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:** Clear	**INSP. DATE:** March 11, 2025	**INSP. TIME:** 09:30
OPERATOR: Natural Soda LLC	**OPERATOR REPRESENTATIVE:** Roy McClung	**TYPE OF OPERATION:** 112d-3 - Designated Mining Operation	
REASON FOR INSPECTION: Normal I&E Program	**BOND CALCULATION TYPE:** None	**BOND AMOUNT:** $4,466,425	
DATE OF COMPLAINT: NA	**POST INSP. CONTACTS:** None	**JOINT INSP. AGENCY:** None	
INSPECTOR(S): Amy Yeldell	**INSPECTOR'S SIGNATURE:** Amy Yeldell	**SIGNATURE DATE:** March 20, 2025	

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---------- N	(FN) FINANCIAL WARRANTY-------- Y	(RD) ROADS---------- N
(HB) HYDROLOGIC BALANCE---------- N	(BG) BACKFILL & GRADING---------- N	(EX) EXPLOSIVES--------- NA
(PW) PROCESSING WASTE/TAILING---- N	(SF) PROCESSING FACILITIES------- Y	(TS) TOPSOIL---------- N
(MP) GENL MINE PLAN COMPLIANCE- Y	(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

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, Roy McClung and Jerry Daub represented the operator and accompanied Amy Yeldell of the Division on the inspection. No represented from the White River Field Office BLM was present but they were notified ahead of time.

This is the first quarter inspection for 2025. The focus of this inspection was the process building and internal equipment. The Division staff first checked in at the main office. Prior to commencement of the inspection, a safety video was presented. Additional site specific PPE (hair net and ear protection) was provided. The Division then proceeded to inspect the process building. The well field was not observed during this inspection.

No changes to production level or staffing have occurred or are anticipated in the near future. No acreage reduction or other release request has been submitted to date. There are no open revisions for this permit*. No changes to production level or staffing have occurred or are anticipated in the near future.

*A hard copy of TR-51, was provided to the Division. It has not yet been received in Denver and officially filed.

Acid And Toxic Materials:
All floor drains and sumps designed to control any spills appeared to be in good working order.

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 will be updated as part of the TR-51 review process. The bond is considered sufficient at this time and will not be recalculated as part of this inspection.

Gen. Compliance With Mine Plan:
Process equipment observed was consistent with the approved permit.

Other:
The replacement 18H-IR-E has not yet been completed.

TR-51 includes the new 19H-IR-E pad. Drilling of the wells will likely not occur until 2026 however it is NSI's intention is to complete the pad construction this fall (2025), after the TR is approved.

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 are being considered for release at this time.

Revegetation:
No vegetation was inspected.

Support Facilities On-site:
The focus of the inspection was the plant side of things. Pregnant liquor from the well field first enters into a series of heat exchangers and crystallizers which help cool down the pregnant liquor which in turn drops out the bicarb. The solution leaving the crystallizers is approximately 15% solids. The crystallizers are large tanks with mechanical agitators. There are four crystallizers in each of the trains (2 trains total) connected in series. Between each crystallizer (1-3) is an external plate and frame type heat exchanger, where pregnant liquor (hot) is cooled by counter current flow of the barren liquor (cool) and heat is exchanged between the two. Crystallizer #4 is cooled with a cooling tower water.

A couple of years ago the original #4 crystallizer in Train #1 was replaced with a new stainless-steel tank. The other three crystallizers in Train #1 are scheduled to be replaced with stainless steel tanks as well later this year (Photo One). Also, during this upgrading, the ceiling insulation over Train #1 will be replaced with an encapsulated panel so that it does not get damaged by moisture and deteriorate.

In general the pregnant liquor is mildly corrosive to concrete. Evidence of concrete deterioration was observed throughout the plant. It was previously mentioned that an epoxy coating was going to be applied to protect the concrete, this does not appear to have taken place yet.

Next the boiler area was inspected. Barren liquor is reheated prior to reinjection for mining. The boilers are fueled by natural gas. Routine boil outs (descale/clean out inside of boiler) are conducted as necessary for optimal performance of equipment. The flushed material reports to process pond #2 since it does not meet food grade standards. All other sumps report back to the barren liquid lines. At the time of the inspection all floor sumps within the boiler room appeared to damp and in good working order.

