



**OIL BASINS** LIMITED

ABN 56 006 034 764



## EP487 – Derby Block Update

NWS Scale Potential Wet Laurel Basin Centred Gas (**BCG**)  
June 2015

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- Prospective Resources are those quantities of petroleum which are estimated, on a given date, to be potentially recoverable from undiscovered accumulations. Recipients should not infer that because "prospective resources" are referred to that oil and gas necessarily exist within the prospects and USG tenements. An equally valid outcome in relation to each of the Company's prospects is that no oil or gas will be discovered. Under PRMS Classification used in this study, it represents those quantities of petroleum which are estimated, as of a given date, to be potentially recoverable from undiscovered accumulations. Potential accumulations are evaluated according to their chance of discovery and, assuming a discovery, the estimated quantities that would be recoverable under defined development projects. It is recognized that the development programs will be of significantly less detail and depend more heavily on analogue developments in the earlier phases of exploration
- Information on the Reserves and Resources on the Company's operated assets in this release are based on an independent evaluations conducted by 3D-Geo Pty Ltd (3D-Geo). 3D-Geo is a independent geoscience consultancy specialising in petroleum. The technical work was undertaken by a team of geoscientists and petrophysicists and is based open-file seismic and well data and data supplied by OBL. The technical assessment was performed primarily by, or under the supervision of Dr Jeff Keetley, Director 3D-Geo. Dr Keetley holds the qualification BSc (Petroleum Geoscience) & PhD from Melbourne University, has over 16 years of experience as a geophysicist and is a Member of Society of Exploration Geophysicists (SEG) and the American Association of Petroleum Geologists. 3D-Geo's approach has been to review the data supplied by OBL for reasonableness and then independently estimate ranges of in-place and recoverable volumes using Petrel™. 3D-Geo have estimated the degree of uncertainty inherent in the measurements and interpretation of the data and have calculated a range of recoverable volumes, based on predicted field performance for the property. The modelling and Monte Carlo risk assessment of prospective potential resources has been completed using Petrel™, Trinity 3D and Lithotect software with resources assessed using PRMS. 3D-Geo and Dr Keetley have given their consent at the date of the release to the inclusion of this statement and the information in the form and context in which they appear in the OBL Presentation. **The Retention Lease R3/R1 reserves statement was released to the ASX on 18 May 2015.**
- The technical information quoted has been compiled and / or assessed by Company Director Mr Neil Doyle who is a professional engineer (BEng, MEngSc - Geomechanics) with over 36 years standing and has been a full and continuous member of the US Petroleum Engineers since 1981 and by Mr Geoff Geary who is a professional geologist (Bachelor Science – Geology) with over 34 years standing and who is also a Member of Petroleum Exploration Society of Australia. Both Mr Doyle and Mr Geary have consented to the inclusion in this announcement of the matters based on the information in the form and context in which they originally appear – investors should at all times refer to appropriate ASX Releases. Other data presented on Gippsland Permits Vic/P47 and Vic/P41 relies on the former operator ASX Releases and disclosures.
- Investment in Oil Basins Limited is regarded as speculative and this presentation includes certain forward looking statements that have been based on current expectations about future acts, events and circumstances. These forward-looking statements are, however, subject to risks, uncertainties and assumptions that could cause those acts, events and circumstances to differ materially from the expectations described in such forward looking statements. These factors include, among other things, commercial and other risks associated with estimation of potential hydrocarbon resources, the meeting of objectives and other investment considerations, as well as other matters not yet known to the Company or not currently considered material by the Company.
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Level 4, 100 Albert Road, South Melbourne Vic 3205 Australia  
Telephone: (+61 3) 9692 7222 Facsimile: (+61 3) 9077 9233  
Email: [enquiries@oilbasins.com.au](mailto:enquiries@oilbasins.com.au) Website: [www.oilbasins.com.au](http://www.oilbasins.com.au)

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# Update Derby Block – Ownership Resolved.

Oil Basins Limited (**OBL or the Company**) is pleased to advise that after close of market 29 May 2015 it reached Settlement on the ownership and way forward for Permit EP487 (Derby Block), ***whereby in summary:***

- All Derby Block legal actions are resolved to OBL's satisfaction (with OBL attaining a significant portion of its costs since July 2014).
- OBL and Rey Resources Limited (REY) become 50/50 joint venture partners in the Derby Block (EP487 JV operating agreement executed)
- OBL receives \$391,000 in cash from REY (recoupment of legal costs and 50% of post Grant funds).
- OBL Group attains a gross 1% ORRI in the Derby Block (on RLS's 50% of EP487 for part compensation of back costs incurred solely by OBL pre-Grant 14 March 2014).
- OBL remains the continuing Operator of the Derby Block for the approved Work Program (WP).
- WP has now been approved and funded to end July 2015.
- OBL can now seek farmin partners to offer an attractive farmin fund (shared by both joint venture partners) with a minimum 2 year WP free carry.

# Company is an experienced Canning Operator



**Backreef-1 (2010) Hunt Rig#3**  
**1800 m TD ~ \$4.5m**



**East Blina-1 (2012) Dynamic Rig#17**  
**1195 m TD ~ \$2.5m**



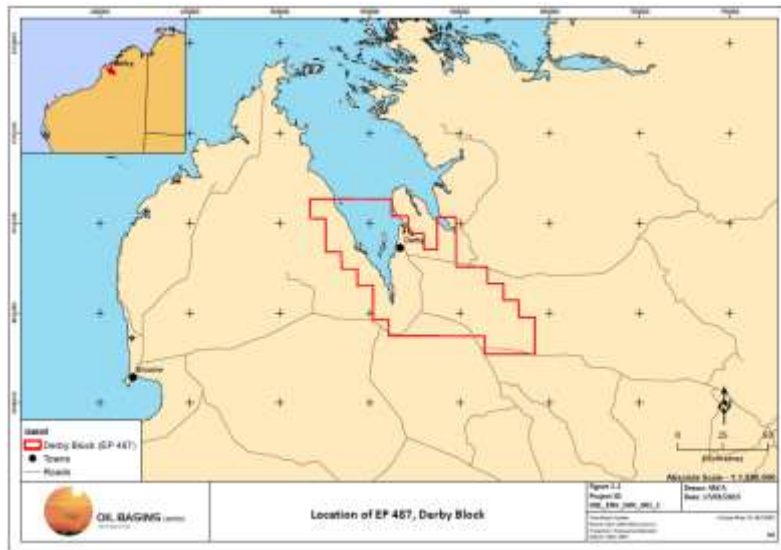
**Backreef-1 (2012) ADS Rig#2**  
**2 x Production Tests ~ \$2.2m**

**Oil Basins Limited (OBL) since mid-2010 has drilled two exploration wells: Backreef-1 (October 2010) and East Blina-1 (October 2012) - and conducted a modern production test program of Backreef-1 (May 2012) recovering oil shows using nitrogen stimulation (declaring an oil discovery).**

- ❖ Since 2010, OBL has mobilised 3 drilling rigs from east coast to WA
- ❖ Arranged rig inspection
- ❖ Finalised well drilling and well test programs
- ❖ Arranged environmental and traditional owner clearances using local contractors (wherever possible)
- ❖ Introduced / deployed new specialist service contractors to the region eg **DU-EL / ProTest / Vause Wireline**
- ❖ Successfully operated the drilling and testing programs in a low cost manner



