



STACK A-8103 TENSIONING SUPPORT SYSTEM

Fatigue cracks in Stack A-8103 prompted the need for a support system to reduce stack movement and improve structural stability. Conbit was commissioned to conduct an engineering assessment and design a robust tensioning support system. The solution was developed to accommodate live operational constraints, prioritize personnel safety, and adapt to site conditions while minimizing disruption to ongoing plant operations.



Personnel coordinating on-site activities and safety procedures before execution.

PROJECT

- ✓ ENGINEERING
- ✗ PROCUREMENT
- ✓ CONSTRUCTION

Client
Shell

Project Number
31963

Project Name
Stack A-8103 Tensioning Support System



STACK A-8103 TENSIONING SUPPORT SYSTEM

01SD177-A



Crane and elevated platforms positioned around the stack for stabilisation work.



Tensioned guy wire secured to an anchor plate to stabilise the stack.

ENGINEERED SOLUTION

Conbit designed and supplied a tensioning support system consisting of a clamping system installed around the stack and tensioned guy wires connected to anchor blocks designed by the client. The system was engineered to provide additional support by limiting stack movement. A dedicated tensioning system was used to apply the required pretension to the guy wires, ensuring the support system could be installed and adjusted to meet project requirements.

EXECUTION

The project required close coordination between multiple parties responsible for engineering, manufacturing, and supplying the various components. Despite evolving client requirements and several design revisions, Conbit maintained control of the engineering process and supported the preparation for execution. Collaboration with Tebulo, who provided additional engineering support, proved successful and contributed to the overall project delivery.

RESULT

The tensioning support system was successfully implemented, delivering the intended solution to reduce stack movement. Shell, the end client, expressed strong satisfaction with Conbit's input, coordination, and control during execution. Conbit demonstrated flexibility in addressing challenges as they arose, ensuring the solution met the project's requirements despite changing conditions and an extended preparation period.