



10 October 2023

## Leading North American Helium Drilling, Completion, Stimulation and Engineering Consultancy Group Appointed

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- Leading North American upstream oil and gas consultancy Walsh Engineering LLC (Walsh) to assist with the Jesse development programme
  - Walsh have managed multiple successful helium projects in the Four corners area including the prolific Tocito Dome helium field
  - Walsh is advanced in reviewing the Jesse-1A completion and Jesse-3 new drill well plans
  - Good short-term availability of rigs in the area – bids received from multiple drilling contractors
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Grand Gulf Energy Ltd (ASX:GGE) (“Grand Gulf” or the “Company”) is pleased to announce that it has engaged Walsh Engineering LLC (Walsh, Walsh Engineering) to provide drilling, completion, stimulation, engineering and wellsite management support for its forthcoming Jesse development programme.

Walsh are located out of Farmington, New Mexico and with over 50 years operating oil, gas and helium assets in the Four Corners area. Walsh have the requisite in-depth knowledge and relevant experience in drilling, completing and testing helium wells in the precise area of the Paradox Basin where the Red Helium Project is located, and have access to an extensive network of contractors both local and over greater North America.

Walsh has completed a review of the Jesse-1A completion and Jesse-3 new drill well plans incorporating a case, cement and perforate (C&P) methodology allowing for zonal isolation, including isolation of any water bearing zones. The zonal isolation allows for individually focussed and optimized stimulation programs for all encountered helium bearing formations to be tested independently.

Similarly, the zonal isolation permits drilling deeper to interrogate highly prospective formations such as the Devonian McCracken Sandstone, a prolific helium producing formation in the region including Tocito Dome, and the pre-Cambrian granite wash, whilst completing and testing the primary Leadville Mississippian dolomite target.



GGE has also received bids from multiple drilling contractors for the forthcoming programme, all of which have indicated rig availability in the coming months, and continues to mature the Jesse development programme including:

- Jesse-3 new-drill targeting a structural high on seismic and proximal to the historic Redd-1 with proven gas/reservoir. The company currently has two drillable permits, one on the Jesse structure and one in the horstal region, with the preferred Jesse-3 location subject to permitting. Utah Division of Oil gas and Mining (UDOGM) have indicated the permit is advanced in the approval process and delivery can potentially be expedited through standard processes after signing a rig contract.
- Jesse-1A completion and testing programme planned to enable future production tie-in for a modest cost.
- Ongoing evaluation of stimulation/remediation and full flow-testing options for Jesse-2.
- Evaluation of a 3D seismic programme at the Red Helium project to accelerate a full-field Jesse development which could exceed 20 wells based on the giant Doe Canyon helium field analogue sharing the same geology 15 miles to the east.

### About Walsh Engineering

Over the last decade, the Walsh Engineering & Production team has brought their 50 years of experience in the oil & gas operations to the helium exploration and production business. Having emerging Helium plays starting up through-out the “Four Corners” was a natural fit with skill set that Walsh Engineering provides.

From planning new drills to utilizing existing wellbores for re-entries, the Walsh team has been busy assisting various companies that have entered this new and exciting opportunity. The Navajo Nation is home to some of the largest Helium reserves in the United States and having the Navajo Nation Oil & Gas company as an existing client allowed us to step into the helium world by successfully re-entering a well that had been previously Plugged and Abandoned (P&A'd) on tribal lands. This was followed up by many other projects from Sanders, Arizona to Price, Utah with the most prolific being the re-purposing of the Tocito Dome area by Tacitus (now Navajo Transitional Energy Corporation - NTEC).

Walsh Engineering can execute any aspect of upstream operations and specializes in “cradle to grave” projects. We provide permitting, well planning and engineering, drilling and completion operations, contract pumping, production operations, regulatory compliance, oil and gas accounting and land services. We bring focused, personal attention to each of our clients regardless of project scope or size.



**Managing Director Dane Lance commented:**

*“The Company is thrilled to announce engaging Walsh Engineering to support the Red Helium Project. Walsh bring a wealth of knowledge and experience to the team having successfully drilled and completed a multitude of analogous helium wells in Four Corners area in geologically analogous formations with a history of successful completion, stimulation and testing programmes including at the prolific Tocito Dome helium field.*

*Walsh’s hands-on local knowledge is a major step towards implementing a large-scale drilling programme, and their local knowledge and contractor network will be instrumental in delivering a successful Jesse flow test.”*

*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 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 25,000 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 Lisbon Helium Plant (99.9995% purity).
- A booming commodity with US Spot price for premium helium exceeding US\$2000/mcf

Key milestones in the Red Helium Project:

- Prospective gross project un-risked P50 helium resource of 12.7<sup>1</sup> billion cubic feet of helium;
- Jesse discovery (Jesse-1A), generally exceeding pre-drill expectation and highlights including:
  - 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 77.5% with a right to earn 85%.

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<sup>1</sup> As announced on ASX on 8 December 2021 (Sproule Leadville) and 22 June 2023 (McCracken). 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.

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.

