

Petsec Energy Ltd

Oil Capital Conference London
October 2018



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The reserves assessment follows guidelines set forth by the Society of Petroleum Engineers – Petroleum Resource Management System (SPE-PRMS). The USA and Yemen reserve estimates provided within this presentation are based on information contained within the announcements to the ASX on 22 February 2018 and the 2017 Annual Report.

The Company confirms that it is not aware of any new information or data that materially affects the information included within the above releases, and that all the material assumptions and technical parameters underpinning the estimates therein continue to apply and have not materially changed.

Market Listing	ASX: PSA / OTC ADR: PSJEY
Shares on issue	333.6 MM
Market capitalisation at 19/10/18 @ A\$0.12 / share	US\$28.5M ~ (A\$40.0 MM)
Cash at 30/09/18	US\$3.0 MM
US\$15 million convertible note facility – 19/10/18 (available cash)	US\$8.0 MM
Petsec net oil & gas audited reserves (2P) as of 1/1/18	9.4 MMBOE
USA: Mystic, Hummer ¹	3.8 MMboe
YEMEN: An Nagyah ²	5.6 MMbo
<i>(Target gross recoverable reserves of 19.8 MMbo (8.8 MMbo net to Petsec) at 10k bopd, US\$80/bbl oil price, US\$15/bbl OPEX)</i>	
Petsec NPV₁₀ audited reserves (2P) as of 1/1/18	US\$189.8 MM
	A\$0.80/share
USA ¹	US\$34.8 MM
YEMEN ²	US\$155.1 MM
<i>(NPV₁₀: US\$320MM @ 10k bopd, US\$80/bbl oil price, US\$15/bbl OPEX)</i>	

¹ Based on Cawley, Gillespie & Associates reserves at 1/1/18; 31 December 2017 strip pricing.

² Based on DeGolyer & McNaughton Canada Limited reserves at 1/1/16; US\$30/bbl based on trucking model, 5,000 bopd

Assets and liabilities	NPV10 Estimates	
	A\$MM ¹	A\$/Share ²
USA reserves (2P): Hummer, Mystic, Jeanerette – 3.8 MMboe ¹ US\$34.8MM <i>Based on Cawley, Gillespie & Associates 2P reserves at 1/1/18; 31 December 2017 strip pricing</i>	49	0.15
USA potential upside Hummer B-2 well (high case) US\$36MM	51	0.15
Sub-total USA	100	0.30
Yemen - An Nagyah Oilfield – 8.8 MMbo (US\$320MM) <i>Based on target gross recoverable reserves:19.8 MMbo;10k bopd, US\$80/bbl oil price, US\$15/bbl OPEX</i>	450	1.35
Yemen undeveloped oil fields - 46 MMbo + 550 Bcf (> US\$500MM) <i>Based on oil only at US\$45/bbl + 2% pa escalation</i>	> 700	2.10
Sub-total Yemen	1,150	3.45
Total USA & Yemen	1,250	3.75
Less: Debt	(9)	(0.03)
Total potential valuation	1,241	3.72

¹ USD/AUD exchange rate of \$0.71

² Based on current number of shares outstanding of 333,587,924

FY2019 Net Operating Cashflows:

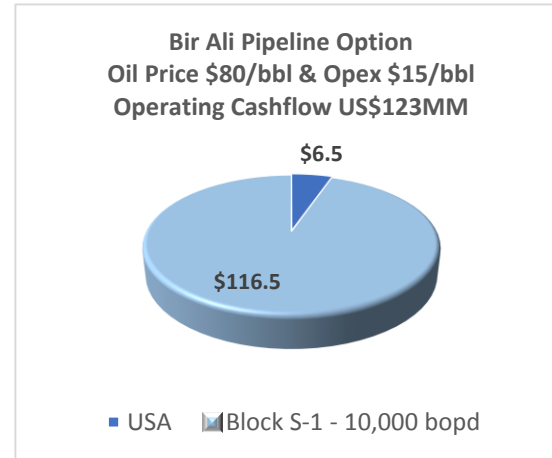
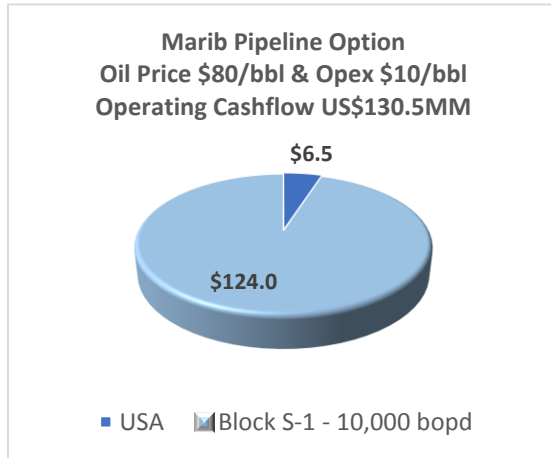
Hummer (2 wells) + Mystic (1 well); An Nagyah @ 10,000 bopd

❖ An Nagyah Oilfield – Marib Pipeline Option

- ❖ Total net operating cashflows to Petsec Energy of US\$130.5MM – An Nagyah: US\$124MM + USA: US\$6.5MM
- ❖ An Nagyah Oilfield assumptions: US\$80/bbl oil price + US\$10/bbl OPEX

❖ An Nagyah Oilfield – Bir Ali Trucking Option

- ❖ Total net operating cashflows to Petsec Energy of US\$123MM An Nagyah: US\$116.5MM + USA US\$6.5m
- ❖ An Nagyah Oilfield assumptions: US\$80/bbl oil price + US\$15/bbl OPEX





USA Net 2P Oil and Gas reserves¹ (1 January 2018)

