




**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> Nahcolite Project	<b>MINE/PROSPECTING ID#:</b> M-1983-194	<b>MINERAL:</b> Carbonates	<b>COUNTY:</b> Rio Blanco
<b>INSPECTION TYPE:</b> Monitoring	<b>INSPECTOR(S):</b> Amy C. Yeldell	<b>INSP. DATE:</b> August 21, 2018	<b>INSP. TIME:</b> 10:45
<b>OPERATOR:</b> Natural Soda LLC	<b>OPERATOR REPRESENTATIVE:</b> Kirk Daehling	<b>TYPE OF OPERATION:</b> 112d-3 - Designated Mining Operation	
<b>REASON FOR INSPECTION:</b> Normal I&E Program	<b>BOND CALCULATION TYPE:</b> None	<b>BOND AMOUNT:</b> \$4,158,340.68	
<b>DATE OF COMPLAINT:</b> NA	<b>POST INSP. CONTACTS:</b> None	<b>JOINT INSP. AGENCY:</b> None	
<b>WEATHER:</b> Cloudy	<b>INSPECTOR'S SIGNATURE:</b> 	<b>SIGNATURE DATE:</b> September 10, 2018	

**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>N</u>	(SF) PROCESSING FACILITIES----- <u>N</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>N</u>	(RS) RECL PLAN/COMP-- <u>Y</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>N</u>	(SC) EROSION/SEDIMENTATION--- <u>Y</u>	(ST) STIPULATIONS----- <u>Y</u>
(AT) ACID OR TOXIC MATERIALS----- <u>NA</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 as part of the Colorado Division of Reclamation, Mining and Safety (Division) normal monitoring program. The Nacholite Project is a 112d-3 permitted site that includes a total of 12,248 permitted acres with a maximum disturbance of 260 acres. At this time approximately 100 acres have been affected to date. The site located approximately 25 miles southwest of Meeker, Colorado in Rio Blanco County. Gerald Dushane, Kirk Daehling and Jerry Daub of Natural Soda LLC represented the operator and accompanied Amy Yeldell and Travis Marshall of the Division on the inspection.

This inspection was only of the well pads and evaporation pond, the warehouse was not inspected. This was Mrs. Yeldell's first inspection at this site. The majority of the inspection was a general orientation of the various well pads, down hole configurations, pipelines and subsidence monitoring.

The 8H-I/R well has had a failure and is shut off for the time being.

The 17H-I/R well has just started up. The 17 wells are located on the southern portion of the 15-17 pad. Some erosion to the toe slope that faces north was observed. The top pad area adjacent to wells 17 appears to be stable. This erosion should be repaired and monitored to avoid future potential problems. While on this pad location Mr. Daehling described that there was a problem with the side by side design and future wells will not utilize that technology. Future wells will likely be drilled end to end.

Subsurface subsidence monitoring well 15H-SSMW was observed on the 4-3H(V) pad. This pad has been interim reclaimed however successful vegetation has not completely been established. The Division was able to observe the pipeline adjacent to this pad where the January 2, 2018 spill occurred. This undesirable event occurred where the pipeline size was being increased and a valve that joined the two sections of pipe leaked. The leak has since been fixed. A coating of brine is still evident from where the barn liquor initially leaked. This white coating may make it difficult to see a future leak since the pipeline is already discolored. Cleaning the pipe after a leak may make identifying future leaks easier as a new white stain would be more alarming than trying to distinguish if an existing discoloration has increased in size.

Halogeton was observed in several areas thought the permit. This is a state listed noxious weed and needs to be treated immediately. Several other noxious weeds that are not state listed were also observed. The operator is reminded that though some weeds may not be state listed they may interfere with reclamation progress and possible delay revegetation and ultimately release.

The new subsurface subsidence monitoring well 17H-SSMW is still under construction.

Drilling has begun on the new 13H-IR well. The rig was observed in operation tripping pipe at the time of the inspection. The new well is on the pre-existing 12H-IR pad.

The evaporation pond was observed and discussed. Mr. Dushane explained the squawk box noise deterrent for birds. The Division heard the sound and it appeared to be effective. Next season the net covering the evaporation pond will need to be replaced.

While on 14H pad Mr. Daub explained how well 14H-I has down hole issues. This well system is also off line. The casing hanger has been eaten through and will need to be replaced. Staff was able to see the metal hanger with several holes of various sizes.

No problems or violations were noted during this inspection.

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 970-254-8511 or via email at amy.yeldell@state.co.us

**Inspection Contact Address**

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Enclosure

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**PHOTORAPHS**



White coating on pipe, evidence of previous spill.



Overview of 12H-IR pad where new well 13HIR is being drilled





Overview of typical well pad



Evaporation pond, game exclusion fencing as well as bird netting to help protect wildlife