



Production chemistry to enhance hydrocarbon recovery

Troubleshooting production and maintaining flow assurance from field development to operations

Wood specialist production chemistry service enhances hydrocarbon recovery by maintaining flow assurance at all stages of production. We support plant integrity safely and apply cost-effective chemical solutions to production challenges. We help our customers gain a clearer understanding of fluid properties from the reservoir, pipelines and topside facilities, right through to the export system; providing the ability to predict and resolve potential issues.

Our highly experienced production chemists work alongside flow assurance and process optimisation engineers to provide integrated review and solution, underpinned with proprietary software technologies. Having implemented hundreds of projects, from small studies of large integrated interdisciplinary projects, we offer a comprehensive and independent approach across all stages of field development and life cycle.

Benefits of using Wood production chemistry expertise:

- More effective system design through early assessment of production chemistry risks in new developments
- Holistic risk assessments that provide a bigger picture of integrated production chemistry and flow assurance issues for any production, water injection or produced water handling facility
- Fit-for-purpose and cost effective solutions to chemistry problems on upstream, downhole, subsea and topsides facilities
- Field production rates maintained, blockages avoided and unplanned shutdowns can be eradicated
- Fast turnaround of projects and robust reporting deliverables
- Access to leading technology and specialist in-house tools

Capability includes:

- Oil and gas condensate field developments
- HPHT fields
- Acid gas sweetening
- Dehydration expertise
- Containment management

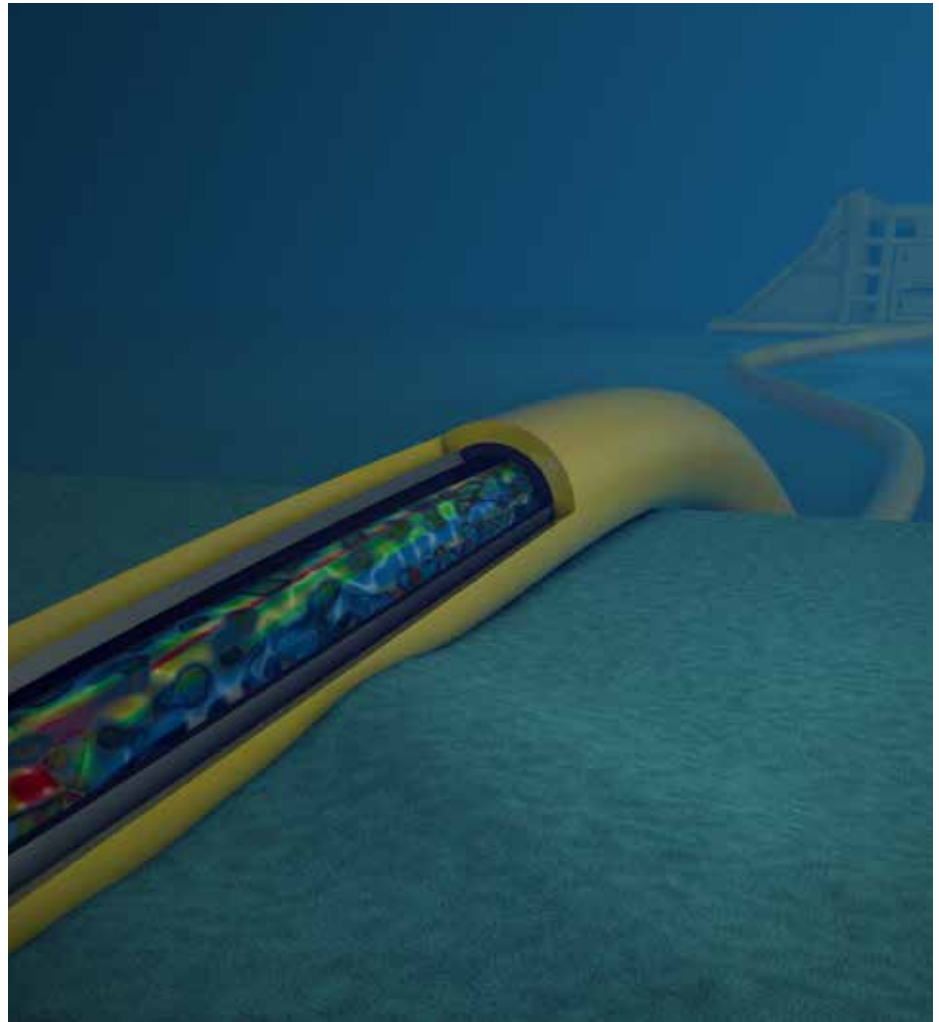
Study types:

- Desktop review studies to define issues and recommend solutions for each system
- Production system troubleshooting
- Chemical treatment facility design and application management optimisation
- General consultancy services
- Training courses
- Operations support (off-site and on-site, onshore and offshore)

Software available:

- ScaleChem
- PVTsim
- KBC software (Multiflash, FloWax) for prediction of asphaltene and wax precipitation, wax deposition, hydrate formation and mercury partitioning
- GUTS™
- Electronic Corrosion Engineer

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We manage fluids characterisation, conduct risk assessments of flow assurance issues, collaborate with laboratories for testing and develop solutions to mitigate production problems, including:

- Hydrates
- Wax / asphaltenes / naphthenates
- Microbiology / souring
- Corrosion
- Scale
- Emulsions / separation / fluid rheology / foaming

- Contaminants, e.g. mercury, H₂S
- Water injection – seawater, aquifer, river water, produced water re-injection and water alternating gas injection plants

Our expertise also spans chemical qualification for downhole, subsea and topsides use, design of chemical management strategies and compilation of chemical requirements reports for field developments. This is supported with our in-house software simulation tools, applying leading technology to solve our customers' challenges.