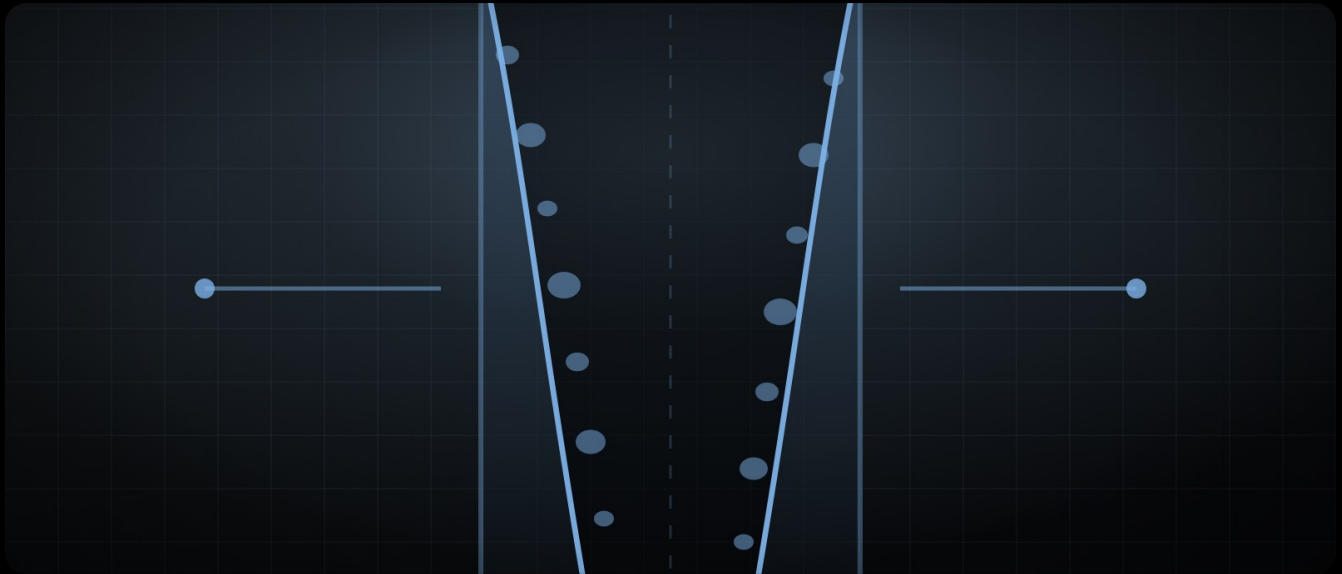




ENERGY · PRODUCTION & ASSETS

Asphaltene Accumulation Analysis for Well Cleaning

An oil producer used Quantum One to see well clogging coming — 63% of cases predicted in advance, in time to schedule cleaning.

IMPACT

63%

Well cloggage cases predicted in advance, for preliminary cleaning scheduling

**Lost production
reduced by timely
cleaning**

**Buildup mechanisms
explained, not just
flagged**

CLIENT PROFILE

CLIENT

An oil producer

COMPANY TYPE

Oil and gas operator

INDUSTRY

Energy

SCENARIO

Production & assets

CHALLENGES

- Asphaltene precipitation poses a significant challenge in oil production, leading to well clogging, reduced oil recovery, and expensive intervention.
- Deposition mechanisms remain complex, poorly understood, and different from well to well depending on its parameters.
- No holistic risk assessment is available to decide where preventive measures are worth taking.

APPROACH

Production data, well and reservoir static data, flow tests, fluid parameters, PVT lab tests and well blockage history are combined into aligned time series, then enriched with domain features reflecting asphaltene stability, thermodynamics and flow properties.

On that basis the model predicts accumulation in advance, leaving time to perform preventive action, and explains which levers reduce the risk.

BENEFITS

- Complex data ingestion across production, reservoir, flow test and lab sources
- Domain-driven features for asphaltene stability, thermodynamics and flow
- Cloggage risk model that predicts accumulation ahead of time
- Insights on buildup mechanisms and the levers that reduce risk

TIME TO PRODUCTION

Stage	Quantum One	Typical process	
Problem definition	1 week	2–3 weeks	
Proof of concept	2–3 weeks	4–6 weeks	
MVP	4–6 weeks	8–12 weeks	
Scale-up	1–2 months	3–4 months	
Maintenance	Ongoing	—	

TAKE THE NEXT STEP

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