

The background of the slide is a photograph of a large offshore oil rig, the Transocean Charles, operating in the ocean. The rig has a prominent grey derrick and red cranes. The sky is blue with some clouds, and the sea is dark. A faint, stylized graphic of a circular structure with radial lines is overlaid on the left side of the image.

Borekonferansen 2023

THE HUMAN AND THE TECHNOLOGY

7th November 2023

DATA DRIVEN DECISION MAKING – REAL-TIME

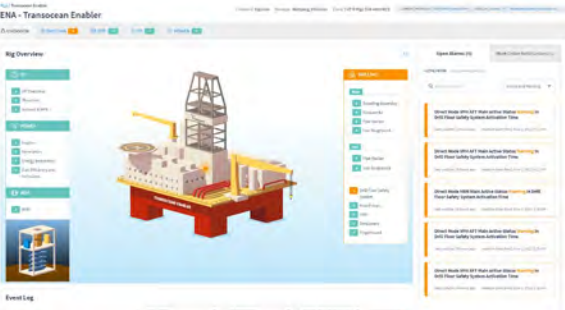
Human



Organizational

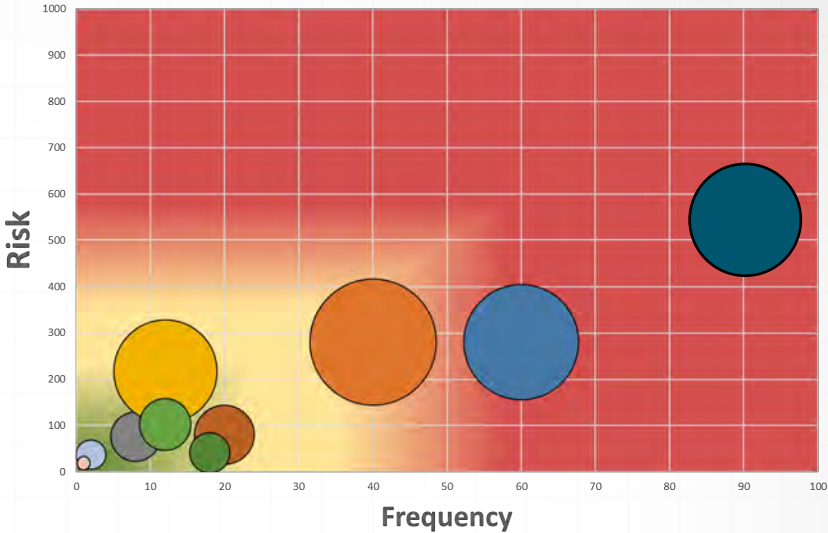
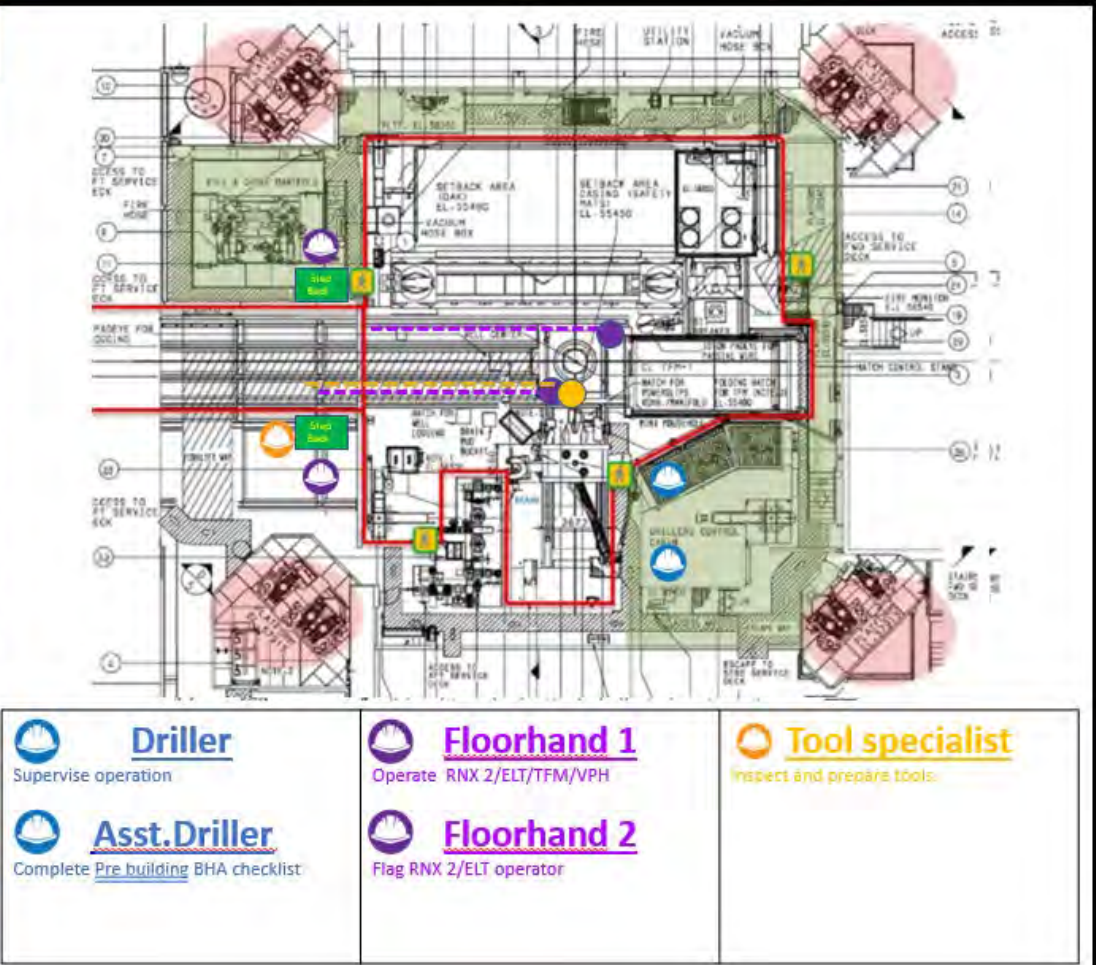


