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Strengthening Marginal and Mature Field Ecosystems: Technology, Innovation, and Collaboration

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Reassessing High CAPEX Plan: Optimizing Gas Lift Sustainability in Mature Offshore Assets Through Low-Cost Reservoir Interventions

Azmir Bakhtiar Bahari, Amjad Hussain, Hamed Hassani, Imtiaz Ahmad M Rafiq, Fauziah Ismail, Ibrahim Subari

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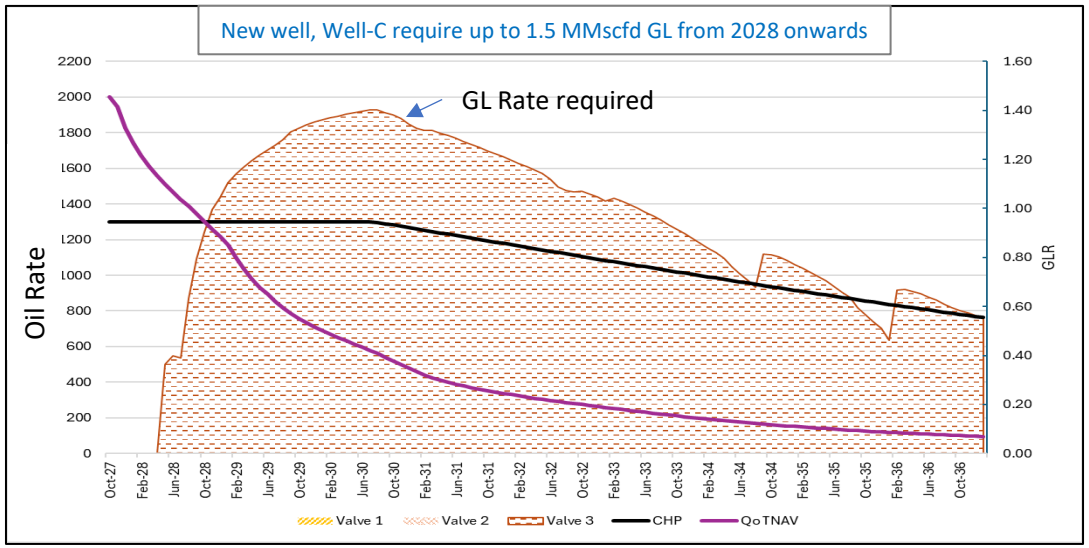
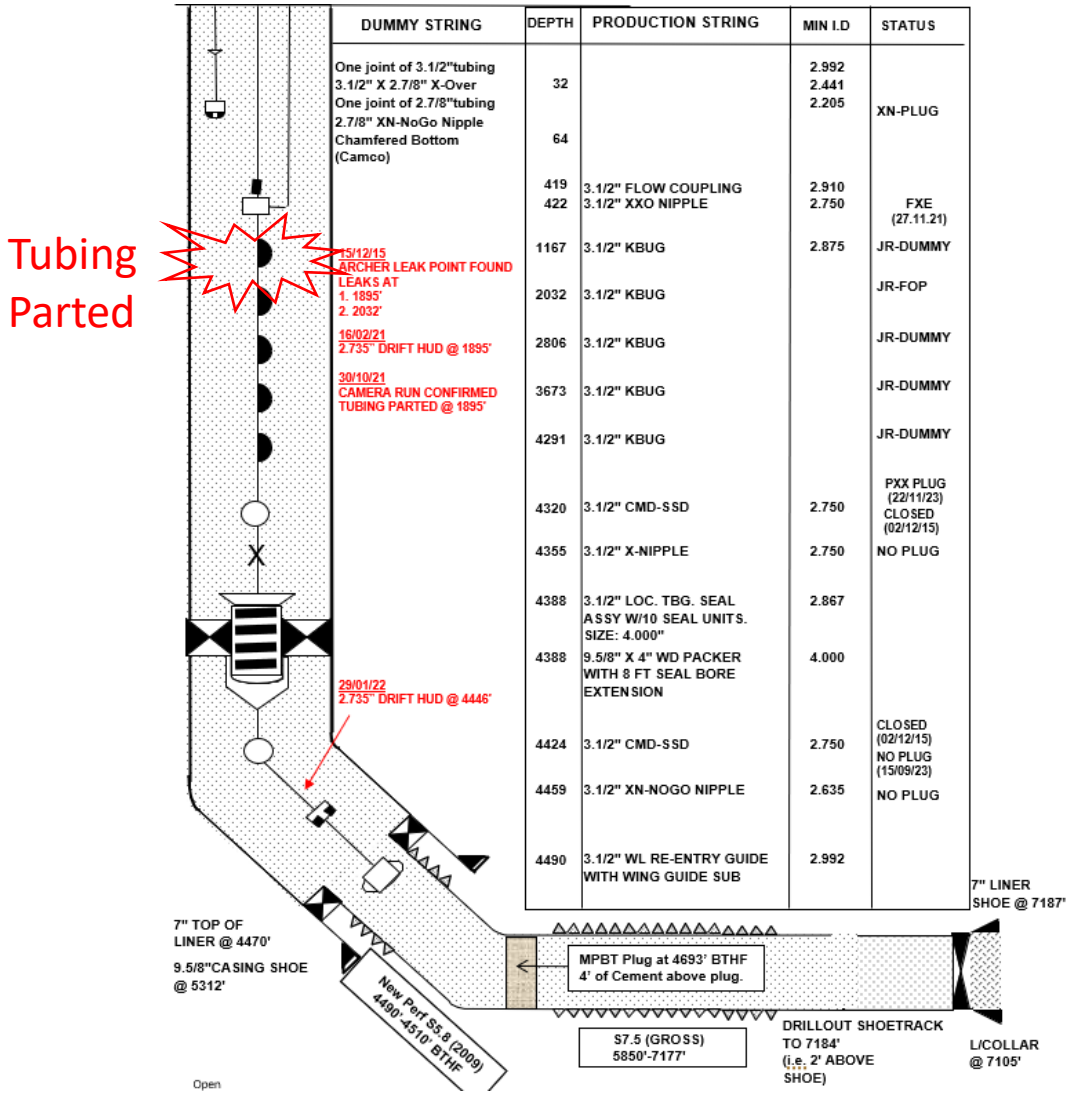
Background & Challenges

