

### **ASX Announcement**

April 13, 2023

## **OUTSTANDING EXPLORATION SUCCESS**

# Canyon-2 Intersects 293m of Gas and Liquid Hydrocarbon Shows

- Canyon-2 intersected 293m of gas shows within the Kianga Formation and upper Back Creek Group.
- Canyon-2 intersections correlate with historical discoveries including Tasmania 1. These discoveries are an extension of the plays currently being appraised by Shell.
- Associated liquid hydrocarbons present in the Kianga Formation and upper Back Creek.
- Evidence of overpressure encountered while drilling through the Back Creek Group.
- Kianga Formation is 221m thick, all of which is gas charged.
- Drilling phase of Canyon-2 currently tracking ahead of schedule. Rig preparing to run wireline logs prior to casing and suspending the well for future completion and flow testing.

#### Summary

The Canyon-2 well was spudded on 19<sup>th</sup> March 2023. Since the last report, the well has reached a total depth of 3807 m MDRT (Measured Depth Rotary Table), drilling through the Kianga Formation and the upper Back Creek Group. The rig is pulling out of hole to run wireline logs. The results to date are extremely positive and have exceeded expectations. As such, a decision to install the 4 ½ inch (114 mm) production casing to total depth (TD) has been made. The well will be suspended for completion before hydraulic stimulation and flow testing during the next phase. Omega will be applying the data from the well and will utilise existing completion and production data from surrounding wells to inform the design of the stimulation program and enhance chances of success.

The Kianga Formation is the primary target of the current exploration program and was intersected at 3367m. Gas while drilling was recorded over the entire 221m interval of the Kianga Formation.

Encouraging gas shows continued into the upper Back Creek Group, therefore a decision was made to deepen the TD of the well to drill through the upper Back Creek Group. The upper Back Creek is a potential additional reservoir, with significant gas peaks being recorded while drilling over an interval of 72m. The upper Back Creek Group was intersected at a depth of 3588m.



Even though the well TD was extended, Canyon-2 was drilled ahead of schedule.

Canyon-2 confirms the continuation of the Kianga and upper Back Creek Basin-Centred Gas play from Shell's Tasmania-1 gas discovery well. This is shown by the presence of gas bearing sandstones and coals through the Kianga Formation and upper Back Creek. Canyon-2 is also a continuation of the oil discovery well, Cabawin-1, which was cased, completed and put on production from the upper part of the Kianga Formation in the 1960s (refer Cabawin Field, Figure 1).

#### **Omega's Managing Director Lauren Bennett commented:**

"We are very excited with these results, and they are an excellent start to our Basin-Centred Gas drilling campaign. Our pre-drill expectations for this phase were met and exceeded. In fact, preliminary analysis of the data would indicate that we have intersected a thicker gas column than initially forecast. We hope to confirm this with the results of the open hole logs.

"The Omega team has executed its plan for the Canyon-2 well effectively and safely, adding to our knowledge of the play and placing Omega in a position to advance its project with this new data point that will also be cased and tested in the near future.

"The strong presence of gas over the sandstones and coals of the Kianga Formation and the upper Back Creek Group is very encouraging, and the success of the well results now means the company will push forward with casing, completing and testing the well.

"Given the forecast gas supply shortages, finding and developing new sources of unencumbered gas is critical. Omega's proximity to well established QLD gas infrastructure and the clear requirement for more gas in the major population centres to feed industry, places Omega in a favourable position to build on this exploration success and the company looks forward to further de-risking a potential 3-TCF\* of prospective gas resource."





Figure 1 Well Locations on Top Kianga Depth Structure (metres subsea) (post the drilling of Canyon-2)



#### 1. Operational Update

The well reached a total depth of 3807m on the 11th of April. At the time of the release of this announcement open hole logs were being acquired. There are three logging runs planned for this well, and at the completion of the logging the well will be cased and cemented for future completion.

It is anticipated the rig will commence mobilising to Canyon-1 as early as the 17th of April.

