

FIRST LITHIUM WELL IN THE ARKANSAS SMACKOVER TO COMMENCE WITH ENGAGEMENT OF SLB

The first well plan will start with a robust 3D static geological model construction. This will be done in collaboration with lithium brine subsurface experts from the world's leading subsurface expertise and energy technology company, SLB, to identify the potential of the Project. (SLB is listed on the New York Stock Exchange with ticker NYSE: SLB)

HIGHLIGHTS

- **PFE to collaborate with SLB to leverage their advanced subsurface technology and expertise. The goal is to advance the already identified leads and multiple re-entry wells into drill-ready prospects. To achieve this, we are utilising acquired 2D seismic, gravity and magnetic data to help define the extent of the Upper Smackover Formation and the location of faults for use in the 3D static modelling.**
- **SLB will complete a subsurface 3D Static Geological Model to identify optimal well locations for PFE for future well planning and designs. The model will also be used by PFE for resource estimation ahead of the Company's maiden lithium drilling program in the Arkansas Smackover.**
- **PFE's reservoir model will be updated to a JORC compliant resource estimation model once lithium brine geochemistry and porosity/permeability data is obtained from a well re-entry program.**
- **The development of a 3D subsurface model is critical to optimise and de-risk the exploration workflow and project development.**
- **Arkansas Smackover hosts some of the best lithium brines and is now being acclaimed as America's emerging lithium-brine industry center with Albemarle, Standard Lithium, Exxon Mobil and now Equinor establishing a presence.**

Executive Chairman and CEO Barnaby Egerton-Warburton commented on the collaboration:

"We are extremely excited to partner with SLB (NYSE: SLB), a global technology company, to complete and enhance sub-surface work in advance of our maiden drilling program. Our Project already has an exploration target with a grade range between 225 to 450 mg/L with a median grade value of 338 mg/L and we hope to further refine and enhance that as we move through to the initial exploration phase.¹"

¹ "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." PFE Announcement: 'Material LCE Exploration Target For The Superbird Lithium Brine Smackover Project' (29 January 2024)

"SLB is the world's leading subsurface expertise and technology company in the oilfield sector, and has expanded its domain expertise in subsurface, and sustainable lithium production technology over the years."

"SLB's extensive experience and proven track-record in subsurface analysis, reservoir and aquifer management, subsurface-surface technology integration, and operational performance will provide Pantera with an enhanced understanding of subsurface characteristics to inform better decision making."

"With the Arkansas Smackover boasting some of the highest-grade lithium brines globally, supporting oilfield services and infrastructure are now being established for America's emerging lithium-brine industry, which includes Albemarle, Standard Lithium, Exxon Mobil and now Norway's Equinor."

