



Powering America's Energy Evolution

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NAATBATT 2025

EXTENDING RANGE

NAATBatt 2025

February 18, 2025

What Does TerraVolta Do?



Exploration

- Employ advanced reservoir, geologic, and hydrogeologic technologies
- Identification of lithium-rich formations
- Delineate resources



Mineral Rights Acquisition

- Negotiate with land and mineral owners
- Conduct thorough diligence
- Work with local communities to secure rights responsibly and ethically



Drill Production Wells for Brine Extraction

- Engineers drill and complete wells in lithium-rich deposits
- Pump brine to the surface



Purification and Drying

- Collect purified Li_2CO_3 or LiOH through filtration process
- Thoroughly dry and ready for the next stage



Battery Grade Refinement

- Refine purified lithium solution into battery grade Li_2CO_3 or LiOH
- Precipitate that final product out of solution as a solid



Lithium Extraction

- Treat brine, removing unwanted characteristics
- Purify and extract the lithium in a flow-through process

Lithium Production: Brine Versus Mine



DLE preserves environmental integrity and leaves a surface impact orders of magnitude smaller than other extraction methods



Hard-Rock Mining

Project: Greenbushes, Australia (Talisson Lithium)

North American Counterpart: Gaston County, North Carolina (Piedmont Lithium)

Production Status: Operational

- Open pit mine with ~214mm sq. ft. of surface impact
- 160,000 Mtpa LCE
- ~1,300 sq. ft. of surface impact per Mtpa



Clay Mining

Project: Thacker Pass, Nevada (Lithium Americas)

North American Counterpart: N/A

Production Status: In Development

- Open pit mine with ~362mm sq. ft. of surface impact
- 60,000 Mtpa LCE
- ~6000 sq. ft. of surface impact per Mtpa



Brine Evaporation

Project: Salar de Atacama, Chile (Albemarle)

North American Counterpart: Silver Peak, Nevada (Albemarle)

Production Status: Operational

- Open evaporation ponds with ~1,800mm sq. ft. of surface impact
- 80,000 Mtpa LCE
- ~22,500 sq. ft. of surface impact per Mtpa



Brine DLE

Project: Liberty Owl (TerraVolta)

