

ASX:EEG

Beetaloo Operations Update

22 August 2022



Level 17, 123 Pitt Street
Sydney NSW 2000

Carpentaria-2H Continues Strong Production with Minimal Decline

- **Average of 2.6 million standard cubic feet (mmscf) per day sustained flow rate achieved over the first 13 days of flow testing with negligible decline**
- **Flow rate was achieved from 927m effective stimulated horizontal length indicating a normalized rate of 2.8 mmscf / day per 1,000m of horizontal section**
- **Peak rate of > 11 mmscf / day achieved after a 2 day shut-in to change wellheads and monitor pressure build up following which the well returned to trend production rate as expected**
- **Currently producing at 2.5 mmscf / day at a stabilised rate, with water flowback rate gradually declining**
- **Flow testing is continuing and the data collected and analysed will be incorporated into the completion design for the upcoming Carpentaria-3H on the same well pad**
- **Gas composition data and zonal contribution (i.e. which stimulation stages are generating the greatest contribution to flow rate) expected in coming weeks**
- **Preparations for Carpentaria-3H drilling and hydraulic stimulation, and Carpentaria-4V drilling, continue according to plan**
- **Current cash at bank A\$38.7 million**

Empire Energy Group Limited (“Empire”) is pleased to provide shareholders with an update regarding the ongoing flow testing of the Carpentaria-2H (“C-2H”) well in Empire’s 100% owned and operated EP187 tenement, located in the Northern Territory’s Beetaloo Sub-basin.

Extended production testing (“EPT”) of C-2H has continued with gas flowing at an average rate of 2.6 mmscf / day over the first 13 days of the EPT (a normalised rate of 2.8 mmscf / day per 1,000m horizontal section). The well is currently flowing at 2.5 mmscf / day.

Following a period of initial “clean-up”, the well was shut-in for 2 days to replace the hydraulic stimulation wellhead with a flow testing wellhead and to monitor pressure build-up. During the shut-in the formation pressure built very quickly to 1,275 psi from 185 psi before shut-in, which indicates excellent reservoir connectivity. Following the shut-in, the well recommenced

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production at >11 mmscf / day prior to returning to a stabilised rate of 2.5 mmscf / day for the last 7 days.

Modifications to the C-2H flowback pipework undertaken during shut-in will allow the EPT to continue while Carpentaria-3H drilling commences on the same well pad later in Q3 2022.

Flow testing continues at C-2H.

This ASX release has been authorised by the Board of Directors

For queries about this release, please contact:

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Disclosures under ASX Listing Rule 5

- LR 5.30 (a)** Carpentaria-2H is a shale gas well
- LR 5.30 (b)** Carpentaria-2H is located in Empire's wholly owned and operated EP187 tenement, located in the Beetaloo Sub-basin in the Northern Territory
- LR 5.30 (c)** Empire holds a 100% working interest and operatorship in Carpentaria-2H
- LR 5.30 (d)** N/A
- LR 5.30 (e)** The Carpentaria-2H horizontal section has been drilled in the B Shale of the Velkerri Formation
- LR 5.30 (f)** The depths of zones tested range from 1,585 to 1,594 metres True Vertical Depth (TVD) referenced to Rotary Table (6.9 m above ground level). The zones tested are along a 927-metre stimulated horizontal section
- LR 5.30 (g)** Flow testing of the well following the hydraulic stimulation of Carpentaria-2H. 13 days duration to date (as at 5am Australian Central Standard Time on Monday 22nd August 2022) with flow testing ongoing
- LR 5.30 (h)** Hydrocarbon phases have not yet been assessed as gas composition will take several weeks to analyse, however mud log data indicates that methane is the dominant hydrocarbon phase of produced gas
- LR 5.30 (i)** 26,992 barrels of flowback fluid has been recovered to date, representing 33% of total injected water. During the 13 days of measured gas flow, the rate of fluid flowback declined from ~1,500 bbl / day to ~250 bbl / day and continues to decline
- LR 5.30 (j)** The orifice plate size is 2 1/8"
- Gas flow from Carpentaria-2H has stabilised at an average rate of 2.6 mmscf per day across the stimulated horizontal section of 927 metres with minimal decline in production rate to date (a normalised rate of 2.8 mmscf per day per 1,000m) over the first 13 days. The well is currently producing at 2.5 mmscf per day
- LR 5.30 (k)** Wellhead pressure has ranged from 165 psi – 1,275 psi. Test duration 13 days to date (as at 5am Australian Central Standard Time on Monday 22nd August 2022). Flow testing is ongoing.
- LR 5.30 (l)** 21 stages along an effective stimulated horizontal length of 927 metres (3,041 ft). 7 slickwater stages, 8 crosslink stages, 4 hybrid stages and 2 HVFR stages were executed with a total of 6,283,200 lbs of proppant (sand) placed representing proppant concentration of 2,066 pounds per foot
- LR 5.30 (m)** Gas samples are being taken and will be analysed for gas composition including total inerts. Empire expects inert gas composition to be in line with Carpentaria-1 data which had ~3% inerts including <1% CO₂
- LR 5.30 (n)** N/A