

Repsol well design and risk mitigation processes, the case of HPHT Jaguar-1 well (Guyana).



Regional Direction Exploration Latin America

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1. Repsol Drilling Risk Mitigation Processes

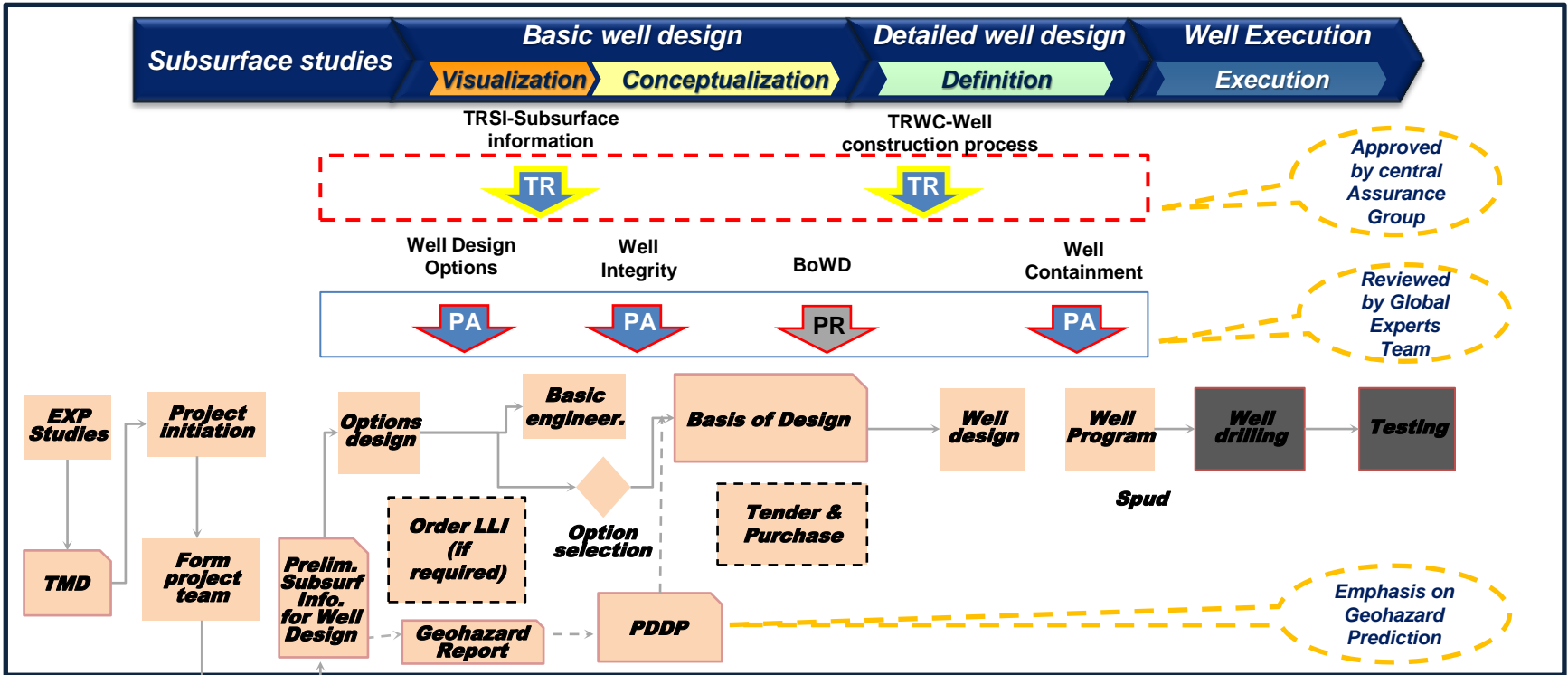
- PRE
 - ✓ *Well planning*
 - ✓ *Risk identification and prevention tools*

- DURING
 - ✓ *Execution*
 - ✓ *Emergency Management*
 - ✓ *Critical Response Resources*

- POST
 - ✓ *Environmental and Socio-economic Restoration*
 - ✓ *Business Continuity*

