From: Morel, Brian P
Sent: Fri Mar 12 23:04:56 2010
To: Hafle, Mark E; Cocales, Brett W; Sims, David C; Walz, Gregory S
Cc: Rivera, Rodolfo; Guide, John
Subject: RE: Copy of Macondo_MC 252_1 _Schematic_Rev14 1_03122010.xls
Importance: Normal
Attachments: Copy of Macondo_MC 252_1 _Schematic_Rev14 3_03122010.xls

Sorry to send another email, but just got the PP/FG data and have updated the schematics accordingly.
I will work on getting the APD completed and updating the MMS PP/FG chart over the weekend. That way we should be ready to submit the permit Monday morning. Let me know if you want to discuss anything about the design changes being presented.
David,
Who else do I need to contact regarding 7" through the production interval? The completions engineers working this project have given there blessing, and I have requested that Steve Morey update the stress check design. I will send a note to Rich Miller to check APD, but don't see any issues as these are all liners, with very small laps and high pipe ratings.

Thank You,
Brian Morel
<<...>>

From: Morel, Brian P
Sent: Friday, March 12, 2010 4:52 PM
To: Hafle, Mark E; Cocales, Brett W; Sims, David C; Walz, Gregory S
Cc: Rivera, Rodolfo; Guide, John
Subject: Copy of Macondo_MC 252_1 _Schematic_Rev14 1_03122010.xls

All,
Please review the attached schematics. I have created multiple copies: (1) current situations (2) BP sidetrack option, (3) MMS sidetrack permit, and (4) MMS actual plugging.
The BP sidetrack options is our primary design after discussions between myself, Brett and Mark. In this design we will set the 9-7/8" above the anticipated productive interval and run 7" to TD. I have not got exact PP/FG estimates from Marty yet, but will add once I have those.
The MMS version is slightly different as we plan to permit putting the 11-7/8" deeper and not permitting the 9-7/8" until its needed. Pore pressures are included on this chart based on one of Marty's less conservative pore pressure estimates. By permitting deeper and leaving out the 9-7/8" casing we have flexibility in what depth to set the 11-7/8" and won't have to change permit details if we are able to get 9-7/8" set below the productive interval. We do not feel following the MMS design in reality is a good option unless something changes in this well to indicate the margins have opened more and we are back on track with the initial pore pressure estimates, as trying to push casing points has been getting us into trouble.

Thank You,
Brian Morel
<<File: Copy of Macondo_MC 252_1 _Schematic_Rev14 1_03122010.xls >>

4509
Exhibit No. _____
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BP GoM Deepwater Exploration

Macondo - MC252#1

OPERATOR:	BP	PARTNER	Anadarko, MOEX	DATE:	3/12/2010_Rev 14.3
NAME:	MC 252 #1, MACONDO PROSPECT, OCS-G-32306			PTD:	19,650' MD/TVD
LEAD / PROSPECT:	WILDCAT	AREA: OFFSHORE	STATE LA	RF ELEV:	75' (Horizon) WD: 4992'
SURFACE LOCATION:	X=1,202,803.88 Y=10,431,617.00			PBHL:	X=1,202,803.88 Y=10,431,617.00
OBJECTIVE ZONE(S):	M56			RIG:	Transocean Deepwater Horizon

DRIL-QUIP, SS-15 BIGBORE II - 27" O.D. HD-H4 Conn.

LPWH Stickup - 10' | DEPTH (RKB) | WELLHEAD SYSTEM WITH 18.500" ID | HOLE SIZE | CASING | MUD

ML @ 5067' MD/TVD

16" supplemental adapter @ ~5227' in 22" extension joint 18.375" ID (1.25" wall pipe above)

36" @ 5,321' MD/TVD (254' bml)

Seawater

8.6	PP
8.7	FIT/LOT

TOC @ ~ 5067' MD/TVD (Mudline)

28" @ 6217' MD/TVD (1150' bml)

Seawater

8.6	PP
9.8	FIT/LOT

TOC @ ~ 5067' MD/TVD (Mudline)

18" supplemental adapter @ ~ 7489' 18.250" ID

22" @ 7937' MD/TVD (2891' bml)

94 °F

9.0	PP
10.3	LOT (DH-MW)

TOC @ ~8040' MD/TVD

18" @ 8969' MD/TVD (3902' bml)

9.7 - 10.1 ppg SOBM

122 °F

10.1	PP-DH
11.76	FIT/LOT

TOC @ ~10,500' MD/TVD

TOL - 11,385'

Top of Plug #2 - 11385'