15.9 Bcf of gas and 1.137 MMbbl of oil (3.8 MMboe)

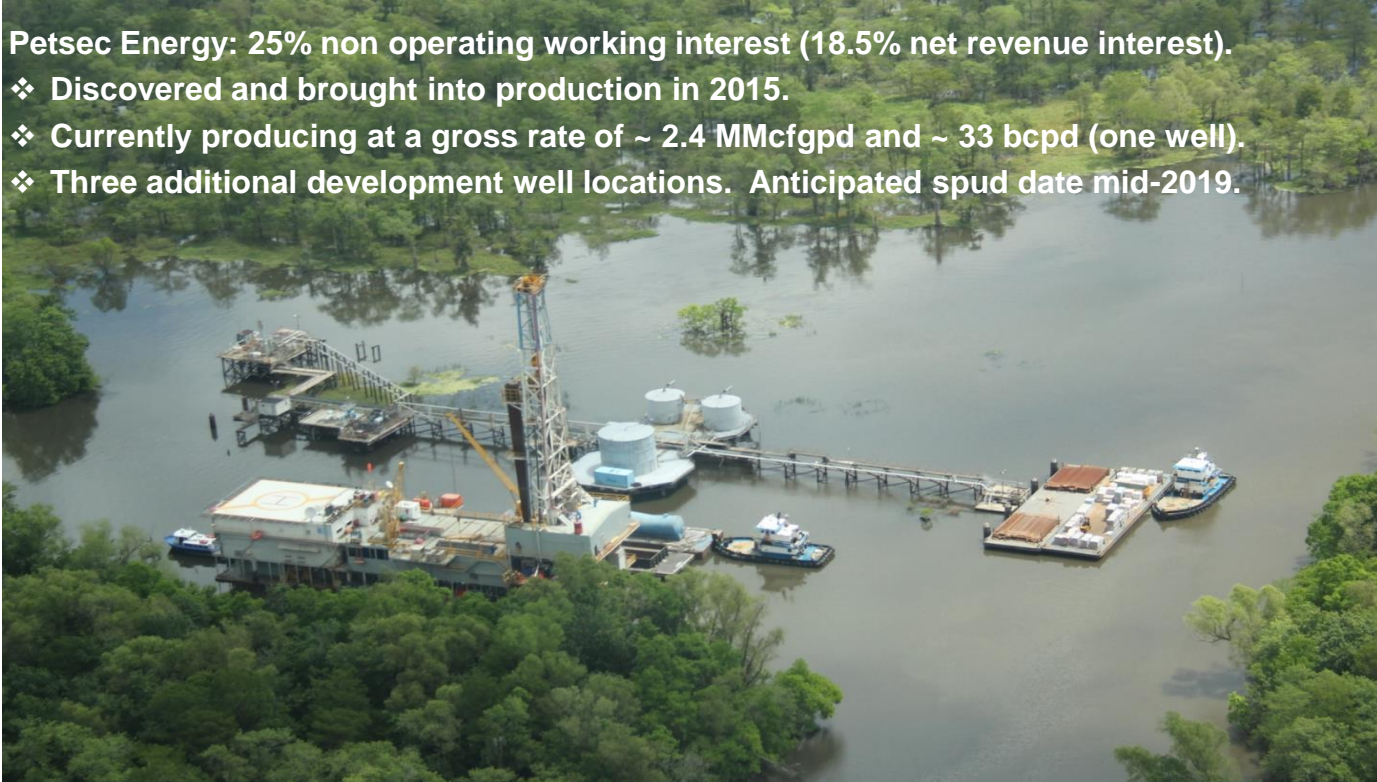
NPV10 value of US\$34.8MM (A\$0.15 / share)

- ❖ Operated in USA Gulf of Mexico and Louisiana since 1991.
- ❖ **Drilling success:** 109 wells / 81 successful / 74% success – net production > 216 Bcfe, ~ US\$548MM EBITDAX.
- ❖ **Active Projects:** Jeanerette, Mystic Bayou & Hummer (Main Pass 270/273/274).
- ❖ **Jeanerette: 12.5% WI.** Discovery well (July 2014); producing intermittently; requires workover.
- ❖ **Mystic Bayou: 25% WI.** Discovery well (August 2015); Commenced production November 2015.
 - ❖ **Current Gross Production:** 2.4 MMcfcpd and 33 bcpcd.
 - ❖ **Field Future Development:** Additional 3 development well locations to be drilled.
- ❖ **Hummer: 12.5% WI.** Discovery well (November 2015); Commenced production in November 2017.
 - ❖ **Current Gross Production:** 16 MMcfcpd and 320 bopd.
 - ❖ **Field Future Development:** Additional 3 to 8 appraisal/development well locations to be drilled.
 - ❖ **B-2 Appraisal/Development well:** Spud 19 August 2018 to test six oil and gas reservoirs. Five reservoirs were intersected in the B-1 discovery well.
 - TD December 2018; MD18,559 ft. and TVD 16,624 ft. Production expected February 2019.

Mystic Bayou Gas/Oil Field – Onshore Louisiana

Petsec Energy: 25% non operating working interest (18.5% net revenue interest).

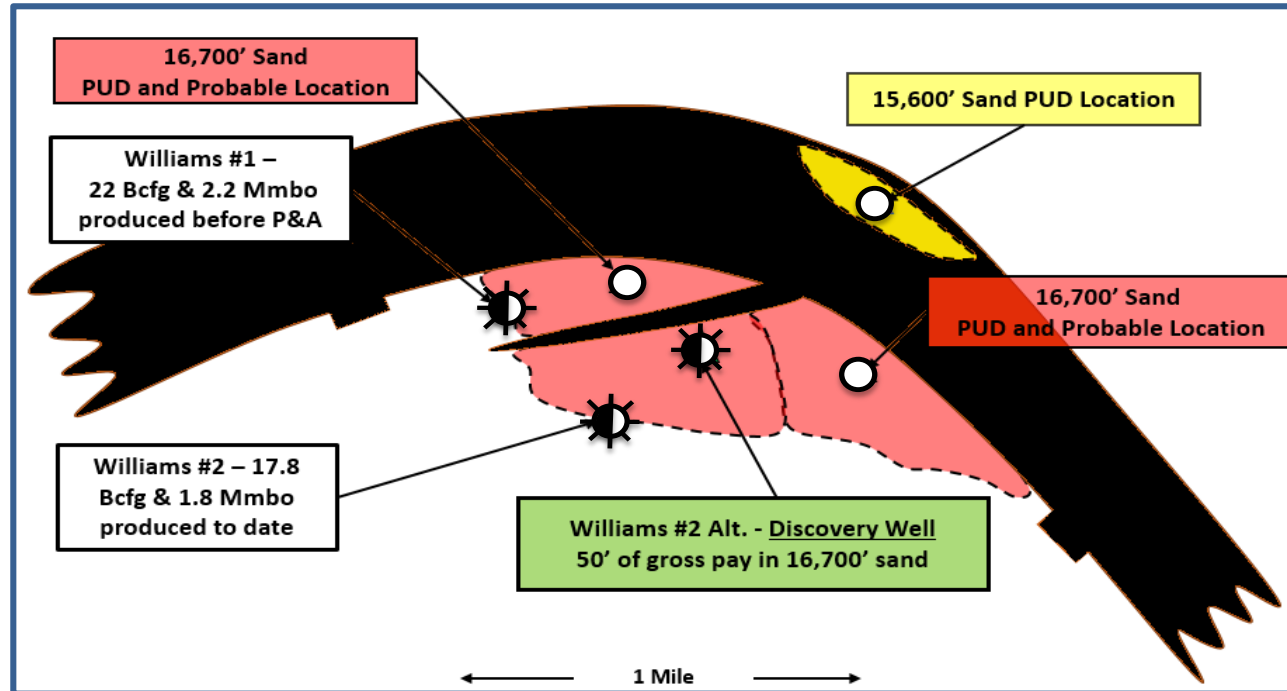
- ❖ Discovered and brought into production in 2015.
- ❖ Currently producing at a gross rate of ~ 2.4 MMcfd and ~ 33 bcpd (one well).
- ❖ Three additional development well locations. Anticipated spud date mid-2019.



