CSIRO study detects hydrogen in all 28 analysed rock samples and identifies potential hydrogen source rocks in the Eyre Peninsula region

Highlights

- **Hydrogen detected in fluid inclusions in all 28 successfully analysed rock samples,** providing evidence consistent with the past circulation of hydrogen-bearing fluids within the investigated geological system
- **Two candidates identified as potential natural hydrogen generation mechanisms,** highlighting multiple prospective source-rock types surrounding Prominence's Eyre exploration area
- **Potential source rocks identified:** uranium and thorium rich, alongside iron-bearing rocks capable of supporting hydrogen-generation
- **Potential seal rock recognised:** a single Gawler Range Volcanics sample records very low permeability; regional extent and integrity not yet assessed
- **Results further inform Prominence's ranking priority exploration and potential drilling targets** where hydrogen sources, migration pathways and trapping conditions may coincide
- **PRM is targeting a mid-2027 exploration drilling campaign,** with these additional independent results supporting target selection and prospective farm-out discussions

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Prominence Energy Limited (**ASX: PRM**) ("**Prominence**" or "**the Company**") is pleased to announce results from its CSIRO Kick-Start study, with hydrogen detected in all 28 successfully analysed rock samples and two potential natural hydrogen generation mechanisms identified at its Eyre Peninsula Project in South Australia.

The CSIRO study identified elements compatible with a hydrogen system such as prospective source rocks, migration pathways and potential sealing formations. Prominence is interpreting the study's results to strengthen Eyre's natural hydrogen exploration potential and to provide a clearer pathway towards high-priority drilling targets and a potentially significant hydrogen discovery.

Prominence Energy Chief Operating Officer, Dr Krista Davies, commented:

"Detecting hydrogen in all 28 successfully analysed rock samples, evidences of past hydrogen-bearing fluid circulation, is an outstanding result for Prominence. Importantly, CSIRO has also identified potential hydrogen generation mechanisms and a potential sealing rock.

These results represent a major step forward in progressing the Eyre Peninsula exploration. The Prominence team can now focus on interpreting the findings to further inform our exploration targets, accelerating our progress towards drilling and the potential for a discovery that could deliver substantial value for it's shareholders."

The results do not establish current hydrogen generation rates, a subsurface hydrogen accumulation or commercial recoverability. Further work is required to evaluate whether prospective source rocks, migration pathways and effective traps coincide at a drillable location.

Why the Findings Matter

- ✓ **Two potential sources of hydrogen** – prospective uranium and thorium enriched granites may generate hydrogen through radiolysis of water, while iron-bearing rocks may generate hydrogen through water-rock reactions.
- ✓ **Results consistent with past circulation of hydrogen-bearing fluids'** – all 28 successfully analysed rock samples released hydrogen through a rock crushing technique, supporting evidence of past hydrogen-bearing fluid circulation.
- ✓ **Better-defined target locations** – source-rock characteristics, faults, fractures and potential volcanic cover can now be assessed together to prioritise exploration expenditure.
- ✓ **Framework for seal ranging** preliminary petrophysical tests indicate that part of the Gawler Range Volcanics may have the low permeability needed for a sealing system.
- ✓ **Clearer pathway to testing** – work can now focus on identifying places where source, migration and trapping factors are most likely to coincide

CSIRO Study Findings

Potential hydrogen generation from two geological mechanisms

CSIRO identifies uranium and thorium enriched felsic rocks of the Hiltaba Suite, particularly the Cultana Subsuite, as leading candidates for radiolytic hydrogen generation. Investigated Cultana samples recorded uranium concentrations up to 50.9 parts per million (ppm) and thorium up to 142.5 ppm. These values indicate favourable source-rock characteristics.

A second potential generation mechanism involves oxidation of reduced iron (Fe^{2+}) during reactions between water and iron-bearing rocks. The Sleaford Complex chlorite schist contained 8.39% Fe^{2+} by weight, with additional reduced-iron potential identified in Tunkillia dolerites and Hiltaba-associated metagabbros. Future hydrogen generation depends on suitable conditions and access to water; the study did not quantify present-day generation rates.

