

18 Mar 2015

## PURA VIDA ENERGY NL (PVD)

### Reminder: Pura Vida drilling offshore Morocco in April

After a long wait PVD is about to drill a well offshore Morocco. The rig (Atwood Achiever) is on its last assignment before being handed over to Freeport McMoRan (Operator) to drill the MZ-1 well. At this stage the Company has guided for an April spud. Even in a softer oil price environment, the leverage that PVD has to a successful well is significant. Based on how the market valued the success of both FAR Ltd (FAR) and Carnarvon Petroleum (CVN) in 2014 we expect an uplift of close to 3x or the equivalent of \$1.25/share.

If the MZ-1 well is not successful we think PVD's downside valuation is 26cps. Importantly, unlike Tangiers Petroleum (formerly TPT) and Neon Energy (NEN) who both drilled unsuccessful wells, PVD has other assets, a second well in Morocco and cost protection on the MZ-1 well which all contribute to limit the downside on the stock. We maintain our Speculative Buy on the stock with pre-drill target price of 46cps.

### Testing multiple targets within a single well

The MZ-1 well will test 4 stacked objectives with an initial target depth of 5,600m. The JV may elect to test a fifth target by deepening the well to 6,150m. These targets include both structural and stratigraphic traps in the Cretaceous and Jurassic intervals. Within the Lower Jurassic interval, stacked fan systems (MZ-1 well will test two of these and three if the well is deepened) exist within the Jurassic source rock, which increases the chance of oil migrating from source to reservoir.

### Our best guess is for a mid-April spud

The latest estimate on timing is for the MZ-1 well to spud in April (previous guidance was for March 2015). The Atwood Achiever recently completed a well for Kosmos Energy offshore Morocco and has now mobilised to complete a well offshore Mauritania after which the rig will be handed to Freeport to drill the MZ-1 well. The well is expected to take approximately 70-90 days to reach target depth.

### Success of CVN and FAR

The poster children for oil & gas exploration success in 2014 were CVN and FAR. CVN had success with the Phoenix-South-1 well while FAR had dual success offshore Senegal (FAN-1 and SNE-1 wells). From spud date to the highest peak post spud both FAR and CVN received a mkt cap uplift of close to 3x. Both discoveries were different in terms of location, geology and future capex requirements and yet had similar uplift in mkt cap.

### Valuation and Target Price

The success of FAR in 2014 provides a recent example of the upside potential for PVD if the MZ-1 well is successful. In Table 1 on page 3 we look at how the market valued FAR compared to the value of the pre-drill prospective resource estimate (net). Based on this analysis (assuming the well is successful) we think PVD could trade as high as \$1.25 per share. We think the downside target for the stock should the MZ-1 well be unsuccessful is 26cps. If we weight our upside and downside scenarios by 20% and 80% respectively then we get a pre-drill target price of 46cps.

<b>Share Price:</b>	\$0.390
<b>Price tgt - upside - success case</b>	\$1.25
<b>Price tgt - downside</b>	\$0.26
<b>Pre-drill (20% upside / 80% downside)</b>	\$0.46

#### Hartleys Brief Investment Conclusion

Pura Vida (PVD)'s has a significant free-carried interest in what is potentially a 1bn bbl (plus) resource (Ouanoukrim). Upside also comes from its offshore acreage in Gabon and also Madagascar.

#### Board of Directors:

Jeff Dowling	Non-Executive Chairman
Damon Neaves	Managing Director
Richard Malcolm	Non-Executive Director

#### Substantial Shareholders:

Board (Un-diluted)	5.1%
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#### Company Address:

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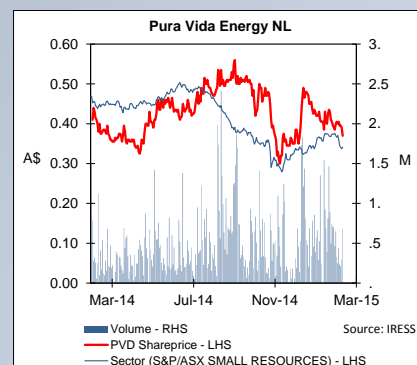
<b>Issued Capital:</b>	147.4m
- fully diluted	175.0m
<b>Market Cap:</b>	\$57.5m
- fully diluted	\$68.3m
<b>Cash (Dec 2014)</b>	\$18.2m

