



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

Request for Quotation

RFQ NUMBER
DNR70189

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF
**BUYER 32
 304-558-0492**

RFQ COPY
 TYPE NAME/ADDRESS HERE

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DIVISION OF NATURAL RESOURCES
 PARKS & RECREATION SECTION
 BUILDING 3, ROOM 719
 1900 KANAWHA BOULEVARD, EAST
 CHARLESTON, WV
 25305-0662 304-558-2775

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
04/30/2006				

BID OPENING DATE: **05/11/2006** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	LS		968-20		
ADDENDUM NO. 1 CHANGES TO THE SPECIFICATIONS AS PER THE ATTACHED						
***** THIS IS THE END OF RFQ DNR70189 ***** TOTAL:						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE		TELEPHONE		DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE		

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

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

1. Awards will be made in the best interest of the State of West Virginia.
2. The State may accept or reject in part, or in whole, any bid.
3. All quotations are governed by the *West Virginia Code* and the *Legislative Rules* of the Purchasing Division.
4. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$45 fee.
5. All services performed or goods delivered under State Purchase Orders/Contracts are to be continued for the term of the Purchase Order/Contracts, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods, this Purchase Order/Contract becomes void and of no effect after June 30.
6. Payment may only be made after the delivery and acceptance of goods or services.
7. Interest may be paid for late payment in accordance with the *West Virginia Code*.
8. Vendor preference will be granted upon written request in accordance with the *West Virginia Code*.
9. The State of West Virginia is exempt from Federal and State taxes and will not pay or reimburse such taxes.
10. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
11. The laws of the State of West Virginia and the *Legislative Rules* of the Purchasing Division shall govern all rights and duties under the Contract, including without limitation the validity of this Purchase Order/Contract.
12. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
13. **BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, this contract is automatically null and void, and is terminated without further order.
14. **HIPAA Business Associate Addendum** - The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, and available online at the Purchasing Division's web site (<http://www.state.wv.us/admin/purchase/vrc/hipaa.htm>) is hereby made part of the agreement. Provided that, the Agency meets the definition of a Covered Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.

INSTRUCTIONS TO BIDDERS

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

ORIGINAL SIGNED BID TO:

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

DUPLICATE BID TO:

State Auditor's Office
Bid Observer
Building 1 Room W114
1900 Kanawha Boulevard, East
Charleston, WV 25305-0230

PREBID MEETING NOTES

RFQ No. DNR70189	
Park/ Project: Chief Logan Recreation Center (blasting)	
Date: 04-27-06	

Attendees/

- See attached sign in sheet.

Meeting purpose/

- Mandatory pre bid meeting.

Introduction of parties/

- Steve DeBarr, Chief Engineer 304-558-2775
- Bruce Collinsworth, Park Superintendent 304-792-7125
- Ron Price, Buyer, Division of Purchasing 304-558-0492 (not present)
- Ted Shriver, AIA, Williamson Shriver Gandee Architects, Consultant

Bidding documents/

- Drawings.
- Specifications.
- Request for quotations.
- Addendum.

Contact to obtain bidding documents/

- Drawings and specifications contact Steve DeBarr 304-558-2775.
- Request for quotations contact Ron Price 304-558-0492
- Addendum will be forwarded from Division of Purchasing.

Bidding procedure/

- Submit in duplicate as stipulated in RFQ.
- Submit at time and locations stipulated in RFQ.
- Lump sum bid.
- Do not qualify bids in any manner.
- Bid as drawn and specified except as modified by addendum.

Bid alternates/

- None.

Bid opening/

- 05-11-06

Mandatory pre bid meeting/

- Bids not accepted from anyone not attending prebid meeting and signing sign-in sheet.
- Attendance defined as being present before the meeting is formally adjourned.

Contract time/

- 14 days.

Insurance requirements/

PREBID MEETING NOTES

RFQ No. DNR70189	
Park/ Project: Chief Logan Recreation Center (blasting)	
Date: 04-27-06	

- As described in RFQ.
- Contact Ron Price for more information.

