

17 December 2014

## MAZAGAN JOINT VENTURE APPROVES DEEP WELL TARGETING MULTIPLE STACKED PLAYS

### HIGHLIGHTS

- Extensive review of prospects across the entire Mazagan permit has led the Joint Venture to reprioritise the first well location to drill a series of stacked targets collectively called ‘the Ouanoukrim prospect’ (*pronounced WON-OO-KRIM*). The well has been named MZ-1.
- The decision to change the first well location from Toubkal to Ouanoukrim is based on the results of technical work (including 3D reprocessing) undertaken since the block was acquired and is driven by the following:
  - MZ-1 will be testing 4, and potentially 5, independently risked stacked prospects at an optimal location close to the source rocks increasing the overall chance of success;
  - MZ-1 will test total gross mean prospective resources of over 1.4 billion barrels, with a high case of over 3.0 billion barrels (refer Table 1 on page 3); and
  - MZ-1 provides the opportunity to test the full prospective stratigraphic section of the basin, drilling through a Mid-Miocene turbidite channel (same age as Toubkal) and testing large traps in the Cretaceous and Jurassic thereby providing a greater understanding of the geology and plays ahead of the selection of the second well.
- The change in well location will have no impact on the scheduled spud of the first well (currently estimated to be in Q1 2015).
- Pura Vida has secured additional financial protection in the event that drilling costs exceed the US\$215 million cap under the original farmin terms.

#### **MZ-1 Well Briefing – Conference call with Q&A:**

Pura Vida Energy will be hosting a conference call on Wednesday, 17 December 2014 at 08:00am AWST / 11:00am AEDT.

Managing Director, Damon Neaves and Exploration Manager, Andrew Morrison will discuss today’s announcement followed by a short session to allow questions from analysts and shareholders.

The conference call will be recorded and posted on the Company’s website in due course.

Please connect approximately 10 minutes prior to the beginning of the call.

**Interested parties may access the conference call by using the following dial-in numbers:**

Direct DDI (s) for Participant Connection	Australia: 1800 268 560	New Zealand: 0800 466 125
	Hong Kong: 800 900 431	Japan: 0800 805 0675
Participant Pin Code	Singapore: 800 616 2330	United Kingdom: 0808 234 7273
	United States: 1855 886 6310	International: +61 2 8047 9300

Pura Vida Energy NL ("Pura Vida" or the "Company") (ASX:PVD) is pleased to advise that the Joint Venture has resolved to change the location of the first well in its 2015 drilling campaign. The decision follows a detailed review of the prospectivity of the Mazagan permit, and careful consideration of the benefits offered through investing more capital to drill deeper and test multiple prospects in the first well in the two well program.

The well has been named Mazagan-1 ("MZ-1") and will target the Ouanoukrim prospect in the northern part of the block (see Figure 1). The Ouanoukrim prospect comprises a series of independently risked stacked targets that are defined on 3D seismic (see Figure 2). MZ-1 will be drilled to 5,600 metres with potential to deepen to 6,150 metres Total Vertical Depth Subsea ("TVDSS"). The total gross mean resource potential targeted by the MZ-1 well is over 1.4 billion barrels, with a high case of over 3.0 billion barrels (refer Table 1 on page 3).

MZ-1 will test four separate objectives and a fifth objective if the well is deepened. MZ-1 provides the opportunity to test the full stratigraphy in the basin including large traps in the Cretaceous and Jurassic, as well as providing data on the potential of the Mid-Miocene. In drilling through the Jurassic targets the well will also sample the source rocks as they are interbedded with the Jurassic fans. Another significant benefit of this prospect will be the opportunity to drill through the shallower Tertiary, including the Mid-Miocene, where deep water turbidite channels are evident on seismic that are identical in age to those at Toubkal.

This well not only provides a greater chance of finding oil but will greatly enhance the Joint Venture's understanding of the potential of the Mazagan permit at an early stage.

