



EMPYREAN
ENERGY PLC

Annual General Meeting

11 September 2017

Block 29/11
China

Sacramento Basin Project
California

Duyung PSC
Indonesia



Forward-looking statements

This presentation may contain forward-looking statements and information. It both represents management's current expectations concerning future events and are subject to known and unknown risks and uncertainties. A number of factors could cause actual results, performance or events to differ materially from those expressed or implied by these forward-looking statements

Agenda - Annual General Meeting

1. Current Capital structure

Shares on Issue:	398,995,110
Options on Issue:	30,000,000
Market Cap:	~£72.8m @ 18.3p

2. 2017 Highlights

3. Assets update

- Duyung PSC, Indonesia (*10% Working Interest*)
- Sacramento Basin, California (*25-30% Working Interest*)
- Block 29/11, China (*100% Working Interest during exploration, 49% Working Interest post any commercial discovery*)

2017 Highlights

- ✓ Post Sugarloaf interest sale, successfully repositioned the Company
- ✓ Three cornerstone assets with transformational value proposition are in place
- ✓ Significant progress has been made in all three assets
- ✓ Significant gas discovery has been made in Mako South # 1 well
- ✓ Currently drilling Dempsey # 1-15 well with significant gas shows encountered in several zones

Action Taken	Solid Business Base	Focus on Growth
Business reset and restructured ----- Strengthened the Board ----- Effective portfolio management	High quality diverse asset portfolio ----- Balanced mix of oil and high value gas ----- Manageable work commitments	High-impact exploration assets ----- Large inventories of high quality, transformational prospects ----- Well placed to take advantage of market opportunities

Exploration central to long-term growth strategy

- Focus on low cost, high-margin plays in prolific basins with compelling market dynamics
- Working on seismic and geological assets to create & high-grade prospects
- Regularly evaluate attractive exploration opportunities for augmenting the existing prospect portfolio

Duyung PSC, Indonesia

- Complete comprehensive analysis of the data acquired in Mako South (e.g. core and PVT etc.)
- Operator working towards Plan of Development approval

Sacramento Basin, California

- Evaluate test result of Dempsey # 1-15
- Connect gas to existing pipeline network to generate cash flow
- Evaluate follow up opportunities in Dempsey trend and drill new targets
- Evaluate re-entry Alvares #1 and test the prospective zone

China, Block 29/11

- Complete 3D processing & interpretation
- Work closely with CNOOC for mapping the oil migration pathways
- Drill best value prospect

Transformational exploration opportunities



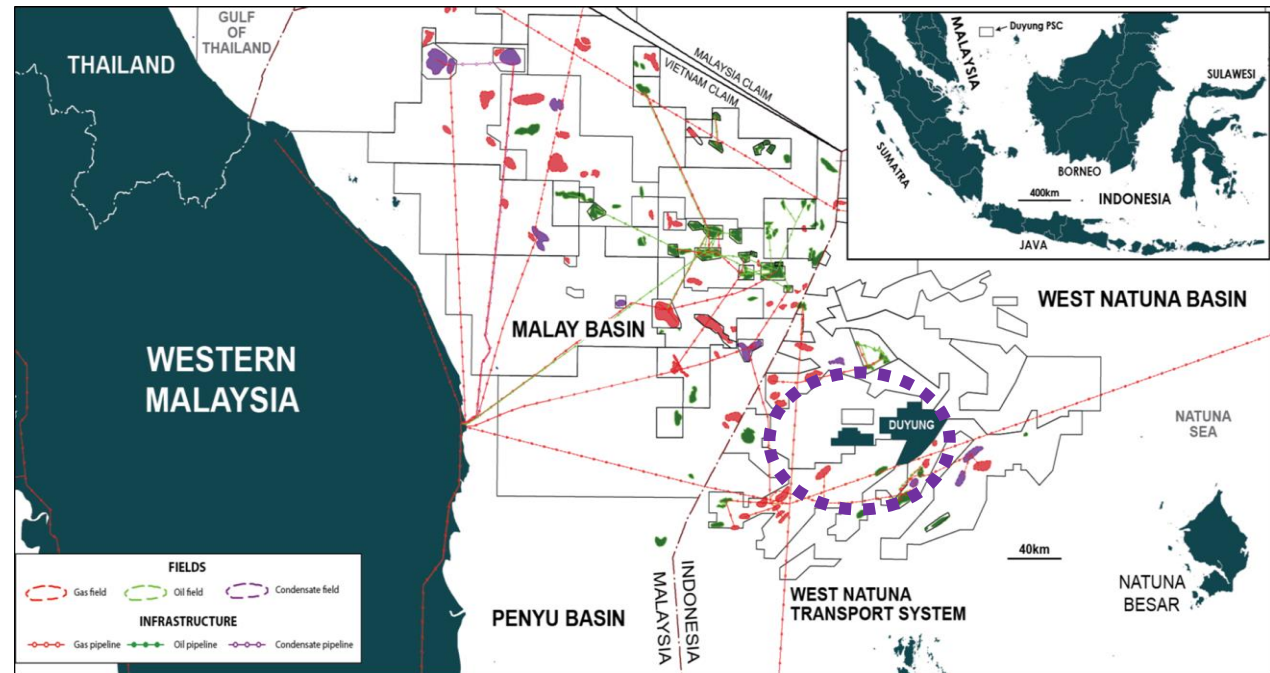
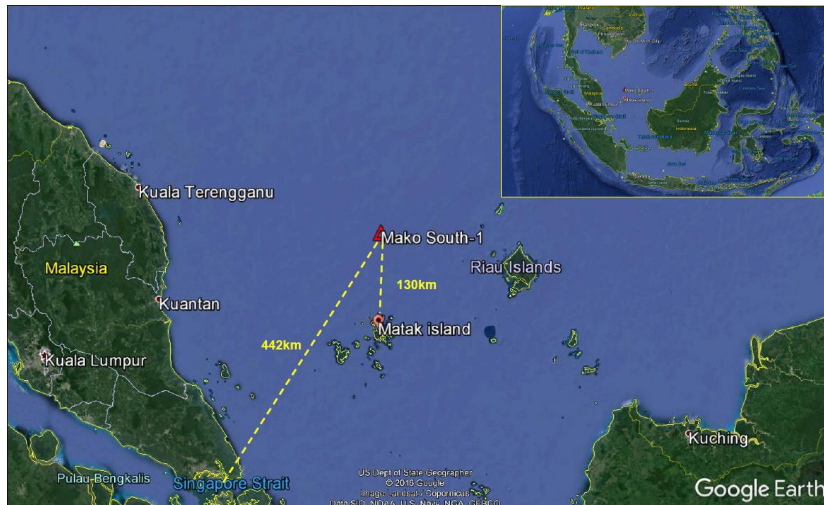
Duyung PSC, Indonesia

Mako South # 1 Gas Discovery

Duyung PSC- Background

COMPELLING MARKET DYNAMICS

- Shallow water depths 80 - 100 metres (requires only jack-up rigs, not semisub)
- The West Natuna Basin is one of Asia's most prolific proven basins



- Duyung PSC is located along the West Natuna Transport System, supplying gas to Singapore and Indonesia within 10 km from Mako Field



Mako South -1 Results exceeded pre-drill expectations

- 23 feet of net pay in the shallow Intra Muda Formation
- Excellent reservoir quality rock
- High-quality gas close to 100% methane, no CO₂, H₂S, or other contaminants
- Final stabilised flow rate of 10.9 million cubic feet of gas per day
- Flow rate limited by available down hole production testing equipment
- Core is currently being analysed



Mako Gas accumulation- Large 2C resources

Mako South-1 well has exceeded our expectations

- Mako is a very large gas accumulation with a lateral extent of approximately 340 km²
- Excellent reservoir quality rock with high porosity and permeability

Excellent reservoir quality, particularly the multi Darcy permeability is expected to improve the project economics significantly

- Operator is evaluating the option of developing the field by vertical wells
- Pre-drill economics used long horizontal wells

Indonesia Duyung PSC- Forward plan

OPERATOR WORKING DILIGENTLY TOWARDS POD

- With the successful drilling and testing of Mako south -1 well, the Duyung PSC is set to enter the next phase
- Next phase is called Penentuan Status Explorasi (PSE)
- PSE phase will incorporate
 - Static and dynamic modelling, POD study phase
 - Reserve certification,
 - Reservoir, subsurface, and
 - Surface facilities / infrastructure engineering, including FEED
 - Gas Marketing Studies

