

**Case Study**  
**18" Propane Liquid export  
Pipeline with severe  
external pitting and pin holes**



# 18” Propane Liquid export Pipeline with severe external pitting and pin holes

## 1 Defect area

18” Propane Pipeline had several pin holes due to severe external corrosion defects. The holes size varied from 3 mm up to 8 mm. The pipe had been put out of service, SKPS team immediately mobilized to location and provided the remedial action.



## 2 Surface Preparation

Pipe surface preparation was completed to SA 2½. The pin holes were arrested using a special 2 layer system elastomer plug, the sealing plug was secured by fast curing high strength putty.



## 3 Clock Spring® contour composite Wrapping

Comprehensive repair solution using Clock Spring Contour composite wrapping was applied in 8 layers extending 16.00 meters. The line was operational in less than 2 days.



## 4 Design Criteria

|                       |                          |
|-----------------------|--------------------------|
| Actual Wall Thickness | : 12 bar                 |
| Remaining Thickness   | : 20 degC                |
| Defect Type           | : External corrosion     |
| Size                  | : 18”                    |
| Material              | : A671 Gr.CC60 CL.22     |
| Defect Analysis       | : Through wall-Pin holes |
| Orientation of Leak   | : 6 o'clock              |
| Lifetime              | : 2Years                 |