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

ACCIDENT INVESTIGATION REPORT

For Public Release 1. OCCURRED STRUCTURAL DAMAGE CRANE DATE: 13-DEC-2019 TIME: 1715 HOURS OTHER LIFTING 2. OPERATOR: Anadarko Petroleum Corporation DAMAGED/DISABLED SAFETY SYS. **REPRESENTATIVE:** INCIDENT >\$25K TELEPHONE: H2S/15MIN./20PPM REOUIRED MUSTER CONTRACTOR: SHUTDOWN FROM GAS RELEASE REPRESENTATIVE: OTHER TELEPHONE: 3. OPERATOR/CONTRACTOR REPRESENTATIVE/SUPERVISOR 8. OPERATION: ON SITE AT TIME OF INCIDENT: x PRODUCTION DRILLING 4. LEASE: G09184 WORKOVER LATITUDE: AREA: $\mathbf{E}\mathbf{B}$ COMPLETION LONGITUDE: 643 BLOCK: HELICOPTER MOTOR VESSEL 5. PLATFORM: A-Boomvang Spar PIPELINE SEGMENT NO. RIG NAME: OTHER 6. ACTIVITY: EXPLORATION (POE) 9. CAUSE: DEVELOPMENT/PRODUCTION (DOCD/POD) 7. TYPE: EQUIPMENT FAILURE INJURIES: HUMAN ERROR HISTORIC INJURY EXTERNAL DAMAGE CONTRACTOR **OPERATOR** SLIP/TRIP/FALL REQUIRED EVACUATION WEATHER RELATED LTA (1-3 days) LEAK LTA (>3 days) UPSET H2O TREATING RW/JT (1-3 days) OVERBOARD DRILLING FLUID RW/JT (>3 days) OTHER FATALITY 10. WATER DEPTH: 3650 FT. Other Injury 11. DISTANCE FROM SHORE: 113 MT. POLLUTION 12. WIND DIRECTION: FIRE SPEED: M.P.H. EXPLOSION LWC | 13. CURRENT DIRECTION: HISTORIC BLOWOUT UNDERGROUND SPEED: M.P.H. SURFACE 14. SEA STATE: FT. DEVERTER SURFACE EQUIPMENT FAILURE OR PROCEDURES 15. PICTURES TAKEN: 16. STATEMENT TAKEN:

MMS - FORM 2010 PAGE: 1 OF 3

<=\$25K

HISTORIC

COLLISION

||>\$25K

EV2010R 26-FEB-2020 On 13-Dec-2019, at approximately 16:40 hours, at East Breaks 643 Boomvang SPAR, the 60-ton West crane was utilized to lift the crown section of the Blake 1007 weighing 33,700 lbs. onto the derrick. As the Crane Operator began swinging the load to the right, the crane boom began to lower on it's own. After the suspended load had descended approximately 15-20 feet, the Crane Operator regained control of the crane and the load. The Crane Operator immediately placed the load onto the elevated pipe rack. Once the load was unhooked, the crane boom was placed back into the boom cradle and taken out of service until a full inspection could be completed.

Seatrax Mechanics began inspecting the crane. When function testing the boom hoist, erratic pressures were observed, and the system was not responding properly to hydraulic adjustments. Debris was found in the orfice of the counterbalance valve. The valve was cleaned and re-installed back into the subplate. Mechanics then reset the system pressures and the crane functioned normally.

It was discovered while slewing, the Crane Operator inadvertantly slightly engaged the boom up on the joystick. The debris clogged the orfice to the point the counterbalance valve was held open and could not close. With the counterbalance valve open, the hoist lowered while the joystick was held in the up position. Since the joystick was not fully released, the mechanical brake band could not set or hold the boom or load. In the incident, one brake failed and the second brake was held off by the operator holding the joystick.

The Root Cause of the incident was debris in the boom hoist counterbalance valve. Although not the cause of the incident, a contributing cause was the Crane Operator not fully releasing the joystick or setting the brakes.

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

The Root Cause of the incident was debris in the boom hoist counterbalance valve.

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

Although not the cause of the incident, a contributing cause was the Crane Operator not fully releasing the joystick or setting the brakes.

20. LIST THE ADDITIONAL INFORMATION:

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

None

None

ESTIMATED AMOUNT (TOTAL):

\$

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

The Lake Jackson District does not have any recommendations at this time.

- 23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: NO
- 24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

None

MMS - FORM 2010 PAGE: 2 OF 3

EV2010R 26-FEB-2020

25. DATE OF ONSITE INVESTIGATION:

- 29. ACCIDENT INVESTIGATION For Public Release

26. INVESTIGATION TEAM MEMBERS:

James Holmes

27. OPERATOR REPORT ON FILE:

OCS REPORT:

30. DISTRICT SUPERVISOR:

Stephen P. Martinez

28. ACCIDENT CLASSIFICATION:

PANEL FORMED: NO

APPROVED

DATE: 24-FEB-2020

MMS - FORM 2010 PAGE: 3 OF 3

EV2010R 26-FEB-2020