

+1,500 NEW ACRES ADDED (9% INCREASE) WITHIN THE PRIMARY LITHIUM TARGET AREA - 18,570 NET ACRES NOW LEASED.

HIGHLIGHTS

- **An additional 1,500 acres leased within the core Smackover Brine Project area, with Pantera's total net leased acreage now 18,570+ acres with the project rapidly approaching 20,000 leased acres.**
- **The upcoming achievement of the initial target of 20,000 acres will mean that Pantera has a large project. Primary focus will then move to rapid exploration and evaluation of our area of interest, while additional acreage will be added opportunistically but as a secondary priority.**
- **Arkansas is very well-established oil and gas producing region, with exceptional logistics and transportation links, a skilled labour force, and a proactive, supportive state government and local community, providing all the necessary ingredients for successful project development and represents an extremely attractive location for brine projects.**
- **Multiple re-entry wells have been identified within the project footprint and negotiations with various well owners has commenced, potentially allowing for a well re-entry & sampling program to commence Q2 2024.**
- **Directly to the east and contiguous with the Project, Exxon Mobil (US\$476 billion market cap) has recently conducted drilling operations for multiple lithium brine wells on their leased acres. Their strategic plan includes the construction of a sizable lithium brine processing facility, aimed at advancing their project into full-scale production.¹**
- **To the north-east Standard Lithium (US\$204 million market cap) recently finalised a Preliminary Feasibility Study (PFS) and has successfully operated a pilot plant for over 12 months to confirm the viability of the project. With construction slated for 2025, production is anticipated to commence in 2027.²**

Commenting on the new leased acres, Executive Chairman Barnaby Egerton-Warburton said:

"We are pleased to have signed leases for an additional +1,500 acres representing a further 9% increase in the total leased acres, as we continue to advance towards 20,000+ acres with further acres already under negotiation. As we continue to achieve positive results from our leasing program within

¹Exxon Mobil 'Our First Lithium Well - But "Not Our First Rodeo, 18 January 2024.

²Standard Lithium 'Standard Lithium Files Technical Report For the South West Arkansas Project, 18 September 2023.

our area of exclusive abstract, Pantera can begin to further develop its sub surface modelling in preparation for re-entry and testing of wells. The next 12 months promises to see a busy and productive period for the Company as we create further value from this high potential project.”

