


**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.

<b>MINE NAME:</b> Four X Ranch Gravel Pit	<b>MINE/PROSPECTING ID#:</b> M-2014-033	<b>MINERAL:</b> Aggregate and grave	<b>COUNTY:</b> Morgan
<b>INSPECTION TYPE:</b> Monitoring	<b>INSPECTOR(S):</b> Jared L. Ebert	<b>INSP. DATE:</b> December 27, 2017	<b>INSP. TIME:</b> 11:00
<b>OPERATOR:</b> Four X Ranch, Inc.	<b>OPERATOR REPRESENTATIVE:</b> Martin Christensen	<b>TYPE OF OPERATION:</b> 112c - Construction Regular Operation	

<b>REASON FOR INSPECTION:</b> Normal I&E Program	<b>BOND CALCULATION TYPE:</b> Partial Bond	<b>BOND AMOUNT:</b> \$122,100.00
<b>DATE OF COMPLAINT:</b> NA	<b>POST INSP. CONTACTS:</b> None	<b>JOINT INSP. AGENCY:</b> None
<b>WEATHER:</b> Cloudy	<b>INSPECTOR'S SIGNATURE:</b> 	<b>SIGNATURE DATE:</b> January 3, 2018

**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:** Gen. Compliance With Mine Plan, Off-Site Damage, Roads

**PROBLEM:** The current mine plan needs to be updated and clarified pursuant to C.R.S. 34-32.5-112 (1)(c). The Operator has constructed an access road outside of the approved location.

**CORRECTIVE ACTIONS:** The operator shall at a minimum submit a Technical Revision, with the required \$216 revision fee. The requirements for the Technical Revision is discussed in the body of the report.

**CORRECTIVE ACTION DUE DATE:** 4/03/18

**INSPECTION TOPIC:** Signs & Markers

**PROBLEM:** The affected area boundary markers are incorrectly placed. This is a problem for failure to maintain boundary markers around the affected area as required by Section 3.1.12(2) of the Rules.

**CORRECTIVE ACTIONS:** The operator shall conduct a survey and replace the boundary markers in the correct location(s). The operator shall provide proof to the Division that this has been done by the corrective action date.

**CORRECTIVE ACTION DUE DATE:** 2/05/18

## **OBSERVATIONS**

This was a monitoring inspection of the Four X Ranch Gravel Pit, DRMS Permit No. M-2014-033 operated by Four X Ranch, Inc. (Operator). I, Jared Ebert with the Colorado Division of Reclamation, Mining and Safety (Division or DRMS) conducted the inspection. Mr. Martin Christensen with Four X Ranch, Inc. accompanied me during the inspection. This is a 33.2 acre 112c mining operation in Morgan County. The Division collected the location of the access road, boundary markers and the location of the affected land using the ArcCollector application. A map of the Division's findings is enclosed. Based on the measurements collected by the Division, the Operator has affected about 7.31 acres of land included the area associated with the access road.

### **Gen. Compliance With Mine Plan:**

Mining operations have begun on top of the ridge in the southeast corner of the site. Mining has created a small five to ten foot depression in the top of the hill. Topsoil has been stripped and stockpiled adjacent to the excavation area.

The mine access road was approved to run due east from the County Road into the permit area. Instead, the access road runs northeast and then curves southeast into the north end of the permit area. The permit application approved indicated the road would be about 2,036 feet in length. The Division measured the length of the road from the entrance from the County Road to where the road enters the marked north permit boundary and found it to be about 3,100 feet in length. The Operator will need to revise the permit boundary/area to address the unapproved location of the road. This issue is cited as a problem at the beginning of the report.

According to Mr. Christensen, they would like to move or modify the permit boundary to give them additional area to mine the east. This would allow the Operator to simply mine the top of the ridge where they are currently working and instead of leaving a depression at the top of the hill, they would daylight the excavation to the east and lower the crest of the hill.

Given the problem identified with the location of the road and the Operator's desire to move or modify the permit boundary, the Operator will need to submit a revision to the permit. The approved permit area for the site is 33.2 acres. A large part of the western portion of the permit area has not been affected by the mining operation. Given this, the Operator could revise the permit area to remove a portion of the western permit area and apply it to cover the disturbance associated with the change in the road location and to move the permit area to the east. If the Operator does not increase the permit area beyond the approved 33.2 acres with the required and desired modification to the permit boundary, this could be done through the submittal of a Technical Revision. If the Operator believes they would like to increase the permit area beyond the 33.2 acres currently approved, they would have to submit an Amendment to the permit.

