

2021 Annual General Meeting

26 November 2021



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Contingent and Prospective Resources: Unless otherwise specified, the information that relates to Contingent Resources and Prospective Resources for Melbana is based on, and fairly represents, information and supporting documentation compiled by Mr. Dean Johnstone, who is an employee of the company and has more than 34 years of relevant experience. Mr. Johnstone is a member of the American Association of Petroleum Geologists. Mr. Johnstone consents to the publication of the resource assessments contained herein. The Contingent Resource and Prospective Resource estimates are consistent with the definitions of hydrocarbon resources that appear in the Listing Rules. Conversion factors: 6 Bscf gas equals 1 MMBoe; 1 bbl condensate equals 1 boe

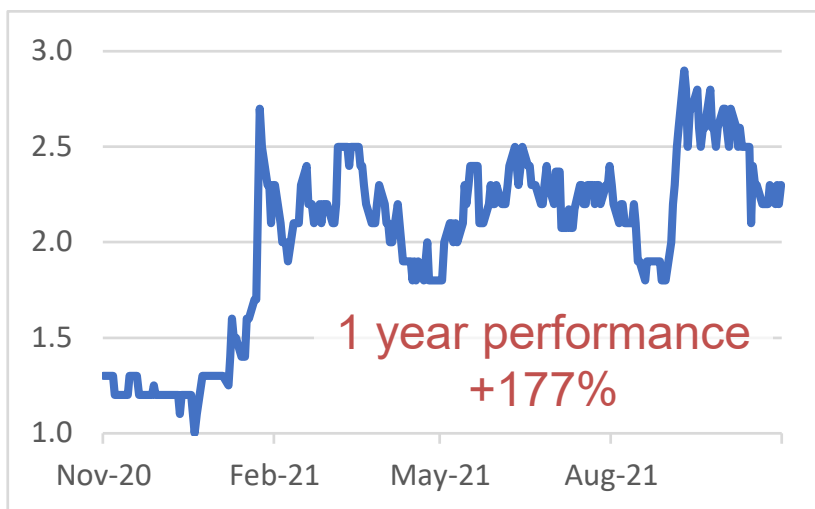
Corporate Overview

Company Data A\$ (24 November 2021)

ASX Code	MAY
Shares on Issue	2,673m
Options	547m
Last Close	0.022
Market Capitalisation	\$58.8m
Cash (30 September 21)*	\$22.6m
Debt	nil

Shareholders

Board & Management	9.7%
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Experience of the Board & Management

Andrew Purcell

BEng (Elec), MBA
Executive Chairman

Investment banking (Credit Suisse, Macquarie Bank), Australia and Hong Kong. Experienced in resources banking, cross border financing, commodity hedging and corporate turnarounds. 20 years as a public company director in Australia and abroad. Chairman of AJ Lucas Group Limited (ASX: AJL).

Peter Stickland

BSc (Hons) (Geology) GDipAppFin
Technical Director

30 years global experience in oil and gas exploration commencing with BHP Billiton. CEO of Melbana Energy (2014–2018) and Tap Oil (ASX: TAP, 2008–2010). APPEA Board member (2009-2017).

Michael Sandy

BSc (Hons) (Geology)
Non-Executive Director

40 years oil and gas exploration experience, managing assets in PNG, Asia the Middle East and the USA. 20 years as a public company director involved in numerous acquisitions and divestments.

Theo Renard

Chief Financial Officer/
Company Secretary

21 years in credit and relationship banking in the fields of commercial and investment banking throughout South Africa, Asia and Australia. Experienced Chief Financial Officer, Company Secretary and director of public companies in Australia, Africa, Asia and the Subcontinent.

Errol Johnstone

BSc (Hons) (Geology/Geophysics)
Chief Geoscientist

29 year career with ExxonMobil in a variety of exploration and appraisal roles. Recognised industry expert in several key geoscientific disciplines. Responsible for generating many new exploration initiatives internationally resulting in several significant discoveries.

Ken Hendrick

BEng (Civil), MEngSc, MBA
Implementation Manager

Decades of experience in senior project management roles safely executing complex multi-discipline developments for the resources sector, particularly in the offshore oil and gas industry.