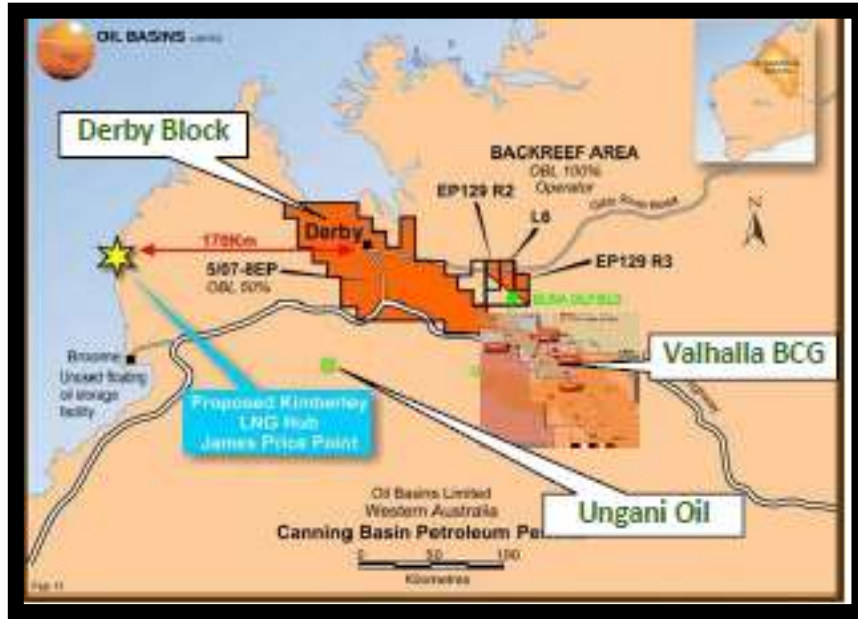
# Derby Block – Location and Land Use



- EP 487 (the “Derby Block”) is situated in the Fitzroy Trough of the Canning Basin. Block is over 5000 sqkm (circa 1.25 million acres) – no significant native vegetation or fauna issues have been identified to date.
- Cattle country – 6 pastoral stations are within the permit boundaries
- Main prospective area for BCG / USG within permit is bounded by bitumen roads and has an ‘exclusion zone’ in the west – RAAF Curtin Air Base.



# Derby Block – situated within the Fitzroy Trough is a highly prospective address uniquely serviced by infrastructure

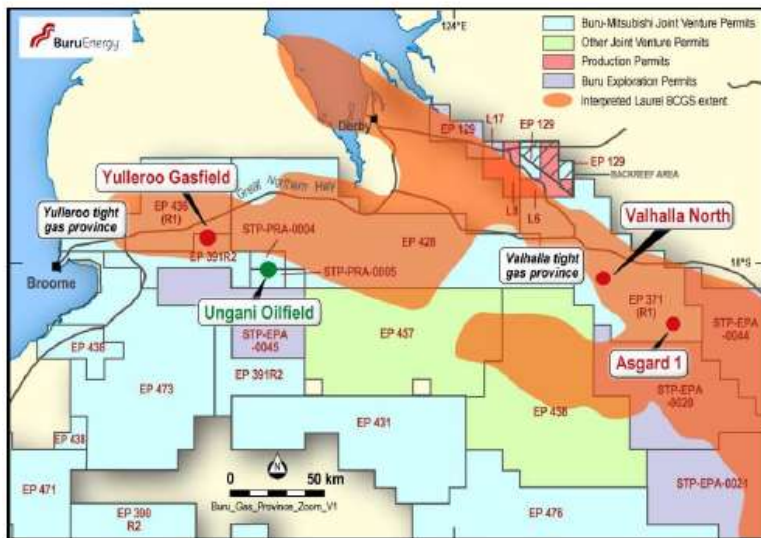
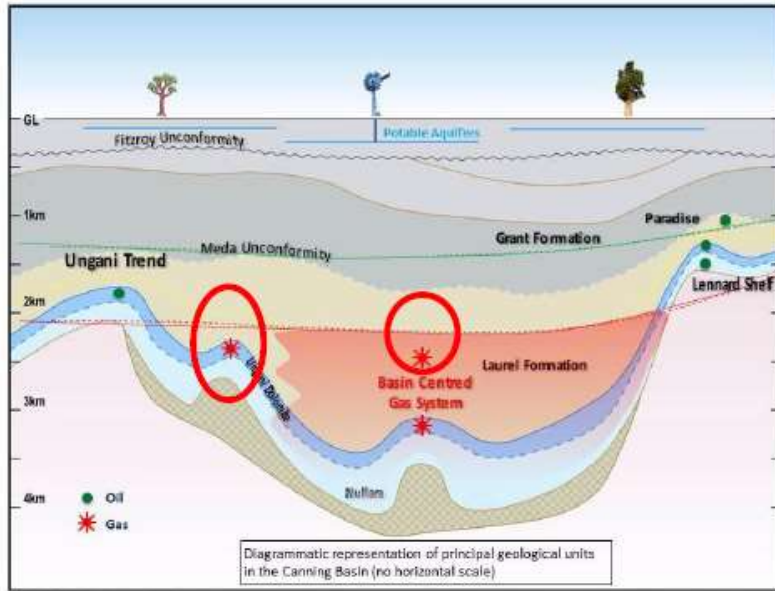


Permit EP487 (Derby Block) is highly prospective for USG at depths between 2500m to 5000m and as estimated by Independent Expert hosts potentially gross circa recoverable 32Tcf Wet Laurel BCG Play down to 5000m cut-off depth (ie deep drilling) and circa gross 802 MMbbls of associated recoverable condensate within the non-King Sound water regions of the Permit.

- **Thick Wet Marine Shale of right age:** EP 487 (the “Derby Block”) is an excellent location for wet Laurel BCG in the Fitzroy Trough of the Canning Basin. Permit contains a very thick **(500m to over 1000m thick) sequence of mature marine source rocks of similar geological age (Permian and older)** to those explored successfully in North America as USG.
- **Ease of Access:** Main prospective region is completely bounded to the west, north and south by all-weather bitumen highways and only 6 cattle station landowners.
- **Infrastructure:** Nearby Derby township, airports (Virgin operates domestic flights to Curtin Airbase in the centre of the Derby Block) and significant support infrastructure (Base Hospital).
- **Future Gas Pipeline:** Route of proposed new Great Northern Pipeline will likely traverse EP 487 in the south along the Great Northern Highway to connect to Valhalla BCG – **COMMON CARRIER**