Note: PVD raised A\$4m in February 2015

#### Valuation Summary

Asset	Risked A\$m	Risked A\$/s	Un-risked A\$/s
Morocco	341	1.95	11.69
Gabon	210	1.20	12.00
Madagascar	10	0.06	0.06
	<b>561</b>	<b>3.21</b>	<b>23.75</b>

Source: Hartleys Research



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Hartleys has assisted in the completion of capital raisings in the past 12 months for Pura Vida Energy NL ("Pura Vida") for which it has earned fees. Hartleys has provided corporate advice within the past 12 months and continues to provide corporate advice to Pura Vida, for which it has earned and continues to earn fees. Hartleys has a beneficial interest in 3 million unlisted options in Pura Vida.

## SUMMARY MODEL

Pura Vida Energy NL				Share Price		Mar-15	
PVD				\$ 0.390		Speculative Buy	
<b>Key Market Information</b>							
Share Price				<b>\$0.390</b>			
Market Capitalisation	Ordinary			\$57m			
	Fully Diluted			\$18.2m			
Cash (Dec 2014)				\$18.2m			
Issued Capital				147.4m			
ITM options				6.5m			
Issued Capital (fully diluted all options)				175.0m			
Enterprise Value (EV)				\$50.1m			
Price tgt - upside - success case				<b>\$1.25</b>			
Price tgt - downside				<b>\$0.26</b>			
Pre-drill (20% upside / 80% downside)				<b>\$0.46</b>			
<b>Projects</b>	<b>Interest</b>	<b>Location</b>	<b>Commodity</b>				
Mazagan	23%	Morocco	Oil				
Nkembe	80%	Gabon	Oil				
Ambilobe	50%	Madagascar	Oil				
<b>Prospective Resources</b>				<b>Oil</b>	<b>Oil Eq</b>		
				<b>mmbbl</b>	<b>mmbbl</b>		
<b>Best Prospective</b>							
Ouanoukrim		1,424	-		1,424		
Toubkal		1,507			1,507		
Nkembe		1,680	-		1,680		
<b>Valuation</b>				<b>Risked A\$m</b>	<b>Risked</b>	<b>Unrisked</b>	
				<b>A\$ m</b>	<b>\$/share</b>	<b>A\$ m</b>	
<b>Ouanoukrim</b>							
Cenomanian		16				68	
Aptian		133				444	
Lower Jurassic- Fan-1		110				845	
Lower Jurassic- Fan-2		16				137	
Lower Jurassic- Fan-3		66				553	
<b>Sub-total</b>		<b>341</b>		<b>1.95</b>		<b>2,047</b>	
Gabon		<b>210</b>		<b>1.20</b>		<b>2,100</b>	
Madagascar		<b>10</b>		<b>0.06</b>		<b>10</b>	
<b>Total</b>		<b>561</b>		<b>3.21</b>		<b>4,157</b>	
<b>Directors</b>				<b>Company Details</b>			
Jeff Dowling				Non-Executive Chairman			
Damon Neaves				Managing Director			
Richard Malcolm				Non-Executive Director			
<b>Substantial Shareholders</b>				<b>%</b>			
Board (Un-diluted)						5.1%	
<b>Investment Summary</b>							
We expect Pura Vida to spud the MZ-1 well in April 2015. The farm-out of PVD's Nkembe block and a significant well program by other operators in both Morocco and Gabon will continue to generate newsflow. PVD's farm into the Ambilobe Block offshore Madagascar adds to the Company's portfolio of African assets.							
<b>Expected Newsflow</b>				<b>Project</b>	<b>Impact</b>		
2Q 15	Ouanoukrim drilling			Morocco	Direct		
1H 15	Gabon farmout			Gabon	Direct		
1H 15	Madagascar seismic			Madagascar	Direct		
1H 16	2nd well in Morocco			Morocco	Direct		
<b>Quarterly Cash Flow- Historical</b>							
<b>A\$ m</b>	<b>1Q</b>	<b>2Q</b>	<b>3Q</b>	<b>4Q</b>	<b>FY14</b>	<b>FY15</b>	
<b>Beginning</b>	<b>3.41</b>	<b>7.20</b>	<b>28.92</b>	<b>24.92</b>	<b>20.46</b>	<b>18.82</b>	
Operating	-2.73	-5.99	-3.44	-2.15	-2.84	-2.28	
Investing	-0.03	16.81	0.00	-0.01	-0.01	-0.01	
Financing	6.55	10.90	0.16	-1.98	0.02	0.63	
<b>End</b>	<b>7.19</b>	<b>28.92</b>	<b>24.92</b>	<b>20.46</b>	<b>18.82</b>	<b>18.16</b>	
Note: PVD raised A\$4m in February 2015							
Analyst: Simon Andrew				Last Updated: 18/03/2015			
Phone: +618 9286 3020							
Sources: IRESS, Company Information, Hartleys Research							