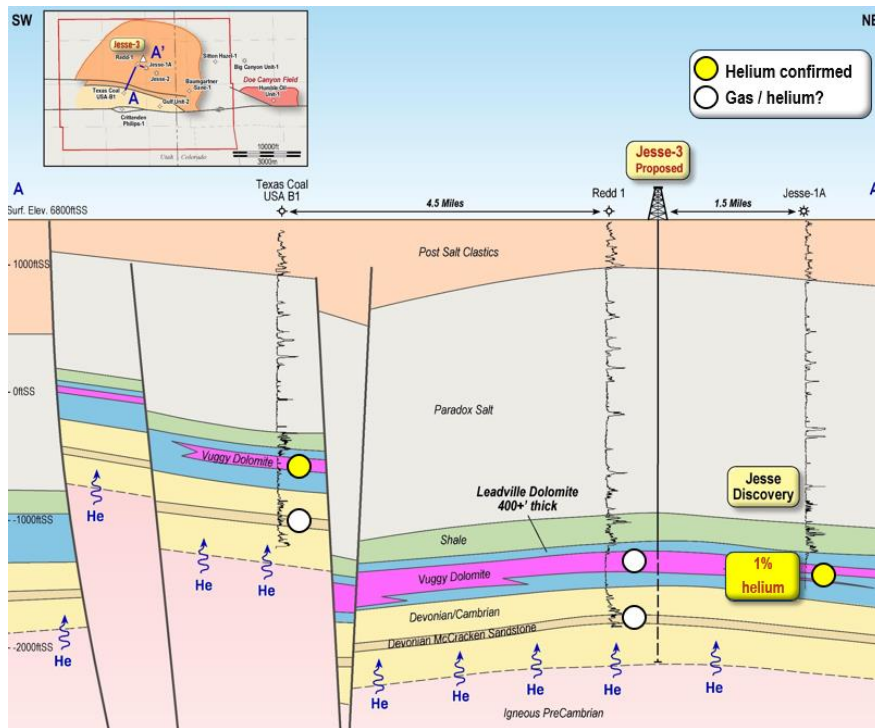


Figure 1: Jesse-3 well location targets a structural high proximal to the historic Redd-1 well with proven gas confirmed by the Jesse-1A discovery well

**Helium Offtake Agreement (“Oftake”):**

Oftake 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 Capex<sup>2</sup>. The Red Helium project is 20 miles south of and connected by pipeline to the Lisbon Helium Plant.

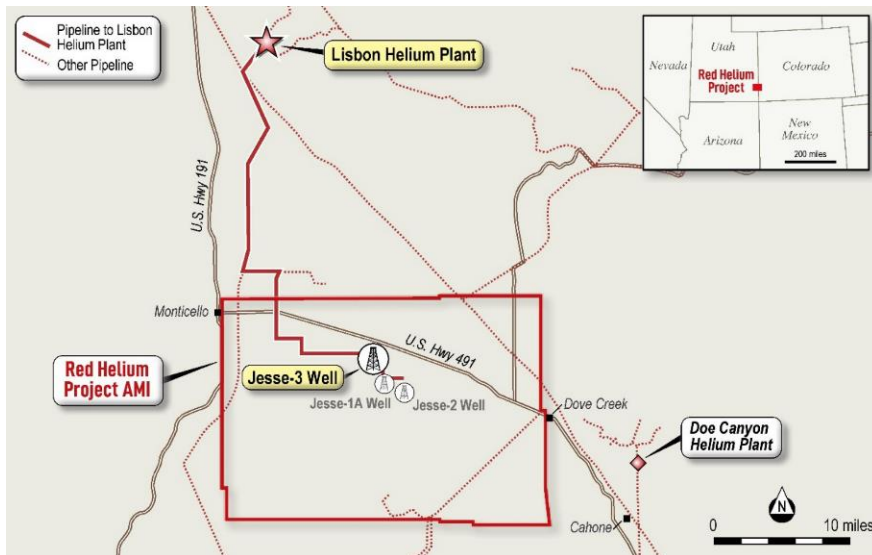


Figure 2: Jesse-1A and Jesse-3 locations in the Red Helium project AMI with local pipelines / gas transport route to the Lisbon Helium Plant.

<sup>2</sup> ASX Announcement 9 January 2023 - Helium Offtake Agreement Secured for Jesse-2







Figure 3: Paradox “5.5 Nines” Resources Lisbon Valley Gas Processing Plant.

#### 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 represents a strategic pivot to a pure-play helium exploration project, located in Paradox Basin, Utah, in the prolific Four Corners region. For further information please visit the Company’s website at [www.grandgulfeenergy.com](http://www.grandgulfeenergy.com)

#### Cautionary Statement for Prospective Resource Estimates

With respect to the Prospective Resource estimates contained within this report, it should be noted that the estimated quantities of gas that may potentially be recovered by the future application of a development project relate to undiscovered accumulations. These estimates have an associated risk of discovery and risk of development. Further exploration and appraisal is required to determine the existence of a significant quantity of potentially moveable helium

#### 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.

