U.S. Department of the Interior, Mineral Management Service

FOR MMS USE ONLY- Test A-Key

Drilling

4745

Exhibit No. _____

Worldwide Court Reporters, Inc.

General Information

Test Date:	
Time:	
MMS Inspector Number:	
MMS Inspector Name:	
MMS Region:	
MMS District:	

Location Information

Area:	
Block:	
Lease:	**OCSG-**
Well Number:	
Complex ID Number:	
Facility Name:	
Rig Name:	
Rig Number:	

Company Information

Operator Number:	
Operator Name:	
Contractor Number:	
Contractor Name:	

Activities Conducted

Operation Being Conducted at Time of Test:	
Was Inspection: Announced or Unannounced?	
Type of Inspection Being Conducted at Time of Test: Drilling/ Well Completion/ Well Workover/ Well Servicing/ Production/ Other?	

Test Information

Years With Present Employer:	
Years in Present Position:	
Total Years Offshore Experience:	
Was Test Announced or Unannounced?	
Is Employee a Supervisor?	
Test Score:	
Is this a Re-Test?	
Test: Pass or Fail?	
Test Location (offshore/onshore/school/other)?	
Test Type Company Issued: (Written Well Control/ Written Production)	
Test Type MMS Issued: (Hands on Well control Scenario/ Hands on Production Scenario/ Written Well Control/ Written Production/ Oral Well Control/ Oral Production)	
Test Taker Job Title:	

INC Information

INC Number:	
INC Enforcement Action: S / C / W ?	
Was INC Issued?	

	Correct	Score
Level 1----------		x 10 =
Level 1 and 2----------		x 6.67 =
Level 1, 2, and 3----------		x 5 =

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Level 1

Answers	Questions
B 30 CFR 250.462	1. During a drilling operation, MMS requires crews to hold well control drills _____. A. Every 10 days B. Weekly C. Every 14 days D. None of the above
D	2. Which of the following conditions can cause a kick? A. Not keeping the hole full B. Insufficient mud weight C. Lost circulation D. All of the above
False 30 CFR 250.445 e,f,g,h	3. MMS requires that a full opening stabbing valve fit only 2-3/8" or larger tubing. True_____ False_____
B	4. While drilling a well an influx of gas into a column of 10.5 ppg water based drilling mud will result in a _____ in the density of the mud column. A. Increase B. Decrease C. No effect
C	5. What is the first step in controlling a kick? A. Increase mud weight B. Decrease mud weight C. Shut the well in as quick as possible D. Circulate the gas out of the well

Answers	Questions
D	6. During drilling operations, which piece of equipment is not required? A. Gas detecting equipment B. Mud level measuring device C. Mud return indicator D. Wellhead
False	7. A mud balance is used to determine the viscosity of the drilling mud. True_____ False_____
B	8. A pipe ram is used to; A. Shear drill pipe B. Close around a specific size of pipe C. Increase the drilling rate D. Close on open hole
B	9. Which mud additive is normally added to the drilling fluid to increase its weight? A. Water B. Barite C. Bentonite D. Salt
C	10. Diverting a well allows you to; A. Circulate a kick out of the well B. Use the drillers method of well control C. Flow gas away from the rig D. None of the above

Level 2

Answers	Questions
Gradient or Density Height or Length or TVD	11. Hydrostatic pressure at the base of a fluid column is obtained by multiplying the _____ of the fluid by the _____ of the column.
C	11. While drilling an offshore well a Pressure Integrity Test is normally conducted; A. Before running a string of casing B. Immediately before drilling out of the casing shoe C. After drilling out of the casing shoe D. Only when hole problems have been encountered
C	13. The mud weight increase required to kill a kick should be based upon: A. Shut in casing pressure B. Original mud weight plus slow circulation rate pressure loss C. Shut in drill pipe pressure D. Shut in casing pressure minus shut in drill pipe pressure
C	14. The hydrostatic pressure exerted by a column of kill weight mud is equal to: A. Initial circulating pressure B. SICP plus annular friction pressure C. Formation pressure plus safety factor D. Leak off pressure
B	15. When using a surface BOP stack, and circulating out a kick, bring the pump up to speed maintaining: A. Drill pipe pressure constant and equal to SIDPP B. Choke pressure constant and equal to SICP C. Both A and B D. None of the above

Level 3

Answers	Questions
C 30 CFR 250.431	16. In accordance with 30 CFR 250, the minimum I.D. for diverter vent lines on a well with a surface wellhead is: A. 12 inches B. 15 inches C. 10 inches D. None of the above
12.8 ppg	17. Using the information provided below, work problems 17 - 19. A deviated borehole has a TD of 12,320 ft MD (10429 ft TVD) 9- 5/8", 47 lb/ft casing is set at 9750 ft MD (9200 TVD) 11.4 ppg mud is in use when the well kicks and is closed in SIDPP = 750 psi SICP= 1050 psi Gain= 15 bbls Pre-recorded information is as follows: Fracture mud Weight = 14.4 ppg Capacity of 19.5 lb drill pipe = 0.01776 bbl/ft Capacity of 9-5/8", J55 casing = 0.0732 bbl/ft KRP pressure = 850 psi The kill weight mud required to balance the formation pressure is : Kill MW = MW Increase + Mud in hole KMW = 20 x SIDPP/TVD + 11.4 ppg KWM = 20 x (750/10429) + 11.4 = 12.84 = 12.8 ppg
1600 psi	18. The initial circulating pressure (ICP) is: ICP = KRP + SIDPP = 850 + 750 psi = 1600 psi
954 psi	19. The final circulating pressure (FCP) is: FCP = KRP x (new MW/old MW) = 850 x (12.8/11.4) = 954.38 = 954 psi
E	20. Which of the following pieces of data need to be recorded after you close in the well on a kick? A. Drill pipe pressure B. Casing pressure C. Bit nozzle size D. Pit volume increase E. Items A, B, and D

MMS

Subpart O Written Testing Program

Please fill out the test accurately and completely.

Please take your time. There is no time limit associated with this test.

You are free to use whatever reference material available to you, excluding the internet or intranet.

There are **NO** trick questions on the test; however some questions may have more than one acceptable answer.

This test is not being administered to determine your eligibility for employment. It is simply a tool to determine the effectiveness of your company's Subpart O training program.

This test shall not be copied in any way. (copy, facsimile, photo, etc..)

If questions should arise during the test, please direct them towards the MMS representative administering the test. Coworkers will not be allowed to assist the test taker.

MMS Representative _____

Date _____

Note:

Written Well Control Test:
-Level 1 (L1) – Floor hand, Derrickman
- L1 and Level 2 (L2) – Driller, Assistant Driller
-L1, L2 and Level 3 (L3) – Tool Pusher, Company Man

Written Production Test:
- Level 1 (C and D operator)
- Level 1 and 2 (A and operator)
- Level 1-2-3 (Lead Operator)

MMS

Subpart O Written Testing Program
Comment Sheet

To develop and administer a successful Subpart O testing program that addresses the concerns of both MMS and industry we welcome your comments and suggestions on how to improve this program. Please take the time to document any comments or suggestions that you may have so that MMS can evaluate them for possible incorporation into this program in the future.

_____

_____

_____

_____

_____

Date _____
Position (optional) _____
Company (optional) _____
Test Location (optional) _____

If you do not want to submit these comments directly to the MMS representative giving you the test please feel free to email these comments to any of the following MMS employees;
Randall.Josey@mms.gov
David.Nedorostek@mms.gov
Joseph.Levine@mms.gov

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