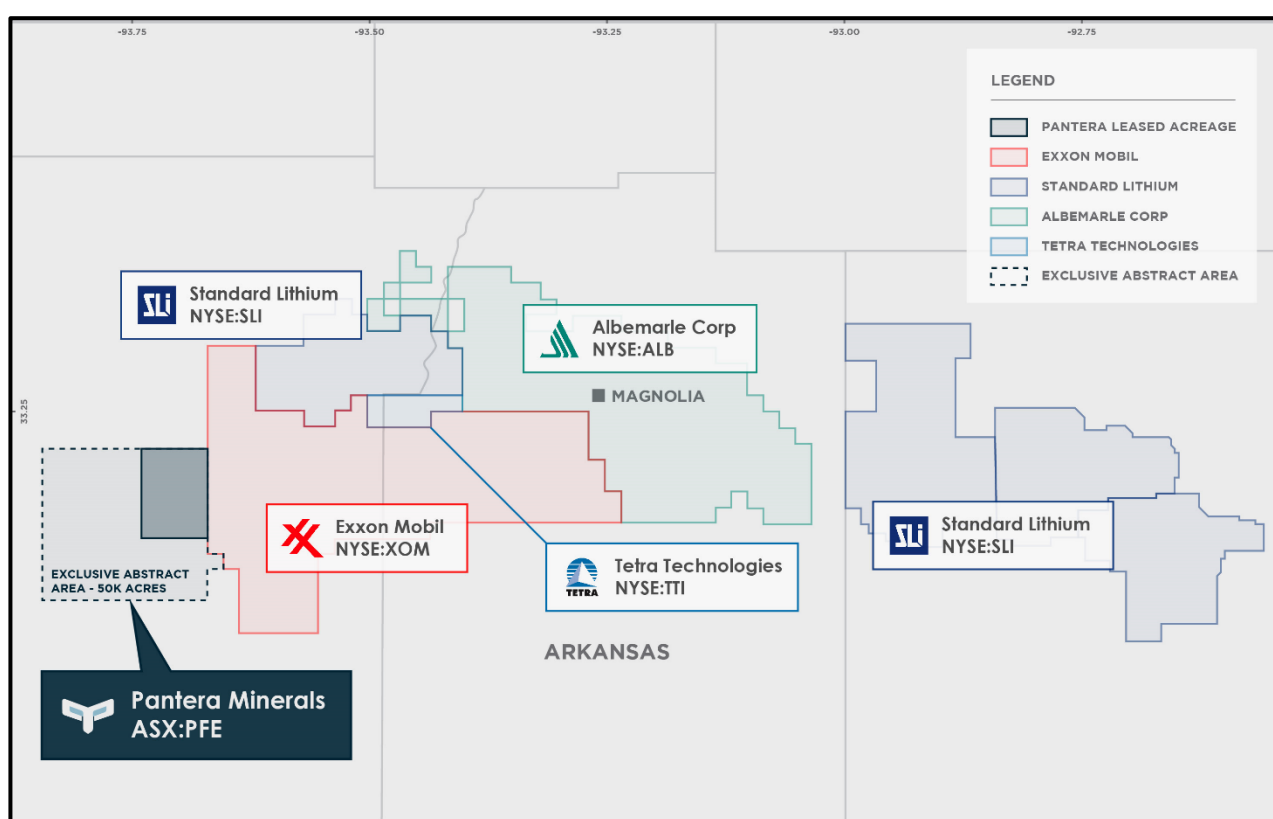


Figure 1- Pantera Li Brine Project location showing proximity to adjacent lithium brine projects

Pantera Minerals Limited (ASX:PFE) ("**Pantera**" or the "**Company**") is pleased to announce near term work plans to define the subsurface geology and reservoir characteristics of the Pantera Lithium Brine Project. The engagement of SLB to develop a 3D Static Geological Model is a critical step in de-risking and optimising the exploration planning and workflow and project development.

In February 2024, Pantera formally acquired Daytona Lithium Pty Ltd ("**Daytona Lithium**"), the holder of the Pantera Li Brine Project.² The strategically positioned Pantera Li Brine Project is situated in the Smackover Formation in Southwest Arkansas, a renowned high-grade lithium brine formation. This area is home to various lithium brine explores and producers, including industry leaders such as Exxon

² PFE Announcement: 'Pantera Acquires 100% Of Daytona Lithium In Arkansas' Smackover Lithium Field (11 December 2023).

Mobil (NYSE:XOM), Standard Lithium (NYSE:SLI), Tetra Technologies' (NYSE:TTI) and Albemarle Corporation (NYSE:ALB). Since Pantera's initial investment, the Pantera Li Brine Project has increased materially to now cover a land position of over 18,570 leased acres³.

3D Static Geological Model Work Program

The 3D Static Geological Model will be defined over a 40,000-acre Area of Interest ("**AOI**") that covers the extent of the 18,570 acres of mineral claims that Daytona Lithium currently holds. The AOI is sufficiently large enough to cover mineral claim areas currently being negotiated. The scope of work program is as follows:

Data Gathering & Digitisation:

A detailed gathering and review of existing data (well data, purchased 2D seismic, gravity, magnetics and well production data) will be performed to establish a baseline understanding of the subsurface geology and existing brine resource within the Smackover Formation within the AOI.

Existing raster logs within the AOI will be digitized for use in the model. Reconstruction and well log harmonization of missing log data will be performed at this time. Historic production data in the area will be studied to understand porosity and permeability variations within the AOI. Numerous dry hydrocarbon holes and plugged wells are located within the area. SLB will download and study all available reports/data to review the suitability of wells for re-entry to obtain brine chemistry, geological, geophysical and petrophysical data for use in future brine resource estimation.

Geological Modelling:

Consolidated digitised well data and 2D seismic data will be imported into a 3D modelling platform. A 3D grid will be generated representing the subsurface top and base of the Smackover Formation with the AOI.

Petrophysical editing of log data will be used to understand and calculate porosity of the target zones. SLB will conduct a regional study to establish porosity relationships with available sonic, gamma, and resistivity logs. Porosity logs are then required to be predicted and reconstructed from existing sets of data. A study of production data and existing core data is required to be completed to establish a relationship between permeability and porosity. After a fit-for-purpose gridding of the geological model, the properties of each cell (permeability, porosity, and lithium saturations) will be populated using the data provided by existing well controls

³ PFE Announcement: ' +1500 New Acres Added (9% Increase) Within The Primary Lithium Target Area - 18,570 Net Acres Now Leased (17 April 2024)

and 2D seismic data. The 2D seismic data will undergo seismic inversion using rock properties derived from the petrophysical analysis performed on the logs and study area.

Mineral Resource Estimation:

The 3D static model will be used to calculate mineral resource estimations in the AOI. This estimation will be updated with the static model as more data becomes available through drilling, sampling, and brine analysis.

Location of Re-Entry Well Candidates:

Determine the optimal locations for initial one to three re-entry wells. This process involves reviewing around 45 wells in the AOI and correlating the wells against the 3D Static Geological Model.

