

Paradigm Flow Detect and Remove Stuck Pig in 92 km onshore pipeline

Overview

A pipeline operator in the UK had a stuck bi-directional cleaning pig in an onshore pipeline, and was unable to locate and remove the pig, causing the pipeline to be completely blocked and unable to flow crude oil.

Challenge

Due to the pipeline topography and large sections buried under road and river crossings, it was not possible to locate the pig using conventional tracking equipment. Also, due to the large wax deposits accumulated in front of the pig, it was not possible to apply pressure from either direction to move the pig.

Solution

Paradigm's Find-Block® system was deployed from the launcher and receiver, accurately locating the stuck pig and wax adjacent to a major road crossing. Paradigm's Pipe-Pulse® system was connected to the launcher system, and utilising the pig / blockage location information, the PP software was configured for operation. Within 12 hours of pulsing, sufficient blockage adhesive breakthrough was achieved, enabling the pig and entrained wax to be mobilised approx. 25 km to the receiver.

Result

- Within 48 hrs of initial client contact, Paradigm had mobilised to the site and detected the stuck pig and wax.
- Pipe-Pulse® quickly removed the stuck pig and 10 tons of wax, with no requirement for site excavation works, enabling pipeline to resume operations.



Image of stuck pig from 92 km onshore pipeline.

Main Features / Benefits

- Rapid response service
- Non-intrusive application
- Highly accurate blockage location
- Minimal personnel and equipment
- Cost-effective solution; ideally suited for wax and asphaltene blockages and stuck pigs

Value to Client

- Rapid mobilisation of personnel and equipment, with non-intrusive solution to accurately detect and remove the stuck pig and wax over long distance.
- Non-intrusive method of pipeline reinstatement, eliminating any requirement for site excavation with associated time, costs, and regulatory approvals.
- Successful, cost-effective, safe, and no harm to the environment.

