

24 November 2025

ASX Announcement

Ramsay Project Operational Update

Natural Hydrogen and Helium Confirmed in Ramsay 3 Well

Highlights:

- **On the back of the strategic investment from Toyota Motor Corporation, Mitsubishi Gas Chemical and ENEOS Xplora, the Company's 2025 drilling campaign has commenced.**
- **The Ramsay 3 well, located 2.3km from the Ramsay 1 and Ramsay 2 well sites, was spudded on Monday 10 November 2025.**
- **Elevated levels of Natural Hydrogen were confirmed by the SLB DQ1000 gas detector in the Parara Limestone, whilst Helium was similarly confirmed at elevated levels at several depths within the Kulpara Dolomite formation.**
- **The confirmation of Natural Hydrogen and Helium confirms the potential continuity of the Natural Hydrogen and Helium sub-surface systems within the Parara Limestone and Kulpara Dolomite sections of the Ramsay Project.**
- **Multiple samples have been collected for third party laboratory analysis, and gas monitoring and sampling will continue.**

The Directors of Gold Hydrogen Limited (**Gold Hydrogen**, ASX: **GHY**, the **Company**) are pleased to provide a preliminary operational update on the Ramsay 3 well.

Drilling at Ramsay 3 commenced on 10 November 2025, this being the third dedicated Natural Hydrogen and Helium exploration well in Australia, and a follow-up to the successful Ramsay 1 and 2 wells. Over the past week, the surface casing on Ramsay 3 was set at 143m, at the top of the Parara Limestone section. Natural Hydrogen was measured in the mud gas from the commencement of drilling out of the surface casing at a shallow depth of 148m and was also detected in several zones within the Parara Limestone section.

Elevated Helium levels were also noted at several depths within the Kulpara Dolomite formation.

