




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: September 29, 2017	INSP. TIME: 10:00
OPERATOR: Occidental Oil Shale, Inc.	OPERATOR REPRESENTATIVE: Roger 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:	JOINT INSP. AGENCY: None	
WEATHER: Cloudy	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: November 6, 2017	

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>Y</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>Y</u>	(CI) 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) and Roger Smith representing Glen Springs Holdings, Inc. (GSHI) which manages Logan Wash for Occidental Oil Shale, Inc. (OOSI) were both present during the inspection. The inspection was conducted by Tony Waldron, Russ Means and Travis Marshall of the DRMS.

The main focus of the inspection was to provide DRMS staff with an overview of the site conditions for the entire site.

The mine bench and water collection vaults were inspected. Desirable vegetation was observed and well established at various locations on the mine bench. Parachute Penstemon is only found in Garfield County and is considered a threatened species by the U.S. Fish and Wildlife Service. The Operator has worked closely with the Colorado Parks & Wildlife *Colorado Natural Areas Program (CNAP)* since 1987 to protect the rare plant and has been very successful. Parachute Penstemon was observed at various locations during the inspection.

The water collection vaults on the mine bench were inspected. They are properly functioning and no issues were observed.

The lower evaporation pond was inspected. The liner is at the end of its life span and will likely be replaced in the field season for 2018. The Operator has gained authorization to replace the pond liner from the DRMS and is still working with the Bureau of Land Management to gain their authorization.

A tamarisk was observed adjacent to the evaporation pond access road possibly within the permit boundary. This species is considered noxious and could potentially create an infestation if not eradicated. Due to the uncertainty of whether or not the noxious plant is within the permit boundary this is not considered a problem at this time but documented to be used as a tool for future noxious weed monitoring.

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



Inspection Contact Address

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