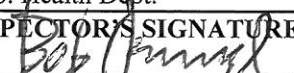




**COLORADO DIVISION OF RECLAMATION, MINING AND SAFETY**  
**MINERALS PROGRAM INSPECTION REPORT**  
**PHONE: (303) 866-3567**

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.

<b>MINE NAME:</b> Revenue Mine	<b>MINE/PROSPECTING ID#:</b> M-2012-032	<b>MINERAL:</b> Lead, silver and gold	<b>COUNTY:</b> Ouray
<b>INSPECTION TYPE:</b> Monitoring	<b>INSPECTOR(S):</b> Bob Oswald	<b>INSP. DATE:</b> July 19, 2013	<b>INSP. TIME:</b> 11:00
<b>OPERATOR:</b> Star Mine Operations, LLC	<b>OPERATOR REPRESENTATIVE:</b> None	<b>TYPE OF OPERATION:</b> 112d-1 - Designated Mining Operation	

<b>REASON FOR INSPECTION:</b> Other Agency Request	<b>BOND CALCULATION TYPE:</b> None	<b>BOND AMOUNT:</b> \$277,078.00
<b>DATE OF COMPLAINT:</b> NA	<b>POST INSP. CONTACTS:</b> Colo. Health Dept.	<b>JOINT INSP. AGENCY:</b> None
<b>WEATHER:</b> Cloudy	<b>INSPECTOR'S SIGNATURE:</b> 	<b>SIGNATURE DATE:</b> July 24, 2013

**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>NA</u>	(RD) ROADS----- <u>NA</u>
(HB) HYDROLOGIC BALANCE----- <u>Y</u>	(BG) BACKFILL & GRADING----- <u>Y</u>	(EX) EXPLOSIVES----- <u>N</u>
(PW) PROCESSING WASTE/TAILING---- <u>NA</u>	(SF) PROCESSING FACILITIES----- <u>NA</u>	(TS) TOPSOIL----- <u>NA</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>	(FW) FISH & WILDLIFE----- <u>NA</u>	(RV) REVEGETATION---- <u>NA</u>
(SM) SIGNS AND MARKERS----- <u>NA</u>	(SP) STORM WATER MGT PLAN---- <u>NA</u>	(SB) COMPLETE INSP---- <u>NA</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>Y</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 priority inspection performed by the Division in response to a series of inquiries from several staff at the Colorado Department of Public Health and Environment (CDPHE), concerning a visible white sludge in Sneffels Creek, possibly coming from the Revenue Mine. The inquiries were dated July 18, 2013. Much of this inspection was performed along Sneffels Creek, from several miles below the Revenue Mine to a short distance above the mine. Most of these areas along the creek are visible from the county road going up to Yankee Boy Basin (Forest Road 853.1B) or are a short distance from the road. A portion of this inspection was performed on the permitted land of the Revenue Mine site, which lies adjacent to the south bank of Sneffels Creek. During the onsite portion of the inspection, Mr. Rory Williams of Star Mine Operations accompanied this inspector. The observations of Sneffels Creek commenced at 10:30 am.

It was observed that Imogene Creek, which passes through the 14 level of the Camp Bird Mine site, was flowing clear and normal. (This flow includes the discharge from the mine water sediment pond.) Water in Sneffels Creek above the confluence with Imogene Creek was cloudy; this eliminated the Camp Bird Mine as the source of the cloudy water. Upstream of the Camp Bird, other smaller tributaries to Sneffels Creek were observed to be running clear, and were also ruled out.

During the past year the Revenue Mine has been generating rock during the driving of the mill tunnel. This "development rock" or "waste rock" does not encounter mineralized veins. Ouray County had a sample of the rock tested and it was found to be sufficiently inert to be used for surfacing the road. There is a new area of waste rock placement near the creek at the mine bridge, but it does not exhibit sloughing into the creek, nor is there a plume of sediment to the creek. Other recent activity at the mine site includes new sediment pond construction and an old dump rock excavation (which will be the site of another sediment pond, constructed in conformance with the mine plan), but these areas are set back from the creek and there is no communication of sediment with the creek. Finally, the pre-law Atlas mill tailings, upstream from the Revenue Mine site, were not observed to be visibly contributing the cloudy sediment to the creek. It should be noted here that the margins of the creek in the segment adjacent to the Revenue Mine, where the creek has the least gradient, there is a build-up of nearly white sediment, indicating past depositions of sediment on the side of the creek proximal to the county road.

