

## Block 9: Commencement of Alameda-3 drilling

### Highlights

- Alameda-3 appraisal well drilling commenced at 6:00 AM, 15 December (Cuba time). Currently drilling ahead at 313mMD.
- Primary objectives are the appraisal of the two deeper and geologically independent Alameda and Marti reservoirs discovered by Melbana in 2022.
- These reservoirs were estimated to contain a combined 179 million barrels of Prospective (recoverable) Resource (Unrisked Gross Best Estimate)<sup>1\*</sup>.
- Secondary objective is to conduct a flow test of the oil in Amistad Unit-3.

**Melbana Energy's Executive Chairman, Andrew Purcell, commented:** "It's always exciting when the drill bit starts spinning again, particularly when you know what you're going to encounter. The team is in good spirits, the weather is mild (save for some late afternoon thunderstorms that would even impress a Queenslander) and we're underway with a fit for purpose appraisal program designed for the known subsurface conditions.

We are looking forward to confirming the oil quality, production rates and reservoir properties of the two deeper reservoirs we encountered there last year. The best-case outcome is one that would give us two vertically stacked and geologically independent productive reservoirs to add to the several productive units that we have already established exist in the Amistad reservoir above.

We are planning to flow test Unit 3 of the shallow Amistad reservoir in late January, following which we'll quickly be into the Alameda reservoir then the Marti reservoir, both of which gave energetic influx of hydrocarbons into the well bore last time. If drilling goes according to plan (hopefully better, like it did in Alameda-2, given this is also a well designed for the conditions) we will be doing our first flow test in March.

We're also targeting February for the release of the independent resource certifier's assessment of our reworked volumes for parts of the Amistad-1 reservoir, which we are looking forward to seeing given the significant increase in net pay interval combined with lighter oil than what was assumed in the previous assessment.

**\* 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.

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<sup>1</sup> Independent Resource Certifier McDaniel & Associates, Competent Persons Report August 2022

## SYDNEY, AUSTRALIA (18 DECEMBER 2023)

Melbana Energy Limited (ASX: MAY) (Melbana or Company), a 30% interest holder in and Operator of Block 9 PSC onshore Cuba, is pleased to provide this operational update.

### Alameda-3 drilling commenced

Drilling of the Alameda-3 Appraisal Well commenced at 06:00 local time on Friday, 15 December 2023 (see Figures 1 and 2). A short while ago the well was drilling ahead at 313mMD with heavy oil impregnation noted within samples. The 18-5/8" casing point will be at ~425mMD.

The primary objectives of the well are the appraisal of the two lower geologically independent oil-bearing reservoirs intercepted by Alameda-1 – (Alameda and Marti) (see Figures 3, 4 & 5).

Alameda-3 has been designed for the subsurface conditions encountered by Alameda-1 but will otherwise be drilled from the same pad and twin the trajectory of the successful original exploration well.

The well is planned to reach total depth of 3835mMD, ~40mTVD above a higher-pressure zone seen in Alameda-1 (see Figure 3). The Alameda-3 well is planned to take 95 days to reach total depth (see time estimate in Figure 4).



Figure 1 – Drilling underway.



Figure 2 - Barite stockpile.

