### UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT GULF OF MEXICO REGION

## **ACCIDENT INVESTIGATION REPORT**

# For Public Release

l.	OCCURRED STRUCTURAL DAMAGE
	DATE: 13-JAN-2021 TIME: 2304 HOURS CRANE
2	OPERATOR: Shell Offshore Inc.
۷.	DAMAGED/DISABLED SAFEII SIS.
	INCIDENT >\$25K
	TELEPHONE: H2S/15MIN./20PPM  CONTRACTOR: X REQUIRED MUSTER
	REPRESENTATIVE:  X SHUTDOWN FROM GAS RELEASE
	TELEPHONE:
2	OPERATOR/CONTRACTOR REPRESENTATIVE/SUPERVISOR 8. OPERATION:
	ON SITE AT TIME OF INCIDENT:
	X PRODUCTION
1.	LEASE: G05868 DRILLING
	AREA: MC LATITUDE: WORKOVER
	BLOCK: 809 LONGITUDE: COMPLETION HELICOPTER
	MOTOR VESSEL
5.	PLATFORM: A-Ursa TLP PIPELINE SEGMENT NO.
	RIG NAME: OTHER
	ACTIVITY: EXPLORATION(POE)  X DEVELOPMENT/PRODUCTION 9. CAUSE:  (DOCD/POD)  TYPE: INJURIES: X EQUIPMENT FAILURE  HUMAN ERROR EXTERNAL DAMAGE SLIP/TRIP/FALL WEATHER RELATED
	LTA (1-3 days)
	LTA (>3 days)  RW/JT (1-3 days)  UPSET H2O TREATING  OVERBOARD DRILLING FLUID
	RW/JT (>3 days)  OTHER
	FATALITY
	Other Injury 10. WATER DEPTH: 3970 FT.
	11. DISTANCE FROM SHORE: 62 MI.
	POLLUTION 12. WIND DIRECTION:
	FIRE 12. WIND DIRECTION: EXPLOSION SPEED: M.P.H.
	LAFEOSION SIZES INTIME
	LWC HISTORIC BLOWOUT 13. CURRENT DIRECTION:
	UNDERGROUND SPEED: M.P.H.
	SURFACE DEVERTER  14. SEA STATE: FT.
	SURFACE EQUIPMENT FAILURE OR PROCEDURES 15. PICTURES TAKEN:
	COLLISION THISTORIC T >\$25K T <=\$25K 16. STATEMENT TAKEN:

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#### INCIDENT SUMMARY:

On 13-January-2021 at approximately 2315 hrs, a gas release caused a muster on Mississippi Canyon (MC) 809 A - Ursa, owned and operated by Shell Offshore Inc (Shell). The gas leak led to a facility muster and emergency shut down (ESD). No equipment was damaged and no injuries occurred during this event.

#### SEQUENCE OF EVENTS:

At approximately 2315 hrs on 13-January-2021, the Control Room Operator (CRO) noticed a gas detection alarm below the 40% Lower Explosive Limit (LEL) near the suction of the Recycle Gas Compressor (RGC). The CRO initiated a fast-stop and blowdown of the RGC. Within minutes, four more gas detectors in the area alarmed. The CRO initiated an ESD and full platform muster. The Emergency Response Team (ERT) discovered the source of the leak was from the packing on the recycle valve labeled FCV-1053B.

After the gas pressure was bled down, the release was isolated. The Offshore Installation Manager (OIM) ordered personnel to stand down from the muster.

#### BSEE INVESTIGATION:

On 21-January-2021 at 1248 hours, the Bureau of Safety and Environmental Enforcement (BSEE) Accident Investigator (AI) received an email summarizing the incident. The AI requested and received a maintenance report of the RGC and pictures associated with the leak.

After reviewing the maintenance report and associated pictures, BSEE's AI concurs with Shell that the cause of the gas release was due to the packing failure of the recycle valve FCV-1053B. Valve packing is a sealant used to prevent leaks in valve stems. Gas detectors were in working order at the time of the incident and safety procedures were followed. The ESD functioned properly. The failed packing was removed from the recycling valve and new packing was installed. The valve was then tested, and no emissions were detected after the repair.

#### CONCLUSIONS:

Failed packing of the recycle valve resulted in gas leaking out and triggering an alarm. Gas detectors worked properly and the ESD functioned as designed.

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

Equipment Failure: Inoperable equipment - Failed packing in the recycle valve allowed gas to escape, which triggered the alarm.

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

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- 20. LIST THE ADDITIONAL INFORMATION:
- 21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

ESTIMATED AMOUNT (TOTAL):

22. RECOMMENDATIONS TO PREVENT RECURRANCE 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:

- 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:

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APPROVED DATE: 17-JUN-2021