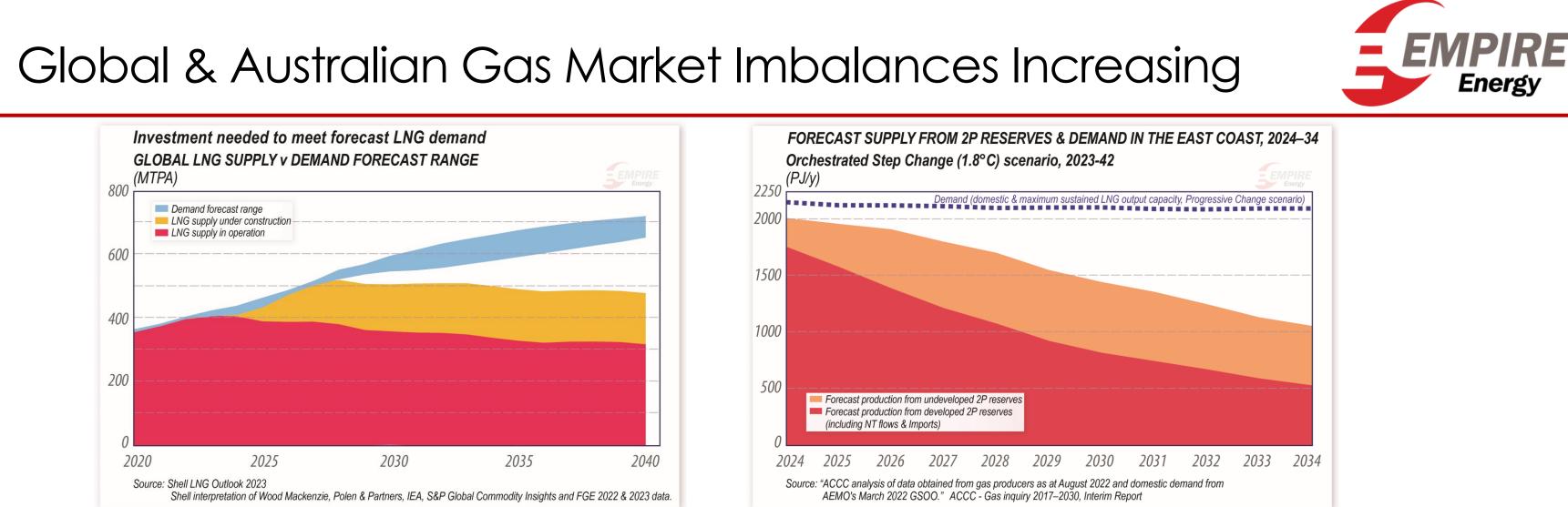


Empire Energy – Beetaloo Basin – On the Path to Pilot Production and Beyond



Managing Director's Presentation to the 2023 Annual General Meeting

ASX:EEG



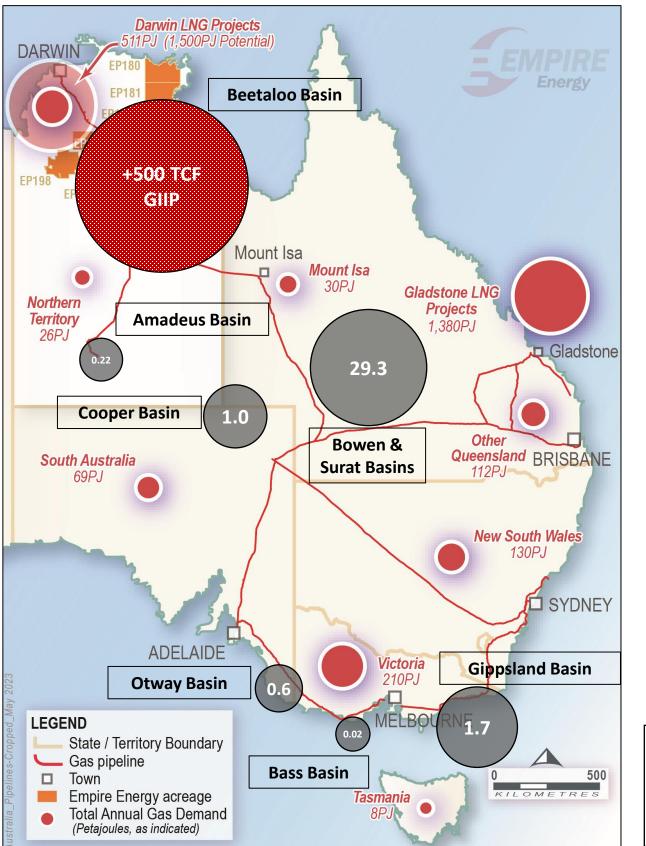
- Shell estimates global LNG demand will reach 700 million tonnes by 2040 (2022: 396mt)¹. Gas will be needed in the long term to balance energy systems as the world transitions to a lower emission future
- Shell notes that more investment in liquefaction projects is required to avoid a supply-demand gap that is expected to emerge by the late 2020s
- While natural gas accounts for about a quarter of global electricity generation, half the total natural gas produced today is consumed in sectors other than power generation
- Australian Minister for Resources and Northern Australia Hon. Madeleine King noted that "Here in Australia, gas provides the flexibility we need to add more renewables to the grid, and is a vital feedstock and heat source for our industrial base"²
- Kevin Gallagher, Santos Managing Director said "The main game is gas because it makes renewables possible, it provides feedstock for fertilisers and chemicals, and it fires the high temperature furnaces required for bricks and cement"³

1. Shell LNG Outlook 2023

2. https://www.afr.com/politics/federal/gas-will-be-needed-for-decades-minister-launches-strident-defence

3. The Australian "Santos boss Kevin Gallagher says gas is the key to moving to net zero, not renewables" dated 18 May 2023

