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ASX RELEASE

ERRA

Drilling permit approved for flagship Nemaha Project

Highlights

- Permit to Drill received from the Kansas Regulator for the Sue Duroche-3 well within the flagship Nemaha Project, Kansas.
- Well site has been staked approximately 200m (600 feet) north of the historic Sue Duroche-2 well drilled in 2009, which reported up to 92% Hydrogen and up to 3% Helium^{1.}
- Additional Permits to Drill are being prepared in parallel for other hydrogen and helium prospects to support final selection for maiden drilling which remains on track for Q3 2024.

HyTerra Ltd (ASX:HYT) ("HyTerra" or the "Company") via its 100% owned and operated subsidiary HYT Operating LLC, has received a Permit to Drill from the Kansas Corporation Commission (KCC) for the Sue-Duroche-3 well at the company's fully-owned flagship Nemaha Project.

The well has been sited around 200m north of the historic Sue Duroche-2 well drilled in 2009, which reported up to 92% Hydrogen and up to 3% Helium in historic analyses¹. HyTerra has >3450 acres of owned and operated lease holdings geologically contiguous to this well.



Figure 1. Sue Duroche-3 prospect is located around 200m north from the historic Sue Duroche-2 well. HyTerra lease holdings of >3450 acres are geologically contiguous to this prospect.

¹Guelard, J., Beaumont, V., Rouchon, V., Guyot, F., Pillot, D., Jezequel, D., et al., 2017. Natural H2 in Kansas: deep or shallow origin? Geochem. Geophys. Geosyst. 18, 1841-1865. H2 + He % reflects occurrences of published gas analyses recovered from the wellbore. Uncertainty remains on historic well operations, sampling techniques, and analyses. The values are considered up to a % of H₂ or He.



HyTerra Executive Director, Mr Avon McIntyre, said the Sue Duroche-3 prospect is part of an extensive portfolio of drilling candidates currently being advanced through the permitting stage within HyTerra's prime acreage.

"Securing this drill permit is a crucial milestone. The diversity of geological plays within our 100% owned and operated leases allows us to rank several independent hydrogen and helium prospects for the company's upcoming exploration program. That means we can drill the highest ranked ones first. Additionally, after an extensive review, we are assessing multiple vendors for drilling and other operational services for the Q3 2024 drilling program." Mr McIntyre said.

The Nemaha Project is linked to a long list of potential offtakers connected locally and regionally by existing railways and roads. Over 35% of US ammonia, a compound of nitrogen and hydrogen which is primarily used to make fertiliser, is produced nearby the 100% owned and operated leases in Kansas.

Sue Duroche-3 well

The Nemaha Project is located near the southern end of the Mid-Continent Rift System and next to the most prominent structural high in the region, the Nemaha Ridge. Multiple historic hydrogen occurrences in the region are widely considered to be sourced from the Rift's underlying band of iron-rich rocks and migrate via faults to the crest of the ridge.

The proposed Sue-Duroche-3 well is located on the Zeandale High, a prominent structural feature on the crestal parts of the Nemaha Ridge. A 2D seismic survey acquired by the Kansas Geological Survey in 1997 provides an image of the geological structure and features of the Zeandale High. This seismic survey also geologically links the prospect to the recently acquired leases in Wabaunsee County.



Figure 2. Sue Duroche-3 well will be located on the Zeandale High, a prominent structural feature on the crestal parts of the Nemaha Ridge. The prognosed Sue Duroche-3 well section is projected onto open file seismic data.





Figure 3. Sue Duroche-3 well location staked at the Nemaha Project in Kansas.

This announcement has been authorised for release by the Board of Directors.

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HYTERRA. A WORLD OF OPPORTUNITY.

Exploring for natural hydrogen and helium resources near major industrial hubs

White hydrogen's potential as a low-carbon feedstock or fuel has spurred millions in new investment and created a world rich with opportunities for first movers.

HyTerra was the first company to list on the ASX with a focus on white hydrogen, which is generated naturally by the Earth. White hydrogen potentially has much lower production costs and carbon emissions than manmade hydrogen.

Our Nemaha Project in Kansas, USA, holds 100% owned and operated leases across the emerging Nemaha Ridge natural hydrogen and helium play fairway. Our Geneva Project in Nebraska, USA, is a 16% earn-in interest in a Joint Development with Natural Hydrogen Energy LLC targeting natural hydrogen and helium.

Both projects could be connected via railways and roads to multiple nearby off-takers, including ethanol and ammonia manufacturers, and petrochemical plants.

