



Inspecting pipelines & foiling theft with MagneScan data

PII helped respond to illegal activities that threatened the integrity of a key pipeline — quickly producing a practical new report to help manage the risks.

Challenge

Our client operates one of Europe's most important refined-products pipeline, and it's buried a few feet below picturesque countryside.

In 2014, a farmer and a storage unit operator separately reported to police suspicious events that led to the discovery of two illegal taps. Detectives described one case as a sophisticated operation, including a tank holding around 30,000 L of stolen product.



CHALLENGE

Reports to police of suspicious activity in a remote countryside led to the discovery of illegal taps and fluid theft from a major European pipeline. The operator needed a way to screen for similar threats.



SOLUTION

PII performed a MagneScan in-line inspection and compared results with previous inspection data to identify any significant changes and highlight potential illegal taps.



BENEFITS

The resulting Change Report enabled rapid identification of sites for investigation and remediation. The full set of MagneScan data is also saved and available for more detailed pipeline integrity purposes.

Solution

The pipeline owner took immediate action — mobilizing its engineering and environmental experts to assess the two sites and collaborate with local authorities and police to minimize any risk to local residents or nature. They then asked if PII could help determine if there were any other illegal taps in the line. We quickly got a MagneScan tool ready and ran an in-line inspection (ILI), comparing results to another MFL inspection we'd done in 2006.

We completed all data analysis and produced a highly practical Excel-based Change Report in just seven days. Its quick-read format gives precise location details about newly detected anomalies. We identified nine illegal taps along the nearly 200 km line.

“This was a really serious and potentially dangerous situation involving fuel theft and potential environmental damage. We had to be fast and accurate.”

Graham Crawley, PII Project Manager

Benefits

Following our report, the owner shut down the pipeline and began cutting out spools for repair and replacement. While the value of stolen product was estimated at over \$70,000 US, the costs of potential asset and environmental damage could have reached well into the millions if the illegal welds and fittings had failed before being safely remediated.

Six months later, PII conducted another inspection on the same pipeline that found several new illegal tapping sites. Clearly, this kind of crime is more common than the industry had thought. The discovery has inspired an increased focus on security and monitoring.

An added benefit of our new Change Report service is that MagneScan collects its usual range of high-definition metal loss data — so we have all that information available for future pipeline integrity requirements.

Illegal tapping is not unique to this pipeline — it is a significant issue for pipeline operators around the world. So our client's response here will help move the entire industry forward.

While the Change Report service provides a quick snapshot comparison, the full set of HD MagneScan data is saved and available for future integrity needs.

