



**Elixir Energy**

# Webinar Presentation

9 July 2024

ASX:EXR

*\* See ASX release dated 29 April 2024*

# Gas - Macro Overview



## The desired energy transition is very hard

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



## LNG demand forecast to rise

- Multiple industry and Government parties forecast growing LNG demand
- Asian demand particularly strong – e.g. will India follow China as a large importer
- Australian security of supply valued by geopolitical allies



## East Coast Australia gas supply crisis

- The long recognised supply crunch is nearly upon us
- Govt now recognising depth of supply problems
- Current prices of >A\$12 expected to be a long term floor
- LNG imports likely



# The East Coast Gas Crisis is Upon Us

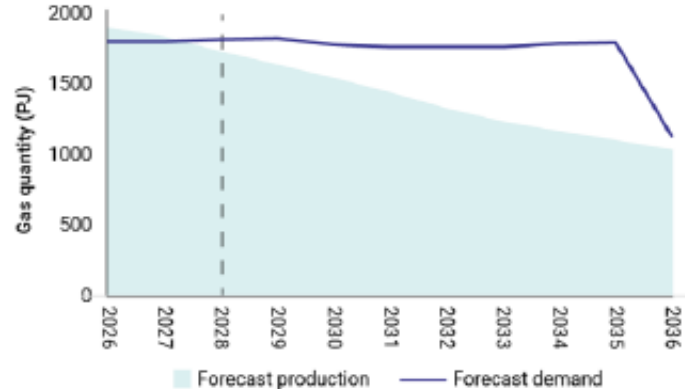
## The Taroom Trough has the location and scale to make a difference

- For many years industry observers have noted the East Coast gas market faces a growing gap between demand and supply
- A crunch is now potentially imminent – gas storage in Victoria is currently much lower than normal
- Solutions are sparse and will require time and significant capital expenditure
- LNG imports will almost certainly be required – from Port Kembla and also possibly Victoria and/or South Australia
- Imported LNG will cost ~A\$20/GJ – and will become a key marginal price setter
- The Taroom Trough's favoured location and vast gas resources – when de-risked – can provide material contribution to addressing the supply squeeze

### Long-term supply outlook

#### Gas shortfalls possible from 2027

The east coast gas market may experience gas supply shortfalls as early as 2027 unless new sources of supply are made available. The potential emergence of supply shortages is one year earlier than previously reported.



ACCC Gas Supply Report June 2024

# 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

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

## Quality Partners and Suppliers



– Information Sharing Agreement



– Data Sharing Agreement



– Drilling services



– Stimulation services



– Drilling management services



**Australian Government**

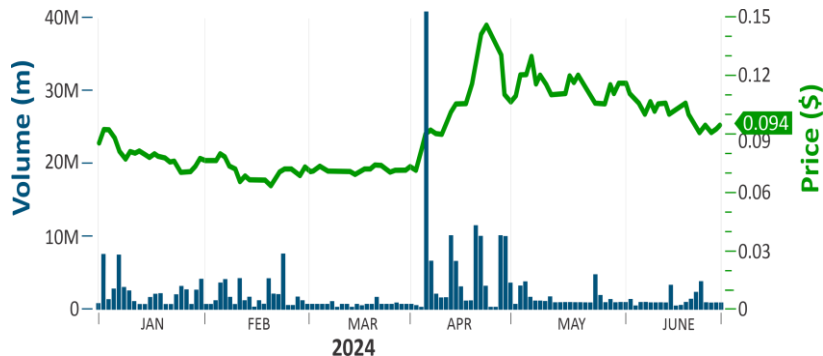
– 48.5% R&D tax credit

# Capital Structure

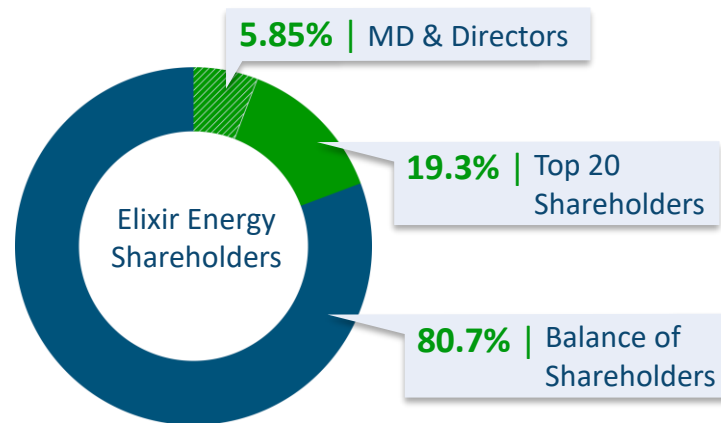
## Capital Structure

Capital Structure	Current
Number of Shares	1,132 million
Options & Perf Rights	115 million
Market Capitalisation (at A\$0.11)	A\$125 million
Cash (31/3/24 – inclusive of R&D)	A\$12 million
Enterprise Value	A\$113 million

