of project area, boundary and topographic of 42 acres, boundary and route survey for 1 mile of transmission lines, construction stakeout. Crew Chief/Survey Supervisor.

EDUCATION (Degree, Year, Specialization)	
A.S., 1989, Computer Aided Drafting	
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State) Professional Surveyor, 2000, 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 OSR DESIGN EXPERIENCE:	YEARS OF OSR RELATED DESIGN EXPERIENCE:
Perdue, Matthew CAD Designer/Surveyor	26	26

Brief Explanation of Responsibilities

Mr. Perdue is a CAD Technician/Surveyor at Baker and has worked in the mine reclamation field for many years with other firms. Some of the specific projects for which he provided site design, surveying, plan and detail preparation include:

Elk Creek Portals, Logan County. This project included wet mine seals, dry mine seals, open channel design, site regrade and revegetation.

Delbarton (Curry) Landslide, Mingo County. This project included extensive site grading and drainage design, and a drilled pile retaining wall with concrete lagging.

Coal Hollow Refuse "A," Putnam County. Wet mine seals, dry mine seals, modified bat gates, open channel design, structure removal, site regrade and revegetation.

WVU Tech Drainage, Fayette County. Deep mine dewatering program, wet mine seals, bat gates, open channel design, site grading and revegetation.

Norton-Harding-Jimtown PSD Waterline Extensions, Randolph County. *West Virginia Department of Environmental Protection.* The assignment included the coordination of aerial photogrammetric mapping, geotechnical investigation, and the preparation of plans and specifications for planned extensions to three communities (Pumkintown, Mabie, and Green). The project consisted of approximately 30,000 feet of 6-inch and 8-inch PVC SDR 21 water pipe, one new 50 gpm booster pump station, one 100,000 gallon water storage tank, fire protection and other appurtenances.

Chief Logan State Park AMD, Logan County. Wet mine seals and open limestone channel design for the treatment acid mine drainage at numerous locations within the State Park.

WVDEP14176, Kanawha County. Wet mine seals, the installation of bat gates, open limestone channel design, culvert and structure design, structure removal and reclamation grading at four sites (Marmet (Wells Drive), Cabin Creek (Stapler), East Bank (Garten), and the Mill Hollow Complex) in eastern Kanawha County.

WVDEP 14387, Harrison County. Wet mine seals, Dry mine seals, the installation of bat gates, open channel design, culvert design, sediment control design, structure removal and reclamation, grading and revegetation.

WVDEP 14439, McDowell County. Wet mine seals, open channel design,, culvert design, underdrains, sediment control design, reclamation grading and revegetation.

WVDEP14800, Marion County. Drilling program development and the preparation of construction plans and specifications for the abatement of mine subsidence at four (4) sites in or near the City of Fairmont. The project "Fairmont Five Subsidence," included grout injection as well as surface depression regarding and minor drainage improvements.

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 OSR DESIGN EXPERIENCE:	YEARS OF OSR RELATED DESIGN EXPERIENCE:
McCrady, Charles, E.I. **Mining Associate**	8	8

Brief Explanation of Responsibilities

Mr. McCrady is an Engineer-In-Training and Task Manager at Baker with a background in geotechnical and mining engineering. His experience includes subsurface investigations, foundation design, mine permitting, hydrogeology, coal refuse disposal alternatives analysis, water line feasibility studies, reclamation of abandoned mine lands, including , earthwork, channel design, subsidence investigations and reclamation of coal refuse piles. He also has an extensive knowledge of both the Clean Water Act and NEPA and is responsible for these components of coal mine permitting and compliance at Baker.

WVDEP, Various Counties. Phase I Water Supply Feasibility. *WVDEP - Office of AML&R.* Conducted a feasibility study which included: on-site interviews with residents, local agencies, and government officials, research using public and private sources, and collecting water samples within project area to determine impacts past mining activities imposed on private water supplies. Provided alternatives and recommendations to identify the most cost-effective remedial measures that could be made.

WVDEP14387, Harrison County. *WVDEP - Office of AML&R.* Wet mine seals, the installation of bat gates, open limestone channel design, culvert and structure design, structure removal and reclamation grading at six (6) sites at the Crooked Run #5 Complex in Harrison County near Clarksburg.

WVDEP14800, Marion County. *WVDEP - Office of AML&R.* Drilling program development and the preparation of construction plans and specifications for the abatement of mine subsidence at four (4) sites in or near the City of Fairmont. The project "Fairmont Five Subsidence," included grout injection as well as surface depression regarding and minor drainage improvements.

WVDEP, Miller Mountain Waterline Feasibility Study. *WVDEP - Office of AML&R.* Performed research of geological data and mining maps, evaluated impacts of past mining activities on groundwater within the study area, and evaluated existing water distribution systems. Project included performing field research and sampling of surface and groundwater, plotting laboratory test results on Piper Trilinear Diagrams, identifying possible solutions to water quality problems, and providing preliminary construction cost estimates for recommended alternatives. The Miller Mountain Waterline Feasibility Study included detailed research of the local hydrology, hydrogeology, geology, and past mining activities, as well as collection and analysis of representative water samples and interviewing residents. Conclusions regarding the impact of that past mining activities have had upon local hydrogeology conditions as well as on water quality and quantity were formulated based upon information collected as part of the investigation. Finally, the report presented recommendations regarding remedial actions including extension of the Miller Mountain water distribution system and upgrades to the existing treatment facility.

WVDEP, Preston County. 9 County Roads Feasibility Study. *WVDEP - Office of AML&R.* Performed research of geological data and mining maps, evaluated impacts of past mining activities on groundwater within the study area, and evaluated existing water distribution systems. Baker was selected to provide the engineering services necessary to develop a water supply study for the specified area. The object of the study was to investigate the area's current water supply, make a determination as to how it has been affected by past mining, and recommend alternatives for water supply replacement. Baker compiled information and documentation to support an AML & R grant request to OSM for funding to extend and/or install water systems in impacted areas. The work was performed in 2 phases. The purpose of Phase 1 was to determine the potential impact of past mining activities on water supplies within the study area. When a potential impact was established, Phase 2 began, which involved a detailed investigation of mining history, geology, hydrogeology, and water supply sources.

Foundation Mining, L.P., Design/Permitting for Shaft and Slope Site, Surface Facilities, Batch Weight System and RR Spur and Siding. Assisted in preparation of permit for Foundation Mine Surface Facilities. Prepared PA DEP permit applications for the slope, shaft, railroad, and surface facilities. Assisted in design of all sites, provided E&S design for all sites, constructed pre- and post- hydrologic and hydraulic models on streams to analyze potential flooding, conducted resident interviews, and collected ground and surface water samples. Responsible for E&S design and floodplain analysis using HEC-RAS.

EDUCATION (Degree, Year, Specialization)	
B.S., 1986, Environmental Conservation	
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	**REGISTRATION (Type, Year, State)**
American Society of Civil Engineers	Engineer-In-Training, 2006, 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 OSR DESIGN EXPERIENCE:	YEARS OF OSR RELATED DESIGN EXPERIENCE:
Ruppen, Christopher A., P.G. Mining Manager	10	27

Brief Explanation of Responsibilities

Mr. Ruppen is committed to client satisfaction and proactive coordination and communication with WVDEP. Based on the long running relationship between the Department and Baker, Mr. Ruppen conveys this approach through Baker's AML Team.

