

ASX & Media Release

50% Upgrade to Exploration Potential in Melbana's Cuba Acreage

Highlights:

- **Exploration potential of Block 9 upgraded by more than 50% to ~12 billion barrels of Oil-in-Place with Prospective Resources of 612 million barrels (unrisked Best Estimate, 100% basis)***
- **18 individual prospects and leads identified**
- **Block 9 is a low cost onshore PSC with a number of prior oil discoveries reducing exploration risk**
- **Planning for an accelerated drilling program to explore high potential targets progressing**
- **High potential Alameda prospect identified close to historical oil recoveries**

MELBOURNE, AUSTRALIA (1 February, 2017)

Melbana Energy Limited (ASX: **MAY**) is pleased to announce the results of the latest phase of its assessment of the oil and gas exploration potential of its 2,380 km² onshore Block 9 Production Sharing Contract ("Block 9 PSC"), located along trend from the multi-billion barrel Varadero oil field. The exploration potential of Block 9 has been increased by Melbana to approximately 12 billion barrels of Oil-in-Place with a Prospective (Recoverable) Resource of 612 million barrels (Best Estimate, 100% basis)* of potentially high quality oil. These latest results represent more than a 50% upgrade to the previous resource assessment. The high potential Alameda prospect has been highgraded as one of the preferred targets for the drilling program.

Melbana's CEO and MD Peter Stickland, commented on the announcement:

"We are highly encouraged by the continued growth in the exploration potential of the Block 9 PSC. It is extraordinary to be able to identify exploration potential for 612 million barrels of prospective resources in conventional targets in a proven trend at moderate target depths, located in an accessible onshore area. Significantly, these leads have the potential for billions of barrels of oil-in-place however the prospective resources so far assume only the historical 5% recovery factor from offset fields in Cuba. The application of modern enhanced oil recovery techniques may increase the recovery factor and therefore has the potential to substantially increase the potential recoverable oil."

Melbana is currently progressing plans for a potential accelerated initial drilling program of up to two exploration wells in Block 9, with a target of finalizing well proposals this quarter, with drilling potentially commencing approximately twelve months after committing to such activity."

*Refer to Cautionary Statement in this report (Page 3) relating to estimates of prospective resources

Significant upgrade to Prospectivity Assessment of Block 9

Melbana’s technical assessment has previously identified the following three play types in Block 9:

1. Lower Sheet Play (approximately 2,000 – 3,500 metres depth);
2. Upper Sheet Play (approximately 800-3,000 metres depth); and
3. Shallow Tertiary Play (approximately 400-1,200 metres depth).

The assessment by Melbana’s technical team has focussed on the Lower Sheet Play, which is a conventional, fractured carbonate reservoir, similar to existing producing fields in Cuba, and is located at depths typically between 2,000 and 3,500 metres. In offsetting Cuban fields, these reservoirs can be highly productive, with reported initial well rates of up to 4,000 barrels of oil per day. Oil recoveries to date suggest that the Lower Sheet Play has potential for higher quality crude oil than that produced from adjacent fields. It has demonstrated prospectivity in the western and central areas of Block 9 and is likely to be prospective in the east of Block 9, where an absence of seismic data limits the assessment. Melbana’s technical assessment has identified a total of 18 structural prospects and leads within the Lower Sheet Play (see Figure 1). The Upper Sheet and Tertiary Sheet Plays have been reviewed and continue to be considered prospective. While they may be secondary objectives on any drilling, they are not being matured into quantifiable leads and prospects at this stage due to limitations of the current data set and prioritizing the highly prospective Lower Sheet as a drilling objective.