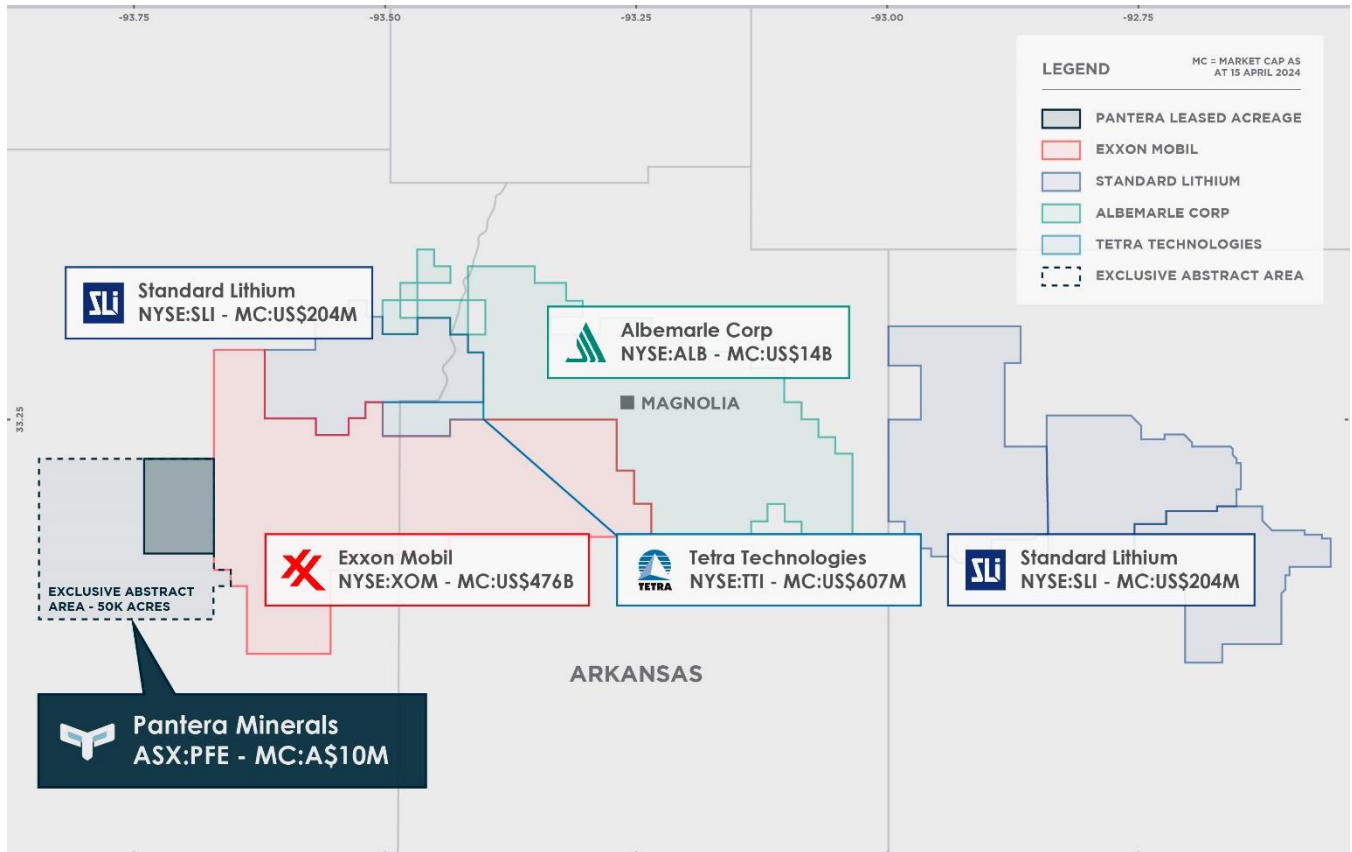


Figure 1- Superbird Lithium Project location showing proximity to adjacent lithium brine projects.

Next Steps

- **Negotiation currently underway for significant project growth through the acquisition of additional project acreage.**
- **Re-entry of an identified well, located within the Project’s area of interest, to test brine grade, permeability, and porosity from the Smackover Formation.**
- **DLE (Direct Lithium Extraction) test of re-entry well sample by two highly regarded DLE technology providers.**



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- **Acquisition of existing 2D Seismic, magnetic and gravity data, to facilitate subsurface modelling of the Superbird Project's area of interest. This modelling will provide Pantera with clear drilling locations for the first resource definition wells.**

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Pantera Minerals Limited (ASX: PFE) ("Pantera" or the "Company") is pleased to announce the successful addition of an impressive +1,500 acres. This expansion continues to bolster Pantera's Lithium Brine Project, elevating its total acreage to an impressive +18,570 net acres, an increase of +9%. Negotiations are currently underway for significant additional acres.³

The Pantera Lithium Brine Project has established a conceptual Exploration Target⁴ ranging from 436,000 to 2,966,000 tonnes of contained Lithium Carbonate Equivalent ("**LCE**") within the project's 50,000 acre Exclusive Abstract Area,⁵ which houses the Superbird Project. The estimate is based on lithium concentrations ranging between 225 mg/L and 450 mg/L with a median value of 338mg/L, showcasing the potential world-class scale of the project.

The Exploration Target's potential quantity and grade is conceptual in nature, there has been insufficient exploration to estimate a JORC compliant Mineral Resource, and it is uncertain if further exploration will result in the estimation of a such a resource.

About The Pantera Lithium Brine Project

The Project now covers a land position of 18,570 net leased acres of lithium brine prospective ground in the Smackover Formation Arkansas, a known high grade lithium brine formation.

Exploration Target

The Project has established a conceptual Exploration Target⁶ ranging from 436,000 to 2,966,000 tonnes of contained LCE within the project's 50,000 acre Exclusive Abstract Area,⁷ which houses the Superbird Project. The estimate is based on lithium concentrations ranging between 225 mg/L and 450 mg/L with a median value of 338mg/L, showcasing the potential world-class scale of the project.

³ Formal mineral lease offers have been sent to landholders or have signed commitments by landowners to deliver owned acres.

⁴ PFE Announcement: 'Material LCE Exploration Target For The Superbird Lithium Brine Smackover Project', 29 January 2024.

⁵ The Exclusive Abstract Area covers 50,000 acres with the Exploration Target being calculated as being contained within this area.