Waitman Barbe Highwall #1. *West Virginia Division of Environmental Protection.* Technical Manager. Participated in site field view, provided input into the subsurface investigation and interpretation and provided quality design reviews. The project consists of reclamation of approximately 4,600 linear feet of an abandoned strip mine highwall ranging in height from 30 to 45 feet. This includes areas of mine spoil, three areas of exposed coal refuse, an illegal dump site containing non-hazardous construction debris and a suspected 11 mine openings. Baker prepared construction plans, specifications and a stormwater pollution prevention plan services.

Collier Sportmans Club Highwalls, Brooke County, West Virginia. *West Virginia Division of Environmental Protection.* Technical Manager. Participated in site field view, provided input into the subsurface investigation and interpretation and provide quality design reviews. Assisted with coordination and resolution of the planned gas line crossing and construction through the site. Baker's responsibilities included research of existing geological data and mining maps, review of water quality data, erosion and sedimentation controls, design of wet and buried mine seals with bat gates at suspected mine entries, backfilling of existing highwalls to stable configurations, site grading, upgrade of existing access roads, reclamation of onsite spoil and coal refuse, culverts and channel design, removal of non-hazardous trash and waste from the site, and revegetation of all disturbed areas. Additional responsibilities were for coordination of the check survey and drilling by sub-consultants and the preparation of the WV NPDES Stormwater Permit.

Simpson Creek Highwall, Tipple, & Portals, Barbour County, West Virginia. *West Virginia Division of Environmental Protection.* Department Manager. Responsible for quality of project managers work on the project. Baker was responsible for drilling by sub-consultants, performed research of geological data and mining maps, review of water quality data, preparation of WV Stormwater, USACE, and WVDOH permits. Prepared construction plans and specifications for the project which included erosion and sedimentation control measures, site grading, mine seals, HDPE culverts, a WVDOH box culvert crossing SR 76, grouted rip rap collection channels, soil cover placement, and revegetation.

Puddledock Sand and Gravel Pit. *Vulcan Materials Company.* Project Manager. Supervised the evaluation of the stability of a sand and gravel surface pit mine to support continued mining expansion of the facility.

Foundation Mine Design/Permitting Shaft & Slope Site, Surface Facilities and Batch Weigh System Site, and RR Spur and Siding. *Alpha Natural Resources, Inc.* Project Manager. Responsibilities included overseeing grading design of access roads, site development, and permitting requirements. Baker was responsible for developing several conceptual layouts for shaft and slope sites and rail spur with rail car loadout arrangements and evaluating them in order to optimize and finalize the locations of various surface facilities relative to the shaft and slope including overland conveyors for raw and clean coal transport with transfer stations, raw and clean coal stockpiles and slot storage and reclamation tunnel for clean coal, coal preparation plant water storage tanks, access roads to surface facilities, and batch weigh loadout for rail cars. Baker was also responsible to design the rail spur, siding and track layout for rail car loading.

Design and Permitting for Surface Facilities of New Freeport Underground Mine, Clarksville, Pennsylvania. *Alpha Natural Resources, Inc.* Project Manager. Aided in the engineering design of the project. Baker prepared, submitted, and obtained Surface Mining Control and Reclamation Act and National Pollutant Discharge Elimination System permits for the proposed surface facilities associated with the new Freeport Underground Mine. Baker was responsible for the design of the proposed surface facilities, including preparation of the earthwork and grading plan and the design of the foundations for all belt transfer structures, stockpiles, prep plant, clean coal silos, refuse conveyors, clean coal conveyors, and the harbor barge loading facility.

EDUCATION (Degree, Year, Specialization)
Master's Certificate, 2005, Project Management; B.S., 1984, Conservation of Natural Resources; B.S., 1984, Geology, Kent State University

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
American Society of Highway Engineers (ASHE); Highway Geology Symposium (HGS), National Steering Committee; Pittsburgh Geological Society (PGS), Board of Directors and Past President, Member Transportation Research Board (TRB), Materials, Engineering Geology and Subsurface Investigations	Professional Geologist, Pennsylvania, 1995

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

HYDROLOGY

SEDCAD4 – Storm Routing through Detention Structures, Channel Design and Riprap Sizing.
TR20 – Project Formulation – Hydrology by SCS
TR55 – Urban Hydrology for Small Watersheds by SCS
HAESTADS POND2 – Storm Routing through Detention Structures
HEC1 – Flood Hydrograph Package by U.S.A.C.O.E.
HAESTADS QTRSS – Urban Hydrology for Watersheds
Hydroflow Hydrographs – Storm Routing Model

HYDRAULICS – OPEN CHANNEL AND CULVERT

HEC RAS/ - river Analysis System/Flood Plain Analysis/Water Surface Profile
HEC2 – Water Surface Profiles by U.S.A.C.O.E.
HY8 – Culvert Analysis by FHWA
FLOWMASTER – Channel and Pipeline Hydraulics by HAESTAD, Inc.
Hydroflow Express – Culverts, Channels, Inlets, and Weir Hydraulics

PIPELINE HYDRAULICS

WATERCAD – Water Distribution System Modeling
KYPIPE2 – Water Distribution System Modeling
CYBERNET – Water Distribution System Modeling
Hydroflow Storm Sewer – Stormwater Conveyance System Modeling

GEOTECHNICAL

Log Draft 5
gINT V8.3
FB-Multi-Pier Version 4.16
Slope/W 2007
Seep/W 2007
UTexas 4
GRL WEAP
L-Pile Versions 4, 5 or 6
COM 624P Version 2
GSTABL7 and STEDwin

GEOTECHNICAL (continued)

FIT Version 8.2
UniSettle, Version 3
DARwin 3.1
Midas GTS
GROUP Version 6
FE Flow 5.3
EMBANK
SPW 911
ProSheet
CRSP
DRIVEN
PASTABL6
RSS
HELP
SURFER
SlopeInc
PCASE 2.09.01
CPET-IT
FOSSA
MSEW

DRAFTING AND SITE DESIGN

AutoCAD – Civil 3D 2011 Desktop for Earthwork, Survey, Quantity, Calculations, Terrain Modeling, Coordinate Geometry, Site Grading, etc

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

SURVEY EQUIPMENT

Survey/Global Positioning System (GPS)
- 12 – Leica System 500 - SR 530 RTK - GPS Receiver
- 2 – Leica RS500 Geodetic Reference Station (RTK – COR Station)
- 16 – Pacific Crest ADL Vantage Pro 2-35 Watt UHF – GPS-RTK Trans/Receiver
- 2 – Airlink Raven CDMA C3210 Wireless Modems – Sprint Service, Public Random IP
- 6 – Airlink Raven CDMA C3210 Wireless Modems – Verizon Service, Static IP
- 1 – Leica Disto – Pro (Handheld EDM)
- 32 – Leica Viva GNSS dual frequency receivers
- 3 – Leica 1230 GNSS dual frequency receivers
- 5 – Trimble R8 Model 3 GNSS dual frequency receivers

Pipe/Cable Locators
- 3 – Radio Detection RD4000 with 3 watt transmitters
- 5 – Radio Detection RD8000 with 10 watt transmitters
- 1 – Radio Detection RD7000 with 3 watt transmitter
- 5 – Optical Ranging Inc. Spar 300 locating system integrated with the Trimble R8 receivers