2024 PLANNED EXPLORATION

- Continued mineral claim leasing with the Daytona Exclusive Abstract Area
- Completion of the 3D Static Geological Model
- Well re-entry and brine sampling program to obtain brine lithium grade and brine chemistry as well as core samples for porosity assessment and geophysical/petrophysical data
- New well drilling and brine sampling to assist in defining a JORC compliant lithium brine resource

- END -

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

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COMPETENT PERSON'S STATEMENT

The information in this announcement that relates to geology and exploration results and planning was compiled by Mr. Nick Payne, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy and is Head of Exploration for Pantera. Mr Payne has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Payne consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

All parties have consented to the inclusion of their work for the purposes of this announcement. The interpretations and conclusions reached in this announcement are based on current geological theory and the best evidence available to the author at the time of writing. It is the nature of all scientific conclusions that they are founded on an assessment of probabilities and, however might be, they make no claim for absolute certainty. Any economic decisions which might be taken on the basis of interpretations or conclusions contained in this announcement will therefore carry an element of risk.

ABOUT THE PANTERA LI BRINE PROJECT

Since Pantera's initial investment, the Pantera Li Brine Project has increased materially to now cover a land position of 18,570,000 leased acres in the Smackover Formation, a known high grade brine formation with a further 8,000 acres under negotiation.

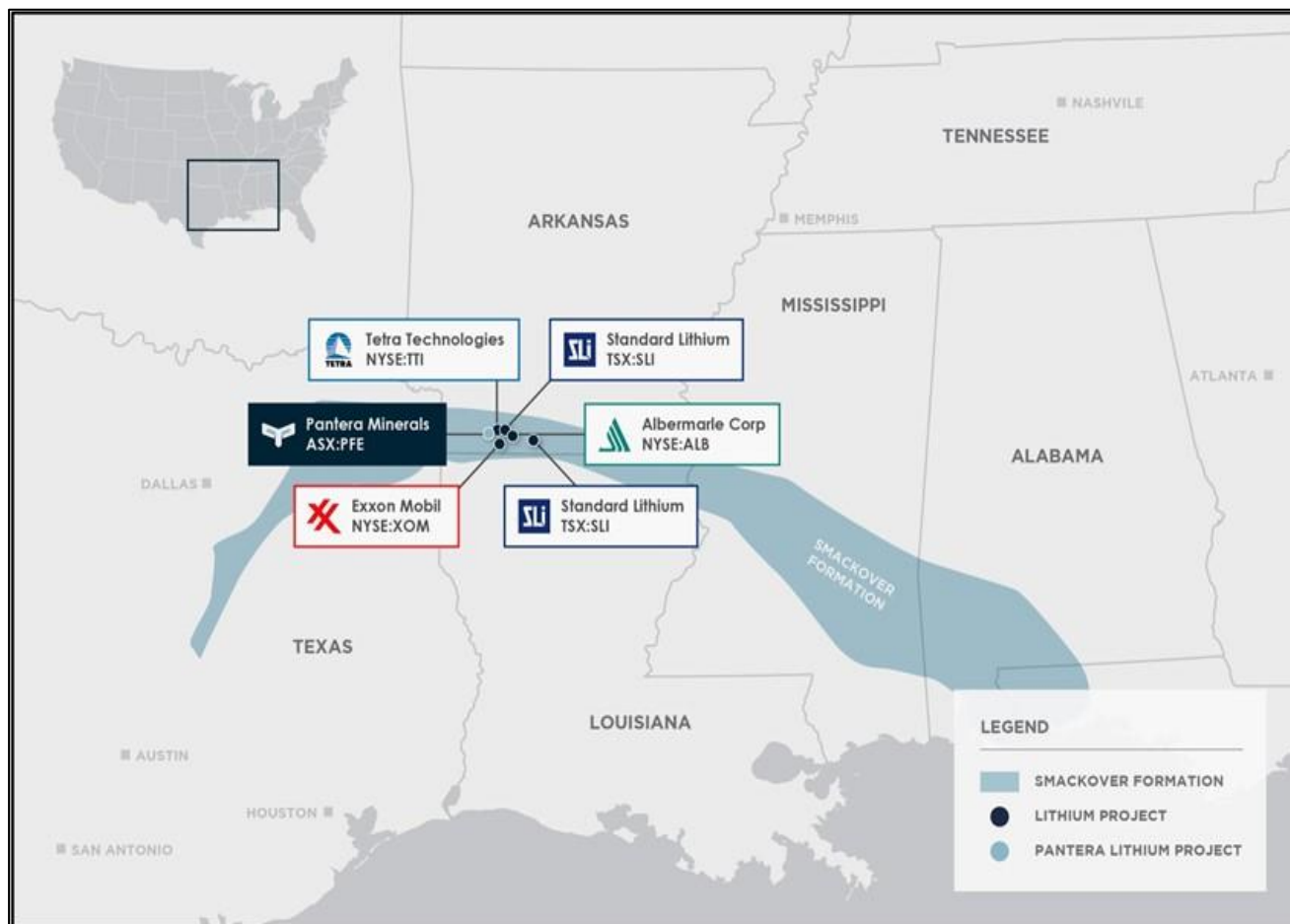


Figure 6 - Pantera Li Brine Project location within the Smackover Formation