COLORADO
Division of Reclamation, Mining and Safety
Department of Natural Resources

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: Nahcolite Project	**MINE/PROSPECTING ID#:** M-1983-194	**MINERAL:** Carbonates	**COUNTY:** Rio Blanco
INSPECTION TYPE: Monitoring	**WEATHER:** Snowing	**INSP. DATE:** November 30, 2023	**INSP. TIME:** 12:45
OPERATOR: Natural Soda LLC	**OPERATOR REPRESENTATIVE:** Jamie Reck	**TYPE OF OPERATION:** 112d-3 - Designated Mining Operation	
REASON FOR INSPECTION: Normal I&E Program	**BOND CALCULATION TYPE:** None	**BOND AMOUNT:** $4,466,425.00	
DATE OF COMPLAINT: NA	**POST INSP. CONTACTS:** DRMS	**JOINT INSP. AGENCY:** U.S.BLM	
INSPECTOR(S): Amy Yeldell	**INSPECTOR'S SIGNATURE:** Amy Yeldell	**SIGNATURE DATE:** December 14, 2023	

GENERAL INSPECTION TOPICS

The following inspection topic(s) were identified as having a Problem (PB), which includes correction actions and a deadline whereby the Operator must demonstrate compliance with the conditions of the Permit and the requirements of the Act and Rules. Failure to address the corrective actions by the deadline may cause the Division to escalate the Problem to a Possible Violation (PV) and schedule the issue for formal hearing before the Mined Land Reclamation Board (Board).

(AR) RECORDS---------- PB	**(FN) FINANCIAL WARRANTY-------- Y**	**(RD) ROADS---------- N**
(HB) HYDROLOGIC BALANCE---------- Y	**(BG) BACKFILL & GRADING---------- N**	**(EX) EXPLOSIVES--------- NA**
(PW) PROCESSING WASTE/TAILING---- N	**(SF) PROCESSING FACILITIES------- Y**	**(TS) TOPSOIL---------- N**
(MP) GENL MINE PLAN COMPLIANCE- N	**(FW) FISH & WILDLIFE---------- N**	**(RV) REVEGETATION---- NA**
(SM) SIGNS AND MARKERS---------- Y	**(SP) STORM WATER MGT PLAN---- Y**	**(RS) RECL PLAN/COMP-- NA**
(ES) OVERBURDEN/DEV. WASTE--------- N	**(SC) EROSION/SEDIMENTATION--- N**	**(ST) STIPULATIONS------- N**
(AT) ACID OR TOXIC MATERIALS------- Y	**(OD) OFF-SITE DAMAGE----------N**	

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

CORRECTIVE ACTIONS

INSPECTION TOPIC: Availability Of Records

PROBLEM: Several chemicals were observed throughout the plant. The Division only has SDS information for the two crystal habit modifiers, DG M235 (defoamer) and BWT 101L (Liquid Oxygen Scavenger). Pursuant to Rule 6.4.21(1)(b) and (5)(c) the Division needs to be able to evaluate all chemical(s) used on site for their potential hazards or adverse impacts. This is cited as an inspection problem.

CORRECTIVE ACTIONS: At a minimum please provide the Division with SDS sheets for the chemicals mentioned within the report by the corrective action date. If additional chemicals not identified in the report are used, please also provide those SDS.

CORRECTIVE ACTION DUE DATE: 2/16/24

OBSERVATIONS

This inspection was conducted as part of the Colorado Division of Reclamation, Mining, and Safety (Division) normal monitoring program. The Nahcolite 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. The site is located approximately 25 miles southwest of Meeker, Colorado in Rio Blanco County. Jamie Reck and Jerry Daub represented the operator and accompanied Amy Yeldell of the Division on the inspection. James Roberts represented the White River Field Office BLM.

This is the fourth quarter inspection for 2023. The primary focus of this inspection was Secondary Containments. There are no open revisions for this permit. No changes to production level or staffing have occurred or are anticipated in the near future. Division staff first checked in at the main office.

Availability Of Records:
Several chemicals were observed throughout the plant. The Division only has SDS information for the two crystal habit modifiers, DG M235 (defoamer) and BWT 101L (Liquid Oxygen Scavenger). Pursuant to Rule 6.4.21(1)(b) and (5)(c) the Division needs to be able to evaluate all chemical(s) used on site for their potential hazards or adverse impacts. This is cited as an inspection problem. At a minimum please provide the Division with SDS sheets for the following chemicals by the corrective action date. If additional chemicals not identified in the list below are used, please also provide those SDS.