* Includes funding for Cuban drilling operations received from Sonangol and excludes USD7.5m received from sale of WA-488-P in November 2021

Highlights of the last 12 months

- Awarded two new exploration permits offshore northern Australia next to the Beehive Prospect and containing the undeveloped Turtle and Barnett oil discoveries
- Sale of WA-488-P (containing the Beehive Prospect) to a Houston-based Fortune 500 oil and gas company that will drill an exploration well to test the potential of this Prospect. Melbana received upfront cash and remains entitled to future contingent cash and royalty payments without having any exposure to the cost of drilling the well.
- Sale of AC/P50 to Santos and SapuraOMV (and option granted to the same parties to purchase AC/P51, on similar terms). Melbana received upfront cash and remains entitled to future contingent royalties.
- Successfully progressed preparations for the commencement of drilling operations onshore Cuba, despite the considerable and unusual complications arising from the COVID-19 pandemic.

Current Position

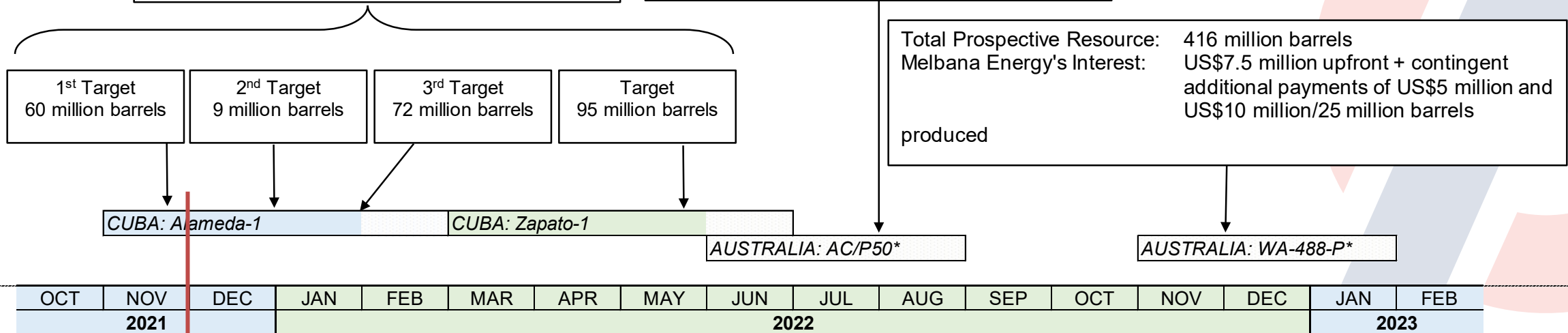
- Oil shows encountered continuously over a significant 670 metre interval during the drilling of the first well in Cuba (in a section with no previously defined prospects). Previously defined prospects lie ahead and still to be tested.
- Main prospects for the two wells being drilled in Cuba lie ahead, as do the results of wells being drilled in offshore Australian waters (in 2022 or early 2023) in which Melbana has contingent royalty interests (and no expenditure commitments)
- Good cash position given sale of holdings in other ASX-listed oil and gas companies, recent raising to fund our share of Cuban drilling costs and the receipt of USD7.5m from the sale of WA-488-P
- Strong oil price environment likely to remain into 2022

Upcoming potential value catalysts

MELBANA ENERGY HAS INTERESTS IN FOUR UPCOMING EXPLORATION WELLS TESTING >650 MILLION BARRELS** OF PROSPECTIVE RESOURCE

Total Prospective Resource: 236 million barrels
 Melbana Energy's Interest: 30%
 Operator: Melbana Energy

Total Prospective Resource: undisclosed
 Melbana Energy's Interest: contingent royalty



* Timing of the two Australian exploration wells as estimated by Melbana Energy. Exact dates are at the Operator's discretion and dependent on receipt of various regulatory approvals, rig availability etc.