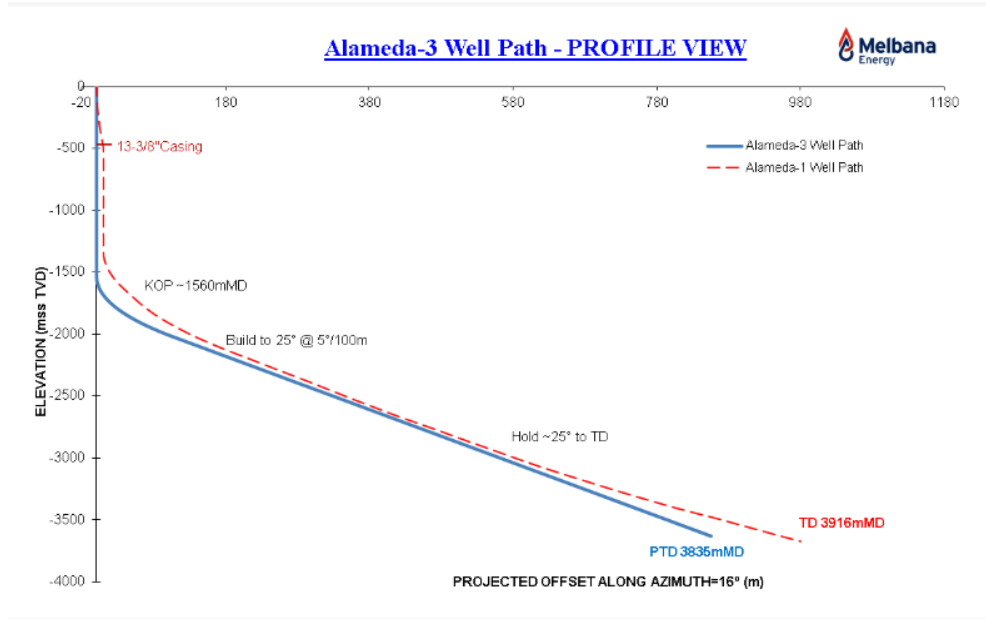


Figure 3 – Alameda-3 well path

The testing plan is to run an open hole drill stem test (DST) in the Amistad Unit-3 reservoir whilst drilling through the relevant part of the Upper Sheet (about thirty five days following the commencement of drilling), then a slotted liner DST in the deepest Marti reservoir before finally perforating up to three zones in the Alameda Reservoir zones for either separate or comingled flow tests, depending on well results.

Whichever DST zone performs best will be completed for production (see Figure 6).

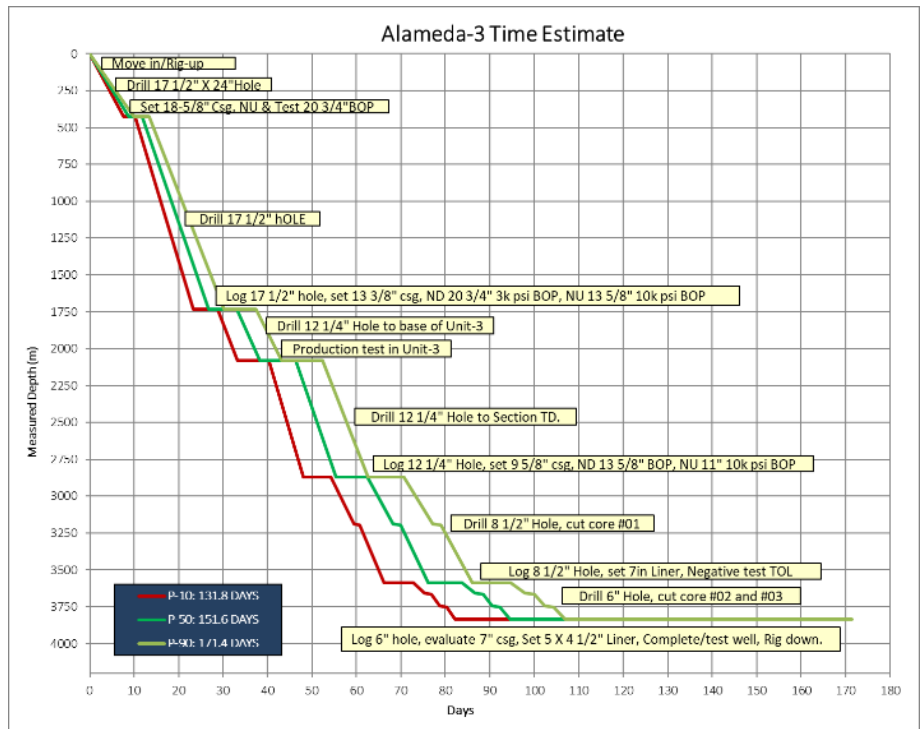


Figure 4 – Alameda-3 drilling time estimate.