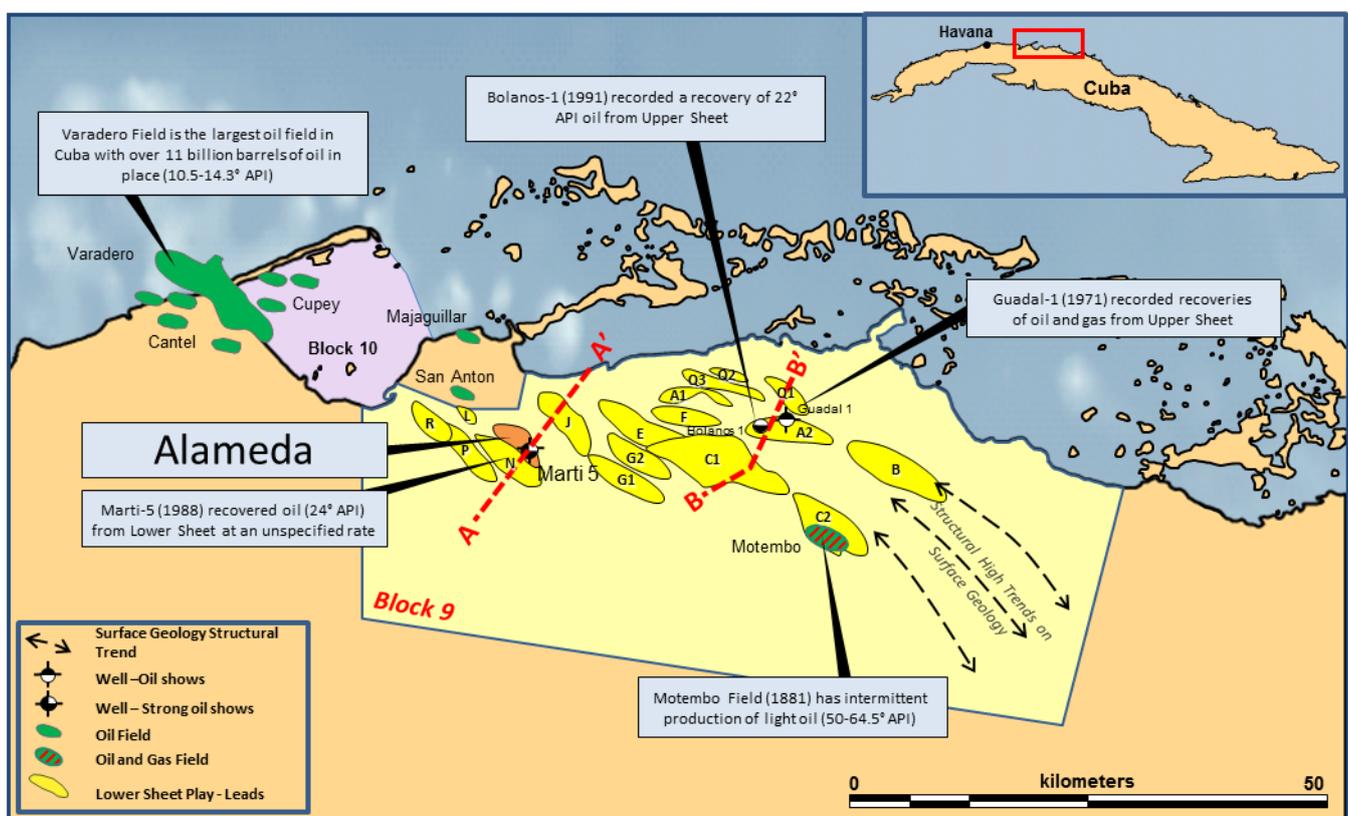


Figure 1. Block 9 location map showing adjacent fields

Table 1: Block 9 PSC Exploration Potential Oil-in-Place Summary:

Feature Name	Maturity	Chance of Discovery	Low	Best	High	mean
		%	MMstb	MMstb	MMstb	MMstb
Alameda	Prospect	32%	62	1,293	4,278	1,829
A1	Lead	18%	20	123	437	184
A2	Lead	21%	184	1,373	4,258	1,859
B	Lead	14%	194	1,837	6,127	2,598
C1	Lead	25%	109	1,426	5,942	2,363
C2	Lead	18%	65	1,193	4,741	1,891
E	Lead	25%	41	790	2,867	1,178
F	Lead	22%	37	492	1,590	680
G1	Lead	15%	51	253	768	343
G2	Lead	15%	22	156	580	239
J	Lead	16%	62	520	1,998	816
L	Lead	21%	12	78	261	111
N	Lead	22%	75	818	2,580	1,114
P	Lead	22%	67	773	2,450	1,056
Q1	Lead	14%	26	132	424	185
Q2	Lead	14%	15	74	238	103
Q3	Lead	14%	84	640	1,683	780
R	Lead	17%	16	273	1,077	429
Total (unrisked 100%)			1,141	12,243	42,300	17,759

Prospective Resources Cautionary Statement: The estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate 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.

