COLORADO DIVISION OF RECLAMATION, MINING AND SAFETY
MINERALS PROGRAM INSPECTION REPORT
PHONE: (303) 866-3567

The Division of Reclamation, Mining and Safety has conducted an inspection of the mining operation noted below. This report documents observations concerning compliance with the terms of the permit and applicable rules and regulations of the Mined Land Reclamation Board.

MINE NAME: Red Rock Pit	**MINE/PROSPECTING ID#:** M-1978-315	**MINERAL:** Sand and gravel	**COUNTY:** Routt
INSPECTION TYPE: Monitoring	**INSPECTOR(S):** Amy C. Yeldell	**INSP. DATE:** June 16, 2016	**INSP. TIME:** 09:00
OPERATOR: Peabody Williams Fork Mining, LLC	**OPERATOR REPRESENTATIVE:** Brian Watterson	**TYPE OF OPERATION:** 112c - Construction Regular Operation	

REASON FOR INSPECTION: Normal I&E Program	**BOND CALCULATION TYPE:** Complete Bond	**BOND AMOUNT:** $31,550.00
DATE OF COMPLAINT: NA	**POST INSP. CONTACTS:** None	**JOINT INSP. AGENCY:** None
WEATHER: Clear	**INSPECTOR'S SIGNATURE:** Amy Yeldell	**SIGNATURE DATE:** June 28, 2016

The following inspection topics were identified as having Problems or Possible Violations. OPERATORS SHOULD READ THE FOLLOWING PAGES CAREFULLY IN ORDER TO ASSURE COMPLIANCE WITH THE TERMS OF THE PERMIT AND APPLICABLE RULES AND REGULATIONS. If a Possible Violation is indicated, you will be notified under separate cover as to when the Mined Land Reclamation Board will consider possible enforcement action.

INSPECTION TOPIC: Revegetation
PROBLEM/POSSIBLE VIOLATION: Problem: There are state-listed noxious weeds present on site. This is a problem for failure to employ weed control methods for state listed noxious weed species within the permitted area, and to reduce the spread of weeds to nearby areas as required by Section 3.1.10 (6) of the rule.
CORRECTIVE ACTIONS: Implement the approved weed control plan and provide proof to the Division that this has been done.
CORRECTIVE ACTION DUE DATE: 8/26/16

OBSERVATIONS

This inspection was conducted as part of the Colorado Division of Reclamation, Mining and Safety normal monitoring program. The Red Rock Pit is a 112c permitted site that includes a total of 41.80 permitted acres of with a maximum disturbance of 9 acres. It is located approximately ten miles south of Hayden, CO and is accessed from Routt County Road 53. Brain Waterson represented Peabody Williams Fork Mining, LLC and accompanied Amy Yeldell of the Division on the inspection.

The mine identification sign and affected area boundary markers are in place and in compliance with Rule 3.1.12. The sign is located at both ends of the permit boundary along CR 53. The permit boundary is delineated by t-posts and fencing on three sides. And the county road delineates the southeast side.

The site was inactive at the time of the inspection. It was indicated by Mr. Watterson that no new disturbances have occurred in some time. Approximately five acres are currently disturbed. A front end loader was observed. No buildings or fuel storage areas were observed on site. Material is removed by excavator and dozer and trucked to the Sage Creek Mine.

Based on discussions with the operator the Division recommends they file for intermittent status. Active status requires mining annually more than 180 days which this operation does not do. Intermittent status requires that a site be active annually however does not operate more than 180 days a year. If the mine ceases production for more than a year it shall go into temporary cessation. Mining activities include not only excavation but the moving of stockpiled materials as well. A request to become an intermittent operator shall be done in the form of a technical revision and submitted with the required $216 revision fee.

