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Transocean Marianas
Shear Rams on Yellow Pod Failure

A	**Rig Name:** Transocean Marianas **Location:** Wildcat-Macondo #1
B	**Project Status:** **Unlatched BOP @ 0505 hrs on 11/1/09.Preparing to pull Riser.**
C	**Main Events:** **Well Operations:** **29 October 2009- Running 18" Casing on $5^{1/2}$" Drill Pipe** **30 October 2009- Running 18" Casing on $5^{1/2}$" Drill Pipe, Cementing 18" Liner.** **31 October 2009- Cementing 18" Liner, Well Secure.** **01 November 2009- Drill Crew inspecting all Riser Equipment and BOP unlatched @ 0505 hrs** **Vessel Status:** **28 October 2009 – 1900hrs – Event happened** • Subsea crew on the Marianas went to function the Shear Rams on Yellow Pod SEM A @ 1500psi and did not get the correct gallon count. Received a .2 gal. count on close and 24 gallons on open. Tried again and got .3 gallons on close and 16 gallons on open. Tried a third time and got .2 on close and 14.4 on open. • Did the same on Blue Pod and did receive the full gallon count on open and close. • The Subsea crew then swapped back to Yellow and got .2 close and 14 gallons open. They then swapped to SEM B on the Yellow pod and got the same results with .3 close and 10.9 open. They bumped the pressure up to 1700psi operating pressure and achieved the same results with .2 close and 11 gal open. • At 2100 hrs, Rig Managers and Field Technical Support informed of the situation **29 October 2009 – 0700hrs – Consultation with Field Support and Rig Management** • Rig Management consulted with Pete Calligeros from field support, who thinks it may be a stuck shear seal. Pete came up a possible fix that needed to be tested with no pipe across the stack. • Test was set for 1400hrs on 30 October after 18" casing was down and set. • Proper TSTP and TRA conducted and approved by Rig Management. • Secondary measures put in place in case of testing failure. Begin necessary preparation steps involved in pulling, function testing, and diagnosing the BOP stack. **30 October 2009 – 1400hrs – 1st Test Conducted** • The first test was carried out with these steps: 1. While on Blue Pod, put the Blind shears in block. 2. Switch SEM's on Yellow Pod, this will cause all solenoids on Yellow pod to drop out which means we will lose monitoring current during the switch in hopes that the open solenoid will drop out. 3. Change pods from Blue to Yellow. 4. Fire the Blind Shears from Block to close and note the gallon count. If we get the proper gallon count then the procedure has proven that the shear seal/solenoid is sticking with monitoring current applied. 5. Lastly, while on Yellow fire the Blinds open noting the gallon count and then back to close in hopes the problem has cleared itself. • @ 1700 Rig Management in formed that the test was not successful • @ 1713hrs conducted a 30 minute conference call with BP, Rig Managers, OIM, Maintenance

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Supervisor, Sub Sea, and Sub Sea Tech support to decide next steps
- Decided to secure the well and kill power to yellow and power back up for 1 final effort.
- SWAT assistance requested @ 2033 hrs
- **Securing the well procedures commenced. Began Downtime @ 2100 hrs.**

31 October 2009 – 0850hrs – Securing the Well and 2nd Test
- Proper TSTP and TRA conducted and approved by Rig Management for 2nd Test.
- Second Test conducted with the following steps:

1. 1320hrs - Killed Yellow Pod via CCU Utility Panel.
   - Noted that power "on" indication at CCU Utility Panel stayed lit.
   - Verified at UPS panel that power to Yellow Pod was off.
   - MMI event page displayed "Pod Power Off Yellow"
2. 1326hrs - power was turned back on at CCU Utility Panel
   - MMI event page displayed "Pod Power On Yellow"
3. 1337hrs - Swapped to Yellow Pod.
4. 1328hrs - Verified gauges page on yellow was up and running. (showed correct pressures)
   - Functioned Shear Rams Close (gallon count = .3)
5. 1329hrs - Functioned Shear Rams Open (gallon count = 13.3)
6. 1330hrs - Swapped to Blue Pod
   - Functioned Shear Rams Close (gallon count = 32.8)
7. 1332hrs - Functioned Shear Rams Open (gallon count = 29.8)
8. Pete Calligeros then suggested we put Shear Rams in "Block" Position on blue pod and try again.
9. 1338hrs - On Blue Pod, Placed Shear Rams in Block Position.
10. 1339hrs - Powered down Yellow Pod at CCU Utility Panel.
    - Noted that Utility Panel "on" indication stayed lit.
    - MMI event page showed "Pod Power Off Yellow"
11. 1349hrs - Power re-applied to Yellow Pod at CCU Utility Panel.
    - MMI event page displayed "Pod Power On Yellow"
12. 1350hrs - Swapped to Yellow Pod.
13. 1351hrs - Functioned Shear Rams Close (gallon count = .3)
14. 1352hrs - Functioned Shear Rams Open (gallon count = 9.5)
15. 1353hrs - Swapped to Blue Pod.
    - Functioned Shear Rams close (gallon count - 32.9)
    - Functioned Shear Rams open (gallon count - 29.7)

- Test was not successful. Commencing operations to unlatch and pull BOP Stack.
- Technical Field Support Personnel, Pete Calligeros and Mr.Chapman, plan to be on the Marianas on 2 Nov/3 Nov.

1 November 2009 – 00505hrs – Unlatched BOP
- Unlatched BOP from the well head @ 0505hrs

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	Ongoing operations: • **Preparing to Pull Riser**
E	**Comments and Concerns:** • **Ensure that all safety procedures and protocols are followed accordingly while conducting these operations.** • **Estimated Downtime is a conservative 10 days @ $444,111/day =$ 4,441,110** • **Do not know the cause of this downtime issue at this time. A detailed root cause analysis will be conducted to determine short and long term solutions to this subsea downtime issue and prevention of future occurrences.**
F	**Look Ahead:** [redacted]
G	**Report by: Wilton Hockaday – Rig Manager-Asset on 01th November 2009 – 1115hrs**