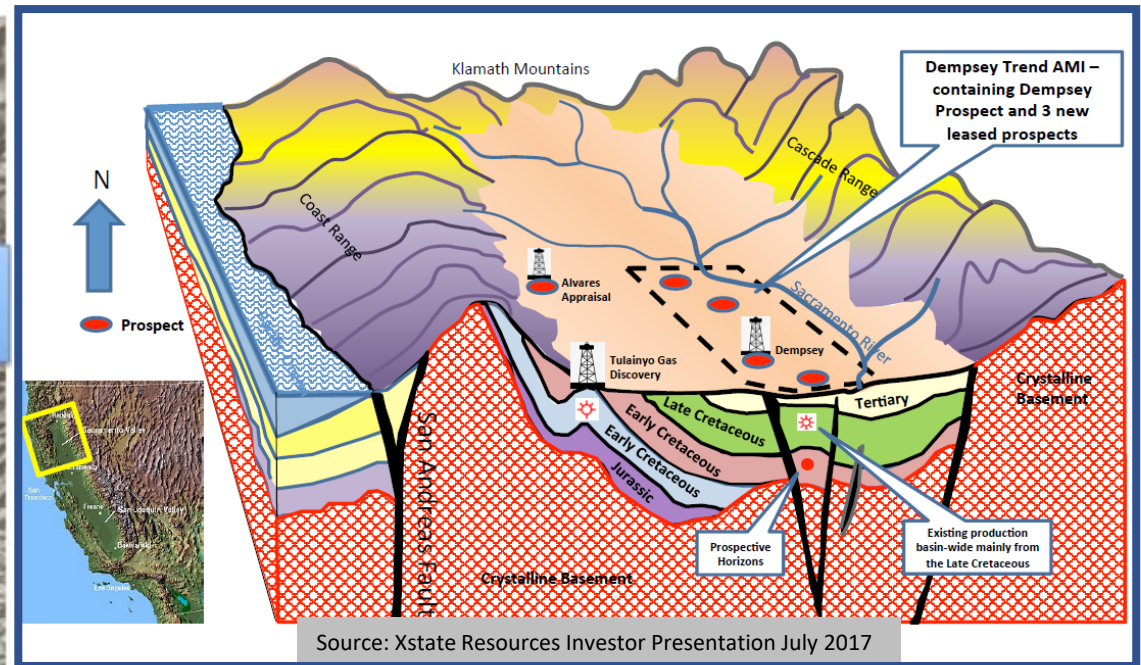
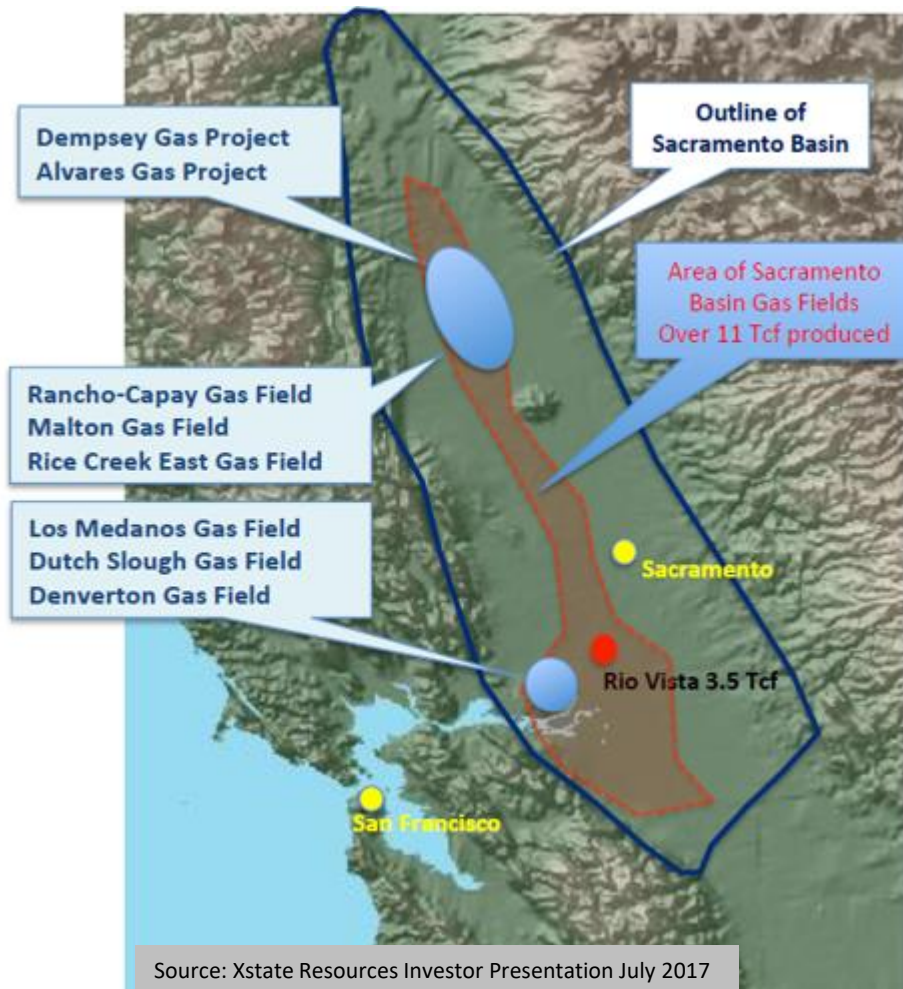


Sacramento Basin, California

Dempsey, Alvares Prospects & Dempsey Trend AMI

Sacramento Basin - Geological background

PROLIFIC BASIN WITH PROVEN HYDROCARBON PLAYS

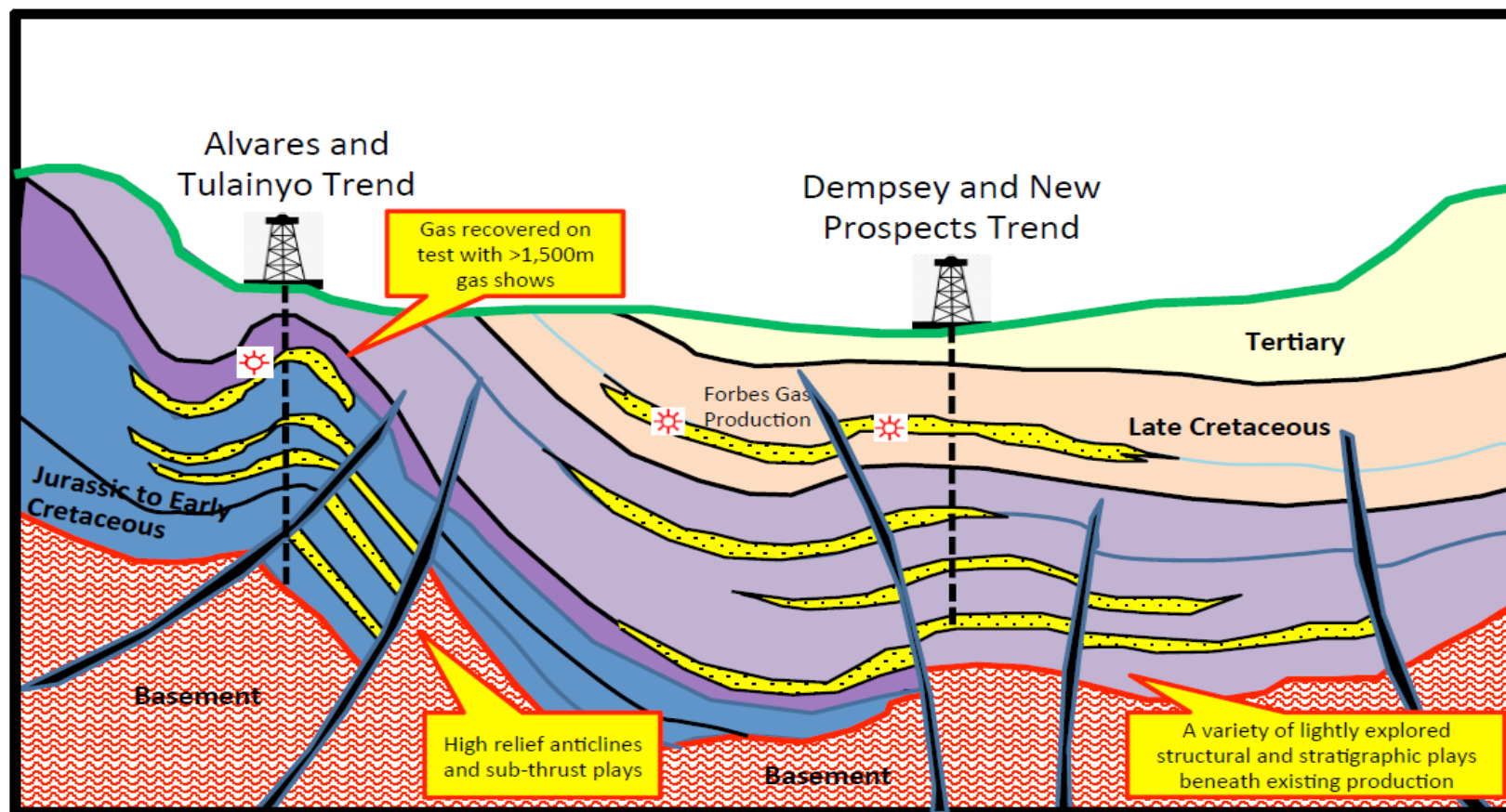


- Large forearc basin
- Prolific proven source rock
- Large conventional trap
- Multiple reservoirs