Mystic Bayou Gas/Oil Field – Onshore Louisiana

16,700 ft. Sand Map with reservoir outlines

- ❖ The Mystic Bayou Field has produced in excess of 3.4 MMbbl and 39 Bcf of gas in the target horizons.
- ❖ The Williams #2 Alt well was drilled to a total measured depth of 5,263 metres (17,266'), equivalent to 5,143 metres (16,873') true vertical depth.
- ❖ Future development drilling: Three well PUD locations of proved undeveloped reserves –white circles shown on the plan.
- ❖ NPV₁₀ 2P reserves 1.1.18: US\$10.3MM



Hummer Gas/Oil Field 12.5% W.I. : Main Pass Blocks 270, 273, 274

Discovery November 2015. Platform set 2016/2017. Production began November 2017

- ❖ Hummer Gas/Oil Field structure extends over a strike of five miles within the Main Pass Block 270,273,274 leases which cover 15,000 acres, in some 200 feet of water, located 20 miles to the East of the mouth of the Mississippi River.
- ❖ The B-1 exploration discovery well was drilled in Main Pass Block 270 to a true vertical depth (TVD) of 15,748 ft. in the NW corner of the Hummer Field structure, to test a **single reservoir** with a pre-drill mapped target potential of **183 Bcf gas + 3.7 MMbbl oil**.
- ❖ The well penetrated **five oil & gas reservoirs**, including the primary objective reservoir which was completed and commenced production on 21 November 2017. The well is currently producing **16 MMcfcpd and 320 bopd**.
- ❖ Petsec net reserves for two reservoirs (D & E) in the B-1 well were estimated by Cawley, Gillespie & Associates (reserve auditors) at 1.1.2018, to be 6.5 Bcf and 0.96 MMbbl with an NPV10 of US\$24.5MM (A\$0.10/share) .
- ❖ The Hummer Gas/Oil Field will require up to **8 appraisal/development wells**.
- ❖ The first appraisal/development well ,the B-2, spud in August 2018 , is drilling ahead , and will test 6 gas/oil reservoirs, 6,000 ft to the East of the B-1 well.
- ❖ The B-2 well TD of 16,624 ft. TVD, is expected in December 2018 and the well be in production in February 2019. Should these reservoirs be successful as mapped, the B-2 well could deliver an additional NPV10 of US\$36MM (A\$0.15 / share).

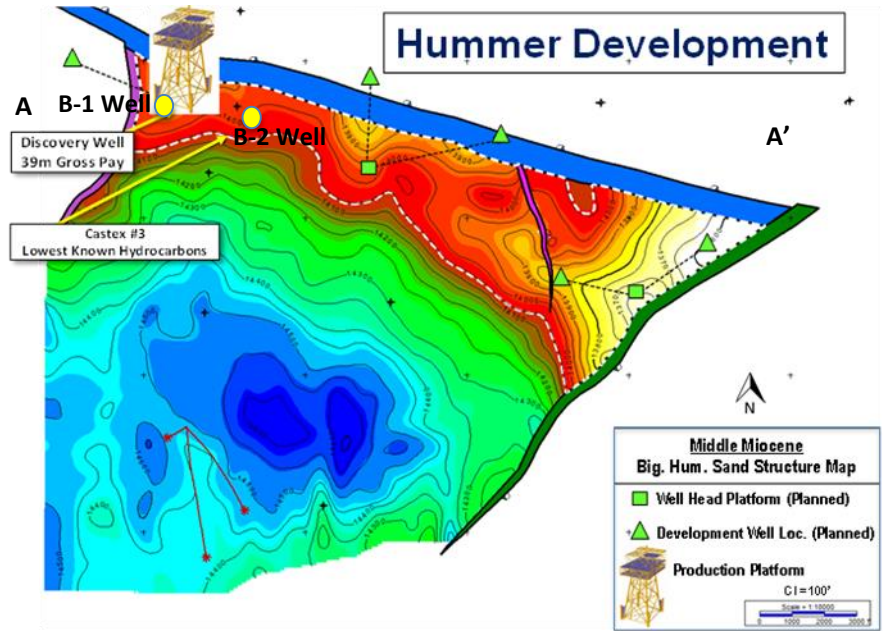


Main Pass 270/273/274 Hummer Project: ENSCO 68 Jackup Drill Rig

Hummer Gas/Oil Field : Main Pass Blocks 270, 273, 274

Structure Map – Reservoir D

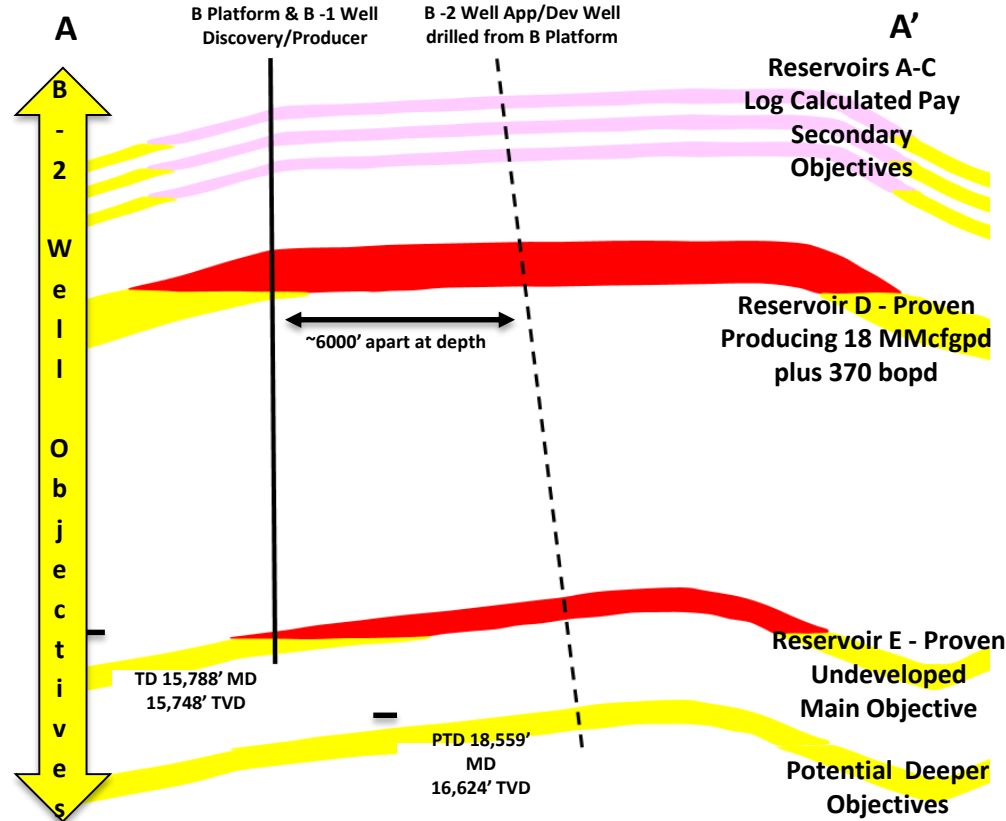
- ❖ Hummer Gas/Oil Field structure extends over a strike of five miles within the Main Pass Block 270, 273, 274 leases which cover 15,000 acres.
- ❖ The B-1 exploration well was drilled in Main Pass Block 270 to a true vertical depth (TVD) of 15,748 ft. in the NW corner of the Hummer Gas/Oil Field structure, to test a **single reservoir (Reservoir D)** with a pre-drill mapped target potential of **183 Bcf gas + 3.7 MMbbl oil**.
- ❖ The well penetrated **five oil & gas reservoirs**, including the primary objective reservoir which was completed for production (red area), and is currently producing **16 MMcfpgd and 320 bopd**.
- ❖ The B-2 appraisal/development well, the first of up to **8 appraisal/development wells** required to develop the field, is being drilled from the Main Pass Block 270 “B” Production Platform, with a planned bottom hole location some 6,000 feet to the East of the B-1 discovery well.
- ❖ The well is designed to test, at an optimum structural position, **six potential oil and gas reservoirs**, these being the five oil and gas reservoirs intersected in the B-1 well and a deeper horizon not tested by the B-1 well, but productive in the area.
- ❖ The estimated net cost to the Company to drill and complete the well for production is approximately US\$4 million.

