

February 8, 2017

Cork Powell
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COLORADO
Division of Reclamation,
Mining and Safety
Department of Natural Resources

1313 Sherman Street, Room 215
Denver, CO 80203

RE: Powell's Gravel Pit, File No. M-1995-012 , Technical Revision (TR-1) Adequacy Review-2

Dear Mr. Powell:

The Division of Reclamation, Mining and Safety (Division) has received your technical revision (TR-1) request. During review of the material submitted, the Division determined that the following issue(s) of concern shall be adequately addressed before the revision can be considered for approval.

1. In the extension request it was noted that slopes will be graded in polygon A to a 2:1 or flatter. In the TR-1 adequacy 1 submittal table Ad-2 was provided. Option D was the preferred option. The operator is responsible for reclaiming all lands within the permit boundary disturbed after the permit issuance in 1995.
 - a. Please explicitly state that all lands disturbed within the permit boundary after 1995 will be graded to a slope of 2:1 or gentler. If you wish to leave steeper slopes a geotechnical stability survey will be required first. Unaffected lands may remain steeper.
 - b. Also please state that all lands disturbed within the permit boundary after 1995 will be reclaimed. The post mining land use is agriculture. In this case all areas not noted as being stabilized with gravel for future storage use will be reclaimed to rangeland. Future storage areas were noted as polygon B. The areas to be revegetated at this time will include polygon A (1.43 ac) and polygon C (1.03 ac). If additional land within polygon D is disturbed it will need to be clarified how it will be reclaimed.
2. Based on the soil survey approximately 2" is defined as the A horizon or topsoil layer. You have stated that due to previous mining activities that much of the topsoil was not salvage. Please estimate the total available volume of topsoil currently stockpiled on site. If in the future additional stripping becomes necessary state the depth that topsoil will be salvaged.
3. From previous discussions you have indicated that using a cover crop will be the method utilized to supplement/build the soil given that topsoil is limited. Please specify which seed mix will be used for the cover crop and at a minimum how many times will it be planted and tilled under prior to seeding the final reclamation mix.
4. It has been mentioned that straw mulch may be used for reclamation but using a cover crop will be the primary method of adding organic matter to the soil. Straw mulch also helps retain soil moisture and serve as erosion protection. Please specify if the operator wishes to commit to using the 1 ton/ acre of mulch.



The reclamation plan submitted is a commitment of what at a minimum the operator will do to reclaim the land. If the operator sees fit he may go above and beyond what is outlined in these plans to ensure successful reclamation.

Please keep in mind that the Division needs a clear direction of how reclamation will be performed. This allows us to most accurately calculate the reclamation cost estimate as well as evaluate reclamation measures in the field. If in the future different measures need to be taken or the operator wishes to deviate from the approved plan another technical revision may be submitted at any time.

Please submit your response(s) to the above listed issue(s) by **Wednesday, February 15, 2017** in order to allow the Division sufficient time for review. Currently the decision due date is Friday, February 17, 2017.

If you require additional information, or have questions or concerns, please feel free to contact me. Amy Yeldell at the Division of Reclamation, Mining and Safety, 1313 Sherman St., Room 215, Denver, CO 80203. Direct contact can be made by phone at 970-254-8511 or via email at amy.yeldell@state.co.us

Sincerely,



Amy Yeldell

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Cc:
Russ Means, Senior EPS, Grand Junction DRMS
Matt Combs, Great Basin Environmental and Aquatics

Reclamation summary/overview

1. Re-grade all disturbed slopes to 2:1 or less
2. Rip compacted areas
3. Apply salvaged topsoil to areas being seeded
4. Plant cover crop (broadcast) then plow under to build soil, weed treatment (2 times min)
5. Reveg active mining area. Disk, broadcast, weed treatment, no mulch. Plant permanent seed mix requires 2 applications early fall and late fall for forage kochia
6. Secondary seeding of 2016 reveg area failures
7. Mobilization

Weeds will be treated-bonded for under reveg applications.

No bonding for storage areas as they meet the requirements now.

At a minimum the following will be done. The operator may go above and beyond (i.e. applying manure).

If significant deviations from the above plan are necessary another TR may be needed in the future.

It's recommended that a final as-built map is submitted when mining has complete.

If additional areas within the permit boundary beyond what's indicated on the map are mined, reclamation efforts need to be clarified (storage or rangeland).