

CASE STUDY

Carbontech Case study 030
18" PERMAWRAP – 80 BARg



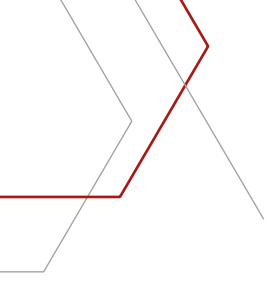


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PROJECT DETAILS

	Case Study Number CTCS:030	Design Pressure 80 Barg	
	Repair Summary 34% external wall loss	Operating Pressure 80 Barg	
	Client Pipeline Central Texas, USA	Design Temperature Ambient	
	Service Type NGL	Operating Temperature Ambient	
	Line Size 6"	Base Material Carbon steel	
	Line Class No Data		



ANOMALY DESCRIPTION
34% External wall loss on 18" pipe.

Fig 1: External Pitting



Fig 2: External pitting



INTEGRITY CONCERNS

Continued and unmitigated corrosion will result in the pipe to weaken around the corroded area. This will result in the pipe losing its structural integrity and may cause sudden failure of the pipe. Furthermore, leaking process could result in major fire, environmental hazards and loss of production with significant consequences



THE CARBONTECH SOLUTION

Certified installers filled all areas of corrosion with a high compressive strength PermaPutty load transfer material and then carefully butted one (1) P18-18 (18"x18") and one (1) P18-12 (18"x12") PermaWrap sleeve. This application provided a full 30" of reinforcement along the pipeline.

Surface Preparation achieved: SA2.5

Product used: Permawrap

Engineering calculations: ISO-24817

Post cured: Not Required - Ambient cure system

Fig 3: Completed Repair



CONCLUSION

The composite repair system satisfied the ISO TS 24817 standard and was successfully installed.

The wrap provides structural integrity to the pipe in accordance with the required design specifications that will prevent continued external corrosion for the remainder of the required 20-year design lifetime without the risk of losing production



CARBONTECH

The place chemistry, engineering and global expertise are brought together to drive progressive innovation in advanced composite technologies for the emergency repair of critical assets "There is nothing generic about us" we don't just sell pipe wraps; we provide accurate engineering backing to deliver tailored solutions

Sound and responsible engineering is the basis on which we build our company, products and services. It is the core to our success and it is the foundation on which we have engineered and manufactured our innovative and bespoke products

We strive by a zero-failure philosophy and warrant our engineered composite solutions are tested, proven and validated. We vow to provide dependable, responsible and accurate information regarding the capabilities of our systems

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PROGRESSIVE COMPOSITE ENGINEERING