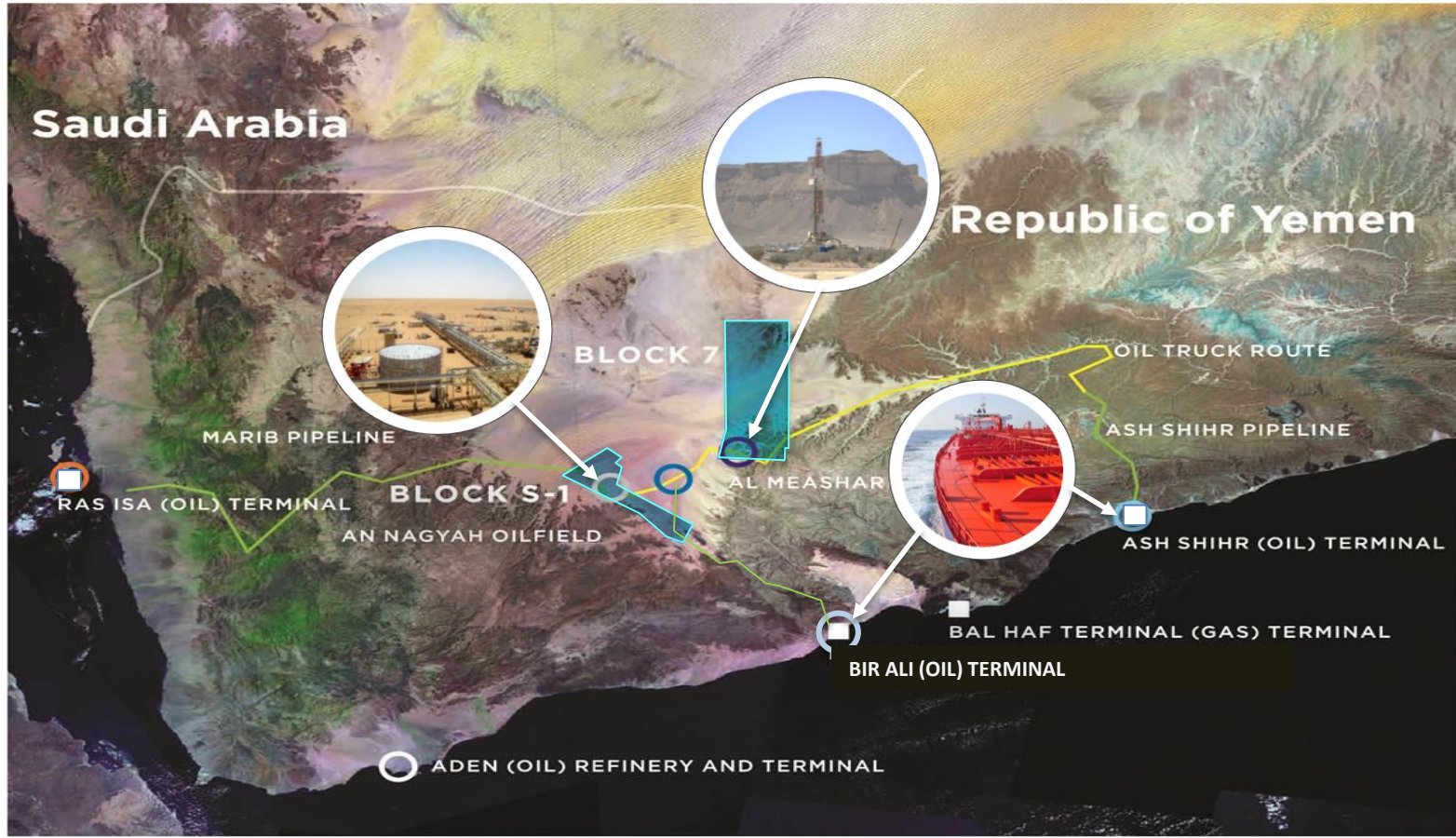


Hummer Gas/Oil Field: B-1 Discovery Well, B-2 Development Well

Cross-Section: A –A' along B-2 Well path

- ❖ The B-1 vertical exploration discovery well penetrated **5 oil & gas reservoirs**.
- ❖ The main objective of the B-1 well (**Reservoir D**) had a pre-drill mapped target potential of 183 Bcf gas + 3.7 MMbbl oil. The B-1 well is **currently producing 16 MMcfgpd & 320 bopd from Reservoir D**.
- ❖ **Reservoir E** was also proven in the B-1 well and is the **main objective** of the B-2 appraisal/development well. **It is productive in nearby fields** (Main Pass 280/283 Field Complex), 14 miles to the East of Main Pass Block 274, with production greater than **27 MMbo and 60 Bcf of gas**.
- ❖ The B-2 well ,drilled from the Main Pass Block 270 “B” Production Platform, is designed to **test, 6 reservoirs**, 5 of these reservoirs were intersected by the B-1 well, and **deeper objectives which are productive** in the area, of similar size to Reservoir E.
- ❖ The well is planned to drill to a measured depth (MD) of 18,559 feet with a true vertical depth (TVD) of 16,624 feet. The main objectives are reserves in Reservoirs D and E.
- ❖ Cawley, Gillespie & Associates (reserve auditors) estimated B-1 well net reserves to Petsec for Reservoir D & E at 1.1.2018, to be 6.5 Bcf and 0.96 MMbbl with an NPV10 of US\$24.5MM.
- ❖ The B-2 well could deliver an additional NPV10 value of US\$36 MM (A\$0.15 / share) should the 6 reservoirs be successful as mapped.





Damis Block S-1: Oilfields

Developed: 19.8 MMbbls oil gross

Undeveloped: 34 MMbbl oil + 550 Bcf gas

Al Barqa Block 7: Oilfield & Exploration Prospects

Undeveloped: 11 MMbbls oil to > 50 MMbbls oil

Exploration: > 1 billion bbls oil

❖ **Yemen Operations:** Commenced 2014

Acquired 100% W.I. - Block S-1 (2016) and Block 7 (2014 – 2016)

❖ **Damis (Block S-1) Production Licence:** (100% working interest / 82.5% participating interest):

❖ **Five Oil & Gas Fields:**

- **Developed/Productive:** An Nagyah Oilfield - 8.8 MMbbl oil net (19.8 MMbbl gross)
- **8.8 MMbbl net of all costs/taxes – NPV₁₀ US\$320 MM (AUD: \$1.35 cents/share)**
- **Undeveloped:** Osaylan, Harmel, An Naeem, Wadi Bayhan > 34 MMbbl oil & 550 Bcf gas gross ¹
- **NPV₁₀ US\$420MM @ US\$45/bbl**

❖ **Block 7 (Al Barqa):** 100% working interest (85% participating interest) ²

❖ **Al Meashar:** Undeveloped oil field – 2 wells tested at 200- 1,000 bopd

11 MMbbl to > 50 MMbbl gross (9.3 MMbbl - 42.5 MMbbl net) / Upside potential: 110 MMbbl

Al Meashar 11 MMbbl NPV₁₀ US\$90MM @ \$45/bbl

❖ **Eight prospects / leads:** target sizes range from 2 to 900 MMbbl oil gross. Four largest > 1 billion bbls

❖ **NPV10 > US\$10 billion @ US\$45/bbl**

❖ Damis Block S-1: Production Licence

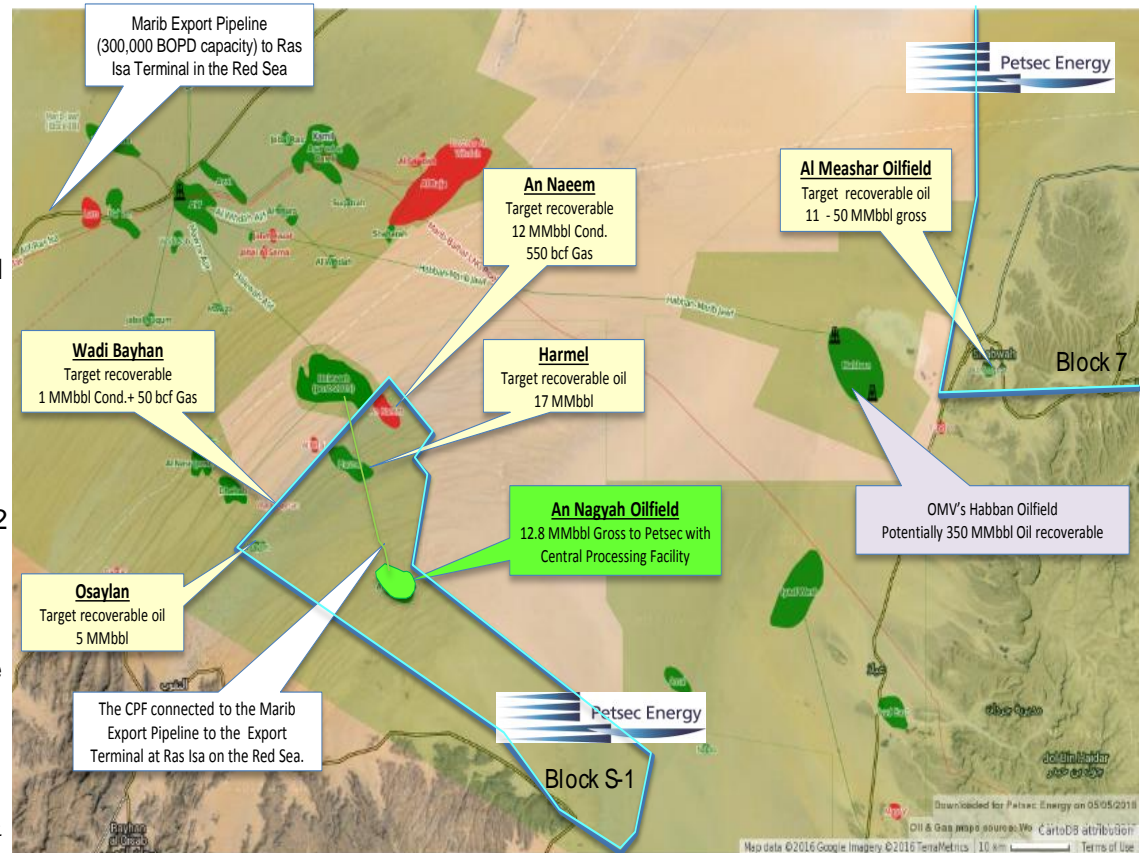
❖ (100% working interest / 82.5% participating interest): Acquired February 2016:

- ❖ An Nagyah Oilfield target gross recoverable **19.8 MMbo / Net 8.8 MMbo (NPV₁₀ US\$320MM)**¹
- ❖ The four undeveloped oil & gas fields hold resource potential: **> 34 MMbbl oil & 550 Bcf gas**²; NPV₁₀ > US\$420MM

❖ Al Barqa Block 7:

❖ 100% working interest (85% participating interest)³ acquired 2014/2015/2016:

- ❖ **Al Meashar** undeveloped oil discovery – 2 wells / target **11 MMbbl oil gross (9.3 MMbbl net NPV₁₀ US\$90MM)** / > 50 MMbbl potential
- ❖ Eight prospects / leads: target sizes range from 2 to 900 MMbbl oil gross. 4 largest > 1 billion bbls; NPV₁₀ > US\$10Bn⁴



