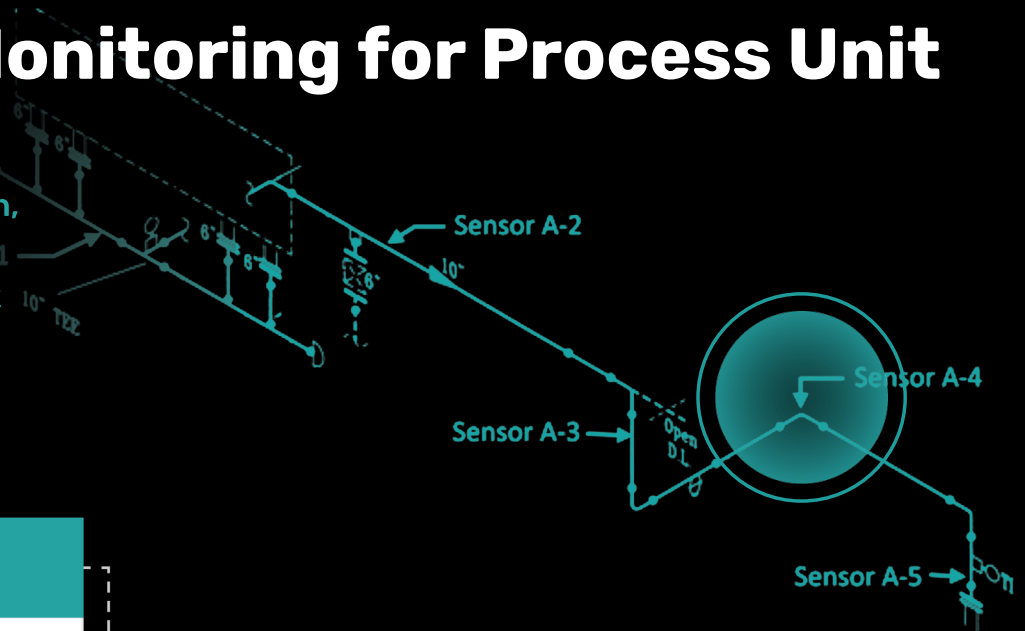




# Corrosion Monitoring for Process Unit

Timely insights of process impact on fixed asset health, preventing unplanned downtime and reducing risk



## PROBLEM

High corrosion could potentially take several years before being detected through manual thickness readings. In addition, it is inefficient and time-consuming to assess process impact on equipment life.



## 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 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 an unexplained step increase in corrosion rates. Process troubleshooting showed corrosion trends aligned with a timeline where a corrosion inhibitor pump was out of service.



## RESULT

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



## INVESTIGATION

A thickness trend showed a higher-than-normal corrosion rate. The increased corrosion rate aligned with a corrosion inhibitor pump outage. Real-time corrosion monitoring was able to show immediate improvement in corrosion loss once the corrosion inhibitor pump was returned to service.