## Share Price Performance



## Shareholder Information



## Company Liquidity

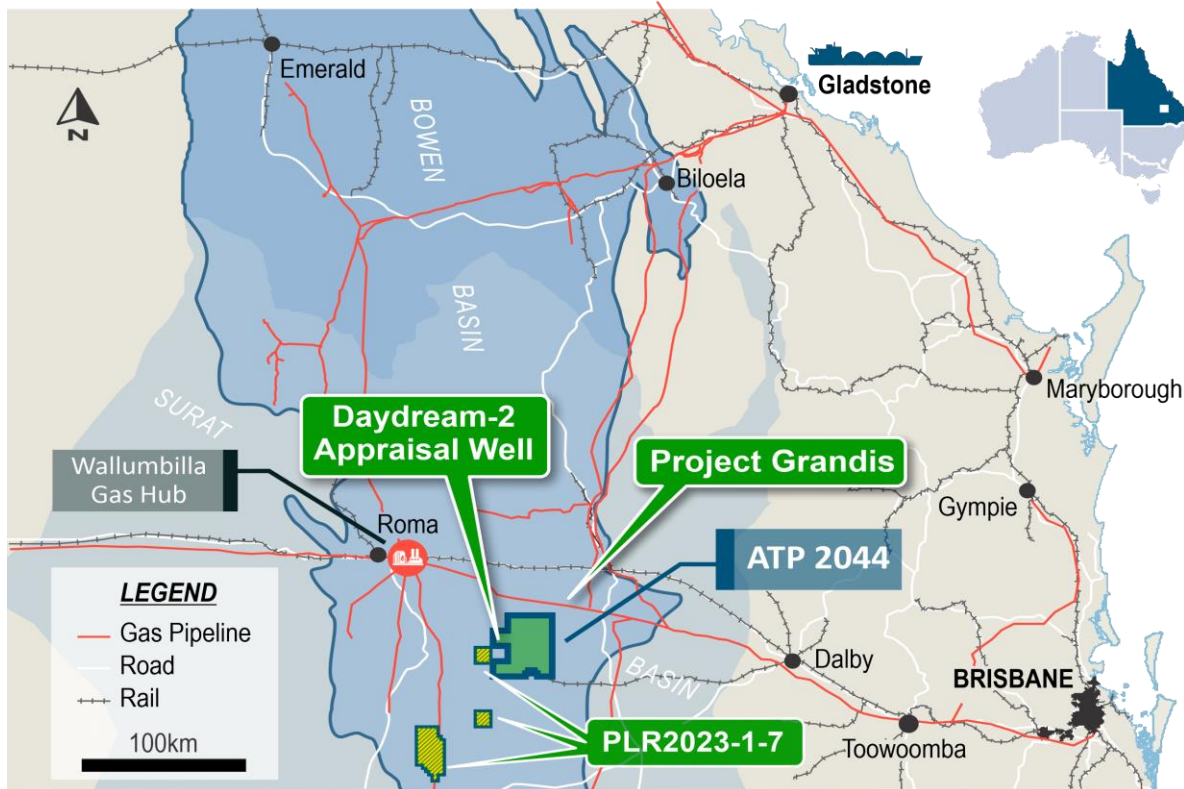
Average trading of  
**>\$400k/day**  
In April/May





