



**Rig Name:** Deepwater Millennium

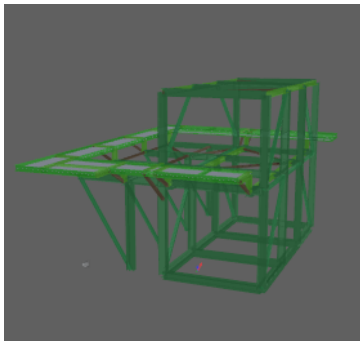
**Rig Type:** Drillship

**Owner name:** [Transocean Ltd.](http://www.transocean.com)

**Classification Society:** ABS

**Code design:** ASD  
(WSD method)

**Click below to see model 3D!**



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To view 3D documents



**Project description:** Rig Engineering (RE) was tasked by Transocean Inc. (TOI) to escalate preliminary design /feasibility study to install 3 off accommodation modules to conclusion. The assignment includes on location site survey, detailed design and engineering assessment leading to Class Submittal to American Bureau of Shipping (ABS). This detailed phase includes fabrication (deconstruct and construct), installation drawings, CG / added weight take off and acts on TOI behalf for Class Submittal to conclusion.

### Pictures of existing state and after modification



DWM looking FWD

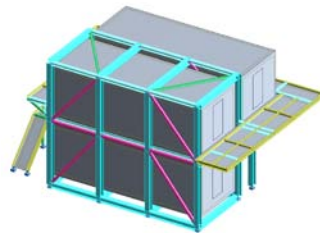


DWM looking FWD/PORT

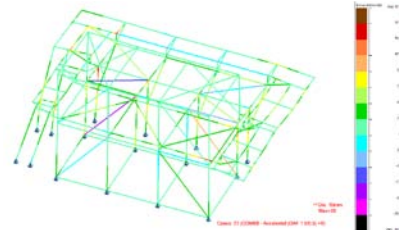


Temporary living quarter

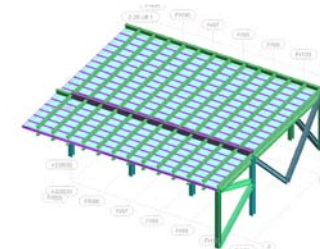
### Design phase



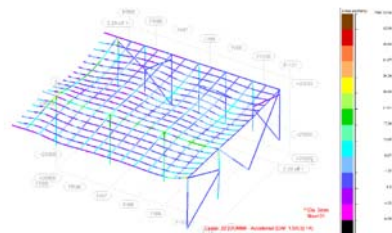
Model of TLQ



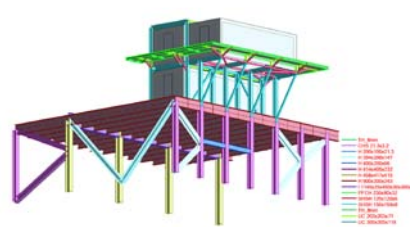
Stress plot and deformation of TLQ model



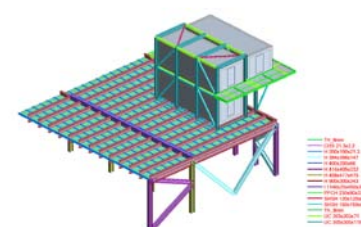
Model of deck below TLQ



Stress plot and deformation of deck model



Compilation of both models



Compilation of both models

**R.E. scope of work**  
RE was tasked to verify current deck capacity and carry out the Finite Element Analysis of existing and proposed structure with loads coming from UDL, wind and three new accommodation modules (Design and Engineering).

Work had been divided into various stages. Firstly, RE reviewed original general layout of proposed TLQ. A revised proposal which allowed reduction of structural work on the deck, time of installation modules on deck and improved service characteristic was tabled to TOI. Final RE proposal was then processed to conclusion

Secondly, RE designed new walkway, staircase supporting structure and also checked capacity of existing deck and deck below taking into account normal and accidental combinations of loads which may occur during service.