Sacramento Basin - Alvares and Dempsey Prospects

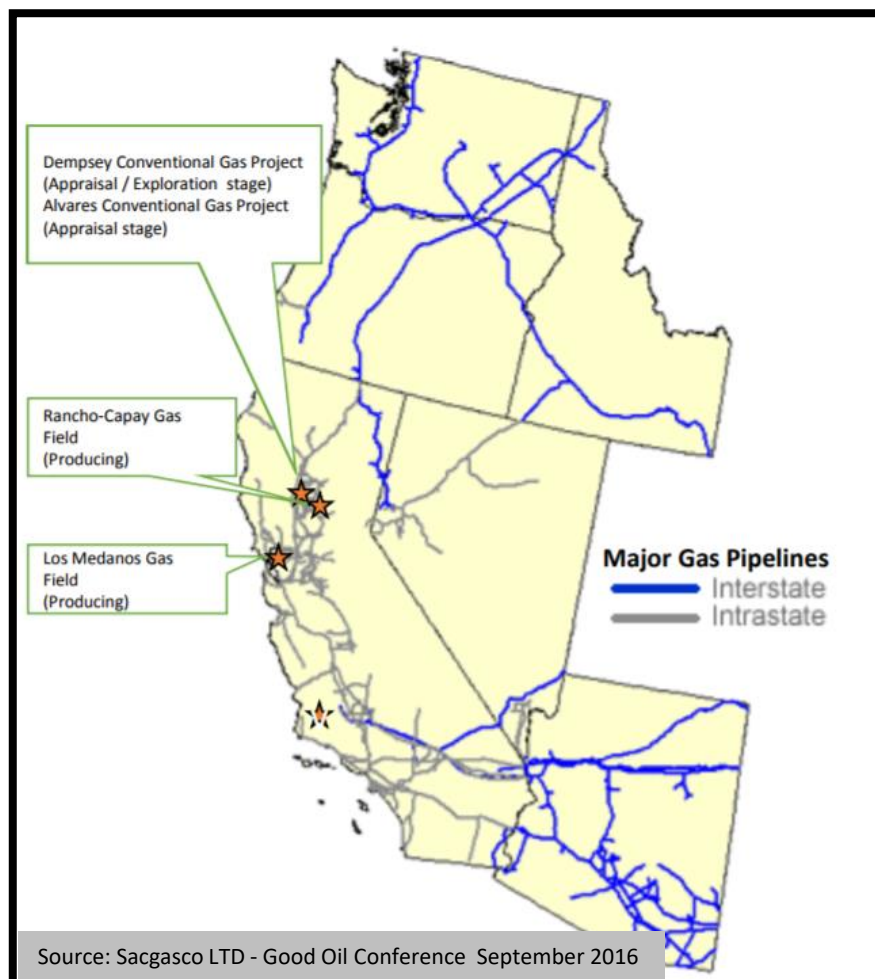
TARGETING BOTH JURASSIC AND CRETACEOUS PLAYS



Source: Xstate Resources Investor Presentation July 2017

Sacramento Basin- Compelling market dynamics

DEMPSEY GAS HAS A READY MARKET



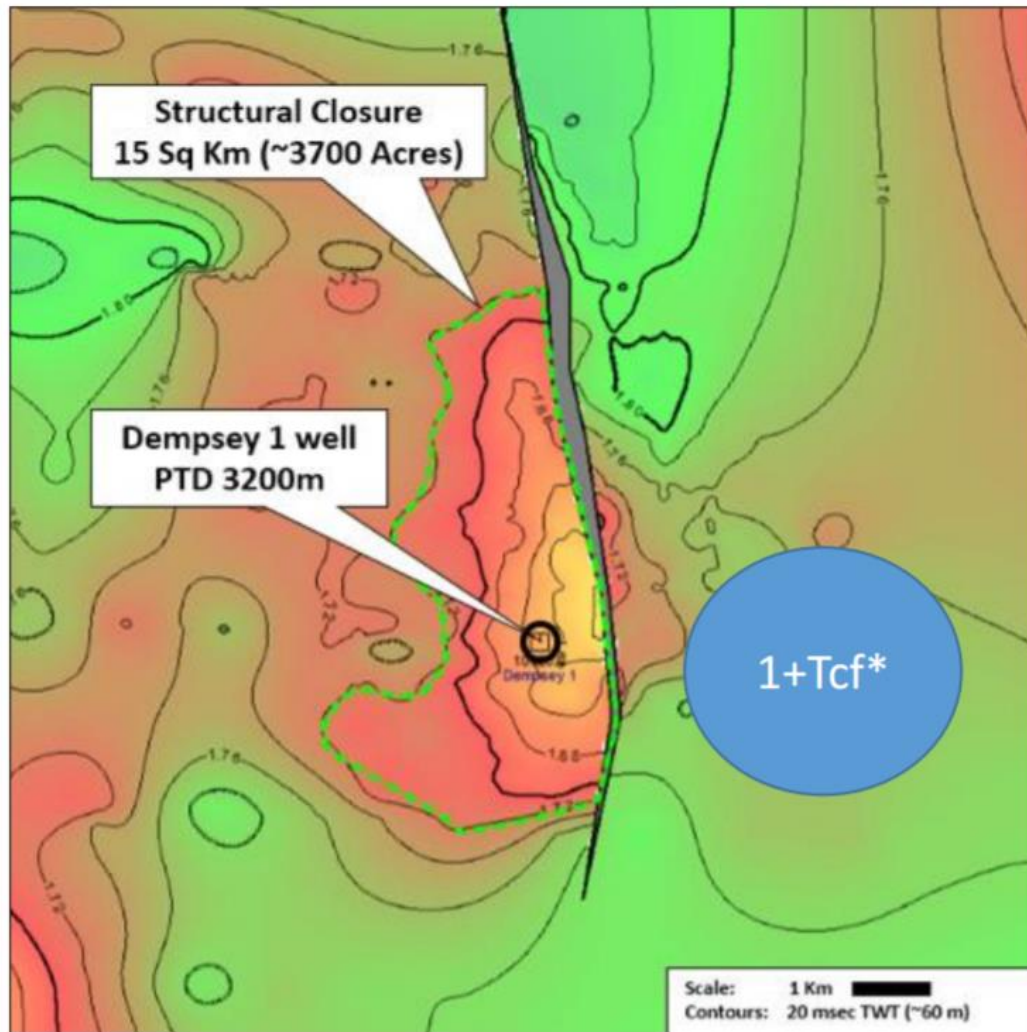
- California gas demand approximately 2.5 Tcf per year
- Average 7.0 billion cubic feet (BCF) gas a day consumed
- At peak, approximately 11.0 billion cubic feet a day consumed
- California imports 90%+ of gas
- Production is around 410 million cubic feet per day (< 6% of Californian gas market)
- Gas prices attract premium to Henry Hub

Rapid gas sale - access to Surface facilities and metering station

- Producing assets: Rancho Capay and Los Medanos gas fields
- Producing wells hold related leases without annual rentals for further appraisal and exploration
- Long-term relationship with very experienced local operator
- Infrastructure in place: a critical differentiator for early cash flow from a discovery well
- Landowners supportive of projects -part-owners in resources through lease rentals and royalties on production in Gas Country
- Access to in situ metering delivers immediate tie-in of any potential Dempsey discovery



