

8146

Exhibit No. \_\_\_\_\_  
Worldwide Court  
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# Native

BP-HZN-CEC022145

**From:** Hafle, Mark E  
**Sent:** Thu Apr 15 01:49:47 2010  
**To:** Walz, Gregory S; Morel, Brian P  
**Subject:** TD casing and TA plan forward\_Rev1.ppt  
**Importance:** Normal  
**Attachments:** TD casing and TA plan forward\_Rev1.ppt

<<...>>

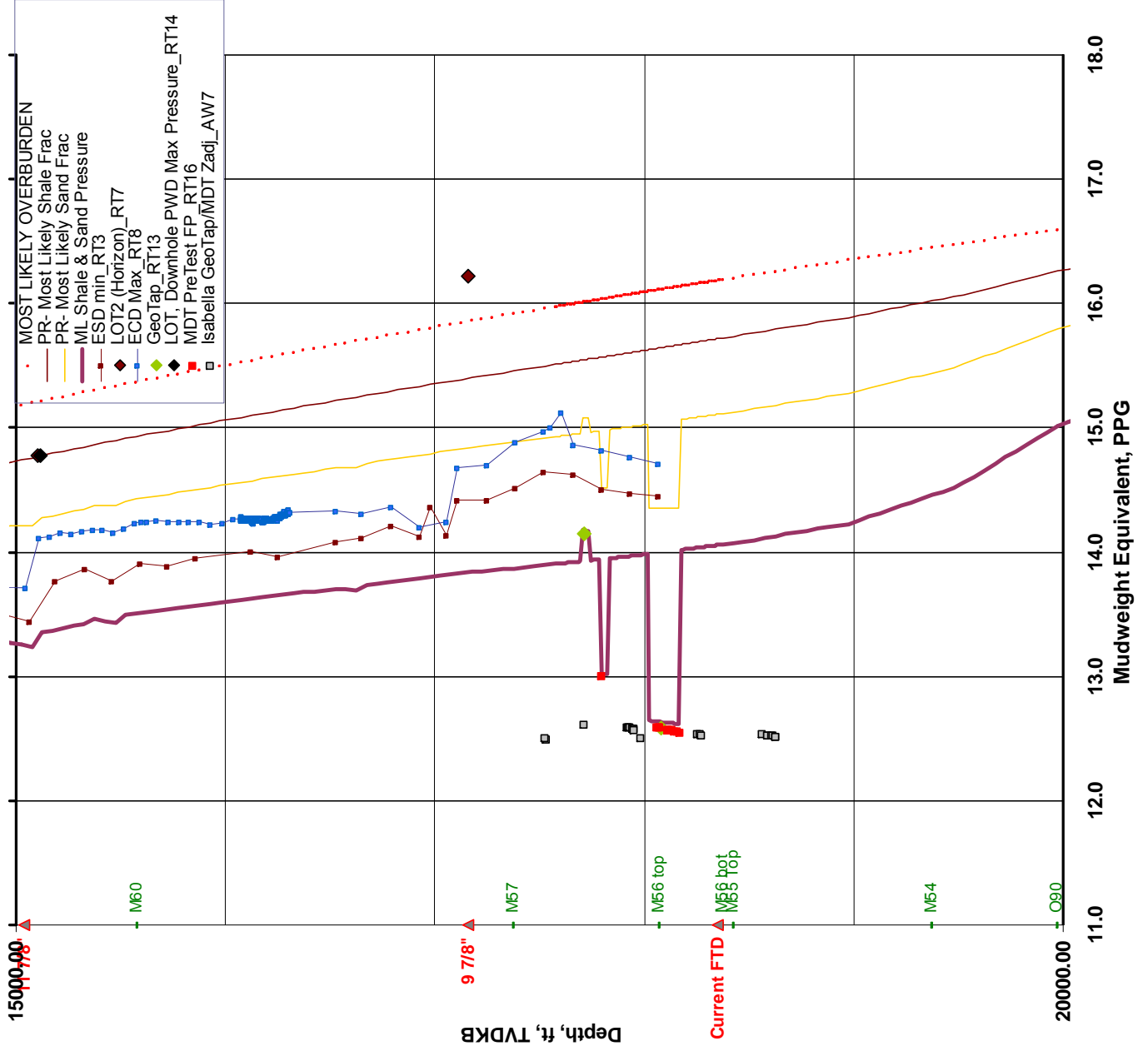
My rev1 slides for a quick review please  
Call with comments



