

Steel Piling Group | Case Study

Maritime | Highway | Rail | Buildings | Sustainability | Specialist Work

UNDERWATER PILE DRIVING

E.On Huntingdon field - NORTH SEA (2012)



Eon Ruhrgas intend to develop the Huntington field as a tie-back to a new FPSO Sevan Voyageur. The Huntington field is located in a water depth of -90m in Block 22/14b of the UK sector of the Central North Sea. The base case is for six wells (four production two water injection) to be drilled from a single drilling template located approximately 2Km south of the FPSO. The four producing wells will be tied-in to a production manifold, which in turn, will be tied back to the FPSO by a 10" production flowline, a 4" gas lift flowline and a 6" control/chemical injection umbilical. An 8" water injection flowline will connect the water injection wells to the FPSO.

Gas will be exported from the FPSO via a new 8" export pipeline which will connect the FPSO to the CATS pipeline, via a tee structure tied into an available tie-in point on the BP Andrew valve support structure, which is located approximately 12Km NNE of the FPSO.

As part of the offshore pile driving operations, Dawson Contract Piling was to supply a complete spread with all associated equipment, airline supply to a double acting hydraulic impact hammer with a minimum impact energy of 120 kNm. This should include offshore support personnel to a BIBBY nominated vessel for the purposes of pile installation for the preinstalled 6 slot drilling template. 4x Ø24" piles were driven to target penetration depth of 12metres through the manifold pile guides.



UNDERWATER PILE DRIVING E.On Huntingdon field - NORTH SEA (2012)



Technical Specifications

The Drilling Template structure was secured with four tubular piles of Ø24x1" and total length approximately 19.444m. The required penetration was approximately 12m.

The first structure was piled commencing 6th August 12.

The primary hammer, a Dawson HPH15000, successfully drove all 4 piles to the required penetration in upto 90 metres of water.

Summary of Soil Conditions at the structure

Geology	Unit	Depth below seabed (m)	Description
Holcene Sediment	I	0.0 - 0.3	LOOSE to DENSE, silty to clayey, fine SAND, with sand to gravel-size shell fragments and medium gravel of mixed lithology
Coal Pit Formation	Ш	0.3 - 0.7	FIRM sandy CLAY
Fisher Formation	III	0.0 to 0.7 20.2 to 30.2	Interbedded MEDIUM DENSE to VERY DENSE slightly silty to silty, locally clayey, fine to coarse SAND and FIRM to VERY HARD slightly sandy to sandy folitated to platey clay with closely spaced thin sand-size to medium gravel-size shell fragments. closely spaced partings of silt and discontinuous slickensides.





Dawson Contract Piling Ltd Chesney Wold, Bleak Hall, Milton Keynes, MK6 1NE, England Tel: +44 (0)1908 240300 Fax: +44(0)1908 240222 www.dcpuk.com

NORTH SEA | 2012 Page 2 of 2