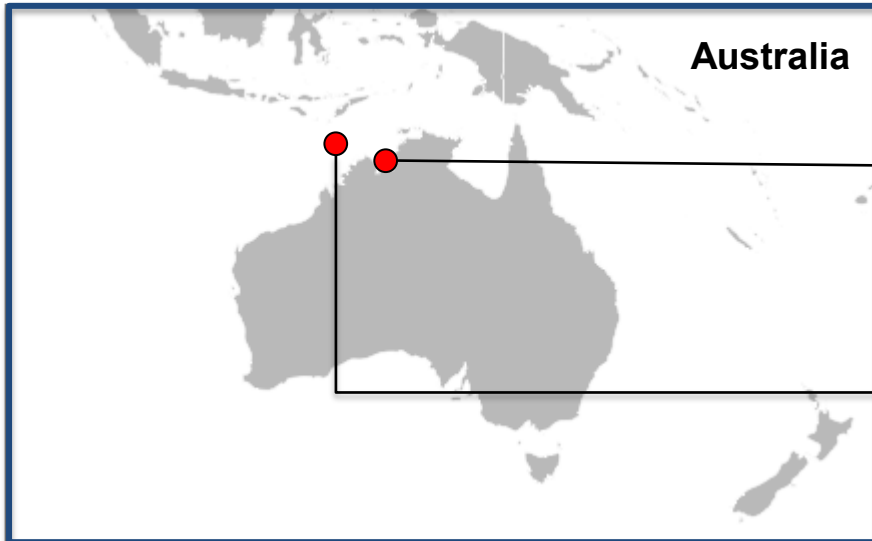
** Prospective Resources Cautionary Statement - The estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) related to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Future exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons. All quoted volumes are Prospective Resources (Best Estimate) and have been taken from Independent Expert McDaniel & Associates Competent Persons Report, released to ASX on 7 August 2018, as adjusted by Melbana Energy for area relinquishment or from subsequently available data. 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.

Project Locations and Summary



Cuba

- Two high-impact onshore exploration wells – **commenced September 2021**
- Testing a combined resource of **236 million barrels of oil****
- Proven hydrocarbon system, proximity to good oil storage and export infrastructure and existing large oilfields
- Drilling program to test four separate targets
- Melbana is operator, partnered with the National Oil Company of Angola (Sonangol)
- Substantial interval of oil shows encountered in first well