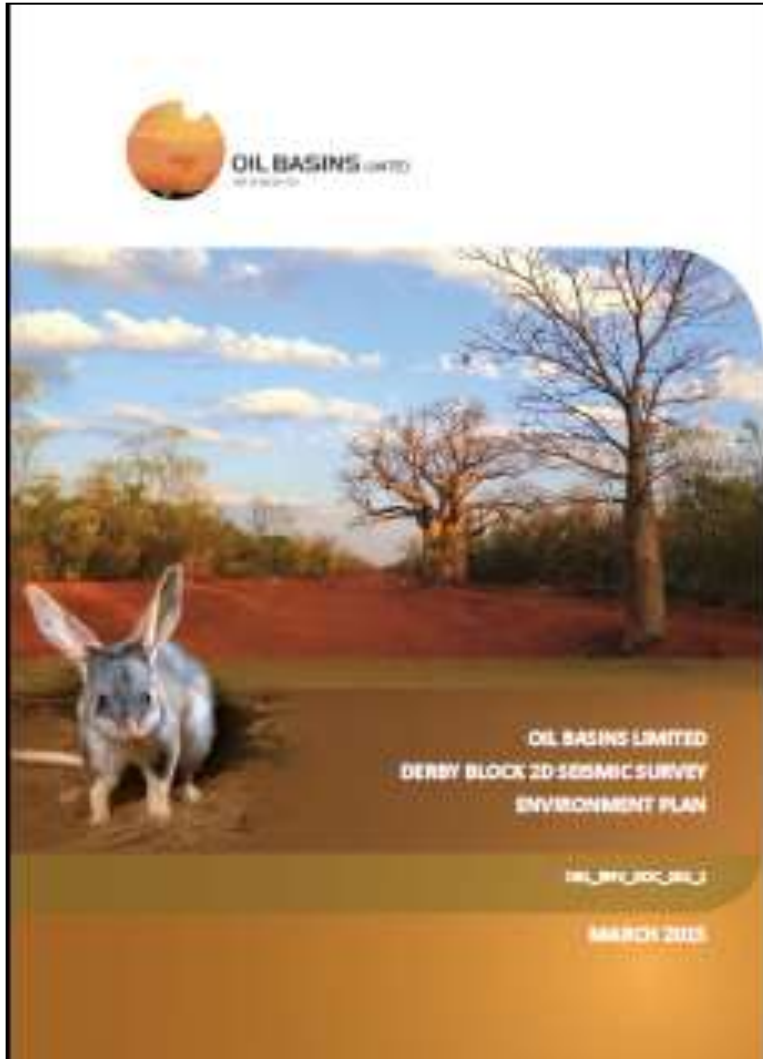


# Recent Exploration Success has renewed interest in the Canning and in particular the highly prospective Fitzroy Trough



- Recent nearby exploration led by Buru Energy since 2010 has successfully delineated new interpretations:
- “Conventional Play”** Shallow Laurel age Dolomitic / Carbonate (reef) “conventional” oil plays (Ungani – circa 6 MMbbls 2C resources) on the edge of the platforms and a number of tight conventional gas sands and USG plays (Yulleroo Gas Field)
- “New Play”** – Deeper **“Wet Laurel” Basin Centred Gas Assets (BCGA)** are prognosed to host >100 Tcf and > 1 Bn bbls oil with an IER estimating circa 43 Tcf and 1250 MMbbls net to Buru (down to 4000m depth) within the 5 State Agreement Permits – *WABS (2013) Kingsley & Streitberg*
- It is noted that of the 5 vintage wells that have delineated the BCG system– two East Yeeda-1 (454m Laurel gas) and Puratte-1 (563m Laurel gas) were drilled in Derby Block (*WABS 2013*)

# Derby Block Update – Current Operations



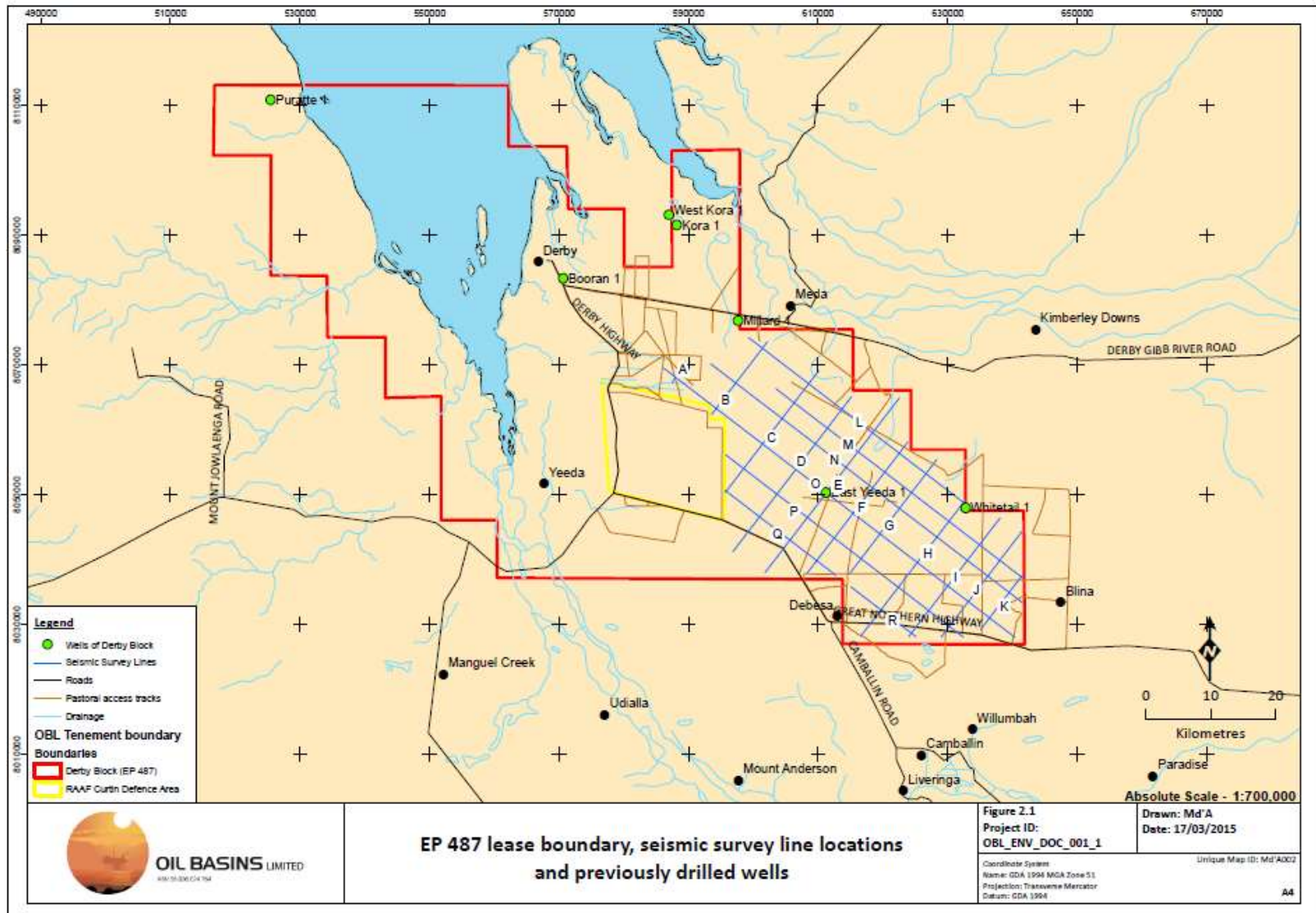
## ***Operations:***

- Permit Granted on 14 March 2014.
- EP487 Derby Block (OBL 50% and Operator) field operations concluded in late September 2014.
- EP 487 Derby Environmental Plan Seismic lodged with DMP Environment (DMP) on 31 October 2014.
- OBL received a 6 month extension of Permit Year 1 until 13 December 2015.
- Comments were received from the DMP in January 2015 and OBL after appointing a full time Environmental Manager successfully re-submitted the final environmental plan on 30 March 2015 (now in final review).
- Joint Venture Agreement concluded with Rey Resources on 29 May 2015.
- Planning continues for a 500km seismic survey commencing late in 3Q2015 at an overall gross budget estimated at circa \$4.0 million – with circa \$3.2 million seismic content.