At a minimum, if the Operator submits a Technical Revision and revises the location of the permit area but does not increase the permit area beyond the approved 33.2 acres, the Operator will need to submit:

- 1.) Technical Revision application form.
- 2.) Revised Exhibit C Mining Plan Map that meets the requirements of Rule 6.4.3 and 6.2.1(2).
- 3.) Revised Exhibit F Reclamation Plan Map that meets the requirements of Rule 6.4.6 and 6.2.1(2).
- 4.) Technical Revision Fee of \$216.00

If the Operator chooses to increase the permit area, they would need to submit an Amendment application in accordance with Rule 1.10. The fee for an Amendment is \$2,229.

Signs and Markers:

The Division collected the location of the permit boundary markers placed at the site using the ArcCollector Application. A map of the Division's findings is enclosed with this report. The four corner markers mark an area about 35.6 acres in size, given that the total permit area including the road area is only 33.2 acres, it does not appear the permit boundary is marked correctly. This issue is cited as a problem at the beginning of the report.

**PHOTOGRAPHS**



Figure 1. From the entrance to the site looking northeast at access road.



Figure 2. From the south end of the site looking north.



Figure 3. From the south end of the site looking northwest.



Figure 4. From the north end of the affected land looking south.





Figure 5. Pit depression at the south end of the site.



Figure 6. Processing area.

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

Martin Christensen  
Four X Ranch, Inc.  
22915 County Road 23  
Fort Morgan, CO 80701

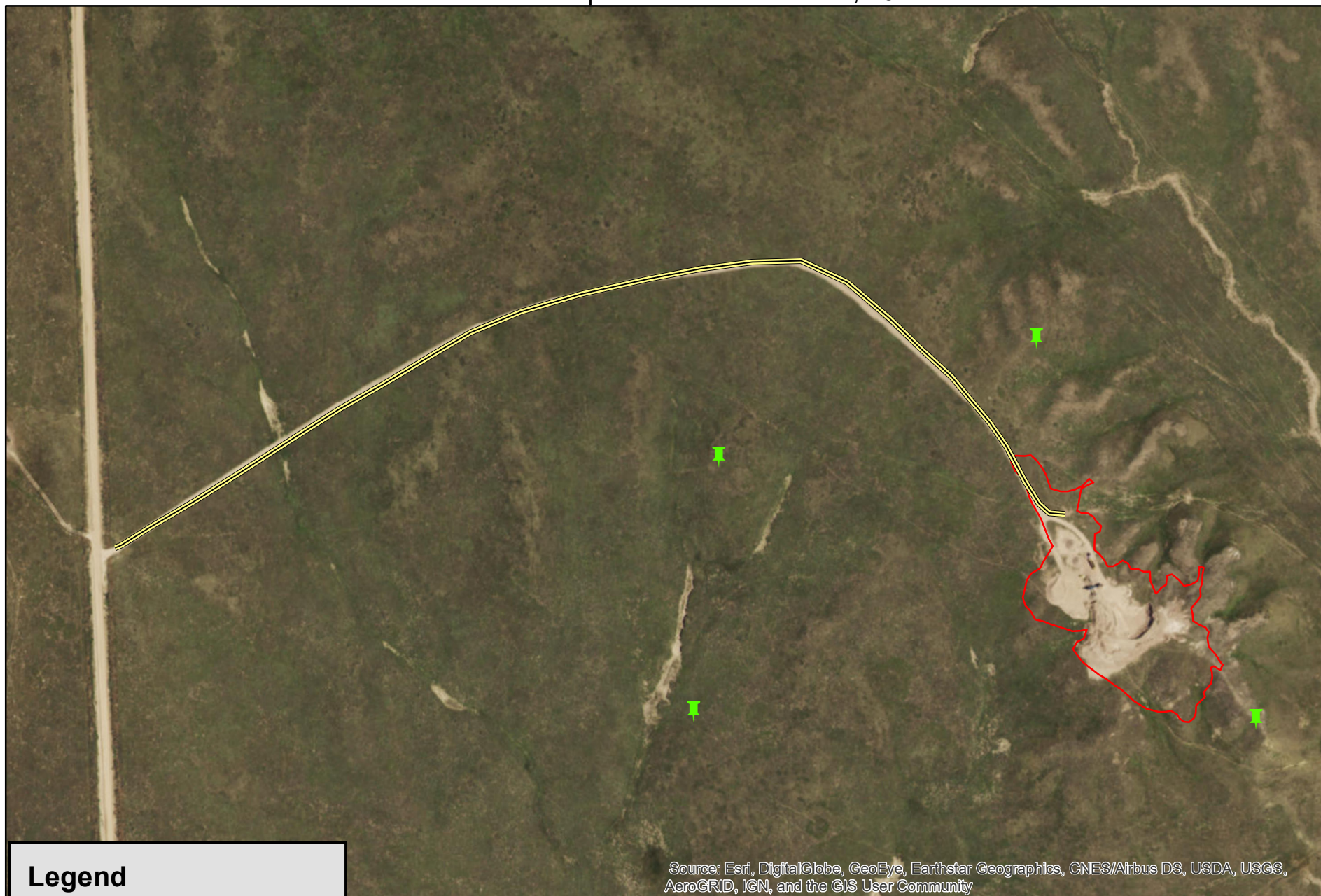
Enclosure: Rule 6.4.3, 6.4.6 and 6.2.1(2).  
Technical Revision Application Form  
December 27, 2017 Inspection Map

