

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: 22-NOV-2019 TIME: 0934 HOURS

2. OPERATOR: Kosmos Energy Gulf of Mexico Oper  
REPRESENTATIVE:  
TELEPHONE:  
CONTRACTOR:  
REPRESENTATIVE:  
TELEPHONE:

- STRUCTURAL DAMAGE
- CRANE
- OTHER LIFTING
- DAMAGED/DISABLED SAFETY SYS.
- INCIDENT >\$25K \$65,000
- H2S/15MIN./20PPM
- REQUIRED MUSTER
- SHUTDOWN FROM GAS RELEASE
- OTHER

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

4. LEASE: G35918  
AREA: GB LATITUDE:  
BLOCK: 491 LONGITUDE:

5. PLATFORM:  
RIG NAME: SEADRILL WEST CAPRICORN

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

7. TYPE:  
INJURIES:  
 HISTORIC INJURY  
 REQUIRED EVACUATION  
 LTA (1-3 days)  
 LTA (>3 days)  
 RW/JT (1-3 days)  
 RW/JT (>3 days)  
 FATALITY  
 Other Injury

OPERATOR CONTRACTOR

POLLUTION  
 FIRE  
 EXPLOSION

LWC  HISTORIC BLOWOUT  
 UNDERGROUND  
 SURFACE  
 DEVERTER  
 SURFACE EQUIPMENT FAILURE OR PROCEDURES

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

8. OPERATION:

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

9. CAUSE:

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

10. WATER DEPTH: 1888 FT.

11. DISTANCE FROM SHORE: 144 MI.

12. WIND DIRECTION: SSE  
SPEED: 23 M.P.H.

13. CURRENT DIRECTION: S  
SPEED: 1 M.P.H.

14. SEA STATE: 3 FT.

15. PICTURES TAKEN:

16. STATEMENT TAKEN:

On 22-November-2019, at Garden Banks 491, at approximately 09:34 hours, the drill crew of the Seadrill West Capricorn was in the process of tripping in the hole with an 11-7/8" Easy Drill Subsurface Valve(EZSV). While the Driller was operating the Drawworks, a loss of power to the drilling equipment was observed and the brakes set. Personnel on the bridge received an alarm from the smoke and fire panel indicating smoke or fire in the Port Switch Gear Room. The general alarm was activated requiring all personnel to muster. The Senior Mechanic and Mechanic were in the living quarters break room when the lights went out and all vents closed. Both personnel immediately proceeded to the Engine Control Room (ECR) to assess the situation. The Portside bus panel had been tripped. The Senior Mechanic and Mechanic notified the bridge and left the ECR to go directly to the Port Switch Gear Room. On arrival to the location, one of the Mechanics felt the door for heat, then slightly opened it to look inside. Only smoke was observed, so the door was opened all the way. Once opened, both Mechanics went inside and observed small flames coming from the top and side of the Drilling Drive DC Bar Cabinet. One Mechanic notified the bridge of the fire while the other Mechanic located the proper type hand held fire extinguisher and extinguished the fire. Then both Mechanics moved outside the room by the door and waited for the Fire Teams to arrive. Once the teams arrived, the area was inspected again for fire. No fire was present, but a large amount of smoke filled the space. A fan air horn was placed in the doorway to pull the smoke out so an attempt could be made to re-establish power to the panel and the equipment. The damage was extensive to the Drilling Drive cabinet, so the area was barricaded and secured for BSEE's investigation.

Although not a contributing cause of the Arc Flash fire, numerous cardboard boxes were located next to transformers and batteries. These should be removed to mitigate a fire hazard.

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

After investigations were conducted by BSEE, Seadrill, Kosmos Energy, and ASEA Brown Boveri(ABB), the following Root Cause was identified:

1. Condensation accumulated on top of the Drilling Drive DC Bar cabinet from the Air Handling Unit (AHU) ducting vent, and ran inside the cabinet causing an ARC Flash.

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

1. Temperature of the Port Switch Gear Room was found to be set higher than the Starboard Switch Gear Room.
2. The AHU ducting vent with louver is too close to the Drilling Drive cabinet.

## 20. LIST THE ADDITIONAL INFORMATION:

## 21. PROPERTY DAMAGED:

## NATURE OF DAMAGE:

Drilling Drive DC Bar Cabinet, AHU duct  
work, vent, and insulation.

Smoke and Fire damage.

ESTIMATED AMOUNT (TOTAL): \$65,000

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22. RECOMMENDATIONS TO PREVENT RECURRENCE NARRATIVE:

1. Remind lessee's about the hazards of storing potential combustable materials near electrical transformers or batteries.
2. Preventing the possibility of condensation in Switch Gear or ECR Rooms.
3. Clean all areas that have electrical cabinets frequently to prevent an accummulation of dust or debris.
4. Learning from past experiences to avoid duplicating the same outcome.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: NO

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

None

25. DATE OF ONSITE INVESTIGATION:

23-NOV-2019

28. ACCIDENT CLASSIFICATION:

29. ACCIDENT INVESTIGATION  
PANEL FORMED: NO

26. INVESTIGATION TEAM MEMBERS:

James Holmes typed report / Perry Brady  
/ David Kearns /

OCS REPORT:

30. DISTRICT SUPERVISOR:

Stephen P. Martinez

27. OPERATOR REPORT ON FILE:

APPROVED

DATE: 18-FEB-2020

# FIRE/EXPLOSION ATTACHMENT

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1. SOURCE OF IGNITION: **Arc Flash**

2. TYPE OF FUEL:
- GAS
  - OIL
  - DIESEL
  - CONDENSATE
  - HYDRAULIC
  - OTHER **Electrical wiring, insulation, condensation**
  -

3. FUEL SOURCE: **Condensation**

4. WERE PRECAUTIONS OR ACTIONS TAKEN TO ISOLATE  
KNOWN SOURCES OF IGNITION PRIOR TO THE ACCIDENT ? **NO**

5. TYPE OF FIREFIGHTING EQUIPMENT UTILIZED:
- HANDHELD**
  - WHEELED UNIT
  - FIXED CHEMICAL
  - FIXED WATER
  - NONE
  - OTHER