The Beetaloo is Australia's largest Undeveloped Gas Resource



- 10% and 20%)
- Large enough to supply both LNG and east coast markets
- TCF) gas and 3.5 MMBBLs liquids¹
- TCF) at an average EUR per well location of 7.9 PJ
- TCF) gas and 764 MMBBLs liquids^{1,2}

Source: Netherland, Sewell & Associates Inc

1. Western Beetaloo 1.06 PJ per BCF applied

2. Barney Creek – McArthur Basin targets, 1.06 PJ per BCF applied



Beetaloo Velkerri B GIIP Estimate (SEAAOC 15 November 2018)

2P Reserves (TCF) (Energy Quest as at 31 March 2023)



Total potential Prospective Resources in the Velkerri B shale of between 50 TCF and 100 TCF (one of five productive shale units) based on Government estimates of **500 TCF** gas-in-place (assuming recovery factors of between

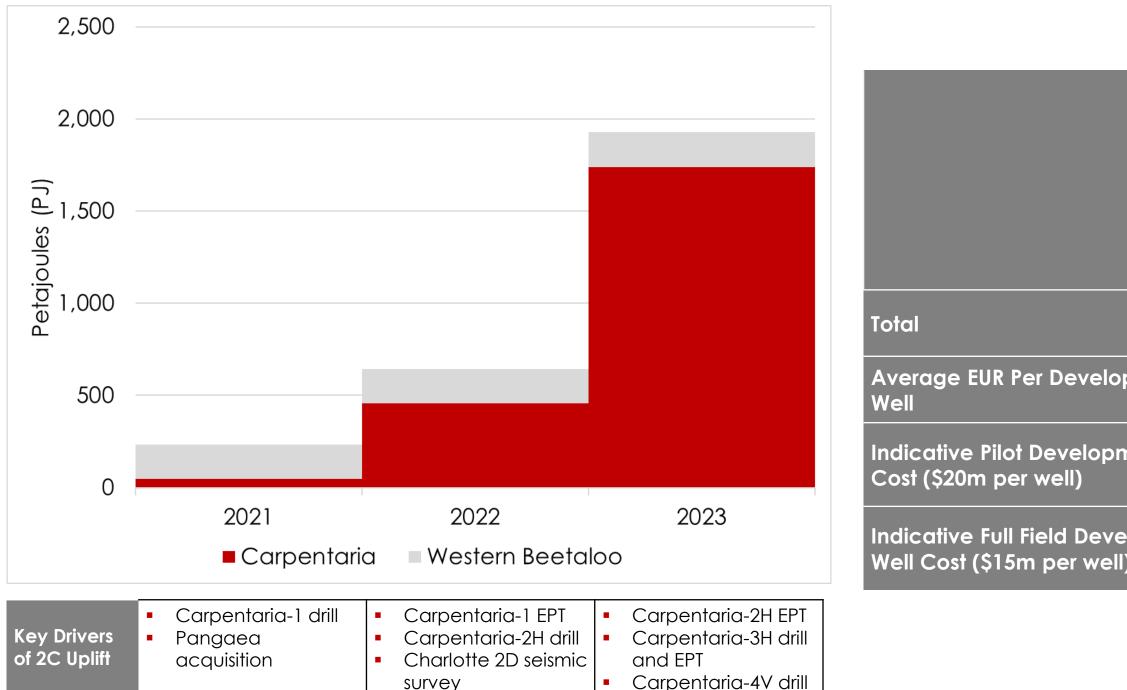
Empire (100%) NT 2C Contingent Resource of 1,906 PJ (1.63)

Empire (100%) EP187 2C Contingent Resource of 1,739 PJ (1.5)

Empire (100%) P(50) Prospective Resource of 44,541 PJ (41.67)

Growth in Certified 2C Contingent Resources

Empire's on ground activities have grown discovered resources to an LNG Scale





	EP187 Contingent Resources (100%) as at May 2023 Net Sales Gas (PJ)							
	Low Estimate (1C)	Best Estimate (2C)	High Estimate (3C)					
	304	1,739	3,507					
pment	6.2	7.9	9.3					
nent Well	\$3.23 / GJ	\$2.53 / GJ	\$2.15 / GJ					
elopment I)	\$2.42 / GJ	\$1.90 / GJ	\$1.61 / GJ					

Government supporting the Beetaloo

NT Government has given industry a green light to move into production Federal Government has exempted smaller companies from gas market intervention

NT Government supports the development of the onshore gas industry

- NT Government has completed the Pepper Inquiry regulatory implementation process, **finalising** the regulatory settings to allow the commencement of commercial production in the Beetaloo
- NT Chief Minister, Hon. Natasha Fyles said: "Along with our world-class renewable resources, our highly prospective onshore gas resources will support our energy security during the transition to renewables – and will improve living standards for all Territorians"¹

Amendments to Federal Gas Industry Code of Conduct

Small producers (less than 100 PJ p.a. or equivalent to \$1.2bn in revenue at \$12/GJ) are **now** exempted from the gas price cap and reasonable pricing provision provided they supply the domestic market

Beetaloo Cooperative Drilling Program

\$13.2 million cash received to date. A further \$2.1m expected shortly

Darwin Middle Arm Sustainable Development Precinct (supported by Beetaloo gas)

- A\$1.5 billion commitment made by both major parties to support expanded port infrastructure at Darwin. Includes A\$300 million for production of clean LNG and hydrogen; and A\$550 million for renewable energy supply, CCUS and other technologies
- On 17 May 2023, NT Government announced shared carbon capture utilisation and storage commitment for Middle Arm



Nicole Manison (NT Deputy Chief Minister):

"There's been a huge amount done by the other gas companies around the Beetaloo but when you have a look at the pace Empire's going, all doing it within the rules, conditions and regulations but you can see it is advancing very well."²