- Boiler MP 2751 (Boiler Water Treatment)
- RT 35 (Return Line Treatment)
- Zinc Polyphosphate[ZN]- PWT 45L (Potable Water Treatment)
- ROXOUT FG (RO Treatment)

Acid And Toxic Materials:
Adjacent to the Train 1 heat exchangers is a Potable Water Treatment chemical (Zinc Polyphosphate [ZN]-PWT 45L) used for corrosion and scale control (Photo One). The chemical is stored in a plastic 55-gallon drum located within a spill pallet. Wetness was observed around the pallet but did not appear to be from leaking chemical rather than just wet from routine floor cleaning.

Located within the boiler room is the excess crystal habit modifier for Train 1. This is a food grade chemical that is stored in plastic totes. The boiler room itself has in-floor sumps. No leaks or wetness were observed around the chemicals.

Also stored within the boiler room are the chemicals for the Oxygen Scavenger system. Several plastic 55 gallon drums were located on spill pallets. The two chemicals were Boiler MP 2751 and RTL 35 (Photo Two). All drums were locked as required by CDPHE. Four Oxygen Scavengers were located adjacent to the boilers and chemicals (Photo Three). No leaks or wetness were observed around the chemicals. The in-floor sumps of the boiler room report to process pond #2 and provide additional containment.

Within the train 2 area is a large tank that contains process defoamer. Adjacent to the tank was a tote of crystal habit modifier. Several totes of process defoamer were in the corner of the building. This area has in-floor sumps that serve as secondary containment. The floor was wet at the time of the inspection (Photo Four). Ms. Reck indicated that they recently rinsed the plant floor as is common practice.

Located within the plant on the southeast side is the RO system. Several plastic 55-gallon drums of RO Treatment chemical (ROXOUT FG) were observed (Photo Five). The drums are located on spill pallets and locked. No leaks or wetness were observed around the chemicals. Concrete was stained indicating that spills in this area do occur.

South of the plant is the site's fuel storage area. Three elevated fuel tanks were located within secondary containment (Photo Six). Containment tanks appeared clean and free of excess spills.

Explosives:
Explosives are not used in conjunction with this operation.

Financial Warranty:
The Division holds $4,466,425.00 in financial warranty. The Division last updated the reclamation cost estimate in February of 2023 for TR-50. The bond is considered sufficient at this time and will not be recalculated as part of this inspection.

Hydrologic Balance:
No spills/leaks were observed along the pipeline during this inspection, nor were any reported this quarter to date.

Other:
No new wells were drill or abandoned during the fourth quarter of 2023. Wells 18H-1V and 18H-IR-W (TR-50) have not yet been drilled. They are planned for spring of 2024.

The well field was not inspected.

Right of Entry:
The Operator has a valid Plan of Operations with the BLM which meets the requirements of Rule 6.3.7 for maintaining its Legal Right of Entry.

Reclamation Success:
No areas were inspected for reclamation success or release.

Revegetation:
No evaluations to interim reclaimed pads were conducted.

Support Facilities On-site:
Under each of the crystallizer is a grated sump. Periodically the overflow is designed to be caught in the sumps. During the inspection there was evidence (foam) that the sump under the crystallizers overflowed (Photo Seven). Ms. Reck indicated that this is a common occurrence and that all spilt material is washed off of the plant floor and is contained within the greater mill secondary containment. The Division would recommend that the sump volume be increased by raising the curb level or review pump capacity sizes. A frequent overflow of a sump is an indication of a poor design. This is not cited as an inspection problem since the greater plant is still within secondary containment so there is no potential for loss of containment.

There are trays under the heat exchangers to contain any spills/leaks (Photo Eight). The trays are periodically rinsed out and washed into the in-floor sumps of the plant. The trays are designed to help protect the concrete from degradation. The diluted spilled liquor is far less corrosive than the concentrate.

Located outside of the plant to the south are the cooling towers. They are located over a concrete secondary containment structure which is located within the footprint of the grater facility ditches and containment. The towers had lots of ice buildup on them and the containment was also filled with ice (Photo Nine). It was indicated that NSI periodically washes down (rinses) the towers to remove excess frozen liquor.

The Preg tank from train 1 is also located outside of the plant building to the south. It is located overtop a separate concrete secondary containment structure. This structure is also located within the greater footprint of berms and secondary containment for the plant. The containment structure itself appeared clean and free of spills.

The plant area uses a combination of in-floor sumps and exterior perimeter ditching to ensure containment for the plant. All food grade liquids report back to the barren liquor lines where possible. An overflow for the sumps are directed to the process ponds, which are located to the North of the plant. The pond was inspected, and fluid was observed entering the pond indicating that the sump system remains functional (Photo Ten).

Signs and Markers:
A mine sign was posted at the turn off from CR 24 as required by Rule 3.1.12(1).