# The Taroom Trough – An Advantaged Location

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

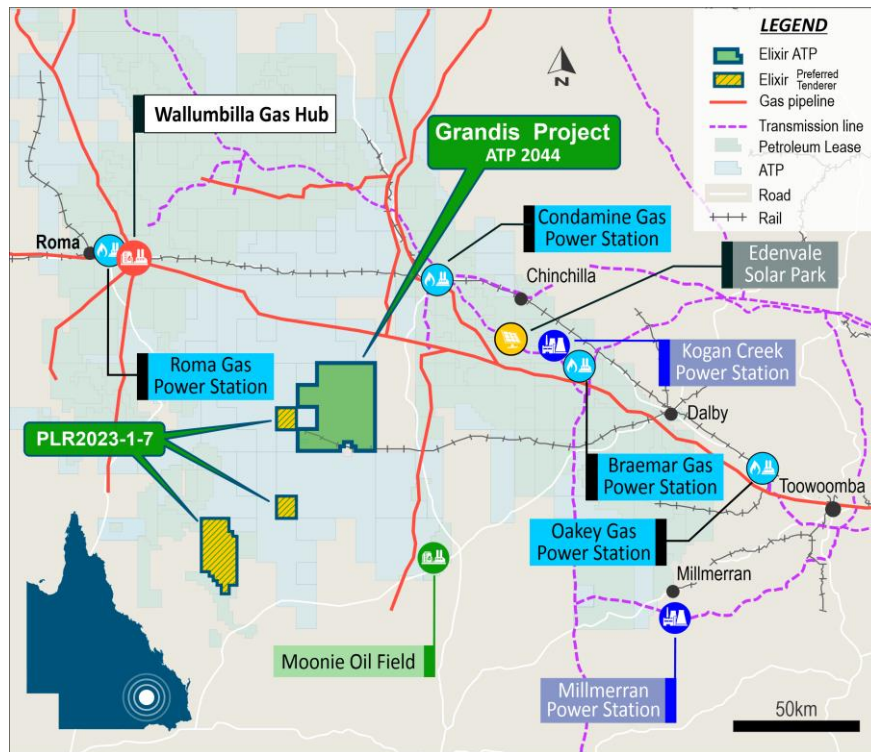


- The Grandis Gas Project is very well located in the Taroom Trough in the Southern Bowen Basin
- Australia's premier physical and commercial gas hub – Wallumbilla – is immediately adjacent
- Market factors are now driving new rounds of drilling in the Taroom Trough - including by Majors
- Pipeline costs minimal – material savings per GJ – as well as avoidance of financing concerns over new transmission pipelines
- Long term community acceptance of oil and gas in the region
- 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 – and plans for more (and potentially much more as Queensland's energy mix evolves)
- Complementary gas storage assets are already in the area - with an arguable need for much more – cheaper and less politically challenged than greenfields pumped storage hydro
- The existing gas transmission network, centred around the Wallumbilla Hub, provides ready market access to both LNG and domestic gas markets
- Greenfields gas transmission developments are likely challenged by ESG concerns from investors (and lawfare) – not relevant in brownfields location



# 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 CO2 (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

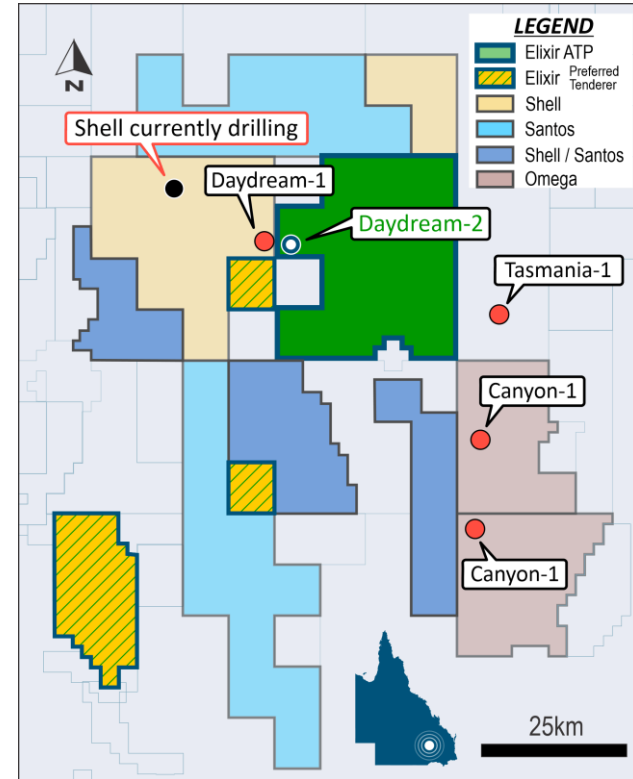


# Multiple Operator Activity

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 unrisks P50 basis, is 3.0 Tcf sales gas and 252 mmboe NGLs and condensate”*<sup>1</sup>
- **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 1,297 Bcf and 2U prospective resources of 3,603 Bcf – to be upgraded post imminent end of Daydream-2 program
- **Omega:** 2C contingent resources of 1.7 Tcf. Stimulated horizontal well to follow in 2024

