



# CASE STUDY

## Detecting Underground Threats with Guided Wave Technology

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Underground piping failures can pose significant risks to industrial facilities, from costly repairs to disrupting operations. Addressing these hidden issues requires advanced technology and skilled expertise. XCEL was approached by a Midwest refining client to tackle an issue involving their underground piping systems, ultimately preventing catastrophic failures and setting a new standard for inspection programs.

### Challenge:

In 2019, the client experienced a piping failure at a road crossing within their plant, exposing vulnerabilities in their underground systems. Seeking an effective solution, the client contacted XCEL. The challenge was to identify defects in the underground piping, particularly at road crossings and piping supports.

## Solution:

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After a thorough evaluation, XCEL personnel determined Guided Wave Technology was the optimal method to detect the defects in the underground piping. A team was deployed to conduct immediate inspections at several road crossings.

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Guided Wave Technology was utilized to scan and assess the piping condition, especially at critical piping supports.

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The XCEL team identified multiple areas with significant underground corrosion that had gone unnoticed. XCEL performed excavation and directly assessed the affected areas. This confirmed the presence of severe corrosion, with several areas being at or near failure.

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## Outcome:

XCEL's intervention addressed the immediate issue but also led to the client implementing more long-term preventive measures. The client established a full-time underground piping inspection program. This program now utilizes two Guided Wave units, operating daily by two two-man inspection teams.

Thanks to XCEL's advanced methods and insights, the client mitigated risks, enhanced the reliability of their underground piping systems, and prevented costly failures.

## CTA:

XCEL leverages cutting-edge technology to deliver proactive solutions for facilities around the country. Learn More about how our trusted inspection services can protect your assets and safeguard your facility.