

U S STRATEGIC
MINERALS EXPLORATION

“Commercializing CO₂ Capture”

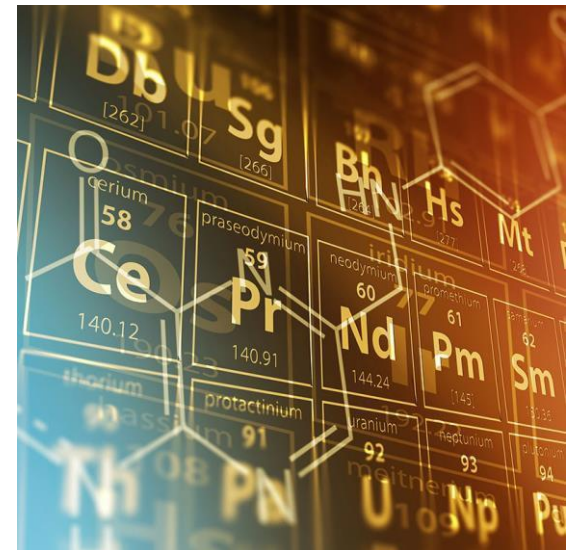
Thomas Smith P.E., COO

EnerCom Denver 2021

US Strategic was founded by 6 veteran oil and gas industry professionals in 2019. We take an “all of the above” or hybrid approach to minerals exploration and production.

Our Innovative Solutions address two Global challenges :

- The **Socio-Economic** effects of **climate change** caused by **carbon emissions**.
- The **Foreign Dominance** of **critical mineral supply chains**.





We locate and utilize geothermal brine sources which include industrial waste streams rich in valuable minerals:

1. Liquid Calcium Chloride product

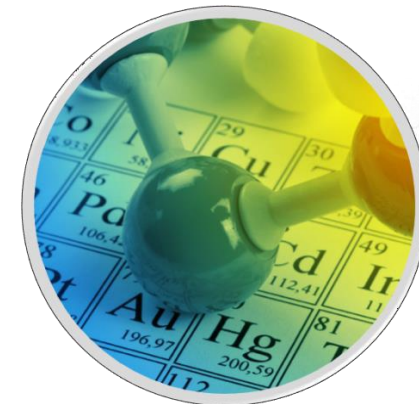
- Road, concrete, & pavement de-icer
- Dust control and soil stabilization
- Drilling and Completion Fluid (Oil and Gas, Mining, and EGS)

2. Carbon Footprint Reduction Technologies

- CCUS Processing Technologies under development using LiquidOre™ Brines are ready for pilot scale testing in 2021.

3. Exploration for new LiquidOre™ Brine reservoirs using existing databases

- Produced water analysis – Cations and Anions are key to extracting valuable minerals using an Ex-Situ Mineral Carbonation process which permanently locks away CO₂.
- Thermal and process-stable brines for use in EGS and Closed-Loop Geothermal power development in hot, dry reservoirs underlying many underserved power grids.



CCUS Technologies

We provide technology which assists high carbon-emitting industries in their efforts toward reducing their carbon footprint. We are developing Carbon Capture, Utilization, and Storage (CCUS) technologies that can create value at industrial and power generation sites where high carbon emissions occur.

Most oil and gas fields and mining sites, where CO₂ and waste-water are present in large volumes, are quite prospective for commercializing CCUS projects given the low cost of feedstocks and existing water gathering and disposal infrastructure.

