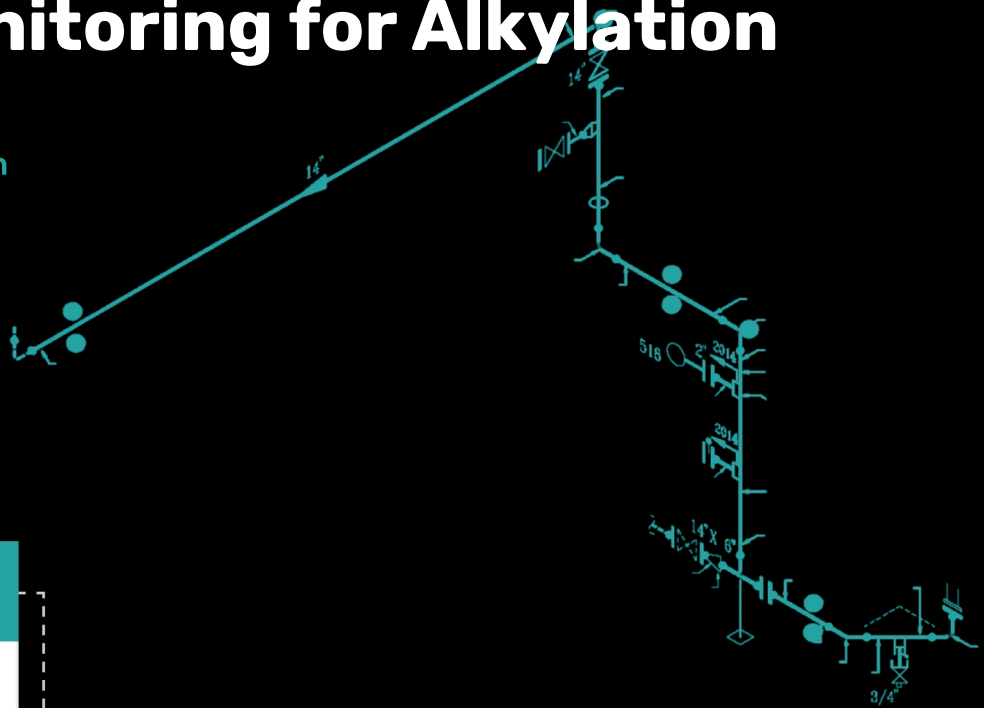




Corrosion Monitoring for Alkylation Process Unit

Timely insights to high corrosion rates during early phases of life cycle, preventing unplanned downtime and providing a safer working environment



PROBLEM

High corrosion rates on a critical pressure vessel impacts equipment life and performance through manual inspections. In addition, it is increased risk in providing a safer working environment when insights from manual inspections are provided at the later stages of equipment life cycle.



TRANSFORMATION

The seamless adoption of mPACT2WO corrosion monitoring solution provided the continuity of operational insights with timely alerts to central monitoring and field operations. The solution enhanced the digital approach to seamlessly shift existing operations methods from time-based to event-based monitoring to address sustainability with data-driven insights.



ASSET

At a large U.S. refinery, high-accuracy ultrasonic sensors were installed on process piping, which had experienced high corrosion rates.



ALERT

Corrosion monitoring trends showed high corrosion rates. Process troubleshooting showed consistent insights towards potential impact on equipment life and safety.



RESULT

Combining high-accuracy thickness measurements with plant operations data helped to identify high corrosion rates during early stages of equipment life cycle. Data-driven insights helped to make timely decisions on plant operations and to assess the impact on equipment life.



INVESTIGATION

Thickness trends in pressure vessel area showed higher-than-normal corrosion rates. The increased corrosion rates were found outside the scheduled maintenance window. Appropriate resolution took less than 3 months vs. delay in discovery during manual thickness measurements occurring over several years.