Bonding requirements/

- As described in RFQ.
- Contact Ron Price for more information.
- Need bid bond, performance bond, and materials/labor payment bond.

Safety/

- Contractors responsibility.

Sequencing of work requirements/

- None.

Payment procedure/

- Applications to be made monthly.
- Applications to be made on AIA Documents G702 and 703.
- Submit to Engineers attention.
- Progress payments to be made on estimated percent complete of each item listed in the approved schedule of values.
- Approved applications forwarded to Finance and Administration for payment.
- Typical time to receive payment is 4 to 6 weeks.

Permits obtained by Owner/

- None.

Addendum items/

- See attachment



Stephen DeBarr, P.E.
Chief Engineer

Email: Ken Caplinger, Doug Baker, Bob Beanblossom, Bruce Collinsworth, Ted Shriver

Cc: , Bruce Collinsworth, Ted Shriver, file

ADDENDUM NUMBER 1

RFQ No. DNR70189	
Park/ Project: Chief Logan Recreation Center (blasting)	
Date: 04-27-06	

1. Owner will excavate to find the exact highwall line prior to commencing work. Line shown on the drawings is approximate. Bid area shown on drawings.
2. Owner will provide dozer to re-establish access road into work area after blasting, if needed.
3. Boring logs are attached and made a part of this addendum.
4. There are no borings through the rock. There is no confirmation that the underlying coal seam has been augered. For the purposes of bidding it is to be assumed that the coal seam has been augered.
5. Owner will provide survey control points for elevations and will mark the extent of the south side of the work at the base of the existing back stack.
6. Owner will clear several small trees from the work area prior to commencing work.



Stephen DeBarr, P.E.
Chief Engineer

PRE-BID MEETING SIGN IN

Park/ Project: CHIEF LOGAN REC CENTER (BLASTING) sheet 1 of 2
 Date: 4-27-06

Representative name	John Zimnox
Company name	Mt. State Bit Service
Address	494 4-H Camp Road Morgantown, WV 26508
Phone	304-296-1783
Fax	304-296-0487
email	jzimnox@mtstatebit.com
Need plans and specifications?	Yes
Representative name	BASIL CARPENTER
Company name	J AND B EXCAVATING INC
Address	333 A CALL RD Chas, WVA 25312
Phone	984-0388 (304)
Fax	984-3528 (304)
email	
Need plans and specifications?	Yes

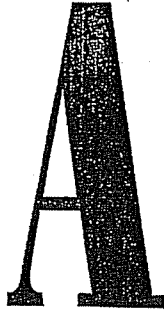
PRE-BID MEETING SIGN IN

Park/ Project: CHIEF LOGAN REC CENTER

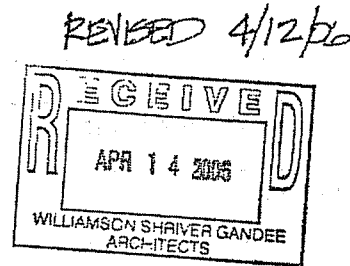
sheet 2 of 2

Date: 4-27-06

Representative name	Jack Mullins
Company name	Chapmanville Quarry
Address	P.O. Box 626 Chapmanville W.V. 25508
Phone	304-855-4049
Fax	304-855-4425
email	
Need plans and specifications?	
Representative name	
Company name	
Address	
Phone	
Fax	
email	
Need plans and specifications?	



American Geotech, Inc.
601 Ohio Avenue
Charleston, WV 25302
(304) 340-4277
Fax 340-4278



AMERICAN GEOTECH, INC.
Geotechnical, Environmental and Testing Engineers

REPORT OF
PRELIMINARY GEOTECHNICAL EXPLORATION
PROPOSED RECREATION CENTER - SITE D
CHIEF LOGAN STATE PARK
LOGAN, WEST VIRGINIA

Prepared For
WILLIAMSON SHRIVER ARCHITECTS
CHARLESTON, WEST VIRGINIA
2005

AMERICAN GEOTECH, INC.**GEOTECHNICAL, ENVIRONMENTAL AND TESTING ENGINEERS**601 OHIO AVENUE
CHARLESTON, WV 25302
(304) 340 4277
Fax (304) 340 4278