Repsol Drilling Risk Mitigation Processes

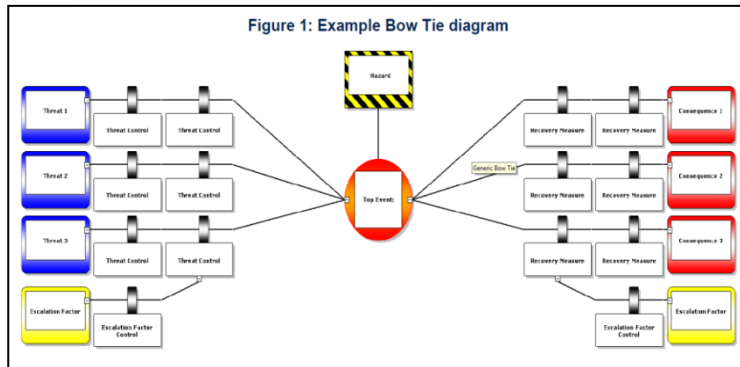
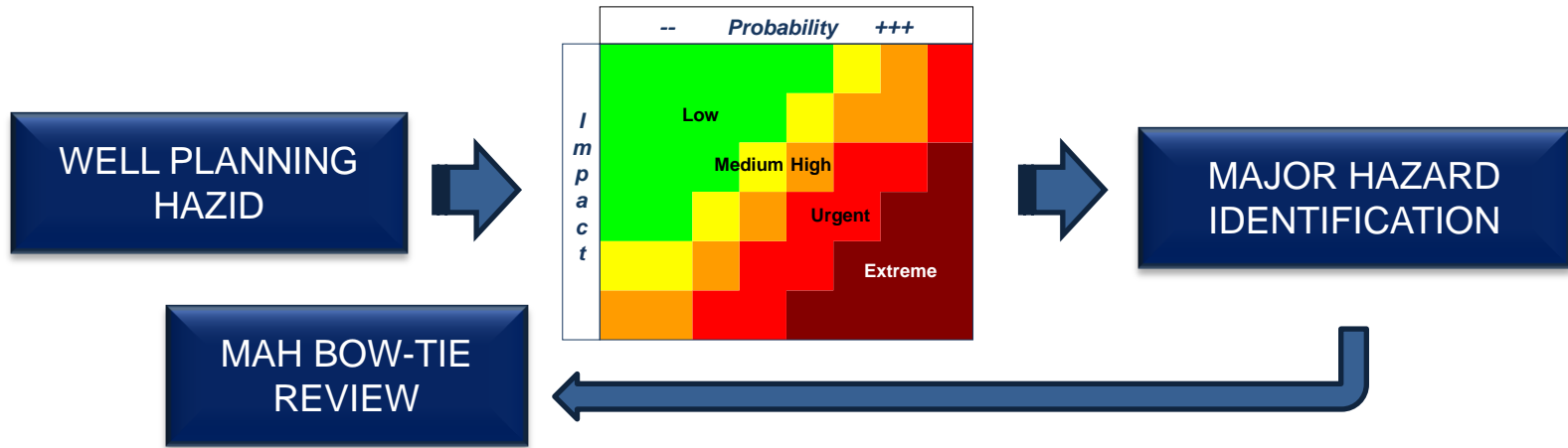
PRE: Well Planning & Construction Process



12 to 24 months ----- 10's people ----- Multi-M\$ engineering

Repsol Drilling Risk Mitigation Processes

PRE: Drilling Hazard Identification and Prevention



DEFINE:

- ✓ Threat Controls
- ✓ Recovery Measures
- ✓ Escalation Factors

Repsol Drilling Risk Mitigation Processes

DURING: Technical Standards, Supervision, MOC



Entorno de colaboración **Technical Standards**

Site Actions Browse Page

Well Construction Technical Manual and amendments site

The Know Howse Forums Events Media Gallery E&P Processes Learning Utilities Help Contact Us Documents Links News

