

Case Study – Zenith Optimises Goudron Field Operations reducing Well Times by 50%

Client: LGO Energy/ Goudron E&P Limited
Project: Goudron Development Operation Optimisation
Location: Trinidad, WI

Project Objectives

- Optimise planning and execution of operations in the Goudron field to minimise NPT and ensure all wells are delivered on time and on budget,
- Carry out a rig selection study to ensure wells are being drilled efficiently and cost effectively.
- Carry out an evaluation of the drilling fluid system to economically drill the proposed wells with minimal issues.
- Carry out a rig selection study to identify the most economical way to drill the wells.
- Aid with the planning of future wells to eliminate operational problems.

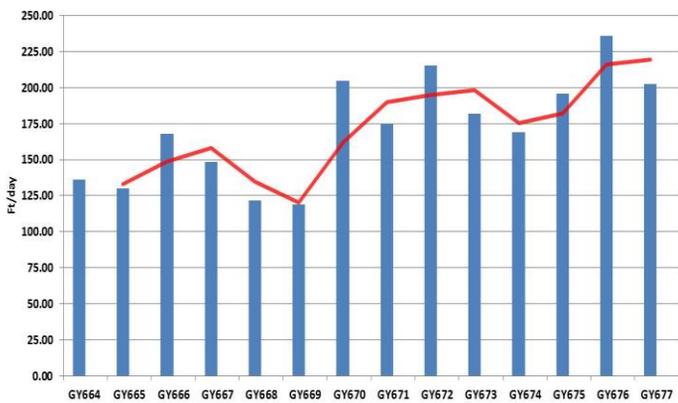
Method

Prior to Zenith Energy assisting with operations at the Goudron Field, poor well design, lack of planning and poor drilling practice had led to multiple issues which had caused wells to be delivered late and over budget. Zenith evaluated the previous 8 wells drilled by LGO drilling team in Trinidad and employed their vast experience and knowledge to optimise drilling operations at the rig site.

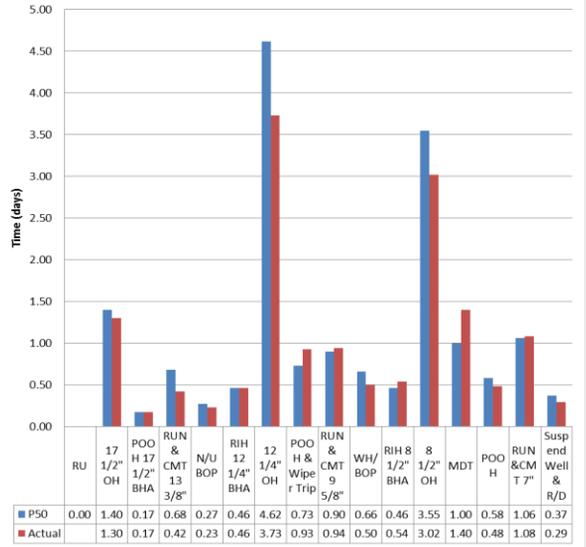
NPT reviews of all wells drilled were carried out and all issues were addressed with refinement of drilling practices and/ or control measures put in place to prevent a reoccurrence i.e. clayseal in the mud system. Issues with swelling clays led to a review of the mud system which resulted in the addition of clayseal and operating of the mud at the higher end of its rheology which worked successfully.

A rig selection study was carried out to ensure the rig being used was fit for purpose and cost effective to drill the wells in the Goudron field. Along with the deeper wells, a study was performed to identify a suitable rig for the shallow target in the Goudron Sands.

Ft/day Comparison



Operational Comparison Actual vs P50



Fergus Jenkins LGO CEO

"It was clear that we could improve planning, introduce better procedures and have more certainty of implementation. We therefore decided to bring in an experienced drilling group to assist us and chose Zenith to oversee our drilling operations. There is a marked improvement in planning and delivery of wells since they were brought on board."

Key Facts/ Main Challenges

- Implementation of good drilling practices aided maintaining wellbore stability and well control.
- Drilling wells with a small surface mud system and small surface mud cleaning package.
- Rig reliability issues with serious downtime coming from issues with the rigs mud pumps.

Performance Improvement Data

- Average Ft/day drilled increased by **29%** from the wells planned and drilled with Zenith Energy's involvement.
- Well Costs were reduced in excess of **\$400,000** per well
- Well duration was reduced from **30.9 days to 15.49 days**