2. NT News, "Empire building: Project on track with production timetable dated 28 July 2022

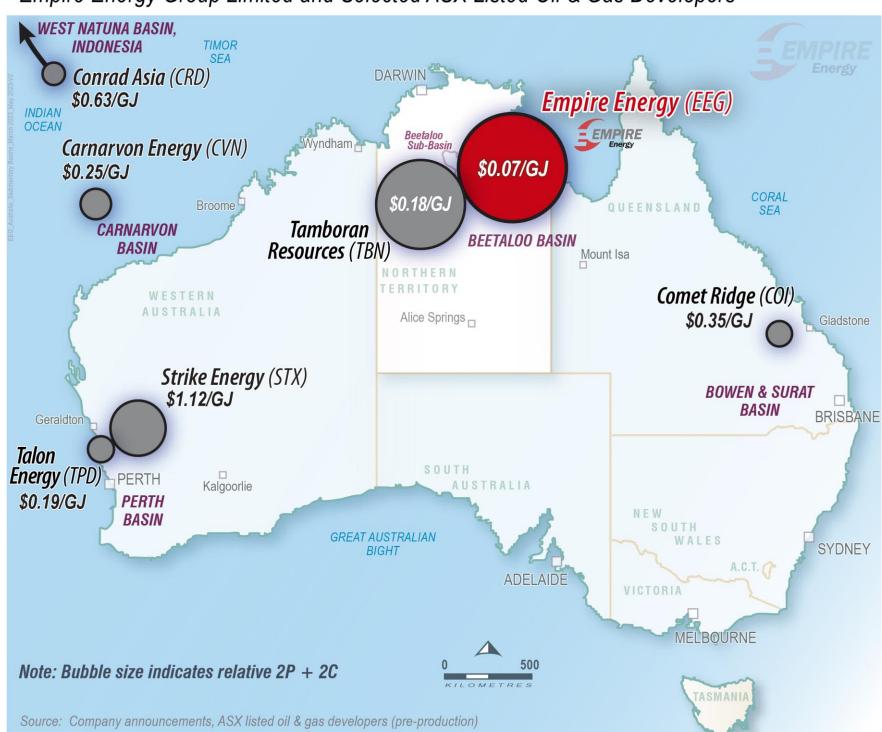


Carpentaria-2H flare

LNG Scale Discovered Resource

Material discount to market peers versus Reserves & Resources

EV / GJ 2P RESERVES & 2C CONTINGENT RESOURCES Empire Energy Group Limited and Selected ASX Listed Oil & Gas Developers



Scale

- Empire has the largest 2C Contingent Resources position for ASX listed energy companies in the Beetaloo
- NSAI certified Estimated Ultimate Recovery of ~8 PJ per well for 2C Contingent Resources

Growth

- >200 identified development well locations at Carpentaria Project (Velkerri B and C shales only)
- pilot project

Opportunity

- Grow market capitalisation through pilot project delivery
- Attract a JV partner to deliver LNG-scale volumes

Sources:

- 1. Share prices as at 26 May 2023

- 4. BCF to PJ conversion of 1.06

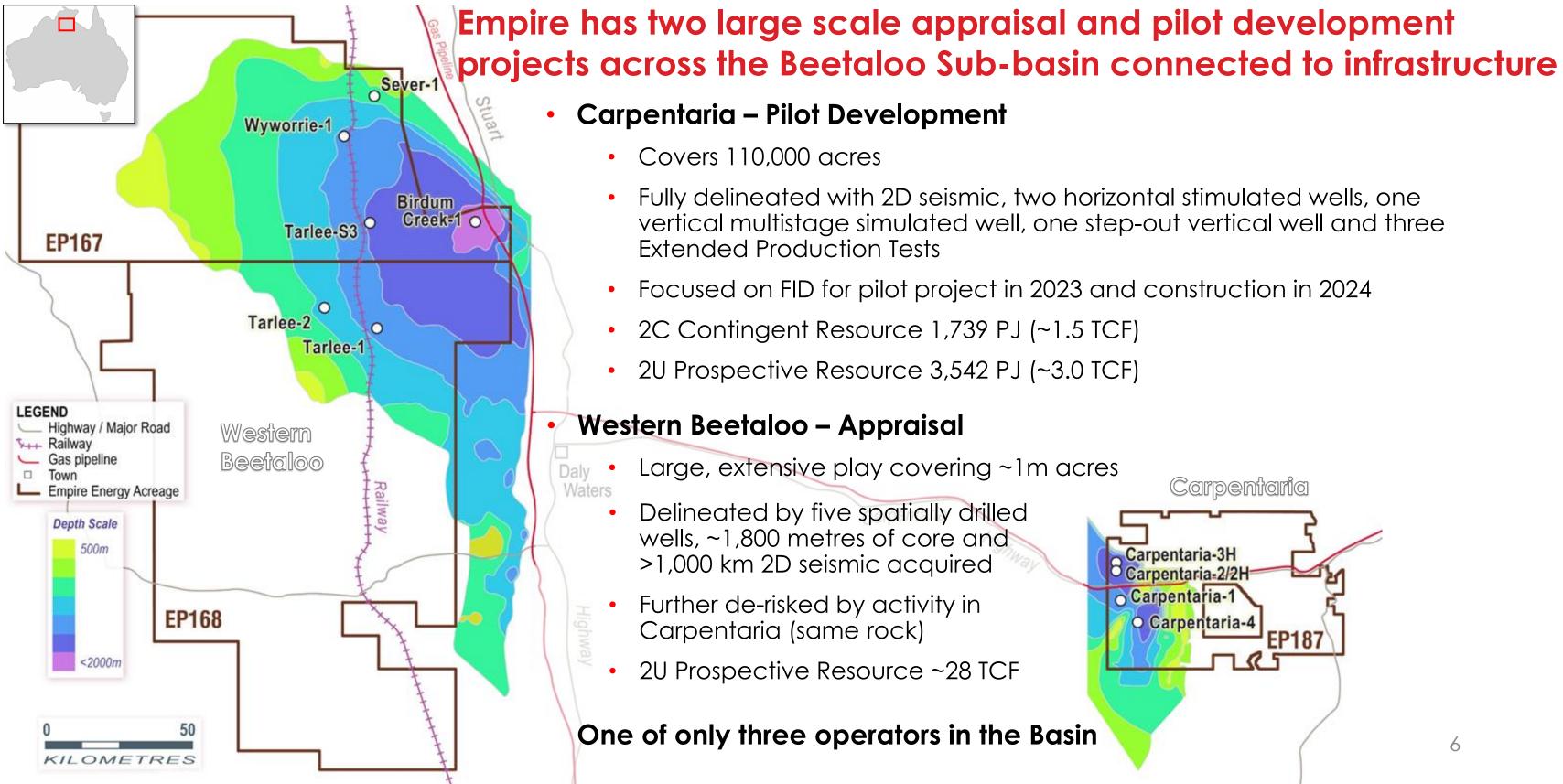


Conversion of 2C Contingent Resources to 2P Reserves with

Empire has a 2P plus 2C position approximately 2x Strike Energy with 1/8 of the market capitalisation

