




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: Hitch Rack Ranch	MINE/PROSPECTING ID#: P-2017-008	MINERAL: Granite, granite gneiss	COUNTY: El Paso
INSPECTION TYPE: Monitoring	INSPECTOR(S): Timothy A. Cazier, Wally Erickson	INSP. DATE: May 9, 2018	INSP. TIME: 13:20
OPERATOR: Transit Mix Concrete Co.	OPERATOR REPRESENTATIVE: Jerry Schnabel	TYPE OF OPERATION: ME – Mineral Exploration	
REASON FOR INSPECTION: Citizen Complaint	BOND CALCULATION TYPE: None	BOND AMOUNT: \$4,000.00	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
WEATHER: Cloudy	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: May 14, 2018	

GENERAL INSPECTION TOPICS

This list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each. No problems or possible violations were noted during the inspection. The mine operation was found to be in full compliance with Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials and/or for Hard Rock, Metal and Designated Mining Operations. Any person engaged in any mining operation shall notify the office of any failure or imminent failure, as soon as reasonably practicable after such person has knowledge of such condition or of any impoundment, embankment, or slope that poses a reasonable potential for danger to any persons or property or to the environment; or any environmental protection facility designed to contain or control chemicals or waste which are acid or toxic-forming, as identified in the permit.

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

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

OBSERVATIONS

This inspection was conducted as the result of a complaint received by the Division from Ms. Beege Delgado on April 24, 2018. The Permittee (Transit Mix) was represented by Mr. Jerry Schnabel (Transit Mix). Ms. Delgado was also present for the inspection. Tim Cazier and Wally Erickson represented the DRMS. The Hitch Rack Ranch NOI is accessed from Little Turkey Creek Rd off Hwy 115 approximately 14 miles south of Colorado Springs. The Delgado property is also accessed from Little Turkey Creek Rd.

Complaint:

- 1) The monitoring wells installed by Transit Mix Concrete Company/ Hitch Rack Ranch partnership in and about the Little Turkey Creek Aquifer and HHR Ditch ground source violate the intent of the permit. The intent on permit states that the purpose is to monitor ground water through granite fractures. The three constructed wells are located in my primary ground source supply and in a strictly Alluvial aquifer and Alluvial gravel deposition. There are no granite fractures in or about my shallow well ground source supply structures. Complaint the monitoring wells are unsecured and exposed to all avenues of contamination which may I enter my ground source, ground flow and domestic well water supplies. I further complain that no care or consideration or environmental due diligence was afforded by the construction of these monitoring systems to my only drinking water source feed.

DRMS investigation: The monitoring wells were approved by the DRMS under a heretofore confidential [pursuant to C.R.S. 34-32.5-113(3)] Notice of Intent to conduct exploration (NOI). Subsequent to this inspection, the DRMS received a waiver of confidentiality for the subject NOI, allowing the DRMS to make public the findings of this investigation. All but one of the monitoring wells approved under this NOI were installed to monitor groundwater in the granite fractures. However, the eastern-most well (LTC-GW-7) was requested by the Division to be installed in the sedimentary rock downgradient of the fault in order to monitor water levels in the aquifer used by many residents. Geologic data provided to the DRMS as part of the adequacy review process for the related mine reclamation permit application (M-2017-049) shows LTC-MW-7 screens were installed in the sandstone approximately 27, 47, and 87 feet below ground surface (bgs), respectively. LTC-MW-6 intersected the fault about 32 feet bgs, prompting Transit Mix to add LTC-MW-7 to be sure it was all in sandstone. All other monitoring wells were completed in granite. These wells were installed/constructed by a Colorado licensed water well driller required to adhere to the Colorado Division of Water Resources requirements. Based on the Well Summary Sheets provided to the DRMS, LTC-MW-2 was completed on 7/26/2017; LTC-MW-6 was completed on 7/24/2017; and LTC-MW-7 was completed on 8/8/2017. As to the complaint the monitoring wells were unsecured and exposed to all avenues of contamination, this was left to the field investigation summarized below.

- 2) As related to Jerry Schnabel TM at the time of the well construction April 02, 2018, my domestic water wells could be compromised due to the disruption the gravel filter deposition beds and the various interconnective aquifer pockets convergent to on my primary water supply. WELL, now it has happened. The supply to my well nearest western boundary (where the TM well was constructed at a depth of 100 + feet) has become inoperable and delivery impeded.

DRMS investigation: This portion of the complaint was investigated at the Delgado residence and summarized below.