A food grade additive, crystal habit modifier (seed crystal), is stored within the boiler room (Photo Two). This product is added in low concentrations (less than 20 ppm) to help keep particles flat and maintain shape throughout processing. The additive also helps give the sodium bicarbonates something to initially bind to rather than scaling up the process equipment. The Train #1 hydrcolones which is scheduled for replacement was also being stored in the boiler area (Photo Three).

The Division then inspected the Train #2 crystallizers which are cone shaped on the bottom rather than flat bottomed like Train #1. In general Train #2 which was built after Train #1 has several slight alterations for efficiency. Over the years NSI has slowly been upgrading Train #1 to include these improvements.

Adjacent to the Train #2 crystallizers is the defoamer tank. This anti-foamant is utilized within the barren liquor streams. The Train #1s replacement 4" hydroclones was stored on the floor near the de-foamer tank.

The pregnant liquor storage tank was observed (Photo Four). It is a large, insulated tank on the north side of the plant. It's designed to help regulate flows from the well field before entering the plant and mitigate pressure issues resulting from temperature fluctuations.

The inspection then proceeded to the dewatering stage. The concentrated bicarb solution leaves the crystallizers as a slurry and goes to the hydroclones for thickening. The flow leaving from the hydroclones is 50% moisture and is fed to the centrifuge. The hydroclones within Train #1 are scheduled to be replaced since they do not contain a valves for maintenance like Train #2, (Photo Five and Sixe). Right now any repairs to an individual

hydroclone requires shutting down all of Train #1. Within the centrifuge the slurry is spun for further dewatering (Photo Seven). The Train #1 centrifuge is also anticipated to be replaced this summer with a similar but more modern unit. Material exiting the centrifuge has approximately 4% moisture remaining and is referred to as "wet cake". All liquid from the dewatering stage is returned to the crystallizer area where it is now in the barren stream, which is used to cool the crystallizer feed streams. All seed crystal removed in the centrifuge is recirculated within the barren stream and re-used.

From the centrifuge, the wet cake screw transports, the wet cake into the mixer where it is combined with recycled dry product to enhance drying and handling. The mixture then goes through thermal drying. The flash dry blows super-heated air vertically. As the dry cake is introduced into the hot air it dries and becomes lighter and is blown upward into the dry cyclone. Modifications to the cyclone observed in the last inspection are complete. The cyclone helps to filter out the air and size particles before going to the bag house (Photo Eight). At the end of the drying system materials contain approximately 3% moisture. Particles are then sorted based on crystal size and packaged accordingly.

Lastly the bagging facility was observed. Maintenance was being conducted so this process was not directly observed (Photo Nine). All packaging is automated. Product is metered out and place into a bag or sack. Once sealed the completed bags are then QC weighted, stamped with an ID, x-rayed and if passable are loaded onto pallets. The QC process for the super sacks have a similar process upon filling them. Acceptable bags are then stacked on a pallet, wrapped and ready for off-site transport.

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).

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, Room 215, 1001 E 62nd Ave, Denver, CO 80216. Direct contact can be made by phone at 970-210-1272 or via email at amy.yeldell@state.co.us

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Jamie Reck, Natural Soda LLC
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PHOTOGRAPHS

Photo 1: Train 1 Crystallizers 1-3, to be replaced with stainless steel

Photo 2: Process chemicals stored in the boiler room.