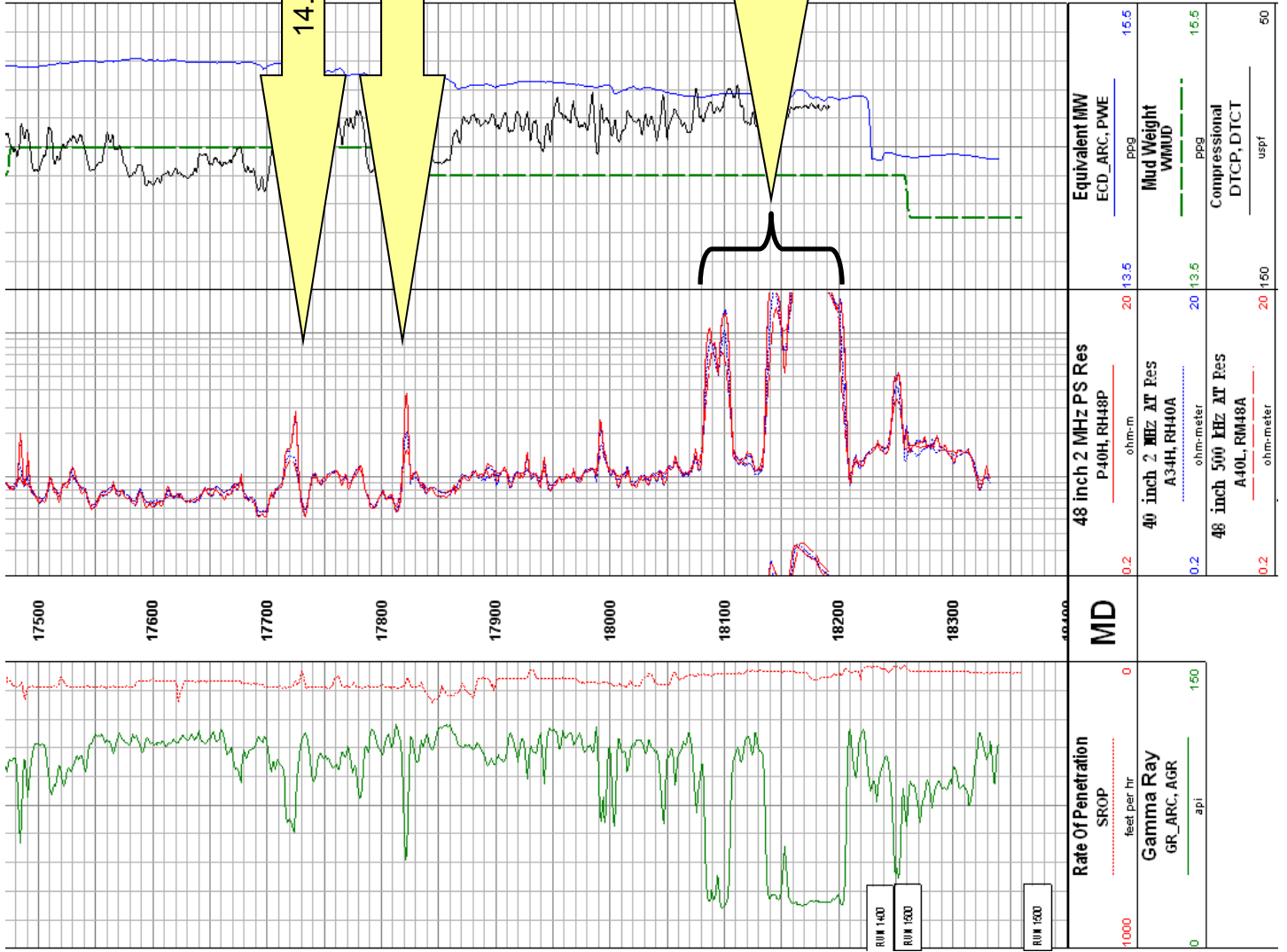
## MC 252 #1 (Macondo):

