

Precise Defect Localization & Identification of Crude Oil Pipeline > 60 Years Old in the Swamps of Louisiana

Challenge:

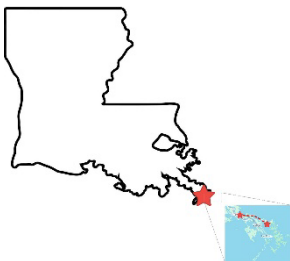
- Inspect with precision 1965 pipe along Louisiana coastal swamp land that was last inspected by Enduro in 2020 with legacy technology
- Precise data and location to mitigate threats efficiently with minimal cost

Solution:

- EcoVision™ 16" MFL-A UHR, GEO, IMU Tool
- Professional tool operators and data analysts

Results:

- Life threatening anomalies detected and mitigated off the coast of Louisiana



Background

Cypress inspected 21.3 miles of 16" crude along the furthest reaching, ocean bearing, outskirts of swamp land of Louisiana in October of 2025. The EcoVision™ 16" MFL-A UHR, Geo, IMU Tool maintained a speed of 1.7 MPH, while maintaining an average gauss level of 18.56 kA/m with a customer provided flow rate of 4,000 to 5,000 BPH. Our advanced technology with a sampling rate of 1,408 Hz, allowed us to capture 100% of the data.

Our experienced Level III data analyst completed the reporting utilizing our EcoView™ software identifying correctly several significant anomalies. In fact, 174,334 anomalies were reported in this 1965 pipe! That is a density of greater than 8,000 anomalies per mile.

Precision was the expectation for Crescent Midstream. Not just precision in calling out correct anomaly concerns, but also precise location as a pipeline excavation of 27 feet below sea level is not simple or inexpensive. Tracking the tool required a special AGM approach with swamp antennas.

Several dents with gouges were called, and upon NDE, discovered to be precisely at the location and severity as predicted.

Unexpected challenges

Navigating swamp land with 465-pound inspection tool, with much of the pipe 27 feet below sea level is no simple task. Crescent and Cypress worked together successfully to bring about an important inspection for a pipeline that if damaged, would cause great coastal harm to the surrounding area. To make the terrain even more difficult, local habitat included alligators, that were observing the inspection.



Summary

Crescent Midstream teamed up with Cypress for a successful inspection of 21 miles 16 inch 1965 pipe, with precise anomaly predictions allowing for successful mitigation of localized threats.

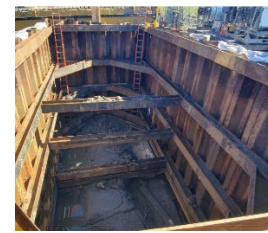
Launching in swamps of Louisiana



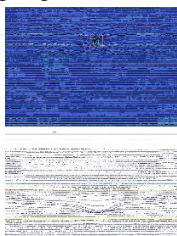
AGM tracking



NDE anomalies 27 feet below sea level



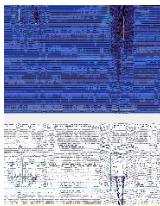
Dent with gouge in ILI software *EcoView™*



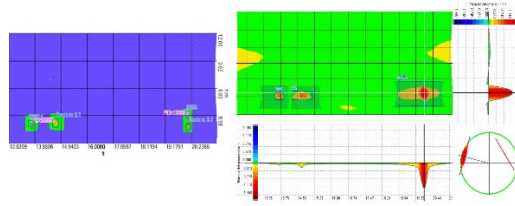
2.05% dent with gouges 15.27% and 24.99%



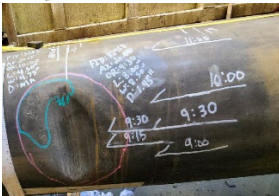
3 dents with gouges in ILI software *EcoView™*



3 dents with gouges in Laser Creaform NDE



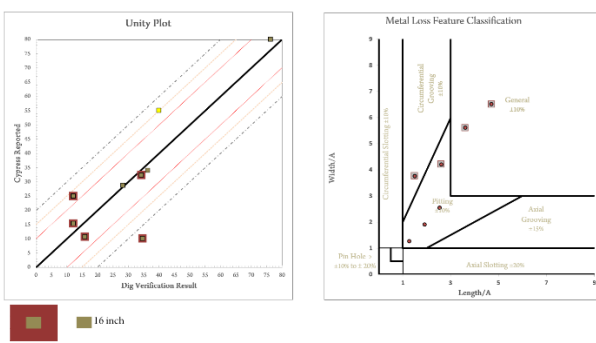
Deepest 6.9% of 3 dents with gouges 16%



Deep metal loss of 88.4%



Unity plot showing precision of ILI predictions



Unity plot showing precision of ILI dent with gouges predictions