⁶ PFE Announcement: 'Material LCE Exploration Target For The Superbird Lithium Brine Smackover Project', 29 January 2024.

⁷ The Exclusive Abstract Area covers 50,000 acres with the Exploration Target being calculated as being contained within this area.

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Exclusive Abstract Agreement

The Pantera Lithium Brine project benefits from a crucial partnership with a commercial abstract company, underpinned by a 50,000-acre Exclusive Abstract Agreement. This agreement, formed with the sole commercial provider of mineral ownership abstract information for the project area, holds immense strategic significance. Understanding mineral ownership is paramount in securing lithium brine leases, offering a substantial commercial edge to the Project.

This Exclusive Abstract Agreement facilitates access to comprehensive mineral ownership records, ensuring precise identification of owners and facilitating accurate execution of leases with the rightful mineral rights holders. In the United States, the separation of mineral rights from surface rights underscores the importance of examining records dating back to the 1800s for precise ownership confirmation.

The Exclusive Abstract Agreement confers a pivotal advantage, enabling the Project to efficiently obtain accurate mineral ownership information for the project area, setting it apart from competitors. While such information is theoretically accessible from public records, the process is undeniably time-consuming and labor-intensive.

Encompassing an extensive area of 50,000 acres, the Exploration Target identified pertains specifically to these 50,000 acres, reinforcing the project's focus and potential within this defined scope.

Strategically Positioned

The strategically positioned Project is situated in the Smackover Formation in South-West Arkansas, a renowned high-grade brine formation. This area is home to various lithium brine explorers and producers, including industry leaders such as Exxon Mobil (NYSE: XOM), Standard Lithium (NYSE: SLI), Tetra Technologies' (NYSE: TTI) and Albemarle Corporation (NYSE: ALB).

Arkansas offers an ideal jurisdiction for the development of brine projects, situated strategically in the heart of the United States. With exceptional logistics and transportation links, a skilled labor force, and a proactive and supportive state government, it provides all the necessary ingredients for successful project development.

