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June 15, 2012

WHETSTONE ASSOCIATES, INC. Attn: Susan Wyman 104 W. Ruby Road Gunnison, CO 81230

Via Email: <a href="mailto:swyman@whetstone-associates.com">swyman@whetstone-associates.com</a>

RE: <u>Schwartzwalder Mine</u> Grout Curtain

# **BUDGET PROPOSAL**

Hayward Baker, Inc. (HBI) is pleased to submit this budget proposal for the grout curtain program at the project referenced above.

### PROJECT DOCUMENTS

This proposal is based on the following documents:

- Technical Memorandum completed by your office dated June 1, 2012
- CAD files supplied by your office
- Core log videos.
- Site visit by HBI personnel on May 25, 2012

### **UNDERSTANDING OF WORK**

Based on the Technical Memorandum, HBI understands that a grout curtain is proposed at the existing Schwartzwalder Mine in order to grout an existing core hole as well as perform a grout curtain of an area where fractured rock has been encountered. The intent of the grout program is to reduce the flow of groundwater through this core hole and fractured rock strata. The surface area dimensions provided to area are 90' x 15'. The depth of the grout holes will be at least 35' below the existing surface elevation.

Based on this information, HBI is providing estimated unit price costs for the completion of the grout curtain based on the documents provided. The estimated drilling and grouting quantities included within this proposal are included for budget purposes only. The final billing for this work will be based on actual quantities completed.

### **CURTAIN GROUT HOLES**

The intent of the grout curtain will be to reduce seepage from the fractured rock strata within the grout curtain area. HBI will complete drilling and grouting on a grid pattern developed in conjunction with HBI and Whetstone Associates. For budget purposes HBI believes that grouting should be completed at grout locations located at 5' on-center.

The grouting program will be completed on a primary, secondary, and tertiary pass work program at minimum. The initial primary grout locations will be located approximately at the edges and center of the program area. After the primary pass is completed, the secondary grout locations will split space the primary locations. With each pass, grout volumes should decrease as grouting continues to fill the voids in the rock. This procedure will be completed until it observed that water permeability tests verify a level water flow reduction that is acceptable to the Owner. If necessary, additional holes can be drilled to target zones with a higher permeability than the criteria agreed to by all parties.

Based on this preliminary hole layout, HBI estimates that 76 grout holes will be required to complete the grouting program. Given this number of grout holes, HBI estimates that approximately 2,660 linear feet of drilling will be required. The actual number of grout holes, and linear feet of drilling and grouting will depend on the response of the grouting program and how easy or difficult the grout penetrates the rock fractures.

HBI will work with Whetstone Associates and the Owner to determine how the drilling and grouting program will be completed. With each hole drilled, the team will be able to determine the next step to follow in the grouting program. HBI will have an experienced superintendent and one field engineer on site to communicate with the project team. HBI will also have management personnel in close contact with the project to team to support the testing program.

#### Task Responsibility List for Curtain Holes

The proposed sequence of work and task responsibility has been provided to further clarify the scope of work. Any item noted as "Whetstone" must be provided by Whetstone Associates or others at no additional cost to HBI.

	TASK	RESPONSIBILITY
1.	Obtain permits as required. HBI will provide permits as needed for mobilizing equipment.	Whetstone
2.	Provide necessary submittals for installation of the grouting program.	HBI





3.	Provide potable water for drilling, water testing, and mixing grout. HBI will require approximately 20,000 gallons of water per day per drill and grout crew. We will be mobilizing water tanks to the site. HBI requires that these tanks be filled continuously to provide adequate water supply.	Whetstone
4.	Provide site access for drill rigs and storage area for materials and supplies. Room in the work area must be provided for high pressure water pumps, all terrain forklifts, grout plants, cement bags or bulk storage, water tanks and miscellaneous items that will be required to complete the work.	Whetstone
5.	Provide layout and marking of alignment of grout locations.	HBI
6.	Monitor ground heave during grout program.	Whetstone
7.	Divert and contain drill water away from the workbench in order to maintain a safe work area.	Whetstone
8.	Begin drilling operations. Each hole will be logged by HBI's driller as well as surveyed as described above.	HBI
9.	Complete water tests on each grout stage (approx. 15' to 20' in length) using single packers. Coordinate grout mix for Type I/II or Type III Portland cement or microfine cement with the water test data. Grout each stage using down-hole packers. HBI will use electronic grout monitoring equipment to monitor grout injection pressure and volume. This information will be plotted in conjunction with drill hole data.	HBI
10.	Complete verification of the grout curtain. This can be discussed based on access and surety as the grouting project continues.	Whetstone/HBI

# **SCHEDULE**

HBI has planned to complete the grouting program with one (1) drill and and one (1) water testing / grouting crew. Based on this crew size HBI estimates that it will take approximately 3 to 4 weeks to complete the grouting program described above.