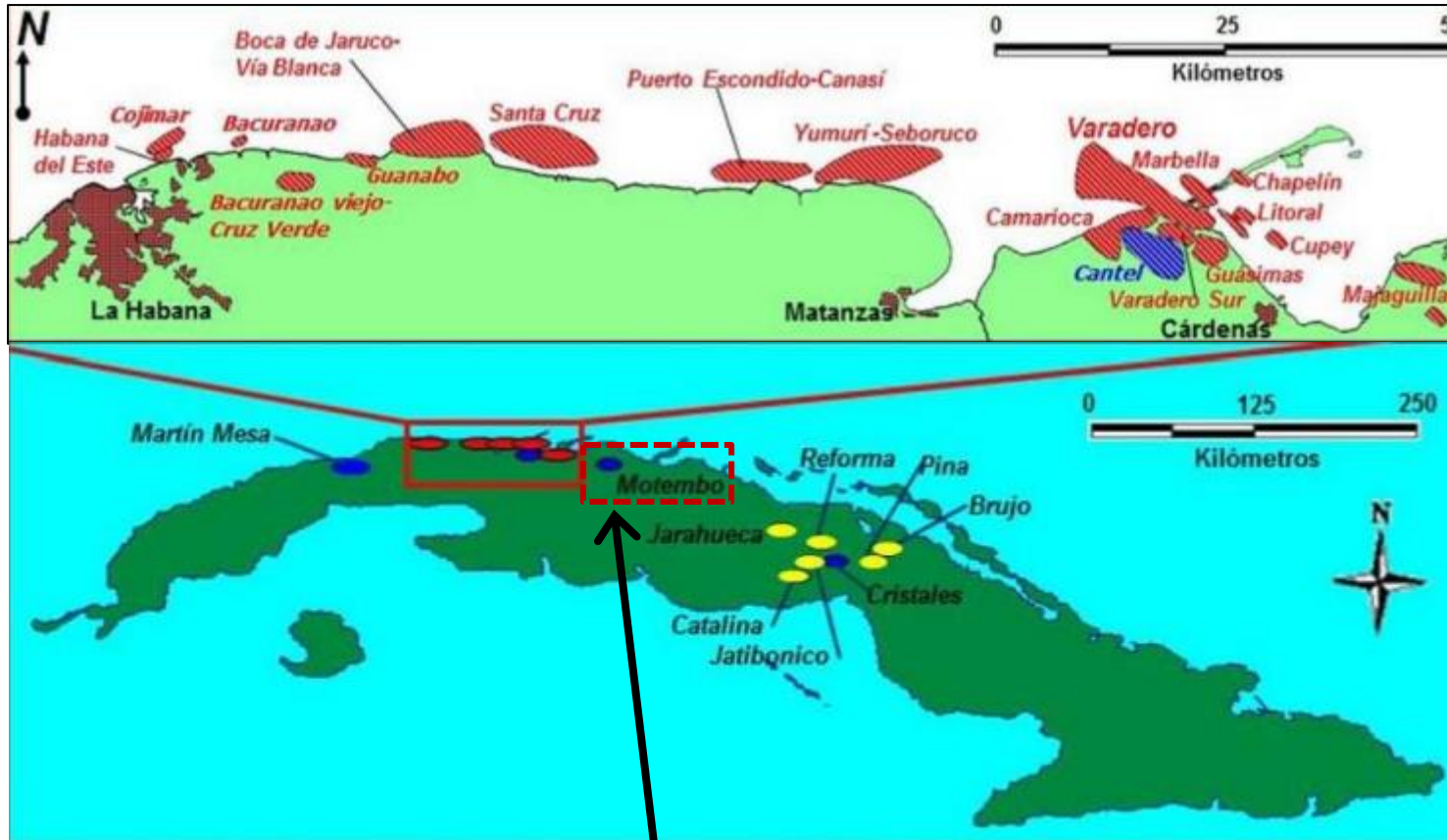


Australia

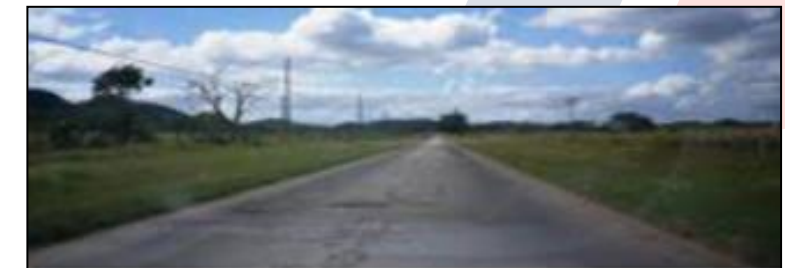
- Two offshore exploration wells to be drilled testing a combined resource of at least **416 million barrels of oil/equivalent****
- Melbana received USD7.5 million from the sale of its permit WA-488-P; remains entitled to additional contingent payments and royalties
- Preparations for exploration wells advanced
- Experienced operators (Santos and US Fortune 500 company)
- Melbana has no funding commitment to these wells
- Melbana would receive royalties/cash+royalties in success case

** See Prospective Resources Cautionary Statement on page 5

Operating in Cuba



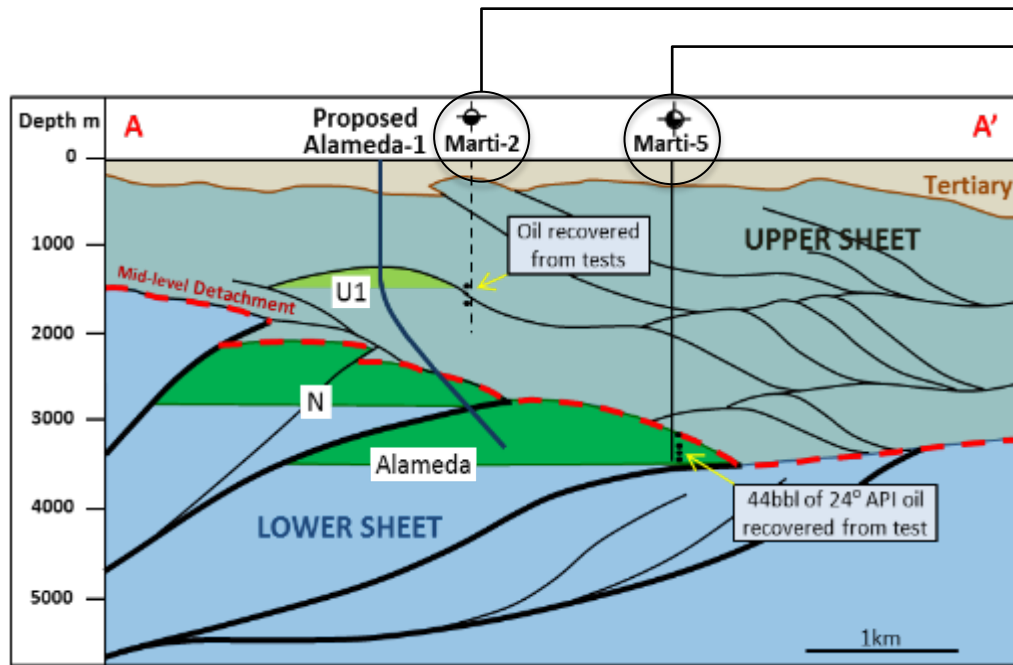
Flat easy country, accessible by sealed roads, close proximity to oil terminals and storage facilities