Dempsey large trap - Well defined by 3D seismic



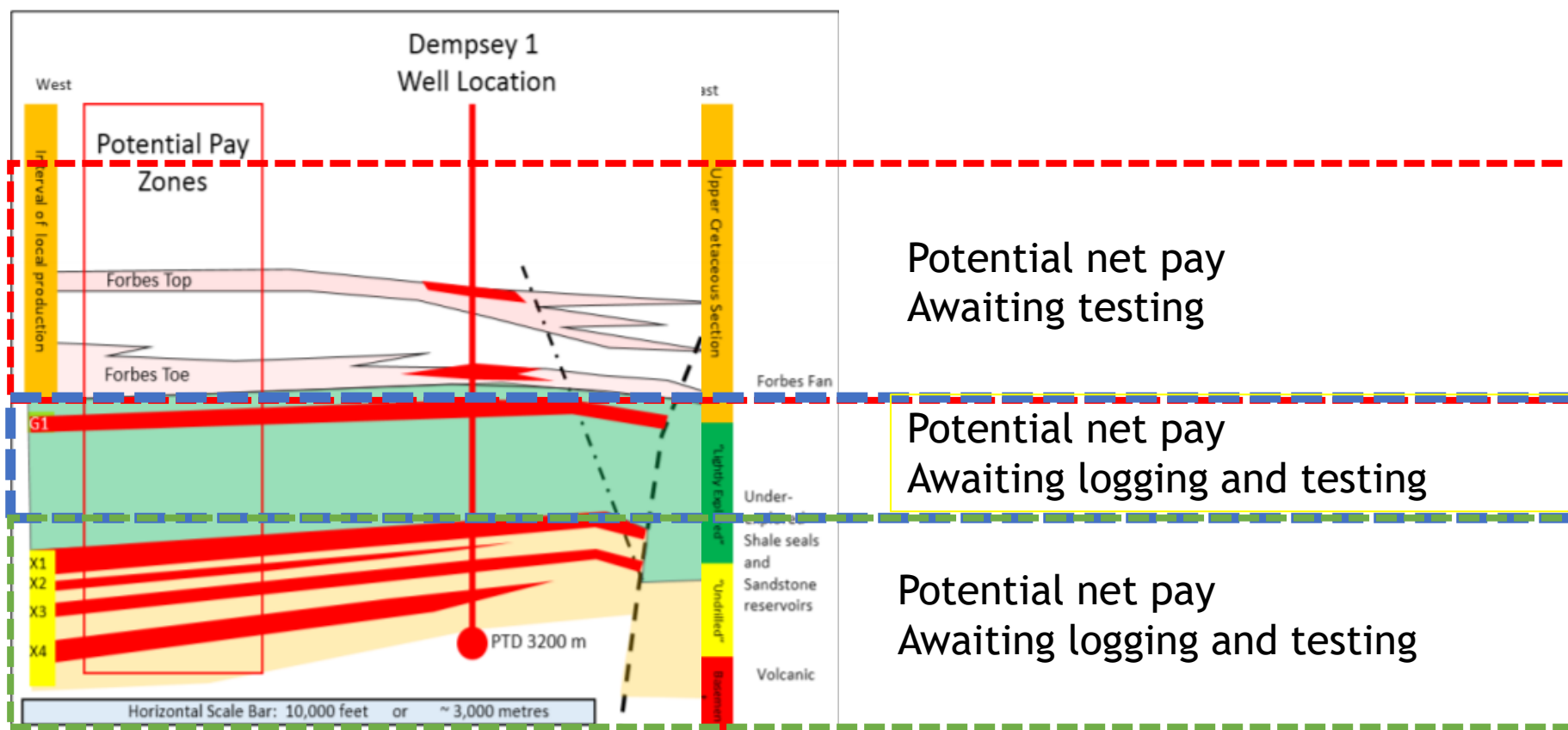
Dempsey Prospect Structure Map

*Refer SGC ASX release 4 Sept 2014

- Large three way closed structure
- Well defined by 3D seismic
- Significant follow up potential

Dempsey #1-15 well results

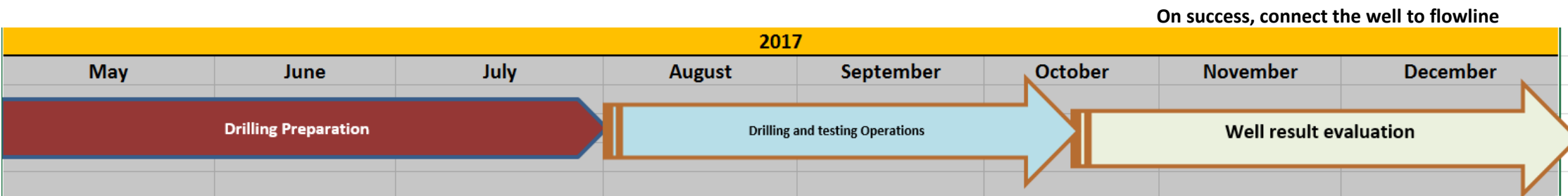
TARGETING BOTH JURASSIC AND CRETACEOUS PLAYS



Source: Xstate Resources Investor Presentation July 2017

California - Forward Plan

- Any successful flow test of gas in Dempsey #1-15 will enable the Joint Venture to utilise the existing owned and operated infrastructure for low cost, rapid development, and early cash flow
- Next step will be to evaluate the three 'Dempsey look alike' drilling opportunities after the Dempsey #1-15 well has been tested
- Evaluate the condition of the existing casing in the Alvares #1 well with an objective of re-entry to the larger zone

