


**COLORADO**Division of Reclamation,
Mining and Safety

Department of Natural Resources

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: Keeling Pit	MINE/PROSPECTING ID#: M-1991-081	MINERAL: Sand and gravel	COUNTY: Huerfano
INSPECTION TYPE: Monitoring	INSPECTOR(S): Patrick Lennberg	INSP. DATE: June 7, 2019	INSP. TIME: 12:30
OPERATOR: Sam Keeling	OPERATOR REPRESENTATIVE: Sam Keeling	TYPE OF OPERATION: 110c - Construction Limited Impact	

REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: Complete Bond	BOND AMOUNT: \$14,737.42
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None
WEATHER: Cloudy	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: June 13, 2019

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: 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 approved weed control plan and provide proof to the Division that this has been done. If a weed control plan is not already in place, the operator shall develop a weed control and management plan in accordance with Section 3.1.10 (6) of the Rule. This plan should be developed in consultation with the county extension agency, or weed control district office and should include specific control measures to be applied, a schedule for when control measures will be applied and a post-treatment monitoring plan. This weed control plan shall be submitted to the Division as a Technical Revision to the approved plan with the appropriate Technical Revision fee of \$216.00 by the corrective action date.

CORRECTIVE ACTION DUE DATE: 8/12/19

OBSERVATIONS

The Keeling Pit was inspected by Patrick Lennberg with the Division of Reclamation, Mining and Safety (Division/DRMS). The inspection was completed as part of the Division's routine monitoring inspection program. The site was last inspected on January 15, 2016 as part of a routine monitoring inspection. Sam Keeling, Operator, was present during the inspection. The weather was windy and the sky was mostly clear.

The Morgan Pit is located approximately 4.5 mile northwest of La Veta, Colorado. The Keeling Pit is a 110 permit for the removal of sand and gravel. The approved permit area is 9.9 acres and the approved post-mining land use is rangeland. The mine site was surrounded by the following land uses: rural residential and rangeland. The Operator was in the process of installing a new mine sign at the time of the inspection.

The site was not operational during the inspection. There were several pieces of mining equipment scattered throughout the site, including a screening/crushing plant at the mine entrance. There was a lot of; vehicles, scrap metal, construction equipment, and farm equipment scattered around, both the affected land and areas outside of the permit boundary. The current affected land is a circular pit excavation, 2.4 acres in size, in the central portion of the approved permit boundary. The Operator stated that the pit operates a couple of times a month but last year was a down year because of the wildfire nearby. There is a highwall around the entire perimeter of the affected land boundary. The highwall is approximately 20 feet high and 1,400 feet long. No exposed groundwater was observed and any stormwater that accumulates on the pit floor appears to quickly infiltrate. When completing final reclamation, the Operator will need to grade all slopes to 3H:1V or flatter to comply with the approved reclamation plan. All slopes appeared to be structurally stable.

There were two list B noxious weeds at the site, one Russian Olive Tree and Hoary Cress. The Operator removed the Russian Olive Tree with a backhoe when it was pointed out and he was informed that it was considered a noxious weed. The Hoary Cress was not identified in the field but later upon photo review in the office. The abundance of Hoary Cress in the northern and along the eastern portions of the permit is being cited as a problem in this report. The concentration of the weed is consistent with the land surrounding the permit boundary. Enclosed with this report is the fact sheet for Hoary Cress by the Colorado Department of Agriculture and the contact information for the Huerfano County Noxious Weed Manager, Charles Bryant.

The Division was able to GPS all permit boundary markers. All current mining is within the permit boundaries.

The Division evaluated the financial warranty and determined the current bond amount held by the Division is adequate at this time but will go up with the next inspection if the Operator does not begin reclamation in areas that are not going to be mined further.

Photographs taken during the inspection are attached.

Please contact Patrick Lennberg (303)866-3567 ext. 8114 or email at patrick.lennberg@state.co.us if you have any questions regarding this report.

