

TECHNICAL DUE DILIGENCE REVIEW CASE STUDY

Trans-Asia Petroleum Corporation

North Perth Basin, Australia

AWT DISCIPLINES

Geology

Geophysics

Reservoir Engineering

Petrophysics

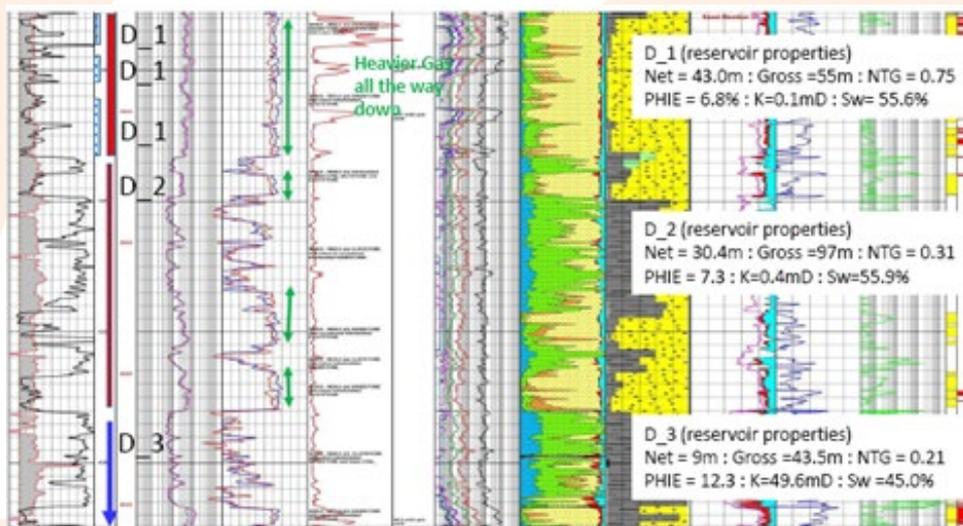
Project management

GIS

PROJECT BACKGROUND

Trans-Asia Petroleum Corporation (Trans-Asia) engaged AWT International (AWT) to undertake a review of potential farm-in opportunities within the South East Asian and Australia-Pacific regions.

The investment process was to be undertaken in multiple phases to enable a stage-gated approach in decision-making.



AWT WORKSCOPE

In Phase 1 of the investment review process, AWT identified potential investment assets, which were narrowed down in accordance with Trans-Asia's investment parameters. As a result of the Phase 1 process, an Empire Oil & Gas asset was identified as one of the assets with potential for investment.

The Red Gully field (located approximately 150km North of Perth) commenced production in 2013 and produced conventional gas and condensate liquids. At the time of the review, the field was operating close to capacity of 10TJ/day of gas and 300bbl/day of condensate. Trans-Asia requested AWT to initially undertake a technical due diligence (Phase 2A) of the Empire's North Perth Basin assets, which were as follows:

- Red Gully (L18 and L19);
- Red Gully North (EP389);
- Lockyer Deep / North Erregulla (EP368/462); and
- Raven (EP432).

No assessment of commerciality or value of these assets and facilities was undertaken in this Phase 2A.

AWT ADDED VALUE

A review of the static and dynamic GIIP and gas reserves for the B sand indicated that they are consistent with the booked reserves as reported by RISC, 2015. To date the reservoir energy for the B sand is depletion driven.

However, B sand GIIP was potentially be larger than reported and had the potential to produce a larger gas quantity since the connected volume was assessed based only on the data from one well. An additional offtake point away from the drained area in the B sand structure may provide additional gas reserves.

For more information contact:

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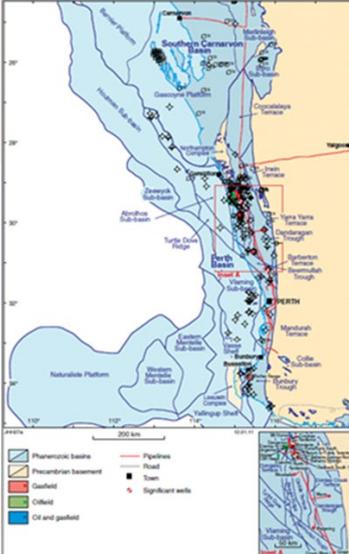
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Potential Risk	Consequence	Probability	Severity
Diagnostic test does not establish conclusive flowpath via the 7" x 9-5/8" annulus.	Inconclusive test will not produce a measureable temperature change inside the tubing and, therefore, no useful data to help plan the remediation work.	Likely – with no flow from shallow formations to zone D via the 7" x 9-5/8" annulus, any temperature change observed on the gauge will be associated with flow from C and D zones	Minor – no significant cost increase to remediation work program. Equally, no useful data obtained from inconclusive test.
Low pressure circulation squeeze is not possible due to lack of communication between C and D zones	Poor communication between the zones will limit the remediation option to a high pressure circulation squeeze (block squeeze)	Possible – given the level of ambiguity in logs, drilling operations, cement reports and well test information.	Major – significant cost increase to remediation work program. Several attempts may be needed to achieve zonal water isolation
High pressure circulation squeeze does not achieve zonal water isolation (consequence of an inability to perform low pressure circulation squeeze)	Failure to isolate water zones will result in the production of formation water. Subsequently, the well does not produce sufficient commercial hydrocarbons.	Possible – given the imprecise nature of remedial cementing and the unknown nature of cement flow under high pressure squeeze.	Critical – remediation work has not achieved its objective to isolate water zone.

Based on the AWT risk assessment, the Lockyer Deep / North Erregulla deep prospect was drill ready and has a moderate to good chance of success.

The AWT risk assessment indicated the Raven prospect should not be drilled until the closure is better defined and reservoir quality and charge are better understood through further analysis, as outlined in the recommendations for future work section. With the estimated COS, the well was highly likely to be dry.

In summary, AWT's assessment determined that:

- The Red Gully static and dynamic GIIP and gas reserves for the B sand indicates that they were consistent with the booked reserves as reported by RISC, 2015;
- The Red Gully B sand GIIP was potentially greater than reported and has the potential to produce a additional gas volumes;
- The Lockyer Deep and North Erregulla Deep prospects were ready to drill;
- The Raven prospect was not ready to drill; and
- A remedial cement job is inevitable for Red Gully North, but it is still possible that the water production problem may not be completely cured, even after conducting the diagnostic and remedial work.
- Recommended that Trans-Asia progress towards the Phase 2B Commercial Assessment.

AWT risking of exploration targets

Prospect	Reservoir	Source Migration	Trap	Seal	Overall COS
Lockyer Deep / North Erregulla Deep	0.40	0.95	0.90	0.80	0.27
Raven	0.25	0.20	0.40	0.80	0.02