PICA Recon+ (Acoustic Sphere)
In-Line Screening Technology
- 3” - 78” diameter pipelines
- Water, Wastewater, Raw Water

Overview

PICA Recon+ In-Line screening technology (powered by INGU) is now offered to the north American water marketplace. This small diameter sphere can travel freely, with product flow, through most pipelines. It is an excellent solution to screen pipelines for local leaks as well as geometry and other information. Consecutive runs through a pipeline, deliver additional layers of information that can enhance inspection quality and reliability.

Some of the benefits of running PICA Recon+ Tools:
- Detect leaks and air pockets
- Screen for bulk wall thickness changes in metallic pipes up to 8” Dia.
- Locate deposits, blockages and debris in the line
- Measure pressure differentials

Identify these key areas of interest without service interruption!
In early 2017, the RAFT tool completed a five-mile (8 km) inspection of 36-inch bar-wrapped concrete cylinder pipeline that carries millions of gallons of water per day to a water treatment plant for processing. Installed in the late 1940’s, the feeder main is a critical part of the local water system and asset managers wanted to perform a detailed, non-destructive condition assessment. The inspection identified several areas of thinning of the steel cylinder, which if left untreated would have resulted in serious pipeline failures in the near term. Some of these areas were verified by removal of the internal concrete liner which surprisingly showed no sign of distress.

Details

These miniature, in-line, sensors efficiently detect threats to pipeline performance, providing a low-cost alternative to traditional in-line inspections. A final report is delivered detailing findings and providing location information correlated with client records.

Specifications:
- 2.2 inches in diameter
- Up to 50 bar (725 psi)
- -20°C to 60°C (0°F to 140°F)
- 24-hour continuous run time
- Chemically inert

Built-In:
- Magnetometer
- Accelerometer
- Gyroscope
- Acoustic Sensor
- Pressure Sensor
- Temperature Sensor

Example of Bulk Wall Thickness (Inner Diameter) log

Pressure differentials allow for the identification of inner diameter changes (Example is from a 6.8km, 6” steel pipeline)

Applications
- 3” to 78” water or wastewater mains
- Lines that can’t be taken out of service
- Non-piggable pipelines
- Any pipe material
- Long pipeline lengths (up to 19 km [12 mi] in one day)
- Deeply trenched pipelines
- New pipeline baselining

"Good Decisions Start with Good Information."
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