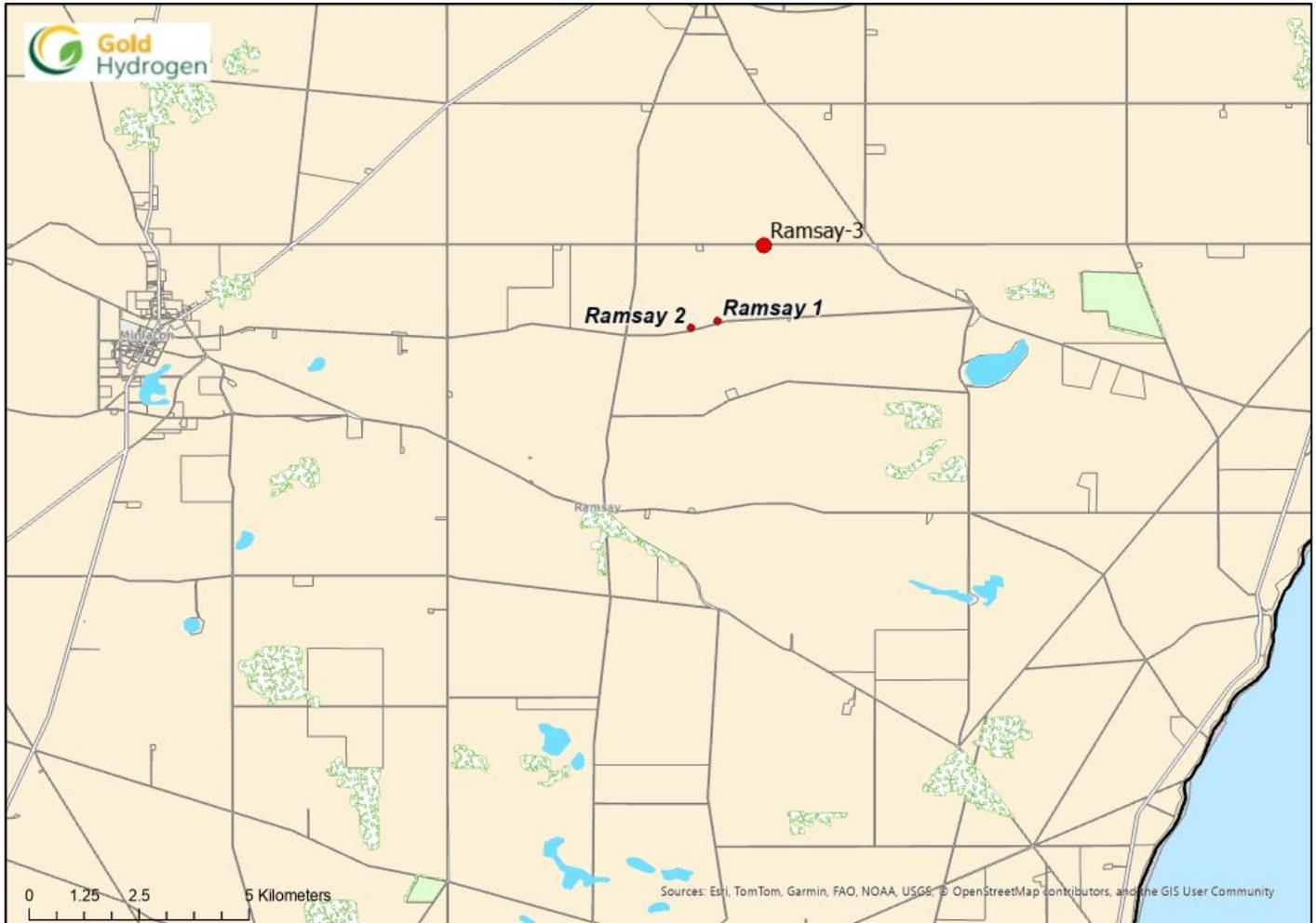


Figure 1: Location of the Ramsay 3 well in relation to the Ramsay 1 and Ramsay 2 wells drilled by the Company in 2023

During the drilling operation, continuous mud gas monitoring has been carried out using SLB's mud logging system (DQ1000 gas chromatograph), and numerous mud gas samples have been collected and sent to Petrolab in Adelaide for testing. Results of the testing will be received over the coming weeks, and once received and interpreted, a further market update will be made. Although the gas shows are preliminary and indicative, Ramsay 3 has confirmed the presence of Natural Hydrogen and Helium in the Yorke Peninsula sub-surface as determined by the Ramsay 1 and 2 wells drilled by the Company in 2023.

Gold Hydrogen Managing Director, Neil McDonald said: *“Confirmation of elevated levels of Natural Hydrogen and Helium at Ramsay 3 is very exciting. This helps demonstrate the potential for the extension of the Natural Hydrogen system previously identified by the Company in the Parara Limestone. This could be instrumental in any future reassessment of the Company’s potential resource base for the Ramsay Project. Further to this, the confirmation of Helium gas shows in the Kulpara Dolomite section of Ramsay 3 is also indicative of the potential for Helium system continuity. This is very exciting due to the world shortage and demand for Helium which is an extremely expensive commodity. We look forward to receiving the laboratory results, and the ongoing testing program.”*

Important Risk Commentary

It is important to note that there remain both geological and potential development risks associated with the Ramsay Project and the Company’s commercial and business objectives. These risks relate to the presence, recovery and potential volumes of both Natural Hydrogen and Helium, but also due to the location of the gas systems within agricultural areas and the proximity to National Parks on both Yorke Peninsula and Kangaroo Island, requiring significant landholder and community engagement. The worldwide, Federal and South Australian Government and industry efforts to secure Hydrogen as an alternative energy source provides confidence that any technical and social concerns may be overcome.

About Gold Hydrogen

Gold Hydrogen is focused on the discovery and development of world class Natural Hydrogen and Helium gases in a potentially extensive province in South Australia. This region had its Natural Hydrogen and Helium potential confirmed by the Company via its maiden 2023 / 24 drilling and well testing campaigns.

The domestic and global demand for Hydrogen and Helium, combined with new exploration techniques and experienced personnel, provides Gold Hydrogen with an extraordinary opportunity to define and ultimately develop a new Natural Hydrogen and Helium gas province.

The combined natural hydrogen permit area of the Gold Hydrogen group is in excess of 75,000km². Gold Hydrogen holds one granted petroleum exploration license (the Ramsay Project - PEL 687) and its two 100% owned subsidiary companies (White Hydrogen Australia and Byrock Resources) hold an additional seven (7) applications for Natural Hydrogen and Helium exploration within South Australia.

The Company’s Prospective Resource Statements are appended as **Tables 1 and 2**.

Gold Hydrogen is also the preferred applicant for four (4) gas storage exploration licenses applications (GSELA) covering an area of 8,107km² within the Yorke Peninsula portion of PEL 687 in South Australia. These storage licence applications are in addition to the granted exploration licence and application licences. A 100% owned Gold Hydrogen subsidiary, Sustainable Minerals Group Pty Ltd, also holds a mineral lease on the Yorke Peninsula potentially prospective for iron-oxide, copper and / or gold mineralisation.

The group's permit areas are characterised by low population densities, cooperative stakeholders and aspects of the natural environment suited to the exploration and development of a future natural hydrogen gas province. Gold Hydrogen places considerable importance on close liaison with landholders, traditional owners and all other stakeholders, and this approach has led to the grant of its key tenement PEL 687 in South Australia. The Company intends to continue to invest in these efforts.