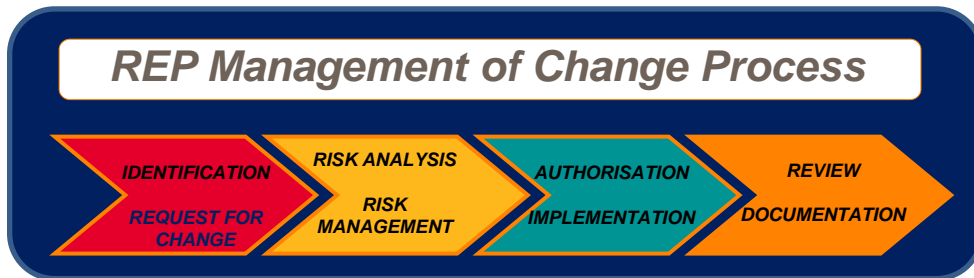
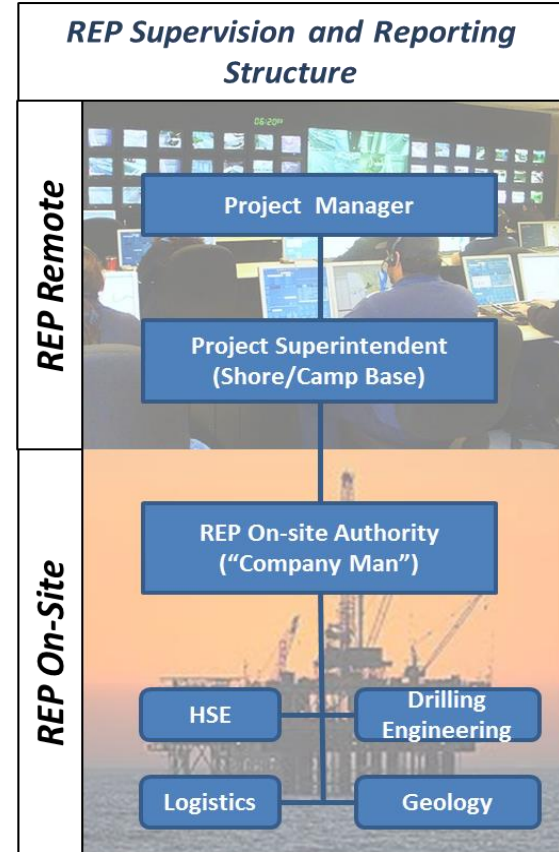
Disciplines
 Geology
 Geophysics
 Petrophysics
 Reservoir Engineering
 Well Construction
 Production Engineering
 Facilities Engineering and Construction
 Safety and Environment
 Liquefied Natural Gas
 GIP (Integrated Project Management)
 Operations and Maintenance
 Special Interest Groups
 All Site Content

CLICK HERE TO OPEN THE WELL CONSTRUCTION MANUAL

REVISIONS & AMENDMENTS

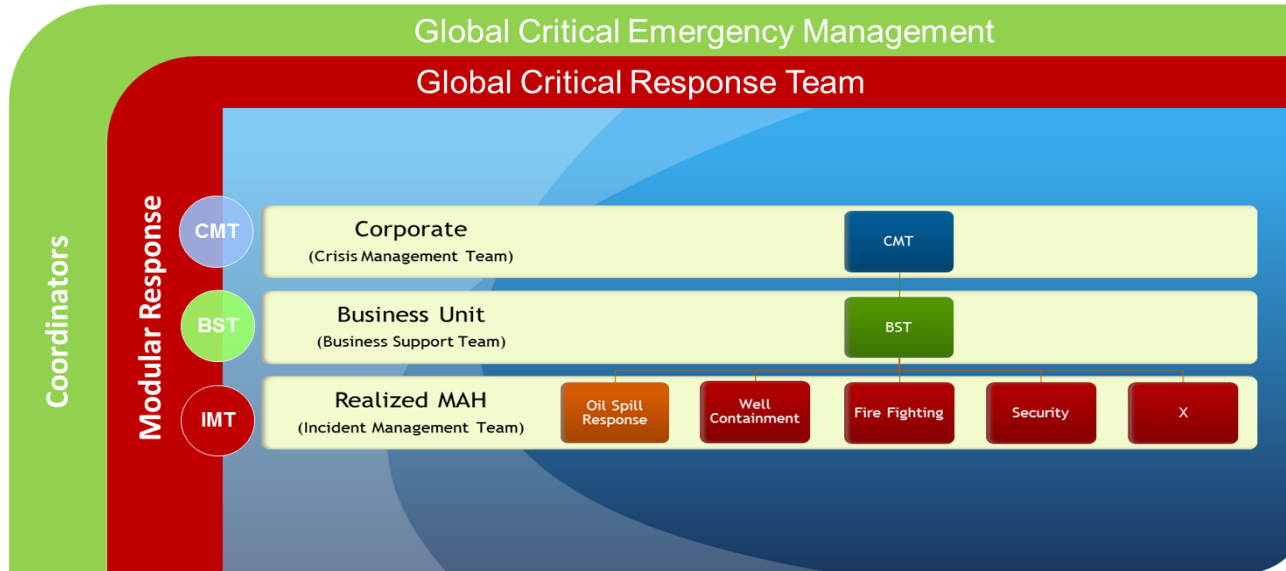
- Amendment Proposal
- List of Proposals
- Ask for a paper copy
- Proposal Form
- Help by e-mail
- PDF Version