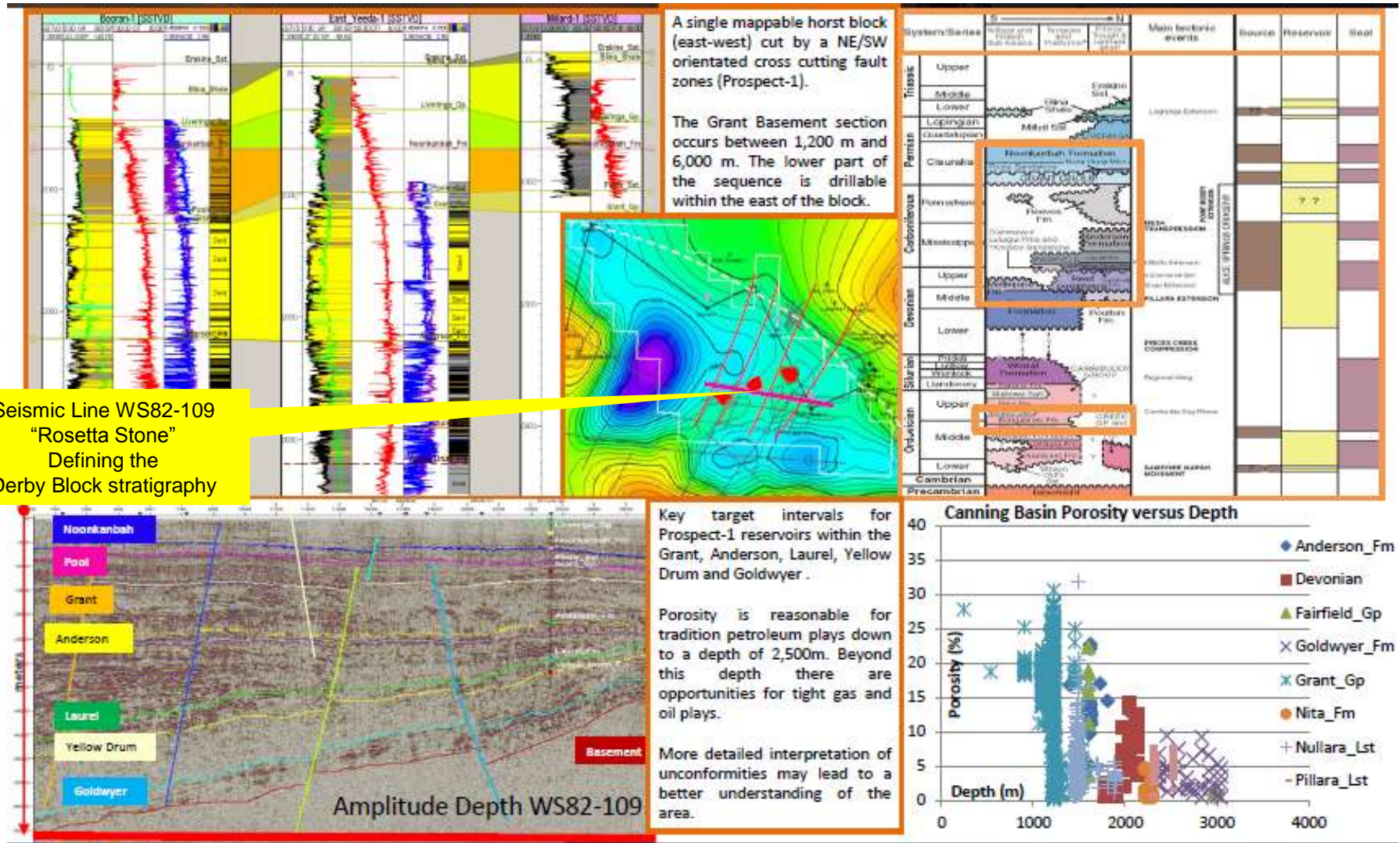




# Derby Block EP487 – Current Year 1 Work Program conduct a 500km 2D Seismic Survey

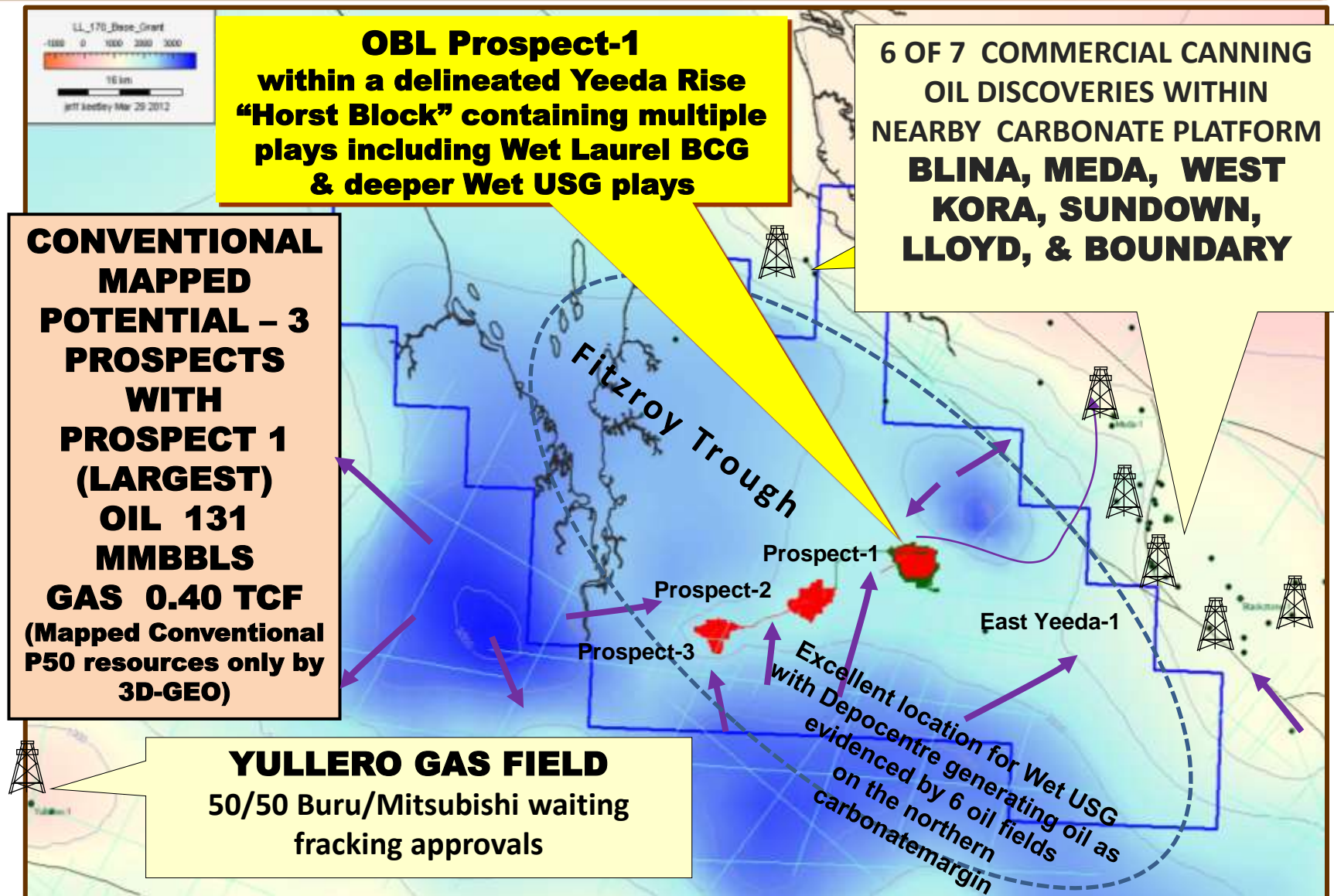


# Both Conventional & USG Potential – centred around the “Yeeda Rise” – stratigraphy and petrophysics are well defined



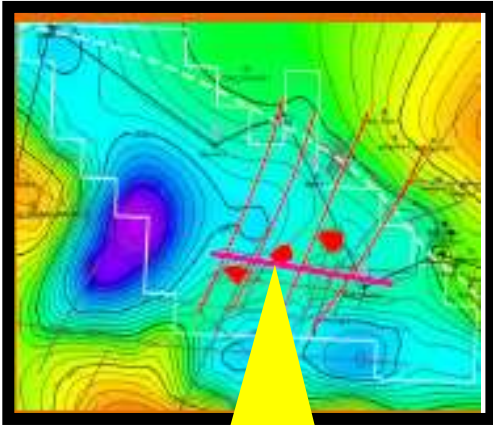


# Mapped Conventional & USG Prospects – Vintage 2D (Multiple-USG target Wet Laurel/GoGo/Goldwyer “Horst Block Prospects”)





Attributes – Derby Block stratigraphy is well defined but wells need to go deeper to delineate prognosed deeper source rocks



