

From: Morel, Brian P
Sent: Tue Jan 19 21:39:03 2010
To: Sepulvado, Ronald W; Sepulvado, Murry R; Vidrine, Don J; Doucet, R J; Lee, Earl P (Oper Svcs Drill)
Cc: Guide, John; Cocalas, Brett W
Subject: FW: Revised APD Approval - Macondo
Importance: Normal
Attachments: RPD-Horizon approval.pdf

Updated APD for Macondo

From: Douglas, Scherie D
Sent: Thursday, January 14, 2010 3:28 PM
To: Morel, Brian P; Hafle, Mark E
Cc: Powell, Heather (JC Connor Consulting)
Subject: Revised APD Approval - Macondo

Attached is the approved revised APD to use the Horizon. Let me know if you have any questions.

Do you want me to forward to the rig or just wait until we are moving over to Macondo?

Thanks.

Scherie Douglas
Sr. Regulatory & Advocacy Advisor
BP Exploration & Production Inc.
281.366.6843 (office)
713.702.7673 (cell)

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Form MMS 123A/123S - Electronic Version
Application for Revised New Well

Lease G32306 Area/Block MC 252 Well Name 001 ST 00 BP 00 Well Type Exploration
Application Status Approved Operator 02481 BP Exploration & Production Inc.

Correction Narrative 01-12-09 - Revision to use the Deepwater Horizon to finish drilling operations (Marianas sent to shipyard for repairs, no longer under BP contract).

Revised attachments include.

- 1) Horizon BOP schematic
- 2) Wellbore schematic with revised RKB
- 3) Revised Departure List (removed departure for 250.449 (f))
- 4) Revised Pore Pressure Plot with Horizon RKB

The casing information has been updated to reflect actual setting depths, mudweights, etc.

Attachments referring to the Marianas BOPs and mooring have been removed.

10-29-09 - Revised to show shallow setting depth and revised cement volume for the 18" casing.

Revision I: 10-15-09

This RPD is to request approval to replace the upper annular element from the originally approved standard element rated to 10k on 5-1/2" pipe to a 6-5/8" element which is rated to 7.5k on 5-1/2" and 10k on 6-5/8".

Please see the attached chart which shows the rating of each element. Our max annular tests per the approved APD will be 5k both on the stump test and down hole.

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General Well Information

API Number 608174116900	Approval Date 01/14/2010	Approved By Frank Patton
Date of Request 01/12/2010	Req Spud Date 06/15/2009	Kickoff Point N/A
Water Depth (ft.) 4992	Drive Size (in) 36	Mineral Code Hydrocarbon
RKB Elevation 75	Drive Depth (ft.) 5361	Subsea BOP Yes
Verbal Approval Date		Verbal Approval By

Proposed Well Location
Surface Location

LEASE (OCS) G32306	Area/Block MC 252	Authority Federal Lease
Entered NAD 27 Data	Calculated NAD 27 Departures	Calculated NAD 27 X-Y Coordinates
Lat: 28.73836889	N 6857	X 1202802.892336
Lon: -88.36593389	E 1037	Y 10431702.916855
Surface Plan	Plan Lease (OCS) G32306	Area/Block MC 252

Bottom Location

LEASE (OCS) G32306	Area/Block MC 252	
Entered NAD 27 Data	Calculated NAD 27 Departures	Calculated NAD 27 X-Y Coordinates
Lat: 28.73836889	N 6857	X 1202802.892336
Lon: -88.36593389	E 1037	Y 10431702.916855
Bottom Plan	Plan Lease (OCS) G32306	Area/Block MC 252

Approval Comments All conditions/cautions of approval for the original APD remain in effect.

