

# ACCIDENT INVESTIGATION REPORT

1. OCCURRED

DATE: **24-DEC-2023** TIME: **0743** HOURS

2. OPERATOR: **LLOG Exploration Offshore, L.L.C.**

REPRESENTATIVE:

TELEPHONE:

CONTRACTOR:

REPRESENTATIVE:

TELEPHONE:

- STRUCTURAL DAMAGE
- CRANE
- OTHER LIFTING
- DAMAGED/DISABLED SAFETY SYS.
- INCIDENT >\$25K **\$31,969.09**
- H2S/15MIN./20PPM
- REQUIRED MUSTER
- SHUTDOWN FROM GAS RELEASE
- OTHER

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

4. LEASE: **G32334**

AREA: **MC** LATITUDE: **28.41538737**  
BLOCK: **547** LONGITUDE: **-89.0162066**

5. PLATFORM: **A (Who Dat)**

RIG NAME:

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.
- DECOMMISSIONING
- PA  PIPELINE  SITE CLEARANCE
- TA  PLATFORM
- OTHER

9. CAUSE:

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

10. WATER DEPTH: **3280** FT.

11. DISTANCE FROM SHORE: **39** 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:

**INCIDENT SUMMARY:**

On 24 December 2023, a fire incident occurred on a floating production unit (FPU) owned and operated by LLOG Exploration Offshore, L.L.C. (LLOG) in the Gulf of Mexico (GoM). The "Who Dat" facility is a FPU located in Mississippi Canyon (MC) 547 A, about 39 miles offshore, in 3280 feet of water. The fire initiated the platform's Emergency Shut Down (ESD) system and sounded the alarm for all Personnel on Board (POB) to report to their muster station. No injuries, impact to the environment, or damage to the platform occurred from the incident. The only damage observed was to the rental air compressor that caught fire, and charred wiring on the external face of the adjacent generator enclosure.

**SEQUENCE OF EVENTS:**

On 24 December 2023 at approximately 0743 hours, the platform's ESD was activated. The ESD activation disabled the main power supply to the facility and sounded the alarm for all 36 POB to report to their assigned muster station. A Control Room Operator (CRO) saw on the Human Machine Interface (HMI) screen that the platform had tripped on a Temperature Safety Element (TSE) for Zone 1. The CRO then exited the control room through the West side door, which overlooks Zone 1, and noticed flames near the process powerplant generator (ZZZ-9000). The CRO then notified a secondary CRO (CRO2) to make the announcement over the platform's intercom system, "This is a real event, there is a fire by the generator!".

At approximately 0747 hours, the Lead Operator/On-Scene Commander (LO/OSC), reported to the scene and noticed that the fire was coming from the rental air compressor and not ZZZ-9000 as originally thought. The rental air compressor was being utilized for painting and blasting operations at that time. The LO/OSC then notified the control room of the fire's location and began applying water with a nearby water monitor. The deluge system in Zone 1 was also activated. Meanwhile, a Fire Team (FT) consisting of three personnel donned their appropriate Firefighter Turnout Gear and reported to the Offshore Installation Manager/Incident Commander (OIM/IC). From there, the OIM/IC led the FT to the LO/OSC, who then directed the FT to grab a hose reel and begin applying water to the rental air compressor. Once the flames were extinguished, and only heavy smoke was observed, the FT moved in to open the door on the air compressor, verifying that the fire was extinguished. As smoke was still observed coming from the air filters on the air compressor, the FT began soaking the air filters with water and removed them from the filter housing. At approximately 0754 hours, the FT started a 1-hour fire watch to monitor the scene and ensure the fire was completely extinguished.

**BSEE INVESTIGATION:**

On 24 December 2023 at approximately 0910 hours, the BSEE New Orleans District (NOD) received an oral notification from LLOG of a fire incident that had occurred at MC 547 A "Who Dat". LLOG sent a follow-up email at approximately 0921 hours, stating that fire occurred on a rental air compressor that was used for blasting and painting operations. The heat from the fire damaged the nearby Power Generator (ZZZ-9000) as well. The fire detection and CO2 fire suppression system within the generator enclosure activated as designed to extinguish any fire within the generator enclosure. The facility was shut in as a result. There was no report of any injuries. No pollution occurred from the incident.

On 26 December 2023 at approximately 0830 hours, the BSEE Accident Investigator (AI) with the NOD was assigned the incident and was notified that the United States Coast Guard (USCG) had asked to accompany BSEE's AI for an onsite investigation. The AI sent

an email to the USCG on 26 December 2023 at approximately 1215 hours to schedule an on-site joint investigation for 27 December 2023. USCG responded on 27 December 2023 at 0803 hours, stating that the USCG will not be participating in the investigation as the incident falls under BSEE jurisdiction per the Memorandum of Agreement (MOA) between BSEE and USCG.

The AI then contacted MC 547 A "Who Dat" on 27 December 2023 at approximately 1726 hours to schedule an on-site investigation for 28 December 2023. However, the OIM/IC informed the AI that the rental air compressor where the fire had occurred had already been removed from the facility and was on a motor vessel being transported back to the rental company, Redfish Rentals, Inc. in New Iberia, LA for repairs/investigation. Due to the rental air compressor no longer being on location at MC 547 A, BSEE determined that an on-site investigation was not beneficial. As such, the AI requested all photographs taken of the incident scene to be sent to BSEE via email. The AI received an email from the OIM/IC at 1833 hours on 28 December 2023 containing the requested photos.

On 10 January 2024, BSEE AI received an email from LLOG containing a list of documents that were also requested on 28 December 2023. The following documents were received and reviewed by the AI: Alarm summary, witness statements, timeline showing when the air compressor arrived at the facility, when the platform was shut in and brought back online, information on the rental company, and where the damaged air compressor was sent for repairs. The cost of repairs/replacement was \$31,969.09. According to the report received from LLOG, the investigation revealed that the rental air compressor's oil separator piping failed at a 90° elbow, causing oil to be sprayed into the enclosure. This was determined to be the most probable ignition source. The investigation also revealed that the rental air compressor TSE system (Zone 1A TSE) tripped four seconds after the facility's Generator Fire-Eye Detection system tripped.

#### CONCLUSIONS:

After reviewing all documents, witness statements, and photos associated with the incident, the BSEE AI concurs with LLOG's findings. The platform's FT safely extinguished the fire on the air compressor. The platform's fire detection system functioned as designed, shutting in the entire facility, and automatically flooding the inside of the generator enclosure (ZZZ-9000) with CO2 to extinguish any fire and protect the generator. The BSEE AI also determined that all essential personnel responded quickly and adequately, which resulted in the fire being quickly contained and extinguished.

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

- Equipment Failure - Flawed equipment design or construction: the 90° elbow located on the oil separator's piping failed, causing oil to spray out and ignite once in contact with the hot surface within the air compressor's enclosure.

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

#### 20. LIST THE ADDITIONAL INFORMATION:

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

Rental Air Compressor

Fire damage and charring to the air compressor and minor wiring on the external face of the ZZZ-9000 generator enclosure.

ESTIMATED AMOUNT (TOTAL): \$31,969

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

The BSEE New Orleans 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:

25. DATE OF ONSITE INVESTIGATION:

28. ACCIDENT CLASSIFICATION:

26. Investigation Team Members/Panel Members: 29. ACCIDENT INVESTIGATION PANEL FORMED:  
NO

27. OPERATOR REPORT ON FILE:

OCS REPORT:

30. DISTRICT SUPERVISOR:

David Trocquet

APPROVED

DATE: 16-FEB-2024