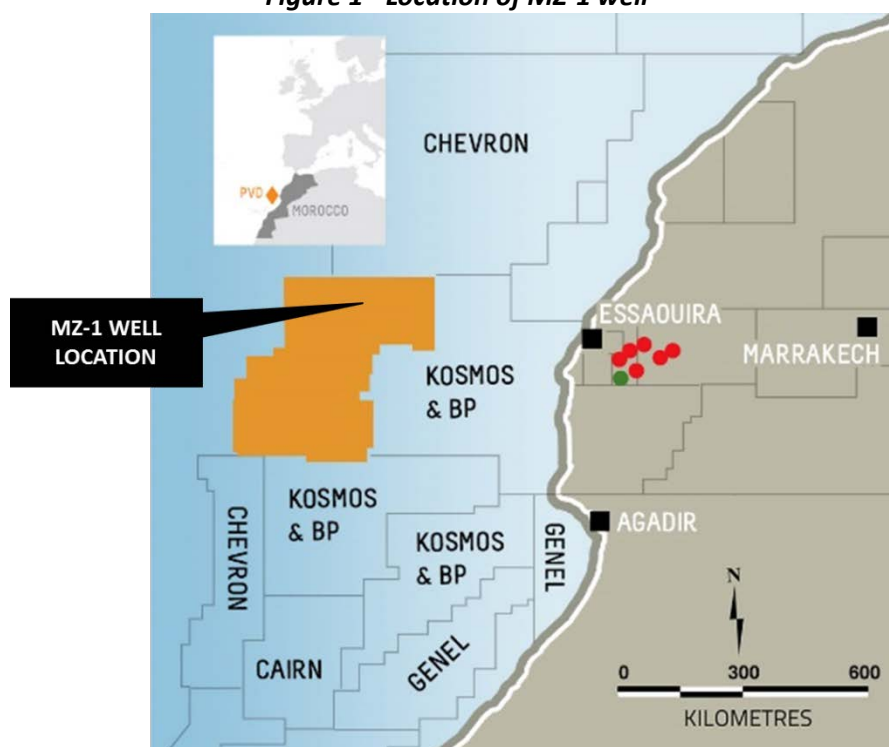
The MZ-1 well has an estimated cost of US\$136.6 million (including contingencies other than deepening). Pura Vida is carried by its Joint Venture partner, a subsidiary of Freeport-McMoRan Oil & Gas, PXP Morocco B.V. ("Freeport"), for the cost of both this well and the second well in the program up to a maximum of US\$215 million. Pura Vida has also secured an option to continue to be carried beyond the cap of US\$215 million under the farmin agreement (*refer to announcement of 3 January 2013 for a summary of the original farmin terms*). If the option is exercised then Pura Vida will dilute its interest in the permit on the basis of one percentage point per US\$4.5 million of gross expenditure in excess of the US\$215 million cap in the manner described in section 3 below.

Pura Vida's Managing Director Damon Neaves said,

*"MZ-1 is a high impact well providing the benefit of targeting multiple independently risked structures and a variety of different play types and will enhance the Joint Venture's understanding of the potential of the Mazagan permit. The Company is pleased that the Joint Venture has supported an investment decision to drill a deeper well to test a range of plays in order to maximise our chance of success."*

*"This decision also ensures that the Joint Venture gains information relating to each of the reservoir formations in the basin which will provide far greater information to evaluate prospects ahead of drilling our second well. In short, this approach maximises our chances of making a commercial oil discovery in the permit. The agreement with Freeport in respect of any overruns to the US\$215 million carry maintains Pura Vida's strong financial position during the drilling campaign."*

**Figure 1 - Location of MZ-1 well**



A number of prospects are shaping up as candidates for the second well in the 2015 drilling campaign, including the Toubkal prospect. The final selection of the location of the second well will be made following the evaluation of the results from the MZ-1 well. The second well is currently scheduled to spud in 2H 2015.

## 1. SUMMARY OF PROSPECTIVITY

The MZ-1 well has multi-billion barrel prospective resource potential that is ideally located in the Mazagan permit where a single deep well can test the Ouanoukrim prospect which has multiple stacked independently risked targets within the oldest and deepest Lower Jurassic play through to the younger structural Cretaceous play fairway (see Figure 2). Prospective resource estimates and risking of the various targets of the MZ-1 well are shown in Table 1 below.