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Geologic Information

H2S Designation Absent	H2S TVD
Anticipated Geologic Markers	
Name	Top MD
Reticulofenestra pseudoumbilicus	7060
Catinaster mexicanus	9100
Catinaster coalitus	13145
Discoaster kugleri	14153
Cyclicargolithus floridanus	17481
Globorotalia peripheroronda	18400
Sphenolithus heteromorphus	19120
Discoaster petaliformis	19594

Rig Information

RIG SPECIFICATIONS		ANCHORS	No
Rig Name	T O. DEEPWATER HORIZON	ID Number	46428
Type	SEMISUBMERSIBLE	Constructed Year	2001
Function	DRILLING	Refurbished Year	
Shipyard	HYUNDAI		
RATED DEPTHS		Drill Depth	35000
Water Depth	10000		
CERTIFICATES		Coast Guard	07/27/2011
ABS/DNV	02/28/2011		
SAFE WELDING AREA		District	1
Approval Date	09/26/2001		
Remarks			

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Number	Question	Response	Response Text
1	Will you maintain quantities of mud and mud material (including weight materials and additives) sufficient to raise the entire system mud weight 1/2	YES	
2	If hydrocarbon-based drilling fluids were used, is the drilling rig outfitted for zero discharge and will zero discharge procedures be followed?	N/A	
3	If drilling the shallow casings strings riserless, will you maintain kill weight mud on the rig and monitor the wellbore with an ROV to ensure that it i	YES	
4	If requesting a waiver of the conductor casing, have you submitted a log to MMS G&G that is within 500 feet of the proposed bottom hole location for th	N/A	
5	Will the proposed operation be covered by an EPA Discharge Permit? (please provide permit number in comments for this question)	YES	NOI has been submitted but permit number has not yet been assigned.
6	Will all wells in the well bay and related production equipment be shut-in when moving on to or off of an offshore platform, or from well to well on the plat	N/A	

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Permit Attachments

File Type	File Description	Status
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Required Attachments

pdf	Drilling prognosis and summary of drilling, cementing, and mud processes	Attached
pdf	Directional Program	Attached
pdf	Proposed Well Location Plat	Attached
pdf	BOP & Diverter Schematics with Operating Procedures	Attached
pdf	Pore pressure (PP), Mud Weight (MW), and Fracture Gradient (FG) Plot	Attached
pdf	Proposed Wellbore Schematic	Attached
pdf	Engineering Calculation	Attached

Optional/Supplemental Attachments

pdf	Departure List	Attached
PDF	Application for Permit to Drill	Attached

Contacts Information

Name	Scherie Douglas
Company	02481 BP Exploration & Production Inc.
Phone Number	281-366-6843
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Contact Description	Regulatory
Name	Heather Powell
Company	02481 BP Exploration & Production Inc.
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Contact Description	Regulatory

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Application for Revised New Well

Lease G32306 Area/Block MC252 Well Name 001 ST 00 BP 00 Well Type Exploration
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Well Design Information

Interval Number 1		Type	Casing			Name	Conductor	
Section Number	Casing Size (in)	Casing Weight (lb/ft)	Casing Grade	Burst Rating	Collapse Rating (psi)	Depth (ft) MD	TVD	Pore Pressure (ppg)
1	28.000	218.0	X-52	2437	952	6217	6217	8.6
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION		
Hole Size (in)	32.500		Type	No Preventers		Annular Test (psi)	0	
Mud Weight (ppg)	8.6		Size (in)	N/A		BOP/Diverter Test (psi)	0	
Mud Type Code	Gelled Sea Water		Wellhead Rating (psi)	0		Test Fluid Weight (ppg)	0.0	
Fracture Gradient (ppg)	9.8		Annular Rating (psi)	0		Casing/Liner Test (psi)	0	
Liner Top Depth (ft)			BOP/Diverter Rating (psi)	0		Formation Test (ppg)	0.0	
Cement Volume (cu ft)	4636							

