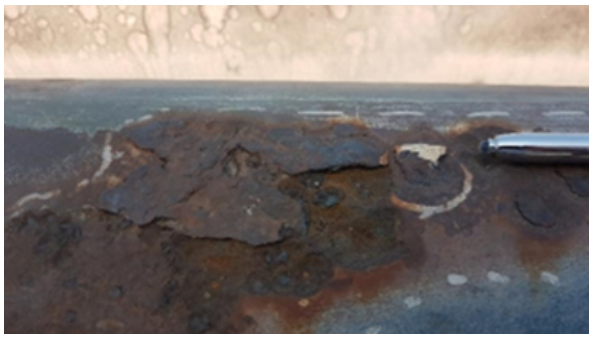
SYLWRAP Case Study

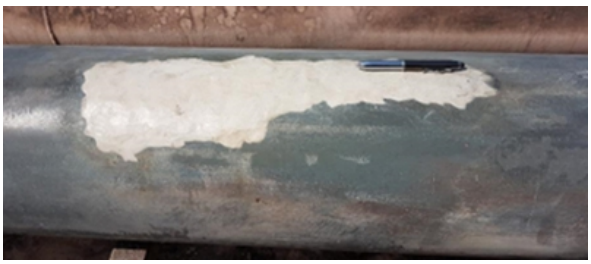
Heavily Corroded Steel Pipe Reinforcement

An industrial site in Saudi Arabia rebuild and reinforce 2 metres of steel pipe before heavy external surface corrosion could eat through and breach the line

The 2 metre long section of steel pipe to be reinforced, with the 600mm patch of heavy corrosion in the middle



Closer inspection of the corroded area showed how much external surface damage the pipe had suffered



Sylmasta AB Original rebuilt the patch of steel pipe weakened by corrosion to its original thickness. It would offer excellent protection from further corrosion and chemical attack, and act as a sacrificial layer where necessary.

SylWrap CR was applied to a 2 metre section of the line, centred around the corroded area rebuilt using Sylmasta AB. The corrosion inhibitors in SylWrap CR provided greater protection in such an aggressive environment, compared to SylWrap HD

Defect

The pipe was suffering from a 600mm patch of heavy corrosion to its external surface. It was only a matter of time until this corrosion ate through the remaining brittle steel to breach the line.

When this happened, the line would have to be shut off for either a leak repair or a replacement section to be fitted. To avoid this costly and disruptive process, the site decided to rebuild and strengthen the pipe before it failed.

Solution

Sylmasta AB Epoxy Putty was used to rebuild the corroded area of pipe. AB Original offers excellent protection against corrosion and chemical attack.

The putty was applied over the entire 600mm patch, filling all imperfections, returning the pipe to its original thickness and restoring its integrity.

SylWrap CR was then wrapped over a 2 metre section of the pipe, including the putty. SylWrap CR contains corrosion inhibitors for further protection of pipework in harsh and aggressive environments.

Within minutes of being activated with water and applied, SylWrap CR had cured to form a rock-hard sleeve around the pipe, further reinforcing the line and protecting it from future corrosion.

Result

Reinforcing the line took around half a day. There was no disruption to production on site as the line remained in full operation throughout.

The site were pleased that they opted to strengthen prior to their corrosion problem becoming a bigger, more complex and expensive issue.

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