One large stockpile is located in the northeast portion of the disturbed area (phase 2, possibly phase 3). The stockpile is approximately 20' tall. A bench cut is located in the center of the pit (Phase 2). A bowl has been created on the side of the hill within the bench cut and is excavated approximately 20' deep. The western portion (Phase 1) appears to have been reclaimed. It is unclear if this area was intentionally seeded or if it is volunteer vegetation.

There is a stormwater berm between the mine and the county road. Additional ditching and sediment ponds were also observed. BMP's for this site are adequate and no erosion was observed. No designated topsoil piles were observed due to the rocky nature of this site. The operator is encouraged to salvage all topsoil encountered or fines produced through crushing for reclamation.

This spring was abnormally wet making any treatments difficult to impossible. Weeds such as Hounds Tongue and Black Hanbane were present. This is cited as a problem. The operator shall submit proof that weeds have been treated according the to the approved weed management plan by the corrective action date. The weed management plan was incorporated into the permit under CN-1 which was submitted under the previous operator. A copy of the approved weed management plan is attached.

The Division currently requires a financial warranty amount of $24,943 for this site. An excess surety amount of $6,607 is held for a total bond amount of $31,550. The bond was last updated in 2012 with the approval of CN-1. In an effort to ensure the Financial Warranty adequately, reflects the actual current cost of fulfilling the requirements of the approved reclamation plan the Division will be updating the reclamation cost estimate. A

copy of the staff calculations will be sent under separate cover.

No other problems or violations were noted during this inspection.

Responses to this inspection report should be directed to: 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