### **SUMMARY**

We have enclosed our Budget Estimate Schedule of Prices and the Terms and Conditions which must be included as part of the Subcontract that is issued for this work. Given the uniqueness of this project, HBI is willing to discuss alternative methods for tracking and reimbursement for the completion of the grout curtain.

We have attached a sample means and methods statement to this project for this type of grouting project. The procedures for this project will be similar those described in this statement, however the grouting cutoff criteria will need to be discussed and agreed to by all parties prior to finalizing





this cost proposal and HBI's means and methods submittal.

We trust this Proposal is of interest and look forward to being of service. If we can be of assistance in clarifying any points in the Proposal, please call Greg Boonstra at 303-469-1136 (office) or 303-881-6533 (cell).

Sincerely,

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Greg Boonstra Project Manager

Cc: Taylor Knapp – HBI Joe Harris - HBI





## ESTIMATED SCHEDULE OF PRICES

The following schedule of prices has been created by estimating the labor, equipment, and supervision required to complete the work outlined in this proposal.

Description	Unit	Quantity	Rate	Extension			
Mobilization	L.S.	1	\$26,000	\$26,000			
Drilling Grout Holes	L.F.	2,660	\$30	\$79,800			
Water Tests by 15' to 20' Stage	Each	152	\$295	\$44,840			
Pressure Grouting per Each Crew	Hours	100	\$495	\$49,500			
Di	\$200,140						
Grout Material							
Type I/II Cement	#94 Bag	350	\$17.00	\$5,950			
Type III Cement	#94 Bag	150	\$25.00	\$3,750			
Microfine Cement	#45 Bag	100	\$95	\$9,500			
Superplasticizer	Gal	350	\$35	\$12,250			
Additional Grout Additives (if necessary)	Cost + 10%						
	\$31,450						
	\$231,590						

\* HBI will invoice for the total quantities completed.

-All rates based upon 9 hour work day unless specified.

-Stand-by/Delay will be charged as a result of interruption of HBI work for reasons beyond our control.

-The price is subject to the following Terms and Conditions.





#### HAYWARD BAKER, INC SPECIFIC & GENERAL TERMS AND CONDITIONS

The following facilities and services are to be provided to HBI by others free of all costs to HBI:

<u>Site Access</u>: Preparation and maintenance of clear, well drained, uninterrupted access ways and working platforms suitable for HBI equipment moving under its own power. Access includes adequate ramps at suitable levels and should be available at the time and to the extent necessary to suit HBI's operations.

<u>Sequence</u>: Work is to be made available in a sequence that will enable HBI to work efficiently and systematically without restriction.

<u>Progression of the Work</u>: HBI's proposal is based upon carrying out the work in an unobstructed manner during regular working hours, Monday through Friday, in a single uninterrupted visit to the site. HBI reserves the right to work overtime or weekends at HBI's own discretion without incurring charges for inspection, site overhead or other consequential charges. In the event that HBI's work is interrupted for any reason beyond our control HBI shall be compensated at the rate of \$5,500 per shift, or \$550 per hour for standby of the crew and equipment. At the present time HBI anticipates commencing work on-site within 3 weeks after receipt of a written order to commence work.

<u>Site Preparation and Maintenance</u>: Removal of all surface or subsurface obstructions, topsoil, brush, organic material and other unacceptable material in accordance with the requirements of the contract documents. Provide a firm level dry work surface at the work area.

<u>Water Control</u>: All work necessary to control and maintain the site and excavation free of ground or surface water problems as they relate to HBI's operations.

Prevent surface water and subsurface or groundwater from accumulating in and on project site and surrounding area. Provide local disposal of wastewater created by HBI's operations.

<u>Site Work</u>: The work under this proposal does not include any excavation, grading or sealing work required on the site to establish a working platform or to restore the site to the original or finished grade. All such work is to be furnished by others in a timely manner, so as not to impede the progress of the work or cause damage to the finished work.

Excavation and Spoil Removal: All necessary excavation and disposal, including removal of solid and liquid waste materials resulting from the work.

<u>Support of Adjacent Ground Structure</u>: Support of adjacent is not included in the scope of work of HBI. The Owner or Contractor is obligated to ensure that such structures do not settle.

Traffic Control: All pedestrian and vehicular traffic control including signs and barricades, if and when required.

<u>Utilities</u>: Location of utilities is not included in the scope of work of HBI. The Owner or Contractor is obligated to ensure that all utilities are properly located including the proper notification of any utility locating service applicable to the work. Furthermore, it is possible that damage may occur as a result of heave, settlement or intrusion caused by grout material due to the unforeseeable condition of the ground or utility. For this reason, HBI can not accept responsibility for damages thus caused.

<u>Layout</u>: Continuous and complete survey and field layout of all micropile locations. Any post construction survey of the work shall also be performed.

Engineering: All plans, specifications and designs, necessary for the work.





Permits and Easements: All site permits and easements required to legally perform the work.

Lighting: Reasonable site lighting for night work and site security.