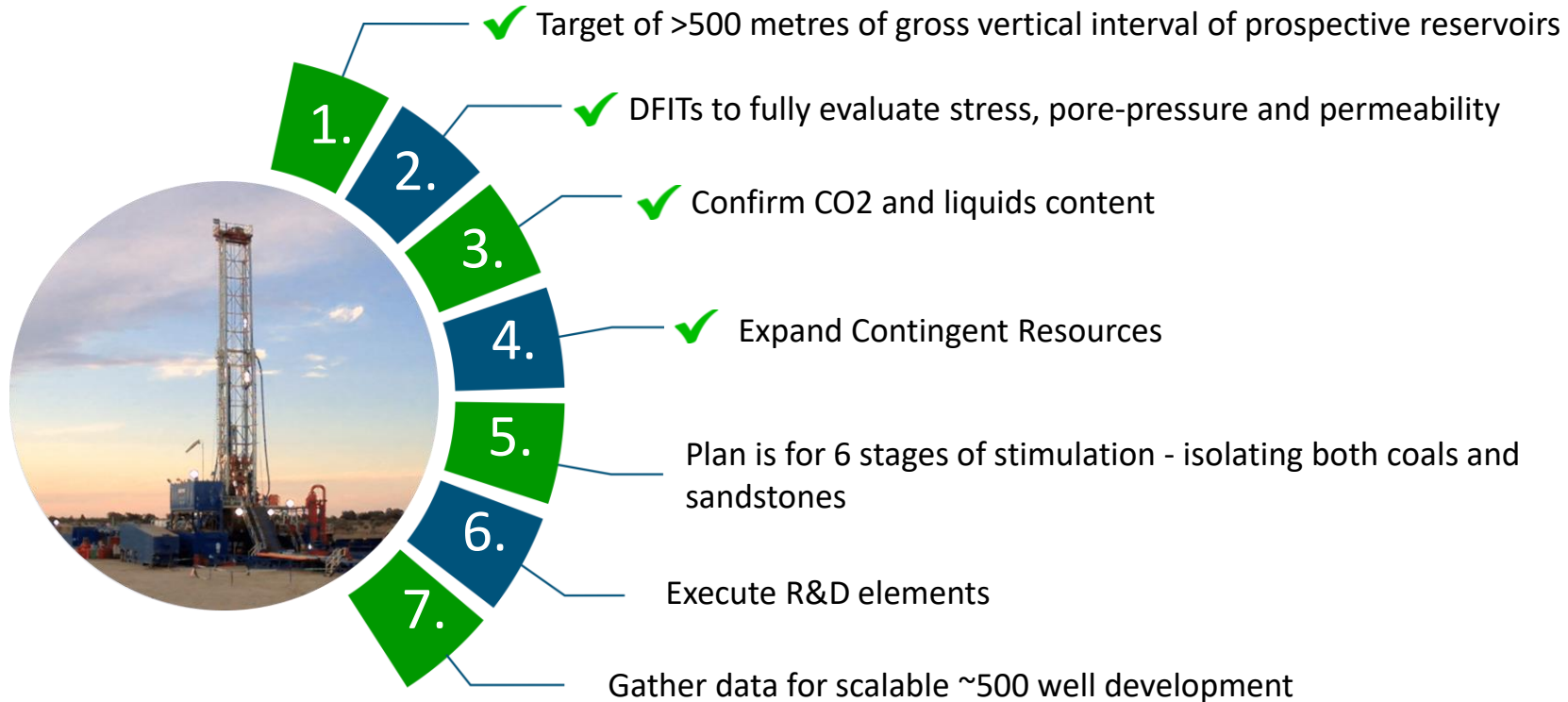
***With multiple operators investing substantially and experimenting with different approaches – the greater the chance the “code” is cracked for the benefit of all***



<sup>1</sup> - [https://www.daf.qld.gov.au/\\_data/assets/pdf\\_file/0010/1672921/21-296-File-G.pdf](https://www.daf.qld.gov.au/_data/assets/pdf_file/0010/1672921/21-296-File-G.pdf)

# Daydream-2 – Multiple Objectives

Daydream-2's multiple objectives are centred around de-risking and value creation



# Daydream-2 Delivers a Welcome Surprise

**Daydream-2 discovered a first in the Taroom Trough – a free flowing deep permeable formation \***

- Drilled to total depth of 4,300 metres (14,108 feet)
- Well drilled safely and under budget
- Gross interval of 607 metres intersected with peak gas shows of up to 800 units
- Logged 180 metres of net pay in the Permian sandstones
- Measured an additional 65 metres of gaseous coals in the primary objective interval as a new target for stimulation and flow testing
- ***Encountered an unexpected free-flowing gas zone at 4,200 metres – gas flowed to surface without stimulation***
- ***Analogues with deep Perth Basin?***



