



Jerry Lee Lewis would have loved Cuba in a pink Cadillac with a tank full of gas.

MELBANA MAGIC WOOS 'COWARDLY CAPITAL' TO HYDROCARBON HAVEN IN COMMUNIST CUBA

THE mention of Cuba conjures up images of unblemished, pastel-coloured Cadillacs dating back to the Buddy Holly era, American and Soviet warships staring one another down in a nuclear missile standoff, Havana cigars and Che Guevara and Fidel Castro triumphantly firing AK-47s aloft a T-62 tank basking in the post-revolutionary adulation of cold war carnage. It's fair to say the Caribbean country stirs strong emotions.

But conflict wasn't the view Sydney-based explorer Melbana Energy saw in its sights when it began reading between the lines, poring over reprocessed seismic data and the realisation dawned that the "pariah" state in the eyes of so many western nations was not only underexplored, but had been overlooked to the extent that there was potentially billions of dollars of barrels untapped within deeper formations of the one-party, socialist nation that has been subjected to American sanctions since 1962 ... one year after the revolution and longer than any other country on earth.

Melbana's Cuban adventure is a narrative epitomising geological excellence, seizing the initiative and backing the underdog that will appeal to the fair go instincts of most Australians.

The narrative, epitomising a good old pioneering geological fairytale, saw Melbana initially attracted to Cuba after the company had investigated three or four alternative, but similar developing world options. Cuba won the vote with superior geology, a proven historical petroleum producing legacy, data that could be interpreted by Melbana's crack team of geoscientists and, crucially, some of their rivals were too crippled with the scourge of corruption to be taken seriously.

"We had drilled a couple of wells in Indonesia and Australia and farmed out to big companies, but sadly did not make any discoveries," said Chris McKeown, Melbana chief commercial officer. So, in 2011 we began to look at other opportunities. We excel at structural geology and wringing opportunities from poor quality data and were looking for large opportunities which would not be too expensive to drill and ultimately settled on Cuba. It reminds me of the foothills of the Rockies, or Papua New Guinea in terms of geological complexity, but we back ourselves as a highly capable and qualified exploration company and began to see structures in the reprocessed seismic data that had clearly flown under the radar beforehand. Our team made a good case to the regulator about why our ideas held water and this culminated in us being awarded block 9. The old data was not high quality,

but our team could see "the matrix" and our chairman, Andrew Purcell, has travelled all over the world looking for farm-in prospects and raising funds, so we knew what other opportunities were out there and began to be convinced we were onto something huge."

Melbana, somewhat tentatively at first, began to dip its toe into the warm tropics of the Caribbean, located only 530km from the nearest US island, Key West. The decision has unveiled a treasure trove of subsequent data with independent analysis by McDaniel Associates Consultants of Canada estimating the Alameda discovery to contain over 5 billion barrels of oil in place. Their independent best estimate was that 267 million barrels of this may be recoverable. As at the time of writing McDaniel are considering new data from the follow up Amistad-1 appraisal well, which flowed higher quality oil at rates close to 2,000 barrels per day.

On the second anniversary of Russia's invasion of the Ukraine this year – a 24-month period punctuated by billowing oil and gas prices – Melbana only has to point to their steady performance on the ASX to vindicate a calculated risk on Cuba that has been rewarded. Melbana, who are still moving from exploration into production, has sustained a steady market cap growth of 2.5% and grown compared to ASX peer group rivals who collectively declined 32% during this period.

With junior explorers traditionally the lifeblood of any flourishing of fossil fuels, Australian Resources Minister



Fidel Castro admires Che Guevara's putting style.



The Australian, Cuban and Canadian flags fly proudly on the Sherrit drilling rig 1. The company has a 25-year-history of operating in Cuba and drilled Melbana's wells in Block 9.

Madelaine King might be wise to listen when hydrocarbon hunters such as Melbana explain why they have sought greener pastures abroad with Australia slumping from the No.1 LNG exporter to third behind Qatar and the United States in just three short years.

With no Australian offshore acreage release for some years now, exploration at historic lows in the Lucky Country and projects bogged down by lengthy approvals processes, with activist inspired court action adding to the burden, McKeown says that Cuba, by contrast, has welcomed Melbana into a safe hydrocarbon haven.

Cuba's has a proven petroleum system, and an active oil patch, but only produces about 45,000 barrels of oil per day and is hungry to double that number to reduce reliance on imports from Venezuela and Mexico. The government is also keen to export oil if it can, export revenues could mean a great deal to its people.

"The country is crying out for investment and is thus grateful and supportive of anything that can help transform them," McKeown said.

He said only US companies were absent due to sanctions these days with global corporations such as Schlumberger active in Cuba along with businesses from Canada, France, Australia and Europe.

"Sanctions are a consideration. But they are not UN backed and are not insurmountable," McKeown said. It should be noted that former US President Barack Obama moved to end sanctions against Cuba, but his administration's legislation aimed at achieving this was subsequently rescinded by the Trump administration.

Australia, by comparison, has virtually been self-sanctioning itself in a hostile hydrocarbon environment. "You tend to face headwinds (in western jurisdictions) where the perception is of a sunset industry that is on the way out when the truth is that it is not. The demand is still there," McKeown said.

