

10th Quarterly Report – Public Page

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Contract Number: **DTPH56-13-T-000009**

Prepared for: **DOT PHMSA, Koch Pipeline Company, Shell Pipeline Company,
Phillips 66 and Conoco Phillips**

Project Title: **Improve and Develop ILI Tools to Locate, Size, and Quantify
Complex/Interacting Metal Loss Features and Dents**

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The ability to accurately locate and size individual metal loss pits within an area of large corrosion, the characterization of metal loss and gouging associated with dents, and the identification of corrosion type near the longitudinal seam are three of the remaining problems with in-line inspection (ILI) integrity assessment of metal loss defects. The problem with large-area corrosion is that some of the pits within a large corrosion area may not be detected or sized, and failing to include these defects may underestimate the amount of missing metal when attempting to calculate a failure pressure. The problem with denting is that secondary features of corrosion and gouging present very different safety and serviceability scenarios; metal loss in a dent is usually not very severe while metal loss caused by gouging can be more severe. The problem with selective seam corrosion on older low frequency electric resistance weld (ERW) seams is also one of two scenarios: the ILI tool must differentiate the more serious selective seam corrosion condition from less severe conventional corrosion which just happens to encounter a low frequency ERW seam.

ILI tools have been developed that have the potential to solve these three problems. Data from actual pipeline anomalies are needed to improve assessment algorithms used to evaluate the data collected by these tools. The pipeline partners are providing results from ILI tool runs and in-ditch field data to correlate with ILI data. The final report has been prepared and is available on the project website.

<https://primis.phmsa.dot.gov/matrix/PrjHome.rdm?prj=498>