





# **Noosa Mining** Conference Presentation

17 November 2023

**ASX:EXR** 



## Macro Overview





- Oil & gas prices very strong
- Energy transition is much longer dated than hoped
- Emerging animal spirits coming from US – will wash around the world



Security of supply
Australia & Mongolia

- Ukraine war showed value of security of supply
- A key Australian advantage
- Mongolian gas very secure for China



- Elixir's assets located close to infrastructure
- LNG plants in Queensland have growing spare capacity
- Location even more important for H2

# Capital Structure / Board

## **Capital Structure**

Capital Structure	Current
Number of Shares	1,056 million
Performance Shares and Options	83 million
Market Capitalisation (at A\$0.075)	A\$79 million
Cash (30 September 2023)	A\$11 million
Enterprise Value	A\$68 million

## **Share Price Performance**



## **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

Has worked in Mongolia since 2011



## **Stephen Kelemen**

Non-Executive Director

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

Current Non Executive Director at CSG focused Galilee Energy (GLL)



## **Anna Sloboda**

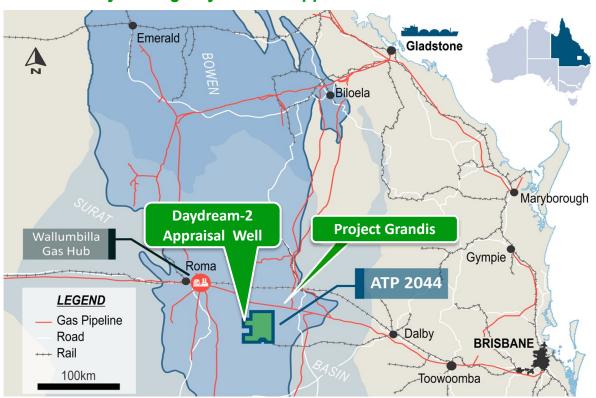
Non-Executive Director

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

Ex-USSR background and experience of working in China

# **Project Location**

## **Elixir currently drilling Daydream-2 Appraisal Well**

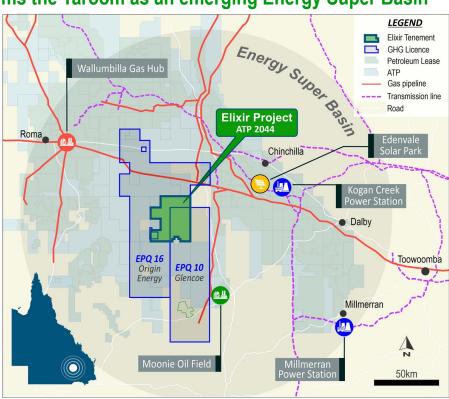


- The Grandis Gas Project is very well located in the southern Taroom Trough (TT)
- Market factors are now driving new rounds of drilling in the TT, including by Majors:
  - The rapidly growing demand/supply gap in the East Coast gas market
  - Spare capacity in Queensland's LNG plants – also growing
  - International buyers' requirements for reliable supply – especially given the Ukraine War and other geopolitical factors
- Australian Government to fund 48.5% of qualifying well costs for Daydream-2 through R&D rebate

# An Emerging Energy Super Basin

## Elixir's recent \$1M deal with Origin Energy confirms the Taroom as an emerging Energy Super Basin

- Wood Mackenzie's Energy Super Basin concept:
  - "Super basins are the future"
  - "The future is upstream co-located with low carbon"
  - "These are basins with the co-location of upstream hydrocarbons, clean electricity, standalone and/or hub scale CCS"
- Grandis is located in such an Energy Super Basin:
  - Tcfs of contingent and prospective gas resources (with low CO2)
  - Overlapping GHG (CCS) licences
  - Major electricity infrastructure with solar projects adding to thermal power stations

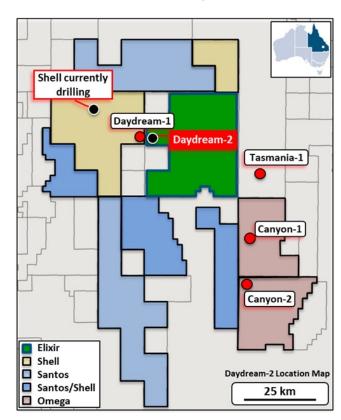


# **Taroom Trough**

## Home to several majors, the Taroom Trough hosts material discovered and potential gas resources

- **Shell:** Currently drilling. "The estimate of recoverable hydrocarbons in this reservoir across ATP 645 in the area covered by PCA 1 (305), on an unrisked P50 basis, is 3.0 Tcf sales gas and 252 mmboe NGLs and condensate" 1
- Santos: Recently executed Data Sharing Agreement with Elixir. "If the play works then we believe there is multi-Tcf potential" (Kevin Gallagher - Santos CEO -Australian Financial Review on 15 November 2018
- **Elixir:** 2C contingent resources of 395 Bcf and 2U prospective resources of 1,287 Bcf
- Omega: 2C contingent resources of 1.73 Tcf.
   Stimulated horizontal well to follow in 2024

