

# COMPANY SIGNS RIG AGREEMENT FOR FIRST SMACKOVER WELL TEST

## **HIGHLIGHTS**

- PFE signs rig agreement with "Production Services Inc" for first well re-entry at its Smackover Lithium Brine Project Arkansas USA
- Initial well work expected to begin mid-October with re-entry beginning late
   October
- Smackover testing procedure design and advised by SLB
- Re-entry well test to deliver brine samples across upper Smackover in order to generate lithium grade.
- Sampled Lithium grade will provide our most accurate information to date and will be used to update our exploration target as well as providing valuable modelling data for resource definition and the optimal location for a second well.
- Well location allows potential for both production and disposal in order to operate a pilot plant in 2025.



A Production Services Inc Rig servicing other groups well in Arkansas



- Exxon Mobil (US\$514 billion market cap) has concluded its first round of drilling at its Arkansas Smackover Lithium Brine project with 8 wells completed including one on the east border of PFE's acreage position. Their strategic plan includes the construction of a sizable lithium brine processing facility, aimed at advancing their project into full-scale production.1
- Norway's AU\$125 billion state-owned energy company Equinor (NYSE: EQNR) recently entered the Smackover with an investment of up to US\$160 million in Standard Lithium's Brine projects across the Smackover.<sup>2</sup>

## Commenting on the progress to the first well, Executive Chairman Barnaby Egerton-Warburton said:

"The Company is extremely excited with the imminent testing of lithium brine grade at its Arkansas Smackover Lithium Brine Project. With the contracting of a work-over rig we are now in the final stages of preparation for our first well. The Company believes the Australian market place is not correctly valuing the potential upside of the Company's project, but is aware of many corporate eyes on the Company, its project and its progress. The Company continues to see aggressive leasing surrounding its exclusive abstract area and now sees its position surrounded by both large listed and privately funded groups."

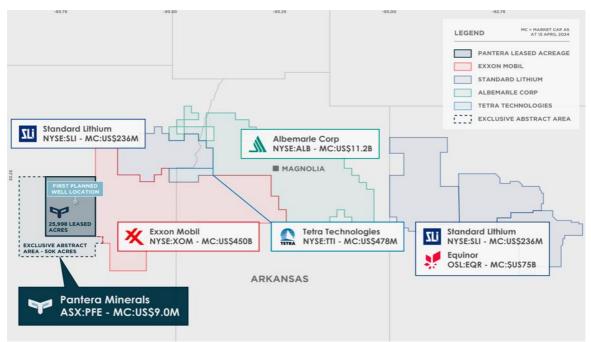


Figure 1- Pantera Arkansas Lithium Brine Project location showing approximate location of first re-entry test well. Map indicates approximate outlines of Pantera and other acreage positions in the play which are constantly changing and as such may not be 100% accurate. Once leasing by the Company is complete it will publish a detailed acreage map.



## **Forward Focus**

- SLB resource model and well design
- Re-entry of first well to test lithium brine grade
- DLE test of re-entry well samples by multiple DLE technology providers.
- Continued Smackover Project growth through the acquisition of additional acreage.
- Discussions with DLE technology providers for a pilot plant test on site in early 2025

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Pantera Minerals Limited (ASX: PFE) ("Pantera" or the "Company") is pleased to announce that the company has signed a Master Services Agreement (MSA) with Production Services Inc of Magnolia Arkansas for a workover rig at the companies Smackover Lithium Brine Project. Production Services Inc have been active in the Arkansas oil and gas sector for fifty years and specialise in well servicing and workovers.

#### **About The Pantera Lithium Brine Project**

The Project now covers a land position of +26,000 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 Target<sup>3</sup> ranging from 436,000 to 2,966,000 tonnes of contained LCE within the project's 50,000-acre Exclusive Abstract Area, 4 which houses the

 <sup>&</sup>lt;sup>3</sup> PFE Announcement: 'Material LCE Exploration Target For The Superbird Lithium Brine Smackover Project', 29 January 2024.
 <sup>4</sup> The Exclusive Abstract Area covers 50,000 acres with the Exploration Target being calculated as being contained within this area.



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. The Company is planning additional exploration work in the coming year to advance the definition of a resource.

#### **Exclusive Abstract Agreement**

The 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 labour-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 lithium 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), Equinor (NYSE: EQNR) 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 - Pantera Lithium Brine 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)**

- Project (120k acres) acquired in May 2023 reportedly for >US\$100m<sup>5</sup>
- Targeting Production of 75,000 -100,000 tonnes per annum ("tpa") of LCE<sup>6</sup> by 2027<sup>7</sup>

## **STANDARD LITHIUM (TSXV: SLI)**

- Lanxess (Southern Arkansas) Project 150k acres across southern Arkansas. A recently released Definitive Feasibility Study<sup>8</sup> 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 supporting up to 40 years of operations.

<sup>&</sup>lt;sup>5</sup> Source: Wall Street Journal 'Exxon Joins Hunt for Lithium in Bet on EV Boom' 21 May 2023.

<sup>&</sup>lt;sup>6</sup> Source: Wall Street Journal 'This Arkansas Town Could Become the Epicentre of a U.S. Lithium Boom', 20 July 2023.

Source: Exxon Mobil Drilling First Lithium Well in Arkansas, Aims to be a Leasing Supplier for Electric Vehicles by 2030, November 2023.
 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  $Li_2CO_3$
- 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 brine leases with Tetra Technologies<sup>19</sup>.

#### **TETRA TECHNOLOGIES' (NYSE: TTI)**

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

#### **ALBERMARLE CORPORATION (NYSE: ALB)**

- Magnolia Project, building a DLE test facility in Magnolia, Arkansas<sup>10</sup>
- Produces Bromine currently from Smackover brines at its Magnolia Arkansas Bromine facility

#### **EQUINOR ASA (NYSE: EQNR)**

Equinor (listed on both the Oslo Stock Exchange/Euronext and the New York Stock Exchanges) is an international energy company committed to long-term value creation in a low-carbon future. Equinor's portfolio of projects encompasses oil and gas, renewables and low-carbon solutions, with an ambition of becoming a net-zero energy company by 2050. Headquartered in Stavanger (Norway) Equinor has a presence in 30 countries world-wide.

#### END -

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

The information in this announcement that relates to geology and exploration results and the exploration target was compiled by Mr. Eric Pelletier, a Competent Person whom holds an M.Sc in Geology specialising in Carbonate Sedimentology and is a Registered Professional Geologist (Alberta) and a consulting geologist to Matrix Solutions Inc. Mr Pelletier 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 Pelletier consents to the inclusion in the report of the matters based on his information in the form and context in which it appears in this announcement, and to the original reference in the 29 January 2024 announcement.

<sup>&</sup>lt;sup>9</sup> Source: Standard Lithium Exercises Option Agreement on Southwest Arkansas Project, Solidifying Path Forward Following Positive Feasibility Study and Rising Regional Interest. 31 October 2023.

Interest, 31 October 2023.

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