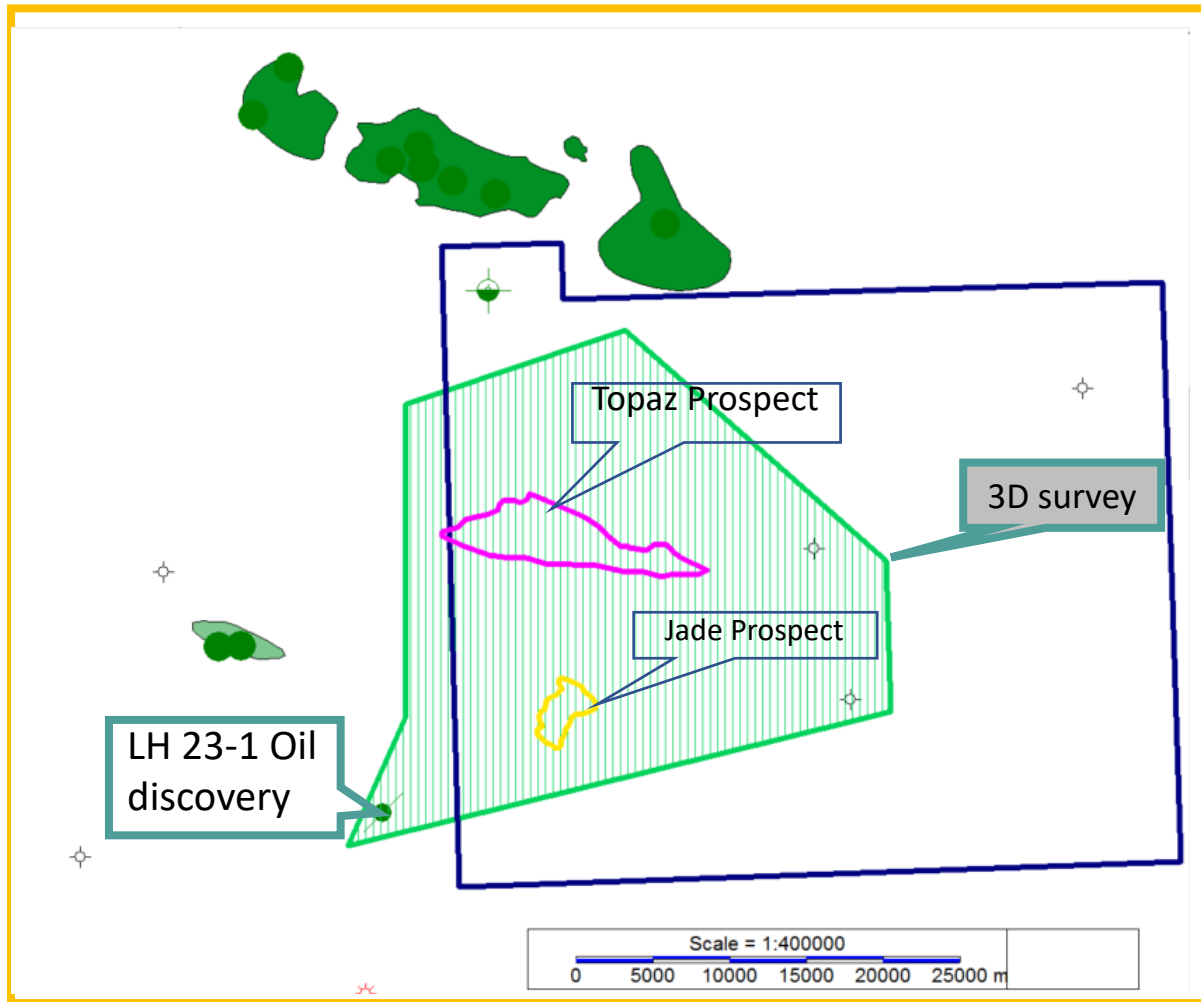




Block 29/11, China

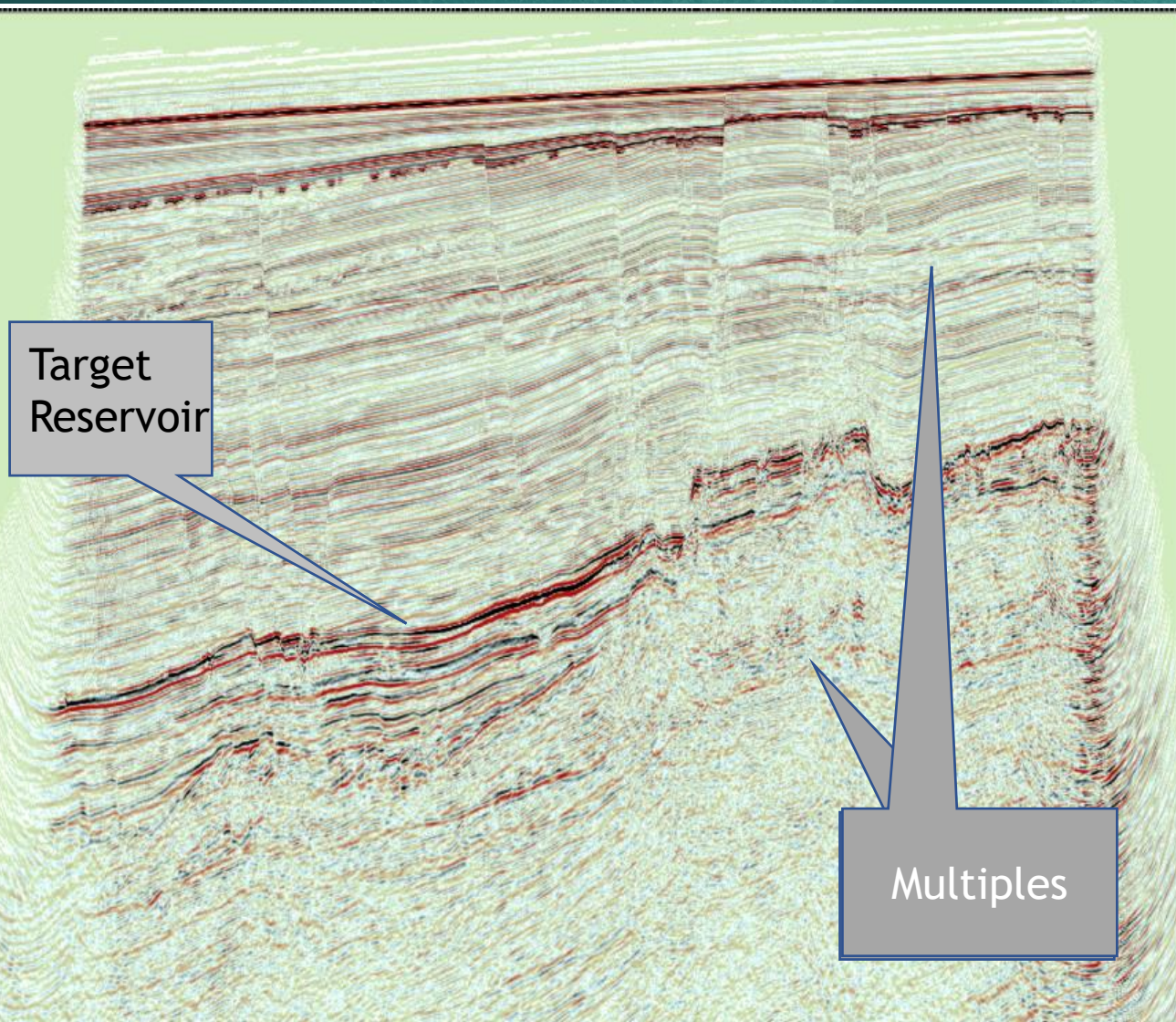
Jade and Topaz Prospects

China Block 29/11 - 3D seismic survey has been completed

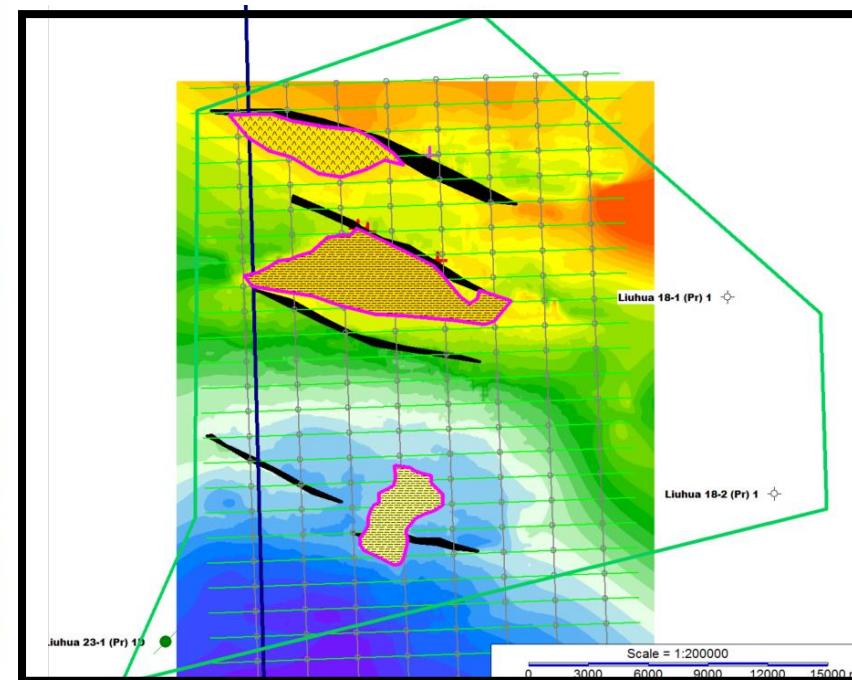


- 3D survey has been successfully completed without any HSE issue
- We now have high quality 3D seismic coverage over two high value prospects
- CNOOC provided approval (first time ever to any foreign operator) for acquiring data outside the block covering their oil discovery (LH 23-1)
 - This will help de-risk Jade and Topaz prospects
- In addition, three wells within 3D survey are expected to provide the control for depth conversion of the 3D seismic data (PSDM)
- Preliminary review and mapping of the partially available 3D data has been completed to assess the size of the Topaz and Jade prospects
- This data improves our understanding of structure, trap type and reservoir characteristics

3D survey - Data quality is excellent



- Initial review of 3D data indicates
 - Excellent data quality
 - Deeper reflectivity is preserved
- At the time of this evaluation, only partial data was available for review