Total Stations
- 1 – Wild TC 2000

Tripods
- 64

Total Stations with Onboard Data Collection
- 1 – Leica TCRP 1200 total station, fully robotic
- 15 – Leica TS 15P total station, fully robotic

Optical Plummet
- 1 – Wild ZNL-16 (11164)

Magnetic Locators
- 2 – Chicago Steel Tape - FT - 60
- 1 – Schoenstedt
- 6 – Subsurface Instrument – ML-1

Levels *(Engineering)*
- 9 – Zeiss Ni 2 automatic level with Nedo folding rod
- 1 –Wild N-3 with Nedo folding rod
- 2 – Topcon Dini digital levels with bar code rods
- 6 – Leica NA2 automatic level with 16 ft rod

GPS Antennas
- 12 – Leica AT502
- 1 – Leica AT503 w/Chokering and Ray-Dome
- 1 – Leica AT504 w/Chokering and Ray-Dome
- 32 – Leica GS 15
- 5 – Trimble R8 GNSS

Vehicle / Boats
- 12 – 4 Wheel Drive Suburbans
- 2 – 4 Wheel Drive Jeep
- 1 – 4 Wheel Drive Pickup
- 1 – 8 Wheel Argo – Amphibious ATV
- 3 – Utility Trailers (10' and 14')
- 2 – Yamaha- Quad ATV

Fathometer
- 1 – Innerspace Tech Model 455 – 200 KHz 8° Transducer

Survey Software
- 2 – Leica GIS Data Pro Version 3.0
- 1 – Innerspace Technology Version 6.0 Data Logging with Guidance
- 17 – Leica GeoOffice Version 7.5 and 8.3
- 2 – Trimble Pathfinder Office Version 4.0
- 22 – Listech – Liscad 10.0 (COGO)
- 5 – MicroStation Version V8i and XM
- 2 – Leica SPIDER CORS Controlling Software Version 2.0
- 10 – AutoCAD Civil 3D 2011

Field Laptops PCs
- 30 – HP Elite laptop PCs
- 1 Panasonic Model CF19 Tough Book

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

GIS SOFTWARE

3 – Intergraph – MGE/MGA, Version 8 suite of products (obsolete)
1 – MRF Mapping Tool Kit, Version 8.0 (obsolete)
ESRI: 4 – ARC/Info, Version 9.X
9 – ArcView, Version 9.X (6 are Beaver licenses)
10 – ArcEditor, Version 9.X (6 are Beaver licenses)
1 – Spatial Analyst
1 – 3D Analyst
1 – ArcCOGO

1 – AutoCAD, Version 2010
1 – Visual Studio, Version 6
2 – Visual Studio, Version .NET
1 – Visual Basic, Version 6
1 – Visual Studio 2008 Architects w/MSDN Premium
1 – Visual Studio 2008 Developers w/MSDN Premium
1 – Visual Studio 2008 Test w/MSDN Premium
1 – Visual Studio Pro w/MSDN Premium

ARCInfo and ARCEditor are concurrent licenses
ARCView licenses are standalone licenses

The suite of products provided by our Intergraph Synergy license includes:

- GeoMedia – 6 licenses
- GeoMedia Professional – 6 licenses
- GeoMedia WebMap – 4 licenses
- GeoMedia WebMap Professional – 4 licenses
- GeoMedia Grid – 2 licenses
- GeoMedia Terrain – 6 licenses
- GeoMedia Image – 2 licenses
- GeoMedia Fusion – 2 licenses
- GeoMedia Transaction Manager – 6 licenses
- GeoMedia Parcel Manager – 6 licenses
- GeoMedia Public Works Manager – 6 licenses
- GeoMedia Transportation Manager – 6 licenses
- GeoMedia Transportation Analyst – 6 licenses
- GeoMedia Objects – 6 licenses
- GeoMedia Map Publisher – 2 licenses
- G/Administrator – 2 licenses
- G/Designer - 2 licenses
- G/NetPlot Server – 1 license
- G/NetViewer - 5 licenses
- G/Mobile Viewer – 1 license
- G/Analyst – 2 licenses

MOBILE LIDAR

Sensor
1 – LYNX Mobile Mapper System with 2 Sensors.

LiDAR Processing WorkStations
3 – HP E5540 2.53 GHz, 18 GB RAM, 1.4 TB of disc space

Servers
1 – HP DL380, 2.1 TB of disc space,
1 –ATMOS R610 DP Server GBE HA TITAN, 120 TB of disc space

Software
1 – Optech ALTM Navigation-Planner
1 – Applanix POS PAC
1 – Optech Dashmap
6 – TerraSolid TerraScan
5 – TerraSolid TerraMatch
6 – TerraSolid TerraModeler
1-Terrasolid Terraphoto
1-Terrasolid Terraslave
1 – GeoCue Enterprise Server
5 – GeoCue Client
5- Geocue LiDAR CuePac
1-Geocue LYNX MMS CuePac

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

PHOTOGRAMMETRIC EQUIPMENT

Softcopy Stereoplotters

1 – Z/I ImageStation SSK, HP SB XW8600 X5260 4 GB RAM, 500 GB Disc Space
3 – Z/I ImageStation SSK, Xeon GXI 2000, 2-450 MHz
1 – Z/I ImageStation ZIII, Xeon GXI 2000, 2-450 MHz

Digital Orthophoto
4 – HP SB XW8600 5405 Dual Processors, 4 GB RAM, 3.6 TB Disc Space

Scanner

1 – Z/I PhotoScan – Variable Resolution Settings from 7 to 256 microns.

Server

1 – Compaq Proliant DL380
Xeon 3 GHz Processor
5.1 GB Memory
1 Terrabyte Disc Storage

1.2 Terrabyte Network Attached Storage

Software

1 – BINGO – AERIAL, Version 5.0
1 – MrSID, Geo Express 7
1 – ImageStation Automatic Triangulation (ISAT) 5.3
3 – ABC32, Version 1.3
7 – IRAS – C, Version 10.0
1 – Adobe Photo Shop 5, Version 5.05
4 – CADDMAPP/DGN, Version 5.8.3
1 – ERDAS Imagine, Version 2010
2 – ImageStation Digital Mensuration-ISDM, Version 5.3
2 – ImageStation Base Rectifier-ISBR, Version 5.3
3 – ImageStation DTM Collection-ISDC, Version 5.3
3 – ImageStation Feature Collection (ISFC) 5.3
1 – ImageStation Model Setup (SMS) 5.3
2 – ZI Ortho Pro/Geo Media, Version 5.3
34 – MicroStation – J & 8, Versions
1 – MRF Mapping Tool Kit for GIS Linework Processing, Version 8.1
1 – Corporate licensed Axiom Productivity Kit including File Fixer and English to Metric Conversion packages

