

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: 15-JAN-2021 TIME: 1526 HOURS

2. OPERATOR: BP Exploration & Production Inc.

REPRESENTATIVE: TELEPHONE:

CONTRACTOR: Frank's
International

REPRESENTATIVE: TELEPHONE:

- STRUCTURAL DAMAGE
- CRANE
- OTHER LIFTING **Casing Elevator**
- DAMAGED/DISABLED SAFETY SYS.
- INCIDENT >\$25K
- H2S/15MIN./20PPM
- REQUIRED MUSTER
- SHUTDOWN FROM GAS RELEASE
- OTHER

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

8. OPERATION:

4. LEASE: G15607

AREA: GC LATITUDE:
BLOCK: 743 LONGITUDE:

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

5. PLATFORM:

RIG NAME: SEADRILL WEST VELA

6. ACTIVITY:

- EXPLORATION(POE)
- DEVELOPMENT/PRODUCTION
(DOCD/POD)

9. CAUSE:

7. TYPE:

INJURIES:

- HISTORIC INJURY
- OPERATOR
- CONTRACTOR
- REQUIRED EVACUATION
- LTA (1-3 days)
- LTA (>3 days)
- RW/JT (1-3 days)
- RW/JT (>3 days)
- FATALITY
- Other Injury

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

- POLLUTION
- FIRE
- EXPLOSION

- LWC
- HISTORIC BLOWOUT
 - UNDERGROUND
 - SURFACE
 - DEVERTER
 - SURFACE EQUIPMENT FAILURE OR PROCEDURES

- 10. WATER DEPTH: 6534 FT.
- 11. DISTANCE FROM SHORE: 105 MI.
- 12. WIND DIRECTION:
SPEED: M.P.H.
- 13. CURRENT DIRECTION:
SPEED: M.P.H.
- 14. SEA STATE: FT.
- 15. PICTURES TAKEN:
- 16. STATEMENT TAKEN:

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

On January 15, 2021, at 15:26 hours an incident occurred on the Seadrill West Vela, which was working under contract for BP Exploration & Production. Drilling operations were being conducted at Green Canyon Block 743, OCS-G-15607 Well DC-213, in 6,534 feet of water. The West Vela drill crew was picking up a 9-7/8" x 10-7/8" tieback casing string using Frank's International spider type elevators. While lowering the elevators over the casing, one of the bell guide inserts and one of the elevators leveling cones fell approximately 90 feet to the rig floor. No injuries were reported.

On the afternoon of January 15, 2021, the drill crew was in the process of going into the well with a 9-7/8" by 10-7/8" tieback string of casing using Frank's International spider type elevators. Each casing joint was loaded by crane onto the riser skate and transported to the drill floor. Once in position, the thread inspector representative surveyed the casing threads before the lift nubbin was attached to raise the casing. The drill crew picked up and ran 8 single joints of 9-7/8" casing in the well without issues. The drill crew proceeded to pick up 9-7/8" casing doubles, two joints connected, and lowered each double joint into the well bore after inspection. Four double 9-7/8" casing joints were picked up and run into the well without issues. The drill crew prepared to pick up the fifth double off of the riser skate after the thread inspector gave the approval on the thread check. Upon approval, the drill crew latched the casing elevators and gave the Driller confirmation that it was complete. The Driller proceeded to pick up the double joint of casing with the Top Drive System (TDS). Once vertical, the bottom thread protector was removed so the thread inspector could evaluate the threads. The approval was given by the inspector and the Driller lowered the TDS to stab the threaded end of the casing into the box end of the casing that was then set in the casing spider. After the Frank's casing tong operator made up the connection, a time out was taken to review the digital graph of the connection torque that was displayed on the Frank's computer. The thread inspector confirmed that the connection was good and signaled the Driller to lower the elevators over the casing using the TDS. At that time, an irregular noise was heard by the drill crew followed by two objects impacting the rig floor. All operations were suspended on the rig floor to investigate what had taken place. The investigation concluded that the casing leveling cone and one of the bell guide inserts had fallen out of the casing elevators to the rig floor. A Frank's casing supervisor traveled up to the elevators by way of the man-rider to verify that it was safe to use the elevators to lower the casing double into the well. After verification of the integrity of the elevators, the casing double was safely lowered and set in the casing spider. A safety stand-down on the drill floor was initiated.