TD Forward Plan Review: Production Casing & TA options

# Macondo MC\_252-1-A Pressure Forecast: REV7 , 4/12/10



Macondo PFFG  
Update: 4/13/10



14.1 pp Geo-Tap, no MDT pressure due to WO

13.01 pp MDT

12.5-12.6 pp MDT pressures

17500

17600

17700

17800

17900

18000

18100

18200

18300

18400

MD

Rate Of Penetration  
SROP  
feet per hr

Gamma Ray  
GR\_ARC\_AGR  
api

48 inch 2 MHz PS Res  
P40H, RH48P  
ohm-m

40 inch 2 MHz AT Res  
A34H, RH40A  
ohm-meter

48 inch 500 kHz AT Res  
A40L, RM48A  
ohm-meter

Equivalent MW  
ECD\_ARC\_PWE  
ppg

Mud Weight  
WMUD  
ppg

Compressional  
DTCP, DTCT  
usprf

15.5

20 13.5

0.2

0.2

0.2

0

150

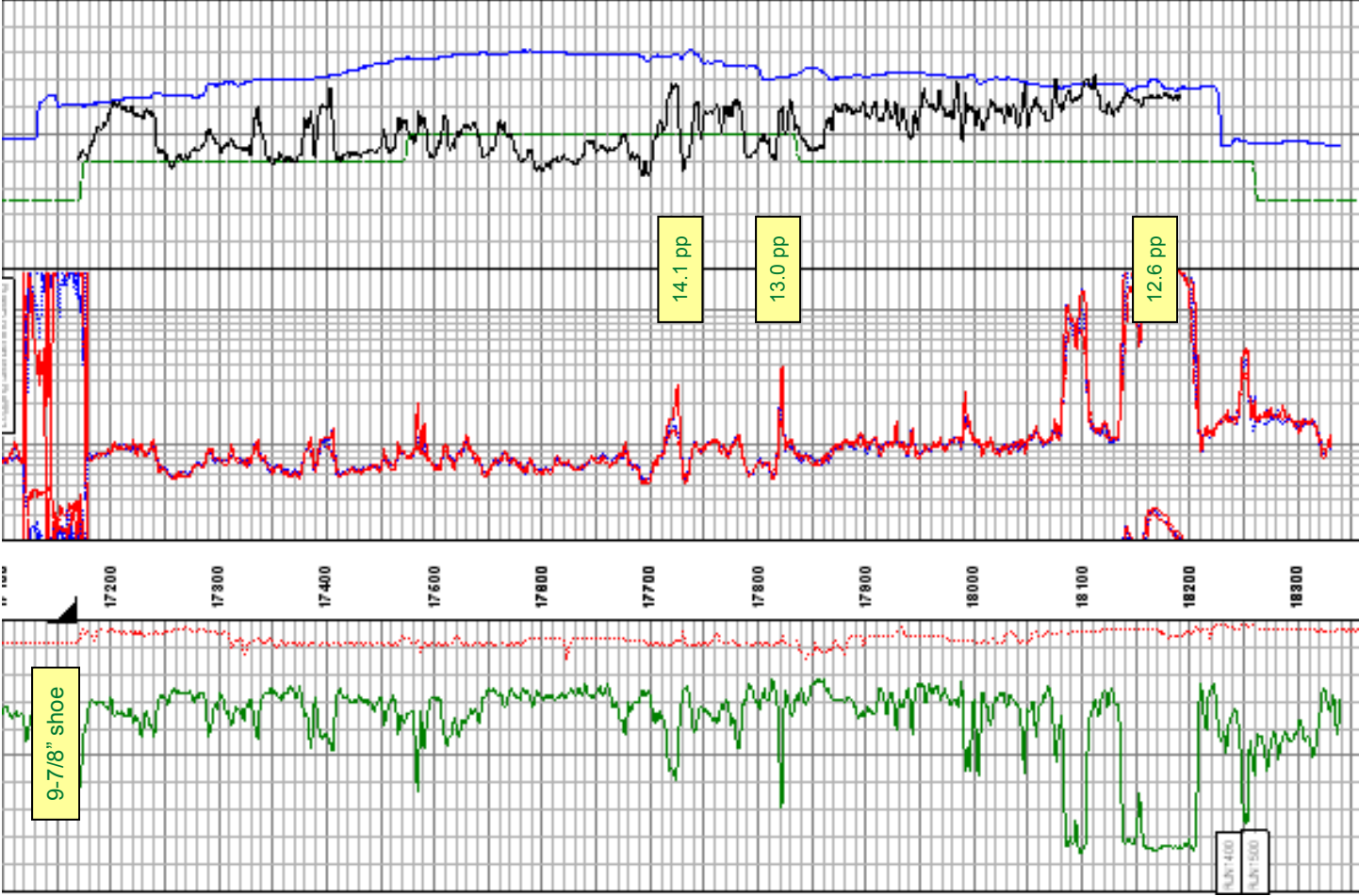
1000

50

RM 140

RM 100

RM 100

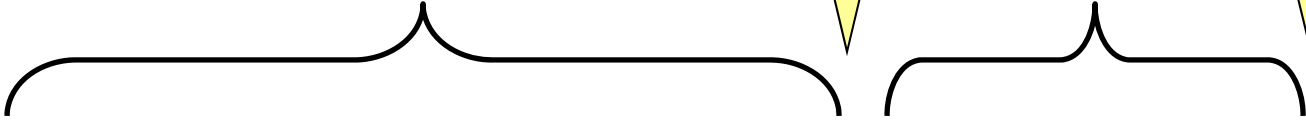


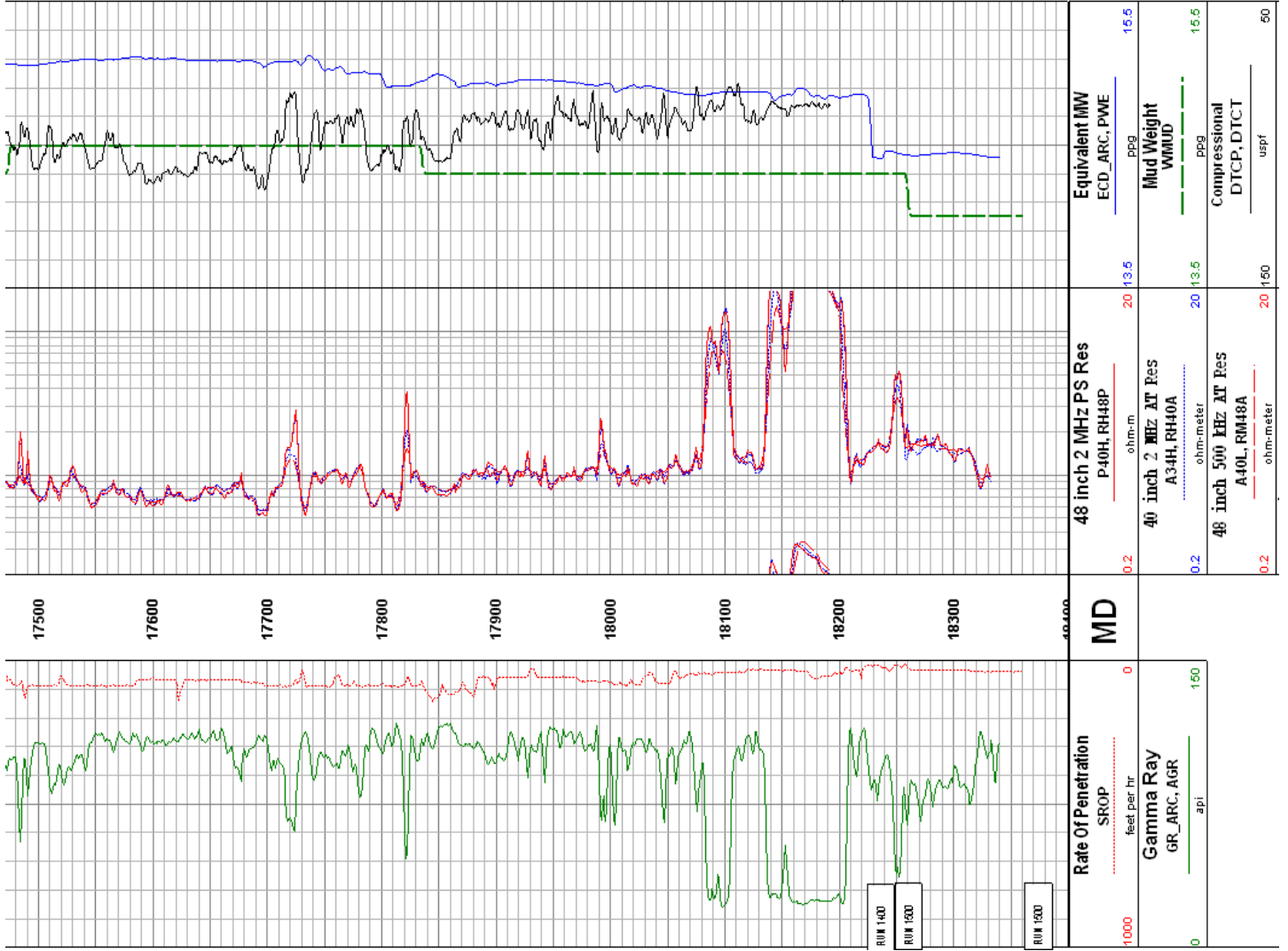
Loss zone somewhere in this section

