

UNDERGROUND TANK | INHIBITOR INJECTION & SLEEVE INSTALLATION | SEPTEMBER 2016

## Summary

- The storage tank is an underground tank, with a diameter of 42 m.
- The tank is left with a minimal amount of liquid for safety precautions, with the remaining volume left for the volume of crude oil for the section of pipeline.
- The space around the tank was designed to provide for a minimal work area, and thus was deemed to be a confined space. Precautions and measures were taken to ensure that all safety standards had been put into effect.

## Goals and Objectives

- Surface Preparation
- Coupon Port Installation
- Pipe Installation
- Chime Seal Installation
- Inhibitor Injection
- Inhibitor Removal
- Inhibitor Sleeve Installation
- Site Clean-up

## Zerust Product(s) Used

- Zerion<sup>®</sup> FVS-S15 Sleeve Assembly 1.5 m x 30 sleeves
- Zerion<sup>®</sup> FVS-B15

## Climatic Issues

- The team had to overcome some issues with the environment. Many of the days at the Emergency Drain Down Facility (EDDF) came with a sizeable amount of rain.

## Monitoring Recommendations

- The monitoring documents provide safety and informative details for how to monitor the corrosion coupons, the ring system, and the powder inside the sleeves. These documents will also set a routine for when and how often all three points should be checked.

## Outcome

- After two full totes had been injected, it was decided that enough slurry had been added to the tank bottom. An amount of slurry was contained underneath the tank for almost two days. Initially, a rust colored solution had been displaced into the barrels. It was concluded that the inhibitor slurry helped to wash and rinse the bottom of the tank, removing any rusty buildup that had already appeared. Also, because there was a volume of water already inside the pit, it was not possible to determine how much slurry was been pumped out. The total volume of fluid removed from the area was approximately 750 gallons. Some slurry may be trapped inside cracks underneath the tank.



Inhibitor Injection Top Side

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1: Site Top Side



2: Man Way



3: Blue Max and  
Coupon Track



4: Pipe and Elbow  
Installation



5: Sikaflex Seal



6: Man Way with  
Foam Seal



7: Second Blue Max  
Coating



8: Man Way with  
Sikaflex Seal



9: Viscopaste  
Application



10: EZ Wrap  
Application



11: First Maximum  
Stretch Coating



12: Inhibitor  
Injection Top Side



13: Bypass System



14: Man Way Drain  
Port



15: Rust Water from  
Tank Bottom



16: Second Maximum  
Stretch Coat



17: Sealed Man  
Way



18: Site Clean Up