



COLORADO

Division of Reclamation,
Mining and Safety

Department of Natural Resources
1313 Sherman Street, Room 215
Denver, Colorado 80203

December 1, 2017

Matthew Welte
Summit Brick & Tile Co.
P.O. Box 533
Pueblo, CO 81002

RE: Adequacy Review #2, AM-03, Fox #1 Clay Mine, Permit No. M-1977-219

Dear Mr. Welte,

The Division of Reclamation, Mining and Safety (Division) has reviewed the content of the November 14, 2017 adequacy response for the Construction Materials 112c Permit Amendment Application (AM-03) for the Fox #1 Clay Mine, File No. M-1977-219, and submits the following comments.

During the AM-03 public comment period the Division received timely objections. Pursuant to Rule 1.4.9(2)(a) and 1.7.4(2), the Division has scheduled the application for consideration by the Mined Land Reclamation Board during the January 24-25, 2018. **Pursuant to Rule 1.4.9, on or before January 2, 2018, the Division shall issue its recommendation to the Board for approval, approval with conditions, or denial of the amendment application; therefore, a response to the following adequacy review concerns should be submitted to the Division as soon as possible.** To allow the Division adequate time to review your responses to the adequacy issues, please submit your adequacy responses no later than one week prior to the recommendation date. Please respond to this letter with the requested additional/updated information on permit replacement pages and/or exhibits and summarize each response in a cover letter titled "Adequacy Review Response #2, AM-03, M-1977-219".

The review consisted of comparing the application with specific requirements of Rules 1, 3, and 6 of the Minerals Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials. Any inadequacies are identified under the respective exhibit.

EXHIBIT C - Pre-mining and Mining Plan Map(s) of Affected Lands (Rule 6.4.3):

43. In response to Adequacy Item #12, the Applicant used information from the online map portal of the Pueblo County Assessor to demonstrate the proposed northwest permit boundary corner abuts the county right of way of Even Road. The Applicant then adjusted all of the AM-03 maps showing the correct location of the northern permit boundary. The Applicant has shifted the northern permit boundary approximately 50-60 feet north. The Division has the following concerns regarding this response.

43.1 The 50-60 foot shift in the proposed northern permit boundary constitutes an Amendment to AM-03. The Applicant will need to file an Amendment to AM-03 to include all of the proposed affected land. Please note, there is no fee for an amendment to an amendment



application in review. The Amendment application will need to reflect the new total affected area acreage.

- 43.2** When accessing the Pueblo County Assessor information one must agree to their terms which states “the County makes no representation as to the accuracy or content of the information” and the “The Data Sets and/or maps being displayed hereafter are neither legally recorded maps or surveys, and are not intended to be used as such. The source DATA is a unique compilation of records, information and data from various city, county, state, federal offices, and other sources and should be used for general reference only. Pueblo County makes no representation or warranty as to its accuracy, timeliness, or completeness, and in particular, its accuracy in labeling or displaying dimensions, contours, property boundaries, or placement or location of any map features thereon.” Based on further review of the data along the northern section of the proposed permit boundary, the Division believes there is an error with this data. It appears there is a 50-60 foot error in the assessor information as compared to on-the-ground fence lines. The Applicant must demonstrate, through a professional survey, where the northwest corner is located in comparison to the county right of way and update the AM-03 maps accordingly.
- 43.3** It appears there are now additional structures (driveway and out-buildings) within 200 feet of the affected lands located on the property identified as Boyd D & Janette L Rider. The Applicant must now comply with Rule 6.4.19 for these additional structures. Please note, although the Applicant attempted to obtain an agreement for a fence owned by these individuals, the Applicant will now be required to attempt to obtain an agreement for the additional structures in accordance with Rule 6.4.149(a) prior to complying with Rule 6.4.19(b).