Search Box



Repsol Drilling Risk Mitigation Processes

DURING: Global Critical Emergency Management



Repsol Drilling Risk Mitigation Processes

DURING: Critical Response Resources

GLOBAL CRITICAL RESPONSE TEAM



- ✓ Modularity
- ✓ Training
- ✓ Quick Activation

GLOBAL WELL CONTAINMENT STRATEGY



Wild Well Control Inc. MSA

RESPONSE ASSETS

Critical Management Centres & Situation Rooms



Located in Madrid, Houston, Port of Spain, Lima and Rio de Janeiro

OIL SPILL RESPONSE STRATEGIES



- ✓ [Local – MAA](#)
- ✓ [Regional – OSRL \(USA\)](#)
- ✓ [Global – OSRL \(UK\)](#)



Repsol Drilling Risk Mitigation Processes

POST: Recovery & Continuity



✓ **RECOVERY**

- *Environmental and Social Restoration*
- *Compensation*

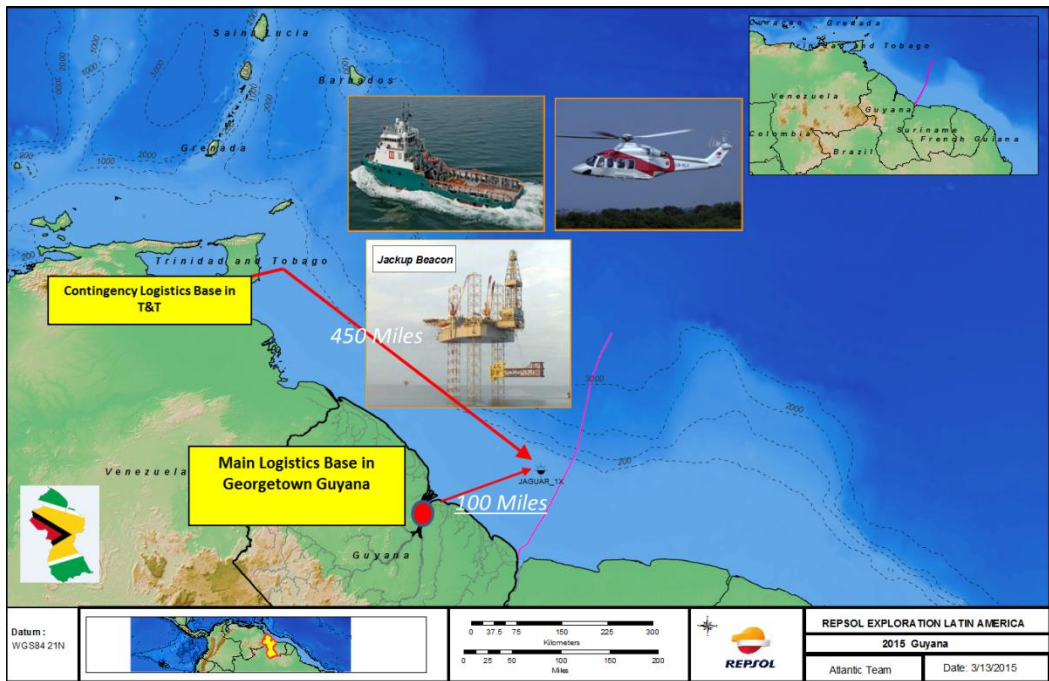
✓ **BUSINESS CONTINUITY – Lessons Learned**