North American Counterpart: N/A

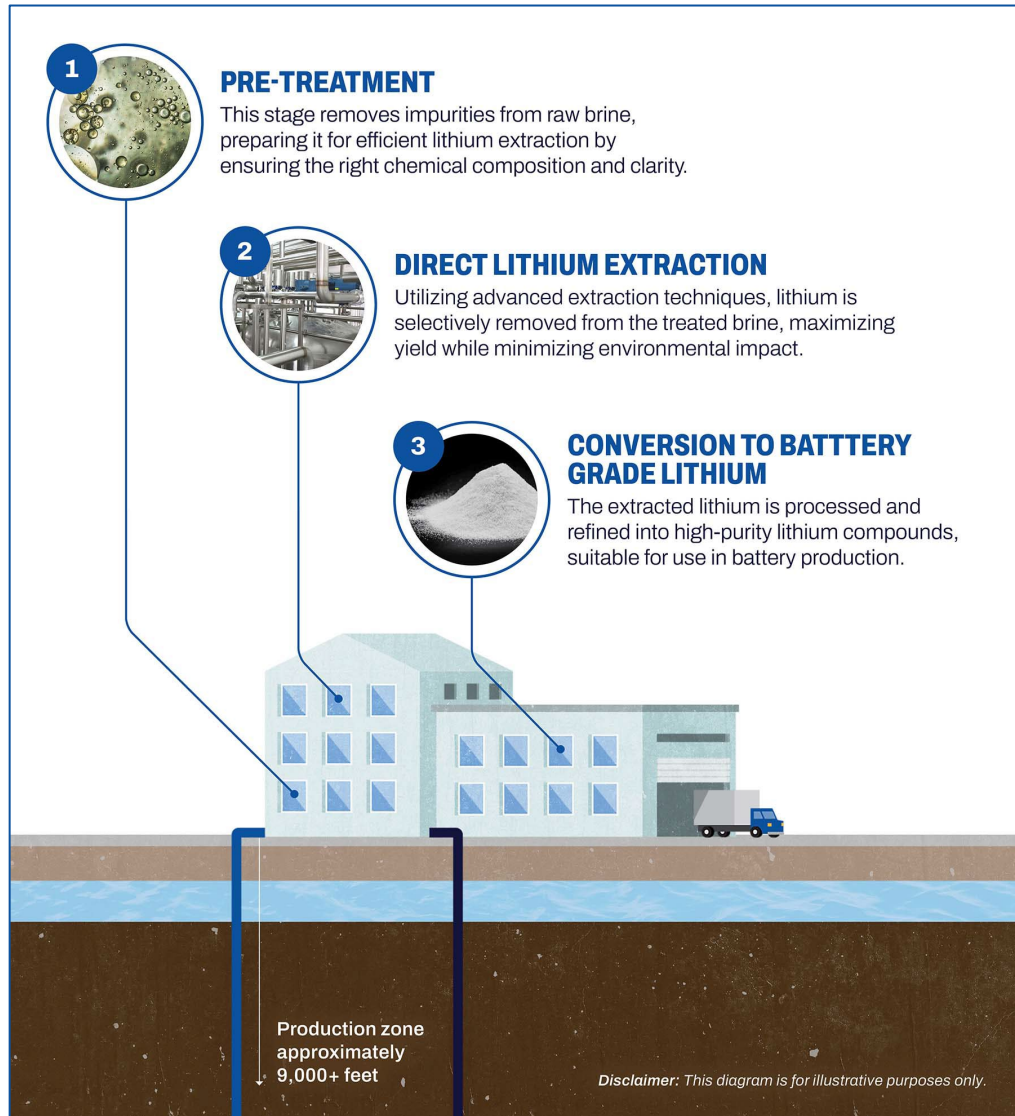
Production Status: In Development

- Brine and injection well pads with surface refining equipment with minimal surface impact
- ~25,000 Mtpa LCE
- ~500 sq. ft. of surface impact per Mtpa



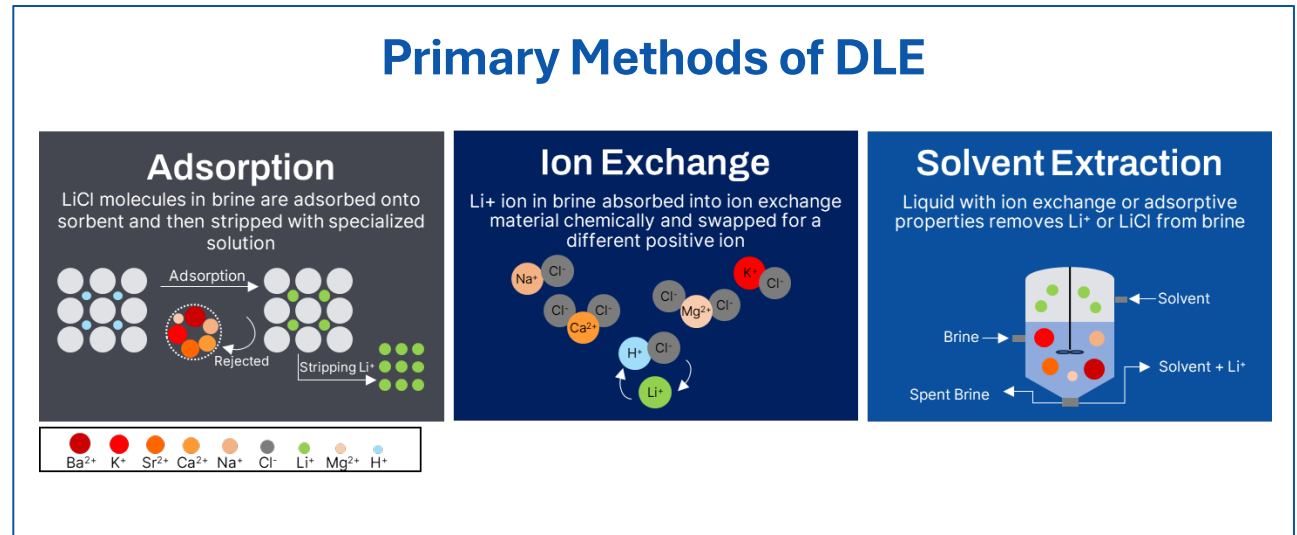
TerraVolta's Lithium Extraction Process

TerraVolta works with leading technology providers and EPC firms to develop the most efficient process for Smackover lithium extraction



2 Direct Lithium Extraction (DLE)

- TerraVolta Resources uses DLE, a process that involves selectively removing Li ions or molecules from solution
- DLE increases production rate, ensures minimal environmental impact, and is less resource intensive than other forms of lithium production



Project Liberty Owl: TerraVolta + U.S. DOE



TerraVolta's Lithium project was recent selected by the DOE for a \$225 million provisional grant as part of the Bipartisan Infrastructure Law