**Table 1: Ouanoukrim prospective resource estimates**

Ouanoukrim Prospective Interval	Gross Prospective Resources Unrisked (mmbo) <sup>1,2</sup>				Gross Prospective Resources risked (mmbo) <sup>1,2</sup>		Net Prospective Resources (mmbo) <sup>1,2</sup>
	Low	Best	High	Mean	POS	Mean Risked	Mean Unrisked
Cenomanian	9	39	95	47	23%	11	11
Aptian	42	238	680	309	30%	94	71
Lower Jurassic – Fan 1	84	450	1,290	588	13%	76	135
Lower Jurassic – Fan 2	21	79	189	95	12%	11	22
Lower Jurassic – Fan 3	60	306	820	385	12%	45	89
<b>Total Recoverable prospective resources (aggregated, mmbo) <sup>3</sup></b>	<b>216</b>	<b>1,112</b>	<b>3,074</b>	<b>1,424</b>		<b>237</b>	<b>328</b>

Note 1 - Pura Vida estimates are based on probabilistic estimation method as at 7 October 2014

Note 2 - POS refers to probability of geologic success

Note 3 - Arithmetic summation of probabilistic estimates

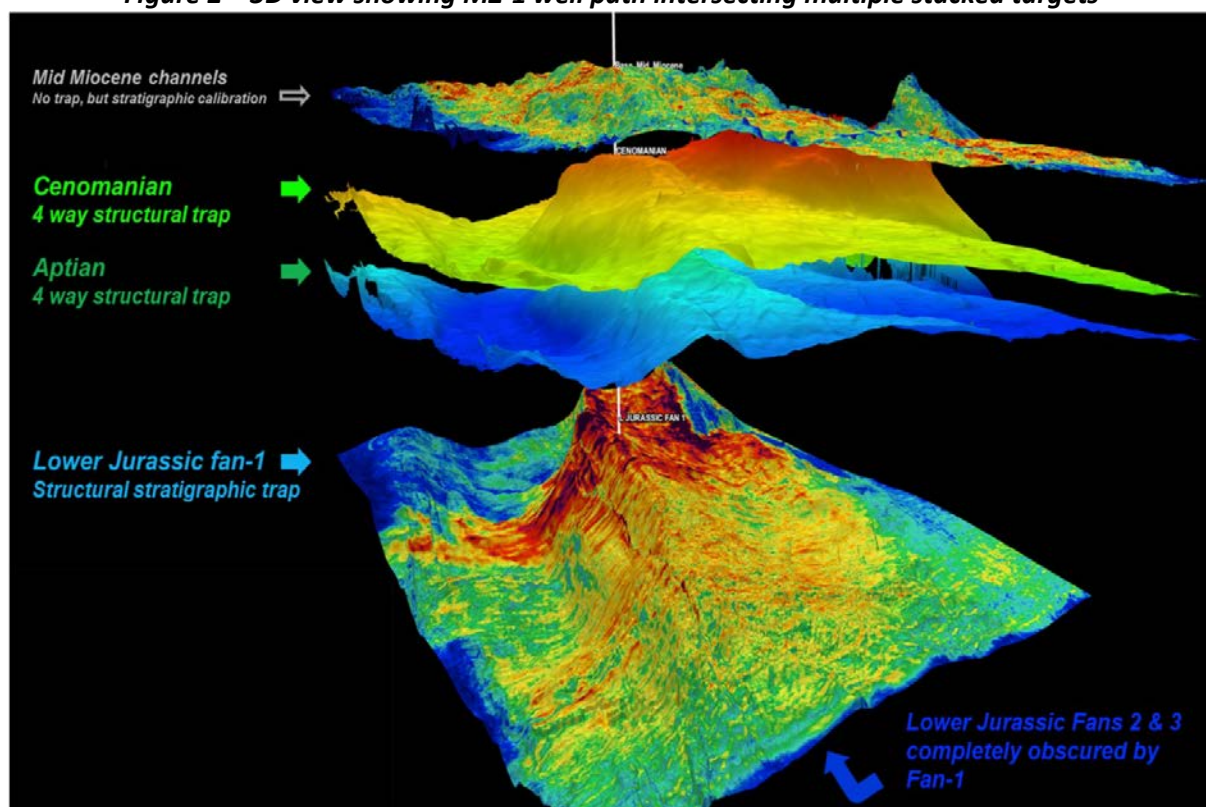
**Prospective Resource Cautionary Statement:** The estimated quantities of petroleum that may potentially be recoverable by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons. Pura Vida is not aware of any new information or data that materially affects the assumptions and technical parameters underpinning the estimates of the prospective resources and the relevant market announcements referenced continue to apply and have not materially changed.

