



**Elixir Energy**

# Noosa Conference Presentation

14 November 2024

ASX:EXR

*\* See ASX release dated 29 April 2024*

# Gas - Macro Overview



## 1. The energy transition is very hard

- A wide & growing variety of challenges – physical, economic and political – to the desired energy transition
- Now recognised by Governments of all stripes
- Gas is not optional – demand will in fact grow



## 2. LNG demand forecast to rise

- Multiple industry and Government parties forecast growing LNG demand
- Australian security of supply valued by geopolitical allies
- Trump Administration policies should boost Australian LNG



## 3. East Coast Australia gas supply crisis

- The long recognised supply crunch is now upon us
- Current prices of >A\$12/GJ expected to be a long term floor
- LNG imports inevitable – even stronger pricing signals
- Govts will need to act

# The Elixir Team

## Board of Directors



### Richard Cottee

Non-Executive Chairman

Former Managing Director of CSG focused Queensland Gas Corporation (QGC), taking it from market cap of \$20M to \$5.7B

Other former CEO positions include CS Energy, NRG Europe & Central Petroleum



### Neil Young

Managing Director

Former Business Development Manager at Santos, where he helped build Santos' CSG business

Multi-country experience in Australia, Mongolia, US, etc



### Stephen Kelemen

Non-Executive Director

Extensive technical and commercial career at Santos, including managing its CSG business

Current Non Executive Director at Galilee Energy (GLL)



### Anna Sloboda

Non-Executive Director

Previous employers include Lehman Bros, Clough, Curtin University & Trans-Tasman Resources

Current Chair of Lykos Metals (LYK)

## Quality Partners and Suppliers



– Information Sharing Agreement



– Data Sharing Agreement



– Drilling services



– Stimulation services



– Drilling management services



– Infrastructure MOU

# Corporate

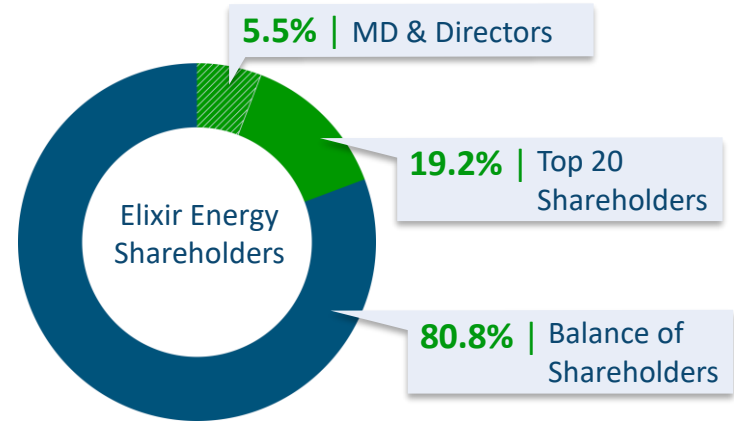
## Capital Structure

Capital Structure	Current
Number of Shares	1,196 million
Options & Perf Rights	132 million
Market Capitalisation (at A\$0.06)	A\$68 million
Cash (30/9/24 – inclusive of R&D)	A\$10 million
Enterprise Value	A\$58 million