2. Net debt / (cash) as at 31 March 2023 Quarterly Statements 3. 2P reserves and 2C contingent resources per relevant company ASX releases

Large Pilot Development and Appraisal Position (100% EEG)





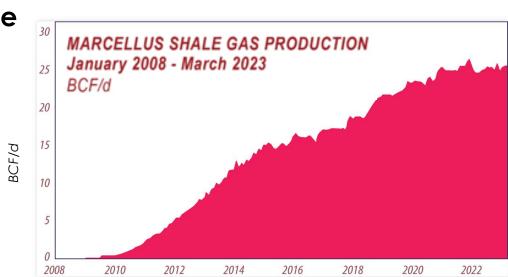


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Empire's Beetaloo Footprint Comparable to Marcellus

- Empire's Beetaloo footprint is comparable in size to significant portions of the core areas of the Marcellus Shale play in the Appalachian Basin
- More than 9,000 wells are producing from similar depths to Empire Beetaloo play (~34 percent of all Marcellus wells)¹ across both core areas
- The majority of the more than 27,000 producing Marcellus Shale wells are less than 2,250 metres below ground level
- Marcellus shale producing acreage has typically transacted at US\$5,000 to US\$25,000 per acre². Empire is valued at ~US\$80 per acre based on the Carpentaria Project and Western Beetaloo Project alone

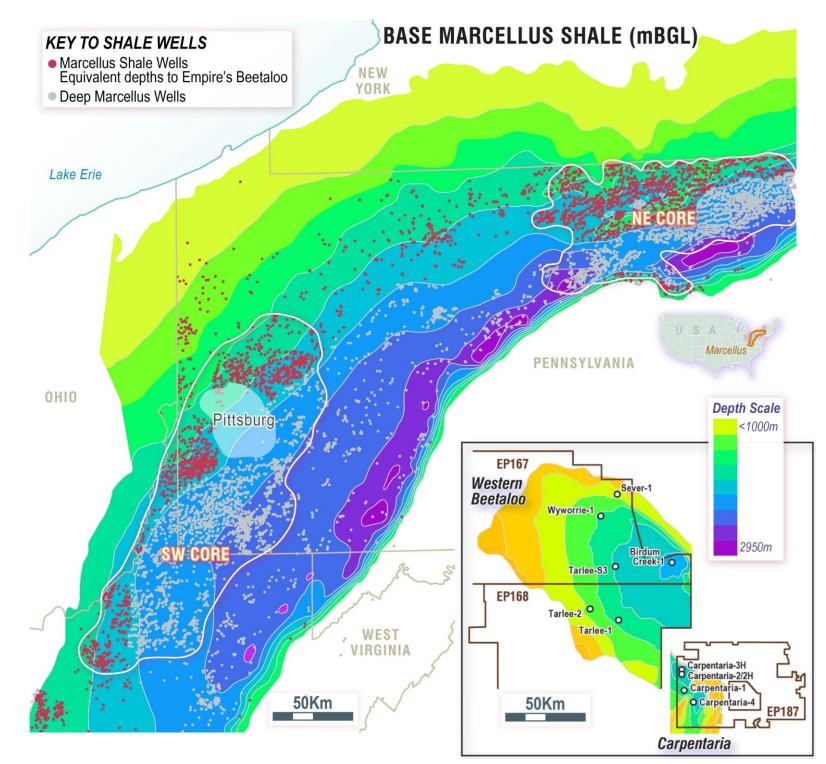
"Marcellus shale gas production has grown by 25 BCF/d over ten years"



Source: U.S. Energy Information Administration - EIA - Independent Statistics and Analysis

1. EIA and relevant State databases

2. https://mercercapital.com/energyvaluationinsights/ma-in-marcellus-utica-basins-2



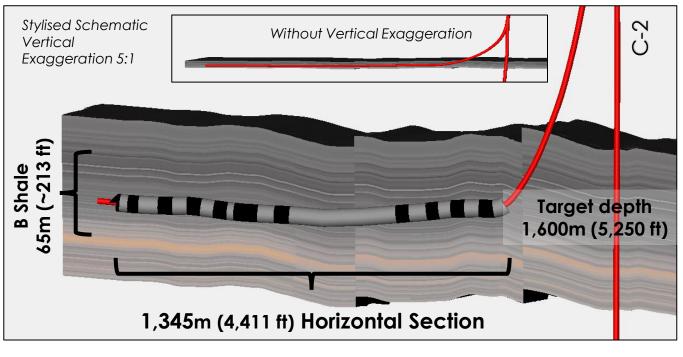
Insert map: Empire's base Velkerri B Shale at same scale as base Marcellus Shale map



Empire's First Horizontal Well Flow Test A Success

Carpentaria-2H is the fourth horizontal well in the basin, was drilled 100% within zone, and successfully flowed gas to surface from all 21 frac stages