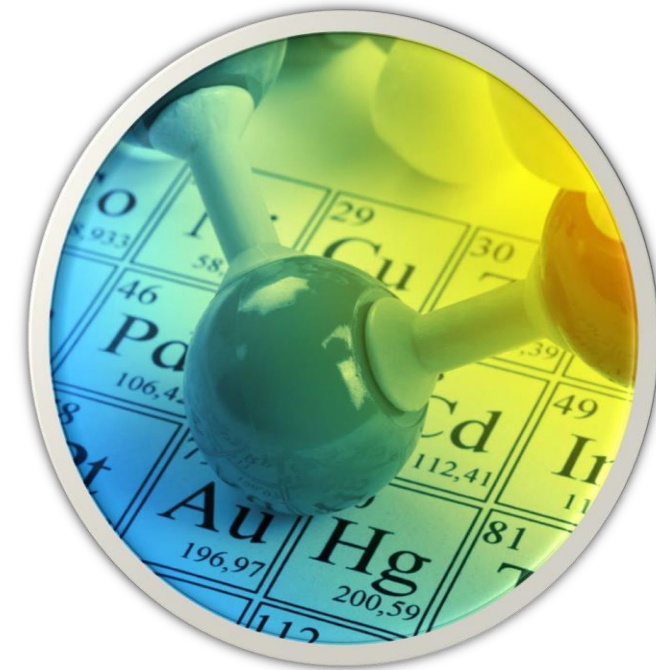
Precipitated minerals from our CCUS processes include alkaline earth carbonates such as Precipitated Calcium Carbonate. PCC in Calcite crystal form is a valuable specialty mineral that has a wide range of marketability from paper whitener to paint base to pharmaceutical grade calcium. PCC in a low-grade form can be used as a substitute for aggregate in concrete and as a “green” road building material we’ve trademarked as THE GREENMILE™.



Hybrid Exploration and Production

US Strategic Minerals Exploration and its partners are committed to reducing our foreign dependence on surface mined and processed critical minerals.

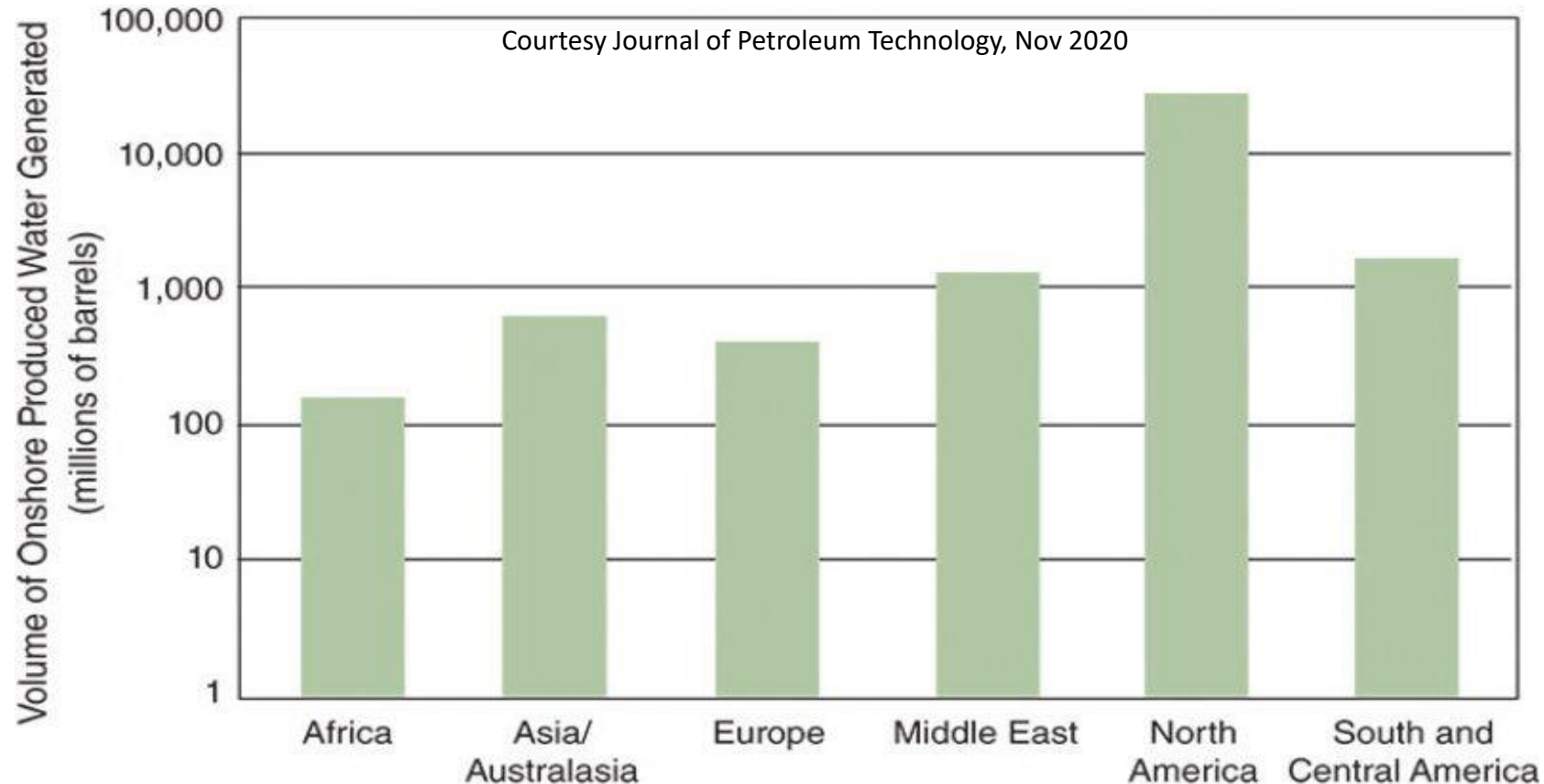
- We are developing scalable CCUS technologies that promote sourcing of rare and critical minerals from subsurface brines and industrial-waste sites in the United States and other favored nations.
- Funding opportunity grants from the US DOE can provide funding for field testing and commercial scale-up in partnership with heavy carbon-emitting industries including oil and gas, cement, renewable grid scale power, and of course, fossil fuel power generation.
- These partnerships can provide US Strategic with needed funds for advancing technologies specific to our nation's goals, while supporting our industry partner's Net-Zero Carbon and corporate ESG strategies.
- We have a solution to your Carbon Footprint ...**“Mine the Brine”**