## Share Price Performance



## Shareholder Information



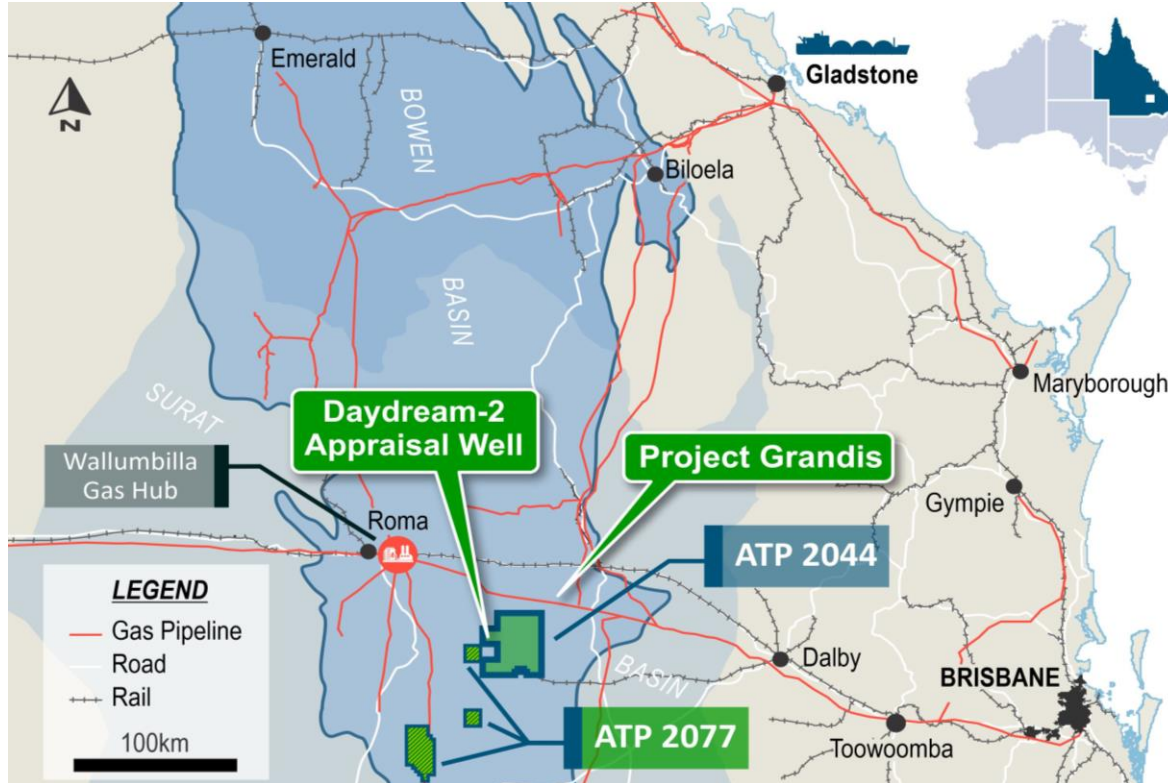
## Company Liquidity

Trading of  
**~\$885k/day**  
in last 3 months



# The Taroom Trough – An Advantaged Location

The prolific Bowen Basin is now set to deliver another energy source

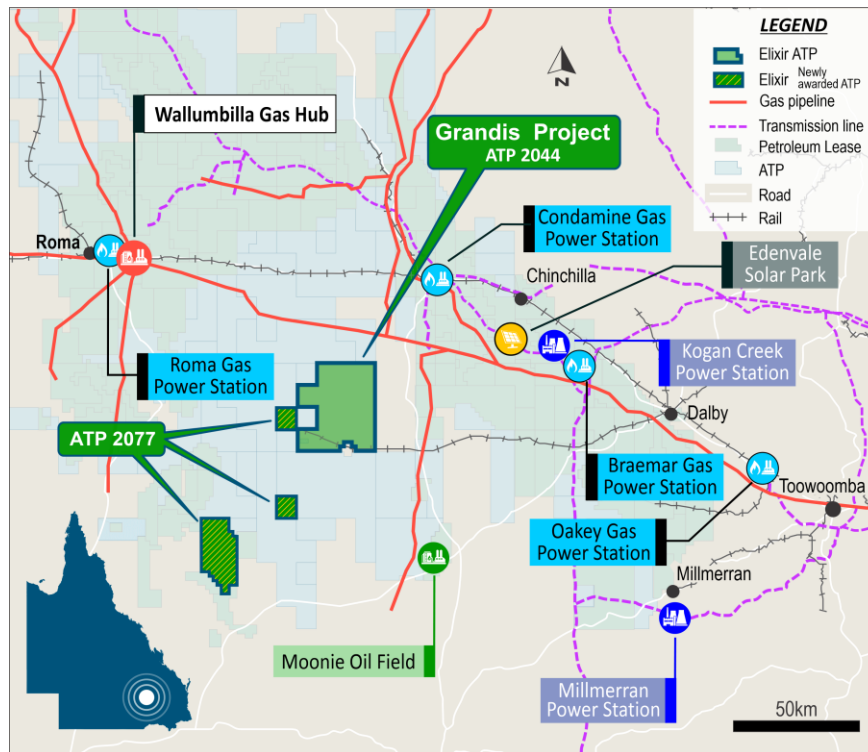


- The Grandis Gas Project is very well located in the Taroom Trough in the Southern Bowen Basin
- Australia's premier physical and commercial gas hub – Wallumbilla – is immediately adjacent
- Market factors have driven new rounds of drilling in the Taroom Trough - including by Majors
- Pipeline costs minimal – material savings per GJ – as well as avoidance of financing concerns over new transmission pipelines
- Long term community acceptance of oil and gas locally
- Australia's onshore oilfield service sector is centred in the region

