UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT
GULF OF MEXICO REGION

ACCIDENT INVESTIGATION REPORT

For Public Release

1. OCCURRED
DATE: **10-OCT-2012** TIME: **2100** HOURS

2. OPERATOR: **Statoil USA E&P Inc.**
REPRESENTATIVE:
TELEPHONE:
CONTRACTOR:
REPRESENTATIVE:
TELEPHONE:

3. OPERATOR/CONTRACTOR REPRESENTATIVE/SUPERVISOR ON SITE AT TIME OF INCIDENT:

4. LEASE: **G26287**
AREA: **GC** LATITUDE:
BLOCK: **36** LONGITUDE:

5. PLATFORM:
RIG NAME: **T.O. DISCOVERER AMERICAS**

6. ACTIVITY:
- [X] EXPLORATION(POE)
- [ ] DEVELOPMENT/PRODUCTION (DOCD/POD)

7. TYPE:
- [ ] HISTORIC INJURY
  - [ ] REQUIRED EVACUATION
  - [ ] LTA (1-3 days)
  - [ ] LTA (>3 days
  - [ ] RW/JT (1-3 days)
  - [ ] RW/JT (>3 days)
  - [ ] Other Injury
- [ ] FATALITY
- [ ] POLLUTION
- [ ] FIRE
- [ ] EXPLOSION
- LWC
  - [ ] HISTORIC BLOWOUT
  - [ ] UNDERGROUND
  - [ ] SURFACE
  - [ ] DEVERTER
  - [ ] SURFACE EQUIPMENT FAILURE OR PROCEDURES
- COLLISION [ ] HISTORIC [ ] >$25K [ ] <=$25K
- [ ] STRUCTURAL DAMAGE
- [ ] CRANE
- [X] OTHER LIFTING DEVICE **Pipe Racking System**
- [ ] DAMAGED/DISABLED SAFETY SYS.
- [X] INCIDENT >$25K **$350,000**
- [ ] H2S/15MIN./20PPM
- [ ] REQUIRED MUSTER
- [ ] SHUTDOWN FROM GAS RELEASE
- [ ] OTHER

6. OPERATION:
- [ ] PRODUCTION
- [X] DRILLING
- [ ] WORKOVER
- [ ] COMPLETION
- [ ] HELICOPTER
- [ ] MOTOR VESSEL
- [ ] PIPELINE SEGMENT NO.
- [ ] OTHER

8. CAUSE:
- [ ] EQUIPMENT FAILURE
- [ ] HUMAN ERROR
- [ ] EXTERNAL DAMAGE
- [ ] SLIP/TRIP/FALL
- [ ] WEATHER RELATED
- [ ] LEAK
- [ ] UPSET H2O TREATING
- [ ] OVERBOARD DRILLING FLUID
- [ ] OTHER

9. WATER DEPTH: **1941** FT.

10. DISTANCE FROM SHORE: **79** MI.

11. WIND DIRECTION: **NE**
SPEED: **15** M.P.H.

12. CURRENT DIRECTION:
SPEED: M.P.H.

13. SEA STATE: **4** FT.

17. INVESTIGATION FINDINGS: -

On October 10, 2012, while attempting to troubleshoot issues with the Pipe Racking System (PRS), a weld on the drive shaft coupling failed. This break allowed the forward PRS to separate and fall against the aft PRS.

While in the process of running in the hole with drill pipe, the Assistant Driller (AD) received both a "slew" and a "transverse" encoder alarm while trying to grab a stand of drill pipe from the fingerboard. These alarms are designed to recognize if there is any movement of the PRS outside of its set parameters. In the event that these alarms are activated, the system will not allow the PRS to move until the alarms have been cleared.

After receiving the alarms, the Assistant Driller was instructed by the Toolpusher to contact the Electrical Technician (ET) to help troubleshoot the problem. After troubleshooting and discussing the issues, it was found that the upper and lower transverse encoders for the PRS were out of sync and preventing the PRS from moving. It was noted that no noticeable lean or visual damage could be seen on the PRS. The decision was made to move the PRS down to the forward parking position where it would be more accessible and easier for them to further investigate the problem. No procedures were in place to troubleshoot the issue and no JSA was done prior to beginning the work. At this time, all personnel were instructed to clear the rig floor and the Assistant Driller placed the upper encoder into "encoder sync bypass", which would bypass the alarm and allow the PRS to move again. When the AD attempted to move the PRS, the Forward PRS fell and eventually came to rest against the upper head of the aft PRS.

No injuries occurred during the incident due to the fact that all personnel had been moved away from the rig floor. Both the forward and aft PRS were secured and an inspection was performed to assess any damages that may have occurred due to the incident. The systems was soon restored and placed back into service.

18. LIST THE PROBABLE CAUSE(S) OF ACCIDENT:

Although the system shut itself down as designed, the operator placed the PRS alarm into bypass and proceeded to try to relocate it to the forward parking position before identifying the actual cause of the alarm.

19. LIST THE CONTRIBUTING CAUSE(S) OF ACCIDENT:

1) No JSA or formal Risk Assessment was performed to identify the potential hazards of overriding the system prior to placing the PRS alarm in bypass and attempting to move it.
2) There is no procedure in place for troubleshooting or operating the PRS if an "encoder out of sync fault" is received.
3) An inspection of the welds on the drive shafts of the PRS is not part of the routine maintenance.

20. LIST THE ADDITIONAL INFORMATION:

21. PROPERTY DAMAGED: NATURE OF DAMAGE:

Pipe Racking System **N/A**

ESTIMATED AMOUNT (TOTAL): **$350,000**

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

The Houma District has no recommendations at this time.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: **NO**

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

25. DATE OF ONSITE INVESTIGATION:

12-OCT-2012

26. ONSITE TEAM MEMBERS:

Troy Boudreaux / Jeramie Liner / James Richard /

29. ACCIDENT INVESTIGATION PANEL FORMED: **NO**

OCS REPORT:

30. DISTRICT SUPERVISOR:

Bryan Domangue

APPROVED DATE: **06-AUG-2013**