UNITED STATES DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE
GULF OF MEXICO REGION
ACCIDENT INVESTIGATION REPORT

1. OCCURRED
   DATE: 19-JUL-2009 TIME: 2000 HOURS
   STRUCTURAL DAMAGE
   CRANE
   OTHER LIFTING DEVICE
   DAMAGED/DISABLED SAFETY SYS.
   INJURY >$25K
   H2S/15M N. 20PPM
   REQUIRED MUSTER
   SHUTDOWN FROM GAS RELEASE
   OTHER

2. OPERATOR: Shell Offshore Inc.
   REPRESENTATIVE: DiCarlo, Theresa
   TELEPHONE: (504) 728-6237
   CONTRACTOR:
   REPRESENTATIVE: Bryce Morgan-Frontier Driller
   TELEPHONE: (713) 422-4325

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

4. LEASE: G06886
   AREA: VK LATITUDE: 29.20252225
   BLOCK: 783 LONGITUDE: -87.95335374

5. PLATFORM: FRONTIER DRILLER
   RIG NAME: FRONTIER DRILLER

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

7. TYPE:
   HI STORIC INJURY
   REQUIRED EVACUATION
   LTA (1-3 days)
   LTA (>3 days)
   RWJT (1-3 days)
   RWJT (>3 days)
   OTHER Injury
   FATAL Injury
   X POLLUTION ON
   FIRE ON
   EXPLOSION ON

8. CAUSE:
   EQUIPMENT FAILURE
   HUMAN ERROR
   EXTERNAL DAMAGE
   SLIP/TRAIP/FALL
   WEATHER RELATED
   LEAK
   UPSET H2O TREATING
   OVERBOARD DRILLING FLUID
   OTHER

9. WATER DEPTH: 1450 FT.

10. DISTANCE FROM SHORE: M.

11. WIND DIRECTION:
   SPEED: 5 M.P.H.

12. CURRENT DIRECTION:
   SPEED:

13. SEA STATE: 0 FT.
17. INVESTIGATION FINDINGS:

A pollution event occurred as the result of the Driller failing to place the diverter panel in the "Test" mode prior to conducting a diverter test. At the time of the incident, drilling operations were suspended to perform a function test on the diverter bag that was just installed. The investigation determined that the Driller was new to this rig. Inadvertently, the diverter test was performed while the diverter panel was in the "Drilling" mode. Subsequent to the test, the Driller started the mud pumps and began circulating when he observed a fluid loss on the monitors and immediately shut down the pumps. An estimated 28 barrels (bbls) of 12.4 ppg Synthetic Based Mud (SBM) was pumped during the incident. Approximately 14 bbls went back into the pit system and 14 bbls went down the diverter lines, of which, 7.5 bbls was recovered from the lines. An estimated 6.5 bbls of SBM was released into Gulf waters, of which, 73% or approximately 4.7 bbls was oil. The SBM contained 73% base oil and 27% calcium chloride. The National Response Center (NRC) was notified of the incident on 20 July 20 2009 at 0940 hours (NRC Report No. 912098).

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

Human Error:
The Driller failed to place the diverter panel in the "Test" mode before performing the diverter test.

19. LIST THE CONTRIBUTING CAUSE(S) OF ACCIDENT:
The Driller was not familiar with the rig and the equipment.

20. LIST THE ADDITIONAL INFORMATION:

21. PROPERTY DAMAGED: NATURE OF DAMAGE:

6.5 bbls of Synthetic Based Mud (SBM) Lost overboard

ESTIMATED AMOUNT (TOTAL): $1,924

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

The MMS New Orleans District makes no recommendations to the MMS Regional Office of MMS - FORM 2010

EV2010R 11- MAR- 2010
Safety Management (OSM).

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: YES

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

   E-100 - 30 CFR 250.107(a)
   Operator did not prevent unauthorized discharge of pollutants into offshore waters.

25. DATE OF ONSITE INVESTIGATION:
   20-JUL-2009

26. ONSITE TEAM MEMBERS:
   Elbert Clemens /

29. ACCIDENT INVESTIGATION PANEL FORMED:
   NO

30. DISTRICT SUPERVISOR:
   David Troquet

   APPROVED
   DATE: 10-MAR-2010
1. VOLUME: 6.5 BBL
   YARDS LONG X YARDS WIDE
   APPEARANCE: RAINBOW SHEEN

2. TYPE OF HYDROCARBON Released:
   [ ] OIL
   [ ] DIESEL
   [ ] CONDENSATE
   [ ] HYDRAULIC
   [ ] NATURAL GAS
   [X] OTHER Synthetic Based Mud

3. SOURCE OF HYDROCARBON Released: Diverter lines

4. WERE SAMPLES TAKEN? NO

5. WAS CLEANUP EQUIPMENT ACTIVATED? NO
   IF SO, TYPE: [ ] SKIMMER
   [ ] CONTAINMENT BOOM
   [ ] ABSORPTION EQUIPMENT
   [ ] DISPERSANTS
   [ ] OTHER

6. ESTIMATED RECOVERY: 0 GAL BBL

7. RESPONSE TIME: HOURS

8. IS THE POLLUTION IN THE PROXIMITY OF AN ENVIRONMENTALLY SENSITIVE AREA (CLASS I)? NO

9. HAS REGION OIL SPILL TASK FORCE BEEN NOTIFIED? NO

10. CONTACTED SHORE: NO
    IF YES, WHERE:

11. WERE ANY LIVE ANIMALS OBSERVED NEAR: NO

12. WERE ANY OILED OR DEAD ANIMALS OBSERVED NEAR SPILL: NO