Investigation and Site Visit

Availability of Records: Annual fees and reports are not due until July 7, 2018. The previous inspection was on January 30, 2018. There are no open infractions. Well permit numbers for monitoring wells LTC-GW-1 through -7 were provided to the DRMS in an adequacy review response for Exhibit N, dated March 9, 2018.

Fish and Wildlife: No impact to fish or wildlife was observed.

Hydrologic Balance: The site investigation related to the complaint centered on a secondary well (labeled as "Well Investigated" on the **enclosed post-inspection map**) alleging the installation of monitoring wells (photos of LTC-GW-7 and LTC-GW-2 included in the complaint email) causing this well to become inoperable.

The following three monitoring wells were observed during this inspection: MW-7 (a.k.a. LTC-GW-7), MW-6 (a.k.a. LTC-GW-6), and MW-2 (a.k.a. LTC-GW-2) see **Photos 1** through **3**) and GPS coordinates of each were collected using a handheld Trimble Juno 3B (see **enclosed post-inspection map**). The locations of both the secondary (see **Photos 4** and **5**) and primary wells were also recorded with the same GPS, also shown on the post-inspection map. The investigated well was measured to be 480 feet from the closest, LTC-MW-7.

Ms. Delgado showed us the location of the inoperable well, which she indicated had not been able to supply water for about a year and a half, stating it was about the same time as the Transit Mix monitoring wells were installed. Power to the pump had been disconnected. This inspector observed water in the well, which Ms. Delgado indicated was approximately 240 feet deep. A water level meter was used to measure the depth to water which was determined to be 8.25 feet from the top of the casing. All parties considered the problem might be electrical or related to the pump. Mr. Schnabel offered to have the well contractor Transit mix used come investigate the pump and system.

The DRMS representatives expressed interest in collecting a water sample from the subject well for the purpose of assessing the amount of suspended solids. As the pump was not working, it was decided to use a length of garden hose to syphon water from the well. Slight curvature in the hose required some up and down motion of the hose to get it to an adequate depth into the well. This action likely knocked debris loose from inside the well casing, potentially contaminating the sample. When sufficient hose submersion was reached, the hose was kinked, withdrawn from the well and emptied into a one-liter bottle. The bottle was subsequently emptied into an Imhoff cone and allowed to settle. The settleable solids were measured to be 2.5 mm from the one liter sample. The vast majority of these solids appeared to be rust, likely as a result of the method used to collect the sample.

Gen. Compliance with Mine Plan: The operation appeared to be in compliance with the approved NOI. However, as indicated in the complaint, the monitoring well covers were observed to be unlocked. Given the small diameter of the monitoring tubes from the wells, it would be difficult, but not impossible to introduce contamination into the monitoring wells. **The DRMS strongly recommends Transit Mix either lock or otherwise secure the monitoring wells.**

Sediment Control: No erosion problems were observed and no BMPs were needed at the time of the inspection.

Permit Stipulations: Commitment (reference June 13, 2017 "*Responses to Hitch Rack Ranch, Notice of Intent to Prospect ID No. P-2017-008; Notice of Deficiencies*"): Transit Mix intends to leave boreholes LTC-GW-1 through 4 and 6 as permanent monitoring wells, and these wells will not be abandoned. Transit Mix is in the process of obtaining monitoring well permits from the Department of Water Resources (DWR) and commits to following all DWR rules and regulations for monitoring wells. Transit Mix will provide copy of the permit filings to CDRMS. If at any time these wells are no longer intended for use as monitoring wells, Transit Mix will permanently abandon them according to Rule 16 of the Colorado State Engineers DWR regulation. Specifically, Sections 16.4.1 and 16.1.3. **Note, LTC-GW-5 has been permanently abandoned with vibrating wire piezometers installed. An abandonment report will be required with the annual report.**

Please contact Tim Cazier (303)866-3567 ext. 8169 or email at tim.cazier@state.co.us if you have any questions regarding this report.

PHOTOGRAPHS



Photo 1. LTC-MW-7 (note unsecured cover and GPS unit).



Photo 2. LTC-MW-6 (note unsecured cover and GPS unit).

PHOTOGRAPHS (cont.)



Photo 3. LTC-MW-7 (note unsecured lock on cover and GPS unit).



Photo 4. Inoperable well enclosure.

PHOTOGRAPHS (cont.)



Photo 5. Inoperable well (top of casing).

Inspection Contact Address

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Colorado Springs, CO 80903

ec: Wally Erickson, DRMS
Amy Eschberger, DRMS
DRMS file
Jerry Schnabel, Transit Mix
Beege Delgado, well owner

P-2017-008 Post Complaint Inspection Map

Satellite Imagery from 6-9-2017

Legend

- Monitoring Well
- Well
- Well Investigated

