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**APPENDICES**

**1. 30 CFR 250.416(F)**

- (f) When you use a subsea BOP stack, independent third party verification that shows:
- (1) The BOP stack is designed for the specific equipment on the rig and for the specific well design;
  - (2) The BOP stack has not been compromised or damaged from previous service;
  - (3) The BOP stack will operate in the conditions in which it will be used.

**2.0 INTRODUCTION****2.1 Unit Data**

Rig Name: Development Driller1  
Owner: Transocean Offshore  
Built: N/A  
Drilling depth: N/A  
Location: GOM  
Inspection dates: Completed 28/12/2011  
ModuSpec references: US2360.1 Statement of Fact 30 CFR 250.416(f)  
Federal Register Dated October 14<sup>th</sup> 2010, Part III  
Department of the Interior CFR 30 Part 250

**2.2 Work scope And Discovery**

In accordance with the instructions received, we attended onboard the Development Driller 1 to confirm during between well service if the Well Control equipment installed was still being maintained and tested in accordance with the requirements of 30CFR 250.416(f). Federal Register Dated October 14<sup>th</sup> 2010, Part III Department of the Interior CFR 30 Part 250.416(f) when you use a subsea BOP stack, independent third party verification that shows:

- (1) the BOP stack is designed for the specific equipment on the rig and for the specific well design;
- (2) The BOP stack has not been compromised or damaged from previous service;
- (3) The BOP stack will operate in the conditions in which it will be used; and

The work scope also included an audit to confirm that the well control equipment installed had been maintained and tested in accordance with the requirements of 30 CFR 250.446(a) and 250.450.

The Develop Driller one (DD-1) semisubmersible drilling rig had completed the well program and the BOP stack was retrieved and the equipment has successfully completed a through maintenance regimen. The BOP equipment received a complete internal inspection of all segments of the stacks with new installations of ram rubber sealing components installed in the ram closing blocks. The two (2) Hydril (GE) annular units also received new closing packing units and the equipment has under gone extensive pressure testing and operational verification testing during the maiuntenace period.

The failsafe valves on the stack had the UIK (upper inner kill), UOK (upper outer kill) dual block assembly replaced with a new certified assembly from the OEM that was tested and observed in a good and well tested operational condition. The LIK (lower inner kill) failsafe valve was opened and new OEM gate seat assembly was installed along with an OEM certified hydraulic operator that was likewise confirmed with operation and pressure testing. The LOC (lower outer choke) failsafe valves received the OEM gate seat assembly exchange and successfully operated and tested as per normal expectations without concerns.

The complete detailed maintenance plan was accomplished in good order with all correctibve actions completed to render the equipment and control systems in good condition and observed under operating conditions correct in all regards. The emergency control and dead man systems were all observed operating as designed without flaw and pressure testing confirmed proper operations following each operation.

We affirm that the LMRP and BOP stack and components are sound, thoroughly pressure tested to MWP and ready for running with confidence of good continued equipment operations.

We witnessed the successful operational testing of the control systems and confirm they meet the requirements addressed in the preceding paragraph. (30 CFR 250.446(a) and 250.450)

### 2.3 **Applicable References**

The following References were used to complete the Well Control Equipment Maintenance Review:

- API RP 53, 3<sup>rd</sup> Edition, 2004 Applicable Segments
- API 16A Specification For Drill Through Equipment Applicable Segments
- API 16C Specification For Choke and Kill Systems Applicable Segments
- API 16D Specification for Control Systems for Drilling Well Control Equipment and Control Systems for Diverter Systems. Applicable Segments
- Federal Register Dated October 14<sup>th</sup> 2010, Part III Department Of The Interior CFR 30 Part 250.

### 3.0 **EXECUTIVE SUMMARY**

#### 3.1 **Executive Summary**

An audit and inspection approach was used to confirm the Subsea Blowout Preventer and related well control equipment on board the rig was being maintained and inspected according requirements in 30 CFR 250.446(a). Records of maintenance were reviewed and it was found that were being maintained in accordance with the requirements of 30 CFR 250.450.

Our survey also verified that no modifications or upgrades to the BOP Stack conducted after delivery have compromised the design or operation of the BOP during this between well service dated 28 December 2011. See the last paragraph on in section 2.2 above on pages 4 and 5 of 9.

### 4.0 **BOP INSPECTION AND MAINTENANCE**

Transocean Offshore uses a Computerized Maintenance Management System (CMMS) for the recording maintenance information and inspection history. We were provided access to the CMMS and relevant equipment history was reviewed including PM, pressure test and repair records. These records were in line with the requirements of 30 CFR 250.446(a) and 30 CFR 250.450.

Other documentation on the rig such as OEM Operating and Maintenance Manuals, Engineering Bulletins was in place as required by 30 CFR 250.446(a).

3-5 Yearly Major Inspection records were reviewed and are still found to be in compliance with the requirements of 30 CFR 250.446(a).

Additional inspections will be required if a well control event occurs as per reference CFR 250.451(i) If the blind shear rams are activated in a well control situation, the BOP must be retrieved and fully inspected and tested.

### **QUALIFICATIONS**

(g) The qualifications of the independent third party referenced in paragraphs (e) and (f) of this section:

(1) The independent third party in paragraph (e) in this section must be a technical classification society; an API-licensed manufacturing, inspection, or certification firm; or a licensed professional engineering firm capable of providing the verifications required under this part. The independent third party must not be the original equipment manufacturer (OEM).

(2) You must:

(i) Include evidence that the firm you are using is reputable, the firm or its employees hold appropriate licenses to perform the verification in the appropriate jurisdiction, the firm carries industry-standard levels of professional liability insurance, and the firm has no record of violations of applicable law.

(ii) Ensure that an official representative of BOEMRE will have access to the location to witness any testing or inspections, and verify information submitted to BOEMRE. Prior to any shearing ram tests or inspections, you must notify the District Manager at least 24 hours in advance.

For 25 years, ModuSpec has been recognized as a risk management specialist in the identification, assessment and management/control of risk. Our services have been designed to assist our client in achieving their goals of a safe work environment and in optimizing operations to meet or exceed those goals.

Our identification services reveal defective, faulty or malfunctioning equipment and systems which have the potential to cause danger to personnel, the environment or compromise drilling operations.

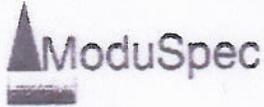
The scope may include verification of the equipment and systems with local legislative requirements, internationally recognized standards, the client's safety and operating standards, accepted Oil and Gas industry operating and safety practices.

### **MODUSPEC IDENTIFICATION SERVICES:**

- Equipment Inspections, Certification and verification
- System Audits

### **THIRD PARTY QUALIFICATIONS:**

- Coast Guard Approval Document Number 16711/LR dated 13 Nov 2008
- Fully insured for general liability (Documents available upon request)
- Authorized and licensed on an international basis including the Gulf Of Mexico Region



**8.0 AUTHORIZATION FOR ISSUANCE**

Authorizing General Manager: TS ModuSpec Americas  
Signature [Signature] Date 12-28-11

Authorizing Supervisor Support Specialist Supervisor: LC COEWCE  
Signature [Signature] Date 12-28-11

Field Surveyor: TV  
Signature [Signature] Date 28 DEC 2011

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