

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: 12-MAR-2016 TIME: 1006 HOURS

2. OPERATOR: ConocoPhillips Company

REPRESENTATIVE:

TELEPHONE:

CONTRACTOR: Maersk Drilling USA Inc.

REPRESENTATIVE:

TELEPHONE:

- STRUCTURAL DAMAGE
- CRANE
- OTHER LIFTING DEVICE
- DAMAGED/DISABLED SAFETY SYS.
- INCIDENT >\$25K est. \$50,000
- H2S/15MIN./20PPM
- REQUIRED MUSTER
- SHUTDOWN FROM GAS RELEASE
- OTHER

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

6. OPERATION:

4. LEASE: G35137

AREA: AC LATITUDE:

BLOCK: 475 LONGITUDE:

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

5. PLATFORM:

RIG NAME: MAERSK VALIANT

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

8. CAUSE:

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

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

- 9. WATER DEPTH: 5142 FT.
- 10. DISTANCE FROM SHORE: 177 MI.
- 11. WIND DIRECTION: WSW
SPEED: 8 M.P.H.
- 12. CURRENT DIRECTION:
SPEED: M.P.H.
- 13. SEA STATE: 3 FT.

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

On March 12, 2016, a fire occurred on the "C"-deck accommodation cabin 417 during drilling operations on the drill ship Maersk Valiant, Alaminos Canyon 475, OCS-G-35137, Well 001, API 608054007601, operated by ConocoPhillips Company. As a result of the fire, well operations were suspended and the crew mustered at their primary muster locations. Fire Teams 1, 2, and 3 were deployed to the "C"-deck to extinguish the fire. Electrical and ventilation isolations were performed for the "C"-deck. The initial response with fire extinguishers could not put out the fire, and fire hoses were required to completely extinguish the fire. The damage cost as a result of the fire was estimated at \$50,000. No injuries were reported.

BSEE Investigators arrived on March 21, 2016, to conduct an incident investigation. Evidence was collected and interviews were conducted. It is important to note, ConocoPhillips experienced a similar fire in the "B"-deck linen closet on December 13, 2015. Upon completion of both investigations, there was inconclusive determination of the source of the fires. BSEE required a 24-hour fire watch in the living quarters until the well was completed after the fire incident on March 12, 2016.

At 10:01, the rig smoke alarm system was activated, and the Offshore Installation Manager announced for all personnel to proceed to their primary muster locations. Prior to a Fire Team getting to "C"-deck cabin 417, two fire extinguishers were discharged by the Emergency Response Leader into cabin 417 which did not extinguish the fire. At 10:19, a Fire Team entered C-deck accommodation cabin 417 and began to extinguish the fire with a fire hose. After the use of a fire hose, the fire was finally extinguished at 10:26. Preliminary findings suggested a wall mounted fluorescent light for marine use with receptacle, a universal adapter plugged into the light fixture, an Apple I-Phone ice cube type phone charger plugged into the adapter, and/ or a Samsung tablet left under the bunk pillow may have started the fire. The Apple I-Phone was not plugged into the charger at the time of the fire. However, after comprehensive analysis by a forensic engineering firm of all devices involved, it was determined none of the above devices could be definitively identified as the source of which started the fire. The Samsung tablet could not be eliminated as a possible source of the fire. The forensic engineering firm stated future testing could not definitively prove the tablet was the source; therefore, the investigation is closed and the source of the fire will be classified as "undetermined".

Samples for forensic analysis included wall veneer from the burned cabin as well as wall veneer from an unburned cabin, Apple I-Phone charger, Samsung tablet, birth light assembly, box spring, mattress, and wall adapter. X-rays of each electrical device were taken, which revealed no resistive heating, arcing, or component failure. The Apple I-Phone charger was determined as burned from the outside. The rig's power system was also monitored to determine if there was any abnormality which may cause a fire.