#### 2. Kianga Formation and Back Creek Group

Seismic is a principal tool to map out the distribution, thickness and character (such as coal signature) of the geologic formations. Figure 2 shows the interpretation of the seismic packages of the Kianga Formation and the upper Back Creek Group sandstone and coal interval.

This line and the interpretation of the geological horizons demonstrate the connection between Canyon-2 and Tasmania-1 at the Permian Kianga and Back Creek reservoir levels. These large gas shows are not within a structural closure and are instead a Basin-Centred Gas play. Hydrocarbons have been generated from the organic material of the Kianga Formation (coals mainly) and the very thick Back Creek Group (marine sediments mainly and coals). The formations are collectively self-charged by hydrocarbons in a near basin-wide trap. The formations are usually greater than 2500m deep, (over 3300m deep at Canyon-2). The target reservoirs are characterised by low permeability sandstones, lesser siltstones and about 4% coal and overpressure (pressure above a normal water gradient).



Figure 2: Seismic line through Canyon-2 and Tasmania-1, Proposed Canyon-1 is projected



The prognosed reservoir section in proposed Canyon-1 is expected to be similar to that seen in Tasmania-1. Thicker and deeper reservoir sections are predicted in Canyon-1 than were intersected in Canyon-2 and for this reason, Canyon-1 is not programmed to intersect the full upper Back Creek reservoir section at this time.

Estimates of potential resource size are not yet defined, with the formation evaluation program still in progress. Gas chromatograph compositions recorded show a high concentration of methane in the upper Kianga gas column which shows increasing gas wetness (liquid hydrocarbons) deeper in the column. Over a 30m interval hydrocarbon shows of up to 50% fluorescence and cut were recorded, indicating the presence of at least some liquid hydrocarbons.

The formations are over-pressured as expected, though probably to a greater extent than predicted. Evidence for the over-pressure encountered at Canyon-2 has been the need to raise mud weight significantly to reduce the occurrence of reservoir fluid swabbed in when making connections of new drill pipe.

The deep coal play has not been tested in the Bowen Basin at these depths. It is prospective and contains both adsorbed gas, as in coal seam gas, and gas in porosity similarly to sandstone. The industry has had some success in Cooper Basin where coals are interbedded within conventional sandstone gas fields.





Figure 3: Canyon-2 ROP, Interpreted Lithology, Total Gas (in units)

#### 3. Forward Plan

Finalise running wireline logs and case and suspend the well for future completion, hydraulic stimulation and production testing.

Once the casing is cemented in place in Canyon-2, the rig will relocate to Canyon-1. The Canyon-1 well location has been chosen in an area between Canyon-2 and Tasmania-1, with a target of encountering the same gas-charged Kianga and upper Back Creek section (in part) where they are



predicted to be slightly thicker and deeper than at Canyon-2. It is expected that Canyon-1 will complete drilling towards the end of May.

We are targeting an update to our resource size on the basis of this success in the near future.

This release has been authorised on behalf of the Omega Board by Ms Lauren Bennett, Managing Director.

For further information contact:

Lauren Bennett Managing Director Phone +61 2 9199 9625 Lauren.bennett@omegaoilandgas.com.au

#### \* Listing Rule 5.42 Disclosure

The Prospective Resources reported in this ASX Announcement have been independently reviewed and verified by Fluid Energy Consultants and were first reported in Omega's Prospectus dated 5 September 2022. The Prospectus can be found online via <u>https://omegaoilandgas.com.au/wp-content/uploads/2022/09/220905-Omega-Replacement-Prospectus-FINAL-with-attachments.pdf</u>. The estimates in the Independent Expert Report provided by Mr Doug Barrenger were prepared in accordance with the definitions and guidelines outlined in the 2018 SPE Petroleum and Resource Management System (PRMS), using deterministic methodology.

Doug Barrenger received a BSc degree (geology) from the Australian National University. He has more than 40 years of experience in the petroleum industry. He has worked on all Australian petroleum basins, including Coal Seam Gas and Shale Gas and has written numerous Independent Expert Reports, Resource Reports and Acreage and Resource Valuations. He is a founding partner of Fluid Energy Consultants (2013). He is a member of the Society of Petroleum Engineers (SPE).