Due to the Covid - 19 pandemic, the Bureau of Safety and Environmental Enforcement (BSEE) team was unable to conduct an initial onsite investigation at the time of this incident. However, on February 18, 2021, an investigation team was able to collect documentation and pictures furnished by the operator at the team's request. The documentation indicated that a Seadrill Step-by-Step Procedure (SSP) titled "Casing - Prepare, PickUp and Run Casing," was generated along with a Risk Assessment form that was initialed and signed by all parties involved before the casing run procedure. A Frank's category 2 inspection was done on their spider type casing elevators prior to their arrival to the rig on January 7, 2021, along with a completed Frank's jobsite equipment checklist. On January 15, 2021, a Job Safety Analysis (JSA) was completed and signed with no issues or misalignments identified on the equipment during the pre-rig up inspection. A Frank's VersaFlo tool was attached to the TDS and used for this casing event to maintain the mud volume while running casing into the well. This tool was already on board the rig and had been used twice on previous casing events without issue. As the casing operation commenced, there were no issues picking up or running the 9-7/8" casing into the well until the fifth double joint of casing was picked up with the TDS. This double joint was stabbed and torqued to specifications then a "time out" was called to review the graph on the Frank's computer. Once approved, the

Driller proceeded to lower the TDS in "Creep Mode" with the spider type elevators to latch onto the casing. As the elevators were lowered, the top of the casing began to enter the bell guide and became wedged between the VersaFlo tool and the bell guide due to slight misalignment. The Driller had a limited view in the camera in the derrick, so it was not possible to view the VersaFlo tool going into the casing once it entered the bell of the elevators. The elevators began to tilt on the TDS bails, allowing the starboard elevator leveling cone to contact the starboard bail on the TDS, thus shearing the leveling cone off. It was determined that the tilting of the elevators along with the estimated 26 kips of force applied to align the elevators and the VersaFlo tool onto the casing joint caused the leveling cone to shear off. The 8-pound leveling cone fell approximately 90 feet to the drill floor after the secondary retention device failed. Further investigation disclosed that the bell guide insert came into contact with the VersaFlo tool when the casing was wedged. The force applied to the bell guide insert bent the retaining plate out of position allowing a 104-pound bell guide insert to dislodge and fall to the rig floor, also from 90 feet. The bell guide insert had no secondary retention in place at the time of the incident.

Seadrill's Red Zone management was in place and active at the time, and the nearest personnel were 15 feet outside the Red Zone. After the incident, a different set of casing elevators were utilized to complete the casing run procedure without further incidents.

The West Vela team and BP held a Safety Stand Down on the rig floor after the incident. The West Vela team will evaluate the camera placement on the rig floor during casing runs and if beneficial the cameras will be adjusted to improve visibility. An updated SSP will include an equipment verification step by either the Assistant Driller (AD) or the Driller during the rigging up of the casing elevators or the VersaFlo tool to ensure proper alignment of the equipment. Franks International team will install a more robust secondary retention on the leveling cones and explore other options for secondary retention on the bell guide inserts. The team will also update the pre-rig up check list to include additional alignment checks during the casing run operation. Seadrill plans to share lessons learned from this incident to the other vessels in their fleet.

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

Misalignment between the VersaFlo tool and the bell guide caused the elevators to contact the topdrive bails. The leveling cone sheared, and the bell guide insert was dislodged due to this misalignment.

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

Inadequate secondary retention on leveling cones and bell guide inserts.
Excessive weight put on the casing elevators.

20. LIST THE ADDITIONAL INFORMATION:

None

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

Spider type elevators

Leveling cone and bell guide insert in casing elevators

ESTIMATED AMOUNT (TOTAL): \$3,400

22. RECOMMENDATIONS TO PREVENT RECURRENCE NARRATIVE:

The BSEE Houma District has no recommendations for the Office of Incident Investigations at this time.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: NO

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

N/A

25. DATE OF ONSITE INVESTIGATION:

18-FEB-2021

28. ACCIDENT CLASSIFICATION:

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

26. INVESTIGATION TEAM MEMBERS:

Paul Reeves - author

OCS REPORT:

27. OPERATOR REPORT ON FILE:

30. DISTRICT SUPERVISOR: **Amy
Pellegrin**

APPROVED

DATE: **11-JUN-2021**