- Carpentaria-2H ("C-2H") produced a total of 323 TJ (281 mmscf) over 127 days
 - This equates to a normalised rate of 8.25 TJ (7.2 mmscf) per ٠ day for an equivalent 3,000m horizontal development well for the entire test period
- Gas composition remained consistent with high calorific value and extremely low CO_2 (less than 1%)
- C-2H was brought back online after an initial 51 days of testing to • test the benefit of soaking with excellent results
 - The post-soak 2023 IP30 is confirmed at 10.5 TJ (9.2 mmscf) per ٠ day for an equivalent 3,000 metre horizontal development well
- Completed without the need for production tubing, well free-• flowed through 4 $\frac{1}{2}$ " casing. Empire is likely to move to 5 $\frac{1}{2}$ " in future scenarios
- These rates exceed the benchmark other Beetaloo players have put forth as commercial, at a capital cost of ~half of Empire's peers





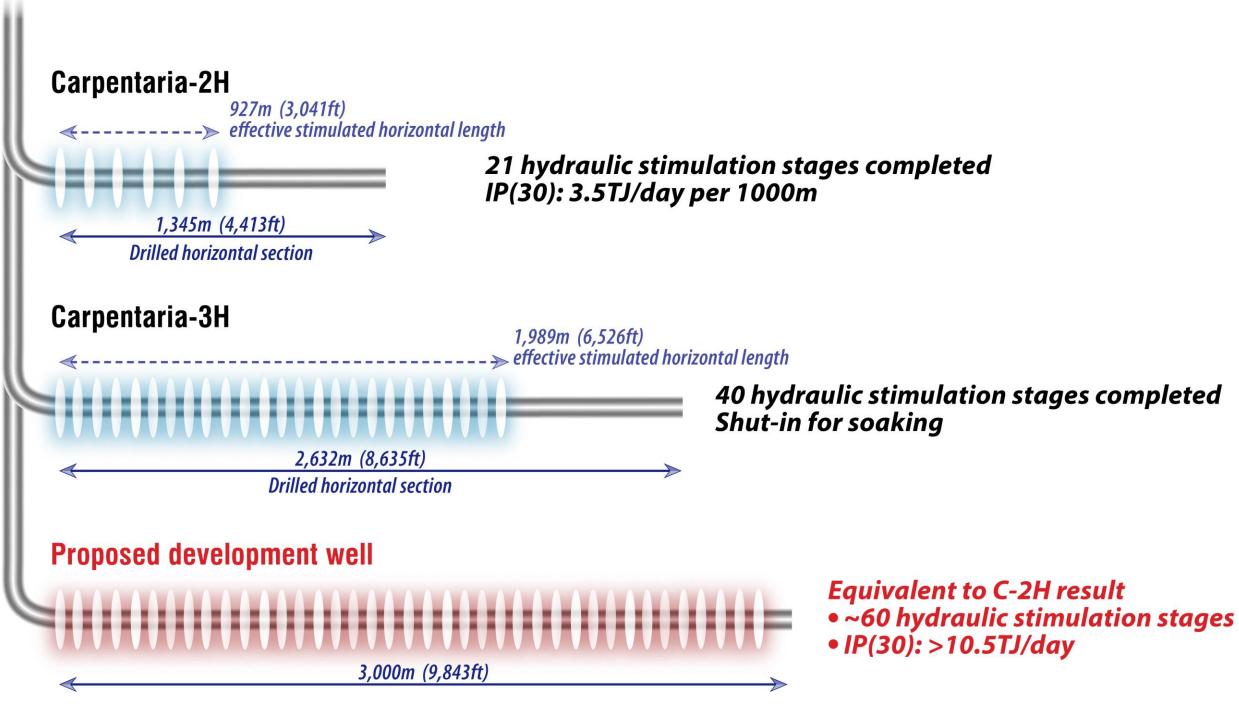
Carpentaria-2H flare





Carpentaria-2H Flow Rate in Context

Replication of Carpentaria-2H would achieve production rates exceeding 10.5 TJ / day IP(30) for 3,000 metre development wells

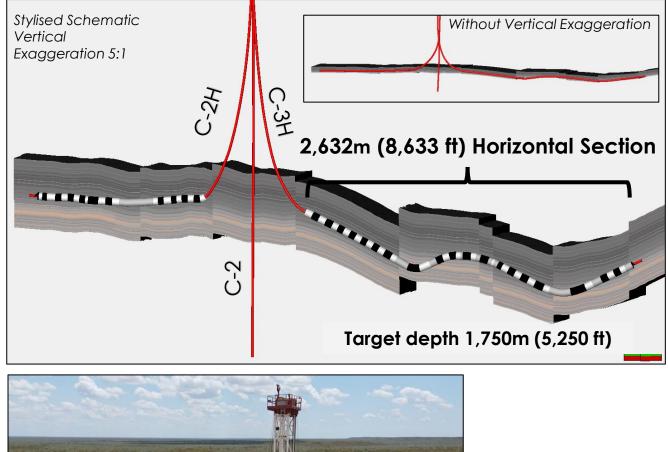




Record Breaking Carpentaria-3H Horizontal Well

Carpentaria-3H is the longest horizontal shale well, and the largest frac job ever executed in Australia, on time and ~\$6m under budget

- Carpentaria-3H drilled to total depth of 4,460m (14,629 ft) on time and under budget
- Total horizontal lateral length of 2,632m (8,633 ft), with 2,374 m (7,786 ft) successfully placed within the target Velkerri B shale (90%) in zone), with strong gas shows throughout the target zone
 - Confirming long horizontals can be drilled in the Beetaloo
- Carpentaria-3H successfully stimulated, significantly below budget, executing all planned 40 stages across 1,989m (6,526 ft)
- A total of 12.8 million lbs of proppant placed, averaged **319,000** Ibs per stage (~2,000 lbs/ft). Comparable to US Shale frac intensity
- Carpentaria-3H has been flow tested for 27 days and is currently shut in for soaking. Gas production rate has ranged between 2.6 TJ (2.3 mmscf) per day and 6.6 TJ (5.7 mmscf) per day with an average of 3.0 TJ (2.6 mmscf) per day
- Flow rates are yet to be optimised by the shut-in and soaking that has proven to be effective at Carpentaria-2H. Empire believes that higher flow rates will be achieved when the well is reopened