Immediately after the fire, a safety meeting was held on the rig and all wall mounted fluorescent lights for marine use with receptacles were individually isolated. Safety measures have been implemented for electronic devices to include that all electrical equipment must be checked in when arriving and inspected by the electrical department. The rig orientation was revised to reflect a safety presentation for personal electrical equipment. No electrical equipment should be left plugged into the rig power system unattended at any time. Charging devices should not be stored on materials which have a high potential for combustion when exposed to relatively low heat source. Multiple Safety Alerts were sent out by both Maersk and ConocoPhillips

Cabin 417 was supposed to be an extra cabin with no personnel assigned. However, a Stewardess had asked permission to stay in the room. The Stewardess' assigned room

number was not changed and most of her belongings were not transferred to cabin 417.

The initial Responder to cabin 417, who was also the Emergency Response Leader, had taken a radio which did not have the fire brigade channel. The initial Responder/ Emergency Response Leader was able to contact the bridge from a telephone in an adjacent cabin; however, fire teams awaiting instructions were unable to communicate via radio and get clear directions from the Emergency Response Leader. All radios after the incident have been programmed with the fire brigade channel.

The fire hydrant valve spring did not release to charge fire hose immediately. Personnel had to strike the valve with a spanner wrench to charge hose

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

Preliminary findings suggested a wall mounted fluorescent light for marine use with receptacle, a universal adapter plugged into the light fixture, an Apple I-Phone ice cube type phone charger plugged into the adapter, and/ or a Samsung tablet left under the bunk pillow may have started the fire. The Apple I-Phone was not plugged into the charger at the time of the fire. However, after comprehensive analysis by a forensic engineering firm of all devices involved, it was determined none of the above devices could be definitively identified as the source of which started the fire. The Samsung tablet could not be eliminated as a possible source of the fire. The forensic engineering firm stated future testing could not definitively prove the tablet was the source; therefore, the investigation is closed and the source of the fire will be classified as "undetermined".

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

Preliminary findings suggested a wall mounted fluorescent light for marine use with receptacle, a universal adapter plugged into the light fixture, an Apple I-Phone ice cube type phone charger plugged into the adapter, and/ or a Samsung tablet left under the bunk pillow may have started the fire. The Apple I-Phone was not plugged into the charger at the time of the fire. However, after comprehensive analysis by a forensic engineering firm of all devices involved, it was determined none of the above devices could be definitively identified as the source of which started the fire. The Samsung tablet could not be eliminated as a possible source of the fire. The forensic engineering firm stated future testing could not definitively prove the tablet was the source; therefore, the investigation is closed and the source of the fire will be classified as "undetermined".

20. LIST THE ADDITIONAL INFORMATION:

Cabin 417 was supposed to be an extra cabin with no personnel assigned. However, a Stewardess had asked permission to stay in the room.

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

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ESTIMATED AMOUNT (TOTAL): **\$50,000**

22. RECOMMENDATIONS TO PREVENT RECURRENCE NARRATIVE:

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

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: **YES**

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

G-110 (W) See Attachement

25. DATE OF ONSITE INVESTIGATION:

21-MAR-2016

26. ONSITE TEAM MEMBERS:

David Kearns /

29. ACCIDENT INVESTIGATION

PANEL FORMED: **NO**

OCS REPORT:

30. DISTRICT SUPERVISOR:

John McCarroll

APPROVED

DATE: **06-JUL-2016**

FIRE/EXPLOSION ATTACHMENT

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1. SOURCE OF IGNITION: **Undetermined**

2. TYPE OF FUEL: GAS
 OIL
 DIESEL
 CONDENSATE
 HYDRAULIC
 OTHER **Accomodation Cabin 417, in particular mattress and box-spring**

3. FUEL SOURCE: **Mattress and Box-spring**

4. WERE PRECAUTIONS OR ACTIONS TAKEN TO ISOLATE KNOWN SOURCES OF IGNITION PRIOR TO THE ACCIDENT ? **NO**

5. TYPE OF FIREFIGHTING EQUIPMENT UTILIZED: HANDHELD
 WHEELED UNIT
 FIXED CHEMICAL
 FIXED WATER
 NONE
 OTHER