



6 April 2023

Jesse-2 Approaches Reservoir - Third Jesse Drill Permit Approved

- Drilling on schedule with reservoir penetration anticipated next week
- Multiple helium shows in intermediate section indicative of working helium system.
- Third Jesse drill permit approved allowing for Jesse-2 success case follow-on development well
- Management currently onsite at Jesse-2

Grand Gulf Energy Ltd (ASX:GGE) ("Grand Gulf" or the "Company") is pleased to advise that drilling operations at the high impact pure helium well, Jesse-2, in SE Utah are proceeding on schedule and the Company has received approval for a third Jesse drill permit.

Jesse-2 Drilling on Schedule

Jesse-2 is currently drilling ahead in the 8.75 inch intermediate hole section in the Paradox Formation (salt seal) and is anticipated to penetrate the top of the target Leadville formation next week. The rig will then set 7 inch casing in the top of the Leadville formation ahead of drilling and testing the upper and middle Leadville Formation.



Figure 1: Aztec 1099 drilling rig at the Jesse-2 well site in SE Utah







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Multiple Helium Shows

Compositional analysis of mud gas returns has identified multiple zones above and within the salt seal with helium concentrations significantly above background levels¹, including a maximum measured helium concentration of approximately 71 times background. Whilst these zones do not currently represent commercial targets, the helium concentrations observed are qualitative evidence of a working helium system, and a positive indication for the primary Leadville reservoir target.

Third Jesse Drill Permit Approved

The Company has received approval of the Permit to Drill from the Utah Division of Oil, Gas and Mining (UDOGM) for a third Jesse drill location at the Red Helium project. The permit allows for a potential follow-on development well in a Jesse-2 success case.

Jesse-2 Management Site Visit

Grand Gulf management are currently on-site at Jesse-2, - a brief onsite interview can be viewed on the company website: www.grandgulfenergy.com/jesse-2-management-site-visit/

This ASX announcement has been authorised for release by the Board of Grand Gulf Energy Ltd.

For more information about Grand Gulf Energy and its projects, contact:

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About Grand Gulf Energy:

Grand Gulf Energy Ltd (ASX:GGE) is an independent exploration and production company, headquartered in Australia, with operations and exploration in North America. The Red Helium project is a pure-play helium exploration project, located in the Paradox Basin, Utah, in the prolific Four Corners region. For further information please visit the Company's website at www.grandgulfenergy.com





¹ ASX Announcement 2 April 2023 - Multiple Helium Shows as Jesse-2 Approaches Reservoir





Competent Person's Statement:

The information in this report is based on information compiled or reviewed by Mr Keith Martens, Technical Director of Grand Gulf. Mr Martens is a qualified oil and gas geologist/geophysicist with over 45 years of Australian, North American, and other international executive oil and gas experience in both onshore and offshore environments. He has extensive experience of oil and gas exploration, appraisal, strategy development and reserve/resource estimation. Mr Martens has a BSc. (Dual Major) in geology and geophysics from The University of British Columbia, Vancouver, Canada.

Forward Looking Statements:

This release may contain forward-looking statements. These statements relate to the Company's expectations, beliefs, intentions or strategies regarding the future. These statements can be identified by the use of words like "anticipate", "believe", "intend", "estimate", "expect", "may", "plan", "project", "will", "should", "seek" and similar words or expressions containing same. These forward-looking statements reflect the Company's views and assumptions with respect to future events as of the date of this release and are subject to a variety of unpredictable risks, uncertainties, and other unknowns. Actual and future results and trends could differ materially from those set forth in such statements due to various factors, many of which are beyond our ability to control or predict. These include, but are not limited to, risks or uncertainties associated with the discovery and development of oil, natural gas and helium reserves, cash flows and liquidity, business and financial strategy, budget, projections and operating results, oil and natural gas prices, amount, nature and timing of capital expenditures, including future development costs, availability and terms of capital and general economic and business conditions. Given these uncertainties, no one should place undue reliance on any forward-looking statements attributable to GGE, or any of its affiliates or persons acting on its behalf. Although every effort has been made to ensure this release sets forth a fair and accurate view, we do not undertake any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.









About the Red Helium Project:

The Red Helium Project provides exposure to the burgeoning helium industry in a prolific proven helium-producing region, the Four Corners Area, that comprises:

- 250,713 acre area of mutual interest (AMI) with over 29,000 acres (private leases/Utah state leases) leased
 in drill-friendly Utah in the heart of the most prolific helium-producing region in the world;
- Geologically analogous to Doe Canyon Field. Doe Canyon is situated 15 miles due east of the Red Helium project, and is currently producing approximately 10,700,000 cubic feet of helium per month, the bulk of which comes from only 7 wells. Air Products (market cap US\$68b) is processing the helium, and it is anticipated that Doe Canyon will ultimately produce 3-5 billion cubic feet of helium. With additional drilling, this resource figure could increase;
- 315 kms of well-placed 2D seismic has been acquired and reprocessed identifying multiple drill targets and confirming a structural trap 4-5 times larger than the Doe Canyon Field;
- Six historic wells exclusively targeting hydrocarbons were drilled within the project AMI, proving trap, seal, reservoir presence and gas charge and a working helium system, to differing degrees within each prospect. Several wells tested non-flammable gas, the only two analysed for helium confirmed helium presence; and
- 20 miles south of and connected by pipeline to the operational Lisbon Helium Plant (99.9995% purity).

