## **Exploring for Gas in the Heart of Asia**





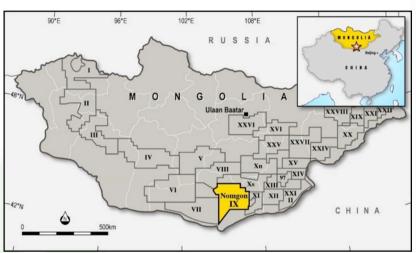
Investor Presentation – June 2019



# **Company Overview**

- ASX listed gas explorer focused on the 100% owned Nomgon IX CBM PSC located in the South of Mongolia
- Located proximate to the rapidly growing and high priced Chinese gas market
- The 7M acre PSC lies over a major Permian coal bearing region
- Certified CBM risked prospective resource of 7.6 Tcf (best case)
- Active exploration program in 2019
- Highly experienced CBM team

Focused on giant gas prospective resource proximate to Chiną







### **Corporate Snapshot**

| BOARD MEMBER                                     | EXPERIENCE   | CAPITAL STRUCTURE                     | Current (million) |
|--|--|---------------------------------------|-------------------|
|  |  | Ordinary Shares (ASX:EXR)             | 487.2             |
|  | • Ex-MD of QGC, taking it from \$20M   | Unlisted Options (ex 3.29 cents)      | 8.0               |
| Richard Cottee<br>Non-Executive                  | <ul> <li>market cap to \$5.7B</li> <li>Other CEO positions include CS<br/>Energy, NRG Europe &amp; Central</li> </ul>  | Listed Options (ex 6.79c by 31.12.20) | 110.7             |
| Chairman   |  | Performance Shares (Milestones)       | 32.5              |
|  | Petroleum  | Market Capitalisation (at 4c)         | \$19.5            |
|  | As Santos Manager Business   | Cash at Bank (per ASX of 15 May 2019) | \$4.8             |
| Neil Young<br>Managing Director                  | Development, undertook numerous<br>transactions to build up its CSG  | Enterprise Value                      | \$14.7            |
|  | <ul> <li>business</li> <li>Has worked in Mongolia since 2011<br/>to acquire Nomgon PSC</li> <li>Extensive technical and commercial<br/>career at Santos, including managing</li> </ul> |                                       | •                 |
|  |  | SHAREHOLDERS                          | Percentage        |
|  |  | Board                                 | 7.5%              |
| Stephen Kelemen<br>Non-Executive<br>Director     |  | Substantial shareholders              | None (MD = 4%)    |
|  | its CSG business   | Тор 20                                | 30.9%             |
|  | Current NED at Galilee Energy  |                                       |                   |
| Dougal Ferguson                                  | Senior commercial roles over many  | PERFORMANCE SHARES                    | Shares            |
| Non-Executive<br>Director &<br>Company Secretary | years in a number of oil & gas<br>companies such as Arc, Salinas, Hess,<br>Premier, etc  | Drill 2 CBM wells                     | 15                |
|  |  | FID approval on Pilot Plant           | 17.5              |
|  | Prior MD of Elixir   | Total                                 | 32.5              |

Highly experienced CBM team



# Nomgon IX CBM PSC

- CBM PSC signed in September 2018 with a 10 year+ exploration term
- 100% ownership and no back-in rights
- The Mongolian PSC has fiscal and other terms designed for unconventional petroleum
- South Gobi hosts Permian coals

| Exploration term      | 10 – 15 years            |  |  |
|-----------------------|--------------------------|--|--|
| Production term       | 30 years +               |  |  |
| Royalty               | 5 — 10 %                 |  |  |
| Govt share of profits | Up to 40%. No income tax |  |  |
| Back-in rights        | None                     |  |  |