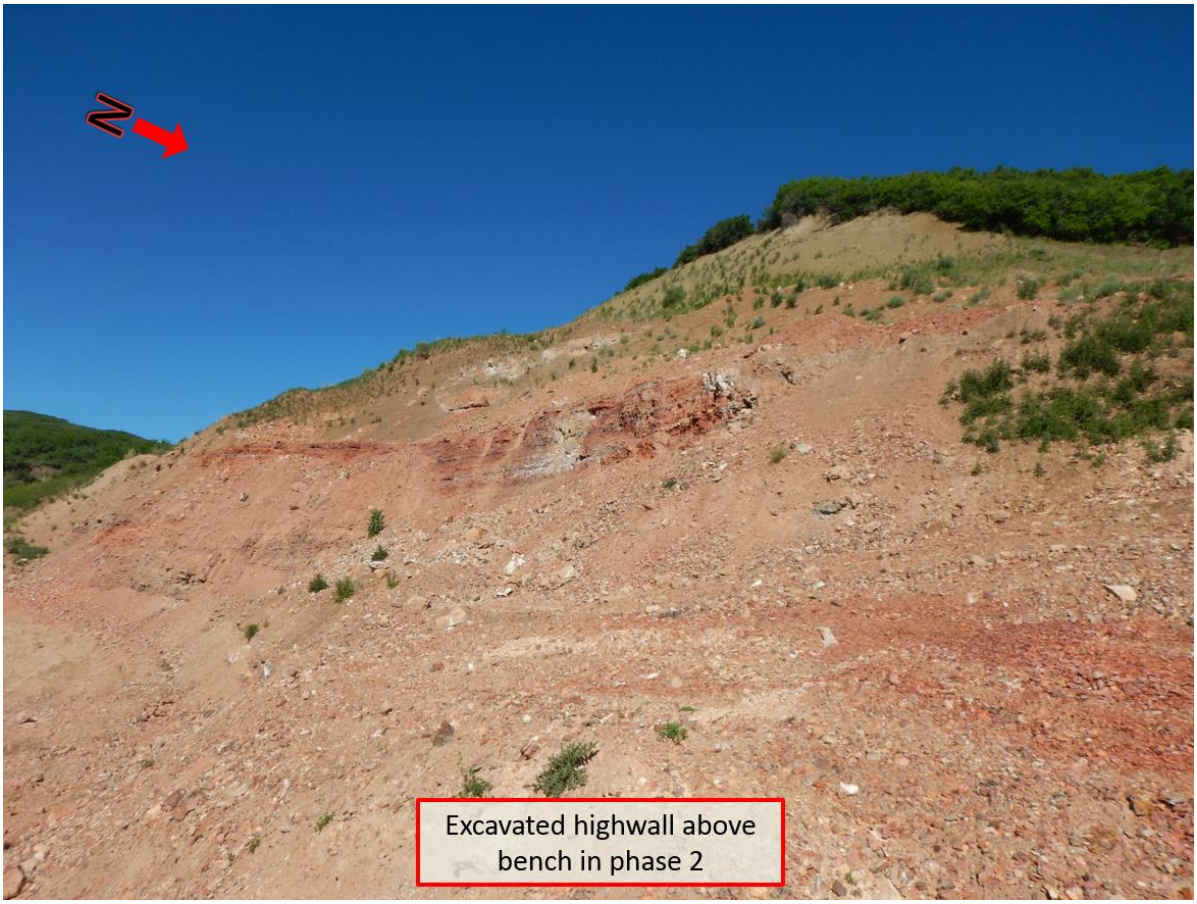
PHOTOGRAPHS


N
Undisturbed portion of phase 3


N
Stockpiled material in phase 2/3

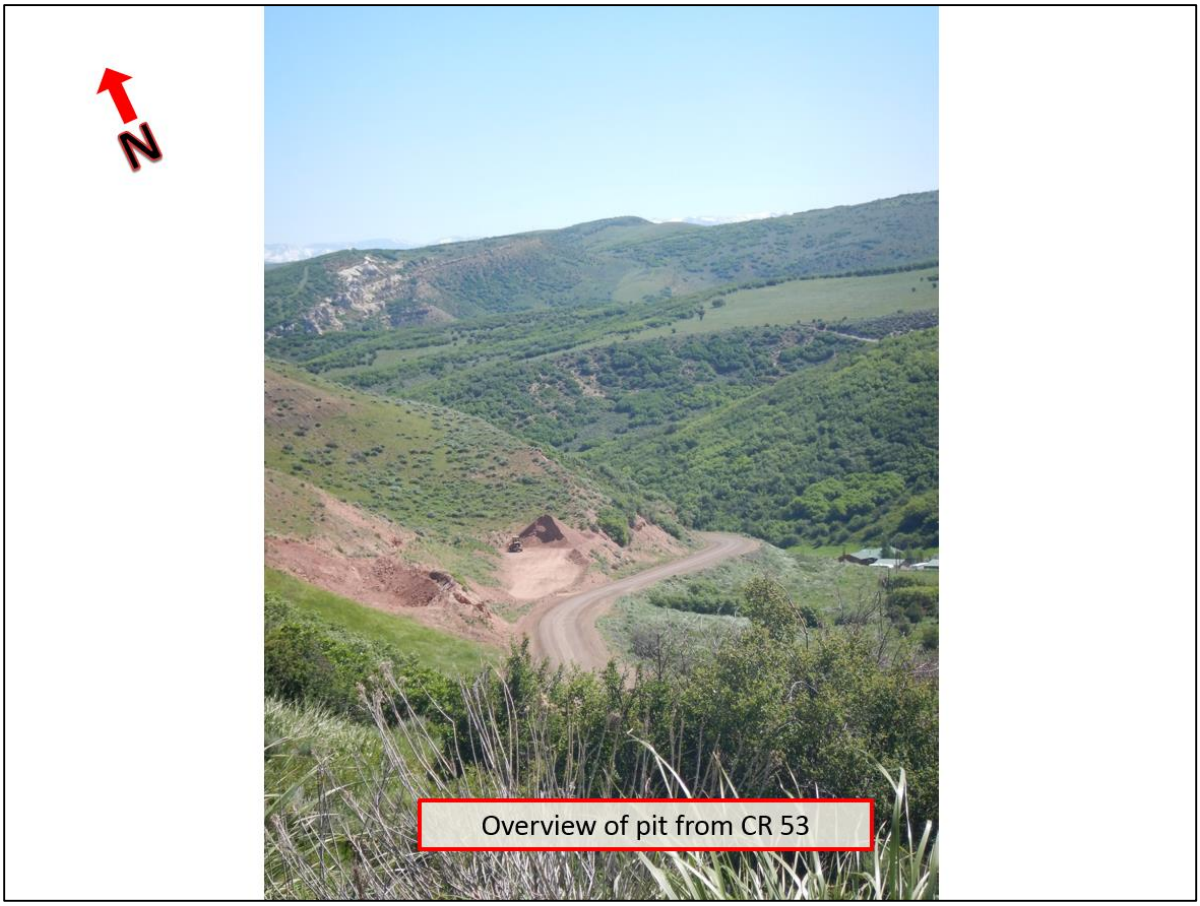

N
Over view of norther portion of phase 2


N
Excavations in Phase 2


N
Excavated highwall above bench in phase 2


N
Several weeds observed


N
ODY RED ROCK
GRAVEL PIT
Sage Creek Mining, LLC
P.O. Box 250
36600 RCR27
Hayden, CO 81639
Western pit processing area


N
Overview of pit from CR 53

GENERAL INSPECTION TOPICS

The following list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each

(AR) RECORDS---------- Y	**(FN) FINANCIAL WARRANTY-------- Y**	**(RD) ROADS---------- Y**
(HB) HYDROLOGIC BALANCE---------- Y	**(BG) BACKFILL & GRADING---------- Y**	**(EX) EXPLOSIVES--------- N**
(PW) PROCESSING WASTE/TAILING---- NA	**(SF) PROCESSING FACILITIES------- NA**	**(TS) TOPSOIL---------- Y**
(MP) GENL MINE PLAN COMPLIANCE- Y	**(FW) FISH & WILDLIFE---------- Y**	**(RV) REVEGETATION---- PB**
(SM) SIGNS AND MARKERS---------- Y	**(SW) STORM WATER MGT PLAN---- Y**	**(CI) COMPLETE INSP---- Y**
(ES) OVERBURDEN/DEV. WASTE--------- N	**(SC) EROSION/SEDIMENTATION--- Y**	**(RS) RECL PLAN/COMP-- Y**
(AT) ACID OR TOXIC MATERIALS------- NA	**(OD) OFF-SITE DAMAGE---------- NA**	**(ST) STIPULATIONS------- Y**

Y = Inspected and found in compliance / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited