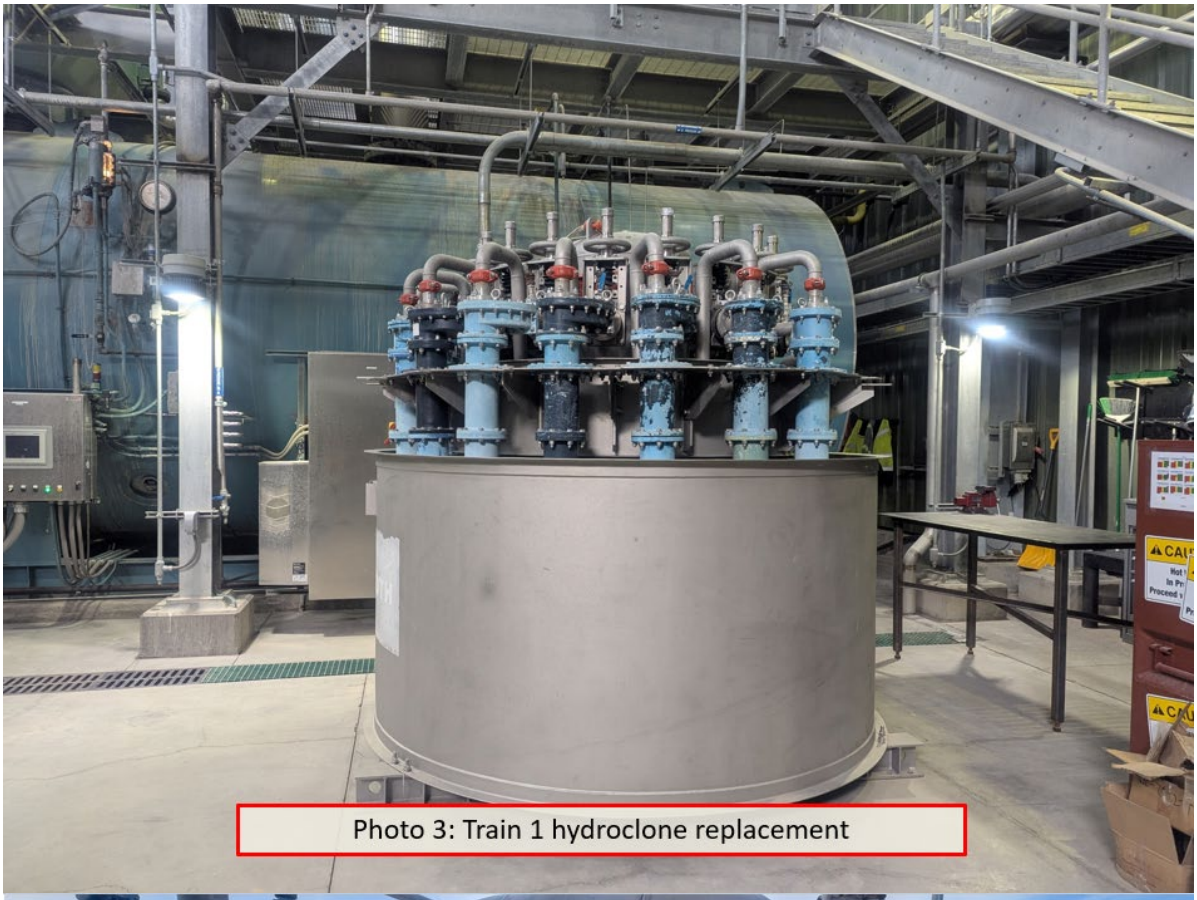

Photo 3: Train 1 hydroclone replacement

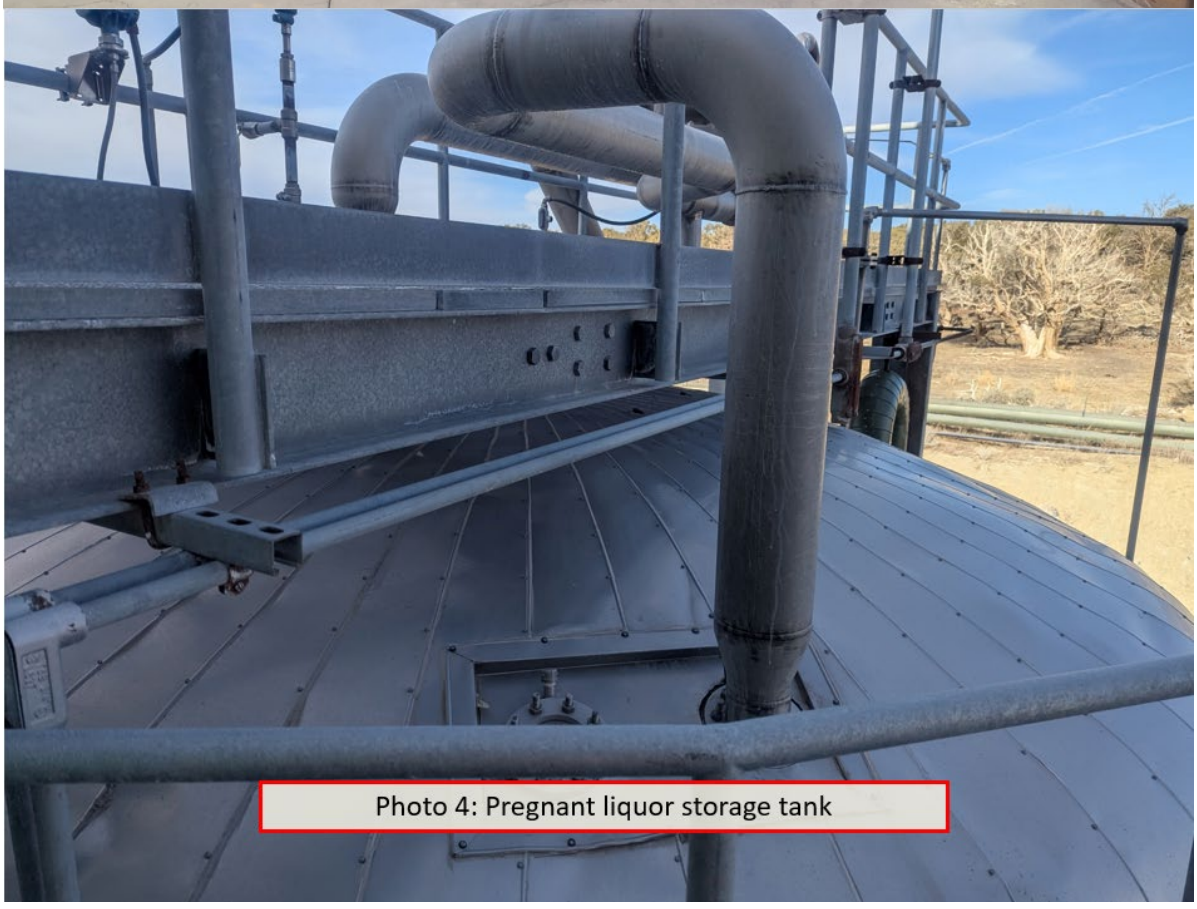