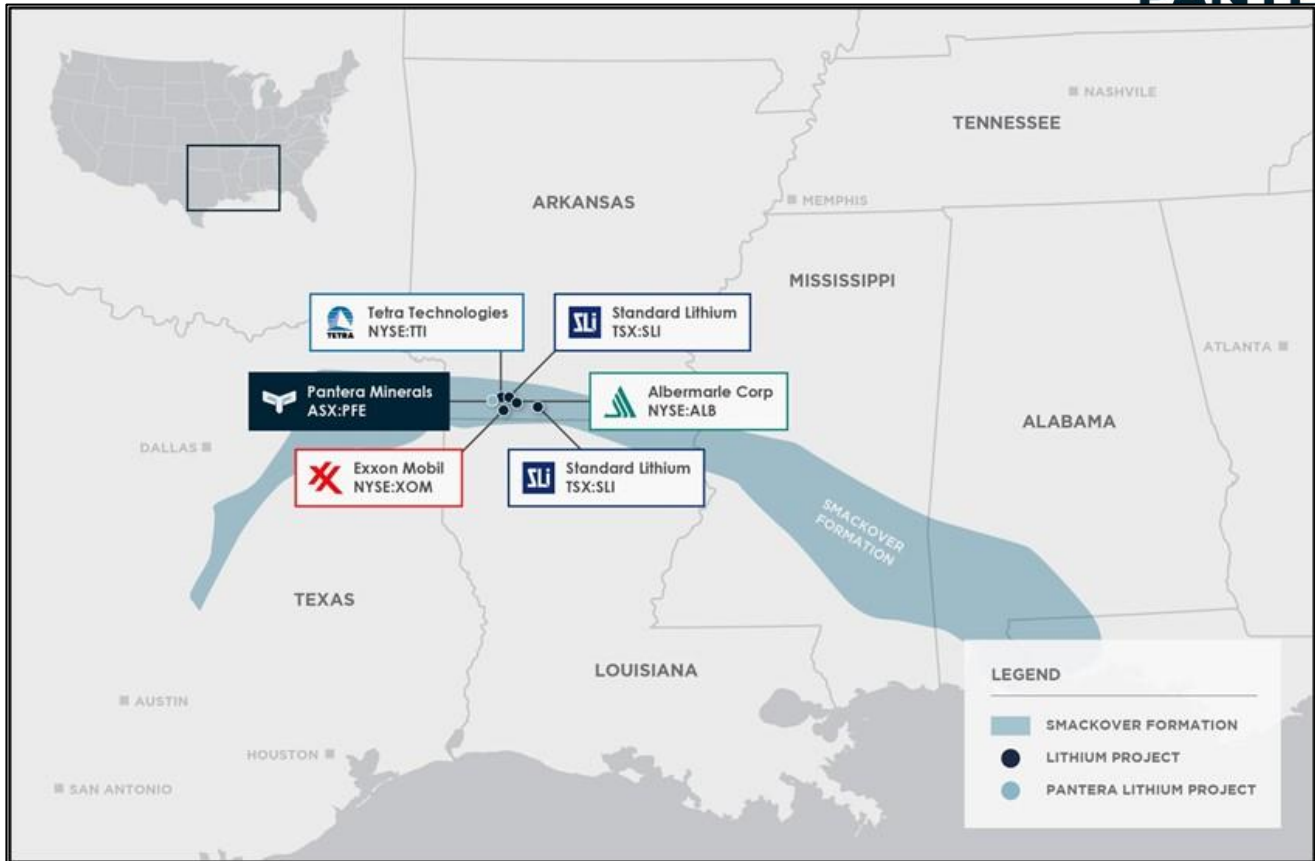


Figure 2 - Superbird Lithium Project location within the Smackover Formation.

The Smackover Formation is host to several lithium brine explorers and producers, with the Pantera Project in proximity to the following lithium projects:

EXXON LITHIUM BRINE PROJECT (NYSE: XOM- Market Cap \$US 476 billion)

- Project (120k acres) acquired in May 2023 reportedly for >US\$100m⁸
- Targeting Production of 75,000 -100,000 tonnes per annum (“tpa”) of LCE⁹ by 2027¹⁰

STANDARD LITHIUM (TSXV: SLI- Market Cap \$US 207 million)

- Lanxess (Southern Arkansas) Project - 150k acres across southern Arkansas. A recently released Definitive Feasibility Study¹¹ has first production expected in 2026 with an initial average annual production of 5,700 tonnes, and an average annual production of 5,400 tonnes over a 25-year minimum operating life
- Lanxess has proven and probable Reserves of 208 Kt LCE at an average concentration of 217 mg/L support up to 40 years of operations

⁸ Source: Wall Street Journal 'Exxon Joins Hunt for Lithium in Bet on EV Boom' 21 May 2023.

⁹ Source: Wall Street Journal 'This Arkansas Town Could Become the Epicentre of a U.S. Lithium Boom', 20 July 2023.

¹⁰ Source: Exxon Mobil Drilling First Lithium Well in Arkansas, Aims to be a Leasing Supplier for Electric Vehicles by 2030, November 2023.

¹¹ Source: Standard Lithium Files Definitive Study for its First Commercial Lithium Extraction Plant - Phase 1A, 18 October 2023.

- Strong project economics. After-tax NPV US\$550 million and IRR of 24% assuming discount rate of 8% and a long-term price of US\$30,000/t for battery-quality Li₂CO₃
- Operating costs reflect first step to commercial production. Average annual operating costs of US\$6,810/t over the 25-year operating life, with a CAPEX of US\$365 million including a 15% contingency
- SLI also has its South-West Arkansas Project, 36k acres across southern Arkansas
- Exercised Option Agreement for lithium rights over 27,000 net acres of brin leases with Tetra Technologies¹²

TETRA TECHNOLOGIES' (NYSE: TTI- Market Cap \$US 607 million)

- 5,100 acres
- Option Agreement (now exercised) with SLI for lithium rights within Standard Lithium's South-West Arkansas Project

ALBERMARLE CORPORATION (NYSE: ALB- Market Cap \$US 14 billion)

- Magnolia Project, US\$540m investment to build a DLE test facility in Magnolia, Arkansas¹³
- Produces Bromine currently from Smackover brines at its Magnolia Arkansas Bromine facility

- END -

This release is authorised by the Board of Directors of Pantera Minerals Limited.

¹² Source: Standard Lithium Exercises Option Agreement on South West Arkansas Project, Solidifying Path Forward Following Positive Feasibility Study and Rising Regional Interest, 31 October 2023.

¹³ Source: Reuters 'Albemarle jumps into global race reinvent lithium products', 3 August 2023.