EXHIBIT D - Mining Plan (Rule 6.4.4):

- 44.** In response to Adequacy Item #12, the Applicant submitted a new and complete Exhibit D in accordance with Rule 6.4.4. The Division has reviewed the new submittal and provides the following inadequacies.
- 44.1** As required by Rule 6.4.4(f)(ii), please provide information on the nature of the stratum immediately beneath the material to be mined.
- 44.2** As required by Rule 6.4.4(g), please describe the intended use of the primary and secondary commodities to be mined/extracted.
- 44.3** As required by Rule 6.4.4(h), please clarify that no incidental products will be mined/extracted.
- 44.4** The Applicant proposes to seed topsoil/growth medium stockpiles, which remain undisturbed for more than 180 days, with crested wheatgrass at a rate of 2 pounds PLS per 100 square feet. Crested wheatgrass is an introduced species that will aggressively compete with important native grasses and volunteer forbs and shrubs. Even though crested wheatgrass is not included in the seed mix to be used during final reclamation of the site, it will create a seed bank in the

topsoil stockpile which will be transferred to other areas of the mine. The Division requests the Applicant replace crested wheatgrass with a native species, such as western wheatgrass, or utilize the final reclamation seed mix to help establish a beneficial seed bank or contact the local office of the Natural Resource Conservation Service (NRCS) to get a formal recommendation. Additionally, upon further review, the Division believes this seeding rate is in error as it yields an extremely high seeds per square foot rate. The Division understands this seeding rate will be high to help prevent wind and water erosion on topsoil/growth medium stockpiles, however for example, a rate more in the range of 40 PLS/acre of western wheatgrass (yielding 101 seeds per square foot) would be more reasonable.

45. In response to Adequacy Item #16, the Applicant provided a blasting plan, dated July 22, 2002. Due to the scope of AM-03, this previously submitted blasting plan is outdated and is potentially obsolete. The Division cannot recommend an approval of AM-03 without being provided all necessary information. The Applicant shall provide a new and updated Blasting Plan in accordance with Rule 6.4.4(h) and demonstrate that offsite areas will not be adversely affected by blasting. The Division has enclosed *Attachment A - Key Elements of a Blasting Plan* which provides information the Division needs to review and approve a Blasting Plan. Please note, some of the necessary updates needed from the 2002 Blasting Plan include but not limited to the following: the proposed mining plan states flint clay and not just the sandstone may need to be blasted, ½ mile pre-blast structure survey, map to identify areas where blasting will occur, and Siloam Road characterization.

EXHIBIT E - Reclamation Plan (Rule 6.4.5):

46. In response to Adequacy Item #20, the Applicant submitted a new and complete Exhibit E in accordance with Rule 6.4.5. The Division has reviewed the new submittal and provides the following inadequacies.

46.1 As required by Rule 6.4.5(2)(f)(v), please specify the anticipated minimum depth or range of depths of replaced topsoil.

46.2 The Applicant proposes to use the reclamation recommendations from the Soil Conservation Service, dated November 6, 1990. Please verify and provide documentation from the NRCS that these recommendations are still appropriate and adequate for the proposed AM-03 expansion. The Applicant may also provide new recommendations from the NRCS to replace the 1990 recommendations.

47. In response to Adequacy Item #21, the Applicant states they are working on the stability analysis to allow the final reclamation slope of the sandstone layer to be left at near vertical and in the meantime offers to commits to not mining within 200 feet of any structure until the Division has reviewed and approved the analysis. Please clarify that the Applicant will commit to maintaining a 200-foot buffer between the permit boundary and crest of the reclaimed 3H:1V overburden and update the cross sectional figures on the Reclamation Plan Map to reflect the 200-foot buffer instead of the 50-foot buffer. Please update the Mining and Reclamation Plan Maps to reflect this buffer accordingly. Please also commit to delineating this 200-foot buffer on the ground when an active 40-acre phase is within proximity to the permit boundary.

