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: **07-JUN-2019** TIME: **2235** HOURS

2. OPERATOR: **Shell Offshore Inc.**
   REPRESENTATIVE:
   TELEPHONE:
   CONTRACTOR: **Transocean Offshore**
   REPRESENTATIVE:
   TELEPHONE:

- [ ] STRUCTURAL DAMAGE
- [ ] CRANE
- [ ] OTHER LIFTING
- [ ] DAMAGED/DISABLED SAFETY SYS.
- [X] INCIDENT >$25K **Damage to Pod Control Lines**
- [ ] H2S/15MIN./20PPM
- [ ] REQUIRED MUSTER
- [ ] SHUTDOWN FROM GAS RELEASE
- [ ] OTHER

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

4. LEASE: **G31534**
   AREA: **MC** LATITUDE:
   BLOCK: **940** LONGITUDE:

5. PLATFORM:
   RIG NAME: **T.O. DEEPWATER POSEIDON**

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

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		

- [ ] POLLUTION
- [ ] FIRE
- [ ] EXPLOSION

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

COLLISION [ ] HISTORIC [X] >$25K [ ] <=$25K

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

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

10. WATER DEPTH: **4001** FT.
11. DISTANCE FROM SHORE: **98** MI.
12. WIND DIRECTION: **SSW**
    SPEED: **21** M.P.H.
13. CURRENT DIRECTION: **ESE**
    SPEED: **2** M.P.H.
14. SEA STATE: **5** FT.
15. PICTURES TAKEN:
16. STATEMENT TAKEN:

17. INVESTIGATION FINDINGS:

On June 7, 2019, Shell Offshore Inc. had an unplanned Lower Marine Riser Package (LMRP) disconnect incident on Transocean's Deepwater Poseidon drillship while conducting Blowout Preventer (BOP) wet verification on the Vito VA001 well located in Mississippi Cannon block 940, OCS-G 31534. The unplanned LMRP disconnect caused approximately $500,000 in equipment damage with no recorded spill.

Transocean's Drillship Deepwater Poseidon performed stack hop operations by moving the Subsea BOP Stack from the VA002 wellbore to the VA001 wellbore. The VA001 wellbore is part of a batch set operation with the 22" casing already installed to 8,006' MD/ TVD. The drill team successfully landed and latched the Subsea BOP Stack on the VA001 wellbore. The team proceeded with the BOP wet verification (stack hopping) procedure. The team activated the Remote Operating Vehicle (ROV) Riser Connector Unlock function and then observed the LMRP lifting off the BOP while the pod receptacles remained energized. The team seemed to have misunderstood Step No. 21 on the BOP Wet Verification Procedure (CG1-OPS-CSP-01-59, Rev. 15 attached). When unlocking the Riser Connector using the ROV flying lead, there was insufficient weight applied to the Riser Connector resulting in the separation of the LMRP and BOP once the riser connector was in the unlatched position. The procedure states to adjust tension to 100,000 lbs of LMRP weight on the LMRP connector. Instead, the team applied 100,000 lbs weight to the BOP connector (not the LMRP connector). This step was misinterpreted and as a result, the weight was incorrect when the LMRP connector was unlatched allowing the tensioners to lift the LMRP off the BOP.

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

The team did not follow procedures correctly. The team misunderstood the operational procedures.

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

- **Incorrect calculations**
- **Weights not verified by oncoming crew or qualified personnel**
- **Inadequate communication during crew change handover**

20. LIST THE ADDITIONAL INFORMATION:

Shell's Recommendations:
Update BOP Wet Verification Procedure to include but not limited to the following:
 *** Sign-offs by the responsible person(s) performing the verifications**
 *** Absolute weights at critical steps**
 *** Formulas for calculating weights at steps that include a weight change**
Re-emphasize expectations to follow existing work processes such as handovers and Control of Work (COW).
Considering developing a hard barrier procedure that would prevent the rigs from having to control this function procedurally (see attachment D).

21. PROPERTY DAMAGED:

Blue and Yellow Pod stingers, receptacles, and related tubing/hoses. Rough estimate of the damage is approximately $500,000.

NATURE OF DAMAGE:

Unplanned disconnect

ESTIMATED AMOUNT (TOTAL): **$500,000**

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

The New Orleans District's recommendations that the Office of Incident Investigation (OII) should consider the issuance of a Safety Alert.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: **YES**

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

Notification of Incident(s) of Noncompliance (INC) G-110 - During BOP wet verification, (using procedure CG1-OPS-CSP-01-59, Rev. 15) on step No. 21, ROV Riser Connector Unlock was activated and resulted in the LMRP lifting off the BOP while POD receptacles remained energized.
When unlocking the Riser Connector using the ROV flying lead, there was insufficient weight down applied to the Riser Connector resulting in separation of the LMRP and BOP once the riser connector was in the unlatched position.

25. DATE OF ONSITE INVESTIGATION:

09-JUL-2019

26. INVESTIGATION TEAM MEMBERS:

Lorenzo Buckley

27. OPERATOR REPORT ON FILE:

28. ACCIDENT CLASSIFICATION:

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

OCS REPORT:

30. DISTRICT SUPERVISOR:

David Trocquet

APPROVED DATE: **27-MAY-2020**