## UPSIDE AND DOWNSIDE TARGET PRICE

*FAR provides the most obvious example of exploration success*

The success of FAR in 2014 provides a good example of the upside potential, in the near term, for PVD if the MZ-1 well is successful. Upon success we think PVD could trade as high as \$1.25 per share. We think the downside target for the stock should the MZ-1 well be unsuccessful is 26cps. If we weight our upside and downside scenarios by 20% and 80% respectively then we get a pre-drill target price of 46cps.

**Fig. 1: PVD upside valuation – relative to FAR**

<b>FAR - Senegal pre-drill estimates</b>							
	Unrisked best estimate prospective resource	Working Interest	Unrisked best estimate prospective resource (net)	PoS	Risked best estimate prospective resource (net)	US\$/bbl	Value
	MM bbl		MM bbl		MM bbl		
FAN--1	936	13.7%	128.2	16%	20.5	10	205
SNE-1	645	13.7%	88.4	25%	22.1	10	221
Sub-total	1581		216.6		42.6		426
X-rate at discovery							0.87
A\$ m							490
Peak Mkt Cap							391
Peak Mkt Cap / Risked valuation							80%
<b>PVD - Morocco pre-drill estimate</b>							
MZ-1	1112	23.1%	256.9	17%	42.8	5	214
Current X-rate							0.78
A\$ m							274
Peak Mkt Cap / Risked valuation similar to FAR							80%
Target mkt cap (A\$ m)							219
Upside valuation (A\$ per share)							1.25

Note: We have reduced our US\$/bbl valuation because the price of oil has halved since the FAR discoveries

Source: PVD, FAR, Hartleys Research

**The upside case.** The value of FAR relative to the pre-drill risked valuation of the prospective resource for the two Senegal targets provides a reasonable guide to where PVD might trade should the MZ-1 well be successful (see table 1).

*Based on FAR's post well valuation, our upside target for PVD is \$1.25*

Based on published data, the two wells that FAR was involved in offshore Senegal had an unrisked, best estimate, prospective resource net to FAR of 216MM bbls. This equated to a risked estimate of 43MM bbls. If we assign a value of US\$10/bbl we get a valuation net to FAR of US\$426m. This equates to a value of A\$490m using the prevailing cross rate at the time the discovery was announced to the market.

Post discovery FAR's market capitalisation (mkt cap) peaked at A\$391m or 80% of the net risked value. If we apply a similar analysis to PVD's pre-drill prospective resource estimate we get a value of A\$1.25 per share. To derive this value we have used only US\$5/bbl to value PVD's net risked prospective resource because the underlying oil price has halved since the FAR discovery. We would also note that PVD's risked best estimate prospective resource is similar to FAR's albeit from two wells.

**The downside case.** If the MZ-1 well is not successful we think PVD's stock price will fall to 26cps. Unlike Tangiers Petroleum (formerly TPT) and Neon Energy (NEN), PVD has cash, other assets and cost protection which all contribute to limit the downside on the stock. In addition the farm-out to Freeport McMoRan allows

for a second free-carried well within the US\$215m cap as well as an option for an additional carry in excess of the cap (if required).

