# Alkine Sour Water Corrosion Calculation for Asset ID ssss

**Asset Name/ID**
ssss

**H2S concentration in system**
*It is suggested to determine NH4HS value with ionic process models. However, approximate values may be calculated from API 581 Table 2.B.7.1*
1.50 wt%

**NH3 concentration in system**
*It is suggested to determine NH4HS value with ionic process models. However, approximate values may be calculated from API 581 Table 2.B.7.1*
4.00 wt%

**NH3 concentration in system**
*Determine the concentration of the H2SO4 present in this equipment/piping. If analytical results are not readily available, it should be estimated by a knowledgeable process engineer*
2.25 wt%

**Stream Velocity**
*The vapor phase velocity should be used in a two-phase system. The liquid phase velocity should be used in a liquid full system.*
5.00 m/s

**%mol H2S in the system**
1.50 %

**System pressure**
*Fill the Total system pressure psia*
120.00 psia

**H2S partial pressure**
*Fill the Total system pressure KPa*
30.00 psia

**Baseline CR mm/yr**
0.12 mm/yr

**Baseline CR mpy**
4.59 mpy

**Adjusted CR mm/yr**
0.92 mm/yr

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**Adjusted CR mpy**
36.17 mpy

**Corrosion Damage Morphology**
General thinnig

## *Remaining Life and Next Inspection Date Calculation*

**Corrosion Rate (overwritten)**
*Corrosion Rate Overwritten by the user*
Yes

**Material Thickness Units**
*Units of the thickness*
in

**T Actual**
*Current thickness of the material*
0.9

**T Required**
*Minimum required thickness for safe operation*
0.85

**Selected Date**
*Start date of the remaining life*
Tue Apr 01 2025

**Remaining Life years/Retirement date**
1.38 / Wed Aug 19 2026

**Do you want to estimate the next inspection date?**
*Next inspection date*
No