# Material and Growing Energy Infrastructure

## The Taroom Trough is adjacent to substantial and growing energy infrastructure

- New energy sources always benefit from adjacency to existing energy infrastructure – brownfields economics apply
- The region has a substantial existing gas fired generation fleet – which is now growing
- Complementary gas storage assets are already in the area - with an arguable need for more
- New Qld Govt recognises gas peakers are preferred to very challenging pumped storage projects
- The existing gas transmission network, centred around the Wallumbilla Hub, provides ready market access to both LNG and domestic gas markets
- Challenges to greenfields gas transmission developments are not relevant in such a brownfields location

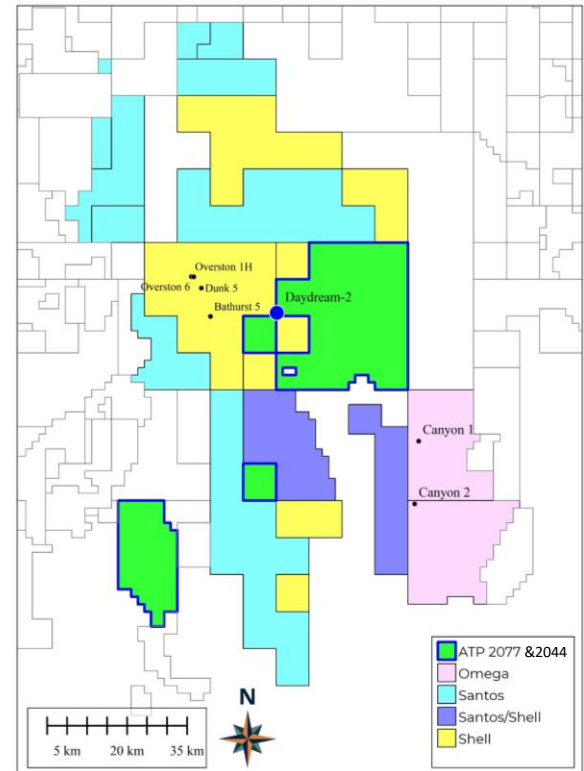


# Multiple Operator Activity

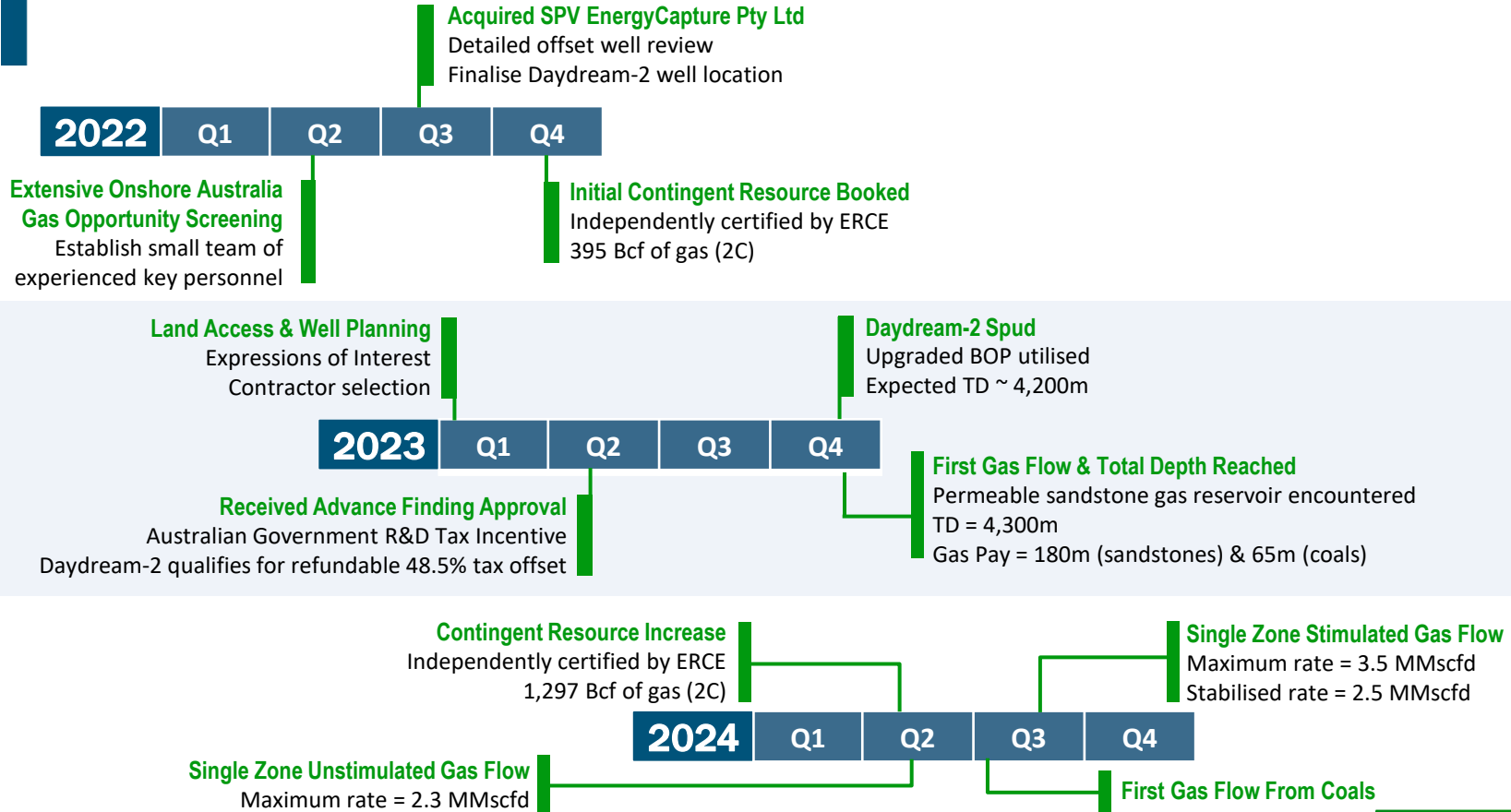
The Taroom Trough is currently the host of the largest onshore appraisal investment on the East Coast