Technical



WORKING SYSTEMATICALLY WITH RED ZONE EXPOSURE

ID	Task	Max persons in Red Zone
1	F.H. 1/2. Install lifting sub on assy in RFM, using winch (if applicable)	3
2	DRL/F-H 1. Hoist DDM and guide tool with DFMA to well center. Lower down DDM.	0
3	SH. Gauge Bit.	1
4	FH. Remove hole cover and bowls	1
5	FH. Stab tool in WC.	1
6	DRL: Lower DDM to slips setting height.	0
7	FH. Install bowls, Set manual slips and dog collar	3
8	F.H 3 B/O lifting sub with RNX, using remote panel if applicable	1
9	DRL/FH: Remove lifting sub with tugger/Elevator	2
10	DRL/FH: repeat steps above when lifting in new tools. Lower tools for inspection.	0
11	FH/SH: Install poncho. Check connections and dope connection on tools	2
12	FH. MU connection with RNX	1
13	F.H: If applicable - M/U connection using manual rig tong	0
14	F.H: Remove dog collar and remove slips	2
15	DRL: Position string for tool download and mounting of radioactive sources.	0
16	SH. Install Poncho. Radioactive sources/Plug in to tools.	2
17	DRL: Lower DDM to slips setting height.	0
18	FH: Set slips & Dog collar	2
19	IF MAKING UP NEW BIT:	
20	DRL/F-H 1. Pull BHA components above rotary and secure with DFMA	0
21	F.H.1/2. Install bit breaker in rotary, Using winch.	2
22	DRL/FH: Lower DDM and stab bit in bit breaker	1
23	DRL/FH: Break out bit with RNX or rig tongs if applicable - ref separate JBD	0
24	FH. Spin out bit with RNX/Elevator	0
25	FH: Change bit in bit breaker using tugger	2
26	DRL/FH: Stab and spin inn new bit with RNX/Elevator	1
27	DRL/FH: MU new bit using RNX or rig tongs if applicable - ref separate JBD	0
LINE OF FIRE		
Crush Points during adjustments		
EQUIPMENT IN USE		
RNX Roughneck		
ELT Eagle Light		
TFM Tubular Feeding Machine		
VPH Vertical Pipe Handling system		