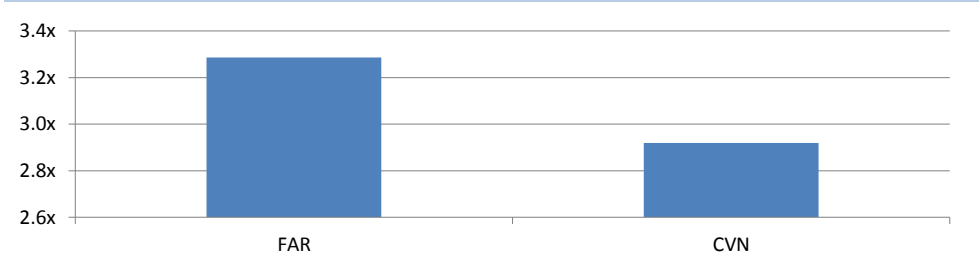
*In 2014 the oil industry in Gabon generated an unprecedented level of success*

**PVD also has the Gabon and Madagascar acreage.** Beyond Morocco we think the Nkembe block (Gabon) provides the majority PVD's value. In 2014 the oil industry in Gabon generated an unprecedented level of success. This included significant discoveries by Eni, Exxon and Total. Given the level of industry activity we would hope PVD can deliver a commercial outcome in 2015. Should this happen we would be able to reduce the discount we currently apply to the value of Gabon. Our gross valuation of the risked, best estimate prospective, resource for the Nkembe block is US\$341m or \$1.20 per share. We then heavily discount this (80%) to achieve a value of 24cps.

Post the recent capital raising PVD has approximately A\$22m in cash or 12.5cps. Post the seismic spend in Madagascar cash at bank is likely to decline to A\$14m or 8cps.

**PVD has built in cost protection.** The cost of the MZ-1 well has been estimated at US\$136.6m which includes contingencies (approximately US\$20m) but not deepening. Remember under the terms of the initial farm-in agreement PVD is carried to a total of US\$215m with a two well commitment. PVD has negotiated a mechanism within the farm-in agreement that provides protection against cost overruns. The mechanism allows PVD the option to exchange a 1% equity interest for US\$4.5m in gross expenditure over US\$215m with an equity floor of 4%. (PVD currently holds a 23% interest in the Mazagan permit).