*“An apparent gas strike by energy giant Shell deep underground in onshore Queensland has fuelled industry hopes of a potential major new source of energy that could ease the threat of shortages in the tight east coast market” (Australian Financial Review 9/9/24)*

- **Shell:** Towards end of large capex multi-well appraisal program – more expected in 2025 & beyond. *“The estimate of recoverable hydrocarbons....is 3.0 Tcf sales gas<sup>1</sup>.”*
- **Santos:** Executed Data Sharing Agreement with Elixir. *“If the play works then we believe there is multi-Tcf potential” (Kevin Gallagher - Santos CEO – AFR 14/11/18)*
- **Elixir:** 2C contingent resources of 1.5 Tcf and 2U prospective resources of 4.3 Tcf – being upgraded
- **Omega:** 2C contingent resources of 1.7 Tcf. Horizontal lateral recently successful drilled and stimulation to follow early in 2025



# Grandis Project - Timeline





# Fundamental Objectives of Daydream-2 Appraisal Well

1.

Prove the Basin Centred Gas (BCG) Play is present

Pervasive Accumulation - 600m gross interval over 1,000km<sup>2</sup> (within ATP 2044 alone)

Overpressure - 0.68 PSI/ft

Hydrocarbon Source – Permian Coals contain ~20m<sup>3</sup>/t source rocks

2.

Induce flow rates from multiple tight coal and sst zones

Flow achieved of 2.5 MMCFPD (considered commercial on a per well basis)

Deep coals flowed for first time

Multiple zones flowed

3.

Develop new strategies for stimulation and future development

Micro-proppant placement leads to deepest flow of coal in Australia

Bespoke Mechanical Earth Model confirmed

4.

Obtain R&D refunding from Federal Government

Advanced finding approved for 48.5c in \$ for all Daydream 2 costs

~\$8.3M received to date

# Cracking The Taroom's Code

The vast gas resources of the Taroom Trough are starting to be unlocked



In ATP 2044, the primary current play-type is BCG - which is an unconventional accumulation with no structural trap required - the gas is present permit wide. Often called a “permeability jail”



Grandis is a “stack” play – Elixir has initially appraised vertically, with development well designs to be optimized in due course

K

Deeply buried permeable sands can provide sweet-spots such as observed in the Lorelle sandstone



Three Operators actively drilling with more to come in 2025. Cooperative culture being developed. Learnings cross pollinate in multiple ways in large unconventional plays like the Taroom

*“This is not the end. It is not even the beginning of the end....  
But it is, perhaps, the end of the beginning.” (W S Churchill)*



# Key Gas Flows From Daydream 2

*“First commercial flow of Permian Gas in the Taroom”*

*“Deepest unstimulated flow outside Perth Basin”*

*“Deepest flow from a coal in Australia”*



Dec 2023  
4,201m  
Gas kick whilst  
drilling with  
11.1 ppg mud



April 2024  
4,200-4,217m  
Unstimulated  
flow from the  
Lorelle Sst  
1.3 MMCFPD