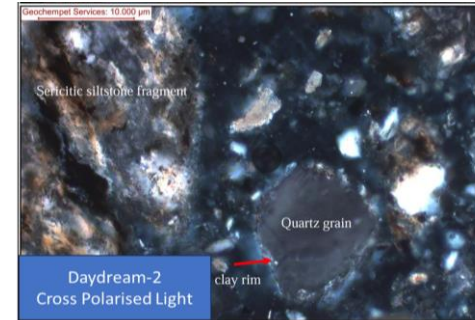
Flare at Daydream-2

\* See ASX release dated 7 December 2023

# Lab Results Deliver More Upside

## Lab results reported in recent results suggest Perth & Cooper Basin analogues \*

- Significant over-pressure confirmed – 9,400 psia in deep permeable zone
- Analysis of cuttings samples from the deep permeable sand interval has identified clay coatings (rims) around individual quartz grains. It is interpreted that these clay rims assist in the preservation of primary porosity at these depths
- These are also recognised in the relatively recently discovered highly productive deep Permian sections of the Perth Basin
- Also unexpected were very high gas contents in the deep coals (similar to the Cooper Basin) – 34 cubic metres/tonne (dry ash free) – significant gas in cleats as well as fractures
- CO<sub>2</sub> in gas measured from coals a negligible 1%



Sample 5; 4212 – 4215m; Res Pressure: 9400 psia

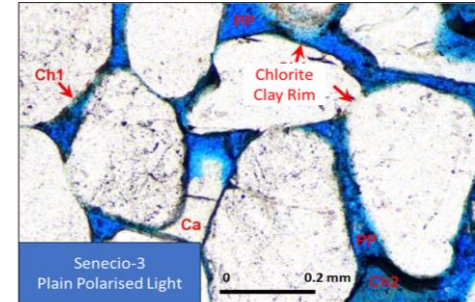


Plate 64; 3176.5m; Res Pressure: 5032 psia. Source: AWE Limited

Daydream-2 (Taroom Trough) and Senecio-3 (Perth Basin) Clay Rims Comparison

\* See ASX releases dated 6 and 21 February 2024

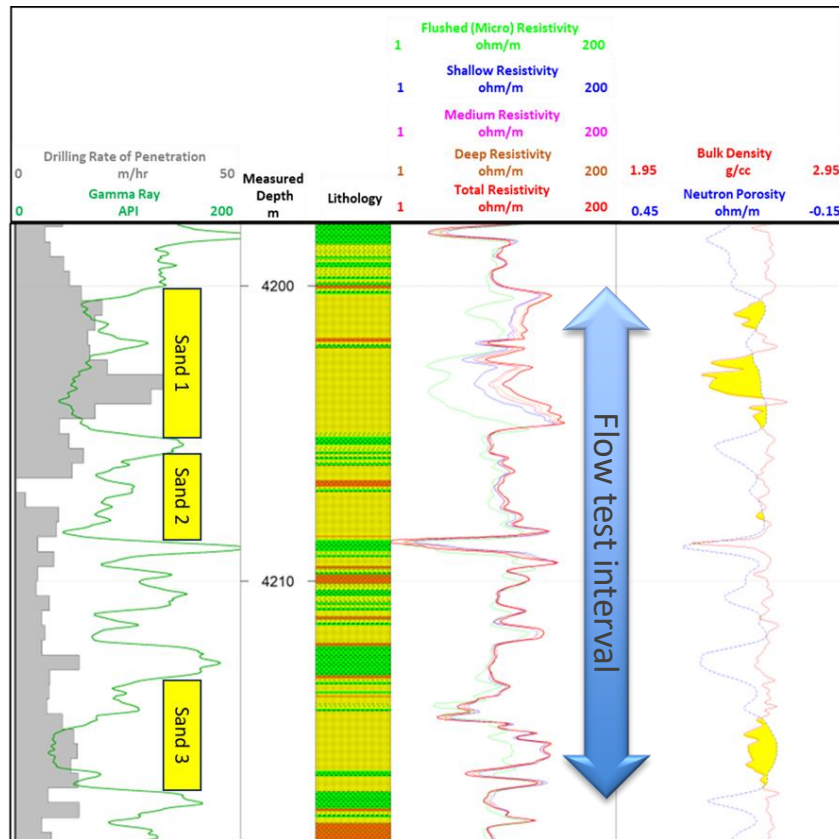
# Impressive Initial Flow Test Results

## Successful Lorelle Sandstone flow testing \*

- Conducted after a successful suite of DFITs
- 2 stage flow test over permeable zone from 4,200 - 4,217 metres
- Maximum Rate 2.3 MMSCFPD
- Stabilized Rate 1.3 MMSCFPD
- Gas was dry without indications of condensate or water
- Low CO<sub>2</sub> content – lab to test for NGLs shortly
- Stimulation of 6 stages imminent