16" @ 11,585 MD / TVD (6518' bml)

10.6 - 11.5 ppg SOBM

16" = 14.85" ID

162 °F

11.55	PP
12.55	FIT/LOT

Top of Plug #1 / Base of Plug #2 - xxxxx'

Plug #1 - x bbls (xxx cu ft)

Cut HWDP / Base of Plug #1 @ 12,100'

Plug @ 12,150'

Fish - SCBL & Temp Log @ 12,197' - 12,163' (~34.1' long)

12255' - 20" hole

TOC - 12,600' MD/TVD

TOL - 12,800' MD/TVD

11.9 ppg | 11.9 ppg

Jars @ 12,668' - 12,700'

Base HWDP @ 12,977'

11.9 ppg SOBM

16.5" hole - 13184'

TOL - 12,800' MD/TVD

14-3/4" x 16-1/2" BHA

13-5/8" @ 13,100' MD/TVD

12.3	PP
13.9	FIT/LOT

Bit - 13,295'

14.75" hole TD @ 13,305'

12-1/4" x 14.5" Hole

TOC - 14,500' MD/TVD

TOL - 14,700' MD/TVD

11-7/8" @ 15,000' MD/TVD

13.1	PP
14.6	FIT/LOT

10-5/8" x 12-1/4" Hole

TOC - 17,250' MD/TVD

9-7/8" @ 18,250' MD/TVD

13.8	PP
15.5	FIT/LOT

8-1/2" Hole

TD @19,650

14.1	PP
	FIT/LOT

BP GoM Deepwater Exploration

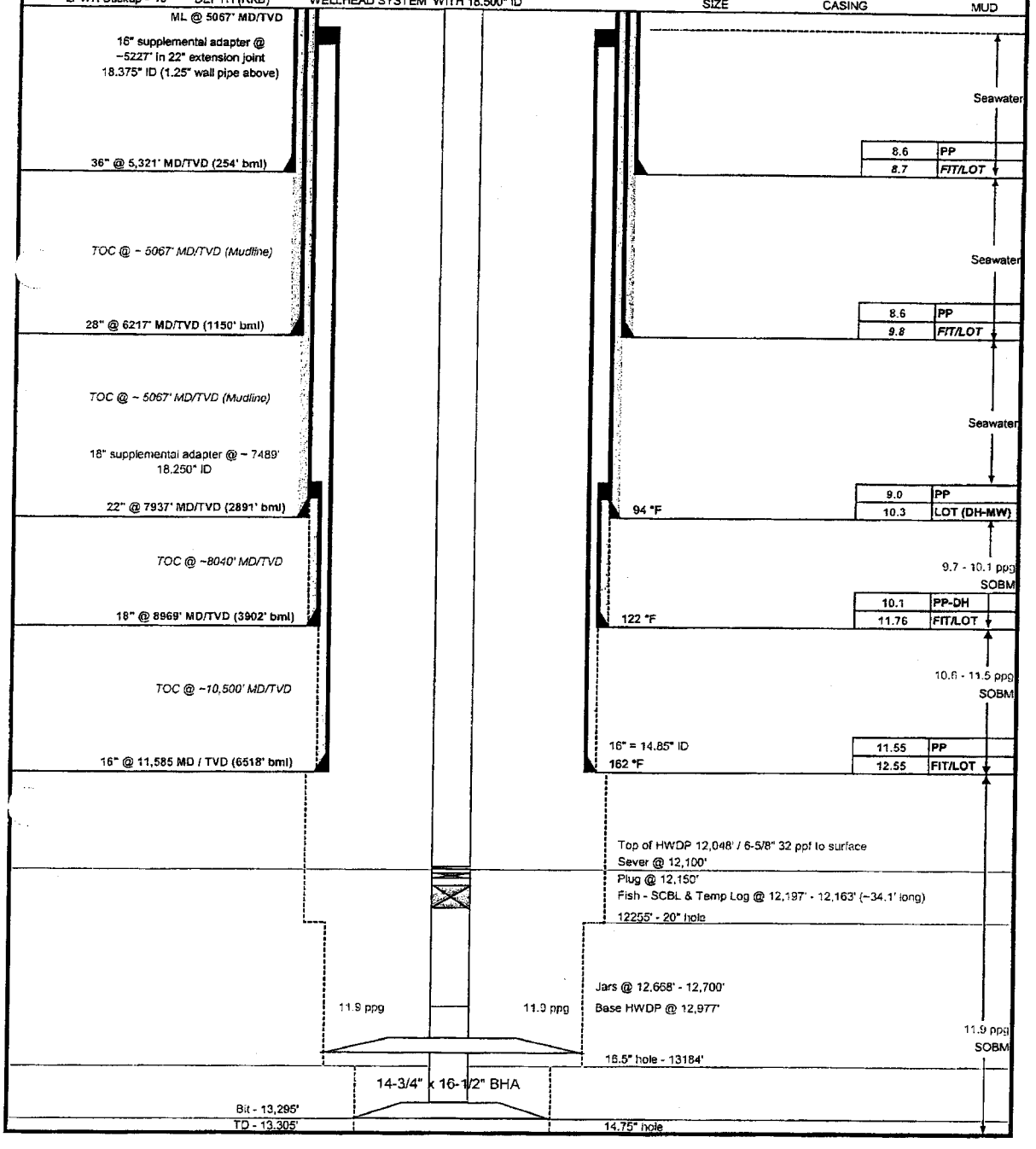
Macondo - MC252#1

OPERATOR:	BP PARTNER: Anadarko, MOEX	DATE:	3/12/2010_Rev 14.3
WELL NAME:	MC 252 #1, MACONDO PROSPECT, OCS-G-32306	PTD:	19,650' MD/TVD
FIELD / PROSPECT:	WILDCAT AREA: OFFSHORE STATE LA	RF ELEV:	75' (Horizon) WD: 4992'
SURFACE LOCATION:	X=1,202,803.88 Y=10,431,617.00	PBHL:	X=1,202,803.88 Y=10,431,617.00
OBJECTIVE ZONE(S):	M56	RIG:	Transocean Deepwater Horizon

DRIL-QUIP, SS-15 BIGBORE II - 27" O.D. HD-H4 Conn.

LPWH Stickup - 10' DEPTH (RKB) WELLHEAD SYSTEM WITH 18.500" ID

HOLE SIZE CASING MUD



BP GoM Deepwater Exploration

Macondo - MC252#1

