

Cuba, Block 9 PSC – Update on Alameda-2 appraisal well

Melbana Energy’s Executive Chairman, Andrew Purcell, commented: *“Operational planning is now increasingly focussed on optimising the work program as we draw ever closer to the commencement of drilling. Our project team in Cuba has been increased to include expertise in reservoir and production engineering, with our prime objective being to better understand the quality and production characteristics of the Amistad reservoir, the shallowest of 3 independent reservoirs encountered in the Alameda-1, so that we may form a view on its commercial potential. We have also revised our well design, using lessons learned previously, to assist with gathering additional data that would support an increase in the resource estimates of this first reservoir at this location. I head back to Cuba early next month to review everything with the team and our regulators ahead of the start of drilling.”*

Highlights

- Final permit received for Alameda-2, the designation of the well to appraise the shallowest of three independent oil reservoirs encountered by Alameda-1, the Amistad reservoir.
- Rig to begin mobilising to site in 3rd week of March following its projected completion of a nearby well for a third party.
- Civil works complete and site ready to accept rig and camp.
- The target Amistad structure has been independently assessed to contain 1.9 billion barrels of Oil in Place and 88 million barrels of Prospective Resource (unrisked gross best estimate, Melbana 30%)¹.
- Alameda-2 will use a slimmer hole design to enhance well integrity and logging results. Potential to increase both the net pay zone and the estimates of Oil in Place and Prospective Resource.
- Operational planning allows for independent testing of the three oil bearing units encountered previously and for the well to stay on production if warranted.

¹ **Prospective Resources Cautionary Statement** – The estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) related to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Future exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons. All quoted volumes have been taken from Independent Expert McDaniel & Associates Competent Persons Report dated 8 March 2022, 4 July 2022 and 28 July 2022. Melbana is not aware of any new information or data that materially affects the information included in that announcement and that all the material assumptions and technical parameters underpinning the estimates in the announcement continue to apply and have not materially changed.

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SYDNEY, AUSTRALIA (16 Feb 2023)

Melbana Energy Limited (ASX: MAY) (**Melbana**) is pleased to provide this update on preparations for the Alameda-2 well, the first of two appraisal wells planned this year in its Block 9 PSC area onshore Cuba (Melbana 30%).

Preparations for the drilling of Alameda-2 are nearing completion. The final drilling approval was received this week (Figure 1) and all required materials are now in country and in Melbana's control. The final shipment of some additional inventory items are scheduled to arrive in Cuba in the first week of April.



Figure 1 – Melbana's Cuban Country Manager, Dr Rafael Tenreyro, with the final drilling approval for Alameda-2

Melbana's drilling contractor, the same one that was used for the previous two exploration wells, has advised that the rig is expected to be released from its current project in the third week of March, following which it will commence mobilisation to the Alameda pad near the township of Marti for the drilling of Alameda-2. Civil works at the pad have been completed (Figure 2).

The principal goal of this well is to allow oil to flow independently from each of the three productive units in this reservoir encountered by the Alameda-1 exploration well that completed last year.

Alameda-2's specific objectives are to:

- recover oil to surface from each of the three units of the Amistad reservoir;
- evaluate the quality of the recovered oil;
- assess the production characteristics of these reservoirs;
- take cores to determine petrophysical properties; and
- increase reported net oil and gas pay from the current estimate of 48 metres by successfully logging the ~290 metres of gross pay excluded previously.

Reaching these objectives in a satisfactory manner should allow for an assessment of the commercial potential of this first reservoir and the establishment of a maiden reserve.



Figure 2 - Alameda pad in good condition and ready for installation

The Alameda-2 well, the first of two appraisal wells planned for 2023, will test the Amistad reservoir (which has been subdivided into three units) – identified by the Alameda-1 well that was completed in 2022 (Figure 3).

