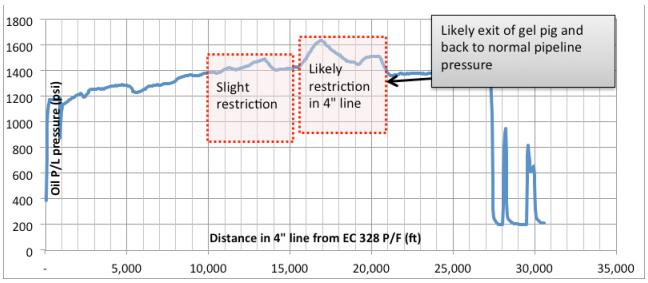
PROJECT EXPERIENCE

Pipeline Surveillance

LiquiGel® pig maps internal pipeline geography and provides target area for remediation pill with no shut-in required



As a result of paraffin deposition, a GoM operator experienced increased differential pressures in a bulk crude sales pipeline. Historical line maintenance followed normal production chemical treatment. Once pipeline differential pressures reached an alarming level, it was proven that conventional chemical treatment recommendations failed to protect the pipeline or mitigate the ongoing issue. In addition to increasing differential pipeline pressure, depositional shearing became a valid concern and threat to total pipeline plug off.

PLAN OF EXECUTION

1. K-Gel LiquiGel® pill launched and monitored with data acquisition system to locate restricted area.
2. Wax restricted region identified.
3. Launched a combination pill of K-Gel LiquiGel®, "Polar Solve" cold solvent and penetrant.
4. "Polar Solve" cold solvent saturated the targeted area.
5. Repeat cycle 2 through 4.

TECHNICAL ACHIEVEMENTS & BENEFITS

- Decreased the differential pressure by 50%.
- Increased production.
- Reduced wear and tear on production pipeline pumps.
- Reduced Volume of Solvent utilized.
- Alleviated the concern of total pipeline plug off.
- Alleviated the need for expensive intervention methods such as Coil Tubing.

LOCATION

Gulf of Mexico

SCOPE OF WORK

Analyze the problem and develop a remediation plan in order to alleviate the accumulation of deposits.

SOLUTION

BlueFin conducted independent lab testing on the oil and deposit material. Analytical results provided custom solvent selection and treatment design parameters.

To locate the deposition areas of concern, BlueFin launched a proprietary K-Gel pig in order to model wax deposition severity and critical restriction points.

Once identification of the targeted restriction area was confirmed, a solvent pill was deployed to the restricted region and allowed to soak for 2-4 hours. The wax-saturated solvent was then displaced further down the pipeline with fresh solvent by utilizing lease crude as the drive media.

Utilizing rate and pressure monitoring for improvements, this process repeated until the solvent system contacted the deposition problem areas.

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