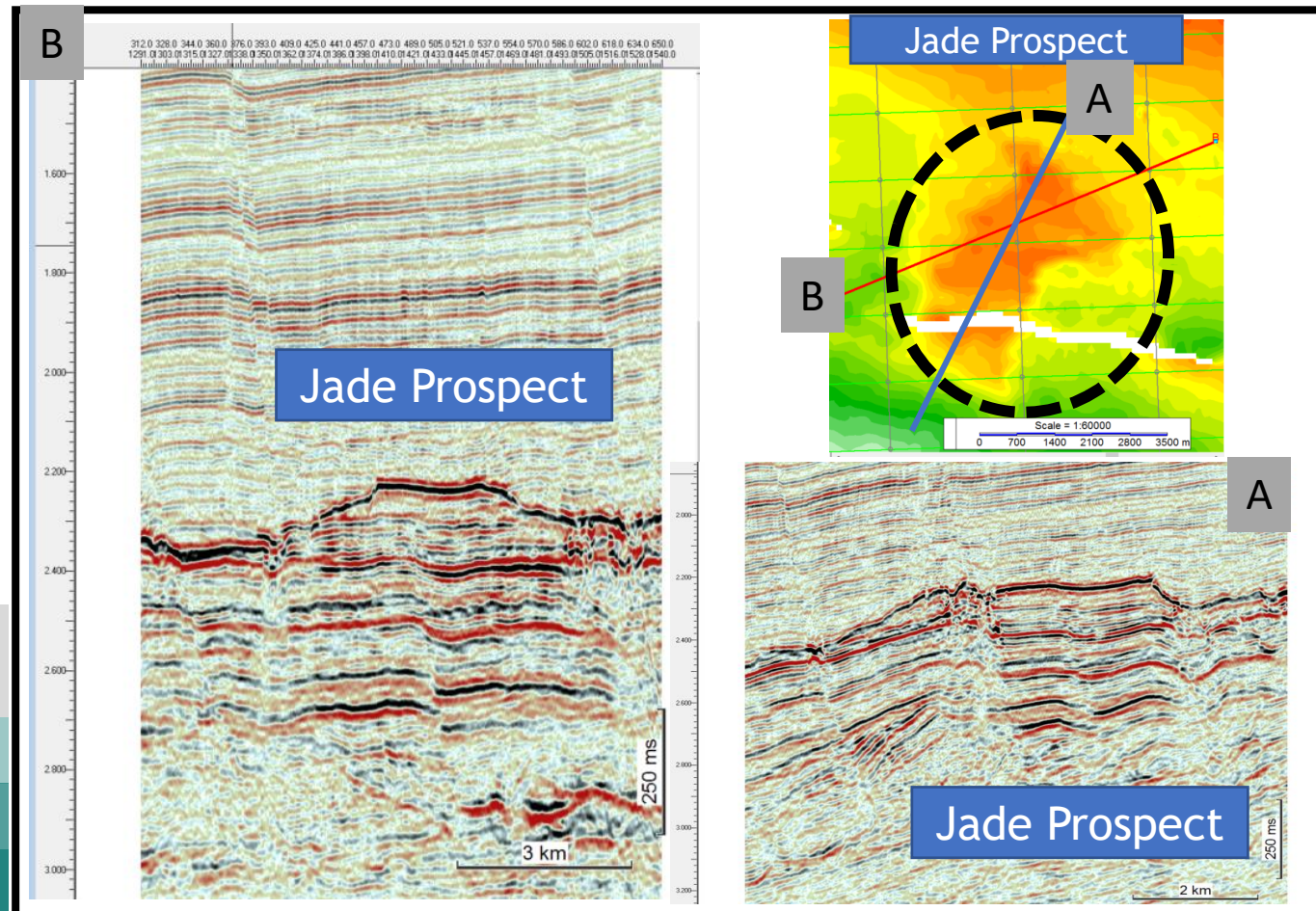
Jade Prospect - 4-way dip closed trap

A HIGH IMPACT / LOW RISK PROSPECT

- Carbonate build-up
- 3D seismic data has confirmed
 - 4-way dip closed structure
 - Larger fault dependent closure
- Final processing of 3D data is expected to further enhance trap definition

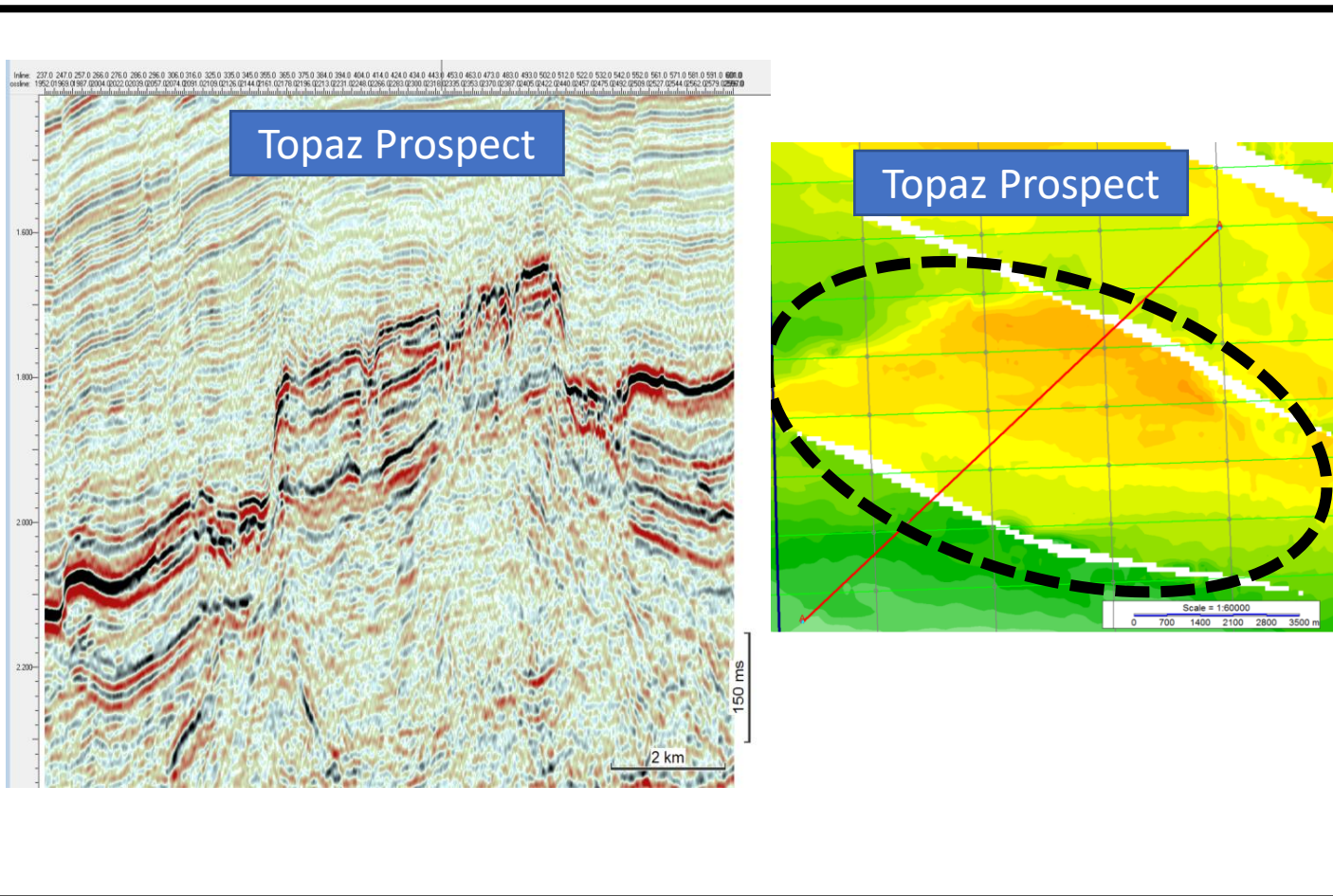
Preliminary Prospective Resources Estimates