March 14, 2006

Mr. Ted Shriver
Williamson Shriver Architects
717 Bigley Avenue
Charleston, West Virginia 25302**Re: Report of Geotechnical Engineering Study - Mine Cavity (Corrected Report)
Proposed Recreation Center - Site D (Right side top of knoll)
Chief Logan State Park
Logan County, West Virginia**

Dear Mr. Shriver:

American Geotech, Inc. (AGI) is pleased to submit our report of geotechnical engineering study for the proposed recreation center Site D (right side top of knoll), to be located in Chief Logan State Park in Logan County, West Virginia. The geotechnical exploration was carried out in accordance with our verbal agreement.

The primary purpose of this exploration was to evaluate mine cavity and test for pyritic sulphur at base coal seam, if any. The purpose of the study was to establish the sub-grade elevation for cut at coal seam elevation and provide sufficient for preliminary planning and estimating of site work along with the expected foundation requirements.

Project Information

The proposed recreation center will include a game room, walk track, indoor tennis courts, and an indoor 25m olympic size pool. The most likely configuration of the building will be a rectangularly-shaped one-story structure.

Presently, the site is a relatively open and level cut/fill strip mine bench located on the northeastern aspect of a steeply sloping mountain. The general appearance and characteristics of the site show that the hillside has been strip/contour mined in the past, resulting in the creation of a highwall that averages around 32 feet in height at the center of the site. The downhill portion of the site was raised to its present grade through earth filling with mine spoil and soil materials obtained during the course of the mining activities. The bench site appears to have been cut into the existing sloping surface during the mining activities. This has resulted in a level sidehill fill consisting of uncontrolled fill

extending to depths on the order of 29.5 feet to around 35 feet below the highwall of the upper rock bench. As the bench site was constructed with a backslope, the surface drainage will flow generally to the southwest toward the existing uphill slope. The surface drainage conditions on the bench and the upper utility bench are such that positive drainage of the site was not provided during the grading procedures. Standing water was present over several large surface areas of the site.

Subsurface Conditions

Five (5) Standard Penetration Test borings (B-1 to B-5) were drilled on July 19 and 20, 2005 at the approximate locations shown on the Test Boring Location Plan. Additional two(2) Test borings (B-6 to B-7) were drilled on February 27 and 28 at the approximate locations shown on the Test Boring Location Plan. Both test borings were drilled 50 feet into rock or 15 feet below the mine cavity/coal seam. The test borings were staked in the field by AGI personnel.

The subsurface conditions at this site vary greatly between the test boring and test pit locations. Mine fill materials were encountered in all test borings to depths ranging from 29.5 feet to 35 feet below the present surface grades, whereupon the lower strip mine bench was encountered. The fill can generally be described as deep, unconsolidated and variable fill materials. Typically, the soils materials encountered by the test borings and test pits consisted of silty and sandy clay, with varying percentages of sand, rock fragments, cobbles, boulders, and organics. The fill was noted as wet to moist, and soft to very stiff in consistency. The natural soil materials were not encountered in any of the test borings or pits at this site. The test pits, which were excavated along the top of the highwall, encountered weathered shale bedrock within a few inches below the present surface grades, with a few exceptions. Approximately 2 to 3 inches of topsoil was encountered at the surface at all test boring locations.

Additional two(2) rock borings encountered 3 feet mine cavity at one location and 3 feet of coal seam at other location. It appears that the coal has been mined by means of auger mining.

DISCUSSIONS AND OPINIONS

Our limited subsurface exploration has indicated that the past coal mining activities at site D have resulted in a highwall averaging around 32 feet in height that separates upper and lower strip mine benches. The lower strip mine bench has been backfilled over to create the level hillside bench at the elevation of the upper strip mine bench. Typically, the strip\contour mining activities would have involved cutting benches into the existing hillsides to access the coal seams at the highest elevations of the site. As the bench is established, the viable coal is removed to the base of the seam and the bench would then be cut wide enough to allow heavy equipment access. The portion of the coal seam that extends into the mountain would then be extracted through horizontal auger mining. Once all of the coal obtainable through the auger mining has been recovered, the bench would be cut down to the elevation of the next coal seam. As the bench is cut down to each subsequent coal seam, the width of the bench increases because the highwall would be cut at a near vertical angle. There are 13 relatively thin coal seams contained in the geologic formation underlying the site that could mostly only be mined through the above process. The thicker coal seams, such as the Alma and Cedar Grove, would be mined through the room and pillar method.

