



Case Study

Total pipeline protection with Oxifree TM198 and Oxitape



OXIFREE[®]
METAL PROTECTION

Protection of pipeline against abrasion with Oxitape

Location	Eket Nigeria
Local Environment	Hot & humid/wet
Date	October 2019
Condition	Rainy season
Total Coatings	2 x 36" 4 x 24" 3 x 4"
Substrate Type	Surface to ground interface
Duration	2 weeks due to weather

Summary

Romson Oilfield Services carried out Oxifree TM198 and Oxitape application on surface to ground pipeline interface in Eket, Nigeria.

The area was heavily corroded due to the heavy rains and ground abrasion. After application of TM198, Oxitape was applied to provide a hard protective shell which will withstand the harsh abrasion suffered by backfill and high water tables experienced in this region.

Introduction

The client is a major oil production company in Nigeria.

Previous application of a protective tape had not stood up to the elements which are varied and extreme. Abrasion is a big factor which gradually wears away at the substrate, especially with the heavy rains experienced.

Objective

The objective was to provide a total solution to the existing corroded surfaces in the transition zone between surface to ground. The location is subjected to heavy rains and flooding making that zone a prime source for corrosion.

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Previous protection methods had not stood up to the abrasive environment.



After



Before



After



Case Study



Process

The process involved excavation of the soil to expose the pipe, followed by minimum surface preparation to remove loose and flaking material to leave a clean surface.

Oxifree TM198 was applied to the area by the Polymelt 50 Atex Zone 2/22 IECEx Application machine and 2 technicians.

This was followed by the wrapping of Oxitape around the TM198 layer to provide the protection against backfill material and impact from abrasion.

Application of Oxifree TM198 takes place prior to the Oxitape application.



Solution

The application of TM198 provides the barrier against the ingress of further moisture and oxygen with the inhibitor oil which will also arrest any existing corrosion and prevent further.

When Oxitape is placed over the top a protective hard shell is in place which protects the TM198 against impact and abrasion. This is especially useful in this ground to surface situation.

No interruption to process was required as the products can both be applied to live equipment.



Conclusion

It can be seen that the weather conditions were very wet which had reduced the number of pipes to be protected.

Application of TM198 is not affected by high humidity or damp surfaces. The client was impressed by the application process being so quick and that progress was made in between periods of torrential rain.

Both Oxifree TM198 & Oxitape can be exposed to the wet immediately after application providing immediate protection. The client was pleased with the outcome of the project.