LiquidOre™ Brines are Abundant

2017 Annual Volume as Reported by 44 of 56 IOGP Members

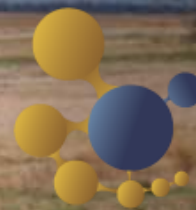


- Texas alone produces over **50 MM Barrels PER DAY** of the estimated 100 MMBPD in N. America alone!
 - In June 2021, Texas Gov. Abbot created the Texas Produced Water Consortium to study the economic impact of, and technology needed to **REUSE PRODUCED WATER**.

- **Paradox Basin Utah Brine Mining Project - \$15M AFE.**
 - Term Sheet available – Placer Claims and O & G Leases in Force
 - 14 mo. Payout, 58% ROR, PV10 = \$42M, 20 yr. project life
 - Net Reserves = 2 MM Barrels of 37% CaCl₂ Brine, \$55/bbl. Wellhead
 - Logistically located on I-70 and UPRR in Grand County UT
- **CCUS Technology Funder/Partner - \$2M Partner Funding – 5% of Class A Shares.**
 - Test of our CCUS Tech at Pilot Scale (WY ITC at Basin Electric Coal Plant)
 - Commercialization is the final step – DOE funding to help CCUS technology reach a scale that has meaningful impact on CO₂ levels and Corporate America's Stated Net Zero goals
 - Focus Technology on reuse and repurposing of industrial brines and waste/disposal sites that contain reagents useful in our Patented Mineral Carbonation processes
 - License the Use of our Patents and Trademarks to Commercial Scale CCUS Projects Worldwide.

- Brines with high concentrations of key dissolved minerals are needed for Ex-Situ Mineral Carbonation Technology being tested and implemented worldwide – Sec 45Q Tax Credits apply in U.S.
- LiquidOre™ provides a less environmentally intrusive feedstock for critical minerals extraction processes. (Lithium Carbonate, Magnesium Hydroxide, and certain REE's). No surface mine and processing permitting and ESG issues!
- What do we need from the Owner/Operator?
 - MOU and Plan of Development
 - Logistics of Project Site are key (CO2 pipeline or direct emissions capture)
 - Volume and Mineral Analysis of Produced Water (site specific)
 - Capital to construct and operate CCUS facility on operator's site

CONTACT US



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