




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: Topaz Mine	MINE/PROSPECTING ID#: M-1980-055-HR	MINERAL: Uranium and vanadium	COUNTY: San Miguel
INSPECTION TYPE: Monitoring	INSPECTOR(S): Bob Oswald	INSP. DATE: July 16, 2014	INSP. TIME: 15:00
OPERATOR: Energy Fuels Resources (USA) Inc.	OPERATOR REPRESENTATIVE: David Turk	TYPE OF OPERATION: 112d-3 - Designated Mining Operation	

REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: None	BOND AMOUNT: \$94,791.00
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: U.S. BLM	JOINT INSP. AGENCY: U.S. BLM
WEATHER: Cloudy	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: August 5, 2014

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>NA</u>	(FN) FINANCIAL WARRANTY-----	<u>Y</u>	(RD) ROADS-----	<u>Y</u>
(HB) HYDROLOGIC BALANCE-----	<u>Y</u>	(BG) BACKFILL & GRADING-----	<u>NA</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>NA</u>	(FW) FISH & WILDLIFE-----	<u>NA</u>	(RV) REVEGETATION----	<u>Y</u>
(SM) SIGNS AND MARKERS-----	<u>Y</u>	(SP) STORM WATER MGT PLAN----	<u>NA</u>	(SB) COMPLETE INSP----	<u>NA</u>
(ES) OVERBURDEN/DEV. WASTE-----	<u>NA</u>	(SC) EROSION/SEDIMENTATION--	<u>Y</u>	(RS) RECL PLAN/COMP--	<u>NA</u>
(AT) ACID OR TOXIC MATERIALS-----	<u>Y</u>	(OD) OFF-SITE DAMAGE-----	<u>NA</u>	(ST) STIPULATIONS-----	<u>NA</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 was a routine inspection conducted by the Division as part of its monitoring of 112 DMO permits. The operator's representative named on page one was present throughout the inspection. The site was not active on the day of the inspection. The required permit ID sign was observed posted at the entrance gate to the permitted area. Permit boundary markers were observed at several boundary corners. All mining disturbances were within the permit boundary.

A precipitation event occurred the night before the inspection, which resulted in some minimal damage to some of the stormwater control structures on the site, although most of the structures were still intact and functional. The brunt of the storm event adversely affected the three mines in this group that are located at the eastern end of the complex. This site's stormwater control structures were designed by the operator's engineers during the formulation of the Environmental Protection Plan (EPP) several years ago, to provide sufficient capacity for the design storm. They were installed and maintained regularly as required.

The range of stormwater controls observed during this inspection includes upland diversion ditch, safety berm along the crest of the waste rock dump, sediment pond below the toe of the dump, culverts, waterbars and ditches along the roads. All the structures appeared to have functioned properly and most were observed to still be impounding water. There was a large amount of water ponded on the top of the dump surface, up to and possibly inside, the mine portal. The waste pad's safety berm was intact. All runoff from the coarse outslope of the dump face was captured in the sediment pond.

Though the stormwater control structures have been inspected previously and found to be installed and maintained properly, and still remain intact, it was apparent that storm intensity was important in determining whether the site's approved structures would remain intact. The same storm was far more intense at nearby permitted operations and easily overwhelmed the capacity of those structures. Even though this site is still in good condition, the operator is urged to perform the following measures as soon as possible:

1. evaluate all stormwater control structures, and ensure they still meet the specifications in the approved EPP;
2. upgrade the strength (cross-sectional thickness) of the dikes wherever possible, but do not raise only the height of the dikes;
3. consider designing and installing armored outlets (spillways) for any critical impoundments;
4. remove the sediment and debris from the impoundments, to re-establish the design capacity;
5. consider using the salvaged sediments as growth media, and either stockpile them for later use or spread them on graded surfaces and seed them;
6. reseed disturbed areas so that they become better protected against erosion; and
7. monitor for new areas of weeds since seeds may have been deposited with the sediments.

For all changes that are being considered at the site, please contact this office to see if a revision is needed.

The bond was recently calculated and is considered sufficient. There were no contaminants or inadequately contained hydrocarbons observed. The water monitoring well locations were not inspected at this time. No problems are noted in this report.

For questions related to this report, please contact this inspector at the Division's Durango Field Office: telephone 970-247-5193, or 303-866-3567 ext 8175.

All written correspondence should be sent directly to the Division's Denver Office:
Division of Reclamation, Mining & Safety
1313 Sherman Street, Room 215
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Inspection Contact Address

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PHOTOGRAPHS