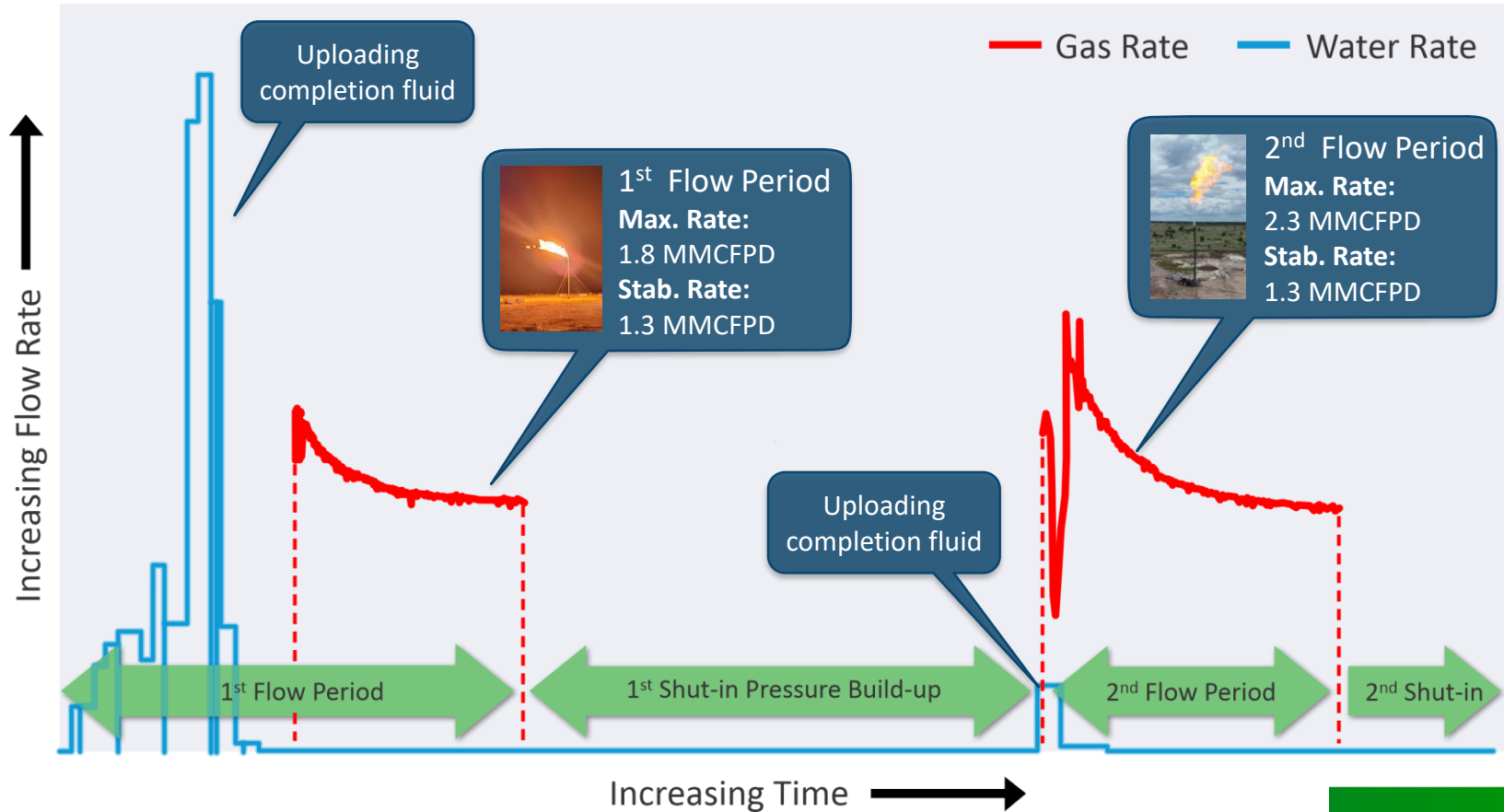


\* See ASX release dated 5 April 2024





# Daydream-2 Lorelle Sandstone Flow Testing\*



\* See ASX release dated 5 April 2024

# A New Play is Being Proven

Economic flow-rate of 2.5mmscfd for vertical wells – the Lorelle Sandstone alone is modelled to meet this\*

*At 4,200 metres this is the deepest sustained natural flow of gas in Queensland and may herald the start of a whole new - gas play in Australia*