Project Liberty Owl will construct a lithium production facility in the Texarkana region

- **Federal Cost Share:** \$225,000,000
- **Supply Chain Segment:** Raw Materials
- **Initial Capacity:** 25k TPA of LCE, enough for ~500,000 EVs per year



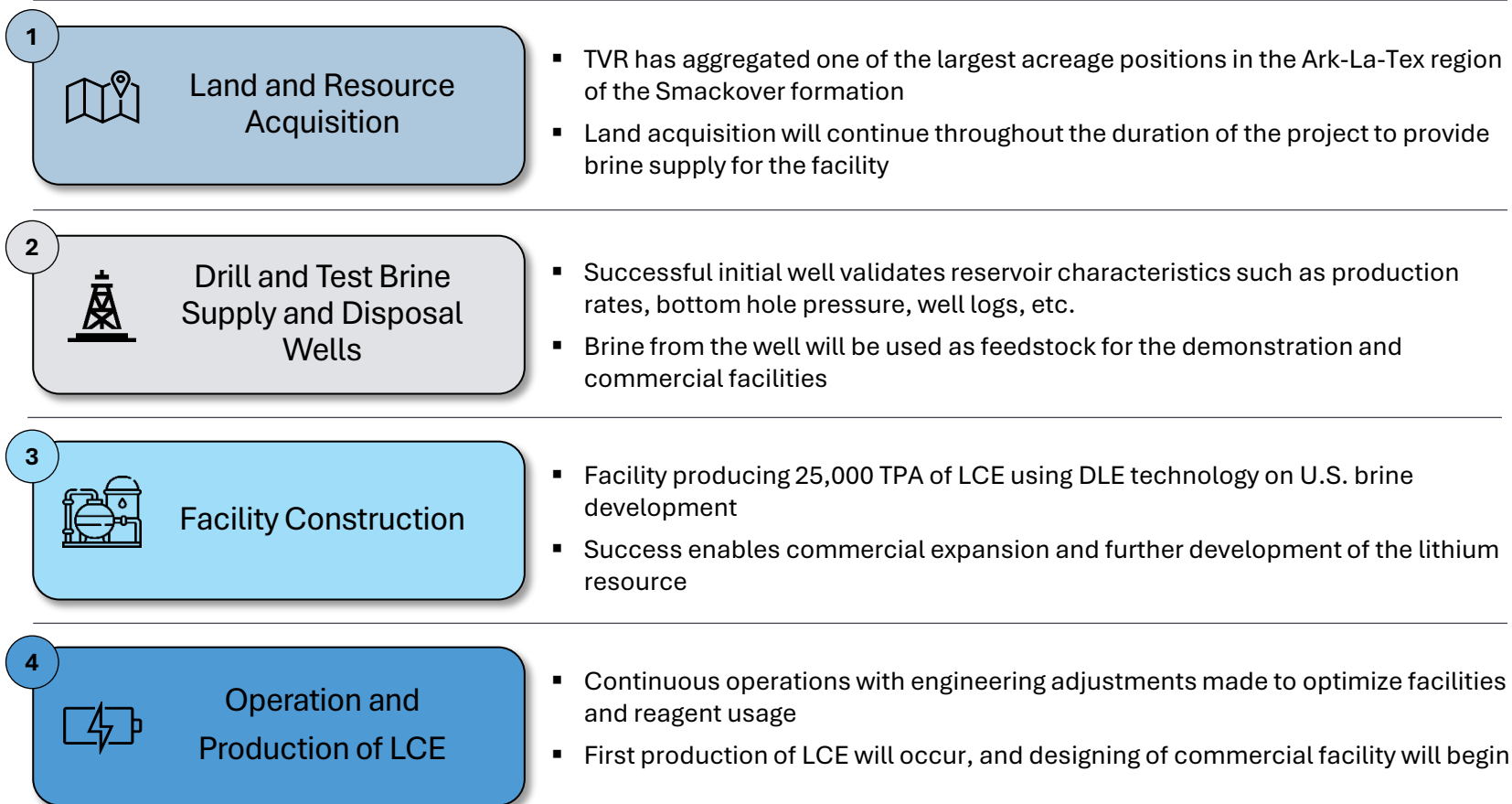
The Federal Government, including the Departments of Energy, Defense, and Treasury, have earmarked hundreds of billions of dollars to advance the domestic battery supply chain and energy transition



Commercial Production of U.S. Lithium

Development of the facilities will validate the efficacy of DLE on U.S. brine and produce the critical materials necessary for the energy transition

Project Overview



Project Timeline