With multiple operators investing substantially and experimenting with different approaches – the greater the chance the "code" is cracked for the benefit of all



## Resources

## **Contingent Resources – Sandstones only**

ATP – 2044 – GRANDIS GAS PROJECT						
Contingent Resources (100%)						
	Units	1C	2C	3C		
Gas Initially In Place	Bcf	2,128	7,007	22,699		
Recoverable Gas	Bcf	93	395	1,493		
Recoverable Condensate	MMbbl	0.7	3.6	17.3		

Note – tight sandstone reservoirs only

- In October 2022 ERC Equipoise Pte Ltd (ERCE) prepared a Competent Person's Report (CPR)
- ERCE has attributed Contingent Resources to the ATP 2044 permit as shown
- Only the sandstone reservoirs' hydrocarbon volumes were attributed as Contingent Resources

## **Prospective Resources - Fractured Coals**

ATP – 2044 – GRANDIS GAS PROJECT						
Prospective Resources (100%)						
	Units	1U	2U	3U		
Recoverable Gas	Bcf	401	1,287	4,135		
Recoverable Condensate	MMbbl	4	25.7	165.4		
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Note – fractured, thermally mature coals only

- In addition to the Contingent Resources calculated by ERCE in the Tight Sandstone Play, the Fractured, Thermally Mature Coals Play provides an additional primary target
- Flowing gas from the coals in Daydream-2 should start to convert prospective into contingent resources

### Notes

1. 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 explorations appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons. 2 At least a 90% probability that the quantities actually recovered will equal or exceed the estimate. 3.At least a 50% probability that the quantities actually recovered will equal or exceed the 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. 9. The resource calculations are probabilistic but each reservoir was added arithmetically. See appendix for further information.

# **Grandis Gas Project Timeline**



- 1 Intermediate wireline logging (funded by Origin Energy)
- Intersection of primary target intervals
- 3 Final wireline logging (delivering thickness of gross interval, net pay, gas saturation etc.)
- 4 Compilation of post well analysis (final pay information and initial production testing plans)
- 5 Review of Contingent Resource
- 6 Diagnostic Fracture Injectivity Testing (DFIT) to directly measure formation stress, pore pressure and permeability
- Pre-stimulation optimisation and testing activity (to guide formal stimulation plans)
- 8 Working with Halliburton Global Technology Centre for optimal strategy on stimulation of Daydream 2 reservoirs
- 9 Execution of stimulation program for sandstone and coal reservoirs (up to 5 stages)
- Completion and production testing (initial flow rates from specific isolated intervals in coals and sandstones) TBC

# Daydream-2 – Game Changing Objectives

## Daydream-2 has multiple objectives that collectively can deliver enormous de-risking and value

- 500m gross vertical interval of prospective reservoirs
- Stimulation program covers entire zone
- Preliminary plan is for 5 stages of stimulation isolating both coals and sandstones
- Confirm liquids content and low Co2
- Extended DFITs to fully evaluate stress, pore-pressure and permeability
- Expand Contingent Resources on coals and sandstones
- Exciting R&D plans include:
  - 1. Micro-proppants
  - 2. Dynamic diversion injection
  - 3. Fibre-optic completion technology
- Gather data for scalable development plan with could include more than 500 wells. Ultimate development case of vertical, deviated or horizontal wells to be determined post multiple operator results





## **CBM Asset Overview**

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

Highly experienced CSG team – first mover in taking Australia's industry leading skills to Mongolia

