

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: 09-DEC-2020 TIME: 1806 HOURS

2. OPERATOR: Shell Offshore Inc.

REPRESENTATIVE:

TELEPHONE:

CONTRACTOR:

REPRESENTATIVE:

TELEPHONE:

- STRUCTURAL DAMAGE
- CRANE
- OTHER LIFTING
- 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: G05868

AREA: MC LATITUDE:

BLOCK: 809 LONGITUDE:

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

5. PLATFORM: A-Ursa TLP

RIG NAME:

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: 3970 FT.

11. DISTANCE FROM SHORE: 62 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

INCIDENT SUMMARY:

On 9 December 2020 at approximately 1806 hours, a gas release caused a shutdown and muster at Mississippi Canyon (MC) 809 A-Ursa, owned and operated by Shell Offshore Inc. The gas detection occurred inside the Recycle Gas Compressor (RGC) enclosure. The incident Command System (ICS) was activated and emergency response crews were able to locate, isolate, and secure the leak location. No equipment was damaged, and no injuries occurred during this event.

SEQUENCE OF EVENTS:

On 9 December 2020 at approximately 1806 hours, a gas detector located inside the RGC enclosure detected a release of gas and triggered the alarm, causing the unit to shut down followed by a platform shutdown. The ICS was activated, and a muster was required for all personnel on board the facility. Emergency response crews were able to locate, isolate, and secure the leak location. No damage, injuries, or pollution occurred as a result of this incident.

On 29 December 2020 at 1050 hours, the incident was reported to the Bureau of Safety and Environmental Enforcement (BSEE).

On 29 December 2020 at 1334 hours, the BSEE Accident Investigator (AI) was assigned this incident.

On 5 January 2021 at 1028 hours, the BSEE AI issued a G-131 INC for a failure to submit a written report by the BSEE required due date of 24 December 2020.

BSEE INVESTIGATION:

On 29 December 2020 at 1334 hours, the BSEE AI received an email summarizing the incident.

On 7 January 2021, the BSEE AI contacted the facility and spoke with the Offshore Installation Manager (OIM) to discuss the findings of the gas leak. It was determined that the leak was caused by a nut that backed off one of the four bolts holding a valve flange. The nut may have backed off due to vibration or improper torquing or both. The valve flange is located on a 1" line used for Methanol injection located on the outside of the RGC package. A mechanical inspection of the compressor is conducted daily. The last maintenance was completed on the compressor in September 2020.

CONCLUSIONS:

The Shell Root Cause Analysis (RCA) and the BSEE AI concluded that the gas leak that triggered an alarm inside the RGC enclosure caused a shutdown. The gas leak came from a valve flange outside the enclosure on a 1-inch methanol injection line. A nut on the flange backed off the bolt allowing gas to leak through the O-ring inside the valve flange. The gas was able to migrate inside the RGC enclosure because the enclosure is not a sealed building, and the flange was within 3 feet from the building. The BSEE AI determined that the incident was handled appropriately by the ICS and the emergency response crews.

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

Equipment failure - Inadequate preventive maintenance:

The leak may have been caused by a nut that backed off one of the four bolts holding a valve flange. The nut may have backed off due to vibration or improper torqueing or both.

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

N/A

For Public Release

20. LIST THE ADDITIONAL INFORMATION:

N/A

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

N/A

N/A

ESTIMATED AMOUNT (TOTAL):

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: **NO**

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

N/A

25. DATE OF ONSITE INVESTIGATION:

28. ACCIDENT CLASSIFICATION:

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

26. INVESTIGATION TEAM MEMBERS:

OCS REPORT:

Nathan Bradley /

30. DISTRICT SUPERVISOR:

27. OPERATOR REPORT ON FILE:

David Trocquet

APPROVED

DATE:

17-JUN-2021