Fiscal terms attractive
oil sold at international benchmarks
proactive and experienced regulator
Permit has strong legal protections

- **Melbana's Block 9 contract area is on trend with numerous operating oil fields (red, blue and yellow areas are all existing oil fields)**
- **adjacent to the giant 11 billion barrel Varadero field**
- **Close to oil export terminal and storage facilities**

Cuba, Block 9 (1st well, Alameda-1)



Marti-5 wellsite (2003)



Marti-2 wellsite (2003)

Alameda Prospective Resources (100%, MMstb)**					
Objective	CoS*	Low	Best	High	Mean
U1	15%	24	60	132	71
N	23%	4	9	20	11
Alameda	32%	39	72	128	79

- 1st well Alameda-1 designed with mild (30°) deviation to allow testing of 3 separate targets
- Being drilled adjacent to previous discoveries that flowed oil to the surface
- Substantial interval of oil shows encountered to date

* Chance of Success (independently assessed)

** See Prospective Resources Cautionary Statement on page 5

Drilling status update

- ❏ Drilling operations at Alameda-1 commenced on 13 September 2021. Oil shows, accompanied by elevated gas readings, started to be encountered soon after the first casing point at 454 metres.
- ❏ Oil shows continued continuously to a depth of 1,130 metres, for a total gross thickness of 670 metres
- ❏ Evaluation continues, but preliminary findings conclude 48 net metres of potential oil and gas pay, but this excludes a total of ~290 metres where poor hole conditions prevented viable logs from being acquired. Some of these excluded zones had good oil shows.
- ❏ Further drilling encountered a high pressure zone ~350 metres higher than anticipated and presented the drilling plan with a number of challenges due to the volume of materials on hand, logistical challenges and the rig's capabilities.
- ❏ The decision was made at about 1,892 metres to shut in the well to conduct necessary maintenance on the rig and provide it with additional capabilities to better handle the drilling conditions being encountered. This had the added benefit of allowing more time to build up inventory of drilling materials, including barite (an important mud additive).
- ❏ The enhancements to the rig are now complete and the additional supplies of drilling materials that have been ordered are scheduled to start arriving in Cuba this Monday, 29 November. Preparations for the resumption of drilling operations have commenced.