Key milestones in the Red Helium Project:

- Maiden prospective gross project unrisked P50 helium resource of 10.9 billion cubic feet of helium;
- Jesse discovery (Jesse-1A), generally exceeding pre-drill expectation and highlights including:
 - o over 200 feet of gross gas column, and 101 feet of net pay (Independently Audited);
 - Helium grade of up to 1%. An analogous Doe Canyon well at 1% helium and a raw gas rate of 20 million cubic feet per day would produce 200 thousand cubic feet of helium per day; and
 - Productive, well pressured reservoir at 2465 psi on trend with neighbouring Doe Canyon virgin pressure.
- Helium Offtake Agreement with Paradox Resources LLC, a helium refiner and seller owner with extensive helium market experience and connections, and operator of the advanced Lisbon Valley helium plant;
- Strategic Alliance to expand on the Offtake terms and exploit the corporate synergies with Paradox;
- Increased Working Interest in the Red Helium Project to 70% with a right to earn 85%.

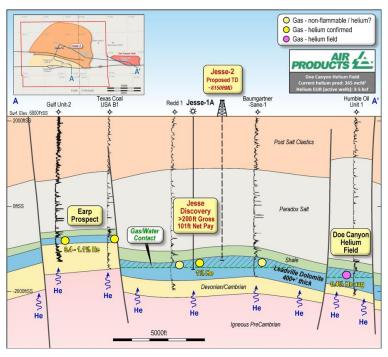


Figure 2: Stylised schematic showing Jesse-2 location exclusively targeting the gas pay zone









Helium Offtake Agreement ("Offtake"):

Offtake executed with helium refiner and seller Paradox Resources LLC ("**Paradox**") with industry standard 80/20 revenue sharing / allowing near immediate monetisation of a success case well to monetized with minimal time and Capex². The Red Helium project is 20 miles south of and connected by pipeline to the operational Lisbon Helium Plant.

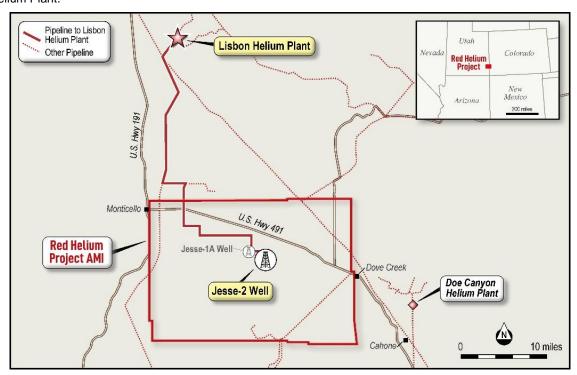


Figure 3: Jesse-2 location in the Red Helium project AMI with local pipelines / gas transport route to the Lisbon Helium

Strategic Alliance

Grand Gulf entered into a Strategic Alliance ("Alliance") with helium refiner and seller Paradox designed to fast-track and optimise the significant commercial opportunities that exist in the current buoyant helium market³. The Alliance is structured to explore mutually commercially advantageous revenue sharing arrangement on such key items as:

- Optimize and prioritize near-term exposure to the burgeoning helium market
- Red Helium Project to be a potential priority supplier to re-start the Paradox liquefier capable of producing high purity 99.9995% helium ("5 ½ Nines") - which attracts premium pricing, currently over US\$2,000/mcf
- Collaborative downstream marketing targeting end users of high-purity helium such as semi-conductor manufacturers and the space industry
- Expansion of the terms of the recently executed Offtake agreement to include future wells
- Progress identified CO₂ disposal options with revenue generating potential:
 - Expansion of existing carbon sequestration activities at Paradox's Lisbon Plant to include CO₂ from the Red Helium Project potentially revenue-generating under Section 45Q of the US Tax Code; and
 - Joint investigation into utilization of Red Helium Project CO₂ for enhanced oil recovery (flooding) from Paradox's Lisbon Oil Field
- Potential synergistic commercial benefits in assessing corporate opportunities that involve both Paradox assets and the Red Helium Project







² ASX Announcement 9 January 2023 – Helium Offtake Agreement Secured for Jesse-2

³ ASX Announcement 11 April 2022 - Strategic Alliance with Helium Offtake Partner







Figure 4: Paradox "5.5 Nines" Resources Lisbon Valley Gas Processing Plant.

Maiden Prospective Helium Resource

On 8 December 2021 the Company announced that Sproule had completed the maiden Prospective Resource Report for the Red Helium Project located in the Paradox Basin, Utah USA.

Sproule has confirmed a P50 10.9 billion cubic feet (BCF) Prospective Resource over gross leased acreage and P50 of 7.4 BCF on a net acre basis to Valence. The Sproule Prospective Resource calculation is based on the current acres held by incorporated joint venture company at 8 December 2021.

The Company plans a resource update based on the data gained from Jesse-1A and future wells.

Valence Prospective Resources⁴

Recoverable Helium	1U (P90) (BCF)	2U (P50) (BCF)	3U (P10) (BCF)
Gross to Valence - (28,046 gross acres)	7.6	10.9	12.9
Net to Valence - (18,959 net acres)	5.2	7.4	8.5
Net to GGE - (earning 85% of net Valence)	4.4	6.3	7.2
Red Project Total	7.9	20.8	57.6

The estimated quantities of helium that may potentially be recovered by the application of a future development project relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration appraisal is required to determine the existence of a significant quantity of potentially moveable helium.

GGE now has a 70% interest in Valence with a right to secure a further 15% interest (total of 85%) on the following terms:

Earning 85% of Valence Resources	Max Commitment Spend	Cumulative Interest
Current Working Interest		70%
Drilling second well	US\$1.5M	77.5%
Drilling third well	US\$1.5M	85%

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⁴ Sproule as announced on ASX on 8 December 2021. The Company is not aware of any new information or data that materially affects the information included in the referenced ASX announcement and confirms that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.