From: LeBleu, John B
Sent: Tue May 04 18:28:39 2010
To: Okuchaba, Boma
Subject: Macondo Information
Importance: Normal
Attachments: Macondo 22 inch OH mud loss incident.doc; LeBleu annotated Macondo mud loss summary.xls; 18_inch CSG section review.ppt; 16_inch CSG section review.ppt

<<...>> <<...>>

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From: LeBleu, John B
Sent: Tuesday, May 04, 2010 9:15 AM
To: Bodek, Robert
Subject: RE: Macondo reports
<<...>> <<...>>

When you compare the annotated mud lost while running casing to the word document you see some difference in the mud loss numbers running and cementing casing. Those differences are due to the mud report daily mud losses in the annotated summary are from midnight to midnight.

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From: Bodek, Robert
Sent: Tuesday, May 04, 2010 8:36 AM
To: LeBleu, John B
Subject: Macondo reports
<< File: 18_inch CSG section review.ppt >> << File: 16_inch CSG section review.ppt >>

Bobby Bodek
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Title: Macondo 22" Open Hole Mud Loss Event Summary

To: Mark Hafle, Brian Morel, Trent Fleece

CC: Kathleen Halvorson Dory, Doug Chester, Greg Walz, Louise Jacobsen Plutt

From: John Lebleu – Drilling Excellence Group

Date: April 26, 2010

Objective: To summarize and review the first mud loss event on the Macondo well and use the lessons learned and corrective actions for future wells.

Background: During the planning phase of the Macondo ILX well the stress cage evaluation was performed and there was no recommendation for stress caging the 22" open hole interval. The subsequent background LCM plan was to maintain 7 ppb Baracarb 150, 7 ppb Baracarb 600, and 7 ppb Steelseal 400. Stacked sieve testing and PPT testing were done daily to verify the background LCM concentration and the mud sealing ability.

Pre Event: The 22" shoe LOT tested to 10.24 EMW and a 76 bbl pill consisting of 18.0 ppb Baroseal medium, 18 ppb Barofiber O, 8 ppb Steelseal 400, 13 ppb Baracarb 50 and 150, and 10 ppb Baracarb 600, was spotted at the shoe and the shoe was re-tested LOT to 10.38 EMW . The mud weight was cut back from 10.0 to 9.7 ppg. Prior to squeezing the shoe a decision was made to drill 40' feet more and re-test the shoe (no dims record of that test occurring). The 22" shoe was squeezed and 10' of formation was drilled to 8,060' and the subsequent LOT with 9.7 ppg mud weight yielded a 10.38 EMW. The 22" reamer was opened and drilling commenced with 9.7 ppg mud weight. Drilling continued with 1250 gpm to 8,841' using weighted sweeps with large amounts of cuttings over the shakers on sweep returns. At 8,841' the mud weight was increased from 9.7 to 9.8 ppg.

Kick/Loss Event Summary:
Drilling continued to 8,970' where a flow check revealed the well was flowing and the surface mud was raised to 9.9 ppg and pumped at 20 spm kill rate losing 21 bbls getting the 9.9 to the bit, and another 127 bbls getting the 9.9 back to the surface. Weighted system up to 10.0+ ppg as needed for well control. 2.0 ppg Barofiber O fine fiber, and 1.0 ppg Baroseal was added in addition to the other background material (the goal was to achieve 1.5 - 2.0 ppg Baroseal but it was never achieved).

The mud weight was increased to 10.1 ppg and drilling continued to 9,065' where the ECD increased to 10.34 and the mud weight was decreased to 10.0+ ppg. Drilling continued with 10.0+ ppg to 9,073' where a flow check showed the well was flowing. Drilling continued to 9,090' with 10.1 ppg mud weight and pumped up into casing. Slugged pipe and POOH, boosted riser losing 26 bbls.

Ran 18" casing losing 118 bbls and cemented losing 20 bbls. Seawater was left in the well bore 1000' BML.

The total mud losses for the interval were 431 bbls including 68 bbls lost while squeezing the shoe and casing/cementing losses.

Stacked Sieve Data: 10-21-2009

DFG Sieve Analysis

US Sieve	Sieve Opening Size (mm)	Mass of each sieve (gm)	Mass of each sieve + retained sample (gm)	Mass of sample retained (SS1 – col 3 – col 2)
4	4.76	0	0	
5	4	0	0	
6	3.36	0	0	
8	2.38	0	0	
10	2	0	0	
12	1.5	0	0	
14	1.41	0	0	
16	1.19	0	0	
18	1	0	0	
20	0.841	0	0	
25	0.707	0	0	
30	0.595	0	4	
35	0.5	0	0	
40	0.4	0	0	
45	0.354	0	0	
50	0.297	0	5	
60	0.25	0	0	
70	0.21	0	0	
80	0.177	0	0	
100	0.149	0	10	
120	0.125	0	0	
140	0.105	0	0	
170	0.088	0	0	
200	0.074	0	0	
230	0.063	0	0	
				19