\* See ASX release dated 29 April 2024

# Next Few Months are Critical for Project Grandis

Daydream 2 Remaining Program	2024							
	July				August			
	Wk1	Wk2	Wk3	Wk4	Wk1	Wk2	Wk3	Wk4
Prepare and Rig Up for Lorelle Test								
Flow Test Lorelle Sst (Stage 1)								
Perforate and Stimulate Stages 2 to 6								
Flow Test Various Stages								

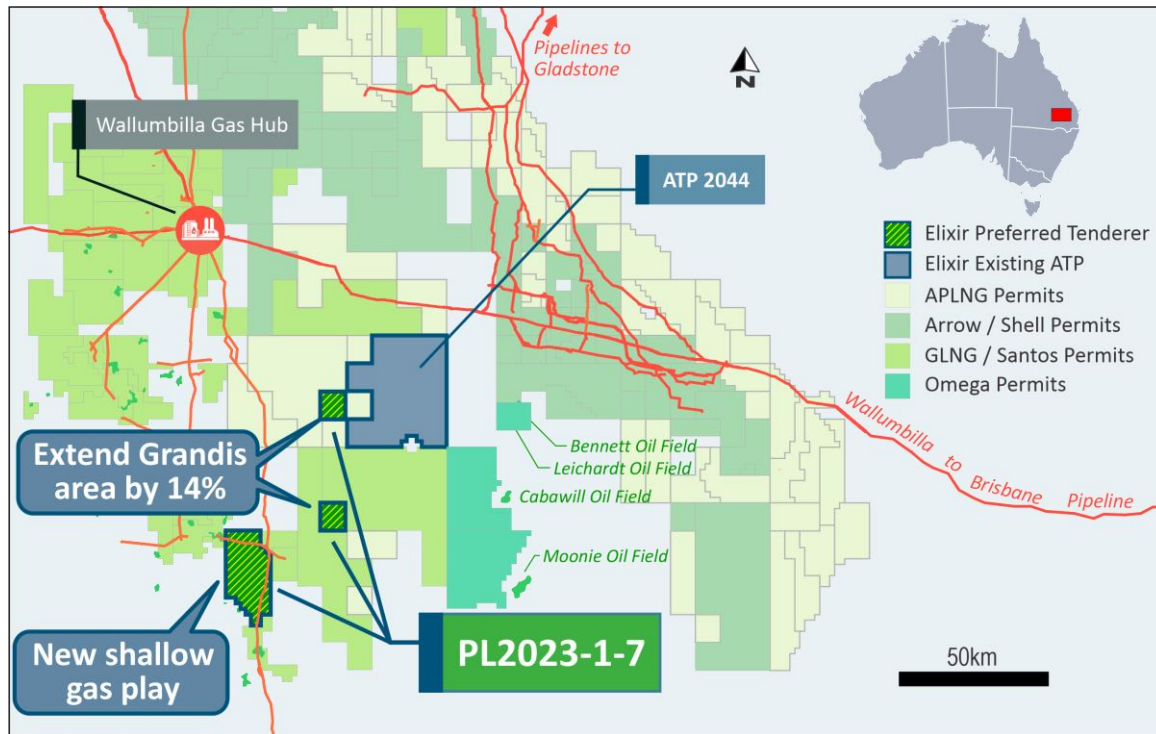


*Timelines are indicative only and are subject to factors such as equipment being released by other Operators in line with current expectations*

# Project Grandis Acreage Recently Expanded

Elixir's Project Grandis has recently expanded through success in a Government acreage program

- The Queensland Government recently appointed Elixir as the Preferred Tenderer for a new release of petroleum acreage in and adjacent to the Taroom Trough
- Licence to be named ATP 2077
- The Licence will be granted post administrative processes related to to Native Title and Environment Approvals
- These are not expected to be complex in this location
- The two blocks to the East are geologically located in the Taroom Trough and therefore directly add to Project Grandis
- The block to the South West contains shallow gas targets – and could also be prospective for gas storage assets



# Mongolian CBM Asset Overview

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

- 01 | 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
- 02 | Highly experienced CSG team – first mover in taking Australia's industry leading skills to Mongolia
- 03 | Located on Mongolian/Chinese border with excellent infrastructure, mines and planned pipelines
- 04 | This location provides many market options – domestic and export
- 06 | Exploration commenced in 2019 and first CBM discovery made in 2020
- 07 | Production Pilot Project will be ongoing though 2024



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



# Extended Pilot Production Test

The Nomgon project is getting ever closer to a key inflection point – a commercial flow rate

