




**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> AMSO RDD Project Phase 1	<b>MINE/PROSPECTING ID#:</b> P-2008-046	<b>MINERAL:</b> Oil Shale	<b>COUNTY:</b> Rio Blanco
<b>INSPECTION TYPE:</b> Mineral Prospect Inspection	<b>INSPECTOR(S):</b> Travis H. Marshall	<b>INSP. DATE:</b> May 4, 2016	<b>INSP. TIME:</b> 10:00
<b>OPERATOR:</b> American Shale Oil, LLC	<b>OPERATOR REPRESENTATIVE:</b> Len Switzer	<b>TYPE OF OPERATION:</b> MP - Mineral Prospecting	

<b>REASON FOR INSPECTION:</b> Normal I&e Program	<b>BOND CALCULATION TYPE:</b> None	<b>BOND AMOUNT:</b> \$860,802.06
<b>DATE OF COMPLAINT:</b> NA	<b>POST INSP. CONTACTS:</b> U.S.BLM	<b>JOINT INSP. AGENCY:</b> None
<b>WEATHER:</b> Cloudy	<b>INSPECTOR'S SIGNATURE:</b> 	<b>SIGNATURE DATE:</b> May 20, 2016

**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>NA</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>NA</u>
(SM) SIGNS AND MARKERS----- <u>Y</u>	(SW) STORM WATER MGT PLAN---- <u>Y</u>	(CI) COMPLETE INSP---- <u>N</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>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). The ASMO RD&D Project is an in-situ Oil Shale Prospecting site located approximately 25 miles west of Rio Blanco, Colorado southwest of Piceance Creek Road. Leonard Switzer, Vincent Saubestre and Rob Arcia of AMSO and Paul Daggett of the BLM accompanied DRMS staff during the inspection.

The site visit began with a site status update that was presented by AMSO staff. The presentation informed the DRMS and BLM that the project is no longer pursuing the development of in-situ oil shale technology and the site is to be completely reclaimed. The operator asked specific questions relating to the reclamation of the site and requirements associated with the approved reclamation specified in both the BLM and DRMS prospecting permits.

After the AMSO staff presentation all individuals present conducted a site inspection. The inspection covered the main pad and the infrastructure located on the pad. The operator had questions regarding the disposal of the water reservoir liner. The DRMS is okay with the burial and piercing of the liner in the depression where the reservoir is located. The BLM may have a different requirement therefore if the BLM requirement for the disposal of the liner are more stringent then they must be followed.

The operator also had questions with the disposal and demolition of the concrete pads located on the site. The BLM and DRMS both agreed that the concrete pads could be buried on site with a minimum cover of three feet of material and the concrete must be broken up prior to burial.

No evidence of erosion or off site damage from erosion was observed. All stormwater control structures were in good repair.

All topsoil stockpiles appeared to be stabilized and were easily identified due to the stockpile identification signs posted on top of them.

No problems or violations were observed during the inspection.

Photos that show the conditions observed during the May 4, 2016 inspection are included at the end of this report.

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 3<sup>rd</sup> Street, Room 301, Grand Junction, Colorado 81501, phone no. (970) 241-2042.



**PHOTOGRAPHS**



**Inspection Contact Address**

Len Switzer  
American Shale Oil, LLC  
P.O. Box 1470  
Rifle, CO 81650

CC: Paul Daggett  
BLM – WRFO  
220 East Market Street  
Meeker, CO 81641