August 2024  
4,200-4,217m  
Stimulated  
flow from  
Lorelle  
2.5 MMCFPD



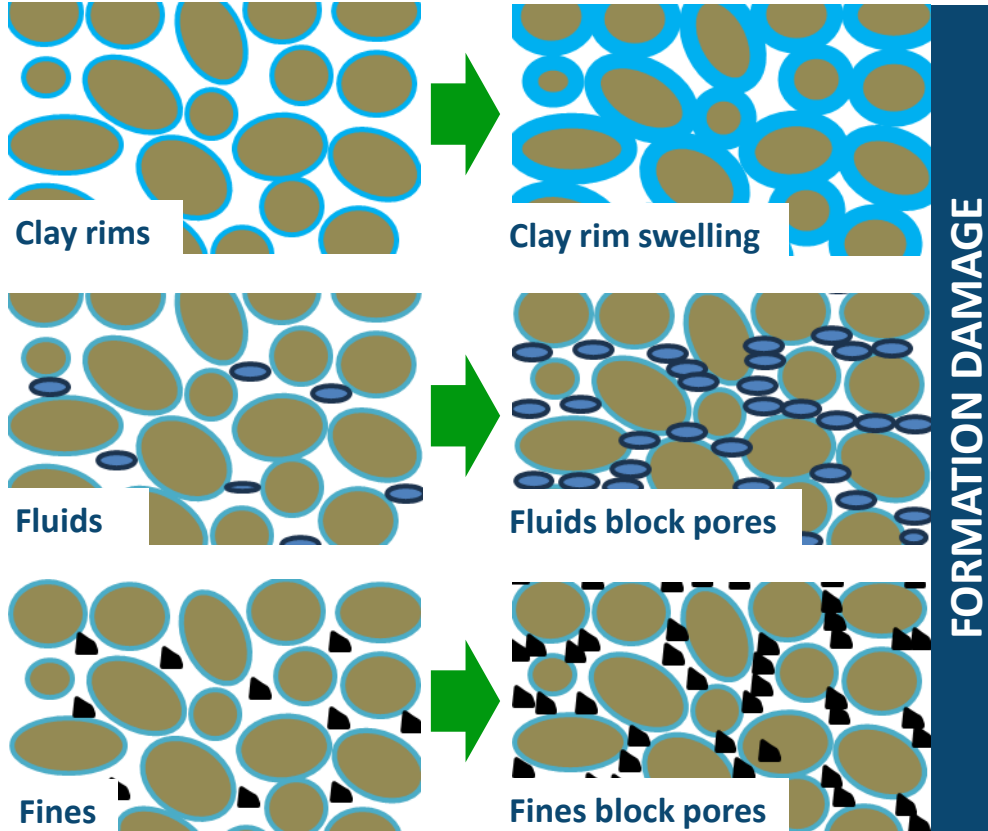
August 2024  
3,698-3,786m  
Stimulated flow  
from Coal  
Rate not  
measured



October 2024  
3,698-4,217m  
Stimulated flow  
Coal and Sst  
1 MMCFPD

# What happened during the final testing?

In Daydream-2 skin and formation damage built up over the extended period of testing:



**Clay rim swelling:** Fluids introduced into the formation from the wellbore during drilling, stimulation and testing: KCl and water may have had an unexpected reaction with the reservoir near the wellbore (likely swelling/interaction with clays)

**Movement of fluids:** Shock pressure changes (during open and shut-ins) in the reservoir may have caused condensate dropout or water banking leading to a relative permeability issue

**Movement of fines:** Large drawdown across the wellbore formation/interface whilst flowing may have caused a migration of fine rock particles into the pore throats

*These are issues that can be remedied operationally*

# Growing & De-Risking the Resource Base

The Grandis Project's resource progression (ATP 2044 + ATP 2077 combined) has seen impressive growth