Photo 4: Pregnant liquor storage tank

Photo 5: Train 1 4-inch hydroclones

Photo 6: Train 1, 6-inch hydroclones

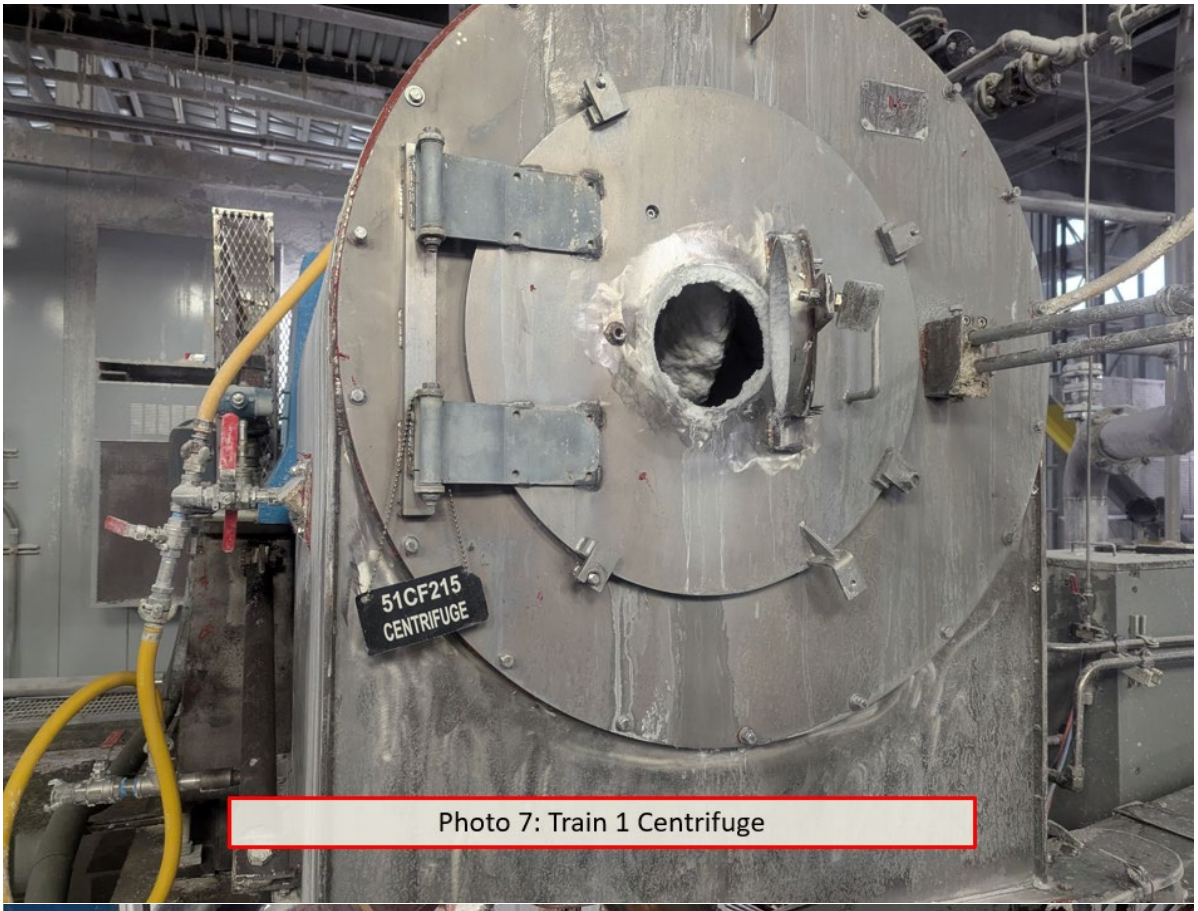

