

From: Pere, Allen L
Sent: Thu Jun 25 03:44:39 2009
To: Rogers, Bruce A (Houston); Daigle, Keith G; Mills, Bill H; Harland, Richard
Subject: Draft Macondo Peer Review Feedback
Importance: Normal
Attachments: Macondo_Peer_Review_Feedback_Rev_0.ppt

FYI.

Bruce, please review and email any changes to the feedback.

Thanks

Allen

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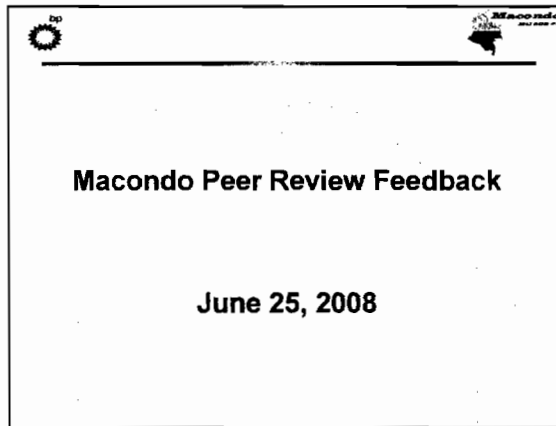
Allen Pere

Drilling Engineer

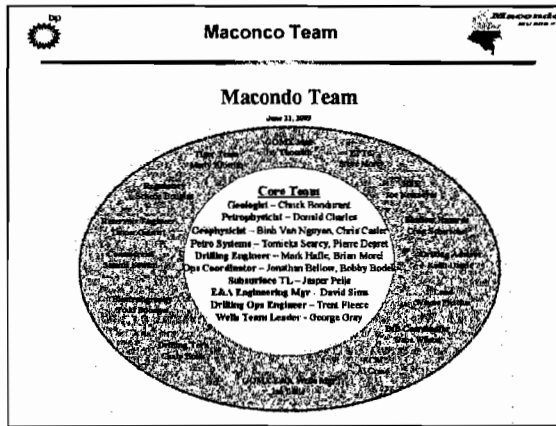
EPT - Drilling & Completions



Office: 281-366-0278

Cell: 281-615-2078



bp	Peer Review Team	Mitsubishi
<ul style="list-style-type: none">• Allen Pere (Review Leader)• Richard Harland• Keith Daigle• Bill Mills• Bruce Rogers	<ul style="list-style-type: none">EPT D&CGoM DrillingGoM DrillingGoM G&GGoM Completions	





Overall Impressions

- Team did a lot of good work
 - Robust design supported by good data and analysis
 - Shallow hazard & PPFG analysis
 - TD criteria guidelines, APB Mitigation & Production Long String
 - Effective use of EPT
- Split execution stage allows rig crews to perform hole section reviews and develop optimized work instructions and logistics planning.
- Well location is conducive to a fast track schedule
 - Low risk of shallow hazards
 - Extra Salt Location
 - Low risk of No Drilling Surprises



Peer Review Objectives



Purpose of the Macondo Drilling Peer Review
Gain external perspective of the Macondo Well Plan from the Peer Review Team

Upon review of the plan the Review team to provide feedback on the following:
Identify any "show stoppers" that must be addressed in the Define phase.
Provide endorsement of the plan and/or endorsement contingent on certain actions to be completed in the Define Stage.

No show stoppers identified for this well.
Plan endorsed, comments from peer review team for refinement and optimization.

Project Objectives:
Are the well/project objectives clear? Yes
Are they clearly understood by the Macondo planning team to avoid conflict in the decision making during well execution? Yes, document keeper well requirements into objectives.



Risk Management:
Have the major risks of the well been adequately identified and addressed with clear mitigations and contingency planning? Yes, all major risk are addressed and mitigations developed.
Are the mitigation and/or contingencies identified for the high impact risks sufficient to minimize the impact on the well performance? Yes, Clarify forward plans for subsurface failure case scenario (water contact, stringers, etc). Does less than 45' of net pay mean don't run production casing or just a reduced logging program?



Recommendations



- **Spirit Execution Operations – Use stack time to BP's advantage**
 - Develop a structured approach for determining if adequate time exist to start open water operations with respect to date for being under tow to stack location
 - Opportunity exist while rig is stacked to align team by rig crew developing hole section specific operation plans and logistical plans that address multiple short hole sections
- **Re-Completion Prospects – SoR will require a MoC**
 - Re-Completion prospects are not consistent with SoR secondary objective
 - Well is not designed for re-completions. Future wells may be designed for accessing uphole reserves
 - Need to clearly understand risk and cost from uphole logging program and justify value.
- **Develop communication and decision making plan with respect to new rig operating with the E&A team. Incorporate learning's from Spirit Operations**
- **Pre Drill Data Package**
 - Complete with evaluation program aligned to SoR objectives
 - Value of Information analysis needs to be performed for the current optional whole core evaluation program. This will determine the optimum well to core or if the Isabella core can provide the required data
 - Create an open water PDDP to allow time for a robust well to TD PDDP
- **Documents need to have consistent data**
 - TD Depth, Casing Size, Casing Points, Logging Program, Production Facility Location



Open Water Define Stage Focus Areas

- Open Water ECD management
 - Educate rig on Fast Drill ECD plan and Hodges jetting method
 - Define starting point for open water dual gradient drilling to optimize operation efficiency and cost savings. Incorporate pore pressure data and rig limitation in analysis
- Utilize Dip Stick method for stick up determination in low visibility scenario



Well to TD Define Stage Focus Areas



- Insure 18" burst / rupture disk are installed correctly before shipping casing to the rig
- Set up completions for success
 - Understand the impact of 12-1/4" x 14" open hole to centralization and perforation efficiency
 - Develop minimum completion rathole requirements
 - Run 3,000' of 10-3/4" production casing to allow tubing string options
 - Develop detailed suspension program vetted with the completion team with respect to:
 - Displacing cement with inhibited completion brine
 - Utilizing retrievable bridge plugs to minimize debris