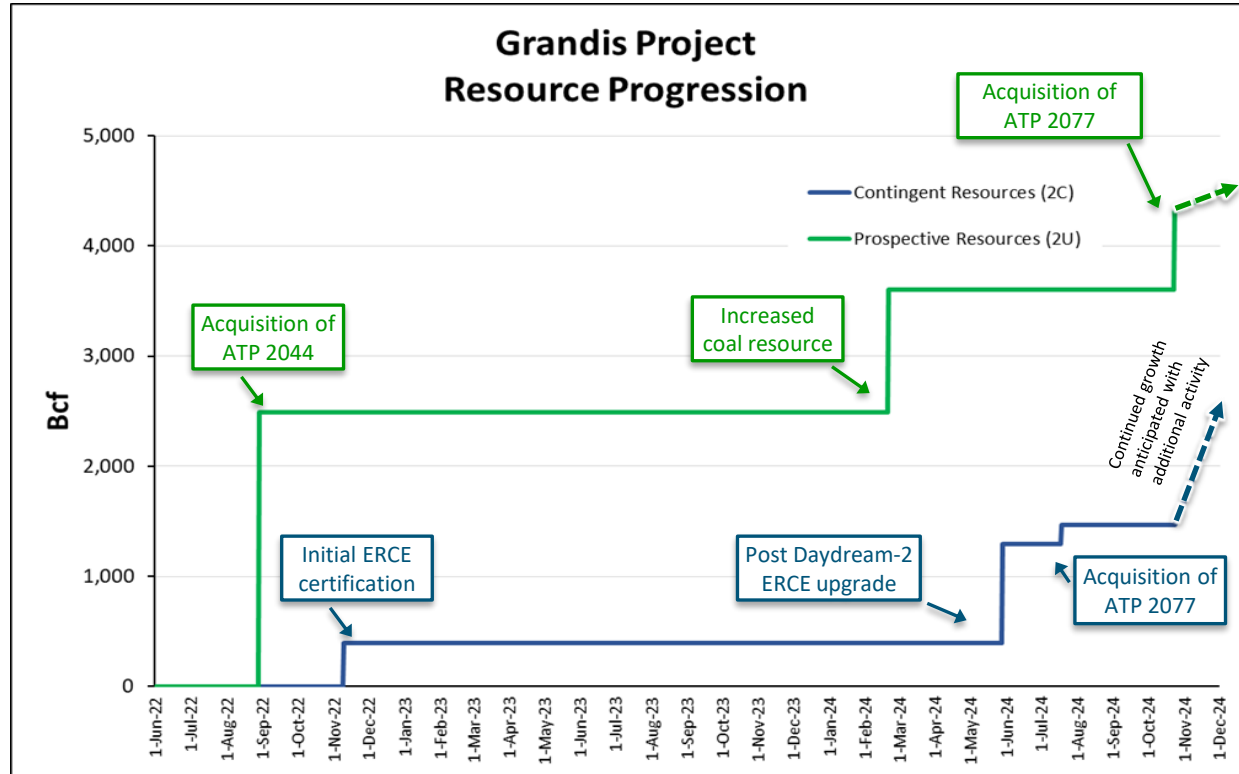
## Current Resources

Contingent (2C)  
**1.47 Tcf**

Prospective (2U)  
**4.3 Tcf**

### Potential Future Activity:

- Convert coals from Prospective to Contingent with proof of flow
- Expand Contingent with deeper drilling
- Expand laterally with step-out wells
- Resources to Reserves



Refer to Appendix 1 for full disclosure of resource numbers & methodologies

# What we have learnt:

Massive learnings and inroads into the tight gas play from the drilling, stimulation and testing of Daydream-2:

- 1 Achieved a commercial flow rate
- 2 Increased 2C contingent resources by 328% to 1.5 Tcf
- 3 Increased 2U prospective resources by 234% to 4.3 Tcf
- 4 Flowed gas from two separate deep coal zones, allowing the commencement of the conversion of these from prospective to contingent resources
- 5 Flowed gas from five out of six stimulated zones
- 6 Confirmed the raw gas contains low amounts of CO<sub>2</sub> – within pipeline specification
- 7 Met all licence commitments – allowing application for conversion to long term retention lease
- 8 Applied novel extraction techniques and attracted Commonwealth Government R&D support

***THE GAS IS THERE - productivity improvements expected***

# Attractive to Large Sources of Capital

## Securing material capital for gas development needs to pass through multiple gates



- The best source of capital for new gas developments is arguably existing large oil and gas companies – they provide not only money, but multiple technical, commercial and political skill sets

- The **Taroom Trough** is a favourable location for such large companies:

**01**

**Brownfields** – many majors, large LNG buyers, etc, are already in Queensland – and even for those who are not, the existence of the incumbents reduces risk perceptions

**02**

**Low emissions profile** – the Taroom is low in CO<sub>2</sub> (pipeline spec) and has a long term pathway to reducing scope 1 & 2 emissions from electrification, etc

**03**

**Materiality** – the resource size is multi-Tcf (with possibly 100Ms of bbls of liquids) and could accept billions of dollars of investment