Hydrogen detected in all successfully tested samples

Hydrogen was detected in all 28 successfully analysed rock samples by a rock crushing technique which releases gases trapped in fluid inclusions. The highest amount of Hydrogen, 7.72 mmol/kg of rock, was detected from a quartz vein in the Tunkillia Suite. The results are consistent with hydrogen-bearing fluids having circulated through different basement rock units in the past. The timing of circulation is unconstrained and the findings do not demonstrate a present-day free-gas accumulation or indicate the volume of hydrogen potentially recoverable.

CSIRO also identified faults and fracture networks as possible migration pathways. Several of the higher hydrogen measurements occur near intersections of major structures, supporting their inclusion in future target ranking, although a direct link to active hydrogen migration has not been established.

Hydrogen Occurrences and Potential Source Rocks

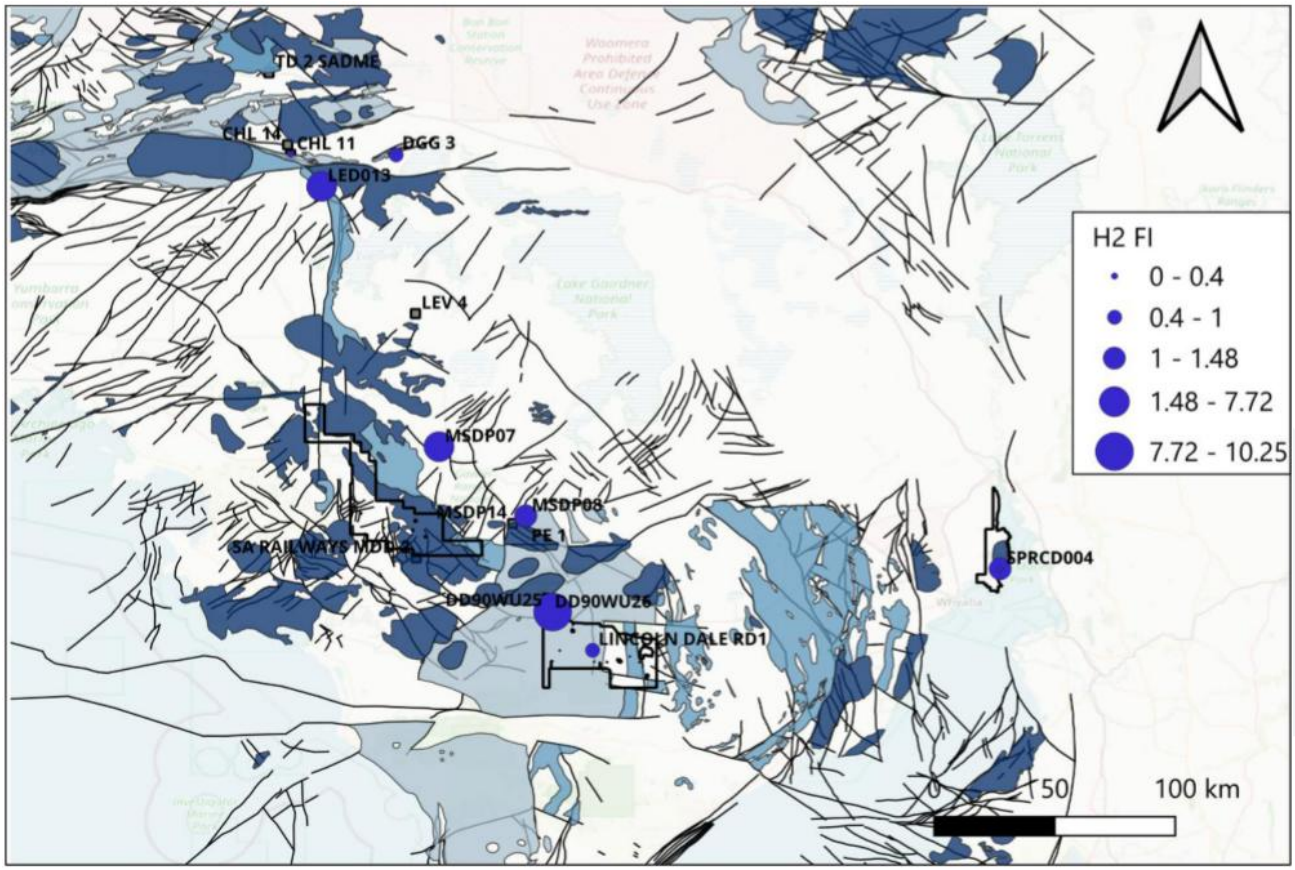


Figure 1: Hydrogen (H_2) content measured in mmol/kg from rock fluid inclusion crushing (dark blue dots) over an interpreted radiolytic hydrogen-generation potential map, with regional faults shown in black. Reproduced from Figure 16 of the October 2026 CSIRO report.

Early Evidence of Potential Hydrogen Sealing Rocks

CSIRO tested one Gawler Range Volcanics rhyolite sample taken from a location where volcanic rocks directly overlie prospective Hiltaba Suite granite. The sample returned connected porosity of approximately 1.2% and very low gas permeability: approximately 0.01–0.04 millidarcies parallel to the rock fabric and no measurable permeability perpendicular to it under the laboratory conditions.

The measurements are encouraging for further investigation of potential sealing configurations. However, they are from a single rock sample and do not establish an effective regional seal. The thickness, continuity and fracture characteristics of volcanic cover need to be assessed across priority locations.

Next Steps – Prioritising Integrated Drilling Targets

