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
	DATE: 18-AUG-2021 TIME: 1300 HOURS	X CRANE
2.	OPERATOR: GOM Shelf LLC REPRESENTATIVE: TELEPHONE: CONTRACTOR: ISLAND OPERATORS CO. INC. REPRESENTATIVE: TELEPHONE:	OTHER LIFTING DAMAGED/DISABLED SAFETY SYS. X INCIDENT >\$25K H2S/15MIN./20PPM REQUIRED MUSTER SHUTDOWN FROM GAS RELEASE OTHER
3.	OPERATOR/CONTRACTOR REPRESENTATIVE/SUPERVIS ON SITE AT TIME OF INCIDENT:	OR 8. OPERATION:
4.	LEASE: 00175 AREA: GI LATITUDE: BLOCK: 43 LONGITUDE:	xPRODUCTIONDRILLINGWORKOVERCOMPLETIONHELICOPTERMOTOR VESSEL
5.	PLATFORM: AC-CMP RIG NAME:	DIPELINE SEGMENT NO.
6.	ACTIVITY: EXPLORATION (POE) X DEVELOPMENT/PRODUCTION (DOCD/POD)	9. CAUSE:
7.	TYPE: INJURIES: HISTORIC INJURY OPERATOR CONTRA REQUIRED EVACUATION LTA (1-3 days) LTA (>3 days) RW/JT (1-3 days) RW/JT (>3 days)	CTOR
	FATALITY	10 שאייבים הביסייע. <b>110</b> בייי
	Other Injury	11. DISTANCE FROM SHORE: <b>17</b> MI.
	<pre>POLLUTION FIRE EXPLOSION</pre>	12. WIND DIRECTION: SPEED: M.P.H.
	LWC HISTORIC BLOWOUT UNDERGROUND SURFACE DEVERTER	<ul> <li>13. CURRENT DIRECTION:</li> <li>SPEED: M.P.H.</li> <li>14. SEA STATE: FT.</li> </ul>
	SURFACE EQUIPMENT FAILURE OR PROCEDUP	RES 15. PICTURES TAKEN:
	COLLISION HISTORIC >\$25K <- \$25K	5K 16. STATEMENT TAKEN:

EV2010R

#### 17. INVESTIGATION FINDINGS:

#### INCIDENT SUMMARY:

On August 18, 2021, a crane incident occurred on Grand Isle (GI) 43 AC-CMP, a platform operated by GOM Shelf LLC. A contract Crane Operator (CO) employed by Danos, was performing a pre-use inspection of the crane on the AC structure when equipment failure resulted in damage to the crane. No injuries occurred as a result of the incident.

#### SQUENCE OF EVENTS:

On August 18, 2021 at 1300 hours, a CO was performing a pre-use crane inspection prior to backloading a cargo box onto the boat. The CO was keeping the throttle high while pulling back on the boom lever with his right hand to raise the boom to test the high angle kickout. As the boom was being raised at high throttle, the CO placed his left hand on the swing lever to rotate the crane out. The swing lever was too hot to touch bare-handed from being in direct sunlight, so the CO reached down with his left hand to grab a rag to use as a barrier. Simultaneously, the boom was still being raised at high throttle until the CO felt the crane shake. In response, the CO released all levers and reduced the throttle to an idle. He then looked up and saw that the boom was bent back over the top of the crane. All operations were shut down and the CO safely got out of the crane.

## **BSEE INVESTIGATION:**

On August 20, 2021, an Accident Investigator (AI) with the Bureau of Safety and Environmental Enforcement (BSEE) conducted an on-site investigation of the crane incident that occurred at the AC structure of GI 43. While on location, the AI interviewed the CO and took pictures of the damage to the crane.

The AI's investigation determined that the valve for the high angle kickout failed. The valve is mounted on a plate at the base of the boom and rotates up and down with the boom. When the valve comes into contact with the Nylatron disc, the valve is engaged, and pressure is relieved off the system which disengages the boom. Further investigation of the valve discovered that the valve was not centered on the disc, indicating that the valve ran along the inner side of the disc which did not exert enough force for the valve to open.

## CONCLUSIONS:

The probable cause of the incident was equipment failure. The valve for the high angle kickout failed to depress which allowed the boom to continue coming up past the degree of angle that would have normally been stopped by the high angle kickout. The boom then came into contact with the boom stop while at a high throttle, exerting enough force on the boom to bend the boom over.

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

Equipment Failure - Flawed equipment design or construction: High angle kickout valve failed to activate.

MMS - FORM 2010

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

Human Performance Error - Inattention to task: CO did not reduce throttle as the boom approached the high angle kickout valve.

20. LIST THE ADDITIONAL INFORMATION:

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

## Crane Boom

ESTIMATED AMOUNT (TOTAL): \$100,000

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: NO

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

25. DATE OF ONSITE INVESTIGATION:

20-AUG-2021

- 26. INVESTIGATION TEAM MEMBERS: Nathan Bradley /
- 27. OPERATOR REPORT ON FILE:

- 28. ACCIDENT CLASSIFICATION:
- 29. ACCIDENT INVESTIGATION PANEL FORMED: NO OCS REPORT:
- 30. DISTRICT SUPERVISOR: David Trocquet

APPROVED DATE: 09-JAN-2022