SLB 185 Rig drilling Carpentaria-3H in EP187



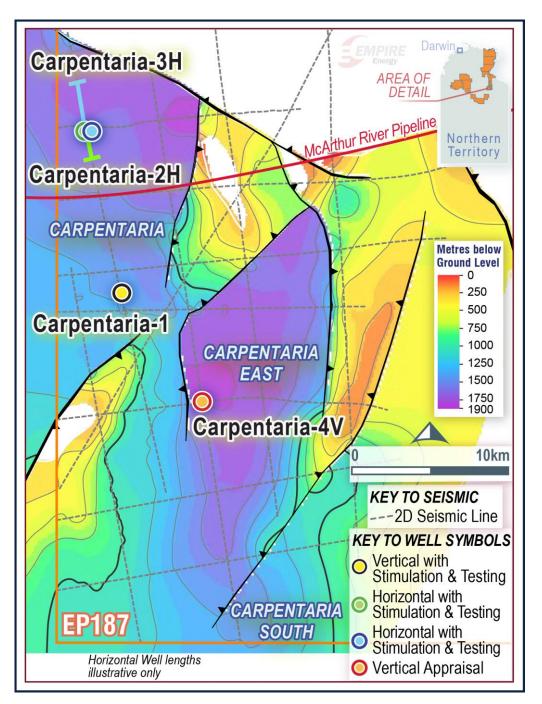
Exploration & Appraisal has Delivered Carpentaria Pilot Ready

Empire's focused, systematic and scientific approach to evaluating and de-risking the Velkerri Shale play in EP187 has proved a large resource in a cost-effective manner

- 4 wells drilled have delineated a very large, discovered resource
 - \$100m invested has delivered >1,739 PJ (~1.5 TCF) discovered resource
- 2 fracked horizontal sections drilled, and flow tested with excellent results
 - Vertical Carpentaria-1 and Carpentaria-4V **confirmed stacked play**
- All drilling programs executed for ~50% of the cost of Beetaloo peers
 - Corporate overhead well below most comparable ASX peer
- Gas resource scale and productivity now established to move into pilot production
- 2D seismic coverage has mapped Velkerri shale at favourable depths across 110,000 acres
- There are hundreds of drilling locations across Carpentaria and Carpentaria East fault blocks with multiple wells from each pad to minimise surface disturbance







11

Western Beetaloo Work Program

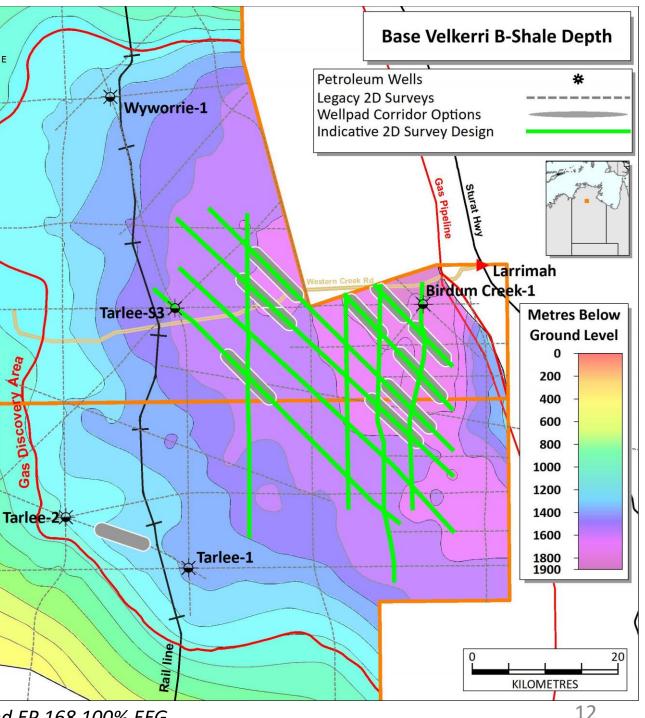
Clearances are underway for a multi-year seismic, drilling and stimulation program across the >1 million acre Velkerri Shale play in Western Beetaloo

- Planned appraisal activities are focused within the Gas Discovery Area where \$110 million spent by previous operator (acquired by Empire for \$57 million primarily in equity during 2021)
- Same rocks as Carpentaria
- Strategically located near gas pipeline, highway and rail line
- **Environmental approvals submitted** to the Regulator for:
 - The acquisition of up to ~380 km in-fill 2D seismic orientated for future horizontal wells
 - Clearance for drilling, stimulation and flow testing of up to six horizontal wells on six well pad locations
- Land access agreements executed with pastoralists
- The approvals have the potential to accommodate numerous production wells in a future commercial development scenario
- Current **2C** Contingent Resource of **167** PJ¹ (157.5 BCF) (+3.5 MMBBLS)
- Current **3C** Contingent Resource of **441** PJ¹ (**415.8** BCF) (+14.1 MMBBLs)
- Current P(50) Prospective Resource of ~28 TCF and 764 MMBBLs