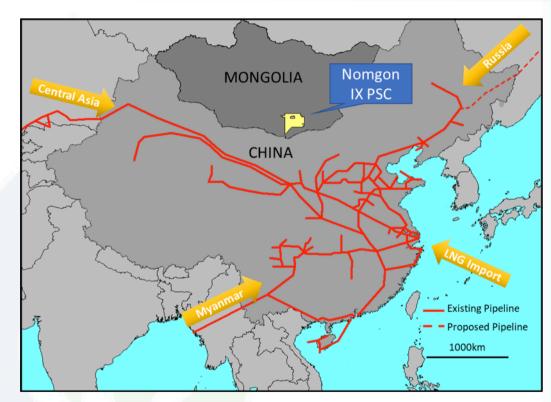


PSC gives long term and robust tenure over licence area



# **Next Door to China's Gas Market**

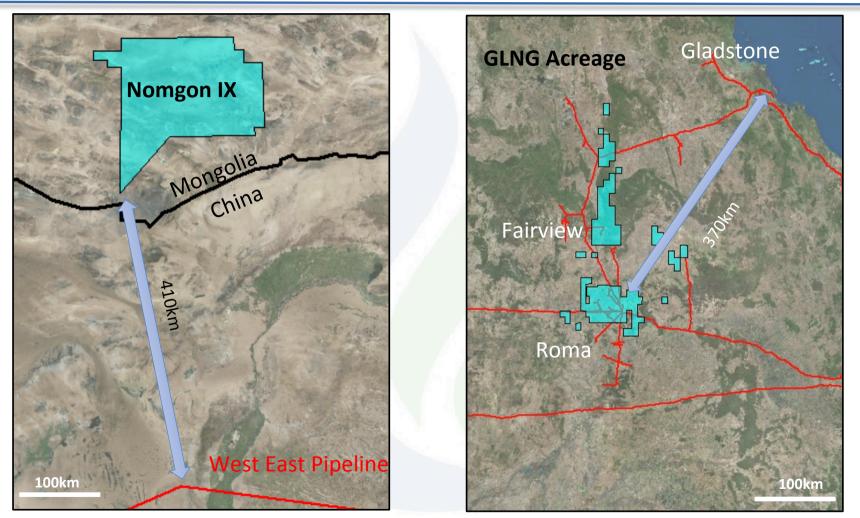
- The Nomgon IX CBM PSC is located immediately proximate to the Chinese border
- China imports gas from every direction and seeks to continually diversify its sources of supply
- Mongolian CBM expected to be highly cost competitive compared to alternative sources of gas for China
- The Chinese Government plans to increase gas demand by 300% in 15 years
- Mongolia has a growing economy with a desire to reduce pollution



#### Mongolian CBM expected to be highly cost competitive

#### **Acreage Comparison with Santos GLNG**





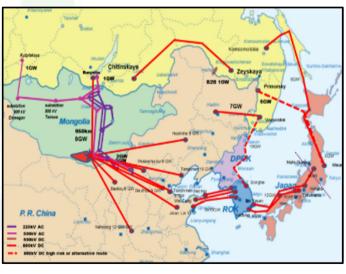
Export scale acreage package



# **Multiple Channels to Market**

- Sales by export pipeline are only one market option for gas from the Nomgon PSC
- The massive Oyu Tolgoi mine (inside the PSC) needs new power generation
- Existing large scale electricity transmission running through the PSC has large spare capacity
- The Asian Super Grid project plans massive new transmission lines through the Gobi
- Gas complements the high quality renewable resources in the Gobi
- Mongolia generally has a growing economy with a desire to reduce pollution



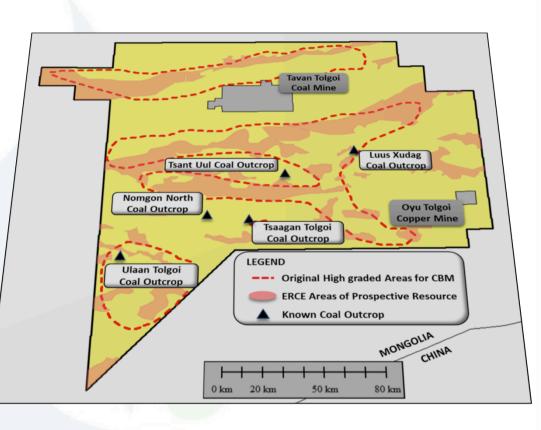


The Gobi is far less remote from markets than rural Australia 7



# **Nomgon IX - Permian Coal Bearing Region**

- Data from Tavan Tolgoi indicate gas contents of up to 15m<sup>3</sup>/ tonne (480 cf/ton)<sup>1</sup>, at depths of 467 metres below surface (high by world standards)
- Late Permian aged coals (Tavantolgoi Group) from surface to >1000m depth with individual seam thickness up to 55 metres)<sup>2</sup>
- 40 TCF (unrisked) mapped as a prospective resource by ERCE<sup>3</sup>
- Nearby infrastructure at Tavan Tolgoi Coal Mine and Oyu Tolgoi Copper–Gold Mine