Melbana has a 30% interest in its wells in Cuba and remains the operator with the balance held by Angola state owned oil company Sonangol, Africa's largest producer in 2021, who agreed to fund 85% of drill costs and two exploration wells.

"The point of difference is that these small countries are crying out for investment and are thus very supportive and engaged with us, striving to stimulate exploration and ultimately production."

Late last year Melbana went into appraisal and production testing at the Alameda-2 (aka Amistad-1) well which targeted the shallow oil targets and had fantastic results and in a drilling update at the second Alameda-3, said the shallow flow testing met all objectives delivering results similar to that of Alameda-2, where the only issue was heavy oil flowing to surface.

Companies operating in Cuba generally have to forsake business interests in the USA due to sanctions, but McKeown said smaller countries were "very interactive and supportive trying to stimulate exploration and production". This is not an issue for Melbana, who's only other operations are in Australia, with exploration permits offshore Northern Territory and Western Australia. Whilst Melbana are actively working on these exploration permits; they do see these as moving at a different pace to their Cuban project.

"The permitting process in Australia is very slow with NOPSEMA having constant battles with lobby groups and having to take a long time to process environmental permits. Sometimes taking up to 18 months," McKeown said. "We've not found anything close to being as laborious in Cuba. Basically, you apply for permits and you get them. Once you know what they want, you can make changes and then get on with it and generally smaller companies can get access to much bigger

acreage," McKeown said, explaining why Melbana were awarded Block9 on a 25-year Production Sharing Contract of 2,344km².

Melbana is fully funded and aims to expedite production at its Alameda-1, 2 and 3 this year with ongoing appraisal work at the latter two wells which yield encouraging recovery rates if average, historical yields in Cuba are applied. The development plans are being finalised for presentation to the JV and government regulator in the next month or so.

VEGEMITE OIL VS RUNNY HONEY OIL

Typical Cuban rates are from heavier "vegemite oil" located in the upper, shallow reservoirs. Pre-drilling the exploration well and appraisal well Melbana believed that the deeper oil should be of a lighter, higher quality. This was borne out from the Alameda-2 appraisal well, which showed that oil could get lighter at depth. The most significant result from the Alameda-2 well is that the oil found is more like "black runny honey". The higher quality oil that flowed freely to surface at the Alameda-2 appraisal well from the Amistad Formation was delivered at a rate higher than previous wells and has a much lighter oil type and is of lower Sulphur than normal. This prompted Melbana to declare a discovery that was widely reported in the Cuban media.

But that's just the start for Melbana. The current Alameda-3 appraisal well is aimed at testing the three geologically independent oil-bearing formations encountered by



Street graffiti makes it clear what Cubans think of imported oil.



A Cuban filling station.

Alameda-1, with all three having demonstrated a working hydrocarbon system. Melbana believe that the deeper structures could be even larger and hold even higher quality oil. The Alameda-3 appraisal well is twinning the discovery well, but with higher rated drilling equipment (10kpsi blow out preventer and better-quality drilling mud), so hopes are very high for a successful deeper well test.

Whilst there is a huge demand for local oil production (to generate electricity), the sheer scale of the opportunity and the quality of the oil that is going to be produced has led to the Cuban government encouraging Melbana to find an export route to bring oil to market.

“The ongoing potential of the project and the strength of the regulatory framework in which we operate is a testament to the consistent dialogue and strong relationships in Cuba which have been developed over a period of years now,” said Purcell.

On deadline Melbana announced a resource upgrade of their estimated contingent resource to 46MMbbl and prospective

resource to 90MMbbl in 1B alone, having previously been 30MMbbl for 1A and 1B combined. The oil in place – previously 666MMbbl for 1A and 1B -, is now 656MMbbl P and 331MMbbl C in just 1B.

McKeown described the 19°API oil at Alameda-2 as “quite similar to the Vincent Field in Western Australia and hopes to replicate the success of the Varadero Field, which produced 200MMbbl over 20-years back in the day with Repsol and Total active in the country.

Melbana are aiming to bring production of 5000 barrels per day online by the end of 2024, with a goal of rapidly ramping up production to 20,000 barrels per day within short order. The longer-term potential could see the project delivering 65,000 barrels of oil per day to oil-hungry regional oil traders and buyers. Something that McKeown is very focused on delivering.

In the west, often quick to brand countries like Cuba as a “banana republic” the battle cry has become “no new fossil fuels”, but in countries like Cuba, McKeown says the regulator is on the same side as Melbana striving to get into production as soon as is feasible in a country which frequently has to ration its oil.

“They are just trying to get the same things we have enjoyed in more developed countries for decades. They want affordable, secure energy: the most fundamental level of Maslow's hierarchy of needs. They want their economies to be self-sustaining and their people to flourish, and why shouldn't they be able to have that?” he asked.

Indeed, why not? ▶



An oil tanker embarks on another voyage to collect and import crude oil to Cuba.



Melbana – Making Oil and Gas a Reality In Cuba



www.melbana.com