Photo 7: Train 1 Centrifuge

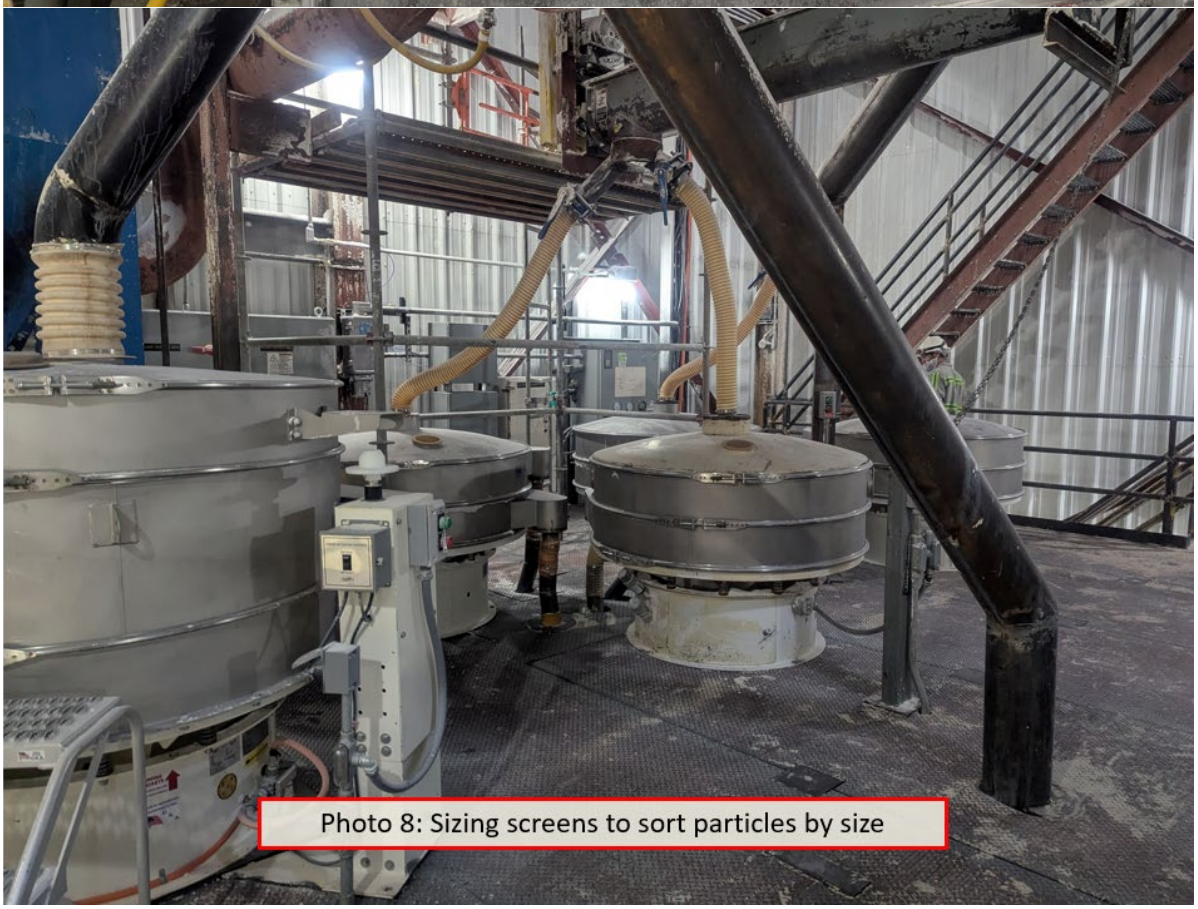

Photo 8: Sizing screens to sort particles by size

Photo 9: Bagging equipment