

### CHALLENGE

A major operator in the UK North Sea could not gain access to the wellbore of a producing well due to scale build up in the wellhead “Christmas Tree” (XT), confirmed visually by camera. They were looking for a treatment method that could effectively remove the scale without damaging any components of the wellhead.

### HIGHLIGHTS

Calcium Carbonate (CaCO<sub>3</sub>) scale  
Restriction due to scale ~ 2.0”

### CONDITIONS

Depth: 35 m (120 ft)  
Temperature: 10 °C (50 °F)  
Treated Sea Water/TEG in wellbore

### OUTCOME

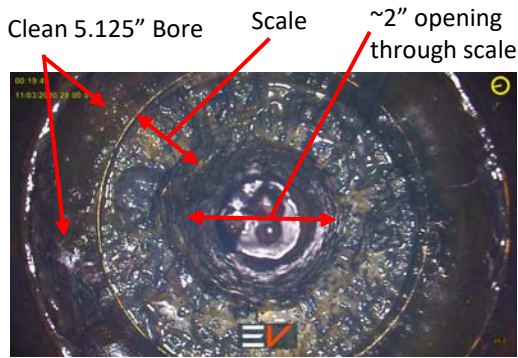
- Up to 1.5” thick scale was removed over the treated intervals, as confirmed by camera images
- The customer now had access through the XT into the main wellbore

Wellbore access established through XT

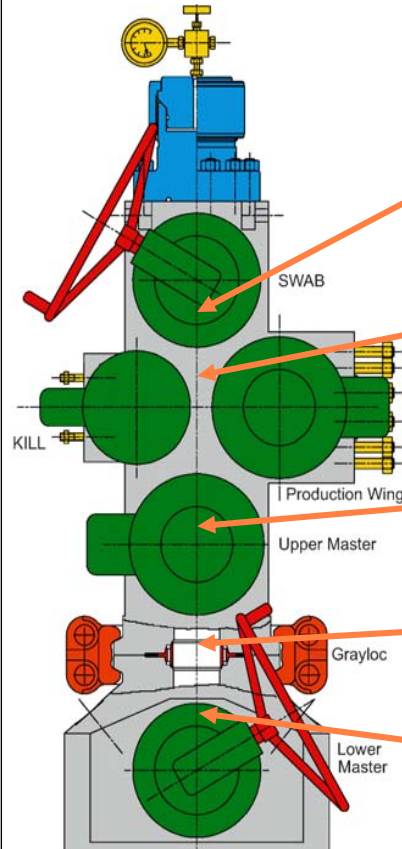
### SOLUTION

Remove scale by pulsing downward using electro-hydraulic pulsing technology

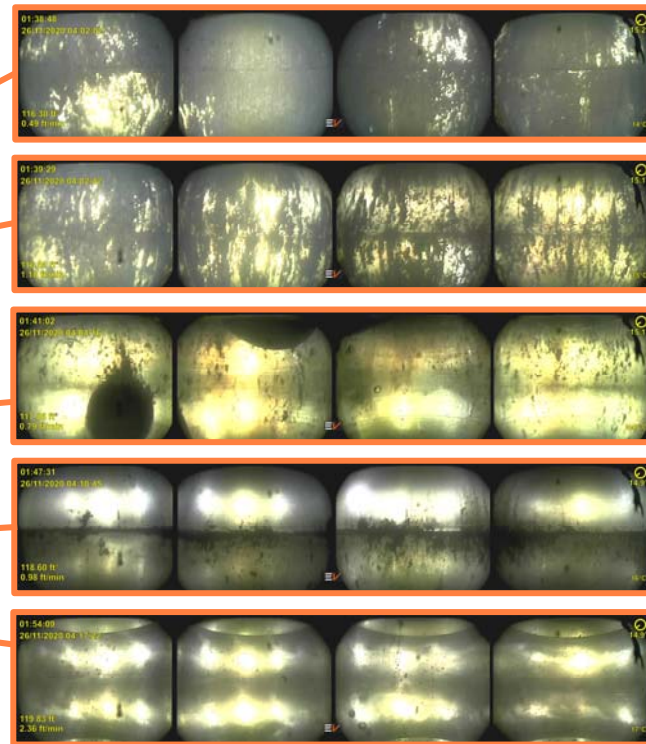
- The BLUESPARK® 275 tool was run in on 3<sup>rd</sup> party wireline
- Heavy scale (~1.5” thick) was encountered in various sections of the XT
- Several runs were made to clear scale from the swab valve down past the Lower Master Valve (LMV)
- A camera was run post-treatment to confirm the scale removal and the condition of the XT



Before treatment image, supplied by EV



Post Treatment Camera Images  
(only available above the fluid contact depth)



Scale Removal