CC:






# Four X Ranch Gravel Pit, DRMS Permit No. M-2014-033

DRMS Inspection - December 27, 2017



## Legend

-  Permit Boundary Markers
-  Road
-  Affected Land Boundary

0 250 500 1,000 Feet



Data Collected - 27 Dec 2017  
Map Created - 3 Jan 2018  
Jared Ebert, DRMS





## COLORADO DIVISION OF RECLAMATION, MINING AND SAFETY

1313 Sherman Street, Room 215, Denver, Colorado 80203 ph(303) 866-3567

### REQUEST FOR TECHNICAL REVISION (TR) COVER SHEET

File No.: M- \_\_\_\_\_ Site Name: \_\_\_\_\_

County \_\_\_\_\_ TR# \_\_\_\_\_ (DRMS Use only)

Permittee: \_\_\_\_\_

Operator (If Other than Permittee): \_\_\_\_\_

Permittee Representative: \_\_\_\_\_

Please provide a brief description of the proposed revision: \_\_\_\_\_

As defined by the Minerals Rules, a Technical Revision (TR) is: “a change in the permit or application which does not have more than a minor effect upon the approved or proposed Reclamation or Environmental Protection Plan.” The Division is charged with determining if the revision as submitted meets this definition. If the Division determines that the proposed revision is beyond the scope of a TR, the Division may require the submittal of a permit amendment to make the required or desired changes to the permit.

The request for a TR is not considered “filed for review” until the appropriate fee is received by the Division (as listed below by permit type). Please submit the appropriate fee with your request to expedite the review process. After the TR is submitted with the appropriate fee, the Division will determine if it is approvable within 30 days. If the Division requires additional information to approve a TR, you will be notified of specific deficiencies that will need to be addressed. If at the end of the 30 day review period there are still outstanding deficiencies, the Division must deny the TR unless the permittee requests additional time, in writing, to provide the required information.

There is no pre-defined format for the submittal of a TR; however, it is up to the permittee to provide sufficient information to the Division to approve the TR request, including updated mining and reclamation plan maps that accurately depict the changes proposed in the requested TR.

Required Fees for Technical Revision by Permit Type - Please mark the correct fee and submit it with your request for a Technical Revision.

<u>Permit Type</u>	<u>Required TR Fee</u>	<u>Submitted</u> (mark only one)
110c, 111, 112 construction materials, and 112 quarries	\$216	<input type="checkbox"/>
112 hard rock (not DMO)	\$175	<input type="checkbox"/>
110d, 112d(1, 2 or 3)	\$1006	<input type="checkbox"/>

**RULE 6:**      **PERMIT APPLICATION EXHIBIT REQUIREMENTS**

**6.1**      **REQUIREMENTS FOR SPECIFIC OPERATIONS**

**6.1.1**      **General Provisions**

This Rule provides for the specification of Exhibits required to be submitted along with each type of Permit application.

**6.1.2**      **110, 110(6) Limited Impact, 112 Reclamation Permit Operations**

These operations shall provide all the Exhibits, as described in Sections 6.3 and 6.4, as applicable to the type of operation. Section 6.5 (Geotechnical Stability Exhibit) may also be required on a case-by-case basis.

**6.1.3**      **111 Special Operations**

These operations shall provide all the Exhibits, as described in Section 6.3. Section 6.5 may also be required on a case-by-case basis.

110,112

**6.2**      **GENERAL REQUIREMENTS OF EXHIBITS**

**6.2.1**      **General Requirements**

- (1) This Rule provides for the guidelines for, and information requirements of, each Exhibit required to be submitted with the permit application, as specified according to Section 6.1.

- (2) Maps and Exhibits

Maps, except the index map, must conform to the following criteria:

- (a) show name of Applicant;

- (b) must be prepared and signed by a registered land surveyor, professional engineer, or other qualified person;
- (c) give date prepared;
- (d) identify and outline the area which corresponds with the application;
- (e) with the exception of the map of the affected lands required in Section 34-32.5-112(2)(d), C.R.S. 1984, as amended, shall be prepared at a scale that is appropriate to clearly show all elements that are required to be delineated by the Act and these Rules. The acceptable range of map scales shall not be larger than 1 inch = 50 feet nor smaller than 1 inch = 660 feet. Also, that a map scale, appropriate legend, map title, date and a north arrow shall be included.

