

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: AMSO RD&D Project	MINE/PROSPECTING ID#: P-2008-046	MINERAL: Oil Shale	COUNTY: Rio Blanco
INSPECTION TYPE: Mineral Prospect Inspection	INSPECTOR(S): Travis H. Marshall	INSP. DATE: January 21, 2016	INSP. TIME: 09:00
OPERATOR: American Shale Oil, LLC	OPERATOR REPRESENTATIVE: Roger Day	TYPE OF OPERATION: MP - Mineral Prospecting	

REASON FOR INSPECTION:	BOND CALCULATION TYPE:	BOND AMOUNT:
Normal I&E Program	Complete Bond	\$860,802.06
DATE OF COMPLAINT:	POST INSP. CONTACTS:	JOINT INSP. AGENCY:
NA	U.S.BLM	None
WEATHER:	INSPECTOR'S SIGNATURE:	SIGNATURE DATE:
Clear	2.02ml	February 10, 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 NA	(SF) PROCESSING FACILITIES \underline{Y}	(TS) TOPSOIL \underline{Y}
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>	(FW) FISH & WILDLIFE \underline{Y}	(RV) REVEGETATION <u>NA</u>
(SM) SIGNS AND MARKERS <u>Y</u>	(SW) STORM WATER MGT PLAN <u>Y</u>	(CI) COMPLETE INSP Y
(ES) OVERBURDEN/DEV. WASTE <u>NA</u>	(SC) EROSION/SEDIMENTATION \underline{Y}	(RS) RECL PLAN/COMP NA
(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 \ A = \ Not \ applicable \ to \ this \ operation \ / \ PB = Problem \ cited \ / \ PV = Possible \ violation \ cited \ A = \ Not \ applicable \ to \ this \ operation \ / \ PB = Problem \ cited \ / \ PV = Possible \ violation \ cited \ A = \ Not \ applicable \ to \ this \ operation \ / \ PB = Problem \ cited \ / \ PV = Possible \ violation \$

PERMIT #: P-2008-046 INSPECTOR'S INITIALS: THM INSPECTION DATE: January 21, 2016

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. Roger Day, Leonard Switzer, Vincent Saubestre and Rob Arcia of AMSO and Paul Daggett of the BLM were all present during the inspection. Lucas West and Travis Marshall of the DRMS co-inspected the operation.

The site visit began with a site status update that was presented by AMSO staff. The presentation covered the work and progress achieved to date. It also explained some of the challenges that have been discovered and worked out through the initial experimental phase of the project. Finally, DRMS staff was informed of the plans for the future of the research project which included various well and heating configuration scenarios.

After the AMSO staff presentation all individuals present conducted a site inspection. The inspection covered all components and areas associated with the project.

All pads were inspected during the inspection. The pads were all well-kept, organized and free of any unnecessary debris.

No evidence of erosion or off site damage from erosion was observed. All stormwater control structures were in good repair. No erosional issues were expected due to the site being completely covered with snow at the time of the site visit.

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 January 21, 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 3rd Street, Room 301, Grand Junction, Colorado 81501, phone no. (970) 241-2042.

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PHOTOGRAPHS









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