- Platform C at Field D does not have external gaslift source and the existing wells rely on Well-A for well-to-well gaslift and the new infill well (Well-C) from Oil Redev Ph3 require continuous gaslift from March 2028.
- Tubing parted was detected in 2022 and Well-A was shut in since Jul 2023.
- Prior to NAG Development, Well-B was identified for workover for future gas lift to replace Well-A, which planned to be done with Oil Redev Ph3 campaign in 2026-2027.



Well-A Diagram

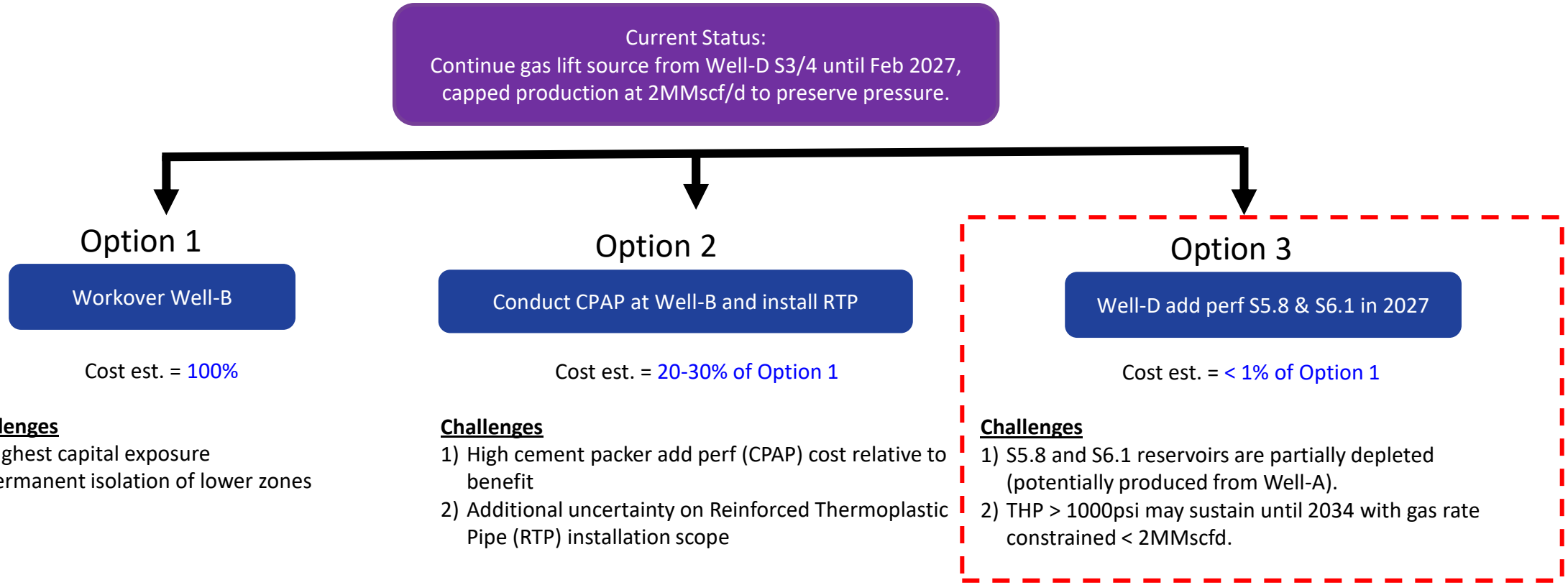


Previous solution (2024)

- **Short term solution:** Identified **Well-D for gaslift supply for at least 2 years until Feb 2027** before it depleted and low pressure.