Inspection Contact Address
Brian Watterson
Peabody Williams Fork Mining, LLC
36600 Routt County Road #27
Hayden, CO 81639

Enclosure

CC:
Russ Means, Senior EPS / Field Office Supervisor, Grand Junction DRMS

Revegetation - Seeding will occur in the early summer or late fall to take advantage of moisture conditions. The reclaimed areas will be broadcast or drill seeded with the following seed mix.

Species	Variety	PLS (lbs/ac)	% of total mix
Slender wheatgrass	Primar	3.0	18%
Bluebunch wheatgrass	Native	5.0	29%
Indian ricegrass	Native	2.5	14%
Western wheatgrass	Arriba	2.5	14%
Intermediate wheatgrass	Amur	3.0	18%
Mtn. big sagebrush	Native	0.25	1%
Antelope bitterbrush	Native	1.0	6%
		17.25	100%

Rates are based on drill seeding; rates will be doubled when broadcast seeding is used.

Noxious Weed Management Program - Noxious weed infestations may occur on areas disturbed from construction activities. In order to minimize potential adverse resource impacts that may result from noxious weed infestations; optimize revegetation success for the reclaimed area; and fulfill sound land management objectives, Peabody Sage Creek Mining LLC (PSCM) will incorporate the following integrated noxious weed management program (weed program) from the approved CDRMS (Colorado Division of Reclamation Mining and Safety) permit as an important component of their mining activities.