OPERATOR:	BP	PARTNER	Anadarko, MOEX	DATE:	3/12/2010_Rev 14.3
WELL NAME:	MC 252 #1, MACONDO PROSPECT, OCS-G-32306			PTD:	19,650' MD/TVD
FIELD / PROSPECT:	WILDCAT	AREA: OFFSHORE	STATE LA	RF ELEV:	75' (Horizon) WD: 4992'
SURFACE LOCATION:	X=1,202,803.88 Y=10,431,617.00			PBHL:	X=1,202,803.88 Y=10,431,617.00
OBJECTIVE ZONE(S):	M56			RIG:	Transocean Deepwater Horizon

DRIL-QUIP, SS-15 BIGBORE II - 27" O.D. HD-H4 Conn.

LPWH Stickup - 10' EPTH (RKB) WELLHEAD SYSTEM WITH 18.500" ID

HOLE SIZE | CASING | MUD

ML @ 5067' MD/TVD

16" supplemental adapter @ ~5227' in 22" extension joint 18.375" ID (1.25" wall pipe above)

36" @ 5,321' MD/TVD (254' bml)

Seawater

8.6	PP
8.7	FIT/LOT

TOC @ ~ 5067' MD/TVD (Mudline)

28" @ 6217' MD/TVD (1150' bml)

Seawater

8.6	PP
9.8	FIT/LOT

@ ~ 5067' MD/TVD (Mudline)

18" supplemental adapter @ ~ 7489' 18.250" ID

22" @ 7937' MD/TVD (2891' bml)

94 °F

9.0	PP
10.3	LOT (DH-MW)

9.7 - 10.1 ppg SOBM

TOC @ ~8040' MD/TVD

18" @ 8969' MD/TVD (3902' bml)

122 °F

10.1	PP-DH
11.76	FIT/LOT

10.6 - 11.5 ppg SOBM

TOC @ ~10,500' MD/TVD

TOL - 11,385'

16" @ 11,585 MD / TVD (6518' bml)

Top of Plug #2 - 11385'

16" = 14.85" ID

162 °F

11.55	PP
12.55	FIT/LOT

Top of Plug #1 / Base of Plug #2 - xxxx'

Plug #1 - 200 bbls (1123 cu ft)

Cut HWDP / Base of Plug #1 @ 12,100'

Plug @ 12,150'

Fish - SCBL & Temp Log @ 12,197' - 12,163' (~34.1' long)

12,255' - Base of 20" hole

14-3/4" x 16-1/2" hole

TOC - 12,600' MD/TVD

TOL - 12,800' MD/TVD

Jars @ 12,668' - 12,700'