- After that, there will be **loss of production from gaslifted wells (~1000 bopd)** and **potential threat to low feed gas to compressor** as the existing wells have high GOR production.
- **Long term solution:** Fast track surface modification in preparation for Well-B workover to safeguard oil production from Platform C.

Latest solution (2025 revisit)

- Workover cost for Well-B is CAPEX intensive, 100 % (Option 1-reference case)
- Team revisited all technical options as below:



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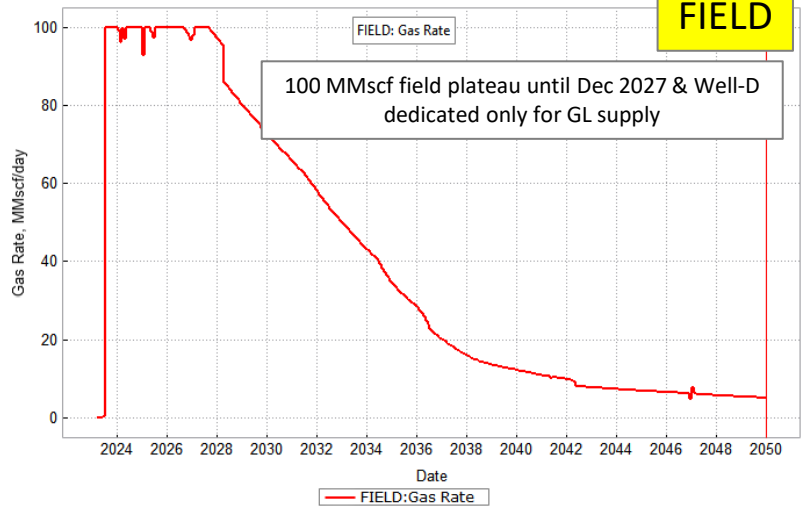
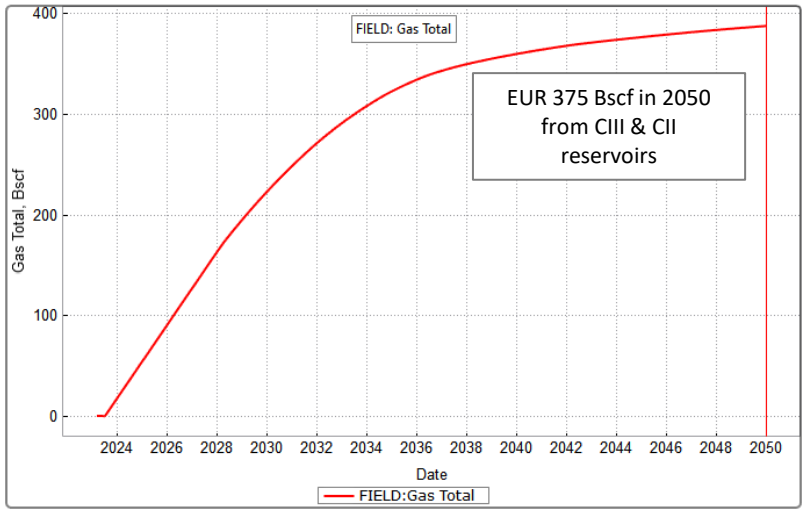
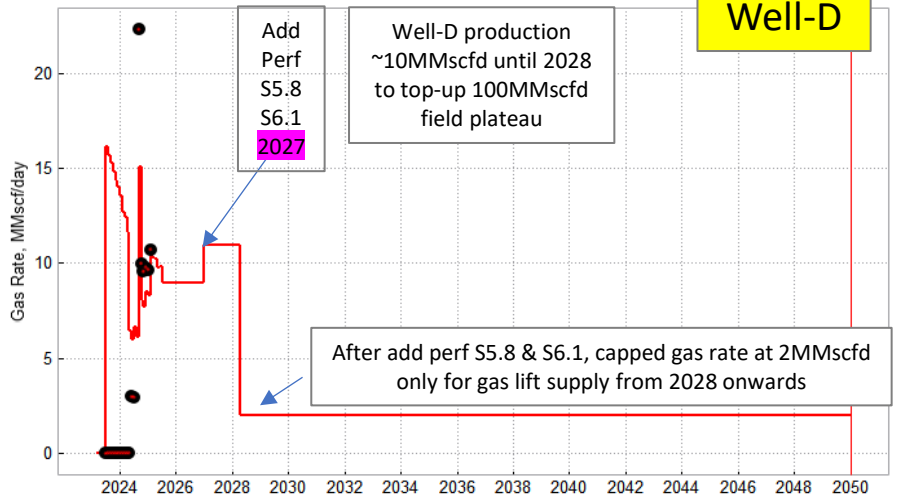
THP Matching & Forecast