**Fig. 2: Mkt Cap uplift post discovery – FAR and CVN**



Source: Iress

**Fig. 3: FAR share price chart (cps)**



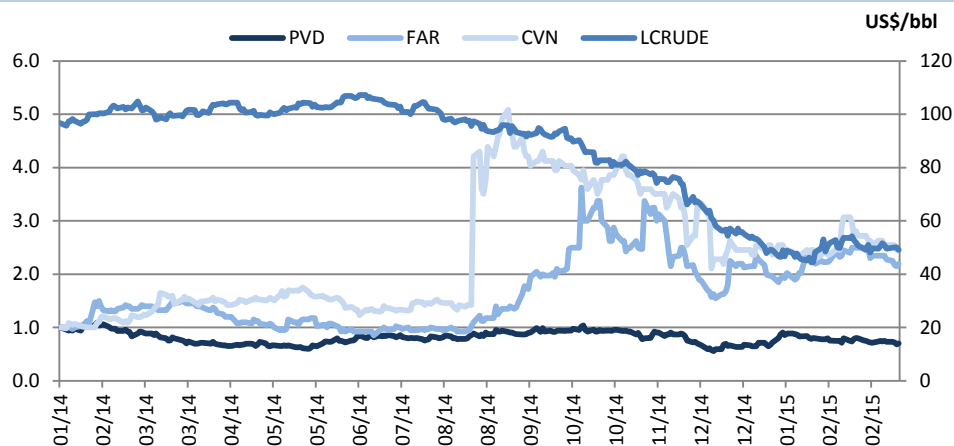
Source: Iress

**Fig. 4: CVN share price chart (cps)**



Source: Iress

**Fig. 5: Exploration success independent of the oil price**



Source: Iress

**Fig. 6: Valuation Summary**

	Current W.I.	Diluted W.I.	Operator	Gross mmboe (Mean)	Net mmboe	PoGS %	Risked mmboe	NPV/boe US\$/boe	NPV Risked A\$m	NPV Un-Risked A\$m	Value per share (A\$) Risked	Value per share (A\$) Unrisked
Morocco	23%	23%	Freeport									
Ouanoukrim												
Cenomanian				47	11	23%	2.5	5	16	68		
Aptian				309	71	30%	21.3	5	133	444		
Lower Jurassic- Fan-1				588	135	13%	17.6	5	110	845		
Lower Jurassic- Fan-2				95	22	12%	2.6	5	16	137		
Lower Jurassic- Fan-3				385	89	12%	10.6	5	66	553		
Sub-total				1,424	328		54.6		341	2,047	1.95	11.7
Gabon	80%	20%		1,680	336	10%		5	210	2,100	1.20	12.0
Madagascar									10	10	0.06	0.06
Gross Valuation									561	4,157	3.21	23.75

Source: Pura Vida, Hartleys Research

## MZ-1 – MULTIPLE TARGETS AND PLAY TYPES

*The targets are stacked which means the well provides the opportunity to test a range of stratigraphies contained within the basin*

The MZ-1 well is designed to test a range of targets identified from the reprocessing of 3D seismic and other technical work undertaken by the JV. The targets are stacked which means the well provides the opportunity to test a range of stratigraphies contained within the basin.

Within the Cretaceous interval the MZ-1 well will test predominantly structural closures. Deeper into the Jurassic the JV has identified stacked fan systems interbedded with Jurassic source rock which enhances the probability of hydrocarbons migrating into the reservoir system. Furthermore PVD believe that if the Jurassic fan system does not contain an effective seal that hydrocarbons may migrate vertically within the system into the younger Cretaceous traps.

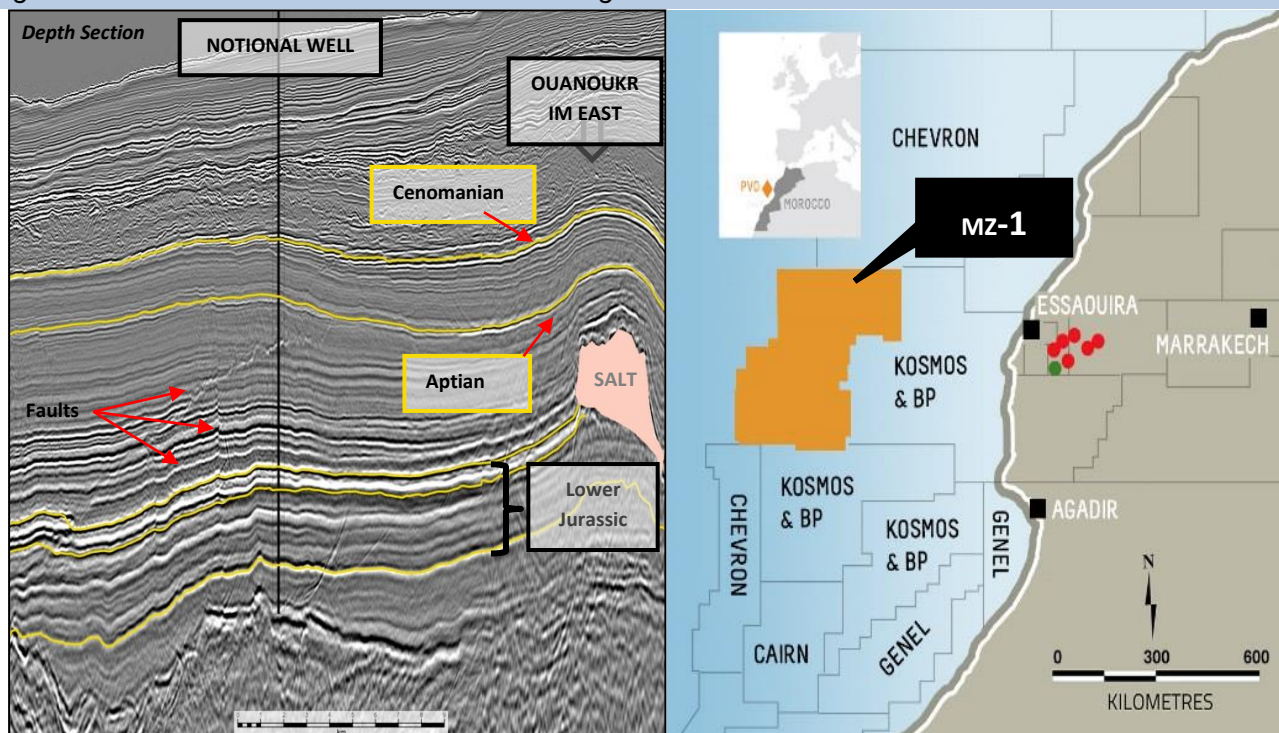
In the table below we have outlined the prospective resource estimates across the five targets within the Ouanoukrim prospect. The largest of these is the shallowest of the Lower Jurassic fan targets which has a mean prospective resource estimate of 588MM boe. In total the five targets have a mean prospective resource estimate of 1.4bn boe.