Figure 2: Photo of the drill rig at the Ramsay 3 well



Further Information

Further information on the Gold Hydrogen group, its projects, and its Board and Management can be found on the Company's website (www.goldhydrogen.com.au) together with a copy of the Company's Replacement Prospectus of 29 November 2022.

Gold Hydrogen also has accounts on LinkedIn and Twitter ([@GHY_ASX](https://twitter.com/GHY_ASX)), and copies of market releases will be emailed to all interested parties who register via info@goldhydrogen.com.au

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This announcement has been authorised for release by the Managing Director.

On behalf of the Board
Karl Schlobohm
Company Secretary

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Table 1 – Prospective Resource Statement for Natural Hydrogen

Gold Hydrogen's Ramsay Project: Prospective Resources* of Hydrogen in '000 Tonnes – 30 Sept 2021										
PEL	Prospects	SPE PRMS Sub-class	1U Low Estimate	2U Best Estimate	Mean	3U High Estimate		Pg	Pd	Pc
PEL 687	All Prospects and Leads		207	1,313	4,187	8,820		22%	48%	10%
Yorke Peninsula										
PEL 687	Ramsay FB	Prospect	124	931	2,712	6,989		22%	50%	11%
PEL 687	Ramsay Lst	Prospect	10	70	191	492		26%	50%	13%
PEL 687	Maitland	Lead	7	26	40	92		17%	35%	6%
Kangaroo Island										
PEL 687	Navigator	Lead	34	152	280	678		19%	40%	8%
PEL 687	Kanmantoo	Prospect	32	134	237	569		25%	40%	10%

***This estimate of Natural Hydrogen Prospective Resources must be read in conjunction with the notes in the Company's ASX release of 13 January 2023.**

It should be noted that the estimated quantities of Natural Hydrogen that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration, appraisal and evaluation is required to determine the existence of a significant quantity of potentially recoverable Natural Hydrogen.

Table 2: Prospective Resource Statement for Helium

Gold Hydrogen Prospective Resources* of Helium in Bcf - Ramsay Project (PEL 687 Yorke Peninsula) 21 February 2024										
PEL	Prospects	SPE PRMS Sub-class	Formation	1U Low Estimate	2U Best Estimate	Mean	3U High Estimate	Pg	Pd	Pc
PEL 687	All Prospects		All Formations Total	7	41	96	243	17%	60%	10%
PEL 687	Ramsay Fault Block	Prospect	Kulpara Formation	0.8	3.6	7.0	17.1	29%	60%	17%
			Winulta Formation	0.1	0.6	1.6	4.0	12%	60%	7%
			Fractured Basement	0.7	3.8	6.9	16.7	13%	60%	8%
			Total	2	8	15	38	20%	60%	12%
PEL 687	South of Ramsay Fault Block	Prospect	Kulpara Formation	2.1	12.8	30.5	77.6	23%	60%	14%
			Winulta Formation	0.3	2.4	7.7	19.8	8%	60%	5%
			Fractured Basement Hilbata Suite	1.6	10.3	25.5	65.2	12%	60%	7%
			Fractured Basement Yorke Peninsula Heel	1.4	7.7	17.0	42.7	12%	60%	7%
			Total	5	33	81	205	16%	60%	10%

*This estimate of Helium Prospective Resources must be read in conjunction with the notes in the Company's ASX releases of 21 February 2024 and 30 October 2024.

It should be noted that the estimated quantities of Helium that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration, appraisal and evaluation is required to determine the existence of a significant quantity of potentially recoverable Helium.

Prospective Resource Statements

The Prospective Resource Statements for Natural Hydrogen and for Helium have been included in this announcement under the approval of Mr Billy Hadi Subrata, Chief Technical Officer for Gold Hydrogen, who is a Qualified Petroleum Reserves and Resources Evaluator. Mr Hadi Subrata confirms that, as at the date of this announcement, there are no changes to information or additional information, since the effective dates, that would materially change the estimates of prospective resources quoted.

Forward Looking Statement / Future Performance

This announcement may contain certain forward-looking statements and opinion. Forward-looking statements, including projections, forecasts and estimates, are provided as a general guide only and should not be relied on as an indication or guarantee of future performance and involve known and unknown risks, uncertainties, assumptions, contingencies and other important factors, many of which are outside the control of the Company and which are subject to change without notice and could cause the actual results, performance or achievements of the Company to be materially different from the future results, performance or achievements expressed or implied by such statements. Past performance is not necessarily a guide to future performance and no representation or warranty is made as to the likelihood of achievement or reasonableness of any forward-looking statements or other forecast. Nothing contained in this announcement, nor any information made available to you is, or and shall be relied upon as, a promise, representation, warranty or guarantee as to the past, present or the future performance of Gold Hydrogen Limited.