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
Collier Sportsman's Club Highwall Brooke County, West Virginia	West Virginia Department of Environmental Protection (WVDEP) Office of Abandoned Mine Lands & Reclamation 601 57th Street, SE Charleston, WV 25304	Baker's responsibilities included research of existing geological data and mining maps, review of water quality data, erosion and sedimentation controls, design of mine seals with bat gate at suspected mine entry, backfilling of existing highwalls to stable configurations, site grading, upgrade of existing access roads, reclamation of onsite spoil and coal refuse, culverts and channel design, removal of non-hazardous trash and waste from the site, and revegetation of all disturbed areas. Additional responsibilities were for coordination of the check survey and drilling by sub-consultants and the preparation of the WV NPDES Stormwater Permit.	$139,821 (Fee) $2,500,000 (Construction)	90%
Waitman Barbe Highwall #1 Monongalia County, West Virginia	West Virginia Department of Environmental Protection (WVDEP) Office of Abandoned Mine Lands & Reclamation 601 57th Street, SE Charleston, WV 25304	Baker's responsibilities included research of existing geological data and mining maps, review of water quality data, erosion and sedimentation controls, design of wet and buried mine seals with bat gates at suspected mine entries, backfilling of existing highwalls to stable configurations, site grading, upgrade of existing access roads, reclamation of onsite spoil and coal, culverts and channel, removal of non-hazardous trash and waste from the site, and revegetation of all disturbed areas. Additional responsibilities were for coordination of the check survey and drilling by sub-consultants and the preparation of the WV NPDES Stormwater Permit.	$117,007 (Fee)	90%

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
Simpson Highwall Project, Barbour County, West Virginia	West Virginia Department of Environmental Protection (WVDEP) Office of Abandoned Mine Lands & Reclamation 601 57th Street, SE Charleston, WV 25304	Responsible for drilling by sub-consultants, performed research of geological data and mining maps, review of water quality data, preparation of WV Stormwater, USACE, and WVDOH permits. Prepared construction plans and specifications for the project which included erosion and sedimentation control measures, site grading, mine seals, HDPE culverts, a WVDOH box culvert crossing SR 76, grouted rip rap collection channels, soil cover placement, and revegetation.	$119,000 (Fee) $750,000 (Construction)	99%
Emerald Refuse Area No. 3 Waynesburg, Pennsylvania	Emerald Coal Resources, LP 158 Portal Road, PO Box 1020 Waynesburg, Pa 15370	Prepare permit submission and construction plans for a coal refuse disposal site and slurry impoundment including E&S control, diversion and collection ditches, spillways, staging, and stability analyses.	$778,279 (Fee)	98%
Municipal Industrial Disposal Company (MIDC) Site – Investigation, Design and Construction Support Services Allegheny County, Pennsylvania	Confidential Client Pittsburgh, Pennsylvania	Responsible for investigation, reporting, design, and construction implementation for a PADEP HSCA program site located within a former abandoned strip mine property where hazardous and non-hazardous wastes were disposed. Selected remedy included a combination of off-site disposal, waste consolidation and stabilization, and construction of on-site landfill style cover systems, including an innovative lightweight landfill cap. Services include remedial and geotechnical site investigations, remedial feasibility studies, remedial design and permitting, wetland delineation, construction inspection/quality assurance, preparation of bid documents & construction cost estimates, and Health & Safety.	$>1,000,000 (Fee) $>6,500,000 (Construction)	99%

15. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD				
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
Currie Landfill and Kelly Farm Sludge Lagoon Remediation Design Millcreek and Fairview Townships, Pennsylvania	Pennsylvania Department of Environmental Protection Rachel Carson State Office Building P.O. Box 8471 400 Market Street Harrisburg, PA 17101	Located within an abandoned strip mine bench, Baker is performing a wetland investigation and delineation at the Currie Landfill site, and is developing construction drawings, technical specifications, and permit documents to construct interim remediation measures for the Currie Landfill site and the Kelly Farm sludge lagoon. Baker's services include project management; subconsultant procurement; wetland site survey, delineation, and jurisdictional determination; development of plans, specifications, and cost estimates; and preparation of permit documentation.	$1,289,661 (Fee)	90%
Phase II Environmental Site Assessment of the Bear Creek Area Chemical Sites Butler and Armstrong Counties, Pennsylvania	Pennsylvania Department of Environmental Protection Rachel Carson State Office Building P.O. Box 8471 400 Market Street Harrisburg, PA 17101	Baker is performing Phase II environmental site assessments (ESA) of several areas of the Bear Creek Area Chemical Site situated within an abandoned strip mine site. Baker's services include project management; mobilization and demobilization of personnel and equipment; site survey and utility coordination; field investigation; test pit excavation and soil sampling; stream, sediment, and seep water sampling; groundwater sampling; investigative-derived waste management; laboratory analysis coordination; data evaluation and validation; and report preparation.	$806,695 (Fee)	89%
National Pipeline Mapping System GIS Database Repository Services and Digital Data and Map Distribution Nationwide	U.S. Department of Transportation's Research and Special Programs Administration and Office of Pipeline Safety, Washington, D.C.	Baker is maintaining the national geospatial data repository for the National Pipeline Mapping System (NPMS)	$8,665,361 (Fee)	70%

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
General Environmental Consulting Services and Technical Support Contract Various Sites in Pennsylvania	Pennsylvania Department of Environmental Resources Harrisburg, Pennsylvania	Services include risk assessments, site investigations, remedial feasibility studies, remedial action design, construction inspection, Health & Safety, storage tank management, and industrial hygiene services	$24,000,000 (Fee)	90%
Design & Construction Management Services for the Coney Island Water Pollution Control Plant Upgrade	City of New York Dept. of Environmental Protection Elmhurst, New York	Baker, in joint venture with another firm, has been providing design, construction management and resident engineering services on a continuous basis since 1979 to upgrade the Coney Island Water Pollution Control Plant. The plant services an area of more than 22 square miles with a population of 690,500 and treats primarily domestic wastewater with some industrial and commercial wastes.	$30,607,141 (Fee)	97%
TOTAL NUMBER OF PROJECTS: 10			TOTAL ESTIMATED CONSTRUCTION COSTS: $567,552,965 (Fee)	

16. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS SERVING AS A SUB-CONSULTANT TO OTHERS					
PROJECT NAME, TYPE AND LOCATION	NATURE OF FIRMS RESPONSIBILITY	NAME AND ADDRESS OF OWNER	ESTIMATED COMPLETION DATE	ESTIMATED CONSTRUCTION COST	
				ENTIRE PROJECT	YOUR FIRM'S RESPONSIBILITY
None					

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**	**CONSTRUCTED (YES OR NO)**
Prime No. 1 Mine Fetty Portal Monongalia County, West Virginia	Dana Mining 308 Dents Run Road Morgantown, WV 26501	$103,000 (Fee)	2012	On-going
Davidson Highwall Project, Preston County, West Virginia	West Virginia Department of Environmental Protection (WVDEP) Office of Abandoned Mine Lands & Reclamation 601 57th Street, SE Charleston, WV 25304	$107,000 (Fee)	2010	Yes
Fairmont Five Subsidence Marion County, West Virginia	West Virginia Department of Environmental Protection Office of Abandoned Mine Lands & Reclamation 601 57th Street, SE Charleston, WV 25304	$65,659 (Fee)	2010	Yes
Maybeury (Oakley) Landslide McDowell County, West Virginia	West Virginia Department of Environmental Protection Office of Abandoned Mine Lands & Reclamation 601 57th Street, SE Charleston, WV 25304	$54,683 (Fee)	2010	Yes
Wymer Portals Project, Preston County, West Virginia	West Virginia Department of Environmental Protection (WVDEP) Office of Abandoned Mine Lands & Reclamation 601 57th Street, SE Charleston, WV 25304	$123,000 (Fee)	2010	Yes
9 County Roads, **Waterline Feasibility Study** Preston County, West Virginia	West Virginia Department of Environmental Protection Office of Abandoned Mine Lands & Reclamation 601 57th Street, SE Charleston, WV 25304	$46,361 (Fee)	2009	NA (Study)
Crooked Run #5 Drainage, Refuse and Portals Harrison County, West Virginia	West Virginia Department of Environmental Protection Office of Abandoned Mine Lands & Reclamation 601 57th Street, SE Charleston, WV 25304	$82,939 (Fee)	2009	Yes
Fort Gordon Mine Closure Sites, Fort Gordon, Augusta, Georgia	USACE, New Orleans District P.O. Box 60267 New Orleans, LA 70160-0267	$110,000 (Fee)	2009	Yes