Prominence will use the study to refine the ranking of exploration prospects within PEL 803, with an emphasis on identifying areas where favourable potential source rocks coincide with fault or fracture pathways and credible reservoir and seal configurations. Follow-up work under consideration, consistent with CSIRO's recommendations, includes:

1. Further assessment of hydrogen generation potential and the distribution of enriched source rocks.
2. Expanded testing of volcanic cover and other prospective sealing units, together with geological and geophysical review of their extent and integrity.
3. Additional investigation of hydrogen-bearing fluid inclusions and sampling of accessible deeper fluids to distinguish past activity from present-day hydrogen occurrence; and
4. Selection of the highest-ranked integrated target for potential exploration or stratigraphic drilling, subject to technical results, approvals and funding.

Timing	Status	Milestone
Completed to date	**DELIVERED**	Gravity & magnetic interpretation & Eyre Prospective Resources Review
Completed to date	**DELIVERED**	Northern Hinge Prospective Resources Review
October 2026	**BEGUN**	Updated drilling engineering and cost assessment and commence farm-out process
Nov-Dec 2026	**PLANNED**	Detailed design and planning of the 2027 drilling program
Mid-2027	**TARGET**	Commence multi-well helium and natural hydrogen drilling program

Table 1: Near-term catalyst pathway based on the Company's previously announced work program

Technical Qualification and CSIRO Review

The October 2026 report, "Study of the natural hydrogen system(s) in the Eyre Peninsula (PEL 803), SA – Petrography, Fluid Inclusion and soil-gas sampling", was prepared by CSIRO for Prominence Energy under the CSIRO Kick-Start project. The study is an initial prospectivity assessment, not a resource estimate or confirmation of a hydrogen discovery.

Gawler Helium and Natural Hydrogen Project - South Australia

The Eyre and Northern Hinge Projects form part of Prominence's approximately 64,000 km² South Australian helium and natural hydrogen portfolio. The previously reported Eyre 2U unrisked Prospective Resources were 202.8 Bscf hydrogen and 9.2 Bscf helium (ASX release 14 September 2026).