The MZ-1 well is located in the northern part of the permit (see Figure 1). The MZ-1 well will test multiple stacked anticlinal structural closures at the Aptian and Cenomanian levels in conjunction with the deeper Lower Jurassic turbidite basin floor fan plays (see Figure 2 below). MZ-1 will also penetrate the Mid-Miocene turbidite channel fairway providing information on the Tertiary play which will help determine the second well in the 2015 drilling campaign.

The Lower Jurassic fans are inter-bedded within the source rocks and so are ideally positioned for migration of hydrocarbons directly from the source rocks into the fan systems. In the event that the fan systems are not an effective trap then migrant hydrocarbons are likely to pass vertically up into the younger Cretaceous structural anticlinal traps. In this way, the different plays may work together to provide a migration system into a range of different structures, any one or more of which may provide the trapping mechanism for hydrocarbons. For this reason the MZ-1 well is seen as the most compelling location for a hydrocarbon discovery and has been selected as the preferred location for the first well in the program. Figure 2 below shows how the traps at different depths align and can be tested by a single vertical well.

Fans within the Lower Jurassic had been identified on initial 3D seismic however with the completion of the seismic reprocessing to a pre-stack depth migration ("PSDM") the validity of these fans as traps has been confirmed. This data has also reaffirmed the structural traps in the Cretaceous and validated the presence of significant vertical relief, especially at the Aptian level.

**Figure 2 – 3D view showing MZ-1 well path intersecting multiple stacked targets**



## 2. EVALUATION OF MZ-1 TARGETS

### 2.1 Cretaceous Interval

The Cretaceous play fairway benefits from possessing predominantly structural traps that are either directly related to salt cored structures or structural inversion anticlines. There are several mapped closures at this level where the larger Aptian interval has a closure of 79 km<sup>2</sup> with vertical relief in excess of 280 metres. Seismic imaging is good and reservoir architecture can be mapped across the prospective intervals where amplitudes indicate significant sand wave field development.

