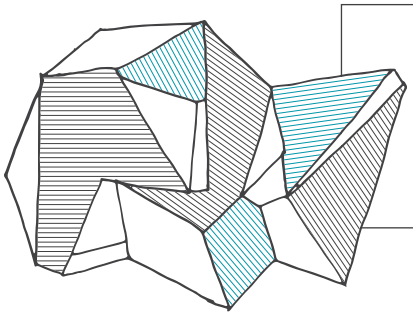
How Trona Becomes Soda Ash



Solution Mining

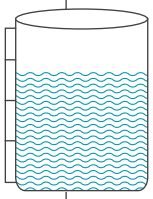
Trona is mined and brought to the surface using a solution mining process

1

2

Brine Pretreatment

- Low concentration brine is pumped through wells to dissolve trona and move the brine to pretreatment. The raw medium concentration brine is filtered, solids in the brine are removed
- Clarified brine is sent on to Bicarbonate Removal & Evaporation

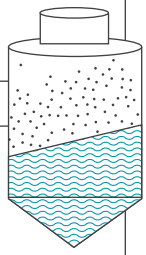


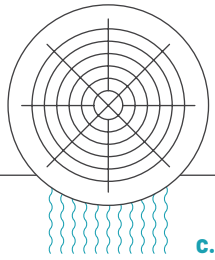
3

Bicarbonate Removal & Evaporation

a. Decahydrate Crystallization

- The clarified brine is heated, and bicarbonate is stripped to form a higher concentration brine
- A slip stream of higher concentration brine is cooled to form decahydrate crystals and to separate soda ash from impurities; the majority of the concentrated brine is sent to monohydrate crystallization
- Pure decahydrate crystals are redissolved and sent to the monohydrate crystallization process; impurities are sent to a purge pond





c. Monohydrate Centrifuge & Drying

- A slurry of high concentration brine and monohydrate crystals is centrifuged to recover the crystals which are sent to the dryer
- Crystals are heated to remove chemically bound water and dry the crystals, forming a high purity soda ash product
- Product is sent to storage and transport, some product is packaged for transport

b. Monohydrate Crystallization

- Dissolved decahydrate is combined with the concentrated brine in the monohydrate crystallizers
- Concentrated brine with a low bicarbonate content is further concentrated to form high purity monohydrate crystals