- 48.** In response to Adequacy Item #25, the Applicant now proposes to revert back to the following seed mixture from 1990:

<u>Species</u>	<u>% Mix</u>	<u>lbs./Acre (PLS)</u>
Fairway Wheatgrass	60	3.60
Pubescent Wheatgrass	35	4.90
Yellow Sweet Clover	<u>5</u>	<u>0.35</u>
	100	8.85

Please note, during the review of AM-02, Applicant committed to using the following more diverse seed mixture:

<u>Species</u>	<u>% Mix</u>	<u>lbs./Acre (PLS)</u>
Sideoats Grama	25	3.0
Western Wheatgrass	15	2.0
Smooth Brome	15	2.0
Crested Wheatgrass	10	1.0
Pubescent Wheatgrass	10	2.0
Rye	10	3.0
Canada Bluegrass	5	0.5
Sand Dropseed	5	0.5
White Dutch Clover	<u>5</u>	<u>0.5</u>
	100	14.5

The Division has determined the currently proposed seed mixture (1990) does not appear to have the potential for a diverse vegetative cover similar to that in the surrounding area and compatible with the post-mining land use of range land. The AM-02 seed mixture is more compatible, however, after review the Division has determined the use of crested wheatgrass and the high percentage of smooth brome would be inappropriate as these introduced species will aggressively complete with important native grasses. It appears the Applicant needs obtain an updated reclamation seed mixture from NRCS.

EXHIBIT H - Wildlife Information (Rule 6.4.8):

- 49.** In response to Adequacy Item #31, the Applicant states that the setbacks within the raptor guidelines and buffer zones are not economically feasible nor necessary. The Applicant has also reiterated that these were recommendations from CPW and not requirements, therefore, can choose to follow or reject these as the Applicant wishes. Note, within the Legislative Declaration of the Colorado Land Reclamation Act for the Extraction of Construction Materials, aiding in the protection of wildlife is one of the intents of the general assembly. The Division interprets this as following recommendations from the Colorado Parks & Wildlife and not rejecting them. The Applicant has failed to provide the referenced attachments (Raptor Guidelines and Buffer Zones) in the December 27, 2016 Wildlife Statement provided in the original Exhibit H. The Applicant shall submit a copy of

these referenced documents. If these referenced attachments were not included in the original letter to the Applicant, the Division recommends the Applicant contact CPW to obtain a copy of these.

- 50.** In response to Adequacy Item #32, the Applicant states they do not intend to conduct a raptor survey on the proposed affected lands. In absence of a raptor survey, please describe how the Applicant will comply with the requirements of Rule 3.1.8(1) and Rule 6.4.8. The Division believes a raptor study, conducted by a 3rd party environmental consultant (preferably recommended by CPW), will inform the Applicant on if there are raptor species present on the affected lands, if the affected lands are utilized seasonally by raptors, and the presence of the threatened or endangered raptors. A raptor survey will also inform the Applicant how to take into account the safety and protection of wildlife on the mine site with special attention given to critical periods in the life cycle of those species which require special consideration (e.g., nesting). Without a raptor study nor an adequate technical justification why a raptor study is not necessary, the Division cannot recommend an approval of AM-03.

EXHIBIT R - Proof of Filing with County Clerk and Recorder (Rule 6.4.18):

- 51.** In response to Adequacy Item #37, the Applicant states they will provide proof of placement for the public review file. No proof was submitted with the Adequacy Review Response nor has the Division received proof since the submittal of the Adequacy Review Response. Please submit proof that the public review copy has been updated with a copy of the first Adequacy Review Response.
- 52.** Any changes or additions to the application on file in our office must also be reflected in the public review copy. Please submit proof that the public review copy has been updated with a copy of the response to this adequacy letter.

EXHIBIT S - Permanent Man-Made Structures (Rule 6.4.19):

- 53.** In response to Adequacy Item #42, the Applicant included five executed structure agreements between the Applicant and the owners of structures within 200 feet of the permit boundary. Please provide a copy of the remaining agreements which were sent but not executed.
- 54.** Please note, the Division is currently reviewing the engineering evaluation submitted in accordance with Rule 6.4.19(b) for those structures where an agreement could not be reached. An additional adequacy review will be forwarded to the Applicant as soon as the review of it concludes.

