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ASX RELEASE

EP127 Work Programme & New Energy Opportunities

Global Oil & Gas Limited ("Global" or "the Company") is pleased to update shareholders on the work programme continuing over its 100% owned Exploration Permit 127 in the Northern Territory, along with a Company update on complimentary energy opportunities.

New Project Opportunities

Consistent with its ongoing strategy of continually reviewing new opportunities across the hydrogen, helium and conventional oil and gas sector, the Company has been undertaking advanced due diligence on several complimentary projects.

The Company believes diversifying into the clean technology sector is an economic, social and environmental obligation for all conventional oil and gas companies, which over recent years has brought world-class research and innovation into the sector. Like many up and coming industries, first mover advantage is always critical.

The Company will update shareholders once due diligence is complete and negotiations progress to an advanced stage.

EP127 Work Programme

In November 2021 GLV undertook a Helium and Hydrogen soil sampling survey across the license. A remote spectroscopy study was completed in June 2021, this data was reviewed and has been used to plan the next phase of field activities which include:

- Increase of the field gas sampling density, and refinement of the sampling methodology
- Investigation of water bore gasses
- Further desktop studies, including:
 - Seismic interpretation (refer to Figure 1)
 - Geological appraisal to refine play concept
 - Definition of energy needs in the area, including mining and community
 - Definition of cultural areas of significance in the area
- Consulting relevant stakeholders in the field area

The above planned activities will be used to define a clear area for further exploration activities.



Soil Gas Sampling

The aim of further soil gas sampling would be to prove the migration pathway from the relatively shallow basement via faults. Data collected in the previous campaign has been used to plan sampling grids. The grid will likely consist of a sample points every over an area near the MacIntyre-1 and -2 well head locations. A courser grid would be used around the well locations.



Figure 1-Current EP 127 permit with seismic and wells overlayed

Sampling Water Wells

The Company is currently assessing an additional method of non-invasive helium exploration by testing the regional water wells for helium concentration. This option requires further investigation to determine whether the option is viable option on existing wells or whether drilling new water wells would be required.

Drilling water wells has been proved as successful by Blue Star Helium (ASX:BNL) in Colorado. See BNL's announcement on the 20th of October 2021.





Figure 2- EP 127 Water bore locations

Future potential exploration activities being assessed include acquiring 2D seismic in 2023 and drilling an exploration well in 2024. This work is to specifically explore for a helium discovery in EP 127 and any hydrocarbons discovered simultaneously with helium.

The Company is in the process of obtaining all the required regulatory approvals, along with engaging with key contractors. An updated timing of works will be provided once more clarity on the above has been determined.

Authorised by the Board of Global Oil & Gas Limited

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Helium & Hydrogen Remote Spectroscopy Study

The multispectral remote spectroscopy study was previously undertaken by remote sensing specialists Dirt Exploration in June 2021. The study provides heat map data for Helium, Hydrogen, and Methane indicators across the licence area. Mt Kitty, a proximate known Helium source, was used to reference the spectroscopy data. The survey also displays a correlation between the indicators and known subsurface faults and their orientations. As faults are known migration pathways for the target gasses from underlying traps to the surface.

Figure 3 below shows the helium and hydrogen reflectance data with distinct areas of high reflectance (identified in blue). A number of target locations have been identified and will be tested in the field using portable helium gas detection on both soil gas samples, and gas present above faults.



Figure 3 – Helium & Hydrogen Relectance Data



EP127 Helium Potential

The Company has previously reviewed the potential for the permit to contain the required elements to yield significant helium accumulations and is encouraged that the permit contains the key elements for the accumulation of helium.

Most significantly the area covered by EP127 shares these elements with the Amadeus Basin immediately south where high levels of helium have been tested. The geologic elements map below shows the Southern Georgina Basin and the adjacent Amadeus Basin separated by the Arunta Region.



Figure 4: EP127 in relation to the Amadeus Basin

To date well penetrations and oil and gas shows in the Southern Georgina Basin (EP127) have mostly been confined to the Cambrian Petroleum System. No analysis of natural gas for helium has been undertaken to determine if a Cambrian Helium System exists. Like the petroleum and helium system in the Amadeus basin, the Cambrian in the Southern Georgina Basin contains evaporite and shale members with the capacity to seal helium accumulations.

The Southern Georgina Basin (EP127) has a mostly untested Neoproterozoic section, equivalent to the Neoproterozoic petroleum and helium systems seen in the Amadeus Basin.



In the Amadeus basin helium rich gas (He \sim 6%) was discovered in the Heavitree quartzite which overlies fractured Proterozoic basement. The Gillen evaporites and shales that overly the Heavitree quartzite provide the top-seal. The concentrations seen in the Amadeus Basin are some of the highest concentrations of naturally occurring helium identified in the world to date. The uniquely high concentration of helium in some wells in the Amadeus Basin suggests that helium extraction independent of natural gas extraction may be feasible (Waltenberg, 2015). Similar units are proposed in the Southern Georgina basin since the Georgina and Amadeus basins were part of the same Centralian Superbasin from Neoproterozoic to Early Cambrian.

In addition to the presumed basement helium source in the Amadeus basin, the Southern Georgina basin contains a number of 'hot shales' in the Cambrian, where the radioactive decay of uranium and thorium in the sedimentary sequences could have generated the helium.

About Helium

Helium is a high value specialty gas with unique chemical and physical qualities and is considered a strategic element. The helium market is currently undersupplied, and prices are on average in the US (which serves as a "defacto" for crude helium pricing) is 100 times that of natural gas. Helium is a vital element in the manufacture of MRIs and semiconductors and is critical for fibre optic cable manufacturing, hard disc manufacture and cooling, space exploration, rocketry, lifting and high-level science. Most of the world's reserves have been derived as a by-product of the extraction of natural hydrocarbon gas.

Australia produces around 3% of the world's supply of helium and uses approximately the same amount. Australia's helium is processed in Darwin at the BOC helium plant to A Grade liquid helium (LHe) at >99.995% He. The helium is sourced from the Undan-Bayu gasfield offshore where helium is 0.1-0.3% of the raw feed gas to the LNG plant. The field is in decline and the opportunity is to replace the helium supply. Any helium gas produced from EP127 could be transported by road and/or rail to the Darwin BOC helium plant for further purification onward distribution overseas.