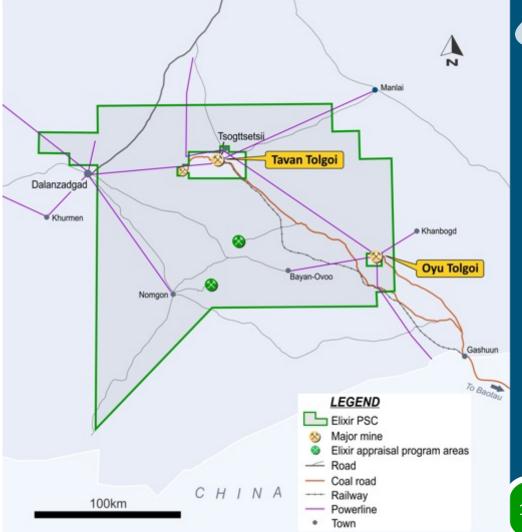
Located on Mongolian/Chinese border with excellent infrastructure, mines and planned pipelines

This location provides many market options – domestic and export

Exploration commenced in 2019 and first CBM discovery made in 2020

Production Pilot Project ongoing though 2024

<sup>\*</sup> Coal Seam Gas – CSG – is usually referred to as CBM outside Australia



## **Extended Pilot Production Test**

### Aim

- Dewater coals and flow gas from the Nomgon CBM discovery
- Provide proof of concept for commercial development
- First extended production test in Mongolia
- Growing cooperation with other Operators

### Wells

- Initial 2 production wells drilled 100m apart
- Additional pilot well (Nomgon-10) added and shows improved permeability and lower formation damage
- Depth to coal ~450m

### **Production**

- Water and gas production to continue into 2024
- Varied flow rates typical of a first pilot in the region
   measured up to 200,000 cubic feet per day
- Production system now fully remote, with the ability to control most process form Australia



Nomgon-9 flare



## Gobi H2 Overview

# Elixir's longstanding experience in Mongolia's energy sector and stakeholder engagement with Governments and customers, has provided a strong foundation for the Gobi H2 Project

- Gobi H2 is Elixir's green hydrogen project (i.e. one where hydrogen is produced from renewable electrical energy sources) located in the Gobi region of Mongolia
- Elixir's longstanding experience in Mongolia's energy sector and stakeholder engagement with Governments (at multiple levels), communities, customers, etc, has provided a strong foundation upon which to build the Gobi H2 business
- The strength of the concept behind the project was demonstrated in mid-2022 when Elixir announced the signing of a Memorandum of Understanding (MOU) over Gobi H2 with Japan's SB Energy Corp (now Terras Energy following Toyota Tsusho taking control)
- Elixir procured a Pre-Feasibility Study (PFS) from global consulting firm AECOM earlier this year to give the parties confidence to advance the project
- The (confidential) PFS results were such that in February 2023 Elixir and SB Energy expanded upon the MOU through the execution of a Term Sheet - which provides an exclusive framework to work towards entering into a binding 50/50 joint venture later in the year
- Green hydrogen infrastructure projects in neighbouring China including the development of a regional hydrogen pipeline transmission network – can ultimately be expanded Northwards to capture the benefits of the Gobi's exceptional renewable resources



Term sheet with Terras



Pilot pre-feasibility results secured



Targeting local and export markets



Project financiers engaged for pilot



Short and long term water procurement



Banking renewable resources



# **Corporate Highlights**





High impact Daydream-2 appraisal well currently drilling ahead



Mongolia's first CBM pilot production project ongoing



Key catalysts due this FY – adding material resources and de-risking



Highly experienced teams in Australia and Mongolia and multiple funding sources procured



Ukraine war and growing difficulties in energy transition highlighted need for energy security and key role for gas in the medium term



Strong balance sheet and 100% gas asset ownership provides maximum strategic optionality

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# **Appendix**

### Methodology:

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 in ATP 2044. 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 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.

### **Competent Person:**

Elixir's Competent Person is Mr Greg Channon. Mr Channon is a qualified geoscientist with over 35 years of oil and gas industry experience and is a member of the American Association of Petroleum Geologists and the South East Asian Exploration Society and is a graduate of the Australian Institute of Company Directors. He is qualified as a competent person in accordance with ASX listing rule 5.41. Mr Channon consents to the inclusion of the information in this report in the form and context in which it appears.

## **Reporting Standards:**

Reserves and resources are reported in accordance with the definitions of reserves, contingent resources and prospective resources and guidelines set out in the Petroleum Resources Management System (PRMS) prepared by the Oil and Gas Reserves Committee of the Society of Petroleum Engineers (SPE) and reviewed and jointly sponsored by the American Association of Petroleum Geologists (AAPG), World Petroleum Council (WPC), Society of Petroleum Evaluation Engineers (SPEE), Society of Exploration Geophysicists (SEG), Society of Petrophysicists and Well Log Analysts (SPWLA) and European Association of Geoscientists and Engineers (EAGE), revised June 2018.

