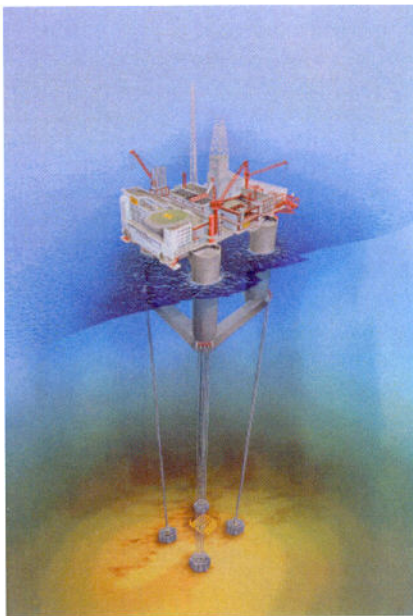


Heidrun Tension Leg Platform

C4-21
Reference
Project



Commissioned 1995

OWNER/CLIENT: **Conoco Norway Inc.**

CONSULTANTS: Dr. techn. Olav Olsen /Aker Maritime ASA

CONTRACTOR: Norwegian Contractors

Concrete volume : 65.700 m³ of LWA-concrete

Grade LC60; <2000 kg/m³ in slipformed, <1950 kg/m³ for cast in place.

Obtained strength > LC70

The Heidrun TLP (Tension Leg Platform) is a floating tension leg platform installed in June 1995 at the Heidrun field of the North Sea at 345 m water depth. It is not only the largest floating concrete structure, but also the construction carrying the largest deck load ever.

The platform consists of a square pontoon with box cross section. The length of the pontoons is 110 m and the height 13 m. The circular columns, 4 one in each corner, gives the construction a total height of 109 m. The MSBs (Module Support Beams) are 120 m with box cross section, built on shore and mated on the hull.

Specifications required LWA-concrete with density less than 2000 kg/m³ for slipformed parts and 1950 kg/m³ for the conventionally cast parts of the structure.

MAIN MIX DESIGN:

	Kg/m ³		Kg/m ³
Cement	420	SP-additive (Scancem SP-40)	7-8
Silica (50% slurry)	40	Retarder (Scancem R20)	Varying
Sand 0-3 mm Årdal	700	Air entraining (Scancem L(T))	1-3
Liapor 8 Fine 4-8 mm	325	Slump mm	220-250
Liapor 8 Coarse 8-16 mm	266	w/c+s effective	0,36