Stacked Sieve Data: 10-22-2009

DFG Sieve Analysis

US Sieve #	Sieve aperture (mm)	Mass of each sieve (gm)	Mass of each sieve + retained sample (gm)	Mass of sample retained (SSR - Col E, Col D)
4	4.76	0	0	
5	4	0	0	
6	3.36	0	0	
8	2.38	0	0	
10	2	0	0	
12	1.5	0	0	
14	1.41	0	0	
16	1.19	0	0	
18	1	0	0	
20	0.841	0	0	
25	0.707	0	0	
30	0.595	0	4	
35	0.5	0	0	
40	0.4	0	0	
45	0.354	0	0	
50	0.297	0	7	
60	0.25	0	0	
70	0.21	0	0	
80	0.177	0	0	
100	0.149	0	9	
120	0.125	0	0	
140	0.105	0	0	
170	0.088	0	0	
200	0.074	0	0	
230	0.063	0	0	
				20

Stacked Sieve Data: 10-23-2009

DFG Sieve Analysis

US Sieve #	Sieve aperture (mm)	Mass of each Sieve (gm)	Mass of each sieve + retained sample (gm)	Mass of sample retained (SSR - Col E, Col D)
4	4.76	0	0	

5	4	0	0	0
6	3.36	0	0	0
8	2.38	0	0	0
10	2	0	0	0
12	1.5	0	0	0
14	1.41	0	0	0
16	1.19	0	0	0
18	1	0	0	0
20	0.841	0	0	0
25	0.707	0	0	0
30	0.595	0	4	4
35	0.5	0	0	0
40	0.4	0	0	0
45	0.354	0	0	0
50	0.297	0	7	7
60	0.25	0	0	0
70	0.21	0	0	0
80	0.177	0	0	0
100	0.149	0	9	9
120	0.125	0	0	0
140	0.105	0	0	0
170	0.088	0	0	0
200	0.074	0	0	0
230	0.063	0	0	0
				20

Stacked Sieve Data: 10-24-2009

DFG Sieve Analysis

US Sieve #	Sieve aperture size (mm)	Mass of each sieve (gm)	Mass retained on each sieve (gm)	Mass of sample retained (GR) - corr. for Cell D
4	4.76	0	0	0
5	4	0	0	0
6	3.36	0	0	0
8	2.38	0	0	0
10	2	0	0	0

12	1.5	0	0	0
14	1.41	0	0	0
16	1.19	0	0	0
18	1	0	0	0
20	0.841	0	0	0
25	0.707	0	0	0
30	0.595	0	4	4
35	0.5	0	0	0
40	0.4	0	0	0
45	0.354	0	0	0
50	0.297	0	7	7
60	0.25	0	0	0
70	0.21	0	0	0
80	0.177	0	0	0
100	0.149	0	8	8
120	0.125	0	0	0
140	0.105	0	0	0
170	0.088	0	0	0
200	0.074	0	0	0
230	0.063	0	0	0
				19

Stacked Sieve Data: 10-25-2009

DFG Sieve Analysis

US Sieve	Sieve Aperture (+1/2 Phi) (mm)	Mass of each sieve (gm)	Mass of each sieve + retained sample (gm)	Mass of sample retained (gm) = Col E - Col D
4	4.76	0	0	0
5	4	0	0	0
6	3.36	0	0	0
8	2.38	0	0	0
10	2	0	0	0
12	1.5	0	0	0
14	1.41	0	0	0
16	1.19	0	0	0
18	1	0	0	0
20	0.841	0	0	0
25	0.707	0	0	0

30	0.595	0	4	
35	0.5	0	0	
40	0.4	0	0	
45	0.354	0	0	
50	0.297	0	7	
60	0.25	0	0	
70	0.21	0	0	
80	0.177	0	0	
100	0.149	0	8	
120	0.125	0	0	
140	0.105	0	0	
170	0.088	0	0	
200	0.074	0	0	
230	0.063	0	0	
				19

Stacked Sieve Data: 10-26-2009

DFG Sieve Analysis

Sieve # (US Sieve)	Sieve Aperture Size (mm)	Mass of each sieve (g)	Mass of each sieve + retained sample (g)	Mass of sample retained (Sieve + Col - Empty Sieve)
4	4.76	0	0	
5	4	0	0	
6	3.36	0	0	
8	2.38	0	0	
10	2	0	0	
12	1.5	0	0	
14	1.41	0	0	
16	1.19	0	0	
18	1	0	0	
20	0.841	0	0	
25	0.707	0	0	
30	0.595	0	3	
35	0.5	0	0	
40	0.4	0	0	
45	0.354	0	0	
50	0.297	0	7	

60	0.25	0	0	
70	0.21	0	0	
80	0.177	0	0	
100	0.149	0	8	
120	0.125	0	0	
140	0.105	0	0	
170	0.088	0	0	
200	0.074	0	0	
230	0.063	0	0	
				18

Stacked Sieve Data: 10-27-2009

DFG Sieve Analysis

US Sieve	Sieve Aperture size (mm)	Mass of each sieve (gm)	Mass of each sieve & retained sample (gm)	Mass of Sample retained (TSR) = col E - col D
4	4.76	0	0	
5	4	0	0	
6	3.36	0	0	
8	2.38	0	0	
10	2	0	0	
12	1.5	0	0	
14	1.41	0	0	
16	1.19	0	0	
18	1	0	0	
20	0.841	0	0	
25	0.707	0	0	
30	0.595	0	7	
35	0.5	0	0	
40	0.4	0	0	
45	0.354	0	0	
50	0.297	0	13	
60	0.25	0	0	
70	0.21	0	0	
80	0.177	0	0	
100	0.149	0	12	
120	0.125	0	0	

140	0.105	0	0	
170	0.088	0	0	
200	0.074	0	0	
230	0.063	0	0