PHOTOGRAPHS



Photo 1: Typical permit boundary marker, northeast corner of permit



Photo 2: Looking west across the northern portion of permit at topsoil stockpiles covered in Hoary Cress



Photo 3: Close-up of Hoary Cress



Photo 4: Looking west across the pit area, note Russian Olive tree in bottom center of photo



Photo 5: Looking southeast across pit area



Photo 6: Looking east across pit area



Photo 7: Looking northeast across pit area



Photo 8: Looking north across pit area



Photo 9: Looking south at the access road into the pit



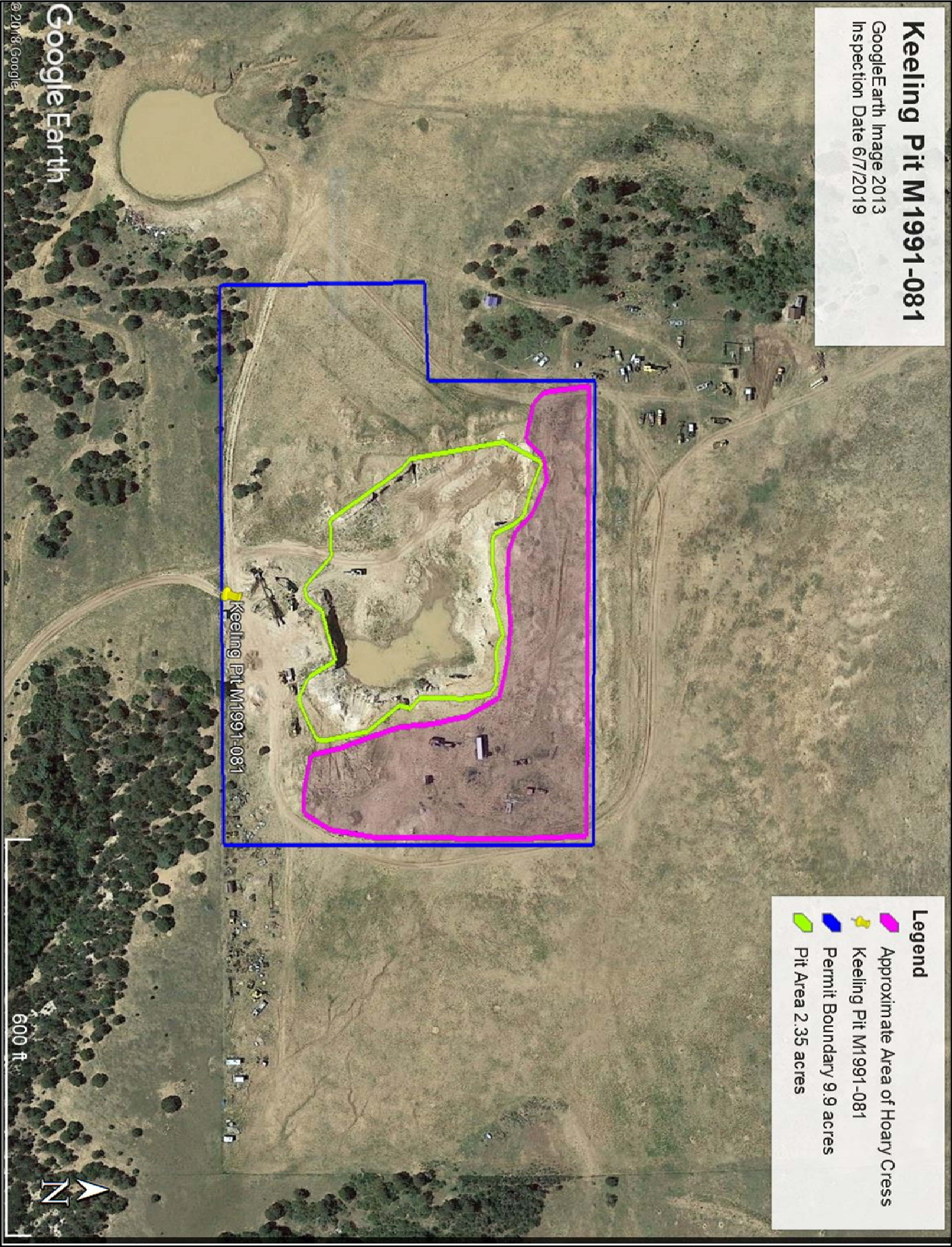
Photo 10: Another topsoil stockpile



Photo 11: Conditions of the surrounding land outside the permit boundary to the north



Photo 12: Removed Russian Olive tree



GENERAL INSPECTION TOPICS

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

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

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

Sam Keeling
P.O. Box 361
La Veta, CO 81055

Enclosure: Fact Sheet – Hoary Cress with Huerfano County Weed Manager contact information

CC: Michael Cunningham, DRMS

Hoary cress

List B Species

Rangeland, pasture, and riparian site recommendations

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Colorado Department of
Agriculture

305 Interlocken Pkwy
Broomfield, CO 80021

(303) 869-9030
weeds@state.co.us



Key ID Points

1. White flowers.
2. Grows erect 10-24" in height.
3. Leaf is 3/4-4" long with blunt end and fine white hairs.

Hoary cress Identification and Management

well on alkaline soils.



