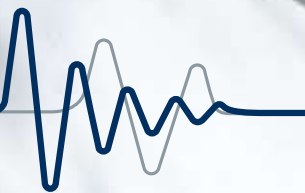


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Part of the Hydraulic Analysis Group

**Leaders in
Hydraulic Design**

Hydraulic Analysis Limited is a worldwide leader in the analysis of pipeline hydraulic behaviour. We have been employed by almost 1000 organisations, including major operating companies in the water, oil, petrochemical, gas and energy industries.

Using simulators developed within the group, Hydraulic Analysis Limited conducts detailed pipeline simulations to investigate operating problems and proposed changes in operating philosophy to verify pipeline and control system design.

For each study, in-depth reports are provided that detail simulation output together with observations, full engineering recommendations and conclusions for optimising system performance to ensure safe operation. As an independent consultancy we are able to offer our clients unbiased advice on all aspects of the design and equipment selection.

Our experience has been applied to pipelines of all complexities over a vast range of different operating scenarios and pipeline fluids. Our project leaders are experienced engineering consultants who are able to draw on an unrivalled knowledge base within the company.

We are also able to offer site visits by experienced engineers to observe pipeline operation in real life and our site services team can obtain invaluable pressure and flow measurement data. Data obtained from pipeline measurements using in-house designed high performance loggers helps to identify existing operating problems and is frequently used to verify our simulator accuracy.

In the oil industry

We can offer advice on complex surge effects, thermal behaviour, slack line operation and multi-product transfer.

In the water industry

We can study the effects of air in pipelines, air valve operation, distribution networks and open channel systems for both water treatment and sewage treatment plant processes.

In the gas industry

We investigate line-pack distribution, we analyse compressor performance and we assess pipeline capacity and gas quality issues.

Across all industries

We investigate and improve the effectiveness of complex control schemes and high integrity protection systems.