Based upon our limited subsurface exploration, it appears that Site D is a feasible location for the proposed recreation center. In consideration of the somewhat complex subsurface conditions at this site, we recommend that the entire site be cut to the elevation of the lower strip mine bench, which was encountered around an elevation of 1122.0 to 1125.0 feet. It appears that the coal seam is dipping toward the southwest or toward the hill. The most ideal building location would be characterized by having the entire footprint area located on the rock bench at bottom of auger mined coal seam, such that foundation support could be provided by shallow spread footings bearing on rock. Shale bedrock below coal seam were tested for potentially expansive pyritic sulphur materials at this site. Testing results indicates that the pyritic sulphur in the shale were below the required action level.

Based upon our subsurface exploration and general evaluation of the project site, the following geotechnical recommendations can be made.

- The upper strip mine bench should be cut down to the elevation of the lower strip mine bench, which is present at an approximate elevation of 1122 to 1125 feet. This will provide the maximum amount of build able surface area and facilitate the construction of the access road and site utilities.
- A 10 ft wide maintenance bench should be provided at the top of the upper strip mine bench, at an approximate elevation of 1158 feet, to catch soil sloughs and rock falls from the existing upper fill slope.
- We recommend that the highwall be cut below 1158 at an angle of 1H:1V for long-term mechanical stability. The highwall will consist of a mixed-face rock slope where the individual strata will be variably weathered and fractured.
- Once the site has been cut to the lower mine bench elevation which is 1122 to 1125 feet. We recommend that 3 feet of quality engineered fill be placed over the lower strip mine bench to facilitate the construction of the foundations, and underground utility lines. It may require 5 feet to 7 feet of fill to accommodate the swimming pool. The engineered fill layer will also facilitate the final surface grading of the site.

We appreciate the opportunity of providing these services to you. If you have any questions concerning our findings or recommendations, please feel free to contact us at (304) 340-4277.

Respectfully Submitted,

AMERICAN GEOTECH, INC.

Kanti S. Patel, M.S.C.E., P.E.
Principal Engineer

LOG OF TEST BORING

CLIENT Williamson Shriver Architects BORING NO. B-1
 PROJECT Proposed Recreation Center Site D - Logan, West Virginia DATE START 7/19/05
 BORING LOCATION As shown on plan DATE COMP. 7/19/05
 ELEV. REF. None available ORDER NO. _____

ELEV. FT.	DEPTH FT.	DESCRIPTION OF MATERIALS	SAMPLE				
			NO.	TP	DEPTH	BLOWS/6"	REC.
	0.0	0.2 Topsoil. Brown and tan silty clay with rock 32.3 fragments, trace sand and cobbles (FILL), moist, medium stiff and stiff. - Topsoil @ 30.0 feet.					
	0.2						
			1	ss	0.0' - 1.5'	3-4-4	18"
			2	ss	2.5' - 4.0'	4-4-6	18"
			3	ss	5.0' - 6.5'	3-4-2	13"
			4	ss	7.5' - 9.0'	3-7-8	8"
			5	ss	10.0' - 11.5'	5-6-7	18"
			6	ss	15.0' - 16.5'	4-5-6	12"
		7	ss	20.0' - 21.5'	3-4-5	14"	
	32.5	Auger refusal @ 32.5 feet. Boring completed.					