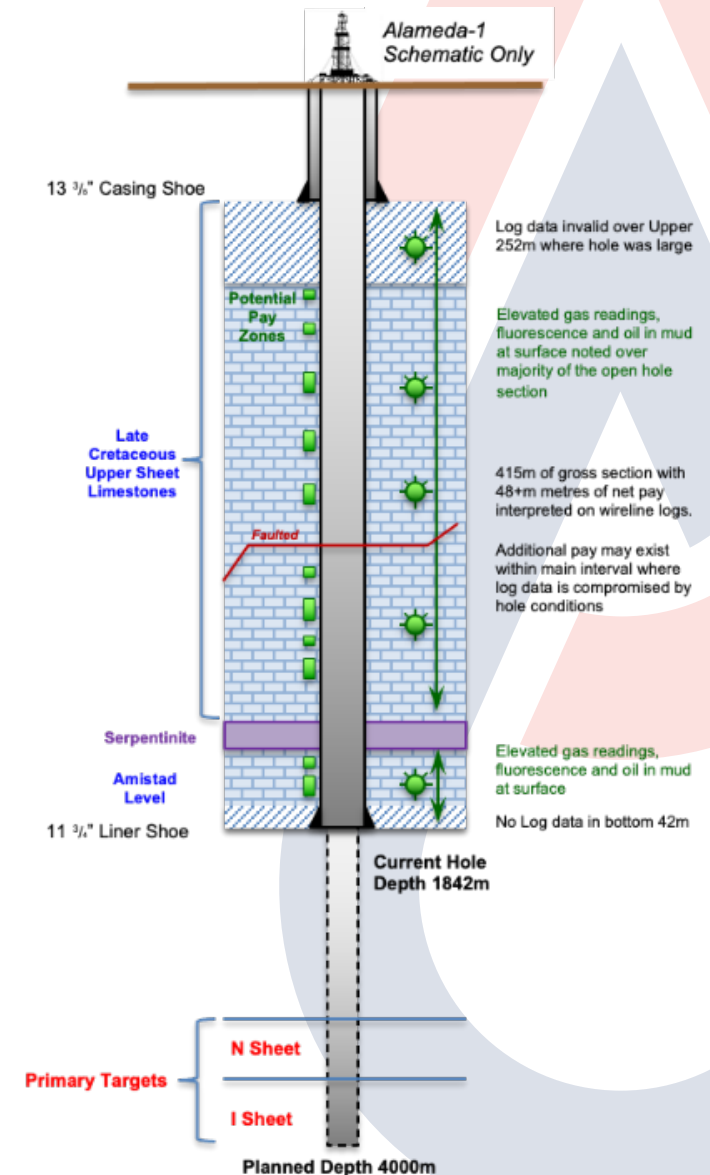
Oil in the cuttings box



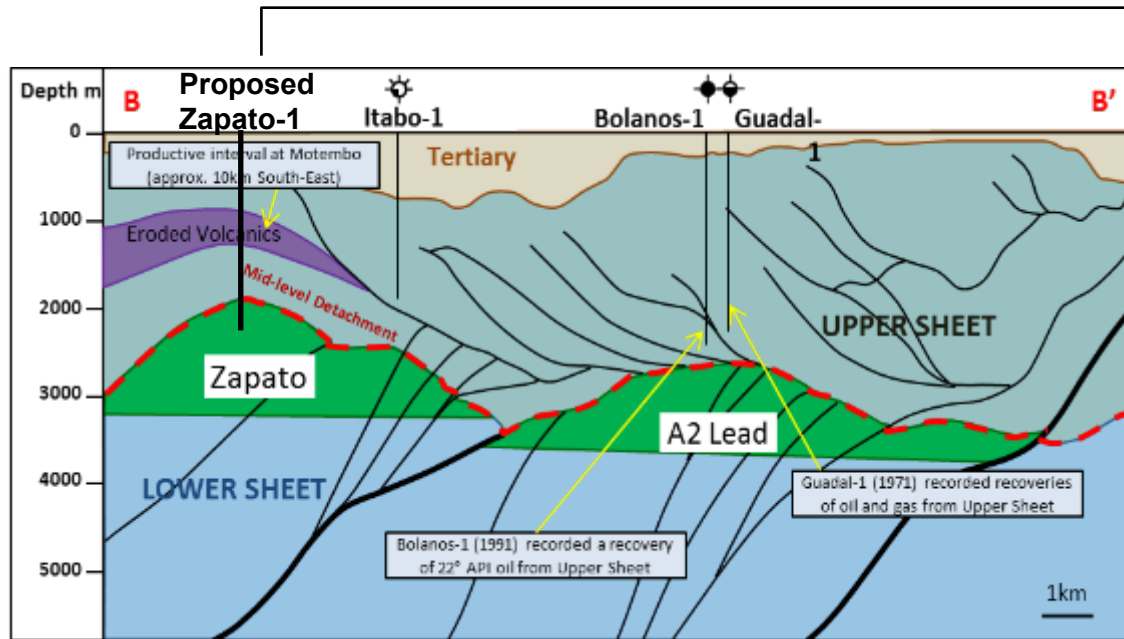
Flaring of hydrocarbons from 1,832m

Alameda-1 Results so far

- Alameda-1 has successfully demonstrated the presence of oil in the secondary Amistad objective and the interval above the Amistad objective, which was not previously considered prospective.
- An oil sample was collected from the mud system at approximately the Amistad objective and reported an API of 15°, lighter than the nearby Varadero field (reportedly 10 – 14° API). However, sampling conditions were not optimum. Oil of this specific gravity is common in Cuba and typically free flowing.
- Preliminary evaluation of wireline logs conclude at least 48 net metres of potential oil and gas pay, but this excludes ~290 metres where poor hole conditions prevented viable logs from being acquired. Some of these excluded zones had good oil shows.
- This estimate of net pay increases to ~100 metres when a lower porosity cut-off of 9% is used - a potentially valid option when applied to the fractured carbonate reservoirs encountered in this well.
- Logs also provided positive indications of permeability in those sections of the well bore.
- Work is underway to integrate these results into Melbana's geological model and prepare a resource assessment for these shallow intervals.