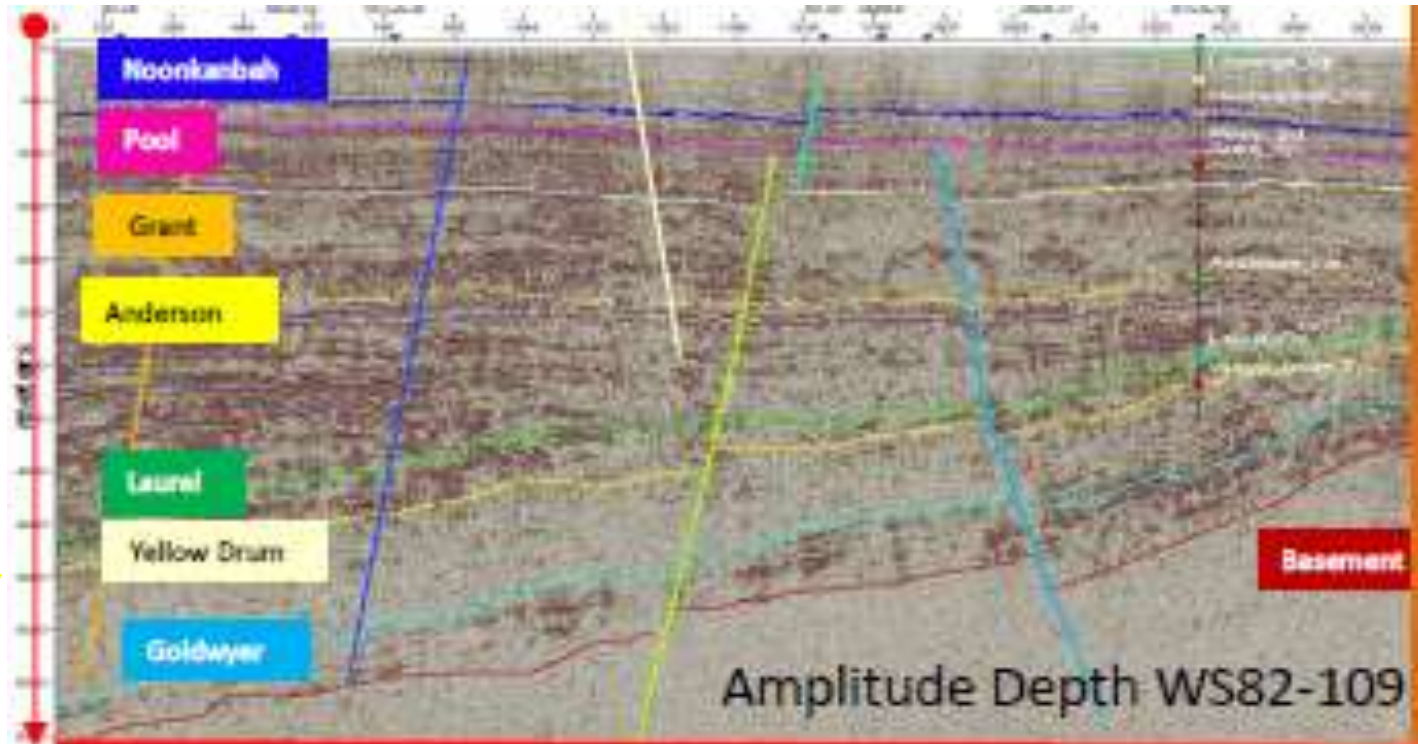
**Derby Block Laurel BCG is in general THICKER & DEEPER.eg: Line WS82-109 is an E-W vintage line through East Yeeda-1 (drilled to 3557m TD 1985 - 454m wet Laurel shale “open ended” )**

East Yeeda -1

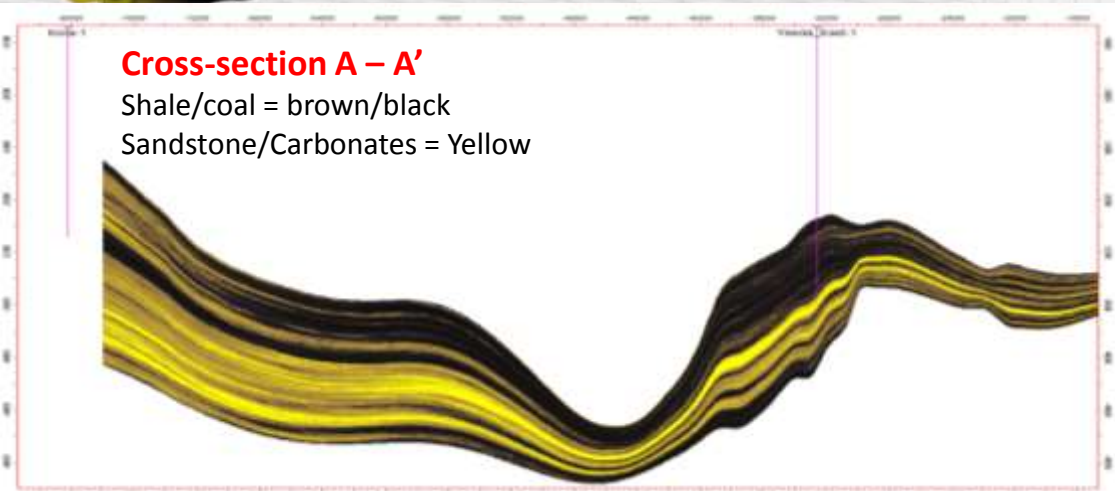
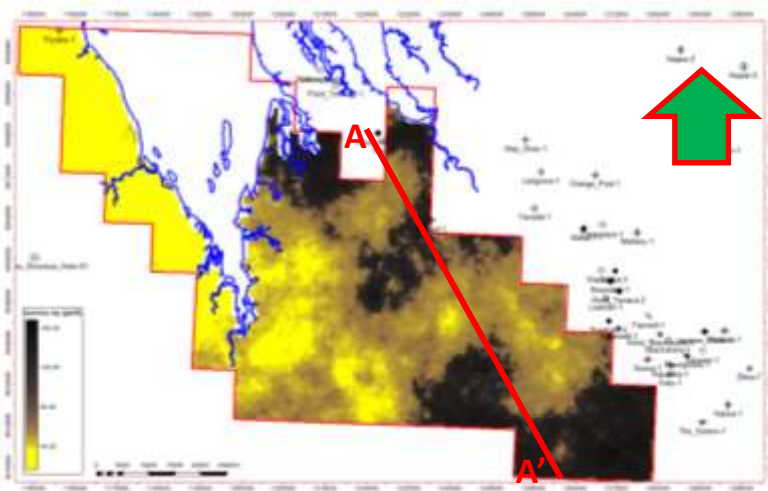
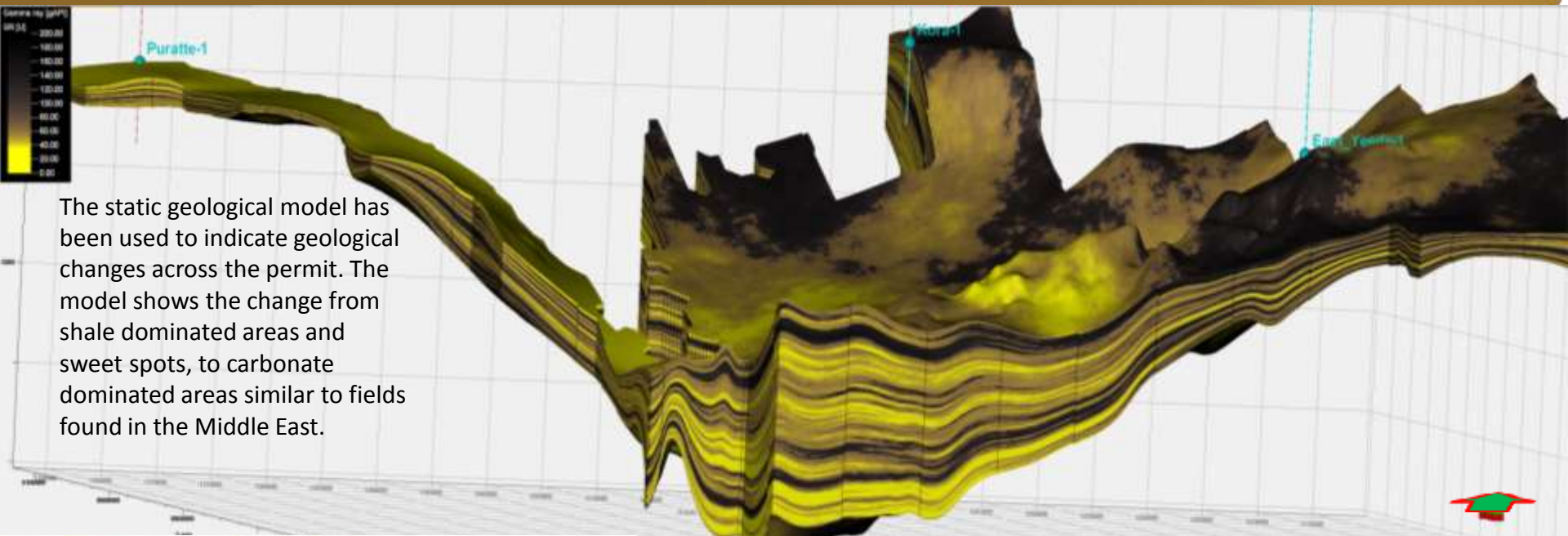