Cut MW due to losses

Possible, or even likely low FG sand loss zone somewhere in this section

Cut MW due to losses / PP





Suspected loss zone – for major loss event

Wellbore currently static and stable with 14.0 ppg MW. ECD while drilling the final 100' was ~ 14.49 ppg

## “Keeper Well” options....



- Long string of 9-7/8” x 7” casing *is again* the primary option...
  - Cement simulations indicate it is possible to obtain a successful cement job.
  - It is possible to fulfill MMS regulations of 500’ of cement above top HC zone ( thought to be 17,803’)
  - Some risk, if losses occur, to have and open annulus to wellhead, with HC zone(s) open to 9-7/8” seal assembly as only barrier.
  - Potential need to verify TOC with USIT log and perform remedial cement job prior to TA if losses occur during cement job. May also need to obtain a BP / MMS dispensation for TOC.
  - Best economic case and well integrity case for future completion operations.



## “Keeper Well” options....



- 7” Liner (with 7” x 9-7/8” XO x 11-7/8” Versaflex hanger) is now the *contingency* option...
  - Use this option if losses or hole stability problems occur during the conditioning run with 8-1/2” bit and bha.
  - Less issue with landing it shallow (we can also ream it down)
  - Can run it to bottom, if bridge at 18,280’ seen during logging reappears.
  - Liner hanger acts as second barrier for HC in annulus if losses occur during cement job.
  - Primary cement job has slightly higher chance for successful cement lift due to lower ECD.
  - Remedial cement job, if required, easier to justify to be left for later due to liner top seal acting as second barrier.