**Fig. 7: Ouanoukrim – prospective resource estimates**

MM boe	Gross Prospective Resources Unrisked				Gross Prospective Resources risked		Net Prospective Resources
	Low	Best	High	Mean	POS	Mean risked	Mean Unrisked
Cenomanian	9	39	95	47	23%	10.8	11
Aptian	42	238	680	309	30%	92.7	71
Lower Jurassic – Fan 1	84	450	1290	588	13%	76.4	135
Lower Jurassic – Fan 2	21	79	189	95	12%	11.4	22
Lower Jurassic – Fan 3	60	306	820	385	12%	46.2	89
<b>Total</b>	<b>216</b>	<b>1112</b>	<b>3074</b>	<b>1424</b>		<b>238</b>	<b>328</b>

Source: Pura Vida Energy NL

**Fig. 8: Location of MZ-1 Well – notional target intervals and well location**



Source: Pura Vida Energy NL

## SIGNIFICANT ACTIVITY OFFSHORE GABON IN 2014

In the past year there has been significant activity offshore Gabon but more importantly there has been several discoveries. The map in Figure 1 details the recent drilling activity offshore Gabon. The feature of recent activity offshore Gabon has been discoveries in the pre-salt. These pre-salt discoveries significantly de-risk this play type on PVD's Nkembe block and should enhance the Company's chance of securing a farmout in the near future.

Fig. 9: Gabon Activity Map

**October 2014 - ACREAGE AWARD**

- Ophir signs PSC for Blocks A3 and A4

**July 2014 - DISCOVERY**

- Eni in Block D4 offshore
- Nyonie Deep1 well
- 500 MM boe gas / condensate discovery
- Pre-salt reservoir

**October 2014 – SEISMIC SHOOT**

- Impact Oil & Gas (Private) have started shooting seismic in block D7
- Looking to farm-down

**RABI KOUNGA FIELD**

- EUR of 900MM bbls, Peak 230,000b/d
- Pre-salt reservoir

**October 2014 - TECHNICAL SUCCESS**

- Sputnik-1 well
- Hydrocarbons - not commercial volumes
- Pre-salt target
- Currently shooting seismic