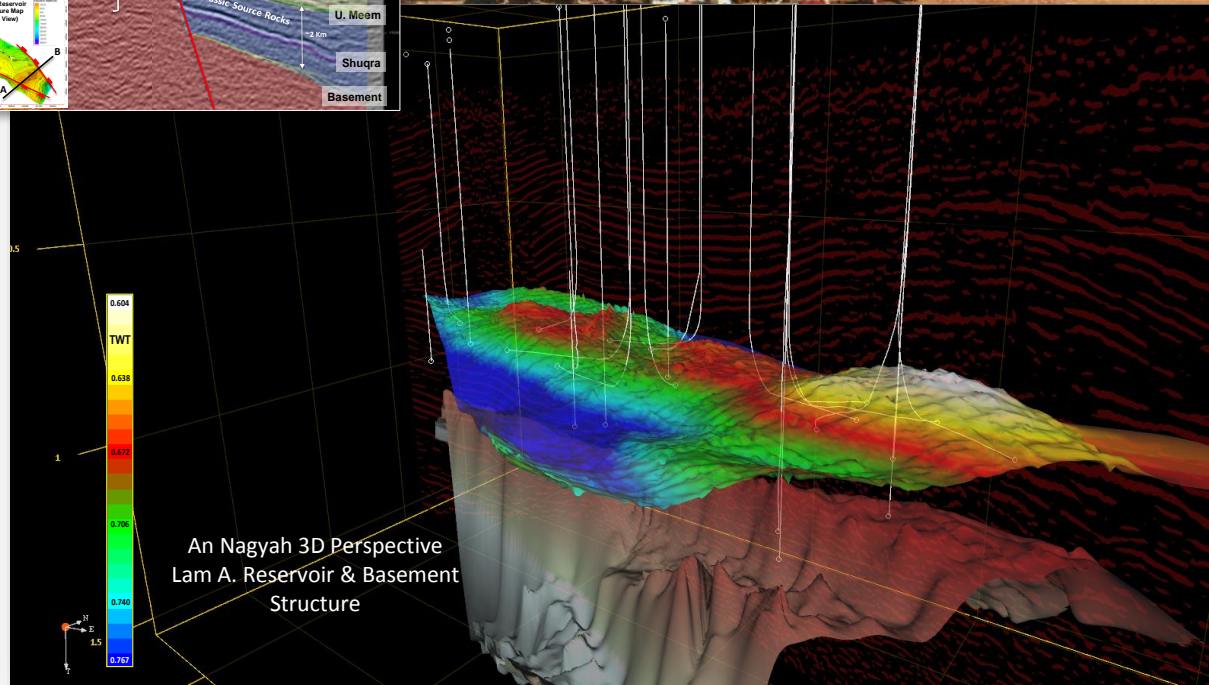
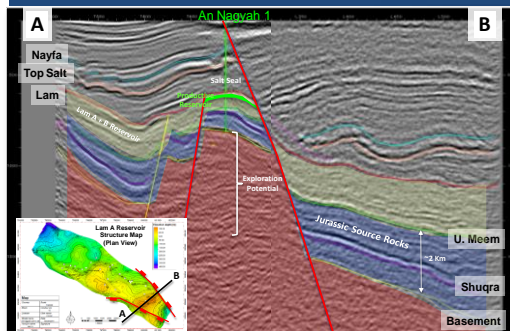
1 Source: Petsec Production Economics US\$80/bbl, opex US\$15/bbl, 10,000 bopd
 2 Source: Wood Mackenzie Asia Pacific Pty Ltd. NPV₁₀ based on US\$45/bbl + 2%pa escalation.

3 The Company has an agreement with KUFPEC (25% W.I.) to acquire its interest in Block 7. The agreement is pending completion and is subject to customary approvals from the Government of Yemen and the Ministry of Oil and Minerals.

4 NPV₁₀ based on US\$45/bbl + 2% p.a. escalation

Damis Block S-1: An Nagyah Oilfield Subsurface

3D TWT Cube & Seismic Cross Section



- ❖ The An Nagyah Oilfield is located within a world class petroleum system containing in excess of 2,000m of exceptional quality Jurassic source rocks.
- ❖ Structurally the field is a North-West to South-East trending tilted horst block within the Jurassic aged Sab'atayn Rift Basin.
- ❖ The most prolific reservoir is the uppermost Lam Sandstone, a thick sequence (100-125m) of delta front sandstones of Late Jurassic age.
- ❖ **15 production wells currently shut-in available for restart of production.**

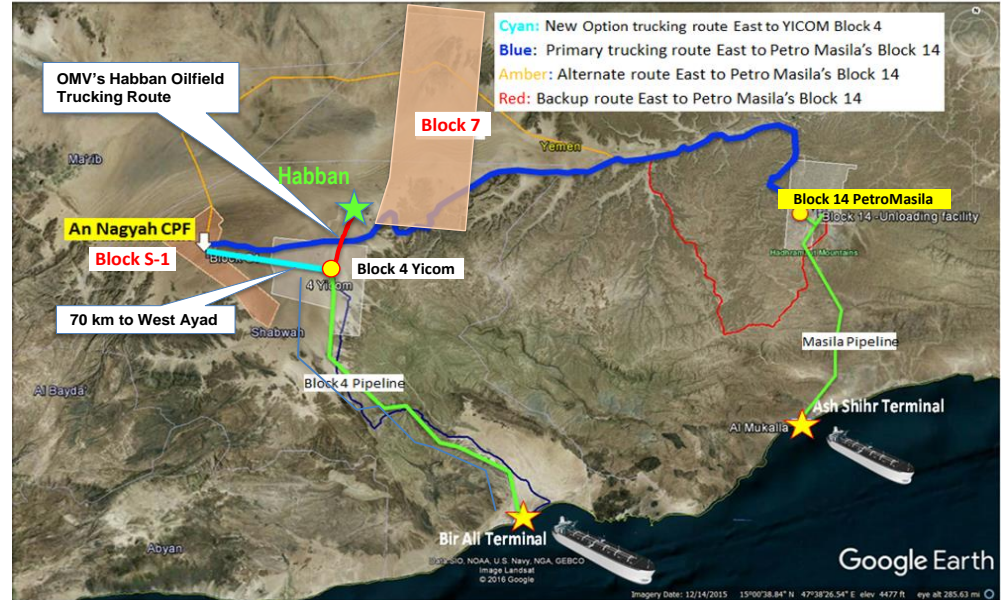
Damis Block S-1

An Nagyah Oilfield: Central Processing Facility (CPF)



- ❖ The previous operator has invested over US\$450MM developing the An Nagyah Oilfield;
- ❖ The An Nagyah production facility has been well maintained during the shut-in period and remains in good condition 20,000 bopd capacity
- ❖ A recent survey of well heads, pumping station, generators, compressors, control room, pipelines and warehouse confirmed there is no damage and the field can readily be restarted.

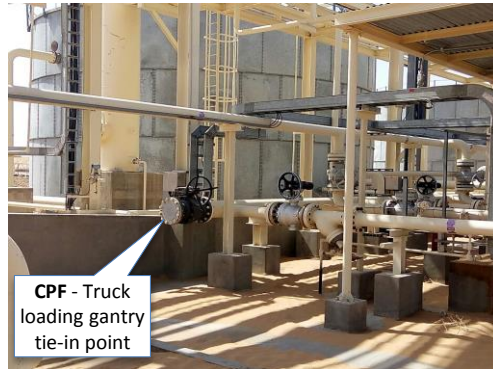
- ❖ **OMV restarted oil production** from the Habban Oilfield in **April 2018, the first foreign operator to restart since the Yemen oil industry was suspended in March 2015** .
- ❖ The Habban Oilfield was suspended in March 2015 due to Marib/Ras Isa Oil Terminal embargo by the Saudi Coalition. The Coalition is currently attempting to liberate the Port of Hodeidah on the Red Sea so as to reopen the Ras Isa Oil Terminal and the Marib Pipeline which is connected to the Shabwah Basin oil producers.
- ❖ **OMV is trucking about 5,000 bopd** 40km South to the West Ayad Field CPF in Block-4, and from there into the 204km Bir Ali Pipeline, South East to the **Bir Ali Oil Export Terminal**, with 500,000 bbl storage capacity attached to a SPM which can accommodate 500,000 bbl oil tankers.
- ❖ Petsec Energy has submitted a **production restart plan for the An Nagyah Oilfield** to the Yemen Ministry of Oil and Minerals for their review and approval to produce 10,000 bopd , trucking 70 Km by road East to the West Ayad/Bir Ali Pipeline for export at the Bir Ali terminal.