Special Categories Of Mining:
This is a Designated Mining Operation (DMO). Secondary Containment features are a critical aspect of the Environmental Protection Facility (EPF).

Responses to this inspection report should be directed to Amy Yeldell at the Division of Reclamation, Mining and Safety, Room 215, 1001 E 62nd Ave, Denver, CO 80216. Direct contact can be made by phone at 303-866-3567 Ext 8183 or via email at amy.yeldell@state.co.us

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Jamie Reck, Natural Soda LLC
Jerry Daub, Daub and Associates, Inc.

PHOTOGRAPHS

Photo 1: Potable Water Treatment chemical used for corrosion and scale control.

Photo 2: Within the boiler room, oxygen scavenger chemicals

Photo 3: Oxygen Scavenger Units.

Photo 4: Defoamer tank in Train 2 and recently washed floor

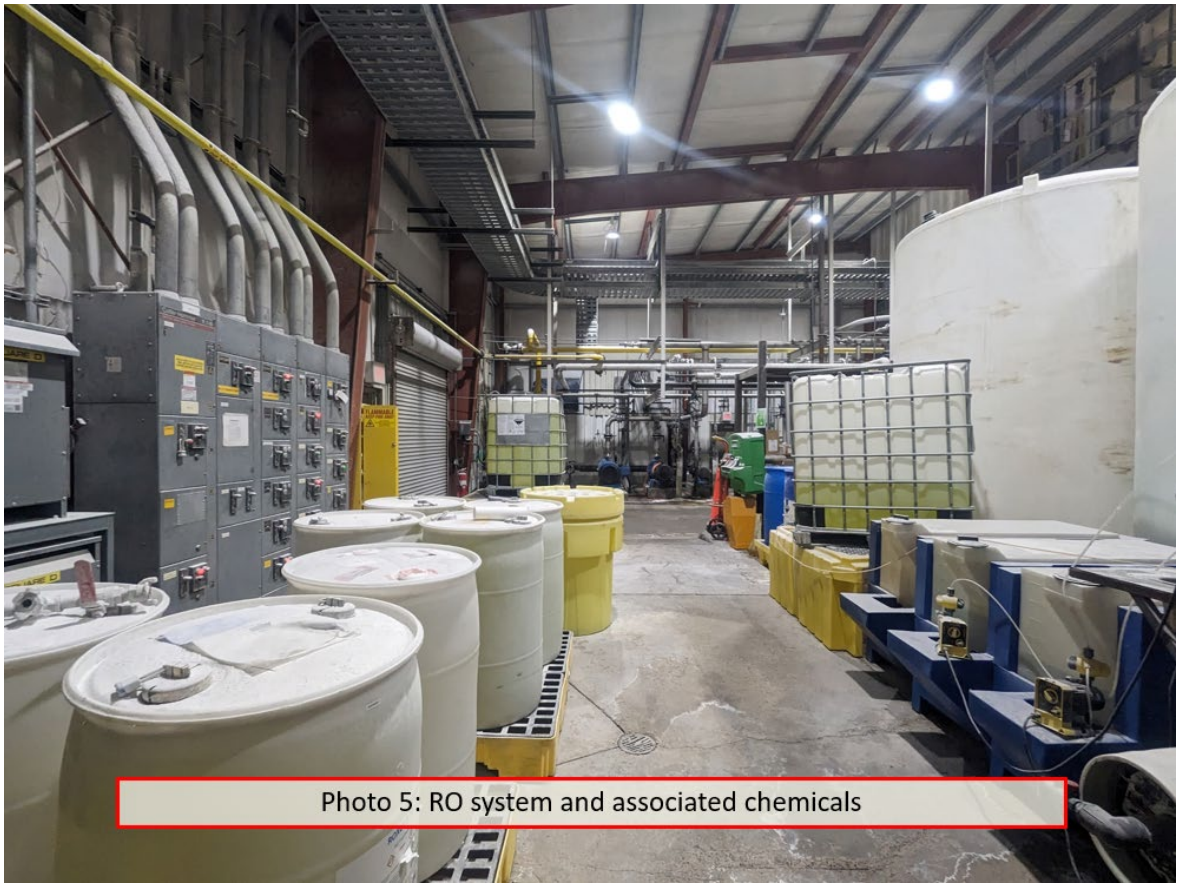

Photo 5: RO system and associated chemicals

Photo 6: Fuel storage area

Photo 7: Overflowed sump under they train 1 crystallizer.

Photo 8: Trays under the heat exchangers, degraded concrete.

Photo 9: Ice build up on the cooling towers and containments.

Photo 10: Water flowing into the process ponds.