Low estimates	89 mmbbls
Best estimates	103 mmbbls
High estimates	143 mmbbls



Topaz Prospect- Large 3-way closed trap

TOPAZ PROSPECT IS A LARGER ANALOGUE OF LIUHUA 16-2 OIL DISCOVERY



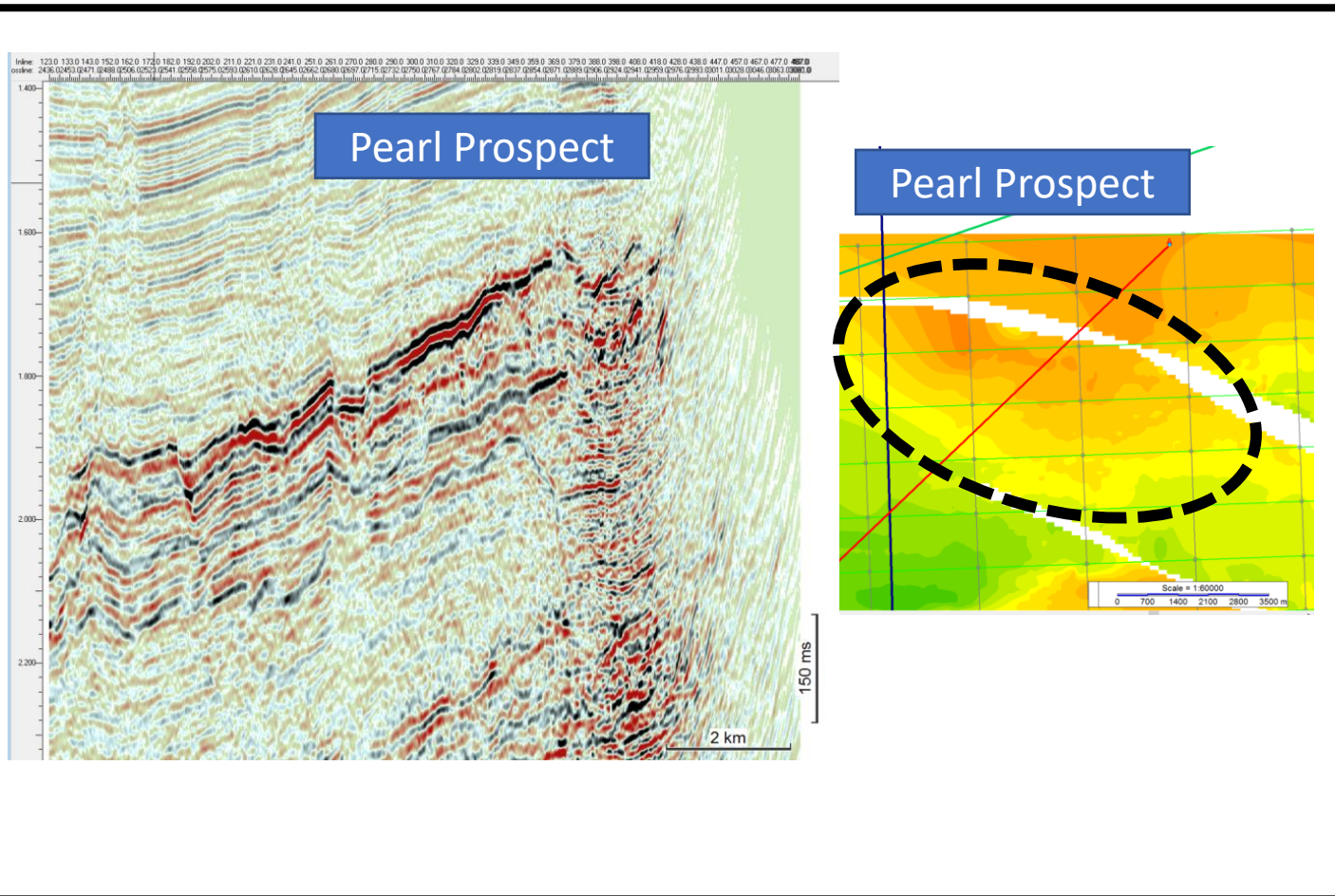
- A large faulted 3-way structure
- Very close analogue for nearby LH16-2 oil discovery
- Located mid-point between LH11-1 and LH16-2 oil accumulations
- Encased in marine shale

Preliminary Prospective Resources Estimates

Low estimates	280 mmbbls
Best estimates	365 mmbbls
High estimates	498 mmbbls

Pearl Prospect - 3-way closed trap

PEARL PROSPECT IS A ANALOGUE OF TOPAZ PROSPECT



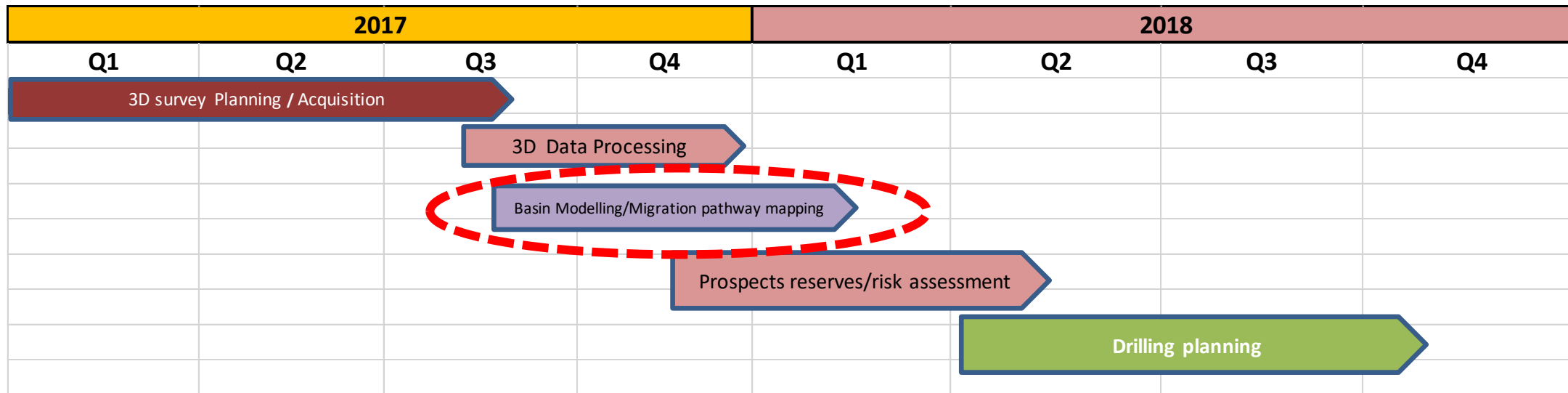
- A faulted 3-way structure
- Close analogue for nearby LH16-2 oil discovery and Topaz prospect
- Close to LH16-2 oil accumulations