**04**

**Low sovereign risk** – Queensland is a favourable location within Australia for resource investments – and despite some recent sins at Federal level, Australia itself is still much better than most of the world

**05**

**Investments** in the future can be varied in response to market conditions – a key feature of an onshore unconventional play close to existing infrastructure

# Next Steps for the Grandis Project

- 1 Post well studies underway
- 2 Upgrading Contingent Resource to include coals
- 3 Progressing farmout discussions
- 4 Applying for a Potential Commercial Area (PCA) - up to 15 years retention
- 5 Ongoing and growing cooperation with neighbouring operators
- 6 Investigating potential infrastructure and offtake options with e.g. AGIG
- 7 Daydream-3 planning



# Mongolian CBM Asset Overview

Elixir was the pioneer in another gas play opener – CBM in Mongolia

- 1** Elixir's foundation asset – the 100% owned Nomgon IX Coal Bed Methane (CBM\*) Production Sharing Contract (PSC) project in the South Gobi region of Mongolia
- 2** Located on Mongolian/Chinese border with excellent infrastructure, mines and planned pipelines
- 3** This location provides many market options – domestic and export
- 4** Exploration commenced in 2019 and first CBM discovery made in 2020
- 5** Pilot Project ongoing – water production reducing pressure on pathway to gas breakthrough
- 6** Farm-down negotiations underway



\* Coal Seam Gas – CSG – is usually referred to as CBM outside Australia

# Summary



The World needs more gas for longer – LNG markets expected to grow for decades



The East Coast has very strong pricing, a growing supply gap & LNG plant ullage



The Taroom Trough has multiple locational advantages to serve these markets



The Taroom is currently hosting multiple operator programs under which \$100Ms are being spent



The massive Taroom unconventional gas play is starting to be unlocked with many achievements to date



The results from Daydream-2 (& neighbouring wells) are proving up the Taroom with - multiple technical breakthroughs already

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# Appendix 1A – Contingent Resources

Based on the work undertaken by Elixir in ATP 2044, the Company sought an independently certified contingent resource estimate (from international firm ERC Equipoise Pty Ltd – “ERCE”) for ATP 2077 Sub-block A – see table below. The subclass of Contingent Resources (as defined under the PRMS) is “Development Unclarified”, as of 16th August 2024.

ERCE Contingent Resource Certification <sup>1</sup>						
Kianga & Back Creek Reservoirs Only	1C		2C		3C	
	Gas BCF	Condensate MMbbls	Gas BCF	Condensate MMbbls	Gas BCF	Condensate MMbbls
ATP 2077	68	0.6	173	1.8	439	5.3
ATP 2044	405	3.0	1,297	10.8	4,290	36.1
<b>TOTAL PROJECT GRANDIS<sup>2</sup></b>	<b>473</b>	<b>3.6</b>	<b>1,470</b>	<b>12.6</b>	<b>4,729</b>	<b>41.4</b>

Notes:

1. *These are un-risked contingent resources that have not been risked for the chance of development and there is no certainty that it will be economically viable to produce any portion of the contingent resources. These contingent resources are classified as “Development Unclarified”.*
  2. *Totals added arithmetically*
- Detailed notes on the background to the preparation of the contingent resources report are set out in Appendix 1.*

# Appendix 1B – Prospective Resources

The prospective resources of gas in the Permian coals in ATP 2044 includes both an adsorbed and fractured component, and is estimated as follows:

<b>Total Unrisked Prospective Resources<sup>1</sup></b>				
Recoverable Gas associated with coal seams	1U <sup>2</sup> (BCF)	2U <sup>3</sup> (BCF)	Mean <sup>4</sup> (BCF)	3U <sup>5</sup> (BCF)
Adsorbed Coal	755	2,316	3,702	8,497
Fractured Coal	401	1,287	1,841	4,135
<b>Total Prospective Resources in Coal*</b>	<b>1,156</b>	<b>3,603</b>	<b>5,543</b>	<b>12,632</b>