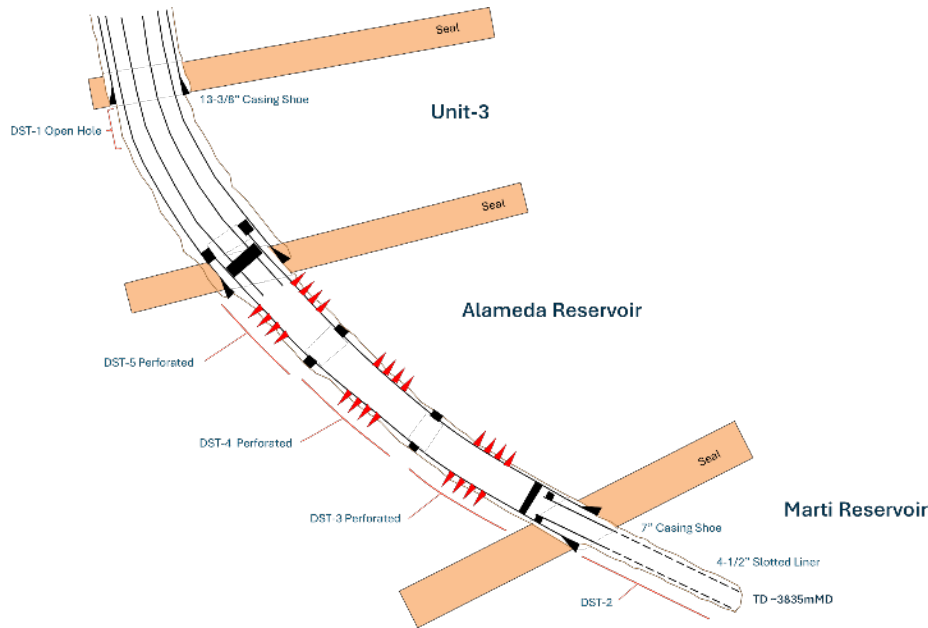


Figure 5 – Alameda-3 drill stem testing programme.

Alameda-3 is designed to prove the results of Alameda-1 which, although having considerable oil shows sometimes accompanied by significant formation pressure in both the Alameda and Marti intervals, was unable to conduct flow tests or collect oil samples for analysis.

Alameda-3 has been designed to accommodate the subsurface conditions encountered by Alameda-1 and is therefore hoped to lead to an increase in the recoverable resource estimate as well as confirm the presence of a lighter, more valuable oil (see Figure 6).

*Prospective Resources as at 1 August 2022<sup>1\*</sup> (gross unrisked, millions of barrels)*

Objective	Low	Best	Mean	High
Amistad 1, 2 & 3	30	88	119	240
Alameda	34	109	148	297
Marti	21	70	95	197
<b>Total</b>	<b>85</b>	<b>267</b>	<b>362</b>	<b>734</b>

Figure 6 – Certified resource estimates prior to incorporation of Alameda-2 results

### Updated Upper Sheet resource estimates

Work is close to complete on updating the resource estimates for the Upper Sheet Amistad Units 1A and 1B. Prior to incorporating the results from Alameda-2 the best estimate Prospective Resource for all units of the Upper Sheet totalled 88 million barrels\*.

The Company's technical team has incorporated the increase in net pay from 100mTVD to 615mTVD (after incorporating the natural fractures) with the much higher quality oil recovered (19° API, 30 cP viscosity and low sulphur content) into an updated resource assessment which is being discussed with our independent resources and reserves certifier.

Given the highly encouraging DST results in the Unit 1A, 1B and Unit 3, it is envisaged that the central field area of highest confidence might be assigned Contingent Resource category.

### **Development planning underway**

Work is continuing to determine the optimal way to bring the Amistad reservoir into production, including engineering reviews of existing and required infrastructure, oil valuation and commercialisation pathway studies and discussions with potential oil off takers.

### **Webinar**

Melbana will be providing further updates on the latest progress and ongoing operations at the Alameda-3 Appraisal Well in Cuba. The briefing will be followed by a Q&A session.

Questions can be submitted now to [alex@investorstream.com.au](mailto:alex@investorstream.com.au) or in written form during the webinar.

Anyone wishing to attend the webinar must register using the link below.

Date and time: 11:00 AM AEDT (8:00 AM AWST) on Wednesday, 20 December 2023.

Register via: <https://attendee.gotowebinar.com/register/1008957385489472604>

ENDS.

#### **For and on Behalf of the Board of Directors:**

Andrew Purcell  
Executive Chairman

#### **For further information please contact:**

Dr. Chris McKeown  
Chief Commercial Officer  
+61 2 83 23 66 00