Preliminary Prospective Resources Estimates

Low estimates	84 mmbbls
Best estimates	123 mmbbls
High estimates	206 mmbbls

Next 6 months- Comprehensive Technical Assessment

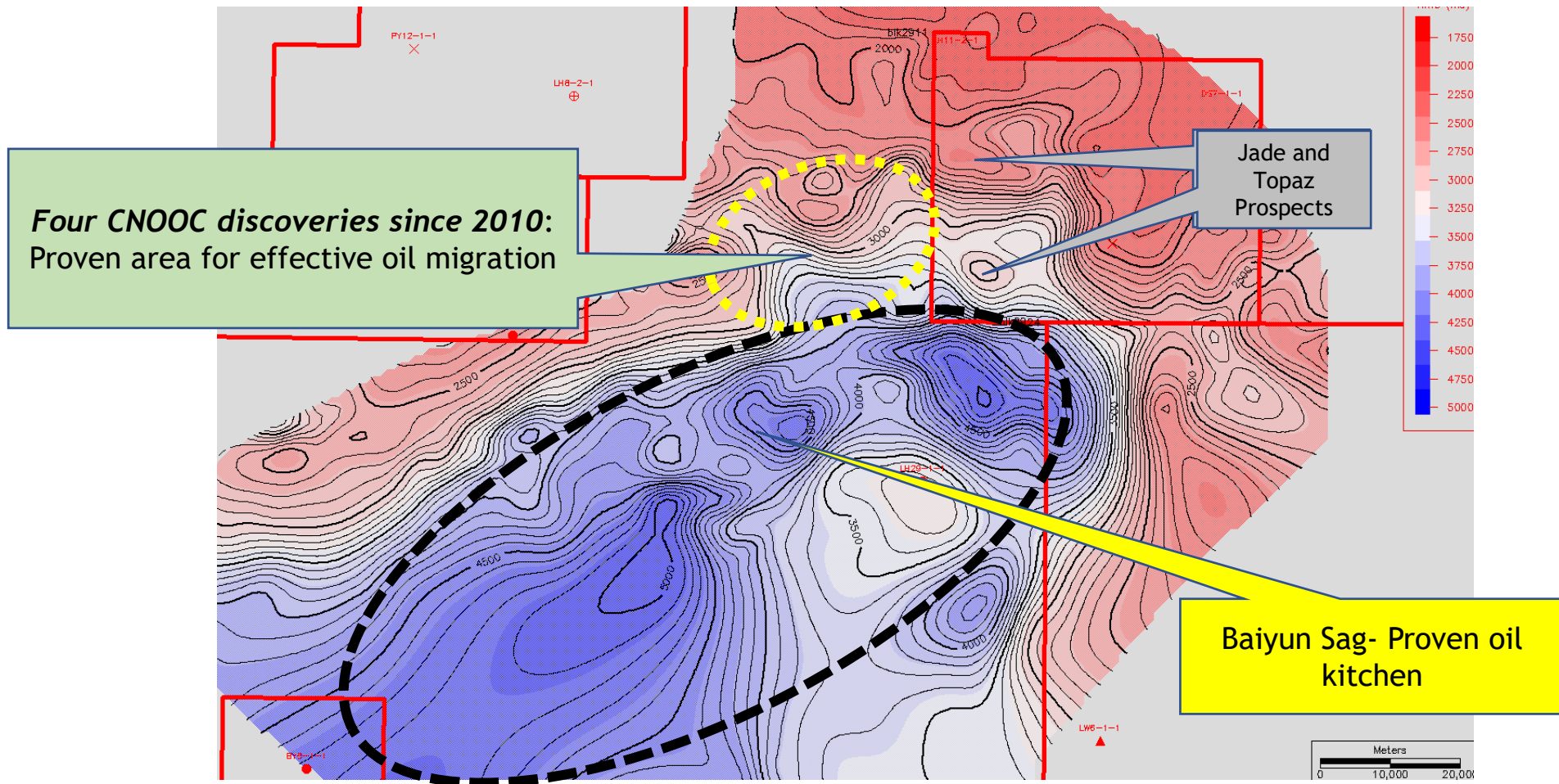
UNDERSTANDING MIGRATION PATHWAY TO PROSPECTS IS KEY FOCUS



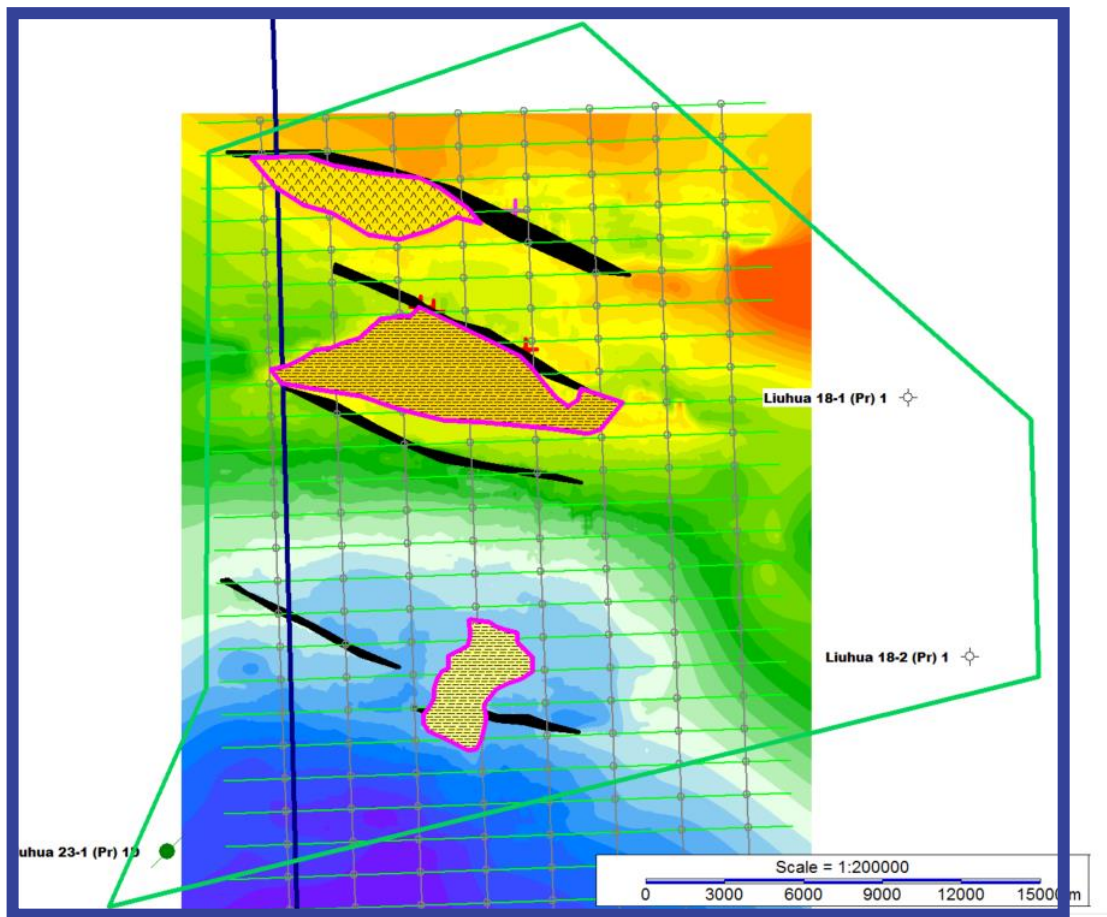
Next 6 months - Comprehensive Technical Assessment

UNDERSTANDING MIGRATION PATHWAY TO TOPAZ AND JADE PROSPECTS IS KEY FOCUS

This will enable our exploration effort to move forward with more precision and lower exploration risks

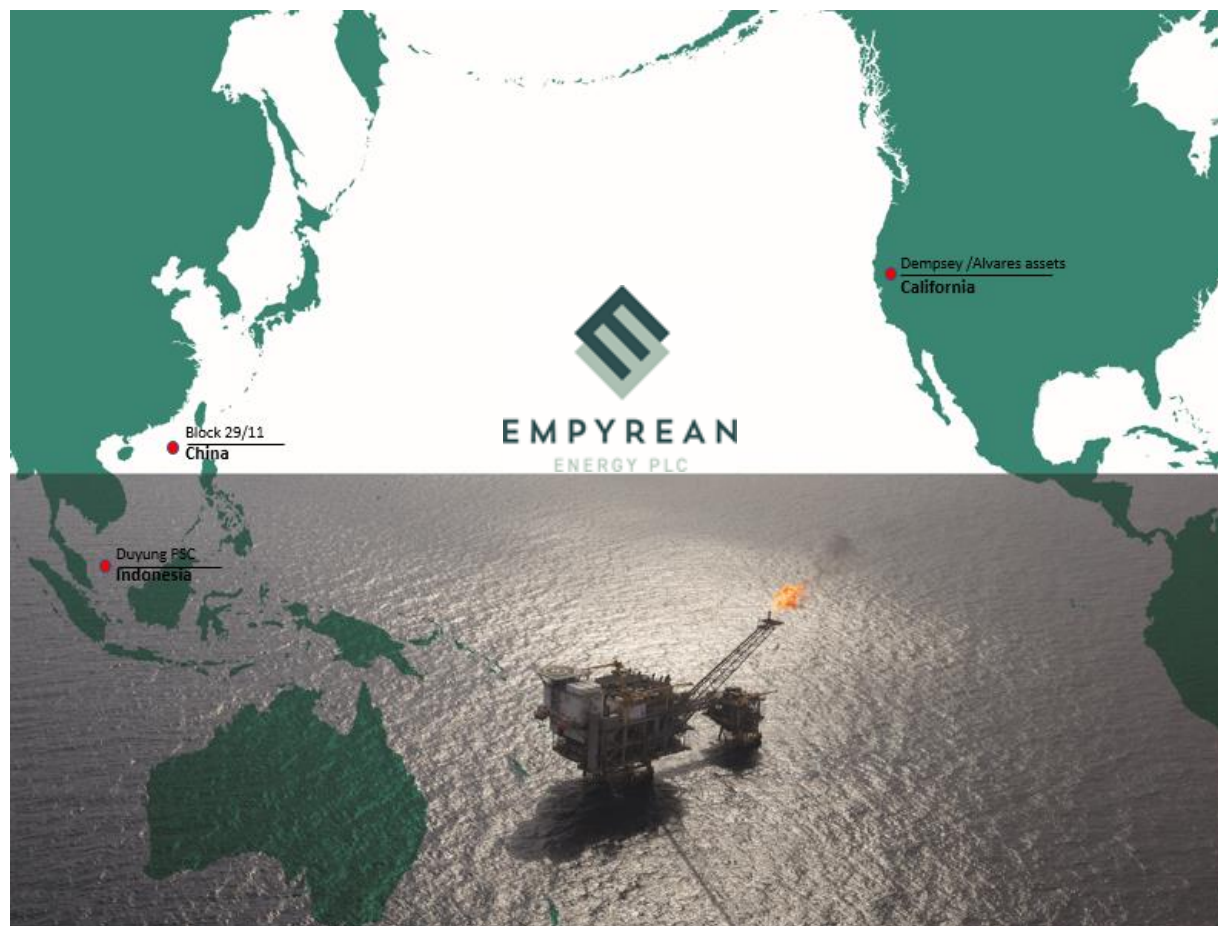


Significant value has been added by 3D survey



- 3D seismic survey data has firmed up key prospects in Block 29/11 which were initially identified by the previous operators using regional 2D seismic data
- Preliminary mapping of 3D data indicates that these prospects could hold over 590 million barrels of oil (MMbbls)
- However, significant amount of comprehensive technical work will required to be done, particularly the oil migration pathway mapping for assessing the prospect risking in coming six months

Strategy has started to deliver



- Empyrean management has successfully framed and executed a strategy to participate in a transformational portfolio in prolific petroleum basins with compelling market dynamics
- Mako South gas discovery and the significant gas shows in Dempsey#1-15 well are early indications that the strategy has started to deliver
- Successful completions of 3D in China will help realise the full value potential of Empyrean's new assets