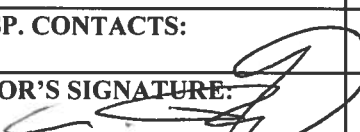




COLORADO DIVISION OF RECLAMATION, MINING AND SAFETY
MINERALS PROGRAM INSPECTION REPORT
PHONE: (303) 866-3567

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: Logan Wash	MINE/PROSPECTING ID#: M-1977-424	MINERAL: Oil shale	COUNTY: Garfield
INSPECTION TYPE: Monitoring	INSPECTOR(S): Travis H. Marshall	INSP. DATE: June 7, 2013	INSP. TIME: 10:00
OPERATOR: Occidental Oil Shale, Inc.	OPERATOR REPRESENTATIVE: Bruce Smith	TYPE OF OPERATION: 112 - Hard Rock Regular Operation	
REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: None	BOND AMOUNT: \$570,428.00	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: June 18, 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>Y</u>	(FN) FINANCIAL WARRANTY----- <u>N</u>	(RD) ROADS----- <u>Y</u>
(HB) HYDROLOGIC BALANCE----- <u>Y</u>	(BG) BACKFILL & GRADING----- <u>Y</u>	(EX) EXPLOSIVES----- <u>NA</u>
(PW) PROCESSING WASTE/TAILING---- <u>Y</u>	(SF) PROCESSING FACILITIES----- <u>Y</u>	(TS) TOPSOIL----- <u>Y</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>	(FW) FISH & WILDLIFE----- <u>Y</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>Y</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>Y</u>	(SC) EROSION/SEDIMENTATION--- <u>Y</u>	(RS) RECL PLAN/COMP-- <u>Y</u>
(AT) ACID OR TOXIC MATERIALS----- <u>Y</u>	(OD) OFF-SITE DAMAGE----- <u>Y</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 inspection was conducted as part of the normal monitoring program established by the Colorado Division of Reclamation, Mining and Safety (DRMS). Bruce Smith of Western Water & Land, Inc. (WWL) was present representing Glen Springs Holdings, Inc. (GSHI) which manages Logan Wash for Occidental Oil Shale, Inc. (OOSI).

This was a partial inspection with the primary focus to observe the outfall LW-001 that is currently regulated by the CDPHE under a discharge permit. The discharge point is currently located in the drainage that is located to the west of the mine bench. The estimated discharge rate is 2.5 gallons per minute. During observation of the discharge point a damp area around it was observed. It appears that the water is only on the surface for a short amount of time and then it infiltrates into the crushed shale and becomes subsurface water.

The fate of the discharge point LW-001 is under review and the operator may propose to remove the discharge point from the drainage it is currently located in. The point of discharge may be relocated to the mine bench where an infiltration pit may be constructed. The relocation of the discharge point from the channel would eliminate the need for a discharge permit due to no longer being in the channel.

Prior to a relocation of the discharge point LW-001 and construction of an infiltration pit a technical revision must be submitted for review by DRMS staff.

The condition of the evaporation pond liner was observed and found to be properly functioning. As stated in previous inspection reports the liner has been repaired many times and is very near the end of its lifespan. This is not a problem at this time due to the operator being required to have the evaporation ponds and mine facility fully reclaimed by September 5, 2018. The condition of the pond liner is monitored on a weekly basis and is continuously monitored for leaks with a transducer located in the leachate collection system vault. If a leak occurs the water is immediately pumped back into the pond via submersible pump.

Photos that show the conditions observed during the inspection are included at the end of this report.

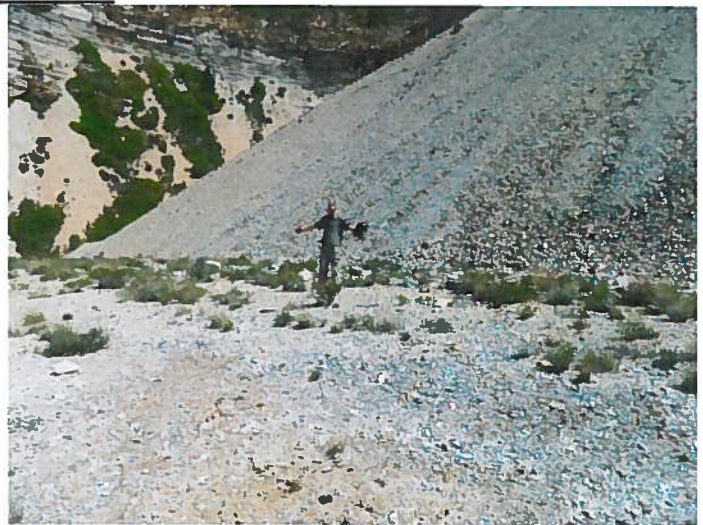
No problems or off site damage was observed during the inspection.

Responses to this inspection report should be directed to Travis Marshall at the Division of Reclamation, Mining and Safety, Grand Junction Field Office, 101 South 3rd Street, Room 301, Grand Junction, Colorado 81501, phone no. (970) 241-2042.

PHOTOGRAPHS



LW-001



Potential location of infiltration pit



Road to upper bench



LW-002



Evaporation pond



Settling pond

Inspection Contact Address

Bruce Smith
Western Water and Land
743 Horizon Ct., Ste. 330
Grand Junction, CO 81506