

UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF OCEAN ENERGY MANAGEMENT, REGULATION AND ENFORCEMENT  
GULF OF MEXICO REGION

## ACCIDENT INVESTIGATION REPORT

1. OCCURRED

DATE: **08-OCT-2010** TIME: **1300** HOURS

2. OPERATOR: **W & T Offshore, Inc.**

REPRESENTATIVE: **Salter, Jeff**

TELEPHONE: **(504) 210-8167**

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 **Platform ESD initiated**

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

6. OPERATION:

4. LEASE: **G02353**

AREA: **HI** LATITUDE:

BLOCK: **110** LONGITUDE:

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

5. PLATFORM: **A**

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)
- RW/JT (1-3 days)
- RW/JT (>3 days) **1**
- 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: **45** FT.
10. DISTANCE FROM SHORE: **17** MI.
11. WIND DIRECTION: **NE**  
SPEED: **4** M.P.H.
12. CURRENT DIRECTION:  
SPEED: M.P.H.
13. SEA STATE: **0** FT.

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

17. INVESTIGATION FINDINGS:

Construction related Hot Work was being performed on the well deck to remove a production drain trough fitted with a drain plug. The floor drain trough and down piping were flushed with water and plugged from the top using a plumber's plug in the trough. A Job Safety Analysis (JSA) was prepared/discussed, and Hot Work was initiated (the nearest flowing well within approximately 20 feet) as follows: (1) the well deck and cellar deck were monitored (sniffed) for hydrocarbons, (2) fire protection consisting of fresh water hoses and dry chemical extinguishers were made ready, (3) barriers were erected consisting of two tarps; one on the well deck and the other on the +10 deck above the sump and (4) two Fire Watch personnel were positioned; one on the well deck and the other on the lower cellar deck. The Welder cut the floor drain trough free from the well deck, then unbolted the down piping at the flange connecting the drain piping to the open drain line system. The Welder began washing (cutting) out a weld to free slag that was holding the trough to the well deck floor, when hot material ignited a small fire under the deck near a platform deck structure beam. Witnesses described the scene as lots of smoke with very little fire. The Fire Watch on the cellar deck directed his water hose onto the fire extinguishing the fire immediately, but when the crew on the well deck began pulling on the trough piping, additional hot material ignited a larger second fire. The ESD was immediately initiated by the Production Operators to shut in the platform, and the fire was extinguished in approximately four minutes using wheel fire extinguishers, dry chemical and ATTF.

The Fire Watch on the cellar deck jumped from the cellar deck onto an unconnected spiral staircase approximately 10 feet away that led to the +10 deck. The Fire Watch sustained a fractured knee cap and was released to restricted duty. No pollution was noted.

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

Gas vapors from the open drain system were ignited by the hot slag material during the production drain trough removal operation. The fire originated at the drain trough down piping at the unbolted flange where the drain piping connected to the open drain system going to the sump.

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

\*The open drain was not properly isolated with Hot Work being performed adjacent to the open drain system as follows: (1) the open drain at the flange should have utilized a positive method of isolation such as blinding off the open drain piping prior to overhead Hot Work and (2) the open drain should have been properly flushed to eliminate the vapors prior to pulling the trough. The JSA specifically addressed the need to "insure drains are plugged and all hazards have been removed from area".  
\*The JSA did not discuss the additional potential hazards of the gas-operated platform.

20. LIST THE ADDITIONAL INFORMATION:

The Operator has taken follow-up actions to include:  
\*Acknowledging on JSAs the Fire Watch responsibilities and the Operator's Welding and Burning Operations Check List.  
\*Modifying the JSA to include the site-specific hazard of the gas-operated platform,

including recommending the addition of signs at key egress points identifying that the platform is operated on gas service.

\*Making sure the platform orientation discussed gas-operated conditions.

\*Consulting with contractors to determine the content of their Fire Watch training programs.

BOEMRE Safety Alert No. 289, "Failure to Follow Lock-Out/Tag-Out Procedures Results in Gas Release" outlines the need to:

\*Conduct the necessary Job Hazard Analysis (JHA) and/or JSA to eliminate the hazard or reduce the severity of the consequence through the use of design engineering, administrative controls, or written procedures and/or guidelines.

\*Utilize a positive method of isolation such as a double block and bleed or blinding when isolating a pressurized system (can also be applied to a non-pressurized system; i.e., drain).

\*Emphasize that all personnel involved in any type of LOTO should familiarize themselves with the Operator's LOTO policy. Operators are reminded that BOEMRE considers a failure to follow company LOTO procedures to be a violation of 30 CFR 250.107(a), since you must protect health, safety, property and the environment by performing all operations in a safe and workmanlike manner.

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

- \*Tarp
- \*Polyflo tubing
- \*Welding Hose
- \*A10 Well Pressure guages

Fire

ESTIMATED AMOUNT (TOTAL): \$1,000

22. RECOMMENDATIONS TO PREVENT RECURRENCE NARRATIVE:

The Lake Jackson District has no recommendations for the Regional Office of Safety Management.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: NO

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

None

25. DATE OF ONSITE INVESTIGATION:

20-OCT-2010

26. ONSITE TEAM MEMBERS:

Aaron Campbell / James Holmes /  
Mike Hankamer /

29. ACCIDENT INVESTIGATION

PANEL FORMED: NO

OCS REPORT:

30. DISTRICT SUPERVISOR:

John McCarroll

APPROVED  
DATE:

01-JAN-2011

# FIRE/EXPLOSION ATTACHMENT

1. SOURCE OF IGNITION: **Slag from Torch Cutting Operations**

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

3. FUEL SOURCE: **Flash Gas from Drains**

4. WERE PRECAUTIONS OR ACTIONS TAKEN TO ISOLATE  
KNOWN SOURCES OF IGNITION PRIOR TO THE ACCIDENT ? **YES**

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

# INJURY/FATALITY/WITNESS ATTACHMENT

OPERATOR REPRESENTATIVE

INJURY

CONTRACTOR REPRESENTATIVE

FATALITY

OTHER \_\_\_\_\_

WITNESS

NAME :

HOME ADDRESS :

CITY :

STATE :

WORK PHONE :

TOTAL OFFSHORE EXPERIENCE :

YEARS

EMPLOYED BY :

BUSINESS ADDRESS :

CITY :

STATE :

ZIP CODE :