\*added arithmetically

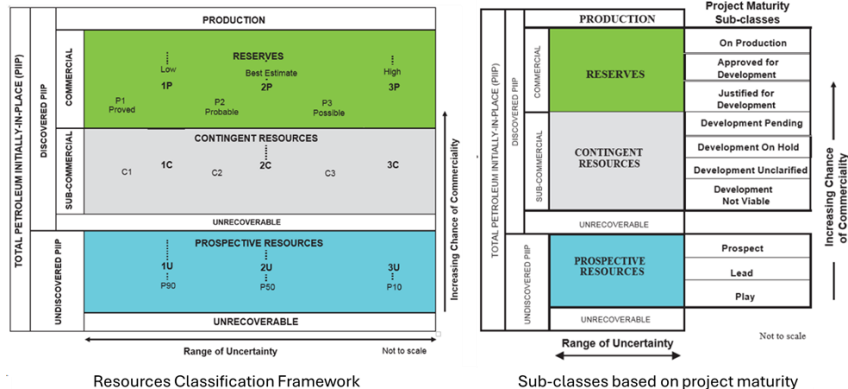
## Notes:

1. Each reservoir target was evaluated probabilistically, and the reservoirs were added together arithmetically.
2. At least a 90% probability that the quantities actually recovered will equal or exceed the estimate (low estimate).
3. At least a 50% probability that the quantities actually recovered will equal or exceed the estimate (mid estimate).
4. The arithmetic average of the probability distribution.
5. At least a 10% probability that the quantities actually recovered will equal or exceed the estimate (high estimate).
6. Prospective Resources have been assessed on the basis that they are unconventional in nature.
7. BCF means billion standard cubic feet of gas.
8. MMbbl means million barrels of oil or condensate.

Detailed notes on the background to the preparation of the prospective resources report are set out in Appendix 1.

# Appendix 1C – Notes to Resource Statements

- The evaluation date of the ERCE Contingent Resources is 27<sup>th</sup> May 2024 and 16<sup>th</sup> August 2024 for ATP 2044 and ATP 2077 respectively.
- Elixir's working interest share of ATP 2044 and ATP 2077 is 100%.
- The Contingent Resources are considered to be in the "development unclarified" category as defined by the 2018 PRMS SPE-PRMS standards.



- Per Listing Rule 5.33.5, the land area and the number of wells for which the estimates of contingent resources are provided are 1,000 km<sup>2</sup> and ~300 wells and 76 km<sup>2</sup> and ~20 wells respectively for ATP 2044 and ATP 2077 (for the 2C case).
- BCF means Billions of Standard Cubic Feet.
- Mmbls means Millions of Stock Tank Barrels.
- The totals are based on probabilistic aggregation of reservoir estimates.
- Contingent resource assessments in this release were estimated using probabilistic methods in accordance with 2018 PRMS SPE-PRMS standards.
- The data used to compile the independent contingent resources report includes detailed geological interpretation of seismic, well, core and test data within the region.

- ERCE has used standard petroleum evaluation techniques in the preparation of this report. These techniques combine geophysical and geological knowledge with assessments of porosity and permeability distributions, fluid characteristics and reservoir pressure. There is uncertainty in the measurement and interpretation of basic data. ERCE has estimated the degree of this uncertainty and determined the range of petroleum initially in place and recoverable hydrocarbons. The accuracy of estimates of volumes of gas is a function of the quality and quantity of available data and of interpretation and judgment. While the estimates of contingent resources presented herein are considered reasonable, these estimates should be accepted with the understanding that reservoir performance subsequent to the date of the estimate may justify revision, either upward or downward. There is no certainty that it will be economically viable to produce any portion of the contingent resources.

- This document contains forward looking statements that are subject to risk factors associated with the oil and gas industry. It is believed that the expectations reflected in these statements are reasonable, but they and or their timing may be affected by many variables which could cause actual results or trends to differ materially. The technical information provided has been reviewed by Mr Gregory Channon, Chief Geoscientist of Elixir Energy Limited. Mr Channon is a qualified geologist with over 35 years technical, commercial and management experience in exploration for, appraisal and development of, oil and gas. He is qualified as a competent person in accordance with ASX listing rule 5.41. Mr Channon is a member of the American Association of Petroleum Geologists and consents to the inclusion of the information in the form and context in which it appears.

- Prospective Resources are those estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) related to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration, appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons. The estimate of Prospective Resource was compiled by Elixir's Chief Geoscientist, Mr Greg Channon, who has completed a detailed and formal report on the prospective resources of the adsorbed coal in ATP 2044 dated 20 February 2024. The work was undertaken in accordance with the Society of Petroleum Engineers internationally recognised Petroleum Resources Management System 2018 (PRMS). Mr Channon's methodology was to compile and review all available data and make interpretations of (amongst other things) the adsorption and proximate analysis, wireline logs, seismic data and historical well records relevant to the permit area. An estimate of the gross and net rock volume was determined, and from that, a probabilistic distribution of the prospective resource was compiled. A site visit to the area was conducted.



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