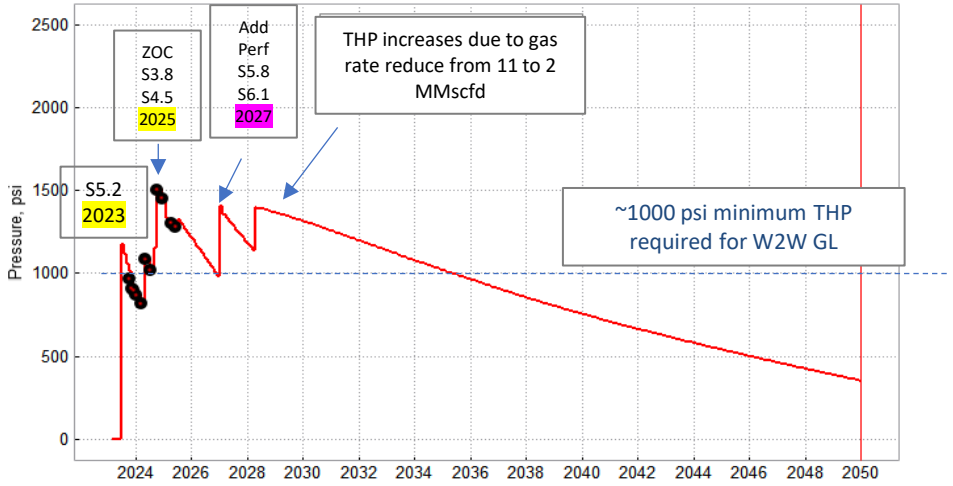
FIELD





Well-D





Basis & assumptions:

1. Matched THP data all NAG wells as of July 2025.
2. Reasonable match obtained on the production data (within the range recorded in production database and WGM) until July 2025 for all NAG wells.
3. THP data is consistent therefore used as HM control mode.
4. Field 100 MMscfd plateau estimated until Dec 2027
5. Well-D to add perf S5.8 and S6.1 in 2027 and gas rate constrained < 2MMscfd from 2028 onwards for GL supply.
6. S5.8 and S6.1 are not perforated / produced from any Gas Ph2 wells, with reservoir pressure ~1700 psi (taken in 2022).

Conclusion

- Additional Perforation in Well-D at S5.8 & S6.1 reservoirs (Option 3) by 2027 is identified as a low-cost solution to sustainably safeguard the production from 2028 onwards.
- The solution delivers the required gas lift supply (~2 MMscfd) without the need for major well intervention.
- Well-B workover is no longer required, resulting in significant capital avoidance when benchmarked against the full workover reference case.
- Overall, the selected approach provides the most cost-effective and lowest-risk solution while preserving long-term production sustainability for Platform C.

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Thank You