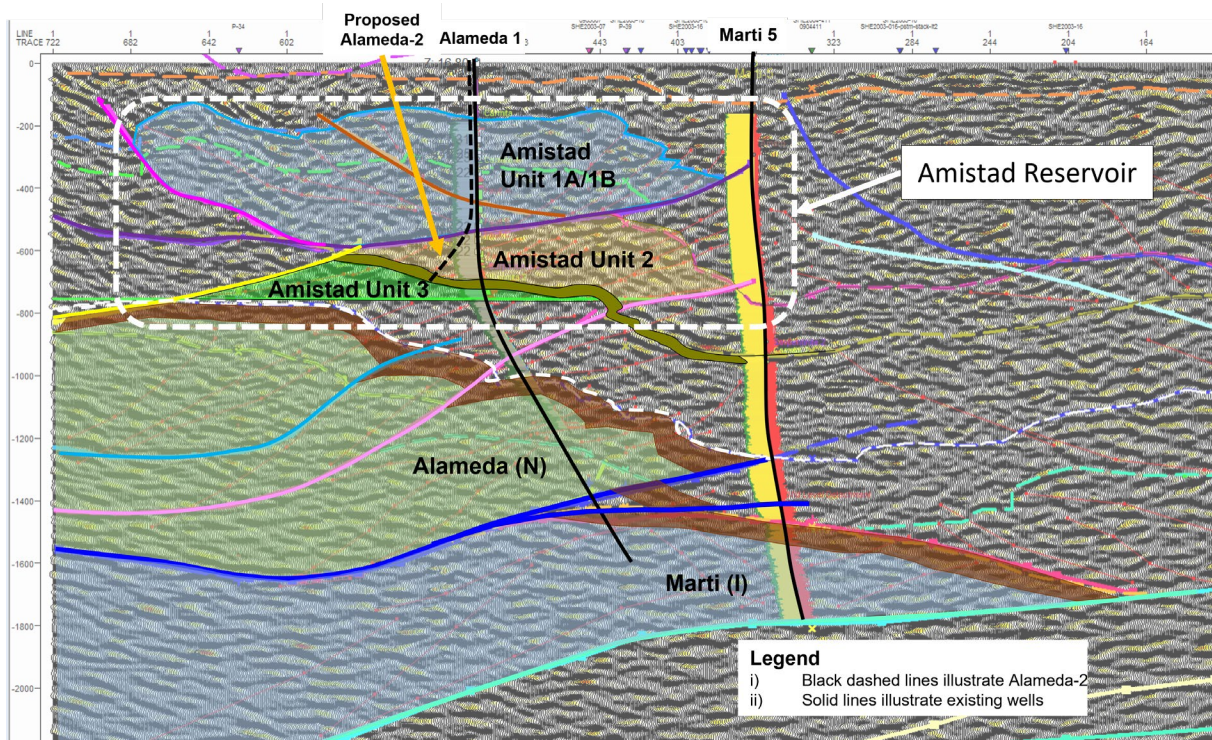


Figure 3 - Post drill subsurface interpretation and trajectories of 2023 appraisal well, Alameda-2

The trajectory of Alameda-2 is the same as used for Alameda-1, other than modifying the deviation to allow Unit 3 to be penetrated in an updip structural position.

Well design, net pay zones and Prospective Resources

The top of the Amistad interval demonstrated strong oil shows over a gross interval of 1,426mMD commencing almost immediately below the surface casing shoe at 466mMD, entered about a week after drilling commenced. A significant (~290 metres) of this interval however did not produce satisfactory logs due to poor hole conditions and therefore could not be factored into the estimates for the volume of oil that may be present. Some of this interval saw the strongest oil influx into the well bore experienced whilst drilling this interval.

The interval that was satisfactorily logged allowed for an estimate of 48 net metres of oil and gas pay across 11 zones totalling 415 metres of gross section. This was later independently assessed to contain 1.9 billion barrels of oil in place with a combined 88 million barrels of Prospective Resource (gross unrisks Best Estimate)².

Amistad Reservoir (all units)	Gross (100%) Unrisks Oil (MMbbl) ²			
	Low (1U)	Best (2U)	Mean	High (3U)
Oil in Place	799	1,939	2,490	4,751
Prospective Resource	30	88	119	240

The well design for Alameda-2 was informed by the lessons learned from drilling Alameda-1. Given our knowledge of the subsurface conditions, a slimmer hole can now be used to minimise any potential damage to the well during drilling and maximise the well hole integrity. This should facilitate a more complete logging of the well which could, if successful, result in increased estimates for potential oil net pay and thus a larger volume of oil in place and Prospective Resource.

Flow test and potential production

The appraisal program allows for independent flow tests and sampling to be conducted in each of the three productive units encountered previously.

Three fully cored sections are planned within the thicker net pay zones which will aid in calibrating petrophysical properties and reservoir description. This will assist further with appraisal and production activities.

If successful, allowance has been made to keep Alameda-2 as a future oil producer.

It is also planned to complete the plug and abandonment of Alameda-1 whilst the rig is on station.

For and on Behalf of the Board of Directors:

Mr Andrew Purcell
Executive Chairman

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² See ASX announcement dated 1 August 2022

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