

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: 10-AUG-2017 TIME: 1350 HOURS

2. OPERATOR: Fieldwood SD Offshore LLC

REPRESENTATIVE:

TELEPHONE:

CONTRACTOR:

REPRESENTATIVE:

TELEPHONE:

- STRUCTURAL DAMAGE
- CRANE
- OTHER LIFTING DEVICE
- 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:

6. OPERATION:

4. LEASE: G02650

AREA: EB LATITUDE:

BLOCK: 110 LONGITUDE:

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

5. PLATFORM: A-Tequila

RIG NAME:

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

8. CAUSE:

7. TYPE:

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

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

- FATALITY
- POLLUTION
- FIRE
- EXPLOSION

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

9. WATER DEPTH: 660 FT.

10. DISTANCE FROM SHORE: 75 MI.

11. WIND DIRECTION:
SPEED: M.P.H.

12. CURRENT DIRECTION:
SPEED: M.P.H.

13. SEA STATE: FT.

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

At 13:50 hours on August 10th, 2017, there was a welding flash fire incident at the +12 level of the EB-110A platform facility while conducting hot work to prepare for installation of a temporary work platform (TWP) around pilings for future jacket removal. The subject flash fire incident happened near a Sump Pile. There was one injured person (IP) who sustained burns to the hands and fell into the water. The subject IP was retrieved back to the facility, evaluated, then transferred to UTMB Hospital. There were no other persons injured or impact to the environment. The flash fire reportedly self-extinguished. BSEE was notified by at 17:30 hours on August 10th 2017.

Based on Fieldwood's Incident Investigation Report the chronological list of events are as follows:

At 7:00 AM on August 10th 2017, a Welder (Welder A) was concerned that a walkway may need to be fabricated on the water side of an existing out-of-service sump pile near the B3 piling (to clean it). Discussions took place between a third-party contractor Supervisor and Welder A. They agreed to check the contents inside the sump pile by removing the sealed lid and lowering a balled-up piece of absorbent cloth with a rope to determine fluid contents. A contracted Fire Watch worker stated he bump tested the gas detector and took samples at various intended hot work areas (B2, A1 and B3 piling). All areas indicated 0% LEL, and the firewatch notified the Construction Supervisor of the results.

At 7:15 hours on 10 August 2017, Welder A removed 4 bolts holding the sump pile lid, which allowed the lid to be slid to the side. The third-party supervisor and welder (welder A) removed the sump lid and lowered an absorbent cloth to sample fluids in the sump and found hydrocarbons. The supervisor then left the area, believing the welder would re-install the top lid with new bolts and nuts. The welder does not reinstall the lid and leaves a 1" to 2" opening (slid over to one side). He stated that he believed the Supervisor was going to retrieve a bucket to put the fluid soaked cloth into.

At 10:30 hours on 10 August 2017, the sump pile was checked again by the firewatch for LEL (0% LEL detected). The firewatch did not question why the sump pile surface lid was open. Hotwork was then conducted at the B2 piling until crewmen broke for lunch at 11:00am. They intended to start hotwork at the B3 piling after lunch break.

At 13:30 hours on 10 August 2017, Construction Project Site Supervisor requested and witnessed the firewatch rechecking the process piping and sump pile at the B3 piling (0% LEL) before hotwork began in the area. This observation was made from the top of the stairway. He did not identify the opened Sump Pile lid at this time.

At 13:40 hours on 10 August 2017, two welders (Welder A and Welder B) began installing angle-iron from the B3 piling to the catwalk. Gas sampling was again performed on top and inside of the Sump Pile by the firewatch. The results were 0% LEL and were witnessed by Welder A.

