From: Cooke, David

Sent: Wednesday, July 21, 2010 5:18 PM **To:** Shedd, William; Celata, Michael

CC: Perry, Bruce; Khan, Abdul; Blum, John; Spraitzar, Ronald

Subject: RE: MC252 7-19-10

Due By: Tuesday, January 02, 1601 1:00 PM

Bill,

John has left for the day. We will try to get you something tomorrow (AM?)

dwc

From: Shedd, William

Sent: Wednesday, July 21, 2010 3:47 PM

To: Celata, Michael

Cc: Perry, Bruce; Cooke, David; Khan, Abdul; Blum, John; Spraitzar, Ronald

Subject: RE: MC252 7-19-10

Thanks for letting me know. My map is identical to BP's on the "full" seismic (near + far). Do you know if he used the full or the far?

It looks like my map created quite a stir and changed the whole direction. The engineers on both sides are in agreement that strong aquifer support doesn't make sense and the drop in GOR that Mike P noted in the Telecon is consistent with depletion drive.

I would need to have a picture to show by 5:30 pm for this evening's meeting or I can't bring it up. It would help.

Bill

From: Celata, Michael

Sent: Wednesday, July 21, 2010 1:51 PM

To: Shedd, William

Cc: Perry, Bruce; Cooke, David; Khan, Abdul; Blum, John; Spraitzar, Ronald

Subject: FW: MC252 7-19-10

Bill,

John Blum looked at the seismic data over Macondo, please see details below for the analysis. In summary he agrees that there is a high probability that the reservoir is compartmentalized. We wanted to forward his analysis as backup in case you were having trouble convincing others of this scenario.

Mike

Mike Celata
Deputy Regional Supervisor
Resource Evaluation
Gulf Regional Office
Bureau of Ocean Energy Management, Regulation, and Enforcement
(504)736-2448

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From: Spraitzar, Ronald

Sent: Wednesday, July 21, 2010 12:14 PM

To: Celata, Michael

Cc: Perry, Bruce; John Blum; Spraitzar, Ronald

Subject: FW: MC252 7-19-10

From: Spraitzar, Ronald

Sent: Wednesday, July 21, 2010 11:29 AM

To: Celata, Michael

Cc: Perry, Bruce; Spraitzar, Ronald; 'John Blum' **Subject:** FW: MC252 7-19-10 displays.ppt

All,

Last week after John Blum was asked to review the recently shot seismic lines over the Macondo Well location, he conducted a survey of all of the in-house seismic data over the MC Blk 252 and mapped an amplitude event that we believe represent the productive horizon in the discovery well. John used BP_MC_167_DM survey to create a structure map in depth and ran a RMS amplitude extraction (time) on survey L00_007_3D. The resultant map shows there are several discontinuous events with variable intensity trending north-south over the crest of this structure. The Macondo Well is located in one of strongest events which has an areal extent of approximately 125-150 acres. We concur with Bill's assessment that there is a high probability that this reservoir may be compartmentalized.

Ron

From: Celata, Michael

Sent: Tuesday, July 20, 2010 4:27 PM

To: Blum, John

Cc: Perry, Bruce; Spraitzar, Ronald **Subject:** FW: MC252 7-19-10 displays.ppt

John,

Bill is in Houston helping out on the well integrity team. He has provided the short assessment below based on the seismic. I was wondering if you had a similar of different interpretation.

CONFIDENTIAL

Mike

Mike Celata
Deputy Regional Supervisor
Resource Evaluation
Gulf Regional Office
Bureau of Ocean Energy Management, Regulation, and Enforcement
(504)736-2448

IMV008-007996

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From: Shedd, William

Sent: Tuesday, July 20, 2010 2:31 PM

To: Celata, Michael

Cc: Khan, Abdul; Godfriaux, Paul D; Cooke, David; Maclay, Don; Crawford, Gerald; Harrison, Peter

Subject: RE: MC252 7-19-10 displays.ppt

I planimetered the compartment that the BP well is in.

I characterize the amplitutes as "blodgey", pods of higher amps separated by distinct lower amps. The resolution of the data at this depth limits our confidence, but it is clearly not a blanket sand covering the structure. The engineers (BP and USGS) agreed that the boundaries on the Horner plots are real, but without flow rate mearsurements, you can't tell how far away the boundaries are. Mike Prendergast interjected in the meeting that the GOR is decreasing, typical of a depletion drive reservoir.

The Horner plot has not shown any decreases necessary to document a leak.

Bill

From: Celata, Michael

Sent: Tuesday, July 20, 2010 11:23 AM

To: Shedd, William

Cc: Khan, Abdul; Godfriaux, Paul D; Cooke, David; Maclay, Don; Crawford, Gerald; Harrison, Peter

Subject: FW: MC252 7-19-10 displays.ppt

Importance: High

Bill,

Please copy me on all emails.

Where does the information from the caption come from? Did we get this from reserves who has already mapped this and provided flow rate estimates? This analysis has to be coordinated with other MMS contributions to the effort especially with Don Maclay and Gerald Crawford.

Amplitude (red, yellow, light green - pay sands) (white, blue - no sand, poor sand)

- -- Sands compartmentalized and unlikely to have aquifer pressure support
- -- Macondo well most likely draining an 85 acre reservoir and has significant depletion

Mike Celata
Deputy Regional Supervisor
Resource Evaluation
Gulf Regional Office
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(504)736-2448

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From: Khan, Abdul

Sent: Tuesday, July 20, 2010 11:09 AM

To: Celata, Michael

Subject: FW: MC252 7-19-10 displays.ppt

FYI

Abdul (Ab) S. Khan Ph. 504 736-2712

From: Shedd, William

Sent: Monday, July 19, 2010 11:01 AM

To: Enomoto, Catherine; 'akchave@sandia.gov' **Cc:** Godfriaux, Paul D; Herbst, Lars; Khan, Abdul

Subject: MC252 7-19-10 displays.ppt