

Alameda-1: Significant oil reservoir interpreted in N Structure

Highlights

- **Approximately 100 mMD (88 mTVD)¹ of net hydrocarbon pay in aggregate interpreted on logs across a gross reservoir interval of approximately 560 mMD (495 mTVD) in the N Structure**
- **Logging shows extensive natural fracturing, an important production characteristic for a limestone reservoir of this type and one that could lead to an upgrade of the net pay estimate as the characteristics of the reservoir become better understood**
- **High down hole pressures encountered lend confidence to reservoir being adequately charged to support unassisted oil recovery**
- **Results of flow testing (expected to commence about mid March) an important data point for determining the reservoir's production characteristics**
- **Drilling of the remaining and largest primary target, the Alameda structure, is on track to commence by week's end**

SYDNEY, AUSTRALIA (24 FEBRUARY 2022)

Melbana Energy Limited (ASX: MAY) (**Melbana**) is pleased to provide this update on its drilling operations in its Block 9 contract area onshore Cuba.

After reviewing the logging data acquired recently across the N interval, commencing at a depth of 2,878 mMD (2,791 mTVD), the preliminary assessment is that this interval contains net hydrocarbon pay of about 100 mMD (88 mTVD) in aggregate across a gross reservoir interval of about 560 mMD (495 mTVD). This is in addition to the previously reported interpreted net pay in the shallower Amistad structure.

The recovery characteristics of this reservoir interval will be better understood once initial flow testing work is done. This is planned to take place immediately following the completion of drilling at Alameda-1, expected to be in about two weeks (depending on drilling conditions). The following factors raise expectations for the commercial recovery of the oil encountered in the N Structure to date:

1. Alameda-1 is on trend with the nearby Varadero oil field, reported to contain 11 billion barrels of oil in place and responsible for tens of million of barrels of oil production since its discovery in the 1970s;
2. biostratigraphic analysis of samples taken in the N interval indicate a reservoir of similar age to the most productive sections of the Varadero field;

¹ mMD = metres, measure depth mTVD = metres, true vertical depth

3. formation pressures encountered whilst drilling the N interval are significantly higher than that which exists in Varadero; and,
4. logs of the N interval have revealed pervasive natural fracturing, an important characteristic in carbonate reservoirs for assisting the natural flow of oil into the well bore. As an example, Figure 1 shows a resistivity image of the well bore (generated by the FMI logging) covering a small but representative part of the prospective N objective which demonstrates the presence of conductive fractures.



Figure 1 - Natural fractures in the reservoir, represented by the black lines

Preparations continue to flow test sections of this reservoir interval immediately following the drilling and logging of the remaining deeper Alameda primary objective (which may also be part of the testing program, depending on what the drill-bit encounters there).

Field operations have now successfully installed the packers isolating the zones of the N Structure that will be flow tested and drilling ahead through the cement plug is expected to take place by week's end subject to satisfactory results from pressure testing the liner top.

Melbana Energy's Executive Chairman, Andrew Purcell, commented: *"The N Structure is significantly larger, and is interpreted to have more net pay, than what we initially prognosed and with many of the characteristics one would expect to see in a productive reservoir. We now need to flow test this section in the next few weeks to get more data on how to optimally produce from this reservoir, which we are looking forward to doing once total depth has been called on the drilling of the Alameda structure - the largest target of this first well – which our team is expected to commence drilling in the next few days.*

Encountering an interval as significant as the one we've found in the N Structure, particularly well down dip from the top of the structure, is very encouraging with respect to the resource potential of what we might have found here. An updated resource assessment will be undertaken and released once the current operations, including testing, are completed."

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