

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: 16-OCT-2017 TIME: 1730 HOURS

2. OPERATOR: BP Exploration & Production Inc.

REPRESENTATIVE:

TELEPHONE:

CONTRACTOR: Ensco Offshore Co.

REPRESENTATIVE:

TELEPHONE:

- STRUCTURAL DAMAGE
- CRANE
- OTHER LIFTING Riser Running Tool
- DAMAGED/DISABLED SAFETY SYS.
- INCIDENT >\$25K damaged to equipment
- H2S/15MIN./20PPM
- REQUIRED MUSTER
- SHUTDOWN FROM GAS RELEASE
- OTHER Dropped Object - Riser Jt.

3. OPERATOR/CONTRACTOR REPRESENTATIVE/SUPERVISOR 8. OPERATION:

ON SITE AT TIME OF INCIDENT:

4. LEASE: G09868

AREA: MC LATITUDE:

BLOCK: 778 LONGITUDE:

5. PLATFORM:

RIG NAME: THUNDER HORSE PDQ

- PRODUCTION
- DRILLING
- WORKOVER
- COMPLETION
- HELICOPTER
- MOTOR VESSEL
- PIPELINE SEGMENT NO.
- OTHER Running BOP's

6. ACTIVITY:

- 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

9. CAUSE:

- EQUIPMENT FAILURE
- HUMAN ERROR
- EXTERNAL DAMAGE
- SLIP/TRIP/FALL
- WEATHER RELATED
- LEAK
- UPSET H2O TREATING
- OVERBOARD DRILLING FLUID
- OTHER \_\_\_\_\_

- 10. WATER DEPTH: 6037 FT.
- 11. DISTANCE FROM SHORE: 60 MI.
- 12. WIND DIRECTION: NE  
SPEED: 7 M.P.H.
- 13. CURRENT DIRECTION: NE  
SPEED: 1 M.P.H.
- 14. SEA STATE: 2 FT.
- 15. PICTURES TAKEN:
- 16. STATEMENT TAKEN:

On 10/16/2017, at approximately 1620 hours, the drill crew was in the process of running the drilling riser in preparation to latch the BOP stack to the subsea wellhead. While picking up a joint of riser (joint #8) to connect to the riser string, the riser joint became disengaged from the riser running tool and dropped 30' to the aft side of the derrick. The joint of riser struck the Top Drive System (TDS) dolly track and wire trays. After securing this joint of riser safely back to the deck, an inspection was conducted and found structural damage to the drawworks track and support bracing. There was also damage to hydraulic lines, electrical cables, and cable trays. All energized areas of concern were isolated and secured. There was no harm to personnel or damage to the environment.

According to witness statements, Red Zone Management was in effect and no one was in the Red Zone at the time of the incident.

NOV technicians on location conducted a further inspection of the damaged equipment. The joint of marine riser at issue weighed approximately 43,000 lbs and caused damage with an estimated \$25,000 to \$35,000 in repair cost. After conducting structural integrity inspections and completing additional repairs to the hydraulic lines, TDS support beams, and electrical trays, well operations resumed on 10/21/2017.

After reviewing the "Ensco Thunder Horse Work Instructions" for running riser, the following issues were critical with respect to this incident:

- 1) Step (3) page (2) - Lower the front gate on the spider and hoist running tool horizontally with the air hoist. Bring in skate and stab the running tool into the riser. Latch the running tool.
- 2) Step (4)(a) - Assistant Driller (AD) will verify that the riser running tool is properly locked prior to hoisting riser off of the skate to prevent the riser from falling.
- 3) Also noted in the "Ensco Thunder Horse Work Instructions" Consequence-Equipment Damage/Personal Injury Hazard.
  - a) Gravity-Riser joint falling to the rig floor due to the running tool not properly locked.

A drill crew member, the floor hand, is responsible for manually locking the joint of riser to the riser running tool. This part of the operation was not completed. A crew member stated to the BSEE Investigator the Floorhand thought he had utilized the manual lockdown, listed in step (3), but this did not happen. The AD did not verify that the joint of riser had been manually and mechanically locked into the riser running tool prior to lifting the riser joint vertical as listed in step (4).

The riser running tool was not properly engaged into the profile of the riser joint. There was no verification that the secondary mechanical lock was closed on the riser running tool prior to raising the joint of riser. There was poor communication among the drill crew team members involved in this operation.

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

- 1) Riser running tool was not properly engaged into profile of the riser joint.
- 2) No verification that the secondary mechanical lock was closed on the riser running tool prior to raising the joint of riser to the vertical position.

3) Poor communication among the drill crew team members involved in this operation.

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

See Initial findings in Section 17.

20. LIST THE ADDITIONAL INFORMATION:

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

Top drive system (TDS) dolly track. Also, structural damage to the draw works track and support bracing. Hydraulic lines, electrical cables and cable (wire) trays on the TDS.

Structural

ESTIMATED AMOUNT (TOTAL): \$35,000

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

The BSEE New Orleans District makes no recommendations to the Office of Incident Investigation.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: YES

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

G-110 (W) 30 CFR 250.107.

Does The Lessee Perform All Operations in a Safe and Workmanlike Manner and provide for the Preservation and Conservation of Property and the Environment?

At the conclusion of the investigation, BSEE investigators determined that the operator failed to conduct operations in a safe and workmanlike manner on 10/16/2017. This resulted in a joint of Riser becoming disengaged from the running tool. The top of the riser joint fell approximately 30 feet, contacting the Top-Drive System, Dolly Track and wire trays before coming to a rest.

25. DATE OF ONSITE INVESTIGATION:

20-OCT-2017

29. ACCIDENT INVESTIGATION

PANEL FORMED: NO

30. DISTRICT SUPERVISOR:

OCS REPORT:

David Trocquet

26. INVESTIGATION TEAM MEMBERS:

Earl Roy /

APPROVED

DATE: 07-MAR-2018