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**	**CONSTRUCTED (YES OR NO)**
Chalk Mountain Mine Permit Renewal and Pit Mine Modification/Expansion, Spruce Pine, North Carolina	The Feldspar Corporation 530 Altapass Road Spruce Pine, North Carolina 28777	$46,000 (Fee)	2008	Yes
Marmet, East Bank, Cabin Creek, and Mill Hollow Complex Drainage and Portals Kanawha County, West Virginia	West Virginia Department of Environmental Protection Office of Abandoned Mine Lands & Reclamation 601 57th Street, SE Charleston, WV 25304	$121,524 (Fee)	2008	Yes
Miller Mountain Waterline Feasibility Study Preston County, West Virginia	West Virginia Department of Environmental Protection Office of Abandoned Mine Lands & Reclamation 601 57th Street, SE Charleston, WV 25304	$46,361 (Fee)	2008	NA (Study)
Mine Dump Site Number Four Spruce Pine, North Carolina	The Feldspar Corporation 530 Altapass Road Spruce Pine, North Carolina 28777	$75,000 (Fee)	2008	Yes
Development of a Long-Term Control Plan for Combined Sewer Overflow Abatement Pittsburgh, Pennsylvania	City of Pittsburgh Department of Engineering and Construction Pittsburgh Water and Sewer Authority Pittsburgh, PA 15219	$7,500,000 (Fee)	2008	Yes
Borgman Refuse & Portals – AML Reclamation Preston County, West Virginia	West Virginia Department of Environmental Protection Office of Abandoned Mine Lands & Reclamation 601 57th Street, SE Charleston, WV 25304	$107,500 (Fee)	2007	Yes
Kempton Refuse and AMD Tucker County, West Virginia	West Virginia Department of Environmental Protection Office of Abandoned Mine Lands & Reclamation 601 57th Street, SE Charleston, WV 25304	$213,384 (Fee)	2007	Yes

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
Powell River Ecosystem Restoration-Ely and Puckett Creek-Site 1, 3, and 4 Additions Lee County, Virginia	US Army Corps of Engineers, Nashville District	$49,500 (Fee)	2007	Constructed	David Miller & Associates Vienna, Virginia
General Investigation Feasibility Study, Powell River Basin Lee County, Virginia	US Army Corps of Engineers, Nashville District	$79,071 (Fee)	2011	N/A (Study)	David Miller & Associates Vienna, Virginia

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.

Michael Baker Jr., Inc. (Baker) has been providing abandoned mine lands (AML) reclamation and acid mine drainage (AMD) remediation since the federal government first enacted legislation. Our work experience in AML/AMD started with Operation Scarlift in the 1970's, and since 1983, we have been providing our engineering services in these areas to the West Virginia Department of Environmental Protection (WVDEP), Pennsylvania Department of Environmental Protection (PADEP), Ohio Department of Natural Resources (ODNR), and U.S. Office of Surface Mining (OSM), to name a few. Our recent experience on numerous AML reclamation and AMD remediation projects for the WVDEP, ODNR, PADEP and Nashville District of the U.S. Army Corps of Engineers, illustrates our track record for the completion of assignments on time and within budget.

Although the projects presented in the Project Experience Matrix of Attachment "C" of the Consultant Confidential Qualification Questionnaire (CCQQ) clearly show Baker's AML/AMD design, water system design, and related experience, they only hint at the extensive human and material resources which especially qualify our firm for this project. The following narrative further describes our experience and provides insight into the special capabilities of Baker.

Comprehensive Services

The civil, mining, surveying, mapping, environmental, and geotechnical services of Michael Baker Jr., Inc. are available to immediately respond to the needs of WVDEP. Working from our Charleston, West Virginia office and supported by our Beaver, Pennsylvania office, Baker can expeditiously provide the full spectrum of services needed in water distribution system design as well as mine reclamation and mine drainage abatement operations. Some of the more important services our firm can provide to WVDEP include:

- Mapping and Aerial Photography
- Surveying
- Environmental Evaluations and Assessments
- Data Acquisitioned Interpretation
- Geotechnical Engineering
- Engineering Design
- Plan/Specifications Preparation
- Construction Management

Since we can furnish all of the engineering related services required for abandoned mine lands reclamation projects, we can work very efficiently and meet the strictest of schedules. Our efficiency is further heightened by the use of mapping systems and AutoCAD compatible design software to perform computer-assisted mapping, design and drafting.

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.

Baker's aerial light detection and ranging (LiDAR) service provides an efficient and affordable high-definition solution to digital terrain model surface creation and planimetric feature collection. Baker owns and operates the latest in aerial LiDAR and positioning technology for outstanding productivity and survey efficiency. From a single aerial collection session, our aerial LiDAR system offers the ability to accurately capture and classify features that are important to you and the requirements of your project. With up to four range measurements, including first, second, third, and last return-point capture, you can be assured that all project data is accurately captured and available for classification

Baker LiDAR provides the ability to accurately and effectively capture point-cloud terrain data for orthophoto rectification and planimetric or topographic map compilation. Products can be delivered as bare-earth DEM files, with the option of upgrading to digital terrain models for contour generation.

Some of the functions applicable to design projects for which Baker routinely employs the LiDAR System and AutoCAD LAND DEVELOPMENT Desktop include:

- Contour Mapping of the Surface And Subsurface
- Facilities Layout and Site Design
- Earthwork Volume Computations and Cost Estimates
- Drafting of Plans Profiles and Cross Sections

The LiDAR System and AutoCAD LAND DEVELOPMENT Desktop Civil Design software are powerful cost saving tools for abandoned mine land projects since they can evaluate numerous configurations rapidly. They are especially useful for projects requiring extensive waterline plan and profile drawings and can interface with hydraulic models such as WaterCAD for analysis and design. They are also useful for projects requiring extensive backfilling and grading, such as may be required for water tank and pump station sites, and for the grading of refuse banks and gob piles, elimination of highwalls, and reclamation of other abandoned surface disturbances.