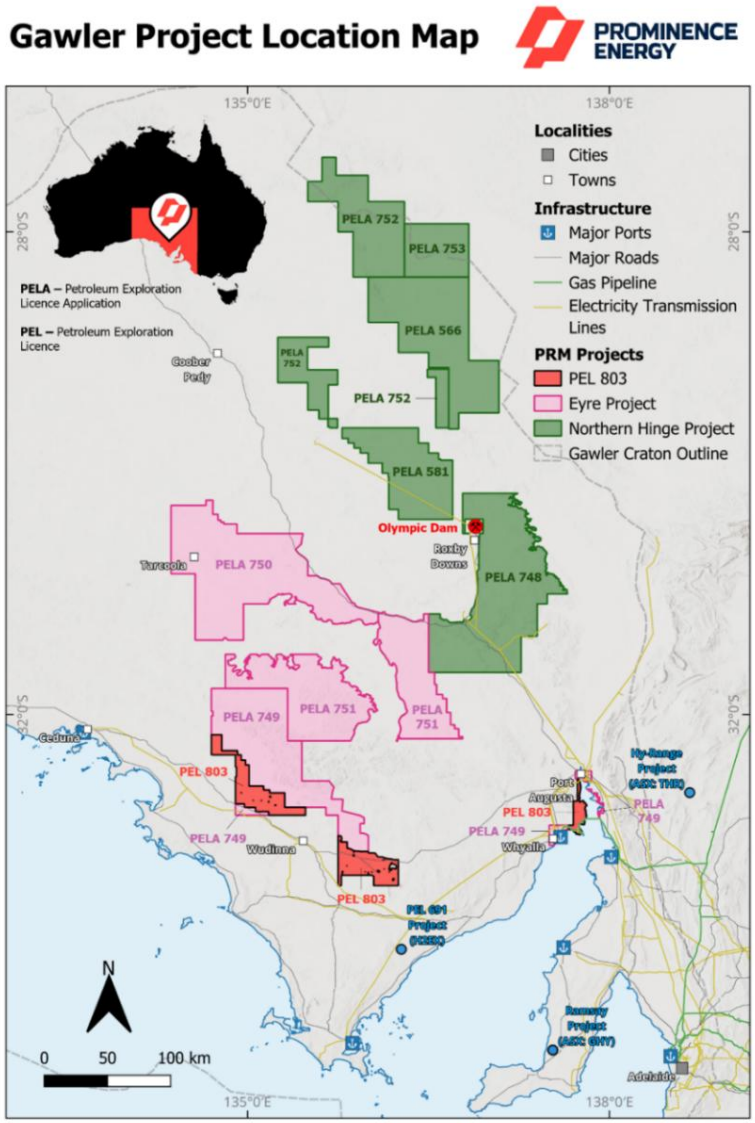


Figure 2: Prominence Energy's South Australian Portfolio

Authorised for release by the Board of Prominence Energy Limited.

About Prominence Energy

Prominence Energy Limited is an ASX-listed energy company headquartered in Perth. PRM's strategy is to identify and secure high upside energy opportunities at an early stage and unlock value through disciplined, science led exploration. The Company's South Australian helium, natural hydrogen and associated natural gas portfolio provides exposure to an emerging exploration play with the potential to deliver significant shareholder value through exploration success.

About Natural Hydrogen

Natural hydrogen (also known as white or geologic hydrogen) is formed from natural processes within the earth and accumulates underground. It can be identified using conventional, low-cost, non-invasive exploration methods and represents a zero-carbon fuel, producing only water vapour when combusted.

About Helium

Helium is a naturally occurring noble gas generated through the radioactive decay of uranium and thorium within ancient crustal rocks, particularly Archean granites. Helium is a high-value, non-renewable resource with essential applications in medical imaging, semiconductor manufacturing, space technologies and cryogenics, and is currently subject to global supply constraints.

Forward-looking Statements

This document may contain certain forward-looking statements which are based on Prominence Energy Limited's expectations, estimates and assumptions as at the date of this document. Forward-looking statements are subject to risks and uncertainties that may cause actual results to differ materially from those expressed or implied. These risks include, but are not limited to, geological and technical uncertainties, operational and regulatory outcomes, environmental conditions and market factors. Forward-looking statements speak only as at the date of this document and Prominence undertakes no obligation to revise or update them to reflect future events or circumstances.