

ONLINE LEAK SEALING

Emergency Pipeline Repair System (EPRS)



Figure 1: Straight line with the defect



Figure 2: STOPKIT® positioning



Figure 3: Pressure test for 50mm hole
→ leaks at 731 psi



Figure 4: Pressure test for 10mm hole
→ leaks at 1166 psi

DEFECT TYPE	Pinholes (50mm & 10mm Ø) – Hydrostatic tests
PIPE DETAILS	10” straight line – pressure 430 psi - 1160 psi (50mm - 10mm respectively) – temperature 30°C
LOCATION	BARANOA - ATLANTICO (COLOMBIA)
3X SOLUTION	STOPKIT®

OVERVIEW

The objective of this test, performed in 2016 in Colombia, was to contain water leaks of different diameters (50mm & 10mm) on 10” straight line.

As per the technical training given by 3X ENGINEERING specialists to the client, **STOPKIT®** were successfully installed.

Two defects were simulated, in order to test **STOPKIT® 50** (patch size 50x50mm – can fix a leakage of max. 10mm size and up to 1160 psi) and **STOPKIT® 100** (patch size 50x100mm – can fix a leakage of max. 50mm size and up to 435 psi).

SCOPE OF WORK

Hydrostatic tests were performed at different pressures for the two holes (50mm & 10mm Ø). These leaks were stopped using **STOPKIT® 100** and **STOPKIT® 50** respectively. The aim was to evaluate the performance of the product as an emergency leak sealing system.

The procedure for both leaks was performed following 4 main stages:

- ① Position the **STOPKIT®** next to the leak using **STOPKIT®** Positioner device and tight softly to let a free sliding capacity.
- ② Slide the **STOPKIT®** over the leak. Rubber patch is perfectly centered on the leak thanks to **STOPKIT®** Positioner device.
- ③ Tight alternatively the right screw and the left screw to keep the two bars parallel. Repeat until torque reaches 40 Nm for both screws.
- ④ Screw anti-vibration nuts. Leak sealing completed.

RESULTS

STOPKIT® 100 exceeded the pressure values specified by the manufacturer and maintained the pressure during the decrease-increase pressure cycles. **STOPKIT® 50** reached the pressure values specified by the manufacturer and maintained the pressure during the decrease-increase pressure cycles. The results of this tests proved the capabilities of **STOPKIT®** products to control efficiently on-line leakages. This is a temporary solution that allows to deal with the emergency and schedule peacefully the permanent repair in the upcoming weeks or months.

ASK US FOR THE VIDEO CORRESPONDING TO THE TEST