#### Mapped Permian depocentres are the high-graded focus areas

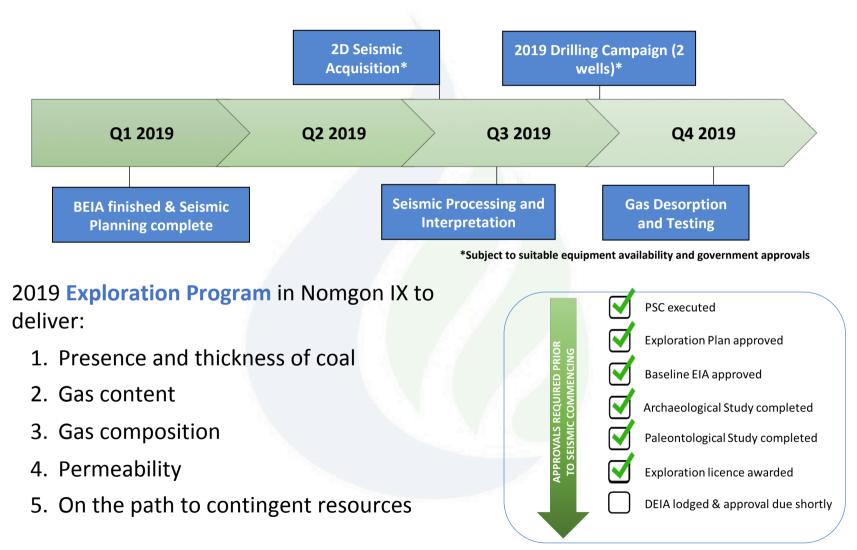
<sup>1</sup> Source: Erdenes Methane LLC

<sup>2</sup> Source: Nordic Geological Solutions

<sup>3</sup> Source: ERCE, See Appendix 1



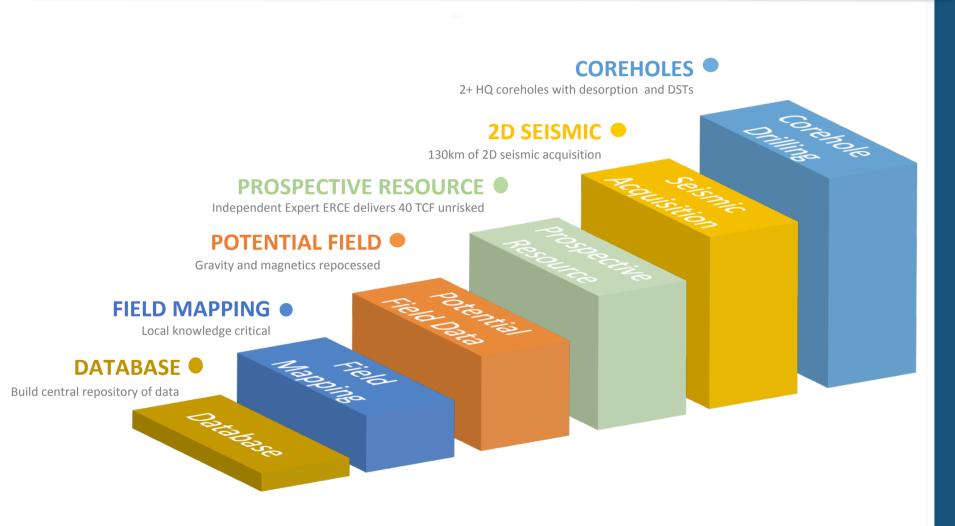
# **2019 Exploration Program**



#### Proof of Concept in 2019



# **Exploration Proceeding to Proof of Concept**



Rapid progress through to drilling



# **Road to Contingent Resource Booking**

|                   | Activity   | Outcome  | Resource Categorisation<br>Upon Success                                       |  |
|-------------------|--|--|---|--|
| Completed         | Geological Modelling                                 | 40 TCF unrisked) Recoverable<br>(Best Case)*<br>COS: 19% *                   | Prospective Resource (Lead) <sup>1</sup>                                      |  |
| eted              | Additional Data from Mineral<br>Exploration Programs | More evidence of coal - COS could increase                                   | Upgrades Prospective Resource <sup>2</sup>                                    |  |
|                   | 2D Seismic Acquisition                               | Map coal over a larger area  | Upgrades Prospective Resource <sup>2</sup>                                    |  |
| Remainder of 2019 | Core Drilling and Core Recovery                      | Total Gross Coal thickness   |   |  |
|                   | Laboratory Core Desorption                           | Gas Content and Gas<br>Composition & Adsorption<br>Isotherm (gas saturation) | Success case delivers a DISCOVERED  |  |
|                   | Core Proximate Analysis                              | Dry Ash & Moisture Content   | PETROLEUM ACCUMULATION which<br>could be a Contingent Resource <sup>2</sup> – |  |
|                   | Wireline Logging                                     | Total net coal thickness and distribution                                    | this will be independently verified<br>around year end                        |  |
|                   | Drill Stem Testing and<br>Injectivity                | Flowability and permeability measurements                                    |   |  |

