

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: 05-MAY-2018 TIME: 0745 HOURS

2. OPERATOR: Cox Operating, L.L.C.

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: G06850

AREA: MO LATITUDE:
BLOCK: 872 LONGITUDE:

5. PLATFORM: A
RIG NAME:

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

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

7. TYPE:

- HISTORIC INJURY
 - REQUIRED EVACUATION
 - LTA (1-3 days)
 - LTA (>3 days)
 - RW/JT (1-3 days)
 - RW/JT (>3 days)
 - Other Injury

- FATALITY
- POLLUTION
- FIRE
- EXPLOSION

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

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

9. CAUSE:

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

- 10. WATER DEPTH: 50 FT.
- 11. DISTANCE FROM SHORE: 5 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:

17. INVESTIGATION FINDINGS:

On May 5, 2018, at 0745 hours, a crane incident occurred at Cox Operating LLC (Cox), Mobile (MO) Block 872 A platform. On the second lift, the operators were offloading a 4000-pound tote tank containing 550 gallons of diesel from the Motor Vessel (M/V) Diamond to the platform. While lowering the tote tank into a containment skid, one of the 4-part sling's wire rope came loose at the swage ferrule above the sling eye. When the wire rope parted, the tote tank fell to the deck, spilling a small but unknown amount of diesel onto the deck. There were no injuries or pollution into the Gulf of Mexico (GOM) during the incident.

On the morning of the crane incident, one contract operator (Operator #1) and one Cox operator (Operator #2) were tasked to offload two tote tanks from the M/V Diamond onto the MO Block 872 A satellite platform. Once the operators arrived on the satellite platform by M/V, a crane usage Job Safety Analysis (JSA) and a pre-use form to operate the crane were completed at 0715 hours. Operator #1 was designated as the crane operator and Operator #2 was designated as the crane rigger on the platform. The first lift, a 330-gallon tote tank of oil, was completed successfully.

The second lift, a 4000-pound tote tank with 550 gallons of diesel, was lifted from the M/V Diamond. Operator #1 lifted the load as planned. However, when the tote was over the containment area, Operator #2 gave the signal to Operator #1 to boom up about 8 feet off the platform deck to position the tote tank onto a designated tote tank stand. As Operator #1 was booming up to a 45-degree angle, one of the four sling legs came loose at the swage ferrule, just above the sling eye. After one sling leg parted, the 4000-pound tote shock loaded (sudden and drastic increase in load) the remaining three sling legs. The shock loading caused the swage ferrules on two more sling legs to fail. As a result, the tote tank was released onto the stand and it turned over on its side into the containment skid. A small leak of diesel occurred around the threads of the tank cap spilling into the containment skid. The operators cleaned up the spill using absorbent pads and disposed the pads into a DOT drum. The operators then contacted MO Block 904 A to report the incident.

On May 11, 2018, the BSEE New Orleans District Accident Investigator conducted an onsite investigation. Investigators reviewed documentation provided for crane usage and interviewed witnesses involved in the crane incident. According to the Manufacturer's Corrective Audit Preventive Opportunity for Improvement Log, the sling (Certification # 11018118-0-1-1) involved in this incident had a manufacturing defect: A 3/8 inch ferrule was used on a 5/16 inch wire rope while the order called for 3/8 inch wire rope. The operators checked a second unused sling on board (Certification #11018118-0-1-2) and determined it was also defective. Both slings were placed out of service. The sling defect was investigated by Cox and the sling's manufacturer. Cox sent out an alert to all of its facilities to check all slings. The BSEE Accident Investigator coordinated with BSEE Office of Safety Management to Alert GOM operators of the defect.

The BSEE investigation determined the incident was caused by a defect in the manufacturing of the sling. This error was not discovered during the quality control process to ensure the sling met the manufacturer's standards

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

- Equipment Failure - Flawed equipment design or construction: The tote tank fell to the deck due to a manufacturing defect of the sling used during the lift.

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

- Human Performance Error - Not following procedures: The manufacturer's technician failed to follow the guidelines when fabricating wire rope slings.
- Human Performance Error - Not following procedures: The manufacturer's technician failed to conduct a pull test. Also, the manufacturer signed the "certificate of proof test" dated 12/21/2017 before the sling was manufactured.

20. LIST THE ADDITIONAL INFORMATION:

CFR 250.198 (48) API RP 2D, Operation and Maintenance of Offshore Cranes, Sixth Edition, May 2007; incorporated by reference at §250.108

5.2.4 Slings Proof Loading and Labeling:

- a. Slings of all types shall be proof loaded by the sling manufacturer per industry recommendations. See G.5.2.4 for further details.
- b. All slings, regardless of grade and construction, shall be labeled showing sling manufacturer's identity and the pertinent working load limits, proof test certification number, length, diameter, and date of proof test.
- c. Slings of other than wire rope construction shall be used, inspected and tested in accordance with the sling manufacturer and industry recommendations.

G.5.2.4 Proof Load of Slings

- 1. The proof load for single-leg slings with mechanical or poured attachments shall be twice the vertical rated capacity. Slings with hand-tucked splice attachments shall be proofed loaded to the vertical rated capacity.
- 2. The proof load for multiple-leg bridle slings shall be applied to each of the individual legs.

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

4-Part sling

Improperly installed 5/16" wire rope for a 3/8" sleeve (ferrule).

ESTIMATED AMOUNT (TOTAL): \$1,500

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

We recommend exploring the viability of expanding BSEE's crane inspections to include slings.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: NO

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

25. DATE OF ONSITE INVESTIGATION:

11-MAY-2018

28. ACCIDENT CLASSIFICATION:

29. ACCIDENT INVESTIGATION

PANEL FORMED: NO

OCS REPORT:

26. INVESTIGATION TEAM MEMBERS:

Pierre Lanoix /

30. DISTRICT SUPERVISOR:

David Trocquet

27. OPERATOR REPORT ON FILE:

APPROVED

DATE:

06-MAY-2019