GENERAL NOTES DRILLER <u>J. Edgell</u> RIG NO. <u>CME-45</u> RIG TYPE <u>Track</u> METHOD <u>HSA/SS</u>	AMERICAN GEOTECH, INC. Geotechnical, Environmental & Testing Engineers 601 Ohio Avenue Charleston, WV 25302 (304) 340-4277	WATER LEVEL OBSERVATIONS IMMEDIATE <u>NW</u> FT. AT COMPLETION <u>NW</u> FT. AFTER <u>BP</u> HRS. <u>-</u> FT. WATER USED IN DRILLING <u>No.</u>
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LOG OF TEST BORING

CLIENT Williamson Shriver Architects BORING NO. B - 2
 PROJECT Proposed Recreation Center Site D - Logan, West Virginia DATE START 7/19/05
 BORING LOCATION As shown on plan DATE COMP. 7/19/05
 ELEV. REF. None available ORDER NO. _____

ELEV. FT.	DEPTH FT.	DESCRIPTION OF MATERIALS	SAMPLE				
			NO.	TP	DEPTH	BLOWS/6"	REC.
	0.0						
	0.2	0.2 Topsoil.					
		Dark brown, brown, tan, and gray silty clay with sand and rock fragments, trace cobbles (FILL), wet to moist, soft to very stiff.	1	ss	0.0' - 1.5'	2-2-2	14"
			2	ss	2.5' - 4.0'	6-6-8	18"
			3	ss	5.0' - 6.5'	5-8-8	14"
			4	ss	7.5' - 9.0'	5-5-6	13"
			5	ss	10.0' - 11.5'	5-6-6	18"
			6	ss	15.0' - 16.5'	3-5-6	18"
			7	ss	20.0' - 21.5'	4-5-6	18"
	29.5	Auger refusal @ 29.5 feet. Boring completed.					

<p>GENERAL NOTES DRILLER <u>J. Edgell</u> RIG NO. <u>CME-45</u> RIG TYPE <u>Track</u> METHOD <u>HSA/SS</u></p>	<p>AMERICAN GEOTECH, INC. Geotechnical, Environmental & Testing Engineers 601 Ohio Avenue Charleston, WV 25302 (304) 340-4277</p>	<p>WATER LEVEL OBSERVATIONS IMMEDIATE <u>NW</u> FT. AT COMPLETION <u>NW</u> FT. AFTER <u>BP</u> HRS. <u> </u> FT. WATER USED IN DRILLING <u>No.</u></p>
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LOG OF TEST BORING

CLIENT Williamson Shriver Architects BORING NO. B-3
 PROJECT Proposed Recreation Center Site D - Logan, West Virginia DATE START 7/20/05
 BORING LOCATION As shown on plan DATE COMP. 7/20/05
 ELEV. REF. None available ORDER NO. _____

ELEV. FT.	DEPTH FT.	DESCRIPTION OF MATERIALS	SAMPLE					
			NO.	TP	DEPTH	BLOWS/6"	REC.	
	0.0	0.2 Topsoil.						
	0.2							
	7.3	Dark gray, brown, orangish-brown, and grayish-brown sandy clay with rock fragments, trace cobbles (FILL), moist, stiff to medium stiff.	1	SS	0.0' - 0.4'	50/4"	4"	
			2	SS	2.5' - 4.0'	4-5-6	12"	
			3	SS	5.0' - 6.5'	4-4-3	14"	
	7.5	Tan and brown silty clay with sand and rock fragments (FILL), moist, medium stiff to stiff.	4	SS	7.5' - 9.0'	4-4-6	14"	
			5	SS	10.0' - 11.5'	5-5-5	12"	
			6	SS	15.0' - 16.5'	5-7-7	18"	
			7	SS	20.0' - 21.5'	6-5-7	18"	
	30.0	Auger refusal @ 30.0 feet. Boring completed.						

GENERAL NOTES
 DRILLER J. Edgell
 RIG NO. CME-45
 RIG TYPE Track
 METHOD HSA/SS

AMERICAN GEOTECH, INC.
 Geotechnical, Environmental & Testing Engineers
 601 Ohio Avenue
 Charleston, WV 25302
 (304) 340-4277

WATER LEVEL OBSERVATIONS
 IMMEDIATE NW FT.
 AT COMPLETION NW FT.
 AFTER BP HRS. - FT.
 WATER USED IN DRILLING No.