\* Refer Appendix 1

<sup>1</sup> Independently Verified by ERCE

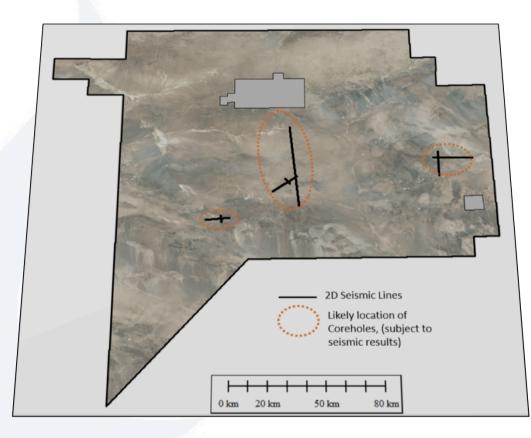
<sup>2</sup> Internal estimate

**Targeting Contingent Resources** 

# **Upcoming Operations in Nomgon IX**



- 100 130 km of 2D seismic over key CBM leads
- > 2+1 drill-holes with:
  - Full HQ coring
  - Desorption
  - Wireline Logging
  - DST/IFOT
- A successful program delivers:
- Extensive presence of coal seams on seismic
- Gas content, saturation, etc
- Permeability and flowability



#### All Elements in Place to Commence Exploration

# What to Expect from Upcoming Operations

- Targeted 2D Seismic Acquisition
- Acquisition ~30 days, Processing 20 days, Full interpretation 20 days
- > Fast track field processing every week
- Fast track Data used to site coreholes
- Corehole Drilling
- ~15 days per well including ~300-400m of coring
- Cores captured for immediate desorption testing
- Wireline logs acquired to determine net coal thickness
- Drill Stem Testing to determine flowability and permeability (likely measuring water influx to wellbore)
- Wells to be P&A'd











- Gas explorer focused on the high priced and growing Chinese gas market
- Massive PSC with very large prospective resources
- Multiple channels to market
- Fully funded initial exploration program in 2019
- CBM exploration is capital efficient
- Aiming to book contingent resources by year end
- > 100% ownership position maximizes optionality
- Team with history of success in CBM

EXR Represents a Highly Favourable Risk-Reward Proposition 14

#### **Contact Us**





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# **Appendix 1:**

# **Independent Prospective Resource Report**



- First independent prospective resource report completed by ERC Equipoise Pte Ltd (ERCE)\*
- Giant resource identified with Geological Risk likely to be significantly reduced following 2019 exploration programme (2D seismic and core hole drilling)
- ERCE report independently validates world class potential of the Nomgon IX CBM PSC and the "size of the prize"

| Nomgon IX CBM PSC: Mongolia (EXR:100%)     |      | Low  | Best | High  |
|--|------|------|------|-------|
| Probablistic Calculations                  | Unit | (1U) | (2U) | (3U)  |
|  |      |      |      |       |
| Unrisked Recoverable Prospective Resources | TCF  | 13.6 | 40.1 | 117.2 |
| Geological Chance of Discovery             | 19%  |      |      |       |
| Risked Recoverable Prospective Reosurces   | TCF  | 2.6  | 7.6  | 22.2  |

\* Cautionary Statement: The estimated quantities of petroleum that may be potentially recovered by the application of a future development project relate to the undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Futher exploration, appraisal and evaluation are required to determine the exisitence of a significant quanity of potentially movable hydrocarbons.

\*Refer to ASX announcement dated 19 November 2018. The Company is not aware of any new information that materially affects the information in that announcement.

# Appendix 2: The Bowen and South Gobi Basins Compared



| Properties                    | Bowen Basin<br>(Queensland)  | South Gobi<br>(Mongolia)  |              | Comments   |
|-------------------------------|--|---|--------------|--|
| Seam thickness                | Maximum single seam thickness 30m  | >55m found in multiple locations  | $\checkmark$ | World class seam thickness and hence very high GIP per acre              |
| Gas content                   | 7-14 m <sup>3</sup> /tonne in most productive areas                                | Up to 15m³/tonne at<br>Tavan Tolgoi   | $\checkmark$ | High gas content   |
| Permeability                  | Varies from 2-600MD  | Unknown, but coal<br>samples show good<br>cleat formation with no<br>calcite                      | ?            | Requires corehole testing  |
| Presence of coal<br>at depth  | Considered optimally<br>productive down to<br>900-1,000m, with potential<br>deeper | Vast acreage position<br>and evidence of<br>substantial area with<br>thick coal seams <<br>1,000m | ~            | Compares favourably to world class<br>CBM basins                         |
| Coal quality – ash<br>content | Varies significantly but is<br>~30% in the most<br>productive fields               | ~24% ash content  | $\checkmark$ | Within ideal range   |
| Coal quality -<br>rank        | Sub-bituminous to<br>bituminous  | Sub-bituminous to<br>bituminous   | $\checkmark$ | Analysis shows VR consistent with coals that have undergone gasification |



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Information contained in this report with respect to the potential of the Mongolia PSC area was compiled by Elixir based on independent reports and was reviewed by Mr Greg Channon, technical adviser to Elixir who has had more than 30 years' experience in the practice of petroleum geology. At this time, Elixir and Mr Channon make no representations or forecasts with respect to the potential prospective resources that may be associated with the Mongolian PSC area.

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