PSCM's weed program was developed with reference to the Colorado Weed Management Act (CRS 35-5.5-115), and the CDRMS's "Guideline for the Management of Noxious Weeds on Coal Mine Permit Areas", and in consultation with the local office of the Colorado State University Cooperative Extension Service (CSU-Extension Service, also the Routt County Weed Control agency). PSCM's weed program focuses on those noxious weed species listed by the Colorado Department of Agriculture, and will be modified, as appropriate to address any changes to this list. PSCM's integrated weed program consists of five interrelated components, as detailed in the following sections: Prevention, Identification and Mapping, Management Planning and Scheduling, Application of Selected Control Method(s), and Evaluation of Control Effectiveness.

Prevention - Prevention is the most important component of PSCM's weed program and includes the following items.

- Prevention of new noxious weeds from becoming established by stopping seed production through mechanical, chemical or biological control.
- Seed the reclaimed area in a timely manner after the site has been graded and stabilized using methods outlined the Reclamation Plan.
- Plant only certified weed-free seed for the approved seed mix.

- Monitoring of weed control efforts on an annual basis as described in Identification and Mapping below.

- Assess the need for any supplemental management measures. (ie: fertilization, reseeding, weed control, protection from wildlife, etc.)

Identification and Mapping - PSCM will utilize a range of resources to identify and map any noxious weed infestations within the PSCM permit area. The Environmental Staff will be trained in noxious weed identification and, as a matter of practice, note any noxious weed occurrences observed any time they are in the field. In addition, Environmental Staff, assisted by trained student and summer interns, will conduct spring and fall Environmental Management surveys of active areas, specifically to identify any new noxious weed occurrences, assess the effectiveness of weed management activities, and note any environmental concerns that may require attention. PSCM maintains a working weed program map and records both observed noxious weed occurrences (from all sources, by weed species, location, and extent of infestation) and treatment activities.

Management Planning and Scheduling - Effective management and planning are key elements in assuring the effectiveness of PSCM's weed program. Any new information collected through the ongoing noxious weed identification and mapping efforts, along with treatment information from prior years is reviewed and evaluated. Based on this information, treatment strategies and schedules are developed during the early spring for the annual weed management program using the following steps:

- For mapped weed infestations, treatment method is determined based on the weed species present using recommendations provided by the CSU Extension Service. Selection of treatment method(s) takes into consideration proximity to flowing water or water bodies, croplands, any livestock use, and historical response of identified weed species to prior treatment(s), based on review of control effectiveness. Treatment methods may include mechanical controls (tillage, mowing, burning, cutting/pulling), chemical controls (selective herbicides), biological controls (weed-specific insects or pathogens), or combinations of these methods. In general, treatment method(s) will be selected to achieve the most effective control with the resources available. As an example, where multiple weed species are present, the most effective overall control(s) will be applied, although the method(s) may not be optimal for each individual species.

- Scheduling of weed management treatments will also be based on the CSU Extension Service recommendations for specific weed species. For most species, control effectiveness can be significant enhanced by scheduling treatment at specific stages of vegetative growth (typically spring and/or fall). To the extent possible, based on staff and contractor availability, treatment will be scheduled to optimize effectiveness.

- Priority and responsibilities for weed control are determined based on weed species present and the location and extent of weed infestations. Certain weed species are extremely aggressive, and first priority will be given to their control to prevent establishment and spread. Previously treated areas are second in priority, in order to maximize control effectiveness. Third in priority

are any new weed infestations and areas where the weed infestation covers a large area, to prevent further spread. Lowest priority is given to isolated weed infestations of non-aggressive species which have not been previously treated, since these may be addressed by natural vegetative succession and pose a reduced risk of spread.

