



MINERALS PROGRAM INSPECTION REPORT
PHONE: (303) 866-3567 Ext. 8183

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): Amy Yeldell	INSP. DATE: June 18, 2020	INSP. TIME: 09:30
OPERATOR: Occidental Oil Shale, Inc.	OPERATOR REPRESENTATIVE: Bruce Smith	TYPE OF OPERATION: 112 - Hard Rock Regular Operation	
REASON FOR INSPECTION: Priority	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 24, 2020	

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

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

OBSERVATIONS

This inspection was conducted by the Colorado Division of Reclamation, Mining, and Safety (Division) in response to a spill that occurred on May 26, 2020. The Division was notified via phone on June 3, 2020 and formally in written correspondence on June 8, 2020.

Logan Wash is a 112 Hard Rock permitted site that includes a total of 108.55 permitted acres with a maximum disturbance of 38.25 acres. The Spill location is approximately 5.3 miles north of De Beque, Colorado as the crow flies in Garfield County. Bruce Smith of Western Water and Land, Inc. represented Occidental Oil Shale, Inc. and accompanied Amy Yeldell of the Division on the inspection.

This site has 15 manholes along the buried retort water line. The water line conveys water from the Logan Wash Mine west to the Evaporation Pond Facility. Water is conveyed via a 4 inch (in some areas 6 inch) PVC pipe. The line can be accessed from each of the manholes which consists of a cement vault with metal manhole cap.

In this case water was observed leaking from MH-10 and never reached the evaporation pond, likely due to a plug in the pipe. The line was shut in at the mine and pumper trucks were utilized to vacuum the excess water leaking from MH-10. Additionally sludge and sediment was removed from MH-10. All water and sludge removed were properly disposed of. Soils that were impacted by the retort water have been sent to the lab for testing and results are pending.

Upon inspection no evidence of a spill was visible in the ditches that came into contact with the retort water. Mr. Smith opened the MH-10 cover and the vault was free from any sediment or sludge. Water is now flowing freely to the evaporation pond.

The rest of the mine site was not inspected. At this time no additional action is required of the Operator. Pending the soil sample results soil removal or remediation may be necessary. It is noted that water was contained to the already bare borrow ditch.

Responses to this inspection report should be directed to Amy Yeldell at the Division of Reclamation, Mining and Safety, 1313 Sherman St., Room 215, Denver, CO 80203. Direct contact can be made by phone at 303-866-3567 Ext 8183 or via email at amy.yeldell@state.co.us

Inspection Contact Address

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

Enclosure

CC:
Travis Marshall, DRMS
Scott Hall, BLM

PHOTOGRAPHS





