

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: 30-JAN-2016 TIME: 1600 HOURS

2. OPERATOR: LLOG Exploration Offshore, L.L.C.

REPRESENTATIVE:

TELEPHONE:

CONTRACTOR: Seadrill Limited

REPRESENTATIVE:

TELEPHONE:

- STRUCTURAL DAMAGE
- CRANE
- OTHER LIFTING DEVICE
- DAMAGED/DISABLED SAFETY SYS.
- INCIDENT >\$25K \$4,834,000.00
- H2S/15MIN./20PPM
- REQUIRED MUSTER
- SHUTDOWN FROM GAS RELEASE
- OTHER Pressurized Riser String

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

6. OPERATION:

4. LEASE: G33735

AREA: MC LATITUDE: 28.6833112
BLOCK: 471 LONGITUDE: -88.17591835

- PRODUCTION
- DRILLING
- WORKOVER
- COMPLETION
- HELICOPTER
- MOTOR VESSEL
- PIPELINE SEGMENT NO.
- OTHER

5. PLATFORM:

RIG NAME: SEADRILL SEVAN LOUISIANA

6. ACTIVITY: EXPLORATION(POE)
 DEVELOPMENT/PRODUCTION
(DOCD/POD)

8. CAUSE:

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

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

9. WATER DEPTH: 5768 FT.
10. DISTANCE FROM SHORE: 43 MI.
11. WIND DIRECTION: WNW
SPEED: 43 M.P.H.
12. CURRENT DIRECTION: NW
SPEED: 3 M.P.H.
13. SEA STATE: 0 FT.

COLLISION HISTORIC >\$25K <=\$25K

On 30-Jan-2016, at approximately 1600 hours, an incident occurred onboard the Seadrill Sevan Louisiana that resulted in damage to rig equipment and the well.

While attempting to fill the riser and flush through the diverter overboard lines, the riser string was inadvertently pressurized. Without consulting with rig management, the Driller and the Subsea Engineer made the decision to function test the diverter and flush the overboard lines with sea water. At this time, the diverter running/test tool (DRTT) was installed in the diverter. Note: The DRTT is used only for the installation, removal, and pressure testing of the diverter. The Driller then started to fill the riser with sea water using the mud boost pump which maximum output set point was 5,000-psi. Normally the trip tank pump which has a maximum output set point of 250-psi would be used for this operation. It is unclear why the mud boost pump was utilized instead of the trip tank pump. While filling the riser, pressure began building in the riser and the wellbore. The increase in pressure caused the slip joint to telescope out approximately 20 feet. At 3007 psi, the upper flex joint seals ruptured causing a shock down the riser to the wellhead. After the incident occurred rig personnel discovered the following: The wellhead was bent 3.5° from vertical. There was also damage to the slip joint inner barrel and damage to the upper flex joint. The cement formation around the wellhead was also compromised.

This incident was not reported with a written report within 15 days of the incident as required by 30 CFR 250.190. This incident was discovered by BSEE inspectors during a monthly inspection on February 18, 2016.

The BSEE investigators arrived on location February 25, 2016 to conduct an incident investigation. The onsite BSEE investigation revealed the following.

- 1) This task was not in Seadrill's Step-by-Step stack hop procedure.
- 2) This was the first time for this crew to perform the stack hop procedure.
- 3) The DRTT is not designed to flow through. It is used only for the installation, removal and pressure testing of the diverter.
- 4) Rig Management was not contacted prior to beginning this operation.

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

- 1) Human Error
- 2) Poor communication between the driller and the sub-sea engineer.
- 3) Inadvertently pressurized the riser string.
- 4) Utilizing the mud boost pump and not the trip tank pump.

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

- 1) There was a deviation by the driller and sub-sea engineer from the Step-by-Step stack hop procedure.
- 2) Lack of understanding of the mechanics of the (DRTT).
- 3) The Step-by-Step stack hop procedure did not specify or provide the steps for flushing the overboard lines.
- 4) This was the first time for this crew to perform the stack hop procedure.

20. LIST THE ADDITIONAL INFORMATION:

21. PROPERTY DAMAGED:

Upper flex joint seals ruptured, Slip-Joint inner barrel damaged, disturbed formation around wellhead and wellhead pushed 3.5 degrees from vertical.

NATURE OF DAMAGE:

Upper flex joint seals ruptured, Slip-Joint inner barrel damaged, disturbed formation around wellhead and wellhead pushed 3.5 degrees from vertical.

ESTIMATED AMOUNT (TOTAL): \$4,834,000

22. RECOMMENDATIONS TO PREVENT RECURRENCE 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 (S) 250.107 (A) At the time the Incident Investigation was conducted, BSEE inspectors determined that the Lessee did not perform all operations in a safe and workmanlike manner and provide for the preservation and conservation of property.

NOTE: The Riser was inadvertently pressurized resulting in damage to the flex-joint, slip-joint inner barrel and wellhead.

G-131 (W) 250.190 The operator failed to notify the District Manager with a written report within 15-days following an incident resulting in damages greater than \$25,000.

NOTE: The incident occurred on 30-Jan-2016. The report was submitted into E-Well on 18-Feb-2016.

25. DATE OF ONSITE INVESTIGATION:

25-FEB-2016

26. ONSITE TEAM MEMBERS:

Earl Roy / Brennon Carriere / Lance
Benedietto /

29. ACCIDENT INVESTIGATION

PANEL FORMED: NO

OCS REPORT:

30. DISTRICT SUPERVISOR:

David Trocquet

APPROVED

DATE: 25-MAY-2016

INJURY/FATALITY/WITNESS ATTACHMENT

OPERATOR REPRESENTATIVE

INJURY

CONTRACTOR REPRESENTATIVE

FATALITY

OTHER _____

WITNESS

NAME:

HOME ADDRESS: CITY:

WORK PHONE:

STATE:

TOTAL OFFSHORE EXPERIENCE: YEARS

EMPLOYED BY: Seadrill Limited / 20814

BUSINESS ADDRESS:

CITY:

STATE: TX

ZIP CODE:

OPERATOR REPRESENTATIVE

INJURY

CONTRACTOR REPRESENTATIVE

FATALITY

INJURY/FATALITY/WITNESS ATTACHMENT

For Public Release

OTHER _____ WITNESS

NAME:

HOME ADDRESS:

CITY:

STATE:

WORK PHONE:

TOTAL OFFSHORE EXPERIENCE:

YEARS

EMPLOYED BY: **Seadrill Limited / 20814**

BUSINESS ADDRESS:

CITY:

STATE: **TX**

ZIP CODE:

OPERATOR REPRESENTATIVE

INJURY

CONTRACTOR REPRESENTATIVE

FATALITY

OTHER _____

WITNESS

NAME:

HOME ADDRESS:

CITY:

STATE:

WORK PHONE:

TOTAL OFFSHORE EXPERIENCE:

YEARS

EMPLOYED BY: **LLOG Exploration Offshore, L.L.C. / 02058**

BUSINESS ADDRESS:

CITY:

STATE: **LA**

ZIP CODE: