

## CASE STUDY

# Preliminary In-Line Inspection Data Pinpoints Pipeline Leak Under Pressure

**Customer Location: Texas**

## Background

A chemical manufacturer in Deer Park, Texas, was challenged with decommissioning a hazardous PVC product line to allow for offline pigging and inspection services. A fast return to service was imperative to avoid backlogging the chemical manufacturing process.

The manufacturer turned to Quest Integrity, which previously had successfully employed its InVista® bi-directional in-line inspection (ILI) for the customer's challenging small-diameter pipelines. The pipelines had been deemed unpiggable due to the lack of traditional launchers and receivers and small radius back-to-back bends.

The customer planned to use Quest Integrity's pipeline integrity management services (PIMS) to perform the decommissioning, line cleaning, flow management, hydrostatic testing, dewatering, line drying, and return to service work scope. However, during the hydrostatic test, Quest Integrity saw indications of a pipeline leak.

## Solution

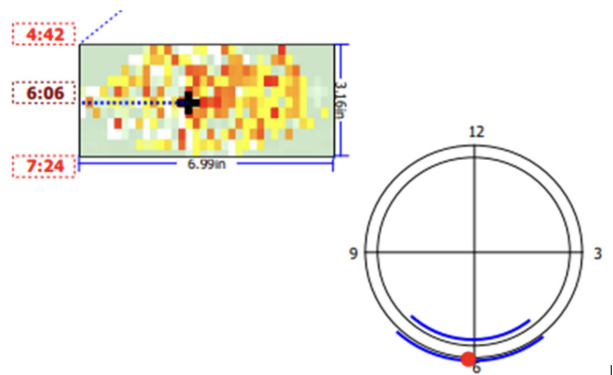
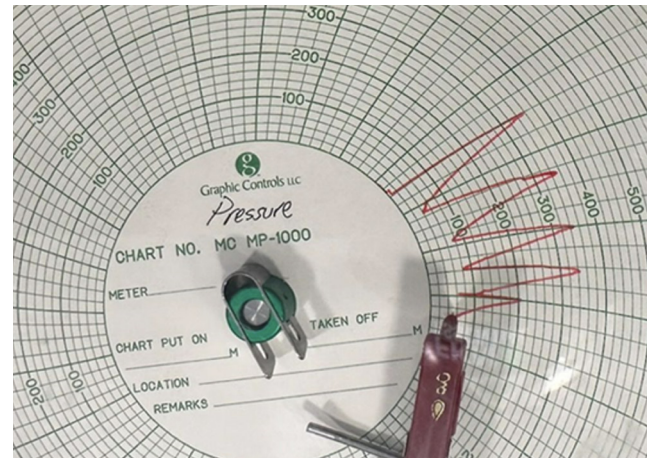
To begin the decommissioning work, Quest Integrity injected neutralizing chemicals mixed into a temporary water supply into the pipeline, flushing out the remaining hazardous chemicals. Once the pipeline was safe for offline pigging operations, the PIMS team cleaned the pipeline using progressive cleaning methods. Next, the team collected combined geometry and metal loss pipeline inspection data using the InVista ultrasonic inspection tool. Once determined successful, the data were immediately sent to the offsite Quest Integrity Data Analysis team to develop a 72-hour preliminary report identifying any immediate threats.

The on-site crew proceeded with an 8-hour hydrostatic test, as required by the U.S. Department of Transportation, which failed quickly upon pressurization. Although a leak was indicated, the customer was adamant that the pipeline did not have a failure and questioned the pressurization techniques.

Quest Integrity persisted that all signs indicated a leak in the pipeline. By correlating historical inspection data with topside GPS line survey data from field operations, the Data Analysis team delivered a preliminary report indicating possible leak sites within 48 hours of the data collection. The team was aided with analysis that provided odometer footages and estimated wall loss percentages.

Less than a day later, while walking the line at these locations, the customer was the first to spot water leaking in rack piping near a pipe support. With expanded analysis on the original immediate reporting threshold, the customer could make all related repairs, building confidence that the line could be returned to service.

Quest Integrity provided dewatering and line drying services, and the line was safely returned to normal service.



## Result

Although pipeline hydrostatic testing failures are rare, and leak sites can be difficult to locate, Quest Integrity provided 24-hour work coverage to maximize the amount of work performed in the shortest timespan. Quest Integrity also facilitated the line's re-inventory with the product to restore normal operations.

Thanks to a robust customer relationship, Quest Integrity earned the trust to comprehensively assist in the customer's pipeline inspection turnaround project. The customer recognizes that Quest Integrity stands as an all-encompassing ILI solution provider, delivering safe, punctual, and high-quality results no matter the challenge.

With both the InVista inspection tool platform and PIMS team, Quest Integrity provides a turnkey, integrated solution. Quest Integrity's Pipeline Analysis Services group and Advanced Engineering teams also provide advanced, long-term integrity management support to help identify areas of concern and manage risk appropriately.