At 13:50 hours on 10 August 2017, Welder A positioned a piece of angle-iron on the B3 piling to shape the curvature with the cutting torch. When he made direct contact with the torch, it was pointed towards the Sump Pile and blew slag on/in the top of the sump igniting vapors. The other Dynamic Welder (Welder B) was near the Sump Pile retrieving welding leads when he heard a boom and felt heat on his back and neck. Derrick then covered his neck with both hands and attempted to leave the area. In doing so, he lost his balance and fell into the water

approximately 12' below. The Fire Watch (using a 20 lb. dry chemical extinguisher) swept the top of the Sump Pile with dry chemical and then expelled the remaining content of the extinguisher directly inside the sump. Fellow workers tossed a life ring and life vest to Welder B. He was unable to reach the life ring due to water current. Welder A removed his boots, entered the water and swam to Welder B with a life ring and tethered line and successfully assisted him back to the platform.

Operations were shut down. Both men were brought to the site paramedic for evaluation. Welder B was transferred to shore for treatment.

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

Failure to remove (or shield) flammable substances within 35' radius of the work area prior to starting hot work (welding) operations.

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

The JSA did not include specific hazard identification and/or mitigation of hot work in close proximity to the Sump Pile, which contained hydrocarbon fluids.

20. LIST THE ADDITIONAL INFORMATION:

Fieldwood submitted a list of ten corrective actions:

1. Sump Pile was pumped out and cleaned to eliminate hazardous vapors from oily fluids prior to performing any new hot work.
2. Fieldwood Construction Site Supervisor will personally verify the Hot Work Permit controls have been adhered to prior to authorization of every permit (physical verification of permit controls/checklist items).
3. A safety stand down meeting will be conducted with assigned crews to reiterate the use of task specific JSA's, the use of Stop Work Authority, and the importance of good clear communication.
4. Fieldwood Construction Site Supervisors will ensure contracted construction service supervisors are personally involved in; the planning of specific tasks and procedures, the identification of hazardous conditions that exist or have potential to exist and the proper mitigation of those hazards. Further, they will ensure that construction service supervisors personally verify that the immediate supervisors of tasks/work oversee and manage the continued compliance with permit controls associated with their permitted tasks.
5. Contracted Safety Representation will be assigned to this operation to support the processes of; task specific JSA, Permit Control, Hazard Identification & Mitigation and adherence to Safety Work Policies & Procedures. Fieldwood will consider the assignment of specialized safety support personnel on each future construction project.
6. Fieldwood Energy will communicate awareness level details of the incident to all similar operations for immediate consideration.
7. Upon completion of the investigation, Fieldwood Energy will provide an "Incident Safety Alert" for the awareness to all personnel, including contractors. The Alert will communicate the events and circumstances of this incident, the lessons learned and the corrective/preventive actions that are to be implemented.

- 8. Fieldwood Energy will provide refresher training for expectations regarding Hot Work Permit controls to all Site Supervisors(employee and contractors).
- 9. Fieldwood Energy will require all contracted construction and cleaning services to provide awareness training in hazard identification when involved in or working near hot work.
- 10. Fieldwood Energy will require all contracted construction, safety and cleaning services to ensure all applicable personnel assigned to Fieldwood Project(s) are trained and verified as competent in the use of gas detection.

List of Attachments:

A. Fire/ Explosion Attachment

21. PROPERTY DAMAGED:

No property damage.

NATURE OF DAMAGE:

None

ESTIMATED AMOUNT (TOTAL): **\$**

22. RECOMMENDATIONS TO PREVENT RECURRENCE NARRATIVE:

No recommendations at this time from the Lake Jackson District.

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

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

A G-110 will be issued in the near future.

25. DATE OF ONSITE INVESTIGATION:

11-AUG-2017

26. ONSITE TEAM MEMBERS:

**James Holmes - prepared report /
Perry Brady / Marco Deleon /**

28. Accident INVESTIGATION

PANEL FORMED: **NO**

29. DISTRICT SUPERVISOR:

John McCarroll

APPROVED

DATE: **13-OCT-2017**

FIRE/EXPLOSION ATTACHMENT

For Public Release

1. SOURCE OF IGNITION: **Oxygen/Acetylene torch**

2. TYPE OF FUEL: GAS
 OIL
 DIESEL
 CONDENSATE
 HYDRAULIC
 OTHER

3. FUEL SOURCE: **Out of Service Sump Pile**

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 **it was a flash fire, fire went out.**