11.9 ppg 11.9 ppg

Base HWDP @ 12,977'

11.9 ppg SOBM

16.5" hole - 13184'

14-3/4" x 16-1/2" BHA

12.3	PP
13.8	FIT/LOT

13-5/8" @ 13,100' MD/TVD

Bit - 13,295'

14.75" hole TD @ 13,305'

12.5 - 13.3 ppg SOBM

12-1/4" x 14-1/2" hole

TOC - 15,500' MD/TVD

11-7/8" @ 16,000' MD/TVD

13.1	PP
14.9	FIT/LOT

13.3 - 14.4 ppg SOBM

10-5/8" x 12-1/4" hole

14.2	PP
	FIT/LOT

TD @ 20,200'

BP GoM Deepwater Exploration

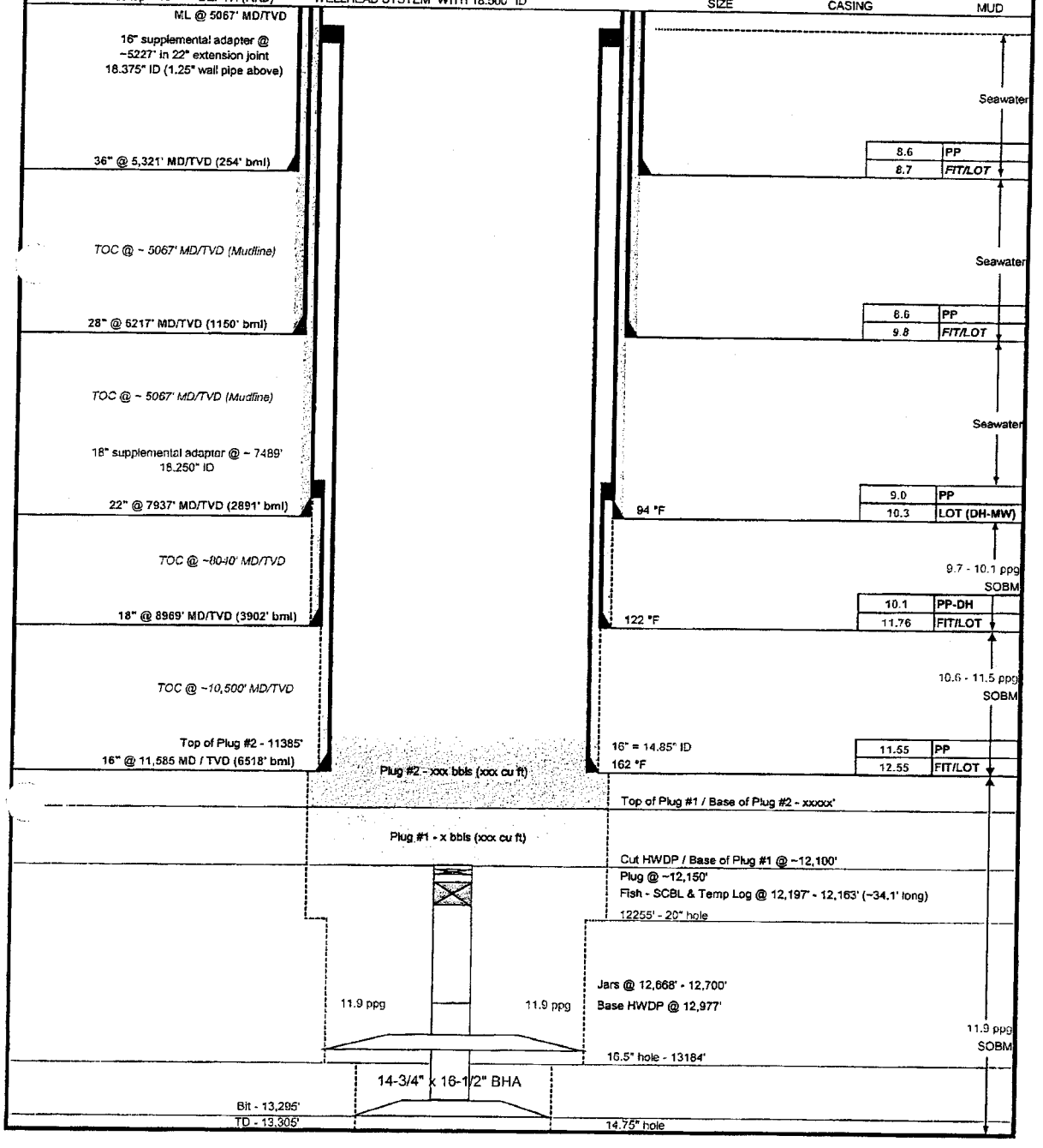
Macondo - MC252#1

OPERATOR:	BP PARTNER: Anadarko, MOEX	DATE:	3/10/2010 Rev 14.3
WELL NAME:	MC 252 #1, MACONDO PROSPECT, OCS-G-32306	PTD:	19,650' MD/TVD
FIELD / PROSPECT:	WILDCAT AREA: OFFSHORE STATE LA	RF ELEV:	75' (Horizon) WD: 4992'
SURFACE LOCATION:	X=1,202,803.88 Y=10,431,617.00	PBHL:	X=1,202,803.88 Y=10,431,617.00
OBJECTIVE ZONE(S):	M56	RIG:	Transocean Deepwater Horizon

DRIL-QUIP, SS-15 BIGBORE II - 27" O.D. HD-H4 Conn.

LPWH Stickup - 10' DEPTH (RKB) WELLHEAD SYSTEM WITH 18.500" ID

HOLE SIZE / CASING / MUD



Component	Component Type	Component Detail	Jts	Length (ft)	Cum Length (ft)	OD (in)	ID (in)	Blade OD (in)	Bend Angle (°)	Connection		P/B
										Size (in)	Type	
Heavy Weight	Heavy Weight Drill Pipe	HWDP	20	619.96	619.96	6.625	4.500			6.625	FH	B
Jar	Drilling Jar	DRILLING JARS	1	32.23	652.19	8.000	3.000			6.625	FH	B
Heavy Weight	Heavy Weight Drill Pipe	HWDP	9	271.81	924.00	6.625	4.500			6.625	FH	B
Sub	Cross Over	CROSS OVER SUB	1	4.98	928.98	9.000	3.000			6.625	FH	B
Drill Collar	Drill Collar	8 1/4" COLLAR	1	31.23	960.21	8.250	3.000			6.625	REG	B