<u>Water Supply</u>: Adequate supply of clean fresh potable water supplied to within 200 feet of HBI's operations at the rate of 100 gpm at 60 psi.

Sanitary Facilities: On-site sanitary facilities for the use of HBI employees.

Security: Site security during nights and weekends.

Site Yard: An area shall be provided on-site, adjacent to the work, for HBI's equipment, storage yard, workshop, and site office(s).

Labor Affiliations: This proposal is made with the understanding that HBI will employ open-shop labor.

<u>Hazardous Material</u>: In the event that HBI encounters any hazardous material on the site which has not been rendered harmless, HBI shall immediately stop work in the area affected and report the condition in writing to the Owner and Engineer. To the fullest extent permitted by law, the Owner and Contractor shall indemnify and hold harmless HBI, their agents, consultants, and employees from and against all claims, damages, losses and expenses, including but not limited to attorney fees arising out of or resulting from performance of the work in the affected area.

#### The following additional terms and conditions will apply to the proposed work:

<u>Liquidated Damages</u>: The Owner or Contractor shall not be entitled to any liquidated damage, delay damage or other time related penalties arising from the work

<u>Bonds</u>: The cost of a bond premium is not included in the contract price. If desired and paid for by the Owner or Contractor, HBI will furnish a Payment and Performance Bond.

<u>Confidentiality:</u> All specifications, drawings, price and technical data submitted by HBI are to be treated as confidential and shall not be used for any purpose other than the evaluation of this bid, nor shall such information be disclosed to any third party for any purposes without the express written consent of HBI. Such information shall remain HBI's property and be returned to HBI upon demand.

<u>Period of Acceptance</u>: This Proposal is offered for acceptance for a period of 30 days.

Exclusions: Any items of work not specifically included in this proposal shall not be the responsibility of HBI.

#### **GENERAL TERMS AND CONDITIONS**

<u>Payment Terms</u>: Progress payments will be submitted monthly and shall be payable in full without retainage within 30 days of the invoice date.

All other amounts due, including previously agreed on retention (if any), will be paid in full within 30 days of substantial completion of HBI's work, regardless of the anticipated project completion date.

An interest charge of 1-1/2% percent per month will be added to invoice amounts not paid within 30 days from date of invoice. All costs of collection, including attorneys' fees and court costs, will be added to unpaid invoice amount.





<u>Changed Conditions</u>: Notwithstanding all clauses of this subcontract, if Subcontractor, during its work, encounters 1) subsurface or latent physical conditions which differ from those indicated in this Agreement, or 2) unknown physical conditions of an unusual nature, differing from those ordinarily encountered, then Subcontractor shall be entitled to an equitable price and schedule adjustment to compensate it for such changed condition.

Insurance: HBI will provide the following insurances within limits as shown.

Comprehensive General Liability: \$2,000,000.00 (Combined Single Limit, Bodily Injury and Property Damage)

Automobile Liability: \$1,000,000.00 (Combined Single Limit, Bodily Injury and Property Damage)

Workman's Compensation: Statutory

<u>Force Majeure</u>: HBI cannot accept any liability for default or delay in the completion of the work when caused by strike, riot, war, or Act of God or other similar circumstances beyond HBI control.

<u>Limitation of Liability</u>: We will perform the work in a professional manner in cooperation with soils engineer. However, we cannot accept liability on any further damage to the structure, landscaping, utilities, french drains, septic systems, wells, etc. and/or any consequential damages that may result from the normal performance of the work. All utilities and other services left in place shall be located, exposed, and shown to our on site representative prior to commencement of work.

<u>Liability</u>: No liability can be accepted by HBI, nor shall HBI accept as in any way responsibility for defects of any kind whatsoever arising from a cause which is outside HBI's immediate control or knowledge, or for any fault in the junction between HBI's work and subsequent work carried out by others.

<u>Indemnity</u>: Subject to the terms of the Liability Clause above, and to the correct soil conditions having been provided to us prior to our work, HBI shall insure, indemnify and hold harmless the Owner and their employees from and against all claims, damages, losses, and expenses, including attorneys fees, but only to the extent of the negligence of HBI, provided that any such claim, damage, loss or expense is attributable 1) to bodily injury, sickness, disease or death, or to 2) the injury to or destruction of tangible property (other than the work itself) including the loss of use resulting therefrom, and only to the extent such claim is covered under the General Liability Policy of HBI.

<u>Standard Construction Contracts</u>: As an alternate to accepting HBI's proposal as the contract document, HBI considers the "Standard Form Construction Contract" as prepared jointly by AGC, ASA and the ASC, 1994 Edition to be balanced and fair to all parties. Such contract, with no changes to the standard text thereof, along with this proposal and the specific documents herein, could form the contract for the work herein proposed. Any other contract form will require our review. Where incorporated into a contract, this proposal shall supersede all conflicting terms of such a contract.

Hayward Baker Inc.

Accepted by:



