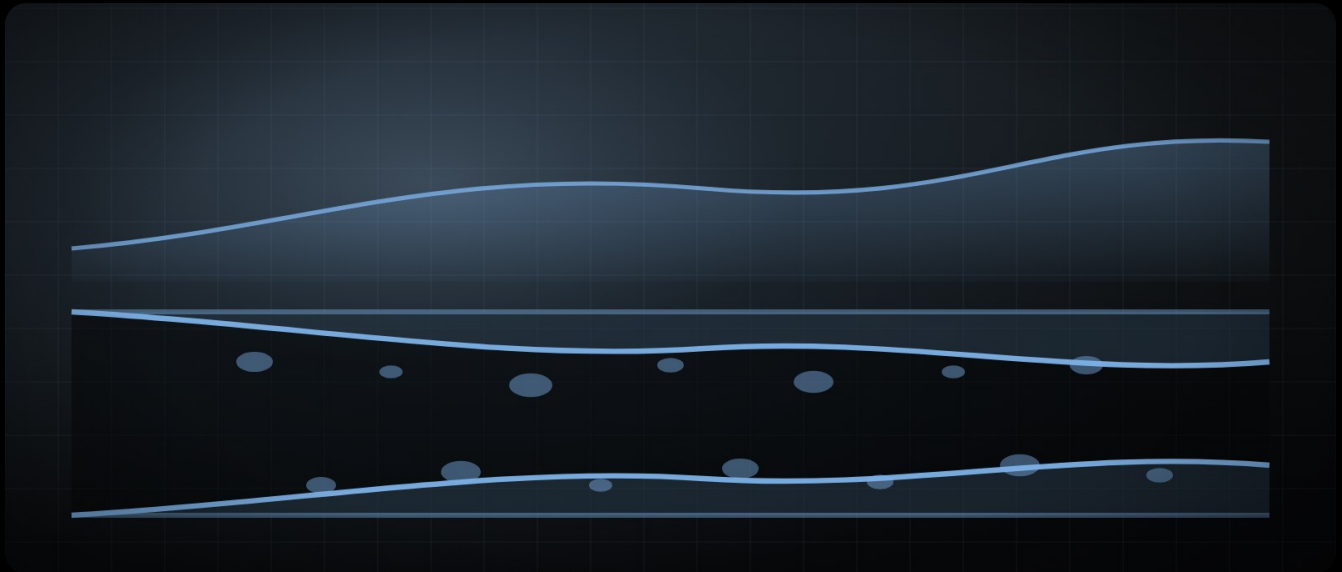




ENERGY · PRODUCTION & ASSETS

Tubing Corrosion Prediction Without Well Shutdowns

An oil producer used Quantum One to rank wells by corrosion risk without shutting them in — 15% average profitability growth.

IMPACT

15%

Average well profitability growth

65%

Avoidable tubing breakdowns due to corrosion, identified in advance

No production lost to assessment shutdowns

CLIENT PROFILE

CLIENT

An oil producer

COMPANY TYPE

Oil and gas operator

INDUSTRY

Energy

SCENARIO

Production & assets

CHALLENGES

- Pipe corrosion is a common problem caused by elevated CO₂ and H₂S content in the fluid and by reservoir pressure and temperature.
- Tubing corrosion compromises well integrity and reduces operational efficiency, leading to prolonged maintenance and workovers and sub-optimal production.
- Conventional corrosion assessment methods require well shutdowns, and production is lost while they run.

APPROACH

A combined ML pipeline clusters wells and classifies those clusters, assessing whether a well belongs to a high or low risk group.

The ranking is used to prioritize maintenance and corrosion measurement tests, so the short-list of wells is produced without shutting any of them in.

BENEFITS

- ML risk stratification through well clustering and cluster classification
- High and low risk groups assigned without a shutdown
- Workover prioritization alerts
- Short-list of wells for maintenance or corrosion measurement tests

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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