An Nagyah Check Point 75



Testing of Twin Head Crude Truck Loading Unit



CPF - Truck loading gantry tie-in point

An Nagyah Crude Sludge Tank



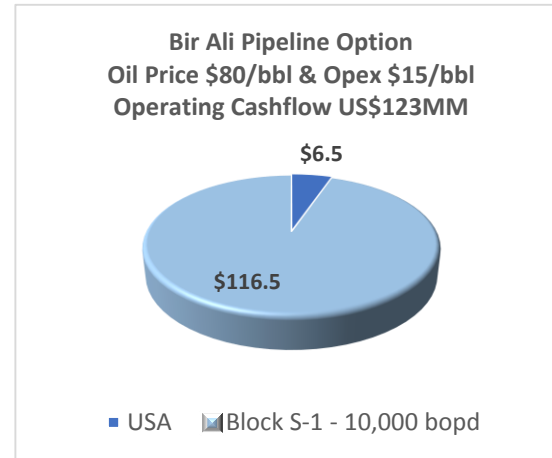
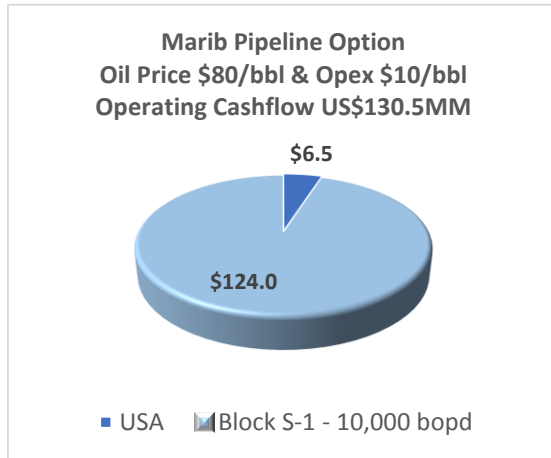
FY2019 Net Operating Cashflows: An Nagyah 10,000 bopd

❖ An Nagyah Oilfield – Marib Pipeline Option

- ❖ Total net operating cashflows to Petsec Energy from An Nagyah: US\$124MM
- ❖ An Nagyah Oilfield assumptions: US\$80/bbl oil price + US\$10/bbl OPEX

❖ An Nagyah Oilfield – Bir Ali Trucking Option

- ❖ Total net operating cashflows to Petsec Energy from An Nagyah: US\$116.5MM
- ❖ An Nagyah Oilfield assumptions: US\$80/bbl oil price + US\$15/bbl OPEX



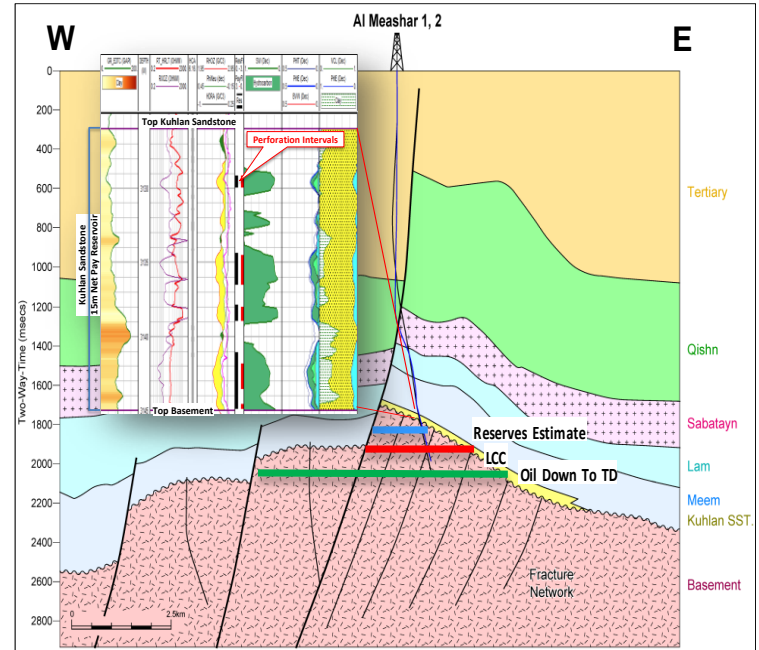
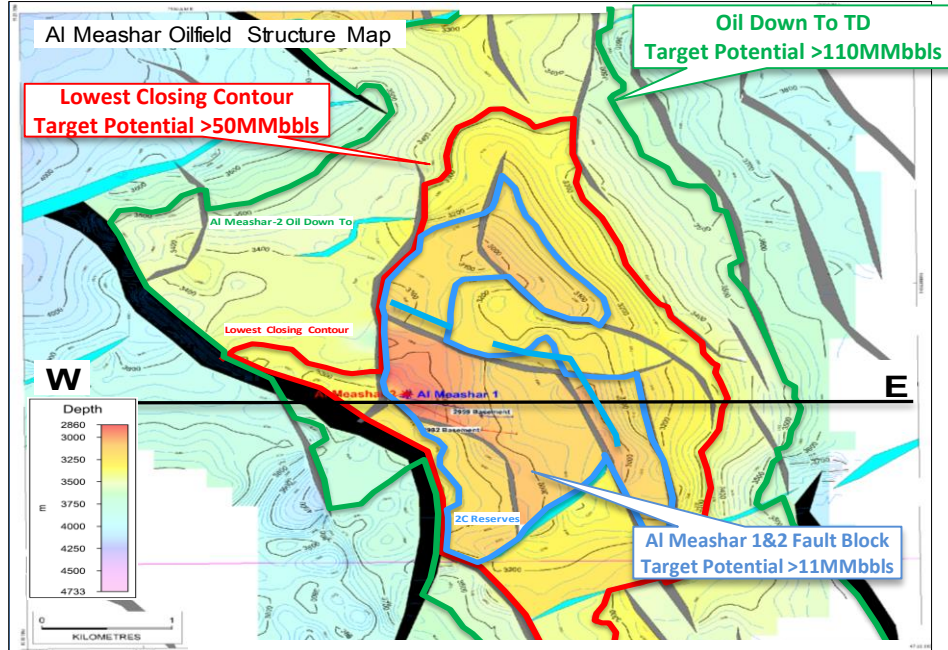
- ❖ The **Saudi Coalition** have since the **beginning of 2018** stated the intention to **support the Yemen oil industry** by providing increased security in Marib and Shabwah, and to secure the port of Hodeidah and the Ras Isa oil terminal. The Yemen Government declared in **late December 2017 a new Minister of Oil** and Minerals, Mr. Aws Al-oud who has engaged with the oil industry and has **encouraged restart of production** in the Marib and Shabwah Basins, and sent all operators letters of directive to restart production as soon as possible. Petsec Energy is engaged with the Minister, the Oil Ministry, Block S-1 staff and sub-contractors, local tribal and administrative leaders, which are generally all supportive of the restart. As a new operator in Yemen, the administrative review process is slow.
- ❖ **OMV as operator of the Habban Oilfield**, located 70km to the NE of Petsec Energy's An Nagyah Oilfield in Block S-1 and 14km West of our Al Meashar Oilfield in Block 7, **began restricted production in April 2018 (~5,000 bopd) and trucking of oil 40km to the Bir Ali Pipeline in Block 4 to the South and to Block 14 to the East. OMV is the first foreign oil producer in Yemen to restart oil production since the shut-in of March 2015.**
- ❖ Petsec remains engaged with the Yemen Hadi administration and is seeking support from the Ministry of Oil and Minerals (MOM) for a variation of the current development plan transporting oil by the Marib Pipeline to Ras Isa on the Red Sea near the Port of Hodeidah, which will enable trucking of An Nagyah oil to the nearest operational point of oil storage with export facilities, and access to those Yemen Government facilities – **Block 4 (YICOM operated) 70km by truck**, and/or Block 10 (PetroMasila operated) 580km by truck. A **restart plan for both Bir Ali and Masila has been submitted to the Minister for his review and approval.**