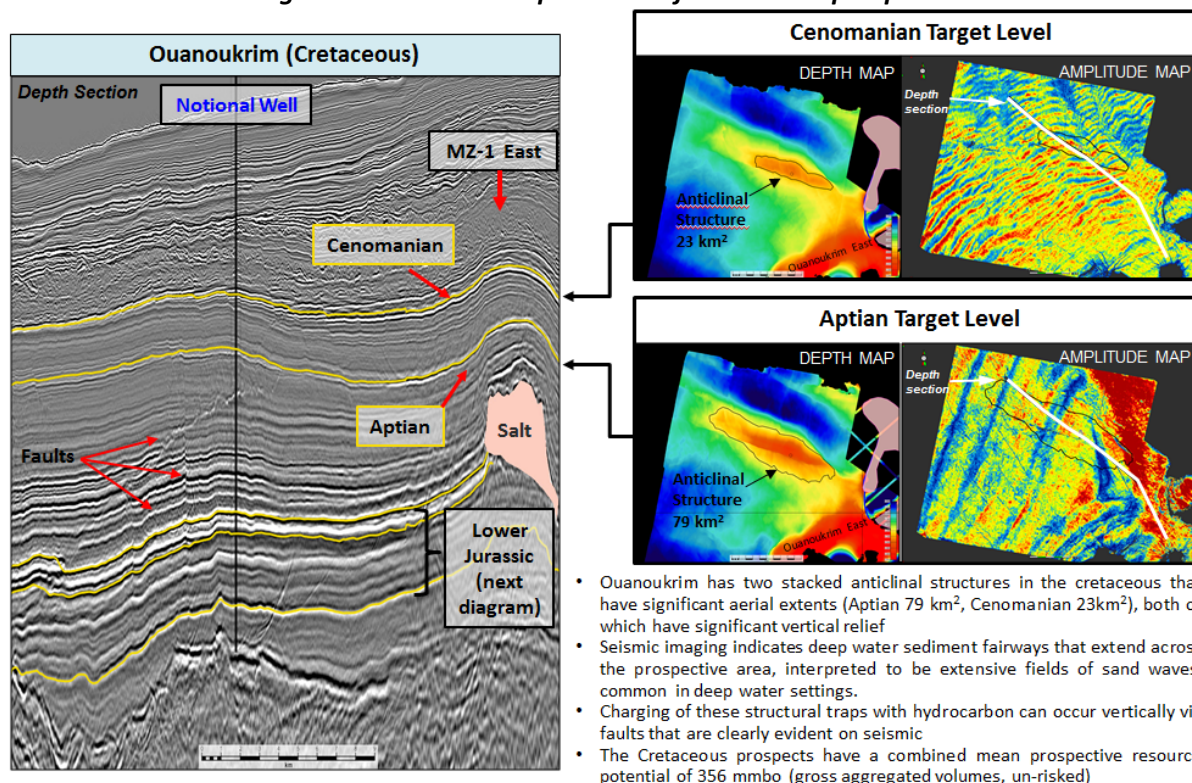


These types of reservoirs are more prevalent in deep water settings and have been found to be highly productive in Brazil (Santos and Campos Basins) as well as the Gulf of Mexico.

The Cenomanian interval is the shallower level which has vertical relief of approximately 100 metres and an aerial extent of 23 km<sup>2</sup>.

Significant faulting exists from the deeper Jurassic through the Cretaceous that can act as conduits for hydrocarbon charge from the deeper Lower Jurassic source rocks directly below.