Block 9 total Oil-In-Place exploration potential is estimated to be approximately 12 billion barrels (see Table 1), with the total exploration Prospective Resource of 612 million barrels (unrisked, Best Estimate 100% basis) (See Table 2), with an estimated 413 million barrels net to Melbana based on its net entitlement interest under the Block 9 PSC (see Attachment 1 for details). The recoverable volumes have been conservatively estimated using the historical 5% recovery factor for nearby Cuban fields. Due to the large amount of potential Oil-In-Place, the use of modern enhanced oil recovery techniques that improve the recovery factor offers the further potential for a substantial increase in oil recovery.

Table 2: Block 9 PSC Exploration Prospective Resources Summary:

Feature Name	Maturity	Chance of Discovery	Low	Best	High	mean
		%	MMstb	MMstb	MMstb	MMstb
Alameda	Prospect	32%	3	65	214	91
A1	Lead	18%	1	6	22	9
A2	Lead	21%	9	69	213	93
B	Lead	14%	10	92	306	130
C1	Lead	25%	5	71	297	118
C2	Lead	18%	3	60	237	95
E	Lead	25%	2	39	143	59
F	Lead	22%	2	25	79	34
G1	Lead	15%	3	13	38	17
G2	Lead	15%	1	8	29	12
J	Lead	16%	3	26	100	41
L	Lead	21%	1	4	13	6
N	Lead	22%	4	41	129	56
P	Lead	22%	3	39	122	53
Q1	Lead	14%	1	7	21	9
Q2	Lead	14%	1	4	12	5
Q3	Lead	14%	4	32	84	39
R	Lead	17%	1	14	54	21
Total (unrisked 100%)			57	612	2115	888
Melbana Net Entitlement Interest			38	413	1428	599

Additional potential is anticipated in the Upper Sheet and Tertiary plays, however these have not been quantified at this stage. There are numerous oil recoveries from old wells in the Upper Sheet in Block 9 and production from this play in nearby fields, but structures in the Upper Sheet are currently lower priority, due to their smaller size and the inability to accurately quantify these prospects using the available seismic grid. The Tertiary play is likely to contain heavier oil, and more data is needed to establish its level of productivity before it can be adequately characterised. Melbana is optimizing the potential drilling program to enable the acquisition of valuable information about both plays during the drilling of wells to the Lower Sheet objectives.

Alameda Prospect (formerly I Lead) - highest ranked prospect in Block 9

The Alameda Prospect (formerly I Lead) is currently the highest ranked exploration target in Block 9 PSC. Alameda is a large structure located in the western part of Block 9 and is in a similar structural position to the Varadero field, the largest oil field in Cuba, approximately 35km away. Alameda has an estimated chance of discovery of 32% and recoverable volumes ranging from 3 – 214 million barrels, with a best estimate of 65 million barrels recoverable. The primary objective at Alameda ranges in depth from approximately 3,000 to 3,700 meters. The presence of oil in the Alameda structure is supported by the Marti-5 well drilled within the prospect closure in a down flank position nearly 30 years ago and which recovered 24° API oil and had numerous oil shows extending over a 850 metre gross interval from the Lower Sheet section (see Figure 3).

A well in the Alameda prospect is being planned to evaluate additional potential by penetrating the N lead, which partially overlies the Alameda structure to the south. Further, the possibility of oil in the Upper Sheet in the vicinity of Alameda is suggested by the nearby Marti-2 well, drilled in 1973, which reportedly had multiple recoveries of oil in the shallow section.

In the event of a discovery at Alameda there would be significant follow up potential, with a number of additional leads in close proximity.