The county road/forest road is gravel, and has been surfaced recently with light gray gravel whose source is the Revenue Mine. In an agreement between Ouray County and the operator of the Revenue Mine, new development rock from driving the mill tunnel has been screened and donated to the county for road maintenance. This has been ongoing for over a year, and gravel from this specific source is evident throughout the road. In the two miles of road between the Camp Bird Mine site and the Revenue Mine site there are up to six separate gravel stockpile locations, immediately adjacent to the road. It is mostly screened and crushed to 1.5 inches or less, but also includes piles of coarse blast rock from the mine. It all contains sediment. The gravel stockpile locations are all designated by the county. It has been placed in these stockpile locations by the operator at the county's request.

Along the road it was apparent that there are numerous locations where past precipitation or runoff has carried the light gray gravel and sediment off the road and onto the shoulder, into culverts and down drainages. This does not seem to be in large quantities, but many of these slopes are steep and the possibility for transport of sediment is present.

One specific stockpile area was identified as the most likely source for the flush of sediment in the creek. This site is located along a segment of the road approximately 550 feet above the "overhang" on the road, and about 3100 feet below the bridge on the Imogene basin road. There were loads of screened rock and coarse rock in this stockpile area. The lower end of this linear stockpile area lies immediately above a nearly vertical chute that reports directly to Sneffels Creek in the canyon below. A fair amount of coarse rock and sediment was observed extending down this chute some distance toward the creek. Since the lower end of the stockpiled rock was located at the head of this chute, it seems most likely that stormwater runoff from the road carried rock and especially sediment to the creek, clouding the water.

It was observed that the Sneffels Creek water was becoming clearer as time passed during the inspection. The observations of Sneffels Creek concluded at 2:30 pm.

It is this inspector's opinion that the incidence of observed sediment in Sneffels Creek appears to be due to stormwater runoff carrying sediment from the county/forest road, and/or county gravel stockpiles along the road, and was not due to runoff or activities at the permitted Revenue Mine. There are no problems related to the permitted mine noted in this report. This agency's jurisdiction does not extend to regulating Ouray County's gravel stockpile areas, but it is suggested that some sediment controls might be beneficial.

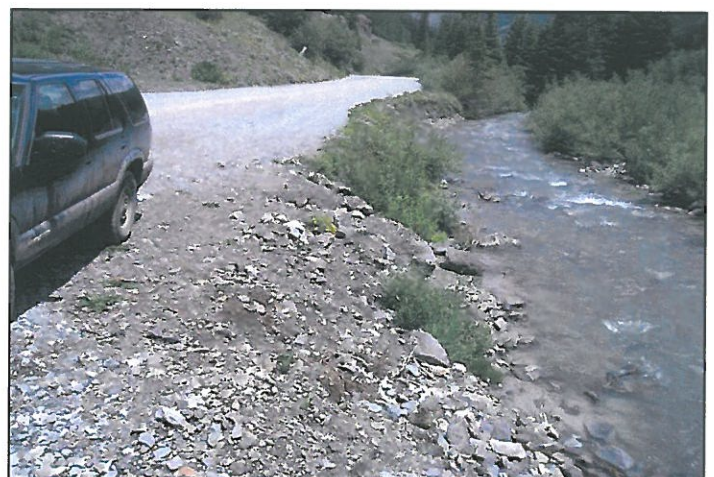
For questions related to this report, please contact this inspector at the Division's Durango Field Office:  
DRMS – Durango Field Office, 691 CR 233, Room A-2, Durango, CO 81301  
Telephone: 970-247-5193

**Inspection Contact Address**

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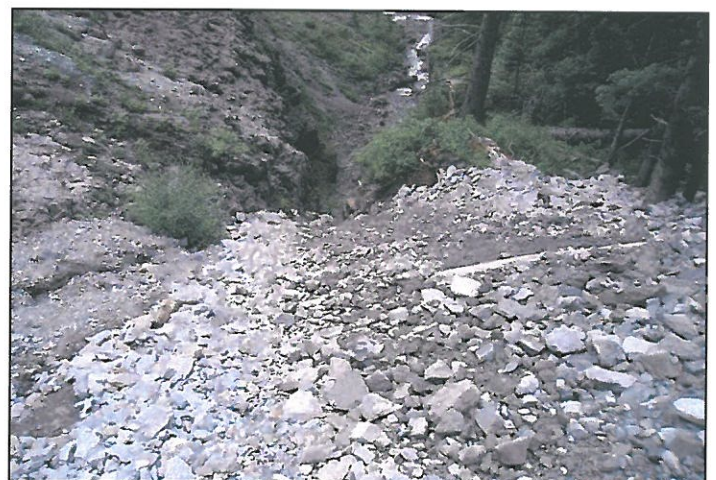
CC: Chris Miller, Ouray County Road and Bridge  
Heather Drissel, WQCD CDPHE, Pueblo

**PHOTOGRAPHS**





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