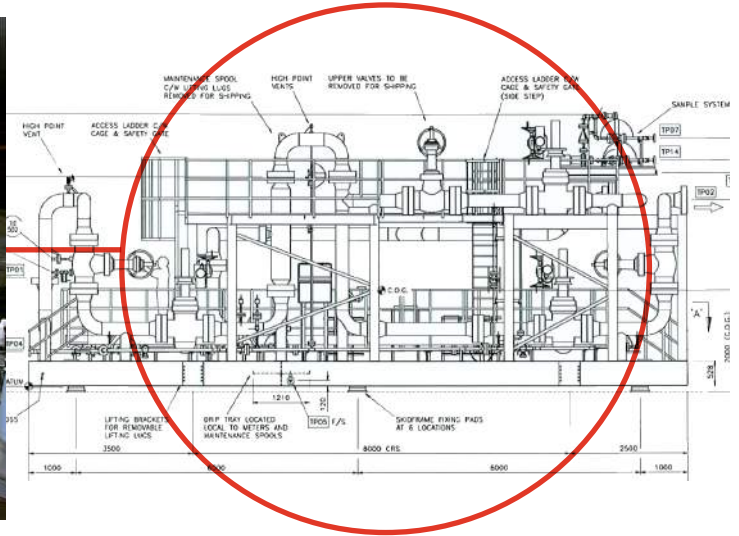


C202 | BP | Clair Ridge Project

Oil Export & Sales Gas Metering Skids



Project: Clair Ridge

Contractor: AMEC

End User: BP

Product: Oil & Gas Metering Skids

Location: UK, Offshore

Year: 2011

Application

Oil & Gas Fiscal Metering Packages for the BP Clair Ridge Project located 75km west of Shetland. The packages were designed and manufactured in accordance with DECC requirements for fiscal measurement in the UK.

Description

Scope of supply included the following:

- Oil Export Metering Skid comprised of 2 off 10" duty/standby metering streams and a master meter stream. Coriolis Meters were chosen based on process conditions and customer requirements.
- Sales & Buy Back Gas Metering Skid comprised of 2 off 6" sales gas duty/standby meter streams and 1 off 4" buy back gas meter stream. Orifice Meters were chosen based on process conditions and customer requirements.
- Oil Sampling Cabinet comprised of a water in oil analyser, duty/standby densitometers, and daily and weekly in-line samplers.
- The Gas Analysis Package comprised of an inlet pressure reduction panel, 2 off Gas Chromatographs, 3 off H₂S Analysers and all associated instrumentation and tubing.
- 1 off Control Panel comprised of 6 off 'Emerson S600+ Floboss' Flow Computers and associated ancillary equipment.

Challenges

Some of the challenges OGS faced and overcame during the execution of the project included:

- Due to space restrictions offshore, OGS engineers had to work in a creative manner in order to arrange all required equipment within the space available, without compromising the integrity of the package.
- The tender process required OGS to conduct a detailed review of the best technical solution for isolation valves. A double block and bleed

isolation philosophy was implemented and after extensive review from OGS engineers, including site visits to numerous valve suppliers, through Conduit Gate Valves were chosen as the preferred method of isolation.

- During the manufacturing phase a large number of new specifications were issued, resulting in numerous variations from the original project scope. Material changes were introduced including the extensive use of Duplex Materials with strict sourcing requirements.
- OGS' flexibility and experience allowed for the management and minimisation of delays and delivery despite extensive variations in project scope.