The experience of the key project personnel includes abandoned and active mine operations. Since we continually serve many of the Country's largest coal and mineral producers as well as industrial clients and state environmental agencies, several personnel listed under Item 13 of the CCQQ also have experience in all phases of mining services, from survey, mapping, exploration and reserve analysis through mine planning, permitting, design, construction management, and final closure and reclamation. Since mining and reclamation projects (and WVDEP assignments in particular) comprise a large segment of our business, we work to assure that the mining services provided meet the needs and expectations of our clients and any regulatory agencies involved. Some of the many coal producers we have served are listed below:

- Consolidation Coal Company
- Alpha Natural Resources
- Westmoreland Coal Company
- U.S. Steel Mining Co., Inc.
- Emerald Coal Resources LP
- Cumberland Coal Resources LP
- Exxon Research and Engineering Company

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

To further demonstrate Baker's full service capabilities and experience, a national award-winning AML project description is provided as follows:

- ***State Funded Mine Reclamation and Pollution Abatement Projects – Kempton Refuse & AMD, West Virginia***

Michael Baker Jr., Inc. was retained by the West Virginia Department of Environmental Protection to prepare detailed design plans, and technical specifications for the Kempton Refuse & AMD project in Tucker County. The constructed project won a reclamation award and is described in a video on the WVDEP website.

The primary purpose of the Kempton Refuse & AMD project is to reclaim the remains of the pre-law underground and surface mines in the project area and divert AMD through a passive treatment system before discharging to existing streams in order to rehabilitate the watershed, and in turn the North Branch of the Potomac River.

The project involved the reclamation of over 60 acres of exposed refuse and mine spoil, re-establishment of 4,400 LF of stream, and conveyance and treatment of numerous AMD discharges. Site reconnaissance was performed to identify mine seepage points and AMD sources, subsidence features, and potential soil borrow areas. A wetland delineation and stream assessment were performed to determine design parameters and mitigation requirements for regulatory compliance. A series of bore holes were drilled to determine underground conditions including characteristics of refuse, soil, and rock, and to determine the elevation of critical mine entries.

Plans and specifications were prepared for the reestablishment of the unnamed tributary, grading of spoil and refuse to provide positive drainage, collection of acidic seepage, sealing of mine entries, AMD conveyance and treatment, and soil covering and revegetation of refuse materials.

Specifications for revegetation and reforestation of selected areas included soil amendments, seed mixtures, tree plantings, and mulching. Stream restoration designs required to reconstruct two unnamed tributaries in the Potomac watershed employed natural design techniques including a serpentine layout with pools and riffles.

The site included numerous mine seals and collection points to abate the AMD seepage. Mine seals consisting of clay seals, aggregate material, and PVC outlet pipes were proposed, with modified entries required to meet site specific artesian conditions. Conveyance pipes and limestone lined conveyance channels were provided to transfer AMD to a treatment system consisting of an equalization pond, successive alkalinity producing system (SAPS pond), and aerobic wetland. Project construction was completed in 2009.

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.

Summary

As a large, diverse engineering firm, Baker has facilities available to properly conduct water distribution extension, abandoned mine land reclamation, and AMD remediation projects. The use of in-house facilities can speed project completion and facilitate tracking of progress. The in-house facilities include:

- Data Processing
- Interactive Graphics and AutoCAD
- Word Processing
- Printing and Reproduction

Baker's qualifications to provide engineering services for waterline and abandoned mine land projects, we offer the following response to the evaluation factors:

1. **Bidder Experience** in all aspects of surveying and mapping, subsurface investigation, and design engineering.

   - Extensive experience in each area. Items 17 and 18 of the CCQQ describe various projects for which we provided these services during the last five years. Projects listed under item 12 of the CCQQ describes typical of various projects for which we provided our services to WVDEP.

   - Strong capabilities in each area. Item 13 of the CCQQ lists our personnel by discipline. Our large multi-disciplinary staff is experienced in all aspects of water distribution and AML reclamation; civil, environmental, mining, geotechnical and reclamation engineering applied to surface and underground coal mining; land restoration; stream and water restoration; and land use and natural resources planning. The attached "Project Experience Matrix" show various projects performed for various clients and also show primary participants responsible for these projects.

2. **Qualification of Personnel** with respect to background, general experience, and experience relative to the requirements of the project.

   - Baker's key personnel are registered professional engineers experienced in a broad variety of water distribution and similar projects, as indicated item 13 of the CCQQ.

   - Our Project Professionals are veterans of many similar projects including past WVDEP projects.

   - **The qualifications and experience of Mr. Charlie Stover speak to themselves. His experience in all aspects of mine reclamation work will be a true benefit to the project and our team. The combination of Charlie's intimate knowledge of the Department's goals and objectives, combined with Baker's technical resources, will yield a quality driven Baker team.**

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.

3. Corporate Specialized Experience and Demonstrated Abilities

- Baker's specialized experience with AML related problems is summarized in the AML and Related Projects Matrix in Appendix C. Our work has addressed the full spectrum of AML problems including water projects for clients such as WVDEP, PADEP and others.

- The firm has a wealth of experience on similar projects, as evidenced by projects performed for mining and mineral companies. Moreover, Baker's transportation, site development, and water resource projects in the tri-state area often address AML problems.

- Baker applies advancements in sediment control devices to provide an environmentally low impact, cost-effective design for reclamation projects. This approach uses sediment tubes and wattles in lieu of the conventional sedimentation traps and ponds. These devices filter sediment laden runoff through them while also reducing hydraulic energy. They also provide a higher efficiency of pollutant removal then conventional methods. Baker grades the site such that all stormwater runoff is directed towards a channel at the toe of the backfilled highwall which doesn't allow any runoff exiting the site without the benefit of treatment. This keeps all runoff within the limits of disturbance and allows for the erosion control devices to be placed incrementally as construction progresses. Once the site is vegetated, the controls are removed without any further reclamation that typically occurs with traps and ponds. The application of these new technologies also results in lower construction cost and project duration while providing a high efficiency of pollutant removal.

Green Erosion & Sedimentation Control Solutions

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.

- Our specialized experience and technical ability has taught us that a typical mine reclamation project is a puzzle with many pieces. Because of the past history of the site, often pieces of the puzzle no longer exist. Baker's responsibility is to uncover and connect the various puzzle pieces and utilize this information to develop an efficient, constructible, cost-effective design. We take this responsibility very seriously.

  In order to familiarize ourselves with the proposed project and as testimony to our sincere desire to undertake this assignment with the WVDEP/AML, we have personally travelled to the site and conducted a field investigation in order to identify key issues associated with the proposed reclamation. This becomes one piece of a puzzle that Baker incorporates with information from mine maps, surveys, and subsurface investigations in order to develop an appropriate reclamation solution.

20. THE FOREGOING IS A STATEMENT OF FACTS

Signature: Russell E. Hall Title: Assistant Vice President Date: July 23, 2013

Printed Name: Russell E. (Rusty) Hall, P.E., P.S.