Cuba, Block 9 (2nd well, Zapato-1)



Motembo area

- 2nd well Zapato-1 to test a structure identified by strong gravity and magnetic results that aligns with structural interpretation derived from seismic and surface data
- The well is adjacent to the shallower Motembo oil field which produced high quality light crude (50 – 64.5° API)
- Zapato-1 will be drilled immediately following the completion of Alameda-1

Zapato Prospective Resource (100%, MMstb) **

	CoS*	Low	Best	High	Mean
Zapato	23%	38	95	214	114

* Chance of Success (independently assessed)

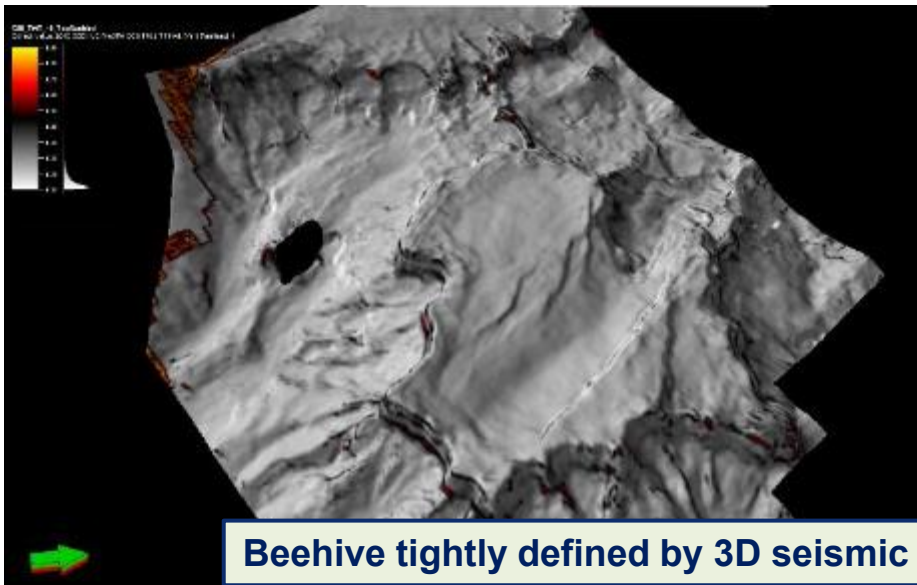
** See Prospective Resources Cautionary Statement on page 5

Australia, WA-488-P (Beehive Prospect)