Seismic Line WS82-109 is the permits' “Rosetta Stone” defining the Derby Block stratigraphy

Deep thick package marine source & reservoir rocks of the “right geological age” Laurel, Yellow Drum, GoGo & Goldwyer for USG



# Assessed Laurel Facies Distribution (onshore regions only) on Vintage 2D seismic: Derby Block has a significant mapped gross rock volume of potential wet Laurel BCG



# Unconventional Inputs for Monte Carlo Simulations based upon US wet shale gas package analogue modified for published nearby Canning data (modelling in Petrel <sup>TM</sup>)

## ❖ Gross Rock Volume (GRV)

- P90/P50 Volumes Top Laurel to 4,000m
- P10 Volume Top Laurel to 5,000m

## ❖ Degree of fill

- Assumed filled-to-spill

## ❖ Net-to-gross (NG)

- Calculated from the geostatistical model shown in later slides, provides a sandstone/carbonate to shale ratio of 65:35

## ❖ Porosity

- P90 assumes 5% (Amie M. L. et al., 2011)
- P10 assumes 15%

## ❖ Sw

- Sw > 50%
- Sw < 70 % (Amie M. L. et al., 2011)

## ❖ Dry gas FVF (1/Bg)

- P90 pressure gradients (0.55psi/ft; Barnett shale)
- P10 pressure gradients (0.85psi/ft; Haynesville/Bossier)

## ❖ NGL/gas ratio

- Condensate (NGL) yield ranges calculated from ASX Announcement (ASX: BRU) 8 February 2013

## ❖ Gas recovery factor

- (See following slide)

Name	Unit	Shape	Min	P90	P50	P10	Max	Mode	Mean
GRV	km2.m	Lognor	138,552	431,728	1,007,720	2,352,173	7,329,360	650,667	1,254,096
Deg. of fill	%	Single	100	100	100	100	100	100	100
Net-to-gross	%	Lognor	9.58	20	34.6	60	125	28.8	38
Porosity	%	Lognor	2.39	5	8.66	15	31.3	7.21	9.49
Sw	%	Normal	36.6	50	60	70	83.4	60	60
Dry gas FVF (1/Bg)	vol/vol	Normal	66	210	180	265	350	265	265
NGL/gas ratio	m3/mm.m3	Normal	10.6	19	25.3	31.5	39.9	25.3	25.3
Gas rec fac	%	Lognor	4.79	10	17.3	30	62.7	14.4	19

Amie M. Lucier, Ronny Hofmann, and L. Taras Bryndzia, 2011, Evaluation of variable gas saturation on acoustic log data from the Haynesville Shale gas play, NW Louisiana, USA, The Leading Edge 30, 300-311.





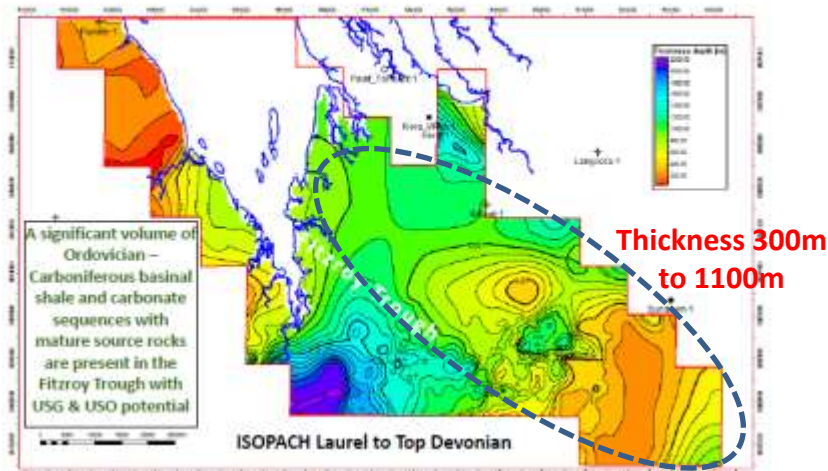
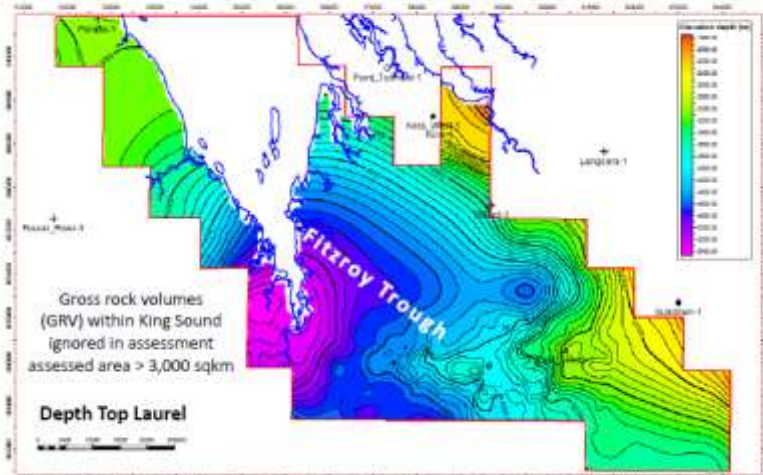
# Derby Block's Wet Laurel BCG Prospective Resource

using the existing 2D seismic, petrophysics & modelling parameters & an integrated Petrel Package

Laurel Formation – Basin Centred Gas 3D-Geo mapped: In eastern / central parts of the block, the Laurel is at reasonable drillable depths (~4000 m) and is more than 500 m thick.

Early Carboniferous to Devonian isopach:

**Laurel BCG – thicker & deeper**



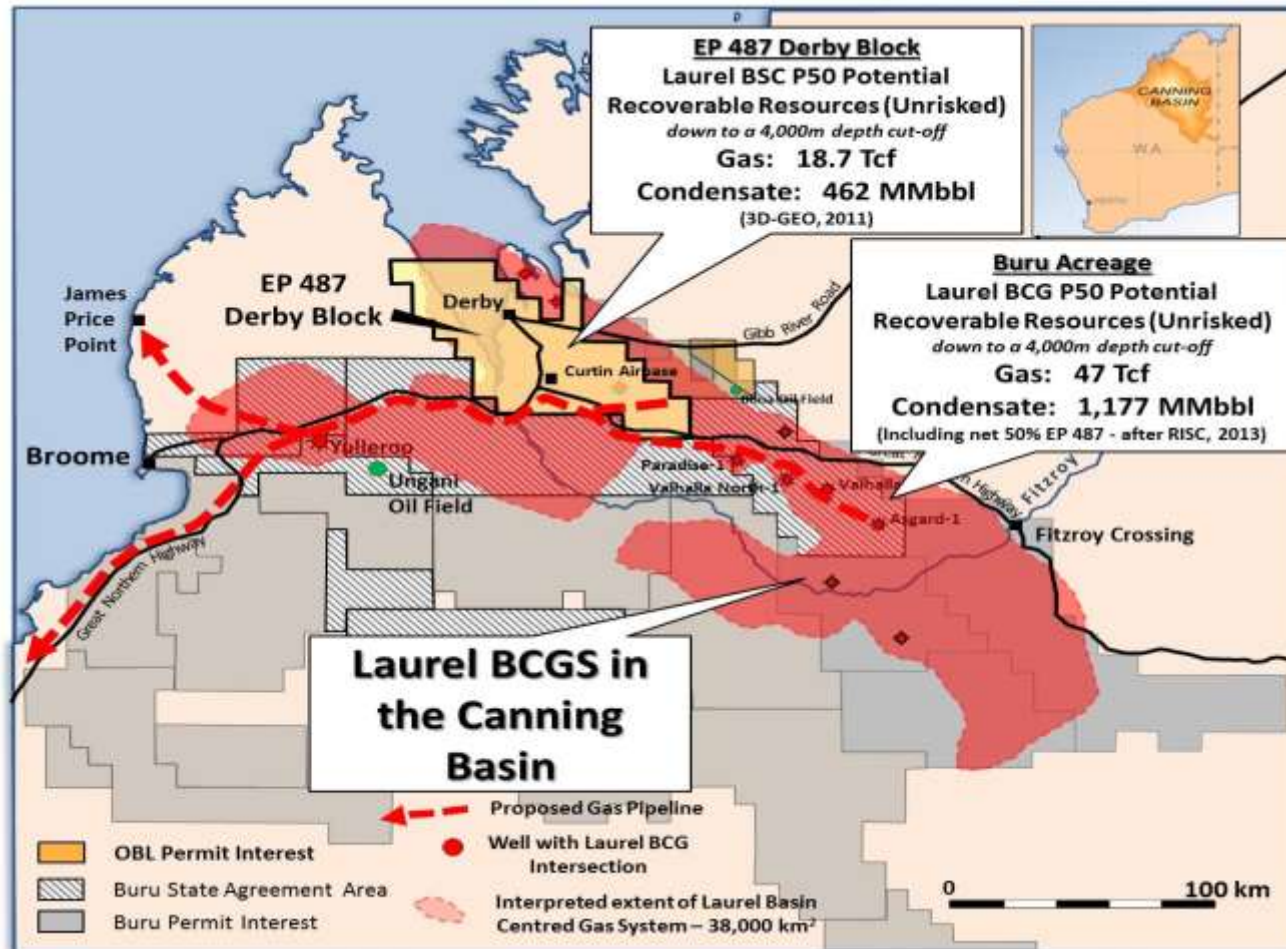
EP 487 (Derby Block) - 100%	Prospective Resources PRMS SPE 2011			
	3D-Geo Independent Expert Assessment (2013)			
Product	P90	P50	P10	Mean
Gas In-Place Tcf	31.8	107.4	357.8	164.7
Recoverable Gas Tcf	4.8	18.7	68.8	31.2
Recoverable Condensate MMstb	117.4	461.9	1,785.0	801.7

**Depth to 4000m**

**Depth to 5000m**

Refer to OBL ASX Release dated 14 February 2014

# Derby Block is well positioned for Wet Laurel Basin Centred Gas (BCG)



Bounded by oil discoveries in the north, Derby Block's Wet Laurel BCG is potentially the Sweet Spot in the Canning for Wet USG – 31.2 Tcf estimated @ 5000m ***le NORTH WEST SHELF SCALE*** and all within permit with unique attributes

# Derby Block – Farmin & Operatorship Opportunity

- OBL seeking a Third Party Farmin for upto the entire 6 year work program – (ie 2D seismic and drilling and testing of up to 6 wells)
- Under terms of the agreed Deed of Settlement, OBL has exclusive rights to immediately farmout 50% of Derby Block – **conventional deal terms are offered for an attractive proposal** including payment of all backcosts (post-Grant 14 March 2014) and at a minimum the two year program seismic and 2 deep wells are to be free carried by Third Party (ie minimum 2 for 1 promote ie earning 50% and operatorship is offered).
- **With ownership satisfactorily resolved and OBL now offers certainty to a Third Party Farminee offering an attractive proposal.**
- OBL's Year 1 exposure @ 50% is presently circa \$2.0 million which OBL believes will be fully covered by a Farmout to a Third Party via either a Two Stage Earnin on conventional 2 for 1 promote farmin terms.
- In addition, OBL has negotiated exclusive terms, whereby OBL can act as Operator during 2 Year period of Third Party staged Earn-in.
- A Strategic Cornerstone position in OBL is also available for an Aligned Farmin or Earnin partner.

**OBL is now seeking support from either a  
Cornerstone Aligned Strategic Partner and/or  
Third Party Farmin / Earnin Partner to develop its  
vision of large scale unconventional tight gas to export LNG.**



# OBL has a Strategic Alliance Agreement with LNG Limited

**OBL has secured potential access to an Export LNG market in the event of large BCG / wet USG discoveries – technology is based upon relatively low cost LNG Limited's OSMR technology.**

## Liquefied Natural Gas Limited



- OBL has a unique Strategic Alliance Agreement with LNG Limited whereby **OBL holds rights to participate in 20% of a future 1.5 to 2.0Mtpa Export LNG Project** (based on Fishermans Landing LNG Project, Gladstone Queensland / Magnolia LNG Project, Louisiana USA, modular-LNG)
- Under the SAA, OBL has rights to minimum 20% future LNG Train **increasing to net 30%** if OBL books > net 1 TCF 2P reserves within 4 years of the Derby Block being granted (ie 2018).

**For Cornerstone Investors  
OBL is offering participation in this  
STRATEGIC ALLIANCE AGREEMENT**

# Investment Case – exposure to Fitzroy Trough Wet Laurel BCG

Company	ASX Code	Mar Cap	Operator	Wet Laurel BCG Permits	Gross Area sqkm	Ownership	Net Area sqkm	IER PRMS SPE (2011)		IER	Comments
	SP \$ TSO M shares	29-May-15 \$M						<u>P50 Resources to 4000m</u> Tcf	MMbbls		
<b>Buru</b>	<b>BRU</b>	<b>\$176.8</b>	Yes	EP371	3,680	50%	1,840.0				State Agreement Permit
<b>Energy</b>	\$0.52		Yes	EP390	1,624	50%	812.0				State Agreement Permit
	340.997		Yes	EP391	2,451	50%	1,225.5				State Agreement Permit
			Yes	EP428	6,476	50%	3,238.0				State Agreement Permit
			Yes	EP431	4,228	50%	2,114.0				State Agreement Permit
			Yes	EP436	2,419	50%	1,209.5				State Agreement Permit
			<b>Net BRU position</b>		<b>20,878</b>		<b>10,439.0</b>	<b>43.0</b>	<b>1,250</b>	RISC	IER ASX dated 8/2/13
<b>Rey</b>	<b>REY</b>	<b>\$71.3</b>	No	EP487	5,067	50%	2,533.5	<b>9.4</b>	<b>231</b>	3D-GEO	IER ASX dated 14/2/13
<b>Resources</b>	\$0.10										
	712.451										
<b>Oil</b>	<b>OBL</b>	<b>\$4.2</b>	Yes	EP487	5,067	50%	2,533.5	<b>9.4</b>	<b>231</b>	3D-GEO	IER ASX dated 14/2/13
<b>Basins</b>	\$0.004										
	1048.387										

## Comparison is only related to Fitzroy Trough Wet Laurel BCG prospectivity

Buru Energy in addition holds 50% in Ungani Oil Field (net 2C circa 3 MMbbls recoverable resources under production test) and net 50% to 37.5% of highly prospective Ungani Oil Trend within an overall portfolio of some 17 exploration permits

Rey Resources holds substantial undeveloped regional thermal coal licences and associated assets, 1net 5% of highly prospective Ungani Oil Trend in EP457 and EP458 Canning Basin and net 43.47% Dunnart-2 (under appraisal North Perth Basin)