## “Keeper Well” options....



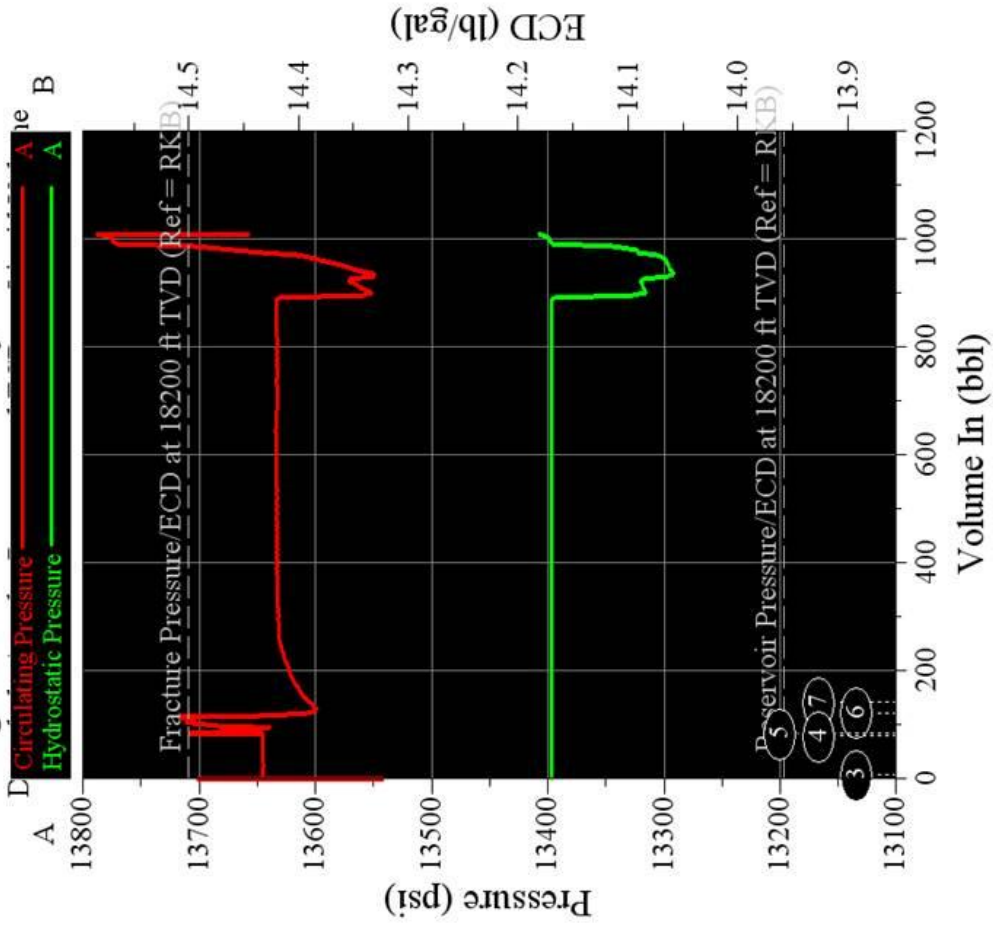
- Plug open hole and TA well (*least preferred*, but still an option if hole conditions go south)
  - Minimizes today’s dollars and NPT exposure.
  - All primary well objectives have been achieved.
  - Increases cost to completion by \$10 - \$15 MM+ for drilling plugs, re-drilling production hole, re-logging.

# 9 7/8" X 7" Prod Casing



## OptiCem

Circulating Pressure and Density at Reservoir Zone



- Fluids Pumped**
- ② 6.7 ppg Base Oil Macondo
  - ③ Macondo 9 7/8" X 7" Prod Casing - 14.3 ppg TS III
  - ④ Macondo Foamed Slurry - 16.74 ppg
  - ⑤ Macondo Foamed Slurry - 16.74 ppg
  - ⑥ Macondo 9 7/8" X 7" Prod Casing - 14.3 ppg TS III
  - ⑦ Macondo 9 7/8" X 7" Prod Casing - 14.17 ppg