Interval Number 2		Type	Casing			Name	Surface	
Section Number	Casing Size (in)	Casing Weight (lb/ft)	Casing Grade	Burst Rating	Collapse Rating (psi)	Depth (ft) MD	TVD	Pore Pressure (ppg)
1	22.000	277.0	X-80	7955	6670	5227	5227	8.6
2	22.000	224.0	X-80	6363	3876	7937	7937	9.3
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION		
Hole Size (in)	26.000		Type	Blowout		Annular Test (psi)	5000	
Mud Weight (ppg)	9.5		Size (in)	18.75		BOP/Diverter Test (psi)	6500	
Mud Type Code	Water Base		Wellhead Rating (psi)	15000		Test Fluid Weight (ppg)	8.6	
Fracture Gradient (ppg)	10.5		Annular Rating (psi)	10000		Casing/Liner Test (psi)	3400	
Liner Top Depth (ft)			BOP/Diverter Rating (psi)	15000		Formation Test (ppg)	10.5	
Cement Volume (cu ft)	6301							

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Lease G32306 Area/Block MC 252 Well Name 001 ST 00 BP 00 Well Type Exploration
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Interval Number 3			Type	Liner	Name			Intermediate
Section Number	Casing Size (in)	Casing Weight (lb/ft)	Casing Grade	Burst Rating	Collapse Rating (psi)	Depth (ft)		Pore Pressure (ppg)
						MD	TVD	
1	18.000	117.0	P-110	6680	2110	8969	8969	10.0
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION		
Hole Size (in) 22.000			Type Blowout			Annular Test (psi) 5000		
Mud Weight (ppg) 10.2			Size (in) 18.75			BOP/Diverter Test (psi) 6500		
Mud Type Code Synthetic Base			Wellhead Rating (psi) 15000			Test Fluid Weight (ppg) 10.2		
Fracture Gradient (ppg) 12.1			Annular Rating (psi) 10000			Casing/Liner Test (psi) 3000		
Liner Top Depth (ft) 7489.0			BOP/Diverter Rating (psi) 15000			Formation Test (ppg) 12.1		
Cement Volume (cu ft) 993								

Interval Number 4			Type	Casing	Name			Intermediate
Section Number	Casing Size (in)	Casing Weight (lb/ft)	Casing Grade	Burst Rating	Collapse Rating (psi)	Depth (ft)		Pore Pressure (ppg)
						MD	TVD	
1	16.000	97.0	P-110	6920	2340	12500	12500	11.4
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION		
Hole Size (in) 20.000			Type Blowout			Annular Test (psi) 5000		
Mud Weight (ppg) 11.6			Size (in) 18.75			BOP/Diverter Test (psi) 6500		
Mud Type Code Synthetic Base			Wellhead Rating (psi) 15000			Test Fluid Weight (ppg) 11.6		
Fracture Gradient (ppg) 13.6			Annular Rating (psi) 10000			Casing/Liner Test (psi) 3300		
Liner Top Depth (ft)			BOP/Diverter Rating (psi) 15000			Formation Test (ppg) 13.6		
Cement Volume (cu ft) 930								

Interval Number 5			Type	Liner	Name			Intermediate
Section Number	Casing Size (in)	Casing Weight (lb/ft)	Casing Grade	Burst Rating	Collapse Rating (psi)	Depth (ft)		Pore Pressure (ppg)
						MD	TVD	
1	13.625	88.2	Q-125	10030	4800	15300	15300	12.9
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION		
Hole Size (in) 16.000			Type Blowout			Annular Test (psi) 5000		
Mud Weight (ppg) 13.1			Size (in) 18.75			BOP/Diverter Test (psi) 6500		
Mud Type Code Synthetic Base			Wellhead Rating (psi) 15000			Test Fluid Weight (ppg) 13.1		
Fracture Gradient (ppg) 14.7			Annular Rating (psi) 10000			Casing/Liner Test (psi) 2000		
Liner Top Depth (ft) 12200.0			BOP/Diverter Rating (psi) 15000			Formation Test (ppg) 14.7		
Cement Volume (cu ft) 410								