**July 2014 - DISCOVERY**

- Tullow - Igongo-1 well
- 90m oil / gas pay
- Pre-salt reservoir

**August 2014 - DRY HOLE**

- N'komi-1 well believed to be dry

**October 2014 - DISCOVERY**

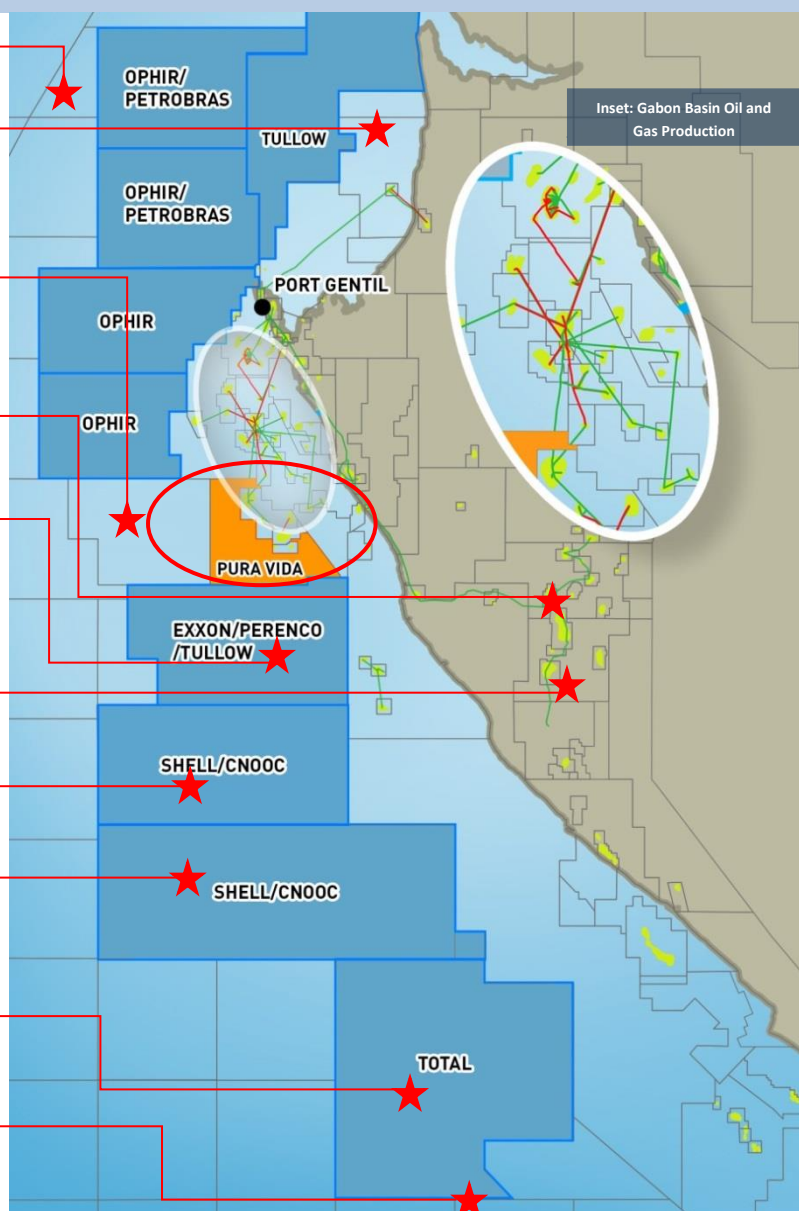
- Leopard-1 well
- 200m of net gas / condensate pay
- Pre-salt reservoir

**August 2013 - DISCOVERY**

- Diaman-1B well
- 60m net gas / condensate pay
- Pre-salt reservoir

**October 2014 – SEISMIC SHOOT**

- Impact Oil & Gas (Private) currently shooting seismic over block D13 and D14



Source: Pura Vida Energy NL

## RISKS

The key risks for PVD (like most oil & gas exploration companies) is making an economic discovery and obtaining the funding for ongoing exploration. Other risks include delays, key person risk, country/sovereign risk, weather, JV partner obligations, cost inflation. Investing in explorers is very risky given the exploration value of the company in essence assumes that the market will recognise a portion of potential value before the results of an exploration program are known, conscious that the ultimate chance of success is low (typically 1%-20%) and that failure is much more likely, in most cases. Other risks are earnings disappointments given the industry is volatile and earnings can disappoint due to cost overruns, project delays, cost inflation, environmental regulations, resource estimate errors and management performance and contract negotiation skills. High financial leverage (if it exists at that time) would add to the problem.



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Buy	Share price appreciation anticipated.
Accumulate	Share price appreciation anticipated but the risk/reward is not as attractive as a "Buy". Alternatively, for the share price to rise it may be contingent on the outcome of an uncertain or distant event. Analyst will often indicate a price level at which it may become a "Buy".
Neutral	Take no action. Upside & downside risk/reward is evenly balanced.
Reduce / Take profits	It is anticipated to be unlikely that there will be gains over the investment time horizon but there is a possibility of some price weakness over that period.
Sell	Significant price depreciation anticipated.
No Rating	No recommendation.
Speculative Buy	Share price could be volatile. While it is anticipated that, on a risk/reward basis, an investment is attractive, there is at least one identifiable risk that has a meaningful possibility of occurring, which, if it did occur, could lead to significant share price reduction. Consequently, the investment is considered high risk.

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