

# ABLE Always On The Radar

## MAJOR OIL COMPANY SELECTS ABLE TO SUPPLY MULTIPLE RADAR GAUGES FOR GAS BOOSTER STATION IN WEST KUWAIT

**A major oil company is building a new gas booster station in west Kuwait. The station comprises three high and low-pressure gas trains to produce 234 million cubic foot per day of dry gas and 69,000 barrels per day of condensate.**

The gas will be fed from the existing gathering centres 17, 27, 28 and the new gathering centre 16. The BS-171 contract will also cover a pipeline network from these units to the booster station and an intermediate slug catcher. The company aims to ensure that 500MBOPD crude production level and nominal 250 MMSCFD gas export from West Kuwait facilities is sustainable while keeping flaring below 1%.

The global oil and gas industry EPC contracted to build the station selected ABLE Instruments & Controls to supply the radar level gauging requirements of the project. The scope of supply included 82 air firing and 8 Guided Wave Radars (GWR) with SIL-2 certification being mandatory for a number of the applications.

A primary consideration for ABLE was the customer's special material requirements as dictated by high media temperatures and the sour service condition of the process, particularly at the front end of the trains. The non-contact radar and the GWR's were to be manufactured in 316 stainless steel and Hastelloy C22 respectively with the associated mechanical installation accessories (stilling wells and chambers) fabricated in stainless steel, Hastelloy C276 and carbon steel.

Furthermore, the majority of the non-contact radars needed to be able to be removed without shutdown. This was facilitated by supplying stilling wells with spool pieces so that the gauges could be easily and quickly isolated from the process via a customer supplied valve mounted between the two.

On specific vessels within the dehydration chain, the project specification dictated that Hastelloy probes be



*A selection of the large quantity of radar gauges supplied*

deployed in carbon steel chambers with the associated risk of dissimilar metal corrosion. ABLE supplied the systems concerned with flange insulating gasket kits to negate the possibility of a galvanic reaction.

The stringent documentation and material testing requirements of the project called for dye penetrant inspection (DPI), positive material identification (PMI) to establish composition, X-radiography (NDT) and magnetic particle inspection (MPI) to ensure against surface and subsurface discontinuities. ABLE were also responsible for performance verification of the radar gauges prior to delivery which was carried out on the level test rig at their UK facility.

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