## Case Study: Shell Iraq Petroleum Development

MANJOON OIL FIELD

GOODWIN<sup>®</sup>
INTERNATIONAL LTD

Newstead Industrial Estate, Trentham, Stoke-on-Trent, ST4 8HU, England

h Tel +44 (0)1782 654000 y Email mahowell@goodwingroup.com

As a British engineering company, Goodwin International is synonymous with exceptionally high standards of precision engineering and excel in the supply of complex components in the petrochemical, hydrocarbon and LNG fields.

Since 2010, Goodwin International has been a key provider for the supply of dual plate check valves for the Majnoon Oil Field project based in Iraq.

Majnoon Oil Field is located approximately 60 km (37 mi) from Basra, Basra Governorate in southern Iraq. With an estimated 38 billion barrels of oil in place, Manjoon Oil Field is considered one of the richest oil fields in operation. Currently average production of oil is at 210,000 barrels per day, far surpassing the estimated 175,000 barrels per day first commercial production target.



By manufacturing project specific check valves in our innovative emission-free design, complemented by our other performance enhancing features, we have provided Shell with the assurance that the valves utilised would be successful in the rigorous demands of the Iraqi oil fields.

Goodwin International has manufactured check valves with some of the world's major contractors for the project, covering several areas of the development, including EPS & Brownfield sites.

As Shell has been sourcing dual plate check valves from Goodwin International for over a period of 20 years, we are adept in following and understanding Shell's technical requirements. Because of this we have successfully produced technically compliant valves, in conforming material, undertaken Shell required Non Destructive Testing (NDT) and inspection for the project, within the project delivery timeframe. NDT requirements were bespoke according to the IC class of each valve and ranged from radiography of critical areas, full coverage MPI and DPI to pickle and passivation.



Manjoon Oil Field: The first project in Iraq for 30 years which adds substantial new oil processing facilities.

All NDT was carried out onsite by Goodwin International level 2 ASNT/PCN certificated employees and overseen by Level 3 technicians. Complementing this, all valves were hydrostatically seat and shell pressure tested in accordance with ISO 5208.

Since 2010, Goodwin International have produced over £1.6million in dual plate check valves in carbon steel and stainless steel bodies ranging from 2"-24" for the project. Exotic material such as Inconel 625 and Inconel 825 plates were utilised by the oil field for their excellent heat and corrosion resistant applications in consideration of the process application. Valves were supplied to Shell in high pressure ratings up to and in excess of class 1500. Goodwin International valves, as required by the project, are retainerless with no leak path to the atmosphere with an emission-free design and in accordance with API 594.



Market Leaders: Wafer Style, Double Flange & Solid Lug Dual Plate Check Valves supplied to the Majnoon Oil Field Development