South Australian Cooper-Eromanga and Otway basins acreage releases

Tony Hill, Energy Resources Division
South Australian Department for Energy and Mining

PESA Deal Day, 27th May 2019, Brisbane
State of play in SA

- SA and Qld Cooper-Eromanga basins remain Australia’s largest onshore oil and gas producer
- Huge potential for gas in Cooper Basin unconventional reservoirs, including the world’s deepest coal seam gas
- Work program bidding in Cooper & Otway, application fee $4,444 plus CPI adjustment 1/7/19.
- Over-the-counter applications elsewhere
Cooper Basin Acreage Release Blocks CO2019 A - E

Cooper Basin Acreage
Release Blocks CO2019 A-E

- 5 blocks now open for competitive work program bidding for PELs with 3 five year terms
- Oil and gas shows within acreage release areas and oil gas production in adjacent areas
- Myriad of conventional and unconventional oil and gas plays
- Potential for Warburton Basin plays

<table>
<thead>
<tr>
<th>Block</th>
<th>Total Area (km²)</th>
<th>Wells within blocks</th>
<th>2D Seismic (Line km)</th>
<th>3D Seismic (km²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO2019-A</td>
<td>9892.9</td>
<td>3</td>
<td>2163.7</td>
<td>8.1</td>
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<tr>
<td>CO2019-B</td>
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<td>2</td>
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<td>CO2019-C</td>
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<td>CO2019-D</td>
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<td>899.6</td>
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<td>CO2019-E</td>
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<td>5</td>
<td>687.0</td>
<td>14.4</td>
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<td>13,582.3</td>
<td>11</td>
<td>6,078.8</td>
<td>407.3</td>
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</table>
Cooper Basin Acreage
Release Blocks CO2019 A-E

- Block CO2019-A and portions of CO2019-B are adjacent to Proven Oil Play Trend (POPT) but remain poorly explored
- Block CO2019-B lies in part within the POPT
- Block 2019-C lies in part within the POPT and Proven Gas Play Trend (PGPT)
- Block CO2019-D lies with the Basin Centred Gas Play trend
- Block CO2019-E lies within POPT and in part is adjacent to PGPT
- Potential for Warburton Basin plays in all blocks

Bids close Friday 29 November 2019
Upcoming Cooper Basin PEL expiries

Expiry year
- 2019
- 2020
- 2021
- 2022
- 2023
- 2024

Relinquish upon renewal
- Third
- Half
- All

Oil & Gas licences
- Production
- Retention
- Exploration – application
- CO2019 release – bids close 29 November 2019

Pipelines
- Gas
- Gas & liquids
- National Park – no petroleum access

Western Flank Oil play trend
Gas plays

Department for Energy and Mining
Otway Basin Acreage Release Blocks OT2019-A to C

Otway Basin Acreage Release
Blocks OT2019 A-C

• 3 blocks now open for competitive work program bidding for PELs with 3 five year terms
• Oil and gas shows within acreage release areas and historical gas production in adjacent areas
• Potential for conventional Early and Late Cretaceous oil & gas plays
• Beach’s Haselgrove 3 ST1 PACE gas discovery heralds new Sawpit Sst play trend – 87 PJ 2C resource

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<th>Primary target</th>
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<td>18</td>
<td>3727.0</td>
<td>72.1</td>
<td>E. Cretaceous</td>
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<tr>
<td>OT2019-B</td>
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<td>OT2019-C</td>
<td>1460.9</td>
<td>11</td>
<td>1430.4</td>
<td>93.3</td>
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Otway Basin Acreage Release
Blocks OT2019 A-C

- 3 wells to be drilled in 2019 – Haselgrove 4 appraisal well and PACE Gas wells: Dombey 1 & Nangwarry 1
- Pipeline infrastructure - access to SE Australian gas market
- New Katnook Gas Processing Facility under construction targeting first gas Q4 2019/Q1 2020
- Caroline 1 – Air Liquide CO₂ well decommissioned. Produced up to ~60 bbl heavy oil/yr since 1968.
- Block CO2019-C includes recent relinquishment of PPL21 (excluding 1km² for Caroline CO₂ Plant) – potential for Late Cretaceous Waarre Sst oil play away from master fault. No seismic since 1990 over PPL21.

Bids close Friday 29 November 2019
10 Year Moratorium on Fracture Stimulation in the Limestone Coast Region

The Petroleum and Geothermal Energy (Ban on Hydraulic Fracturing) Amendment Bill 2018 was proclaimed on 1 November 2018. Hydraulic fracturing across the Limestone Coast Region has been banned for a period of 10 years. [http://energymining.sa.gov.au/petroleum/latest_updates/10_year_moratorium_on_fracture_stimulation_in_limestone_coast_region_sa](http://energymining.sa.gov.au/petroleum/latest_updates/10_year_moratorium_on_fracture_stimulation_in_limestone_coast_region_sa)

However it is business as usual for conventional petroleum exploration and development.

In 2018, the State Government partnered with the Commonwealth Scientific and Research Organisation (CSIRO), through the Gas Industry Social and Environment Research Alliance (GISERA), to undertake social and environmental research on the potential impacts and opportunities of onshore gas development on the environment and communities in the Otway Basin in South Australia's South East. For more information go to: [https://gisera.csiro.au/states/sa/](https://gisera.csiro.au/states/sa/)
Easy access to data

Free Downloads:
- WCRs - include scanned mudlogs & composite logs
- Well log LAS files
- Digital well logs + images
- 2D & 3D seismic data
- Maps, GIS - Cooper isolith, isopach, gas wetness etc.
- Core & thin section photo databases via free downloads
- SARIG – our online spatial database.

OT2019 & CO2019 Acreage Release brochures contain dedicated cloud storage link to selected basin specific datasets including SEG-Y seismic data, logs, reports, GIS Project etc.

Other data:
- Field, edit tapes, cased hole, digital mudlogs, image logs – free web access to logs via PEPS online in future
- Core and cuttings available for viewing and sampling
15 November 2019  |  InterContinental Hotel  |  Adelaide

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Any company or organisation that operates in South Australia's minerals, petroleum, quarrying, METS and energy sectors is eligible to apply.

South Australia’s door is open.

- Rated most attractive petroleum jurisdiction in Australia by Fraser Institute
- Cooper Basin remains Australia’s largest onshore oil and gas province
- Bight Basin attracting billions in exploration investment
- A framework placing local companies into a global supply chain

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