EP 167

EP 168



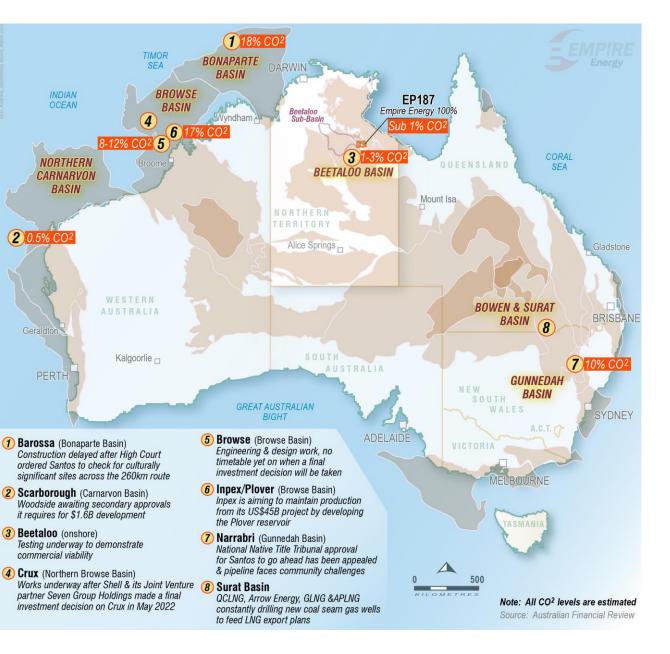


Working Sustainably to Develop the Beetaloo

Empire is responsibly developing its Beetaloo gas resources

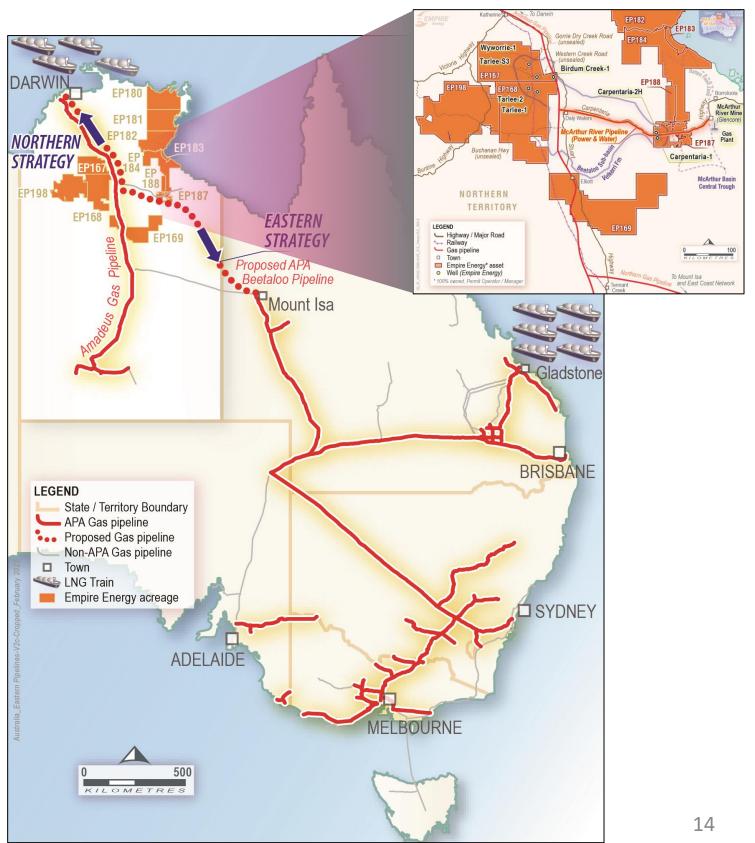
- Empire's forecast Greenhouse Gas ("GHG") emissions have been independently reviewed based on recent appraisal results, planned field development assumptions and the National Greenhouse and Energy Reporting framework¹
- Empire's Scope 1 emissions based on this analysis will include:
 - Fuel combustion e.g. gas for power, diesel use
 - Fugitive emissions associated with operations (aim to minimise)
- Empire estimates its Scope 1 offsetting obligation is less than 5% of gross revenue (at \$10/GJ gas price) for Carpentaria's full field economic life at the Australian Government's carbon price cap (\$75 per tonne indexed at 2% p.a. plus CPI). This obligation is ~2% of gross revenue at the current Australian Carbon Credit Unit ("ACCU") price¹
 - Empire has commenced engagement with ACCU supply counterparties
- Carpentaria CO_2 reservoir levels are extremely low (less than 1%)
- Empire maintains strong relationships with Traditional Owners ("TO") on whose land it operates with their full, informed and prior consent
 - ~30 on-county meetings held with TOs to date. NLC exploration payments paid for the benefit of TOs and thousands of hours of employment for TOs to date





Access to Market & Customers

- APA Group (ASX: APA) and Empire are continuing to explore the potential development of Beetaloo mid-stream infrastructure including gas and liquids gathering, processing and pipelines, as described in Empire's ASX release dated 27 October 2021
- APA is considering a new pipeline from the Beetaloo to Mount Isa to connect large volumes from the Beetaloo to the existing east coast gas network, connecting Beetaloo gas resources to Wallumbilla, Brisbane, Sydney and Melbourne, and LNG export through Gladstone
- The new potential pipeline would be a multi-user, open access pipeline and is expected to offer attractive transport tariffs to support east coast deliveries, due to increased scale and shorter distance to market than existing routes
- APA owns the existing Amadeus Gas Pipeline to Darwin and a 'Northern Strategy' is also being assessed to support the development of a possible gas-fed manufacturing industry and LNG export backfill / expansion opportunities at Darwin
- Negotiations with NT Government owned utility Power and Water Corporation under the existing MOU are advancing to facilitate access to the McArthur River Pipeline
- Empire is currently in active gas sales negotiations with multiple parties for supply of gas in both the pilot phase and full development phase





Pathway to Carpentaria Pilot Project Production and Revenue

EXPLORATION & APPRAISAL

2022

- ✓ 2C Contingent Resource: 575 BCFe 2021
 - ✓ 2U Prospective Resources: ~48 TCFe
 - ✓ Gas Sales & Transportation: APA Group and Power and Water Corporation MoUs Executed
 - Established \$15 million credit facility with Macquarie Bank to move to project financing

KEY ACTIVITIES TO CARPENTARIA PILOT PROJECT FID

2023	 Major Contingent Resource upgrade announced for EP187 Carpentaria-2H flow rates: normalised IP30 of 10.5 TJ (9.2 mmscf) per day for an development well Carpentaria-4V: intersected the same stacked Velkerri Formation shales as the C the Carpenaria East Area Front End Engineering & Design ("FEED"): including engineering, economic mo Pilot development (up to 25 TJ/d) – over \$90m revenue per annum @ \$10/GJ Subsurface design planning Execute gas sales and transportation agreements – discussions ongoing with m Arrange financing for pilot (Macquarie Bank credit facility already in place) Obtain government approvals: NT Petroleum Production Licence over Carpent Negotiate Northern Land Council ("NLC") Production Agreement with Tradition
POST FID	
2024	1. Pilot project construction
2025	 First gas sales Planning to move to full development (200 TJ/d+ to East Coast then >1 PJ / day



