

From: Ritchie, Bryan
Sent: Fri Jul 16 17:40:59 2010
To: Yeilding, Cindy
Cc: McAughan, Kelly
Subject: FW: GoM aquifer sizes
Importance: Normal

Cindy

Have asked for some analogues to support our aquifer size range.

Bryan

-----Original Message-----

From: Cavalero, Sean R

Sent: Friday, July 16, 2010 12:33 PM

To: Syms, Richard M; Ritchie, Bryan; Clifford, Peter J; Needham, Karen M; Schott, David W

Cc: Singh, Pramod K

Subject: RE: GoM aquifer sizes

Richard,

our Miocene reservoirs have a wide range of apparent aquifer connectivity's, and it doesn't easily correlate to something like permeability to compare to Macondo. Atlantis has higher rock perm than Macondo, but very little aquifer support (< 1x aquifer). Thunder Horse South Brown is a close perm analog to Macondo at 200-400 mD, with a 20x plus strong active aquifer. Mad Dog is between these two for aquifer strength, perm around 200 mD. All these reservoirs are more sheet sand / massive amalgamated channel sands.

Then there is aquifer connection geometry. Macondo sand deposition is very channel shaped, with aquifer sand connecting in a longish ribbon off only two opposite sides. Oil sand connectivity has obviously been demonstrated to be very strong. All else being equal, the aquifer connection geometry has to restrain the aquifer support/connectivity from a more massive sand, wrap-around support model.

I have some inquiries out for Pompano/Dorado/Nakika ranges.

Sean R. Cavalero

GoM Resource Discipline Lead - Reservoir Engineering

BP America - Houston, Westlake IV - 1893A

Work #: 281-366-0787; Cell #: 281-727-8617

-----Original Message-----

From: Syms, Richard M

Sent: Friday, July 16, 2010 12:11 PM

To: Ritchie, Bryan; Clifford, Peter J; Needham, Karen M; Cavalero, Sean R; Schott, David W

Cc: Singh, Pramod K

Subject: RE: GoM aquifer sizes

I will revert to some SME's in this area.

All - please see attached request for information....

-----Original Message-----

From: Ritchie, Bryan

Sent: Friday, July 16, 2010 11:15 AM

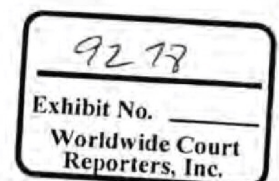
To: Syms, Richard M; Singh, Pramod K

Subject: GoM aquifer sizes

Richard and Pramod

We have had several discussions on the Macondo aquifer size and are looking for GoM analogues or published work for our modelling. Do you have or know who would have this data?

Many thanks



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Bryan
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-----Original Message-----

From: Yeilding, Cindy
Sent: Thursday, July 15, 2010 5:29 PM
To: Ritchie, Bryan; Epps, David S
Subject: RE: Emailing: Macondo_M56_for_Cindy.ppt

Thanks Bryan so much!

Dave, Any experience with Aquifer sizes? The models we run are based on 4x aquifer- any GoM experience (Pompano Miocene?) that might lead to a "smaller" number? What would be a "typical" GoM aquifer size relative to reservoir?

Thanks, cindy

-----Original Message-----

From: Ritchie, Bryan
Sent: Thursday, July 15, 2010 4:58 PM
To: Yeilding, Cindy
Subject: Emailing: Macondo_M56_for_Cindy.ppt

Cindy

These slides should cover what you need as back-up.

Bryan

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