Al Barqa Block 7

Al Meashar Oilfield: Development Potential

- ❖ The **Al Meashar 1 & 2 discovery wells intersected an oil column in excess of 800m** in the Kuhlan Sandstone and Basement formations, the same formations as in **OMV's Habban Oilfield (350 MMbbl)** which has an oil column of 945m and has in the past produced **~20,000 bopd** up until production was suspended in March of 2015. In April 2018 OMV restarted production and is currently trucking **5,000 bopd to Block 4 / Bir Ali Pipeline** .
- ❖ The Al Meashar undeveloped oilfield is estimated at 11 MMbbl oil gross (9.3 MMbbl net) within the drilled single fault block outlined in blue with potential to increase to > 50 MMbbl within the currently mapped structural closure – red line, Lowest Closing Contour
- ❖ The oil column identified in the Al Meashar wells exceeds the mapped structural closure by more than 200m shown by the green line. **Current estimates of oil within the green (oil-down-to) contour exceeds 110 MMbbls**
- ❖ Development drilling on the Al Meashar structure is expected to extend the oil potential of the entire play fairway within the Block 7 licence area



DEVELOPED OILFIELDS: RECOVERABLE OIL:

An Nagyah: 19.8 MMbbl Oil Gross (8.8 MMbbl Oil net of recovery costs to Petsec) 10,000 bopd, US\$80/bbl, US\$15/bbl OPEX

Estimated NPV10 Oil ~ US\$320MM (A\$450MM) ¹ (A\$1.35/share)

UNDEVELOPED OILFIELDS: RECOVERABLE OIL:

46 MMbbl Oil (+ 550 Bcf Gas) ²

Damis (Block S-1)

Wadi Bayhan	US\$11MM
Osaylan	US\$60MM
Harmel	US\$206MM
An Naeem	US\$145MM

Al Barqa (Block 7)

Al Meashar	US\$90MM
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Estimated NPV10 Oil > US\$500MM (A\$700MM) (A\$2.10/share)

Developed + Undeveloped Oil = US\$820MM (A\$1.1BN) (A\$3.45/share)

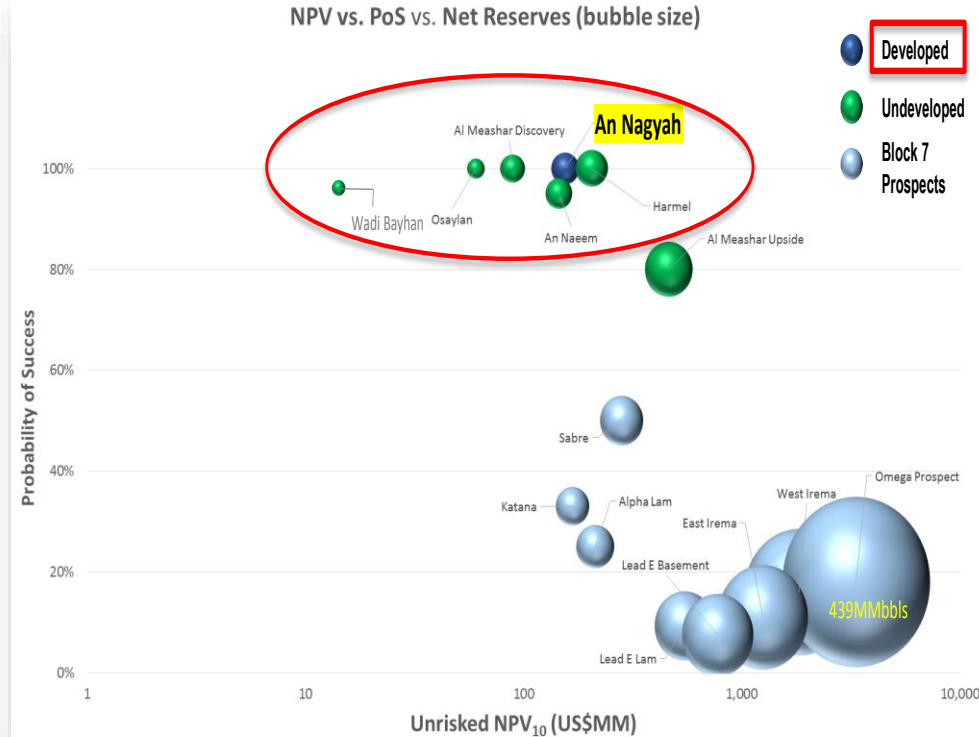
EXPLORATION:

4 largest prospects targeting > 1 billion bbls recoverable

Omega	439 MMbbl
West Irema	241 MMbbl
East Irema	164 MMbbl
Lead E	174 MMbbl

Estimated NPV10 > US\$10BN ³

¹ Petsec Energy estimates
² Source: Wood Mackenzie Asia Pacific Pty Ltd.
³ NPV₁₀ valuation (oil only) based on US\$45/bbl + 2% escalation



Petsec Energy Ltd

Oil Capital Conference London
October 2018