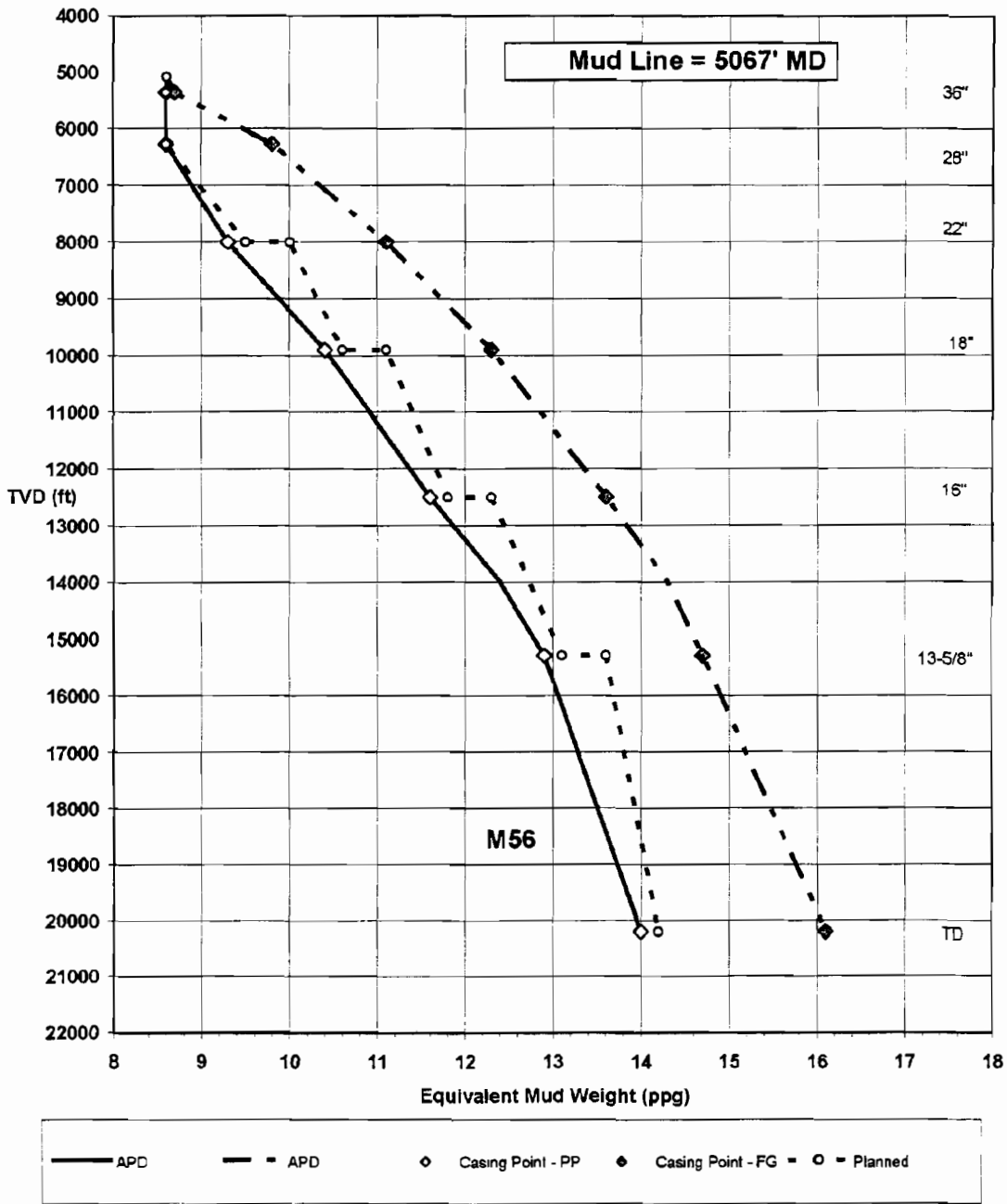
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Interval Number 6		Type Open Hole			Name Open Hole		Depth (ft)		Pore Pressure
Section Number	Casing Size (in)	Casing Weight (lb/ft)	Casing Grade	Burst Rating	Collapse Rating (psi)	MD	TVD	(ppg)	
1						20200	20200	14.0	
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION			
Hole Size (in)	14.000		Type	Blowout		Annular Test (psi)	5000		
Mud Weight (ppg)	14.2		Size (in)	18.75		BOP/Diverter Test (psi)	6500		
Mud Type Code	Synthetic Base		Wellhead Rating (psi)	15000		Test Fluid Weight (ppg)	0.0		
Fracture Gradient (ppg)	16.1		Annular Rating (psi)	10000		Casing/Liner Test (psi)	0		
Liner Top Depth (ft)			BOP/Diverter Rating (psi)	15000		Formation Test (ppg)	0.0		
Cement Volume (cu ft)									