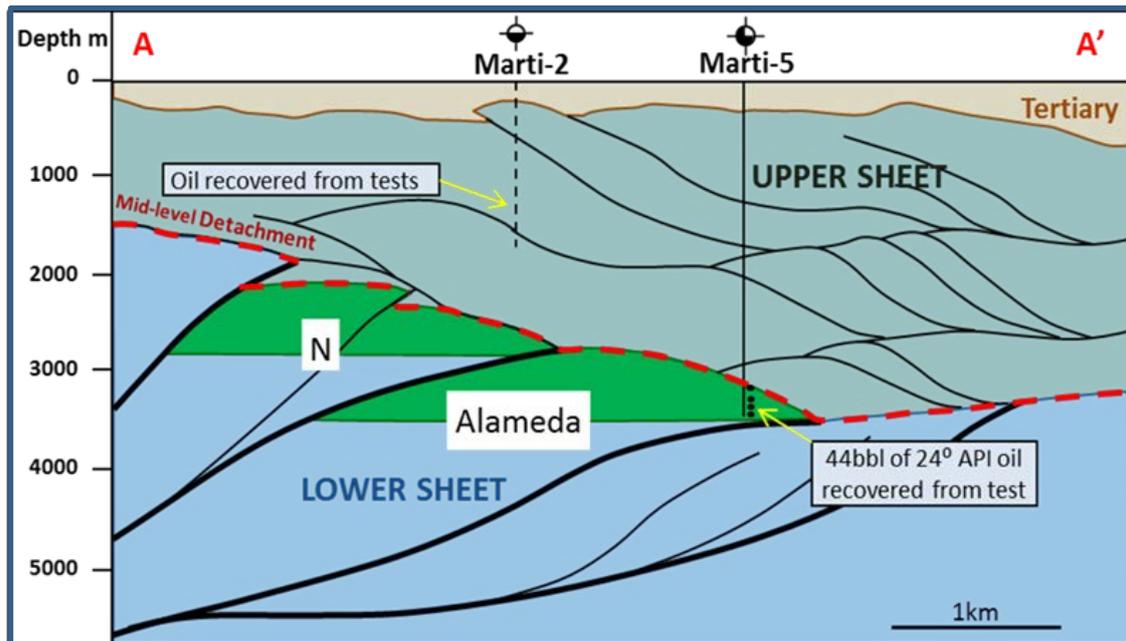


Figure 2. Schematic cross section through Alameda Prospect in western area of Block 9.

C1 and A2 Leads point to Multi Billion Barrel potential in Central Area of Block 9

Among the other attractive identified features are Lead A2 and Lead C1, located in the central area of Block 9.

Lead A2 has a significant chance of discovery (21%) and is potentially very large with exploration Prospective Resource potential for 69 million barrels of recoverable oil (unrisked, Best case, 100% basis). Supporting the A2 lead, are two nearby shallow wells that have recovered oil from the Upper Sheet above the deeper A2 Lead (see Figure 2):

- Guadal-1, drilled in 1970/71 (prior to the acquisition of modern seismic data), recovered oil from multiple tests; and
- Bolanos-1 drilled in 1991 recorded a recovery of 22° API oil

These shallower oil recoveries would represent secondary objectives that could be tested if a well were drilled to test the A2 Lead.

Lead C1 also has a significant chance of discovery (25%) and is potentially very large with exploration Prospective Resource potential for 71 million barrels of recoverable oil (unrisked, Best case, 100% basis). Lead C1 is located only 13km from the historical Motembo oil field which was discovered in 1881 and has produced over 5 million barrels of very light oil (50-64.5deg API) from a number of shallow boreholes.

Melbana interprets the Motembo oil to have been re-migrated from a deeper structural trend, of which Lead C1 is the most prominent feature.