This concludes the Division's second adequacy review of AM-03. This letter shall not be interpreted to mean that there are no other technical deficiencies in AM-03, as other issues may arise when additional information is supplied. Be advised that the 112c permit amendment application for the Fox #1 Clay Mine may be deemed inadequate, and the application may be recommended to be denied on January 2, 2018, unless the above mentioned adequacy review items are addressed to the satisfaction of the Division. **If more time is needed to complete the reply, the Division can grant an extension to the decision date. This will be done upon receipt of a request for a specific amount of additional time. This must be received no later than the deadline date.**

December 1, 2017

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If you need additional information or have any questions, please contact me at Division of Reclamation, Mining and Safety, 1313 Sherman Street, Room 215, Denver, CO 80203, by telephone at **303-866-3567 x8132**, or by email at elliott.russell@state.co.us.

Sincerely,



Elliott R. Russell
Environmental Protection Specialist

Enclosure: Attachment A - Key Elements of a Blasting Plan

Cc: Wally Erickson, Division of Reclamation, Mining & Safety
Steve O'Brian with Environment, Inc., Environment-inc@outdrs.net

ATTACHMENT A

Key Elements of a Blasting Plan

- I. Blast Schedule Notification:
 - a. Name, address & phone number of Operator;
 - b. Identify where blasting will occur;
 - c. Day(s) and time(s) of blasting;
 - d. Methods used to control access;
 - e. Outline warning signals (e.g., sirens, horns, etc.);
 - f. Schedule distribution (who is notified: e.g., workers, residents, local governments, etc.).
- II. Pre-Blast Surveys – where agreed to and approved by structure owners:
 - a. Generally for structures within one half mile of the blast area;
 - b. Establish a pre-blasting record of existing structure(s) condition;
 - c. ID structures or contents sensitive to blasting.
- III. Blast Plan:
 - a. Limits on ground vibration;
 - b. Limits on airblast;
 - c. Methods used to control adverse effects of blasting;
 - d. Description of monitoring systems to be used and where to be set up;
 - e. Blasting protocol/procedure;
 - f. Anticipated typical blast design (this information can have a range so as not to require a specific design for each blast:
 - i. Blast purpose – what product is expected (e.g., riprap, crushed aggregate, etc.);
 - ii. Number, spacing, diameter and depth of holes;
 - iii. Type and amount of stemming material;
 - iv. Blasting agent and amount per hole; and
 - v. Type of delay detonator and delay periods expected.
 - g. Location(s) of blast monitoring.
- IV. Commit to Generating and Filing a Blast Report - The DRMS requires all Operators using explosives to complete a blasting report for each shot. The report must be retained by the Operator for at least 3 years and be available for inspection by the DRMS on demand. The record shall contain the following data, but should not be submitted as part of the Blasting Plan:
 - a. Location date and time of blast;
 - b. Name, signature and license number of blaster-in-charge;
 - c. Identification, direction and distance in feet from the nearest blast hole to the nearest potentially affected structure, such as any dwelling, school, church, or community or institutional building either:
 - i. not located in the permit area; or
 - ii. Not owned nor leased by the person who conducts the mining operations.
 - d. Weather conditions, including: temperature, wind direction, and approximate velocity;
 - e. Type of material blasted;
 - f. Sketches of the blast pattern including number of holes, burden spacing, and delay pattern. Sketches shall also show decking, if holes are decked to achieve different delay times within a hole;

- g. Diameter and depth of holes;
- h. Types of explosives used;
- i. Total weight of explosives used per hole and maximum weight of explosives used per 8-millisecond period;
- j. Initiation system;
- k. Type and length of stemming;
- l. Mats or other protections used;
- m. Type of delay detonator and delay periods used;
- n. Number of persons in the blasting crew; and
- o. Seismographic records where required including:
 - i. Type of instrument sensitivity and the calibration signal of the gain setting or certification of annual calibration;
 - ii. Exact location of instrument, the blast date and time, and the instrument distance from the blast;
 - iii. Name of the person and firm taking the reading;
 - iv. Name of the person and firm analyzing the seismographic record; and
 - v. The vibration level recorded