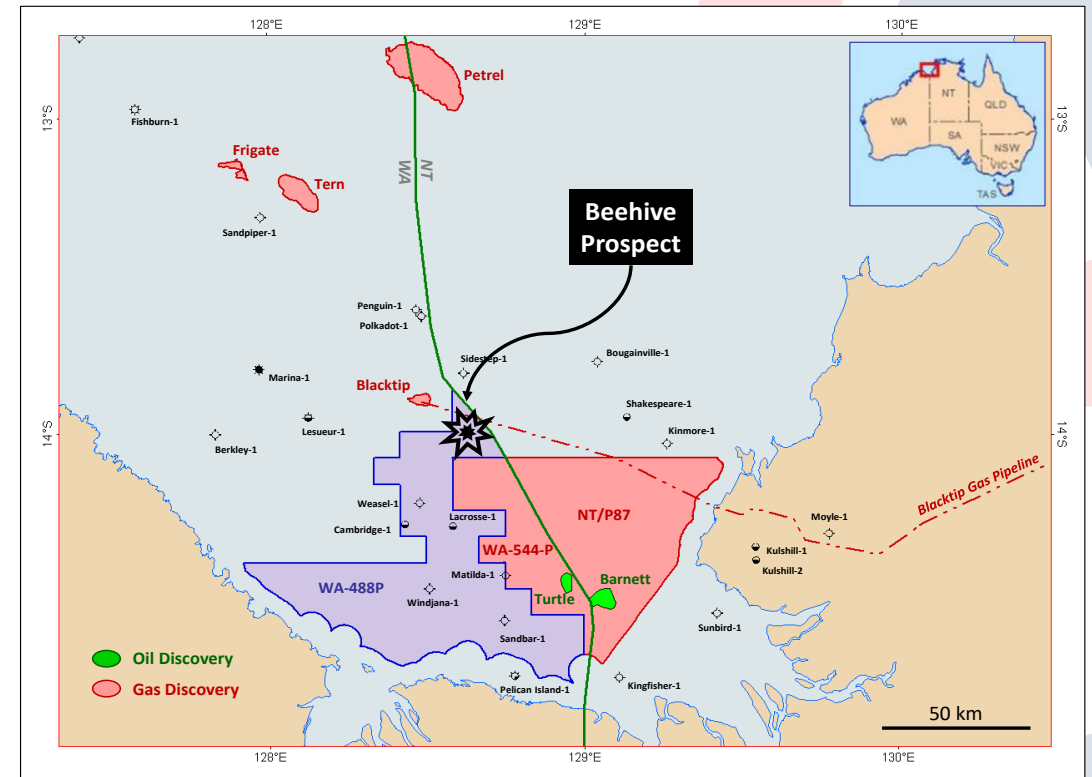
- Permit WA-488-P sold to a US\$60 billion Fortune 500 O&G company. Planning advanced for an exploration well (possibly as early as late 2002 but required before August 2023).
- Melbana has received an initial payment of US\$7.5 million and is entitled to contingent additional payments of US\$5 million and US\$10 million per 25 million barrels produced (in success case)
- Beehive is a carbonate build up, a formation that tends to work big on success (upper estimate 1.4 billion barrels**)
- Melbana has mapped similar carbonate build ups to Beehive in its adjacent permits WA-544-P and NT/P87 (Melbana 100%), which also contain the undeveloped oil discoveries Turtle and Barnett

Prospective Resources (100%, MMboe)**

Beehive	CoS*	Low	Best	High	Mean
Carboniferous objective	20%	37	416	1,424	599



* Chance of Success (independently assessed)



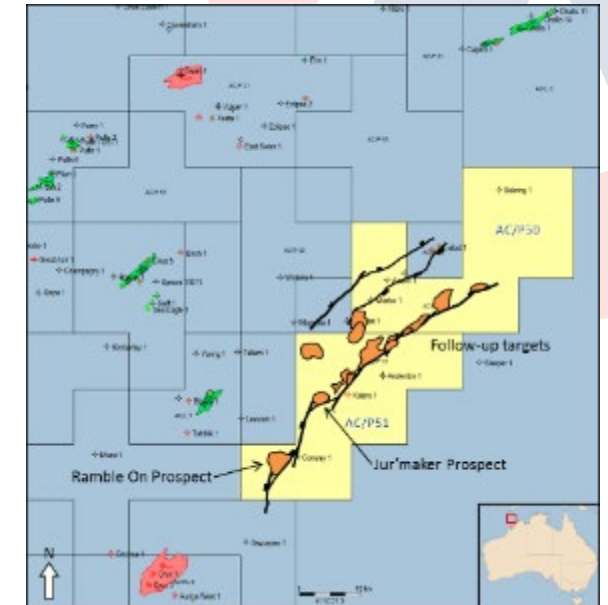
** See Prospective Resources Cautionary Statement on page 5

Other Permits/Investments

- AC/P50 sold to Santos/Sapura OMV. Melbana received cash and is entitled to receive future royalty payments if the exploration well is successful - planning underway for 2022 drilling
- AC/P51 under option to Santos/SapuraOMV. If exercised, Melbana would receive similar consideration for the sale of AC/P50
- Tassie Shoal Projects have received environmental approvals (valid to the early 2050s) to build methanol and LNG plants on the Tassie Shoal, using the discovered but undeveloped gas resources available in the area
- Melbana has completed the divestment of its holdings in two other ASX O&G companies, Metgasco and Byron Energy, effective 3 August 2021. Net cash proceeds realised approximately \$2.9 million



Tassie Shoal Projects



AC/P50 and AC/P51



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