## Progress to date

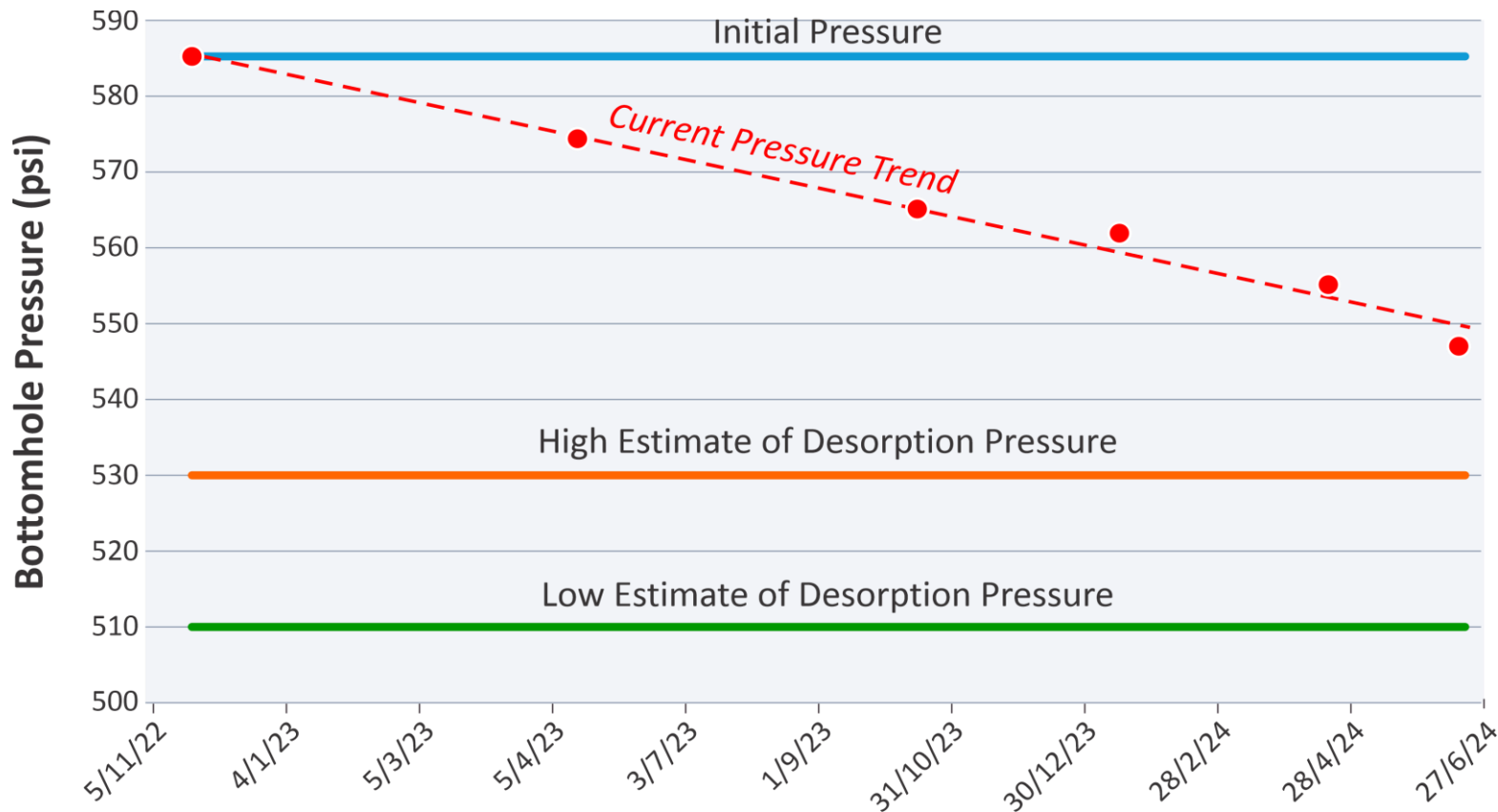
- Mongolia's first CBM pilot - commenced in late 2022
- Early gas flows - likely due to dual porosity/perm
- Meaningful gas production from coal desorption requires de-pressurisation from longer term water production from what are now 3 pilot wells
- Applying careful monitoring of water production rates to minimise formation damage and wellbore “skin” - and ultimately improve gas rates

## Goals for 2024

- Continue to produce water and lower reservoir pressure
- Predicting gas breakthrough as early as end of 2024
- Additional investment to get to gas breakthrough assessed currently as not being required



# Reservoir Pressure Falling Steadily



# Summary



The World needs more gas for longer – now explicitly recognised by Govt policy



The East Coast has 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



Early success from Elixir with a stabilised flow rate from the Lorelle Sandstone



The Daydream-2 program will aim to add to this flow rate in the next few months – aiming for commerciality

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