- equivalent 3,000m horizontal
- Carpentaria Project wells thereby opening
- delling etc
- nultiple parties
- itaria nal Owners

EXPERIENCE Energy

https://empireenergygroup.net/

ASX:EEG

Alex Underwood Managing Director info@empiregp.net +612 9251 1846 HYD

Appendix 1: Corporate Snapshot

Capital Structure	
Shares on issue ¹	773.1M
Share price	A\$0.195
Market cap	A\$150.8m
Net (debt²) / cash	~A\$8.4m
Enterprise value	~A\$142.4m
Cash at bank ³	~A\$16.3m
Total Available Liquidity ³	~A\$26.3m

- Board of Directors owns 21.0%⁴
- Top 20 shareholders own 61.9%

Top 50 shareholders own 70.6%





Top Shareholders

Macquarie Bank



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^{1.} Empire has 78.9m unlisted options on issue with an average exercise price of ~A\$0.39 per share. In addition, there are 18.6m Share Rights on issue to members of the management team and Board. Most of the Share Rights have performance hurdles tied to total shareholder return.

^{2.} Empire has a US\$7.5 million debt facility (drawn to US\$5.16 million) with Macquarie Bank maturing in September 2022 Empire announced it had established a A\$10 million revolving credit facility and A\$5 million performance bonding facility with Macquarie Bank. This facility is undrawn 3. As at 29 May 2023

Board shareholding includes Mr Paul Fudge (Pangaea) and vested Performance, Restricted and Service Rights 4.

Appendix 2: Empire's Board of Directors



Paul Espie AO

Chairman & Non-Executive Director

- Founding principal of Pacific Road Capital, a resources investing manager of private equity funds
- Former Chairman of Oxiana Ltd during the development of the Sepon copper/gold project in Laos
- Former Chairman of Cobar Mines Pty Limited after a management buyout
- Former Head of Bank of America operations in Australia, New Zealand and PNG
- Retiring at today's Annual General Meeting

Peter Cleary

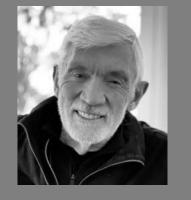
Non-Executive Director

- Distinguished 29-year career representing Santos, the North West Shelf Venturers and BP in Asia. His executive career was in LNG, pipeline gas and chemicals operations
- Member of the Executive Committee of the Australia Japan Business Co-operation Committee and the Australia Korea Business Council
- Incoming Chairman

Alex Underwood

Managing Director

- Associate Director Energy Markets Division of Macquarie Bank Limited (Sydney and Singapore)
- Director Natural Resources Division of Commonwealth Bank of Australia (Singapore)
- Financial Analyst BHP Billiton Petroleum (Perth)
- Experience investing debt and equity in the upstream oil and gas sector and identification of value creation opportunities for upstream oil and gas development / production assets



Paul Fudge

Non-Executive Director

- Controlling shareholder of Pangaea
- Significant investment experience in onshore Australian oil & gas, including being an early mover in the Queensland Coal Seam Gas industry and in the Beetaloo Sub-Basin
- Paul brings significant business and investment experience to the Board of Empire



Jacqui Clarke

Alternate Director to Paul Fudge

- 30 years professional services experience, with over 15 years as a Partner at Deloitte.
- Jacqui is a Chartered Accountant and Fellow of the Institute of Chartered Accountants, Graduate of AICD (Australian Institute of Company Directors), Chartered Tax Advisor and Justice of the Peace





Louis Rozman

Non-Executive Director

- Former Managing Director of CH4 Gas which merged with Arrow Energy and later acquired by PetroChina and Shell
- Founding principal of Pacific Road Capital, a resources investing manager of private equity funds
- Former Chief Operating Officer of AurionGold Limited
- Chairman of the VALMIN Code Committee for the AusIMM and Australian Institute of Geoscientists

Prof. John Warburton

Non-Executive Director

- Highly regarded petroleum geoscientist experienced in big fields
- 30 years technical & leadership experience in leading E&P companies including BP, LASMO-Eni and Oil Search
- Previously Chief of Geoscience & Exploration Excellence for Oil Search

Appendix 3: A Globally Significant Resource Position

	Contingent Resources (Liquids)		Contingent Resources (Gas)		Prospective Resources(Liquids)			Prospective Resources (Gas)				
Shale Unit	Low Estimate (1C)	Best Estimate (2C)	High Estimate (3C)	Low Estimate (1C)	Best Estimate (2C)	High Estimate (3C)	Low Estimate (1U)	Best Estimate (2U)	High Estimate (3U)	Low Estimate (1U)	Best Estimate (2U)	High Estimate (3U)
	mmbbls	mmbbls	mmbbls	PJ	PJ	PJ	mmbbls	mmbbls	mmbbls	PJ	PJ	PJ
Kyalla	0.8	3.0	11.1	0.8	4.8	29.4	88	378	1,571	195	908	5,184
Mid Velkerri	0.1	0.5	3.0	364.3	1,901.4	3,916.8	76	386	1,938	10,454	31,916	92,236
Barney Creek	-	-	-	-	-	-	-	-	-	1,731	11,716	48,103
Total	0.9	3.5	14.1	365.2	1,906.1	3,946.1	164	764	3,509	12,380	44,540	145,523

Empire 2C Contingent Resource of 1,906 PJ (1,625 BCF gas) and 3.5 MMBBLs liquids

Empire P(50) Prospective Resource of 44,541 PJ (42 TCF gas) and 764 MMBBLs liquids



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