**With the Resolution of the ownership of the Derby Block, OBL is presently trading at a significant discount to its Canning Basin “Peers” with exposure to Wet Laurel Basin Centred Gas (BCG) within the Fitzroy Trough**

(refer to OBL Other Assets which summarises the Company's net 2P, 2C and P50 reserves and resources positions)

# Investment Case – Other Assets

**OBL has an attractive portfolio of highly prospective exploration and appraisal assets.**

- **Backreef Area – Canning Basin (OBL 100% & Operator)**
  - 1 oil discovery – Backreef production test**
  - Shallow Dolomites and Deeper USO / Tight Oil**
- **Vic/P47 (OBL 100% & Operator) & Vic/P41 (OBL 35.4%)**
  - 2 gas discoveries – Judith & the Moby Location**
  - Gippsland Basin – Conventional Gas / NGL's**
- **Retention Lease R3/R1 – Oil (OBL 100% & Operator)**
  - 1 oil discovery – Cyrano (booked 3MMbbls 2P)**
  - Carnarvon Basin – Conventional Oil**
- **Royalties Interests**
  - 2% R3/R1 (Cyrano)**
  - 2% Vic/P47 (Judith)**
  - 0.5% EP487 (Derby Block) *pending***

**OBL is underpinned by booked 2P reserves & discoveries**



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# OBL has an established portfolio in strategic locations with all reserves & resources under SPE PRMS (2011)

Permit EP 487  
(Derby Block)  
Gross USG P50  
18.7 Tcf & 462MMbbls  
3D-GEO

100% Backreef Area  
USO P50 391 MMbbls  
3D-GEO

**HIGH LEVERAGE  
TO LARGE USO**

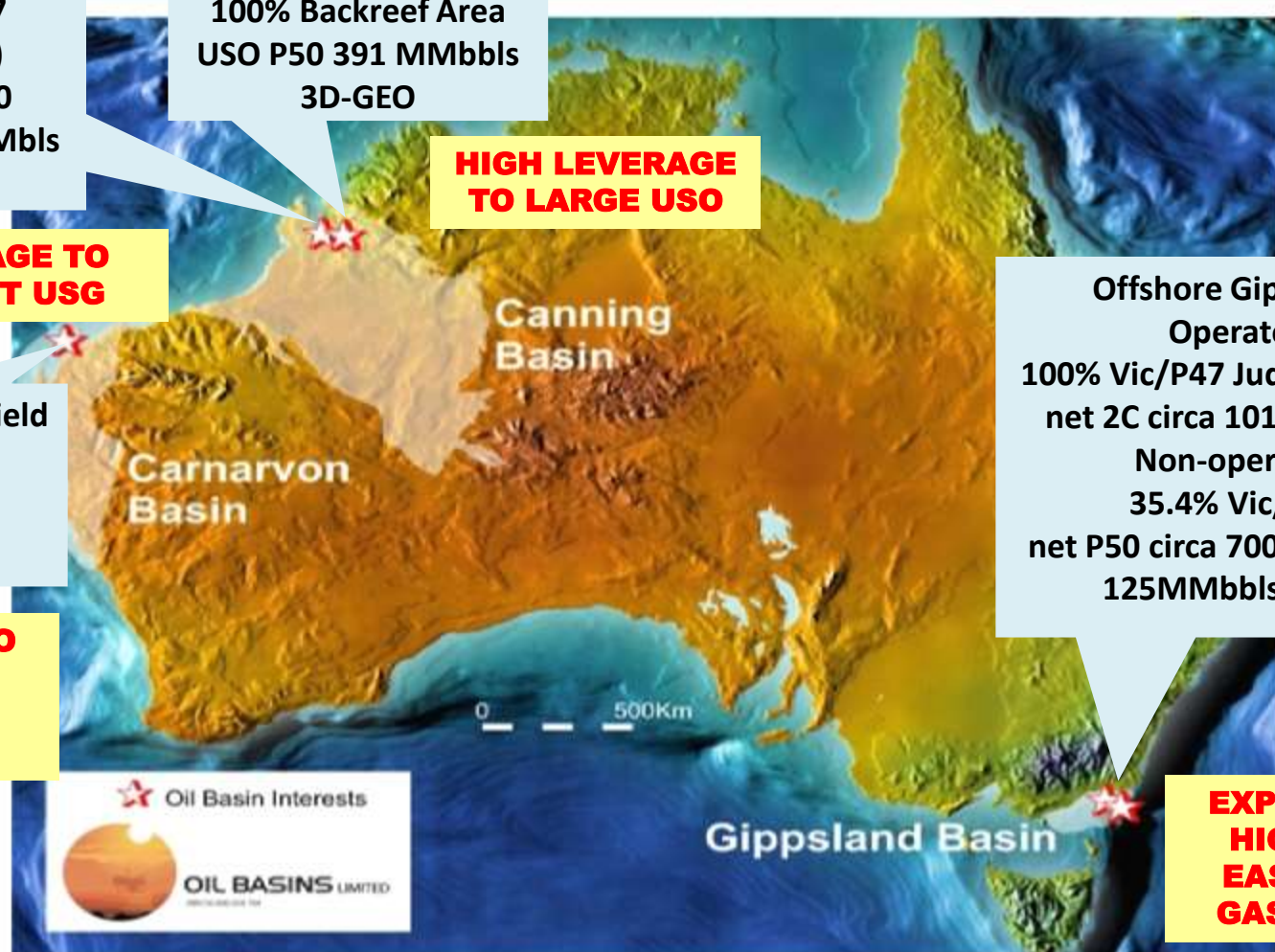
**HIGH LEVERAGE TO  
CANNING WET USG**

100% Cyrano Oilfield  
Gross 2P circa  
3 MMbbls  
3D-GEO

**EXPOSURE TO  
HIGH PRICE  
WA GAS  
MARKET**

Offshore Gippsland  
Operator  
100% Vic/P47 Judith & Moby  
net 2C circa 101 Bcf (GCA)  
Non-operator  
35.4% Vic/P41  
net P50 circa 700 Bcf & circa  
125MMbbls (BAS)

**EXPOSURE TO  
HIGH PRICE  
EAST COAST  
GAS MARKET**



**OBL is seeking Farmin  
interest**



# Glossary of Petroleum Terms

<b>M</b>	Thousand	<b>PSTM</b>	Pre-stack time migration – reprocessing method used with seismic
<b>MM</b>	Million	<b>PSDM</b>	Pre-stack depth migration – reprocessing method used with seismic converting time into depth
<b>B</b>	Billion	<b>AVO</b>	Amplitude versus Offset, enhancing statistical processing method used with 3D seismic
<b>stb</b>	Barrel of crude oil (ie 159 litres) at sea level (stock tank) atmospheric conditions	<b>GIP</b>	Gas initially in place – also known as GIIP
<b>PJ</b>	Peta Joule (1,000 Tera Joules (TJ))	<b>OIP</b>	Oil in place – also known as Stock Tank Oil Initially in Place (STOOIP)
<b>Bcf</b>	Billion cubic feet	<b>fm</b>	Formation
<b>Tcf</b>	Trillion cubic feet	<b>sst</b>	Sandstone
<b>BOE</b>	Barrel of crude oil equivalent – commonly defined as 1 TJ equates to circa 158 BOE – approximately equivalent to 1 barrel of crude equating to circa 6,000 Bcf dry methane on an energy equivalent basis)	<b>OWC</b>	Oil water contact
<b>CSG</b>	Coal Seam Gas	<b>USG</b>	Unconventional Shale Gas
<b>EPT</b>	Extended Production Test (also commonly referred to as an Extended Well Test)	<b>USO</b>	Unconventional Shale Oil
<b>ESPCP</b>	Electric Submersible Progressive Cavitation Pumps	<b>JU</b>	Jack-up (modified as a Production Unit)
		<b>MD</b>	Measured depth





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New play concepts  
High leverage**

**ASX: OBL**

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