



CONDUCTOR STABILISATION ASSEMBLY EXTENDS THE LIFE OF CORRODED MIDDLE EAST WELL

 Claxton provided an innovative clamp and sleeve assembly to preserve a severely corroded conductor which was buckled just above the splash zone.

THE PROBLEM

An operator in the Middle East contacted Claxton with an urgent conductor stabilisation requirement to repair a badly corroded well in the Arabian Gulf.

A well report confirmed that due to internal well tension and severe corrosion, the well conductor had buckled just above the splash zone area.

Metal was found flaking away from the conductor, resulting in a distorted area of 750mm. Conductor clamps were not available to the client which is why they called on Claxton to devise a rapid solution to save the well.

THE SOLUTION

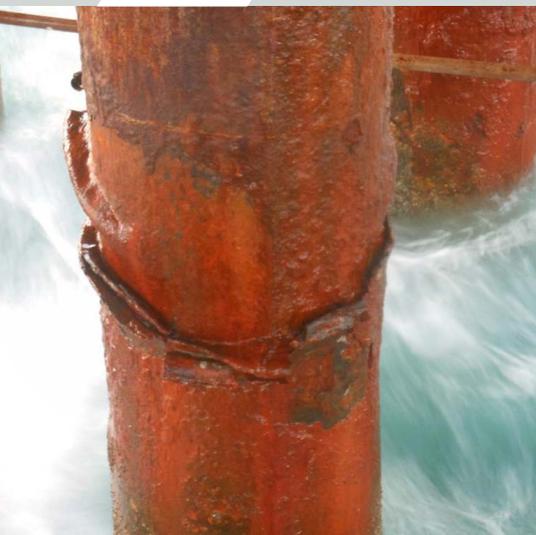
A Claxton senior technician was swiftly mobilised to undertake a full survey of the well, where it was identified that the well was close to collapsing. Claxton mitigated this problem by recommending that a temporary support was to be fitted to the 30" conductor prior to, and during, the installation of the clamp and sleeve system.

A Claxton tension ring was fitted to the conductor just below the wellhead system, which allowed it to react off the wellhead deck at the agreed force.

Well repair operations commenced with a third-party dive team performing a subsea survey, along with the removal of any metal protrusions from the buckled area, whilst also blast cleaning the conductor.

Claxton had a clamp and sleeve system in stock which was adapted for the project by Claxton's in-house design team and then quickly prepared for installation.

Claxton's technicians installed beam clamps to allow them to lift the components into position. The clamp was then successfully fitted below the main sea level (MSL) and torque equipment was applied subsea to tighten the clamp on to the conductor. The conductor sleeve was then welded, painted and installed at the splash deck and bolt torque equipment was applied to the sleeve and subsequently, the torque sleeve to the clamp.



On this occasion, the original deck conductor guide was big enough to lower the clamp and sleeve through and did not need to be replaced. However, Claxton was fully prepared to install a replacement guide, had it of been required.

The operation was completed by blasting and painting the newly installed equipment to the client's paint specification, before the supportive tension ring was finally removed.

THE RESULT

The assembly provided and installed by Claxton has preserved the degraded

well conductor and provided protection against continuous degradation from the harsh environmental conditions seen primarily around the splash zone.

The installation has resulted in structural support to transfer compressive loads from the top to the bottom of the well. The assembly also provided lateral support.

The clamp and sleeve system is a permanent solution that will protect the conductor from further corrosion for up to 25 years.

Commenting on the project, Claxton Project Engineer Ben Griffiths said;

“When the client contacted us the well was in a real bad state of repair. We didn't really know the extent of the damage until we performed the subsea survey. Luckily we had components in stock which we quickly modified to suit the project requirements and to meet the client's tight deadline. Our fast response meant that the client's well was back up and running within five weeks. This downtime was a very small price to pay for a conductor which will now be good for over twenty years. We hope to assist the client with any future well corrosion issues they encounter.”

