

## On-Plot Piping Corrosion Analysis for Gas and Oil Separation Plants (GOSPs)

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**Abstract :** Corrosion is a serious challenge for a piping system in our Gas and Oil Separation Plant (GOSP) that causes piping failures. Two GOSPs (Plant-A and Plant-B) observed chronic corrosion issue with an on-plot piping system that leads to having more piping replacement during the past years. Since it is almost impossible to avoid corrosion, it is becoming more obvious that managing the corrosion level may be the most economical resolution. Corrosion engineers are thus increasingly involved in approximating the cost of their answers to corrosion prevention, and assessing the useful life of the equipment. This case study covers the background of corrosion encountered in piping internally and externally in these two GOSPs. The collected piping replacement data from year of 2011 to 2014 was covered. These data showed the replicate corrosion levels in an on-plot piping system. Also, it is included the total piping replacement with drain lines system and other service lines in plants (Plant-A and Plant-B) at Saudi Aramco facility.

**Keywords :** gas and oil separation plant, on-plot piping, drain lines, Saudi Aramco

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