BAKER AML and RELATED PROJECT EXPERIENCE MATRIX
Attachment "C"

Projects	* Exp. Basis C = Corp P = Personal	** Additional Info provided In Sections (s)	Project Experience Requirements: Forfeited Surface Mine Reclamation	Forfeited Deep Mine Reclamation	Portal / Shaft Closure	Hydrologic / Hydraulic Design /Evaluation	Re-mining 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	NPDES/Stormwater Preparation	Primary Staff Participation / Capacity (*** M = Management P = Professional): Russell E. (Rusty) Hall, P.E., P.S. - Principal	Patrick W. Fogarty, P.E., P.S. – Lead Civil	Jason T. Smithson, P.S. – Civil Design	Dana W. Moses, P.E., P.H., C.F.M. – Coal / Mining	Joseph L. Crowder, P.S. - Surveying	Matthew Perdue - CADD / Surveys	Charles, McCrady, E.I.T. – Civil Design	Christopher A. Ruppen, P.G. – Mining Manager	William D. Neider, P.E. – Lead Civil	Scott D. Zang, P.E. - Geotechnical	Mark R. Martin, P.G. – Field Investigations	John A. Callahan, P.G. - Geotechnical	Edward H. Barefield, P.G. – Geotechnical	Michael J. LaMont – Site Design	John R. (JR) Grimm – Site Design	Ronald J. Ciucci, P.E. - Waterlines	James A. Culler, P.E., P.L.S. - Waterlines	Bradley, Roman, P.E. – Civil Design	George Kay, P.E. – Water Treatment	Michael J. Saylor, E.I.T. – Civil Design	Carl E. Sarver, Jr. – Geology / Mining	Brian Chlebus, P.E. – Hydraulics / Hydrology	Kimberly A. Bartos – Wetlands / Permitting	Kevin S. Schroeder - Wetlands	Gregory A. Heilman, P.E. – H&H / Civil / Mining	William D. Trimbath, P.E. – Principal
																			M	M & P	P	P	P	P	P	M & P	P & M	P	P	P	P	P	P	P & M	P	P	P	P	P & M	P	P	P	P & M	M
9 County Roads Water Supply Feasibility Study, Preston County, WV (WVDEP)	C&P	17				x					x	x					x								x				x			x		x		x								x
Beech Bottom Refuse (WVDEP)	C&P	17	x		x	x					x				x	x	x												x	x		x												x
Borgman Refuse & Portals (WVDEP)	C&P	17	x	x	x	x					x	x		x															x			x												x
Buckeye Reclamation Landfill CERCLA Site (Consol)	C&P	15	x			x				x	x	x	x	x		x	x	x										x															x	x
Chalk Mountain Mine (The Feldspar Corp)	C&P	17	x			x					x				x		x									x			x			x												x
Collier Sportsmans Club Highwall (WVDEP)	C&P	15	x		x	x			x		x							x								x	x		x			x	x			x		x						x
Columbia Portland AML Reclamation (ODNR)	C&P		x	x	x	x					x	x					x												x			x		x										x
Crooked Run #5 Drainage, Refuse and Portals (WVDEP)	C&P	17	x	x	x	x					x	x		x	x				x	x	x	x	x	x	x																			
Davidson Highwall Project (WVDEP)	C&P	17	x		x	x					x	x		x		x	x														x													x
Dennison S.R. 800 AML Reclamation (ODNR)	C&P			x	x	x					x	x			x		x												x			x												

BAKER AML and RELATED PROJECT EXPERIENCE MATRIX
Attachment "C"

Project Experience Requirements (columns "Forfeited Surface Mine Reclamation" through "NPDES/Stormwater Preparation")

Primary Staff Participation / Capacity (columns "Russell E. (Rusty) Hall" through "William D. Trimbath")
*** M = Management P = Professional

Projects	* Exp. Basis C = Corp P = Personal	** Additional Info provided In Sections (s)	Forfeited Surface Mine Reclamation	Forfeited Deep Mine Reclamation	Portal / Shaft Closure	Hydrologic / Hydraulic Design /Evaluation	Re-mining 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	NPDES/Stormwater Preparation	Russell E. (Rusty) Hall, P.E., P.S. - Principal	Patrick W. Fogarty, P.E., P.S. – Lead Civil	Jason T. Smithson, P.S. – Civil Design	Dana W. Moses, P.E., P.H., C.F.M. – Coal / Mining	Joseph L. Crowder, P.S. - Surveying	Matthew Perdue - CADD / Surveys	Charles, McCrady, E.I.T. – Civil Design	Christopher A. Ruppen, P.G. – Mining Manager	William D. Neider, P.E. – Lead Civil	Scott D. Zang, P.E. - Geotechnical	Mark R. Martin, P.G. – Field Investigations	John A. Callahan, P.G. - Geotechnical	Edward H. Barefield, P.G. – Geotechnical	Michael J. LaMont – Site Design	John R. (JR) Grimm – Site Design	Ronald J. Ciucci, P.E. - Waterlines	James A. Culler, P.E., P.L.S. - Waterlines	Bradley, Roman, P.E. – Civil Design	George Kay, P.E. – Water Treatment	Michael J. Saylor, E.I.T. – Civil Design	Carl E. Sarver, Jr. – Geology / Mining	Brian Chlebus, P.E. – Hydraulics / Hydrology	Kimberly A. Bartos – Wetlands / Permitting	Kevin S. Schroeder - Wetlands	Gregory A. Heilman, P.E. – H&H / Civil / Mining	William D. Trimbath, P.E. – Principal
																			M	M & P	P	P	P	P	P	M & P	P & M	P	P	P	P	P	P	P & M	P	P	P	P	P & M	P	P	P	P & M	M
Emoryville Mine Complex AML/AMD (WVDEP)	C&P		x	x	x	x					x	x		x			x												x			x												
Fairmont Five Subsidence (WVDEP)	C&P	17				x			x		x			x					x	x		x	x	x																				
Flemington Portals & Drainage No. 2 AML/AMD (WVDEP)	C&P	17	x	x	x	x					x			x			x												x	x		x		x										x
Fort Gordon, Georgia (USACE)	C&P	17	x			x					x				x											x																		x
Hardy Coal Bond Forfeiture (ODNR)	C&P	17	x			x					x				x																	x												
Jed-Havaco Reclamation (WVDEP)	C&P		x			x		x			x				x	x	x											x															x	
Kempton Refuse & AMD (WVDEP)	C&P	17	x		x	x					x	x		x		x	x												x			x												x
Lindentree AMD Remediation (ODNR)	C&P		x		x	x					x	x		x															x			x												x
Maybeury (Oakley) Landslide (WVDEP)	C&P	17	x	x	x	x					x	x		x	x				x	x	x	x	x	x																				
Maple Run Portals & AMD (WVDEP)	C&P		x	x	x	x				x	x	x		x		x													x			x												

BAKER AML and RELATED PROJECT EXPERIENCE MATRIX
Attachment "C"

Project Experience Requirements

Projects	* Exp. Basis C = Corp P = Personal	** Additional Info provided In Sections (s)	Forfeited Surface Mine Reclamation	Forfeited Deep Mine Reclamation	Portal / Shaft Closure	Hydrologic / Hydraulic Design / Evaluation	Re-mining 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	NPDES/Stormwater Preparation
Marmet, East Bank, Cabin Creek, Mill Hollow Complex Portals & Drainage (WVDEP)	C&P	17	x	x	x	x					x	x		x	x			
McArthur Subsidence (WVDEP)	C & P			x		x			x		x						x	
Mineral-Zoar Road AMD Reclamation (ODNR)	C&P	17		x	x	x				x	x	x		x		x	x	
Mount Eaton Subsidence Stabilization (ODNR)	C&P	17				x			x		x						x	
No. 4 Reclamation Masontown (WVDEP)	C&P		x	x	x	x					x	x		x	x	x	x	
No. 6 Shaft and Dewatering Pipeline (Cumberland Coal Resources LP)	C&P	15			x	x					x	x						
Powell River Ecosystem Restoration, Ely & Puckett Creek, Virginia (USACE)	C&P	18	x	x	x	x				x	x	x		x		x	x	
Ruthbelle Refuse Fire (WVDEP)	C&P		x		x	x		x			x				x		x	
Simpson Creek Tipple and Portals Project (WVDEP)	C&P	15	x		x	x					x	x		x	x	x	x	x