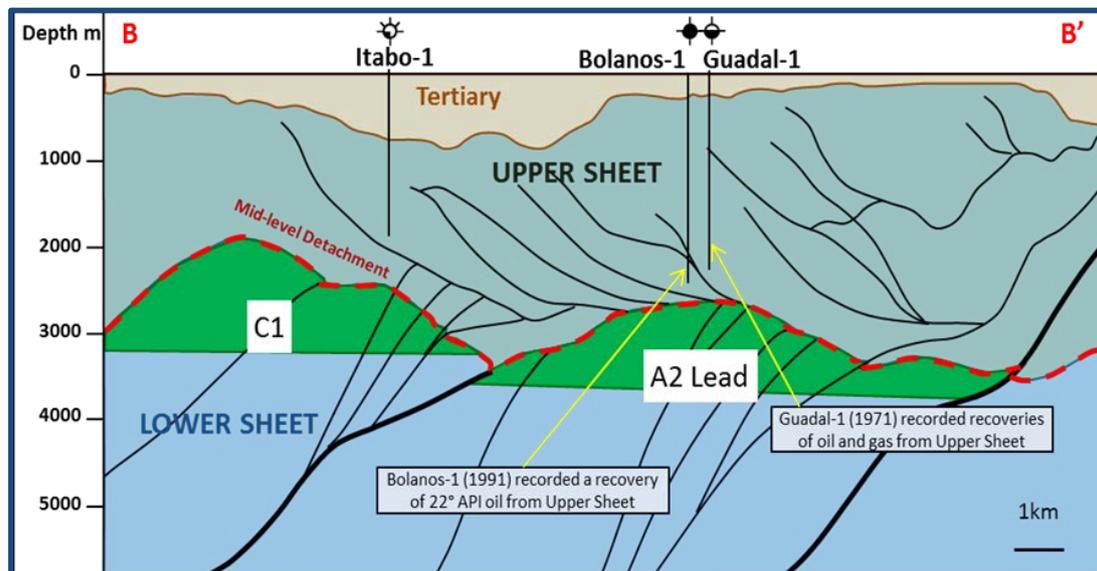


Figure 3. Schematic cross section through A2 Lead in central area of Block 9.

Next Steps

Overall, plans for the potential drilling of an initial program of up to two exploration wells in Block 9 are maturing, with a target of finalizing well proposals by the end of the current quarter. Melbana is currently undertaking a detailed investigation of the in-country operating environment to support the drilling program. Engineering and cost studies are also being undertaken to determine the optimal well designs for the drilling targets identified and to develop cost estimates for funding and/or farm out purposes.

In addition, Melbana will investigate the merits of additional seismic data acquisition to better define some of the identified geological features in the Lower Sheet Play as well as extending seismic data coverage to the east of Block 9 to assess the potential of that region of the block.

Overview of Block 9 PSC, Onshore Cuba

The Block 9 PSC, covering 2,380km² onshore the north coast of Cuba, is in a proven hydrocarbon system with multiple producing fields within close proximity, including and the Majaguillar and San Anton fields immediately adjacent to Block 9 and the multi-billion barrel Varadero oil field. Block 9 contains the Motembo field, the first oil field discovered in Cuba. Melbana is prequalified as an onshore and shallow water operator in Cuba and was awarded a 100% interest in the Block 9 PSC on 3rd September, 2015. Melbana has secured a 100% interest in Block 9, subject to a conditional 40% back-in option to be exercised no later than September 2017 held by Petro Australis Limited. Melbana's established position in Cuba provides it a strong early mover advantage.

Melbana's ambition to accelerate drilling in Block 9 in Cuba is consistent with the Cuban national oil company's announced strategy to accelerate oil exploration. Cuba's reported current production is around 45,000 barrels per day of oil and 3 million cubic metres (approximately 100 million standard cubic feet) per day of gas with international operators reporting globally competitive operating costs in Cuba of

~US\$7/barrel. Most of the oil and gas produce is currently used for electricity generation, the demand for which is expected to rise.

A handwritten signature in blue ink, appearing to read "Peter Stickland".

Peter Stickland

Managing Director & Chief Executive Officer

Contingent and Prospective Resources: The information in this presentation that relates to Contingent Resources and Prospective Resources for Melbana is based on, and fairly represents, information and supporting documentation compiled by Peter Stickland, the Managing Director and Chief Executive Officer of Melbana. Mr Stickland B.Sc (Hons) has over 25 years of relevant experience, is a member of the European Association of Geoscientists & Engineers and the Petroleum and Exploration Society of Australia, and 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.

Attachment 1: Block 9 PSC Resource assessment

This assessment has been prepared by Melbana in accordance with the definitions and guidelines set forth in the Petroleum Resource Management System, 2011, approved by the Society of Petroleum Engineers. The assessment is based on historical seismic and well data in Block 9 as well as surface geology and relevant data from offsetting areas.

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Table 2: Block 9 PSC, Prospective Resources (Recoverable) for Lower Sheet Play

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The Prospective Resource estimates have been estimated using probabilistic methods. The Low, Best and High Estimates represent respectively that there is a 90%, 50% and 10% probability that the actual resource volume will be in excess of the amounts reported. The mean volume represents the probabilistic average of the resource volume distribution.

“MMstb” means million stock tank barrels of oil.

The gross (100%) Prospective Resource estimates are based on the total anticipated oil recovery from the given feature.

The net entitlement interest is based on the anticipated cost recovery oil and Melbana’s share of profit oil under the terms of the Production Sharing Contract. Melbana’s average net entitlement interest has been estimated to be 67.5%, but will ultimately be dependent on production costs, production rates of future discoveries and prevailing oil prices.