PAPERWORK REDUCTION ACT OF 1995 (PRA) STATEMENT: The PRA (44 U.S.C. 3501 et seq. Requires us to inform you that we collect this information to obtain knowledge of equipment and procedures to be used in drilling operations. MMS uses the information to evaluate and approve or disapprove the adequacy of the equipment and/or procedures to safely perform the proposed drilling operation. Responses are mandatory (43 U.S.C. 1334). Proprietary data are covered under 30 CFR 250.196. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB Control Number. Public reporting burden for this form is estimated to average 27 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form for the Information Collection Clearance Officer, Mail Stop 4230, Minerals Management Service, 1849

MC 252 #1 - Macondo Prospect
MMS APD Attachment - PP/MW/FG



MC 252 #1
OCS-G-32306
Attachment 2

Brian Morel
1/12/10

MMS Application for Permit to Drill

Departures to Code of Federal Regulations (23-Feb-03 Edition)

- 250.423 (b) The conductor casing (28") will not be tested to 200 psi as the subsequent open hole section will be drilled riserless.
- 250.433(b) Partial closing of the diverter sealing element shall be considered to be an actuation test. Full closure actuation will be conducted in conjunction with regular scheduled BOP testing. The vent lines will not be flow tested and the system will not be pressure tested per the subject regulation.
- 250.445(g) A safety valve will not be on the rig floor for the casing being run unless the casing string length results in the casing being across the blind/shear rams prior to crossing over to the drill pipe running string.
- 250.447(b) The 14-day BOP pressure test is not required for blind shear rams. The blind shear rams and the wellhead connector will be tested to the casing pressure tests as specified in the APD during casing tests such that code requirement of 250.449(e) is met.
- 250.447(c) The BOP's will be pressure tested every 14 days. The BOP test before drilling out each casing string and/or liner shall not be expressly required, except that the 14-day pressure test must be valid. This applies to the following casing strings:
- 18" Liner
 - 16"
 - 13 5/8" Liner
 - contingency liners
- 250.448 (b & c) The subsea BOPs will *not* be pressure tested to 15K psi rated working pressure, and the annular will *not be* tested to 70% of its rated working pressure, on the test stump, or after installation. We propose that the single ram type BOPs shall be stump-tested to 10,000 psi and the annular-type BOPs shall be stump-tested to 5,000 psi. Thereafter, test pressures will be per the APD.
- The blind/shear rams will not be pressure tested to their rated working pressure upon installation or during subsequent tests. The blind/shear rams will be tested to the casing test pressures as specified in the APD.
- The upper inner and outer annular bleed valves will *not* be pressure tested to their rated working pressure. A pressure test of the upper inner and outer bleed valves will be performed against the annular BOP to the annular test pressure specified in the APD.

250.449 (f)

Variable bore-pipe rams will be pressure tested against largest and smallest sizes of pipe that will be across the stack, excluding drill collars, HWDP, and bottom-hole tools.

The annular BOP will only be tested to the smallest OD drill pipe when a tapered string is in use.

250.449(h)

Request to delay or omit 7-day function test of Blind/Shear and casing shear rams, when function test is due and the drill string is across the stack. The maximum time between function tests shall not exceed 14 days, unless authorized by the MMS district office on a case by case basis.