Primary Staff Participation / Capacity
*** M = Management P = Professional

Projects	Russell E. (Rusty) Hall, P.E., P.S. - Principal	Patrick W. Fogarty, P.E., P.S. – Lead Civil	Jason T. Smithson, P.S. – Civil Design	Dana W. Moses, P.E., P.H, C.F.M. – Coal / Mining	Joseph L. Crowder, P.S. - Surveying	Matthew Perdue - CADD / Surveys	Charles, McCrady, E.I.T. – Civil Design	Christopher A. Ruppen, P.G. – Mining Manager	William D. Neider, P.E. – Lead Civil	Scott D. Zang, P.E. - Geotechnical	Mark R. Martin, P.G. – Field Investigations	John A. Callahan, P.G. - Geotechnical	Edward H. Barefield, P.G. – Geotechnical	Michael J. LaMont – Site Design	John R. (JR) Grimm – Site Design	Ronald J. Ciucci, P.E. - Waterlines	James A. Culler, P.E., P.L.S. - Waterlines	Bradley, Roman, P.E. – Civil Design	George Kay, P.E. – Water Treatment	Michael J. Saylor, E.I.T. – Civil Design	Carl E. Sarver, Jr. – Geology / Mining	Brian Chlebus, P.E. – Hydraulics / Hydrology	Kimberly A. Bartos – Wetlands / Permitting	Kevin S. Schroeder - Wetlands	Gregory A. Heilman, P.E. – H&H / Civil / Mining	William D. Trimbath, P.E. – Principal
	M	M & P	P	P	P	P	P	M & P	P & M	P	P	P	P	P	P	P & M	P	P	P	P	P & M	P	P	P	P & M	M
Marmet, East Bank, Cabin Creek, Mill Hollow Complex Portals & Drainage (WVDEP)	x	x	x	x	x		x																			
McArthur Subsidence (WVDEP)											x		x	x												
Mineral-Zoar Road AMD Reclamation (ODNR)											x			x											x	x
Mount Eaton Subsidence Stabilization (ODNR)								x		x		x		x												x
No. 4 Reclamation Masontown (WVDEP)											x	x		x												
No. 6 Shaft and Dewatering Pipeline (Cumberland Coal Resources LP)								x		x		x	x		x											x
Powell River Ecosystem Restoration, Ely & Puckett Creek, Virginia (USACE)										x	x	x		x		x										x
Ruthbelle Refuse Fire (WVDEP)												x														x
Simpson Creek Tipple and Portals Project (WVDEP)									x				x		x											x

BAKER AML and RELATED PROJECT EXPERIENCE MATRIX
Attachment "C"

Project Experience Requirements

Projects	* Exp. Basis C = Corp P = Personal	** Additional Info provided In Sections (s)	Forfeited Surface Mine Reclamation	Forfeited Deep Mine Reclamation	Portal / Shaft Closure	Hydrologic / Hydraulic Design / Evaluation	Re-mining 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	NPDES/Stormwater Preparation
Turnhole Branch Reclamation (WVDEP)	C&P			x	x	x	x				x	x						
Twilight Burning Refuse (WVDEP)	C&P		x	x	x	x		x			x	x		x	x	x	x	
US Steel RCRA Closure Plan (USS)	C&P					x				x	x	x		x	x		x	x
Waitman Barbe Highwall #1 (WVDEP)	C&P	15																
Watson Portals & Refuse Reclamation (WVDEP)	C&P		x	x	x	x					x	x		x	x	x	x	
Wymer Portals and AMD (WVDEP)	C&P	17	x		x	x					x	x		x	x	x	x	x

Primary Staff Participation / Capacity
*** M = Management P = Professional

Projects	Russell E. (Rusty) Hall, P.E., P.S. - Principal	Patrick W. Fogarty, P.E., P.S. – Lead Civil	Jason T. Smithson, P.S. – Civil Design	Dana W. Moses, P.E., P.H., C.F.M. – Coal / Mining	Joseph L. Crowder, P.S. - Surveying	Matthew Perdue - CADD / Surveys	Charles, McCrady, E.I.T. – Civil Design	Christopher A. Ruppen, P.G. – Mining Manager	William D. Neider, P.E. – Lead Civil	Scott D. Zang, P.E. - Geotechnical	Mark R. Martin, P.G. – Field Investigations	John A. Callahan, P.G. - Geotechnical	Edward H. Barefield, P.G. – Geotechnical	Michael J. LaMont – Site Design	John R. (JR) Grimm – Site Design	Ronald J. Ciucci, P.E. - Waterlines	James A. Culler, P.E., P.L.S. - Waterlines	Bradley, Roman, P.E. – Civil Design	George Kay, P.E. – Water Treatment	Michael J. Saylor, E.I.T. – Civil Design	Carl E. Sarver, Jr. – Geology / Mining	Brian Chlebus, P.E. – Hydraulics / Hydrology	Kimberly A. Bartos – Wetlands / Permitting	Kevin S. Schroeder - Wetlands	Gregory A. Hellman, P.E. – H&H / Civil / Mining	William D. Trimbath, P.E. – Principal
	M	M & P	P	P	P	P	P	M & P	P & M	P	P	P	P	P	P	P & M	P	P	P	P	P & M	P	P	P	P & M	M
Turnhole Branch Reclamation (WVDEP)																										
Twilight Burning Refuse (WVDEP)											x															
US Steel RCRA Closure Plan (USS)																					x				x	x
Waitman Barbe Highwall #1 (WVDEP)								x	x		x			x	x			x		x						x
Watson Portals & Refuse Reclamation (WVDEP)											x			x												x
Wymer Portals and AMD (WVDEP)													x													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.

Attachment "C"

RFQ No. DEP16288

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

MANDATE: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

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

DEFINITIONS:

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

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

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

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

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: Michael Baker Jr., Inc.

Authorized Signature: Russell E. Hall Date: July 23, 2013

State of West Virginia

County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this 23rd day of July, 2013

My Commission expires April 14, 2023

AFFIX SEAL HERE

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
STEPHANIE A HENSLEY
MICHAEL BAKER JR. INC.
5088 WEST WASHINGTON ST.
CHARLESTON, WV 25313
My commission expires April 14, 2023

NOTARY PUBLIC Stephanie A. Hensley

CERTIFICATION AND SIGNATURE PAGE

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

Michael Baker Jr., Inc.

(Company)

Russell E Hall

(Authorized Signature)

Russell E. Hall, Assistant Vice President

(Representative Name, Title)

304-769-0821 **304-769-0822**

(Phone Number) (Fax Number)

July 23, 2013

(Date)

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: DEP16288

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

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

Addendum Numbers Received:
(Check the box next to each addendum received)

[X]	Addendum No. 1	[ ]	Addendum No. 6
[ ]	Addendum No. 2	[ ]	Addendum No. 7
[ ]	Addendum No. 3	[ ]	Addendum No. 8
[ ]	Addendum No. 4	[ ]	Addendum No. 9
[ ]	Addendum No. 5	[ ]	Addendum No. 10

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Michael Baker Jr., Inc.
Company

Authorized Signature

July 23, 2013
Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.
Revised 6/8/2012