- *Restructuring of the organization*
- *Realignment of the strategy*



Repsol Drilling Risk Mitigation Processes

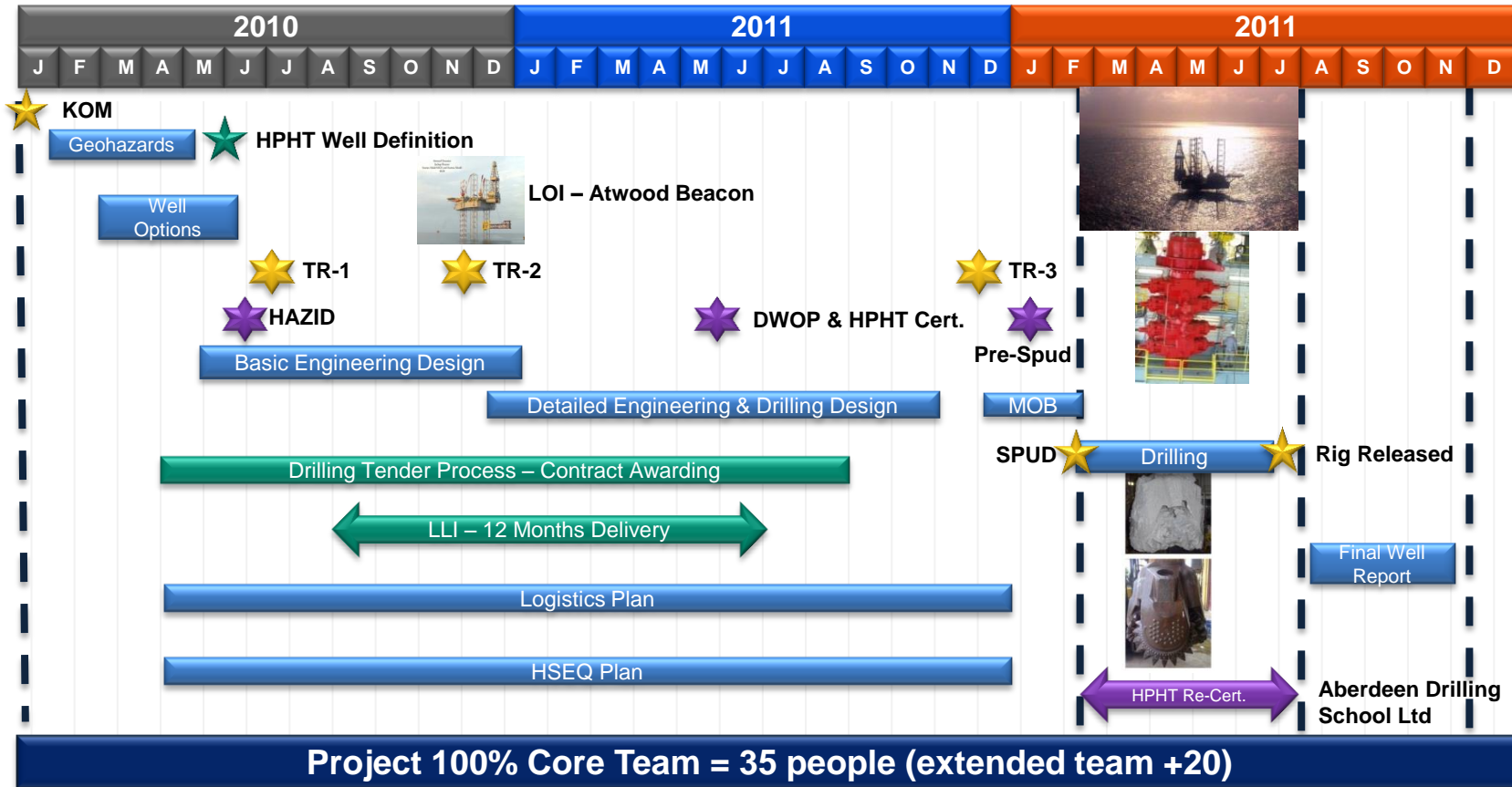
The Jaguar 1 Well Case



- Remote area supported by Trinidad and Tobago at 450 miles.
- Previous to the drilling of Jaguar-1, only one additional well had been drilled offshore in Guyana in 20 years.
- Very good level of Cooperation by Local Authorities.

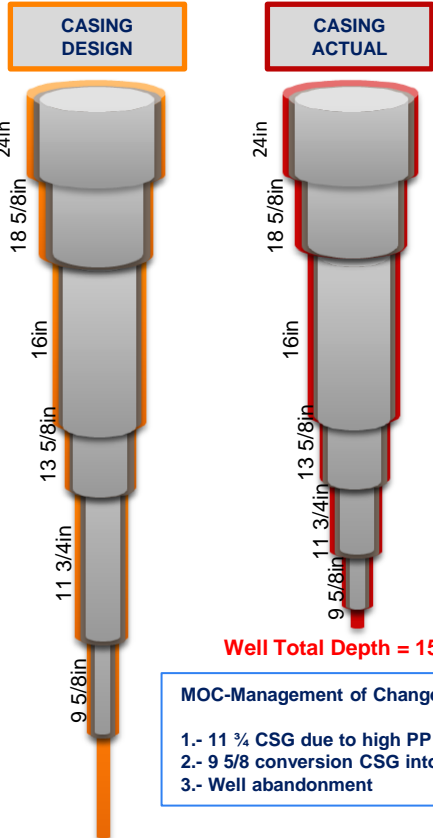
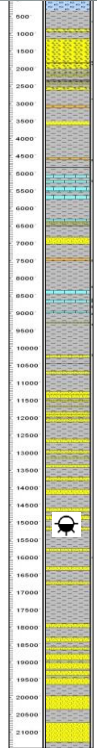
Repsol Drilling Risk Mitigation Processes