Drill Collar	Drill Collar	8 1/4" COLLAR	1	31.24	991.45	8.250	3.000			6.625	REG	B
Drill Collar	Drill Collar	8 1/4" COLLAR	1	30.77	1,022.22	8.250	3.000			6.625	REG	B
Sub	Cross Over	X-OVER SUB	1	4.35	1,026.57	8.000	2.812			6.625	REG	B
Drill Collar	Drill Collar	9 1/2" COLLAR	2	60.64	1,087.21	9.500	3.125			7.625	REG	B
Stabilizer	Integral Blade Stabilizer	14 5/8" STABILIZER	1	7.97	1,095.18	9.500	3.000			7.625	REG	B
Drill Collar	Drill Collar	9 1/2" COLLAR	1	29.88	1,125.06	9.500	3.000			7.625	REG	B
Underreamer	Underreamer	16 1/2" BAKER REAMER	1	10.71	1,135.77	9.520	3.500			7.625	REG	B
Stabilizer	Integral Blade Stabilizer	14 5/8" STABILIZER	1	5.01	1,140.78	9.562	3.625			7.625	REG	B
Sub	Filter Sub	FILTER SUB	1	7.91	1,148.69	9.500	4.000			7.625	REG	B
MWD	Pulser Sub	9 1/2" PULSAR	1	11.52	1,160.21	9.500	2.437			7.625	REG	B
MWD	Logging While Drilling	9 1/2" QBAT SONIC	1	22.11	1,182.32	9.500	2.437			7.625	REG	B
Stabilizer	Integral Blade Stabilizer	14 5/8" STABILIZER	1	3.57	1,185.89	9.500	2.437			7.625	REG	B
MWD	Logging While Drilling	9 1/2" M5 RLL	1	25.32	1,211.21	9.500	2.437			7.625	REG	B
Sub	Cross Over	NON MAG X-OVER SUB	1	1.86	1,213.07	9.500	2.437			7.625	REG	B
Drill Collar	Non-Mag Drill Collar	NON MAG FLEX JOINT	1	9.21	1,222.28	8.000	2.437			6.625	REG	B
Stabilizer	Integral Blade Stabilizer	14 5/8" STABILIZER	1	2.84	1,225.12	10.000	2.437			6.625	REG	B
MWD	Steering Tool	9600 GEO PILOT	1	18.88	1,244.00	10.000	2.437			6.625	REG	B
Bit	Polycrystalline Diamond Bit	14 3/4" PDC BIT	1	2.48	1,246.48	14.750	3.000			6.625	REG	B