**Figure 3 – Seismic interpretation of Cretaceous prospects**

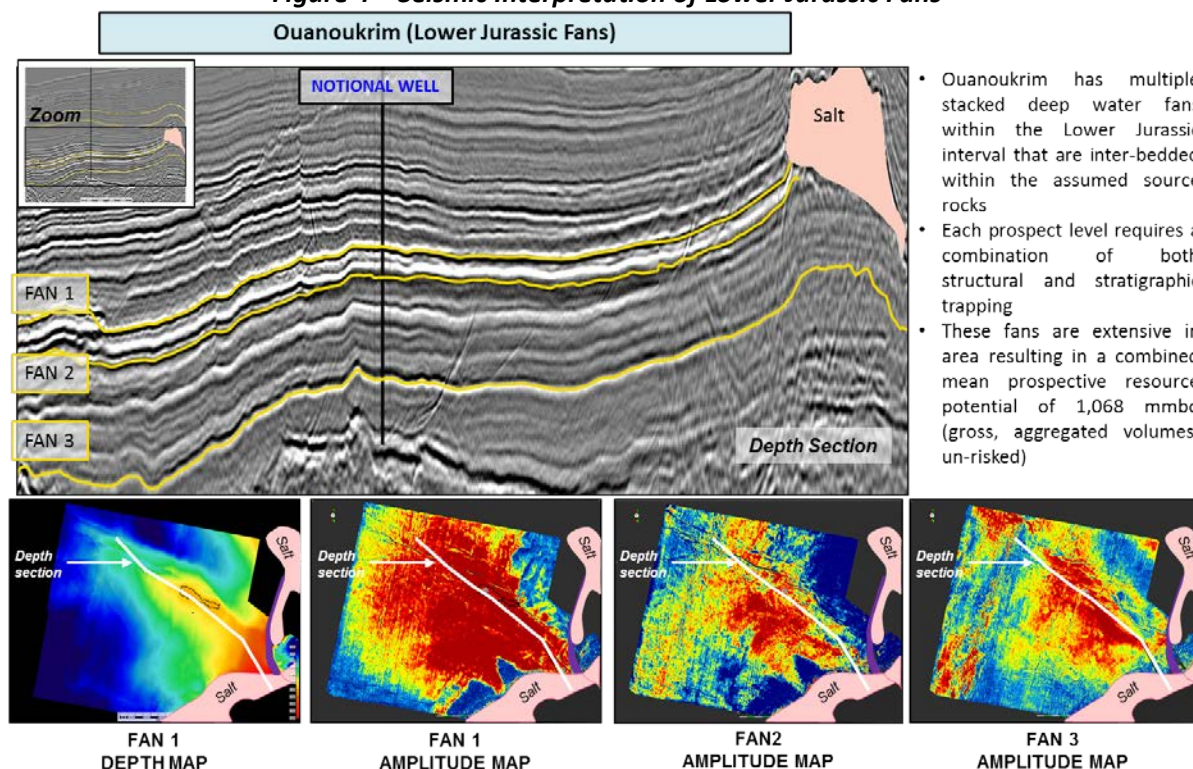


## 2.2 Jurassic Interval

The Jurassic source rock interval has been correlated directly from the DSDP (Deep Sea Drilling Program) wells on 2D seismic into the prospect and from the newly processed PSDM (RTM), the depth of these intervals indicates that the Jurassic is currently at peak maturity for oil and gas generation. Seismic interpretation has defined a series of amplitude reflectors that from their mapped extent clearly indicates classic fan morphologies of which the upper most cycle (Fan1) covers an extensive area in excess of 240 km<sup>2</sup> (see Figure 4 below). Seismic inversion results also indicate this level has anomalously low impedance which further suggests that these fans are likely to have porosity and therefore good reservoir characteristics. The fans occur within the Lower Jurassic source rocks and therefore are ideally placed to receive hydrocarbon charge directly from the source beds into the reservoirs within the fan complex. This is the most effective charging situation and is likely to be highly efficient, providing significant oil charge to the traps.

Trapping of the fans is evident on 3D and 2D seismic where pinch-out against salt and truncation by significant faults provides containment. At the top fan level there is also a modest independent four way closure and the MZ-1 well possesses the ideal scenario where it is possible to locate the well to drill through all targets within independent four-way dip closures at each level. These factors, in combination with the volumetric assessment make the MZ-1 well the ideal location to test and validate the multiple plays within the permit and therefore provide the highest chance to find hydrocarbons.

**Figure 4 – Seismic Interpretation of Lower Jurassic Fans**



### 3. OPTION FOR ADDITIONAL CARRY

The farmin agreement with Freeport has been amended to include a provision providing protection for Pura Vida in the event well costs for the first two exploration wells exceed the original US\$215 million carry. The revised terms grant Pura Vida an option to either to continue to pay its participating interest share of costs or for Freeport to carry Pura Vida's share of those costs if well costs exceed the US\$215 million cap under the farmin agreement. The option must be exercised by Pura Vida no later than the date on which the second well in the program spuds.

In the event that Pura Vida elects to continue to be carried beyond the US\$215 million cap under the farmin agreement, Pura Vida's interest in the permit will be reduced by 1% for each US\$4.5 million in gross well costs incurred in excess of the cap. However, Pura Vida's interest shall not be reduced below 4% as a result of additional well costs relating to the carried wells.

The option gives Pura Vida an additional means to fund the costs of the drilling program in circumstances where those costs exceed the US\$215 million carried costs under the original farmin terms. Whether this is required, and if so, whether Pura Vida chooses to avail itself of this funding mechanism are matters to be determined in the future. However, this option affords Pura Vida additional protection to the cost exposure of the drilling program.

**Persons compiling information about hydrocarbons:** *The resource estimates in this announcement have been prepared using the internationally recognised Petroleum Resources Management System to define resource classification and volumes. The resource estimates are in accordance with the standard definitions set out by the Society of Petroleum Engineers, further information on which is available at [www.spe.org](http://www.spe.org). The estimates are unrisked and have not been adjusted for both an associated chance of discovery and a chance of development. The 100% basis and net to Pura Vida prospective resource estimates includes Government share of production.*

*Resource estimates have been prepared by Mr Andrew Morrison BSc. Geology (Hons) a Geologist who has over 30 years of experience in petroleum geology, geophysics, prospect generation and evaluations, prospect and project level resource and risk estimations and is a member of the Society of Petroleum Engineers. Mr Morrison is a full time employee of the Company and has consented to inclusion of the resource estimates in this presentation in the form and context in which they are included.*

**Prospective Resource Cautionary Statement:** *The estimated quantities of petroleum that may potentially be recoverable 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. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.*

*Pura Vida is not aware of any new information or data that materially affects the assumptions and technical parameters underpinning the estimates of the prospective resources and the relevant market announcements referenced continue to apply and have not materially changed.*

**About Pura Vida Energy:** Pura Vida is an Australian-based African oil explorer building a portfolio of high quality assets. Pura Vida currently has operations offshore Morocco, Gabon and Madagascar with significant resource potential and a fully funded high-impact drilling program.

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