The Jaguar 1 Well Case: PRE



Repsol Drilling Risk Mitigation Processes

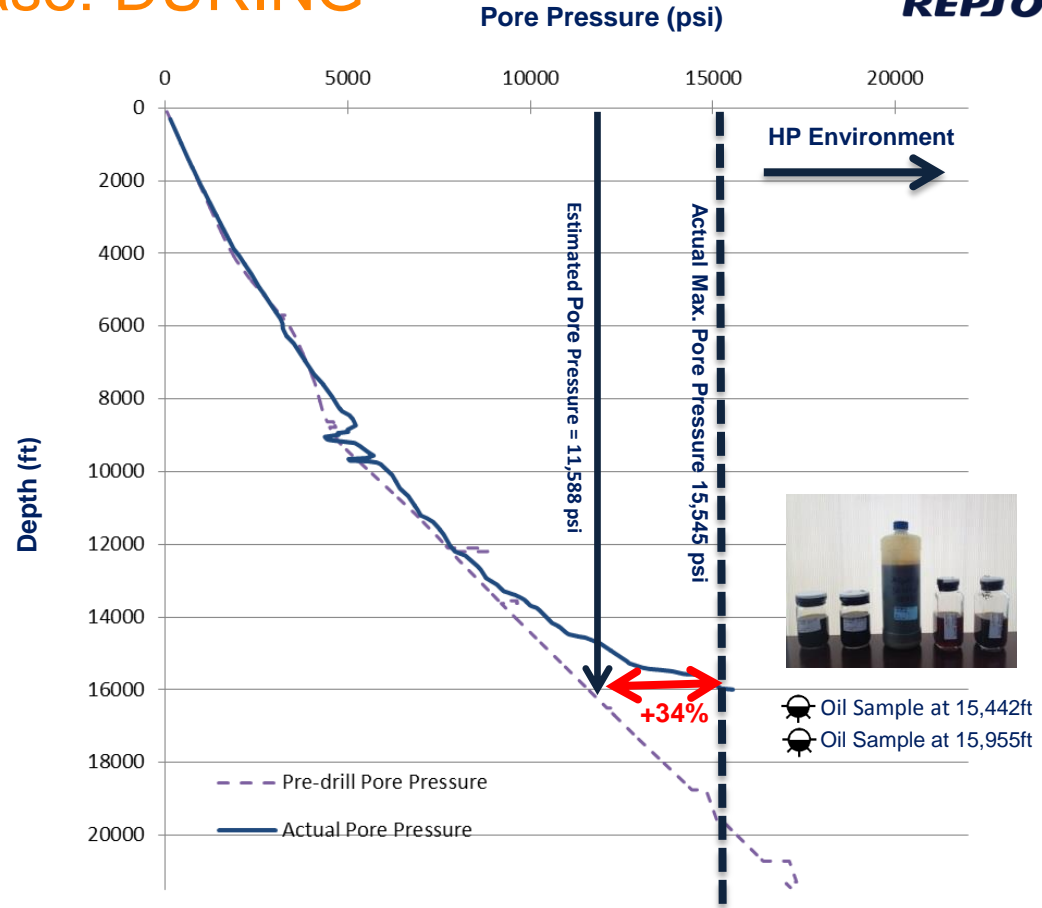
The Jaguar 1 Well Case: DURING



MOC-Management of Change

- 1.- 11 3/4" CSG due to high PP
- 2.- 9 5/8" conversion CSG into Liner
- 3.- Well abandonment

Prognosed Depth = 21,445ft

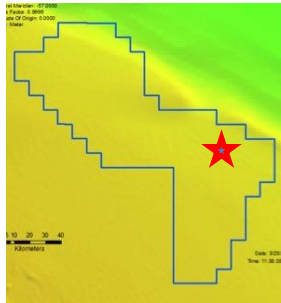


Repsol Drilling Risk Mitigation Processes

The Jaguar 1 Well Case: POST

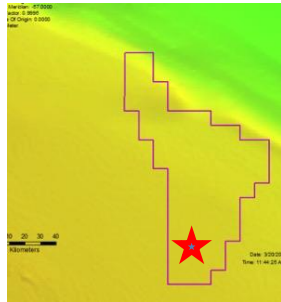


Georgetown



1997

Kanuku



2013



THANK YOU



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