LOG OF TEST BORING

CLIENT Williamson Shriver Architects BORING NO. B - 4
 PROJECT Proposed Recreation Center Site D - Logan, West Virginia DATE START 7/20/05
 BORING LOCATION As shown on plan DATE COMP. 7/20/05
 ELEV. REF. None available ORDER NO. _____

ELEV. FT.	DEPTH FT.	DESCRIPTION OF MATERIALS	SAMPLE					
			NO.	TP	DEPTH	BLOWS/6"	REC.	
	0.0							
	0.2	0.2 Topsoil.						
		Brown and tan to dark gray silty 33.8 and sandy clay with rock fragments, trace cobbles and boulders (FILL), moist.			Auger Sounding			
		- Boulder @ 23.0 feet.						
	34.0	Auger refusal @ 34.0 feet. Boring completed.						

<p>GENERAL NOTES DRILLER <u>J. Edgell</u> RIG NO. <u>CME-45</u> RIG TYPE <u>Track</u> METHOD <u>HSA/SS</u></p>	<p>AMERICAN GEOTECH, INC. Geotechnical, Environmental & Testing Engineers 601 Ohio Avenue Charleston, WV 25302 (304) 340-4277</p>	<p>WATER LEVEL OBSERVATIONS IMMEDIATE <u>NW</u> FT. AT COMPLETION <u>NW</u> FT. AFTER <u>BP</u> HRS. FT. WATER USED IN DRILLING <u>No.</u></p>
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LOG OF TEST BORING

CLIENT Williamson Shriver Architects BORING NO. B - 5
 PROJECT Proposed Recreation Center Site D - Logan, West Virginia DATE START 7/20/05
 BORING LOCATION As shown on plan DATE COMP. 7/20/05
 ELEV. REF. None available ORDER NO. _____

ELEV. FT.	DEPTH FT.	DESCRIPTION OF MATERIALS	SAMPLE				
			NO.	TP	DEPTH	BLOWS/6"	REC.
	0.0	0.2 Topsoil.					
	0.2						
	15.0	Brown, grayish-brown, and tan 14.8 sandy clay with rock fragments, some cobbles (FILL), moist, medium stiff to very stiff.	1	ss	0.0' - 1.5'	4-5-6	12"
			2	ss	2.5' - 4.0'	4-4-3	14"
			3	ss	5.0' - 6.5'	3-4-3	12"
			4	ss	7.5' - 9.0'	5-5-7	10"
			5	ss	10.0' - 11.5'	5-6-11	8"
	20.0	Tan and brown silty clay with sand and rock fragments (FILL), moist, medium stiff to stiff.	6	ss	15.0' - 16.5'	4-4-3	18"
			7	ss	20.0' - 21.5'	4-4-5	6"
	35.0	Auger refusal @ 35.0 feet. Boring completed.					

GENERAL NOTES DRILLER <u>J. Edgell</u> RIG NO. <u>CME-45</u> RIG TYPE <u>Track</u> METHOD <u>HSA/SS</u>	AMERICAN GEOTECH, INC. Geotechnical, Environmental & Testing Engineers 601 Ohio Avenue Charleston, WY 25302 (304) 340-4277	WATER LEVEL OBSERVATIONS IMMEDIATE <u>NW</u> FT. AT COMPLETION <u>NW</u> FT. AFTER <u>BP</u> HRS. <u>-</u> FT. WATER USED IN DRILLING <u>No.</u>
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LOG OF TEST BORING

CLIENT Williamson Shriver Architects, Inc. BORING NO. B-6
 PROJECT Proposed Recreation Center - Site D - Logan, WV DATE START 2/27/06
 BORING LOCATION As Shown on Plan DATE COMP. 2/27/06
 ELEV. REF. Non Available ORDER NO. _____