Application of Selected Control Method(s) - The following summarizes the proposed treatment methods for listed noxious weed species known to occur within the PSCM permit area. If treatment extends over a longer time period, or if control effectiveness is determined to be lower than anticipated, treatment methods or chemicals may be adjusted to improve long-term effectiveness. Approved or more effective chemicals for targeted weeds may change over time and these modifications will be incorporated as needed.

Routt County Noxious Weed list:

- Yellow toadflax/butter and eggs - Spring spot spraying with Tordon (Banvel is alternative chemical)

- Houndstongue - Spring spraying (full coverage and spot) with mix of Escort, 2,4-D amine, and Activator 90 (Plateau is alternative chemical)

Colorado State Noxious Weed A and B lists:

- Bull thistle - Cutting/pulling prior to formation of seed-heads and then fall spraying with mix of Tordon, 2,4-D amine, and Activator 90 (Banvel and Curtail are alternative chemicals)

- Musk thistle - Cutting/pulling prior to formation of seed-heads and then fall spraying with mix of Tordon, 2,4-D amine, and Activator 90 (Banvel and Curtail are alternative chemicals)

- Canada thistle - Cutting/pulling prior to formation of seed-heads and then fall spraying with mix of Tordon, 2,4-D amine, and Activator 90 (Banvel and Curtail are alternative chemicals)

- Hoary cress (white top) - Spring spraying (full coverage and spot) with mix of Escort, 2,4-D amine, and Activator 90 (Plateau is alternative chemical),

For large areas or significant weed infestations, PSCM may utilize a weed-control contractor to achieve overall control and then utilize in-house resources (Environmental Staff, student interns, summer students, contract labor) for ongoing maintenance control activities. PSCM will maintain an ATV with spray-tank, spray bar, and hand-sprayer, as well as several backpack tank sprayers for weed control. Chemical control activities are overseen by a U.S.-EPA Certified Pesticide Applicator and pesticide storage, handling, and use procedures and personal protective equipment are utilized to prevent potentially hazardous personal or environmental exposures. Where control of extensive weed infestations results in limited vegetative cover or bare-ground, the affected area will either be inter-seeded or ripped and seeded, dependent on site-specific conditions.

Evaluation of Control Effectiveness - Generally, in conjunction with the spring Environmental Management surveys, areas of previously identified and treated noxious weed infestations are

inspected and the effectiveness of control measures are evaluated based on reduction or elimination of weed infestations. This information is utilized in the management planning process to determine the need for continued treatment and to modify treatment method(s), if indicated, to improve effectiveness.

(e) The area will be reclaimed in stages, as an area is completed and no further operational use of the area is needed, final reclamation will proceed. The timing of reclamation stages will be based on the amount of red rock removed annually.

(f)(i) Final Grading - The final reclaimed configuration will consist of steep backslopes (up to 1H:1V) and flatter bench or floor areas at 5H:1V or less parallel to County Road 53.

(f)(ii) See response to (d).

(f)(iii) No fertilization is proposed.

(f)(iv) No planting of trees or shrubs is proposed.

(f)(v) The depth of replaced soil material will be variable and depend on the amount of material available for replacement. It is expected that the replacement depth will range between 0 and 4 inches.

The general reclamation plan is graphically presented on *Map 4, Reclamation Plan Map* (see Attachment 4).

The postmining land use will be primarily rangeland and secondarily wildlife habitat, which is the same as the pre-mining land use.

As each phase is mined out and no longer needed for gravel storage or crusher/screening pad, the flatter pit bottom will be graded, topsoiled (if available) and reseeded.

6.4.6 EXHIBIT F – Reclamation Plan Map

Map 4, Reclamation Plan Map, shows the proposed post-mine topography within the disturbed area.

6.4.7 EXHIBIT G – Water Information

No surface or ground water is expected to be encountered during the mining operations. Surface water from storm events will be controlled with ditches and small sumps placed as needed. Anticipated sump locations are shown on *Map 3, Mine Plan Map.* A Storm Water Discharge permit is contained in Attachment 8.