AUTOMATED DRILLING OPERATIONS



Tooling

Electronic

Wired
pipe

Auto
Tripping



Logistics

Autonomous

Manual

Ergonomics
Control
system

Integrated
HMI

Auto
Drilling

Closed loop

AI

THE DRILLERS TOOLBOX

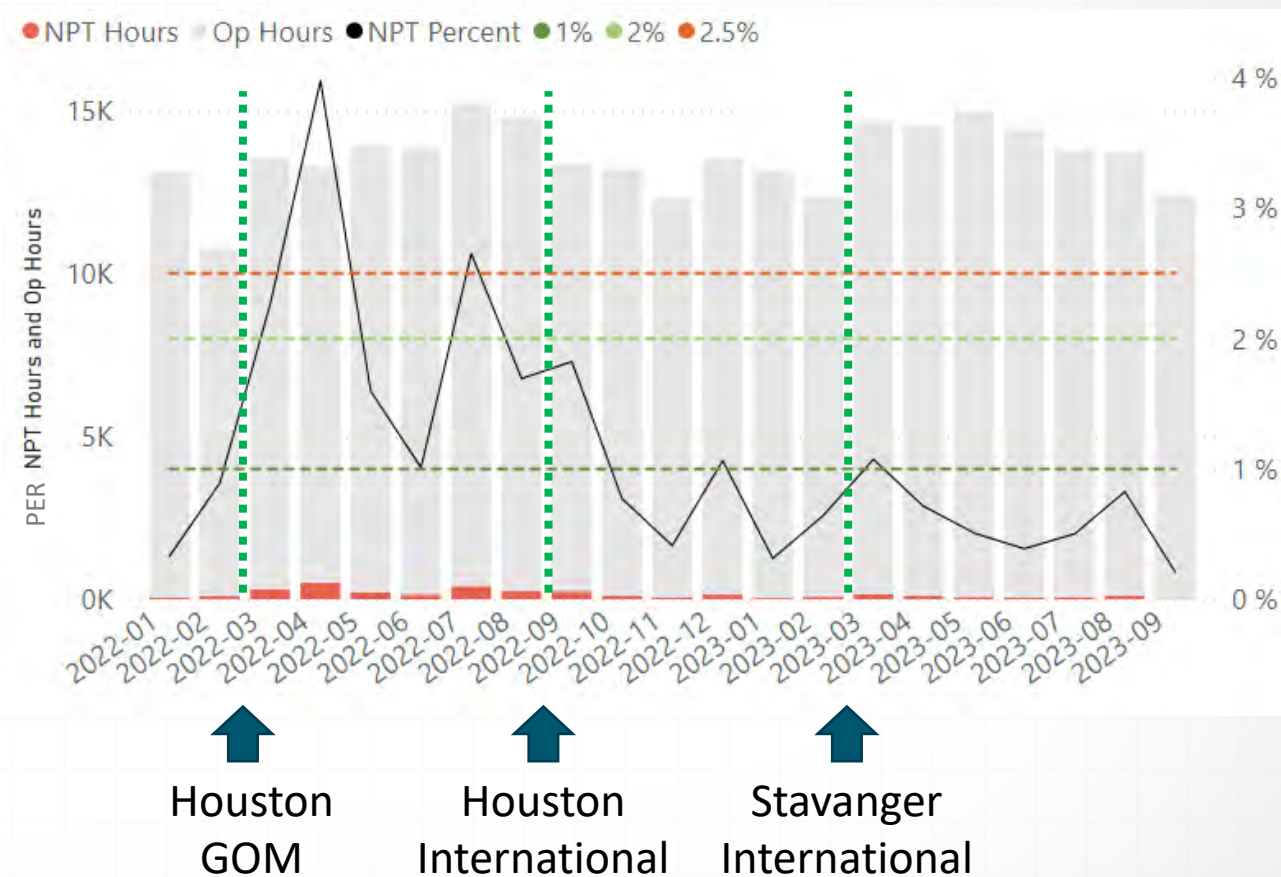


SAFETY FEATURES



DIGITAL PLANNING

24/7 - CRITICAL OPERATIONS ASSURANCE CENTER





Thank you