ELEV. FT.	DEPTH FT.	DESCRIPTION OF MATERIALS	SAMPLE				
			NO.	TP	DEPTH	BLOWS 6"	REC.
	0.0	Brown silty clay with rock fragments (fill), moist - loose.					
	4.0	Gray shale and siltstone with 18.0' small coal seam, medium hard.	1	NX	4.0' - 12.0'	24%	83%
	22.0	Gray fine grained sandstone - 10.0' hard.	2	NX	12.0' - 22.0'	94%	100%
	32.0	Black carbonaceous shale to coal 1.5' - soft.	3	NX	22.0' - 32.0'	99%	100%
	33.5	2.8' Void.	4	NX	32.0' - 42.0'	57%	73%
	36.3	0.7' Gray carbonaceous shale- soft.					
	37.0	Gray fine grained sandstone - 15.0' hard.	5	NX	42.0' - 52.0'	95%	100%
	52.0	Boring completed.					

GENERAL NOTES
 DRILLER R. Straton
 RIG NO. CME-55
 RIG TYPE Truck
 METHOD HSA/SS

AMERICAN GEOTECH, INC.
 Geotechnical, Environmental & Testing Engineers
 601 Ohio Avenue
 Charleston, WV 25302
 (304) 340-4277

WATER LEVEL OBSERVATIONS
 IMMEDIATE _____ FT.
 AT COMPLETION _____ FT.
 AFTER _____ HRS. _____ FT.
 WATER USED IN DRILLING No FT.

LOG OF TEST BORING

CLIENT Williamson Shriver Architects, Inc. BORING NO. B - 7
 PROJECT Proposed Recreation Center - Site D - Logan, WV DATE START 2/28/06
 BORING LOCATION As Shown on Plan DATE COMP. 2/28/06
 ELEV. REF. Non Available ORDER NO. _____

ELEV. FT.	DEPTH FT.	DESCRIPTION OF MATERIALS	SAMPLE				
			NO.	TP	DEPTH	BLOWS 6"	REC.
	0.0	Brown and gray silty clay with 5.0' rock fragments (fill), moist - loose.					
	5.0					<u>RQD</u>	<u>REC</u>
		Gray shale and siltstone with coal 12.0' seam - soft.	1	NX	5.0' - 7.0'	91%	100%
			2	NX	7.0' - 17.0'	100%	100%
	17.0	Gray fine grained sandstone - 15.0' hard.	3	NX	17.0' - 27.0'	94%	100%
	32.0	Black carbonaceous shale to coal 3.5' seam.	4	NX	27.0' - 36.0'	46%	100%
	35.5	2.5' Gray siltstone layered - tough.	5	NX	36.0' - 46.0'	100%	100%
	38.0		6	NX	46.0' - 51.0'	100%	100%
	51.0	Boring completed.					

GENERAL NOTES
 DRILLER R. Straton
 RIG NO. CME-55
 RIG TYPE Truck
 METHOD HSA/SS

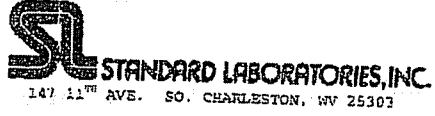
AMERICAN GEOTECH, INC.
 Geotechnical, Environmental & Testing Engineers
 601 Ohio Avenue
 Charleston, WV 25302
 (304) 340-4277

WATER LEVEL OBSERVATIONS
 IMMEDIATE _____ FT.
 AT COMPLETION _____ FT.
 AFTER _____ HRS. _____ FT.
 WATER USED IN DRILLING No FT.

03/10/2006 09:24 FAX 304 744 4318

STANDARD LABORATORIES IN

002



AMERICAN GEOTECH, INC.
501 OHIO AVENUE
CHARLESTON, WV 25302
ATTN: KANTI S. PATEL

LAE NO: 60307118 - 60307119
DATE RECEIVED: 03/07/06
DATE SAMPLED: 02/28/06
SAMPLED BY: CLIENT PROVIDED

SAMPLE ID: SITE D - CHIEF LOGAN S.P.
SOIL

LAB NO.	SAMPLE ID	PYRITIC SULFUR & DRY BASIS
60307118	B-6	0.62
60307119	B-7	0.31

SUBMITTED BY: *Shawn Berkley*