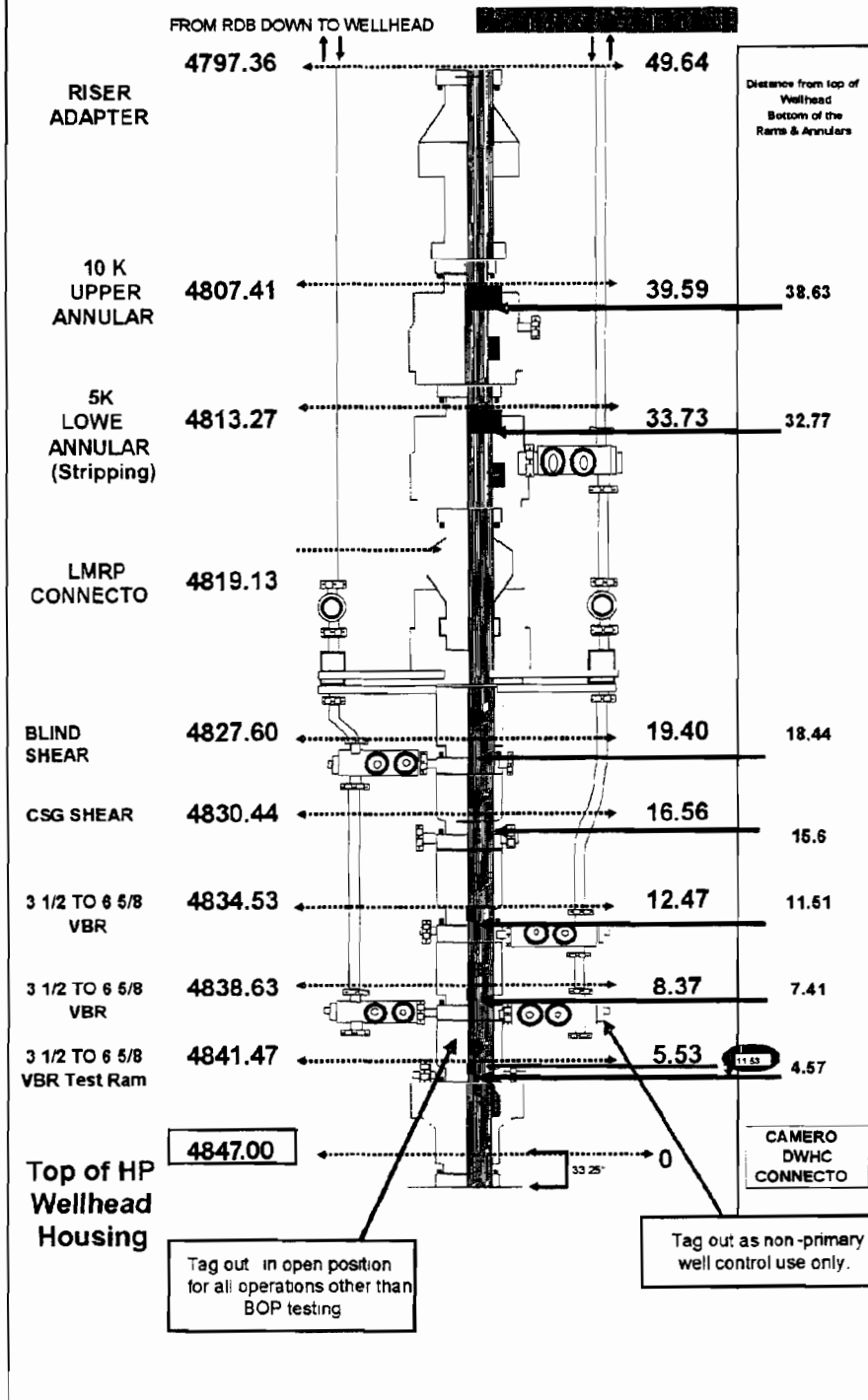
250.461 (a)(2)

In the event a directional MWD is run, a multi-shot (or single-shot) survey shall not be required at casing points or TD.

MC 252 #1
OCS-G-32306
Attachment 5

Mark Hafle
5/11/09

**Transocean Deepwater Horizon
BOP Stack Test Space Out Measurements (prespud)
MC 252 #1 Macondo Location**



Brian Morel
01/12/10