Identification and Impacts

Hoary cress (*Lepidium draba*) commonly known as whitetop, is a creeping perennial that is a member of the mustard family and native to Europe. The stems, in the rosette stage, may grow up to 2 inches in height and produce grayish-green leaves that are lance shaped. The leaves are alternate and 3/4 to 4 inches long. The upper leaves have 2 lobes that clasp the stem. The plant has numerous small, white flowers with 4 petals on stalks radiating from a stem. Seed capsules are heart-shaped with two small, flat, reddish brown seeds. One plant can produce from 1,200 to 4,800 seeds. The plants emerge in early spring with stems emerging from the center of each rosette in late April. Hoary cress flowers from May to June and plants set seed by mid-summer.

Habitats for Hoary Cress include: fields, waste places, meadows, pastures, croplands and along roadsides. It is typically found on unshaded, generally open areas of disturbed ground. It generally does better with moderate amounts of precipitation and grows

The key to effective control of Hoary cress is prevention. Preventing the encroachment of these weeds is the most cost-effective management. Preventing invasions by limiting seed dispersal, monitoring and using weed free hay, and quarantine animals that may have grazed in infested areas. Beyond prevention, the key is early detection when infestations are small, and aggressive management. Integrated Weed Management is required for proper control. Details on the back of this sheet can help to create a management plan compatible with your site ecology.

Hoary cress is designated as a "List B" species in the Colorado Noxious Weed Act. It is required to be either eradicated, contained, or suppressed depending on the local infestations. For more information visit www.colorado.gov/ag/weeds and click on the Noxious Weed Management Program. Or call the State Weed Coordinator at the Colorado Department of Agriculture, Conservation Services Division.



Photos © Kelly Uhing, Colorado Department of Agriculture; Mark Schwarzlander, University of Idaho, Above map: Crystal Andrews, Colorado Department of Agriculture,

Lepidium draba

**CULTURAL**

Prevent the establishment of new infestations by minimizing disturbance and seed dispersal, eliminating seed production and maintaining healthy native communities. Contact your local Natural Resources Conservation Service for seed mix recommendations. Planting competitive legumes, such as alfalfa, can reduce Hoary cress in crop rotations.

**BIOLOGICAL**

There is no biological control available for Hoary cress. Since biological control agents take years to research, develop and release, no releases are expected in the foreseeable future. For more information, contact the Palisade Insectary of the Colorado Department of Agriculture at 970-464-7916.

**MECHANICAL**

Mowing several times before the plants bolt stresses Hoary cress and forces the plant to use nutrient reserves stored in the root system. Combining mowing with herbicides will further enhance control of this weed. Mow repeatedly during the summer, then apply a herbicide in the fall.

Integrated Weed Management:

No single treatment provides effective, long term control. The best and first defense is always prevention. Once established, integrate a variety of combinations of competitive planting, crop rotations, and herbicides. This can reduce Hoary cress to manageable levels.

Hoary cress

HERBICIDES

NOTE: The following are recommendations for herbicides that can be applied to range and pasturelands. Rates are approximate and based on equipment with an output of 30 gal/acre. Please read label for exact rates. Always read, understand, and follow the label directions. The herbicide label is the LAW!

Herbicide	Rate	Application Timing
Chlorsulfuron* (Telar)	1 oz. product/acre + 0.25% v/v non-ionic surfactant	Apply at flowering. (Early spring to early summer)
Metsulfuron (Escort XP)	1 oz. product/acre + 0.25% v/v non-ionic surfactant	Apply at flowering. (Early spring to early summer)
Imazapic (Plateau, Panoramic)	12 oz./acre + 2 pints/acre methylated seed oil or crop oil concentrate	Apply at late flower to post-flower growth stage. (Late spring to mid-summer)

Note: *This herbicide has residual soil activity that will affect all broadleaf seedlings germinating after application has occurred.

Additional herbicide recommendations for other species can be found at:
www.colorado.gov/agconservation/CSUHerbicideRecommendations.pdf



Huerfano County Government

Huerfano County Noxious Weed Management

Comments are now being accepted for the Huerfano County Noxious Weed Plan. Please click the link below to read the Draft Noxious Weed Plan. Please contact us with any questions or concerns

Charles Bryant-Huerfano County Noxious Weed Manager

cbryant@huerfano.us

Phone: 719-989-1353

[Huerfano County Noxious Weed Plan Draft](#)