110, 111

**6.3 SPECIFIC PERMIT APPLICATION EXHIBIT REQUIREMENTS - 110 OR 110(6) LIMITED IMPACT and 111 SPECIAL OPERATIONS**

**6.3.1 EXHIBIT A - Legal Description and Location Map**

- (1) The legal description must identify the affected land, specify affected areas and be adequate to field locate the property. Description shall be by (a) township, range, and section, to at least the nearest quarter-quarter section, and (b) location of the main entrance to the mine site reported as latitude and longitude, or the Universal Transverse Mercator (UTM) Grid as determined from a USGS topographic map. A metes and bounds survey description is acceptable in lieu of Township, Range, and Section. Where available, the street address or lot number(s) shall be given. This information may be available from the County Assessor's office or U.S. Geological Survey (USGS) maps.
- (2) The main entrance to the mine site shall be located based on a USGS Topographic map showing latitude and longitude or Universal Transverse Mercator (UTM). The operator will need to specify coordinates of latitude and longitude in degrees, minutes



Transverse Mercator (UTM). The operator will need to specify coordinates of latitude and longitude in degrees, minutes and seconds or in decimal degrees to an accuracy of at least five (5) decimal places (e.g., latitude 37.12345 N, longitude 104.45678 W).

For UTM, the operator will need to specify North American Datum (NAD) 1927, NAD 1983, or WGS 84, and the applicable zone, measured in meters.

**6.4.2 EXHIBIT B - Index Map**

An index map showing the regional location of the affected land and all roads and other access to the area. A standard U.S. Geological Survey topographic quadrangle or equivalent is acceptable. Scale criteria need not be followed for this map.

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

One or more maps may be necessary to legibly portray the following information:

- (a) all adjoining surface owners of record;
- (b) the name and location of all creeks, roads, buildings, oil and gas wells and lines, and power and communication lines on the area of affected land and within two hundred (200) feet of all boundaries of such area;
- (c) the existing topography of the area with contour lines of sufficient detail to portray the direction and rate of slope of the affected land;
- (d) the total area to be involved in the operation, including the area to be mined and the area of affected lands (see definition of "Affected Land");
- (e) the type of present vegetation covering the affected lands; and

- (f) in conjunction with Exhibit G - Water Information, Subsection 6.4.7, if required by the Office, further water resources information will be presented on a map in this section.
- 112(3)(c), 115(4)(e) (g) Show the owner's name, type of structures, and location of all significant, valuable, and permanent man-made structures contained on the area of affected land and within two hundred (200) feet of the affected land.
- (h) In conjunction with Exhibit I - Soils Information, Subsection 6.4.9, soils information may be presented on a map in this section;
  - (i) Aerial photos, if available, may be included in this section.

#### **6.4.4 EXHIBIT D - Mining Plan**

The mining plan shall supply the following information, correlated with the affected lands, map(s) and timetables:

- (a) description of the method(s) of mining to be employed in each stage of the operation as related to any surface disturbance on affected lands;
- (b) earthmoving;
- (c) all water diversions and impoundments; and
- (d) the size of area(s) to be worked at any one time.
- (e) An approximate timetable to describe the mining operation. The timetable is for the purpose of establishing the relationship between mining and reclamation during the different phases of a mining operation. An Operator/Applicant shall not be required to meet specific dates for initiation, or completion of mining in a phase as may be identified in the timetable. This does not exempt an Operator/Applicant from complying with the performance standards of Section 3.1. If the operation is

- (ii) Seeding - specify types, mixtures, quantities, and expected time(s) of seeding and planting;
- (iii) Fertilization - if applicable, specify types, mixtures, quantities and time of application;
- (iv) Revegetation - specify types of trees, shrubs, etc., quantities, size and location; and
- (v) Topsoiling - specify anticipated minimum depth or range of depths for those areas where topsoil will be replaced.

**6.4.6 EXHIBIT F - Reclamation Plan Map**

The map(s) of the proposed affected land, by all phases of the total scope of the mining operation, shall indicate the following:

- (a) The expected physical appearance of the area of the affected land, correlated to the proposed mining and reclamation timetables. The map must show proposed topography of the area with contour lines of sufficient detail to portray the direction and rate of slope of all reclaimed lands; and
- (b) Portrayal of the proposed final land use for each portion of the affected lands.

**6.4.7 EXHIBIT G - Water Information**

- (1) If the operation is not expected to directly affect surface or groundwater systems, a statement of that expectation shall be submitted.
- (2) If the operation is expected to directly affect surface or groundwater systems, the Operator/Applicant shall:
  - (a) Locate on the map (in Exhibit C) tributary water courses, wells, springs, stock water ponds, reservoirs, and ditches