

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

1. OCCURRED  
 DATE: **30-NOV-2008** TIME: **0800** HOURS

2. OPERATOR: **Apache Corporation**  
 REPRESENTATIVE: **Garber, John**  
 TELEPHONE: **(337) 354-8126**  
 CONTRACTOR: **Wood Group Production Services**  
 REPRESENTATIVE: **Brian Armstrong**  
 TELEPHONE: **(337) 735-6082**

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

4. LEASE: **G01072**  
 AREA: **WD** LATITUDE: **29.069291**  
 BLOCK: **40** LONGITUDE: **-89.805534**

5. PLATFORM: **B**  
 RIG NAME:

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

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

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

STRUCTURAL DAMAGE  
 CRANE  
 OTHER LIFTING DEVICE  
 DAMAGED/DISABLED SAFETY SYS.  
 INCIDENT >\$25K **\$200,000**  
 H2S/15MIN./20PPM  
 REQUIRED MUSTER  
 SHUTDOWN FROM GAS RELEASE  
 OTHER

6. OPERATION:

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

8. CAUSE:

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

9. WATER DEPTH: **90** FT.

10. DISTANCE FROM SHORE: **15** MI.

11. WIND DIRECTION: **NW**  
 SPEED: **35** M.P.H.

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

13. SEA STATE: **10** FT.

17. DESCRIBE IN SEQUENCE HOW ACCIDENT HAPPENED:

On November 30, 2008, at approximately 0900 hours, on Apache Corporation's (Apache's) Lease OCS-G 01072, West Delta Block 40, B Platform, a fire occurred on a Nitrogen (N2) Unit during the hot refueling process of a diesel fuel tank. Hot fueling meant that the diesel fuel tank was filled while the engine was running. A third party contract company was contracted to inject (N2) through a pipeline. This operation required the use of an Electronic Injection Diesel-Caterpillar C15 400 HP (2000 RPM) engine, which ran the hydraulic pumps that in turn drove the entire Unit. The contract employee stated he finished filling diesel into the main diesel tank, closed all valves to the main diesel tank and walked inside for a short period of time when he heard the unit making unusual noises. He proceeded outside where he observed the engine on fire and he activated the Emergency Shutdown Device (ESD). Five (5) 30 lb fire extinguishers and one (1) 125 lb wheel unit were dispensed to fight the fire. All attempts to extinguish the fire were unsuccessful, and the three personnel evacuated the platform by a field boat. Apache's field operations contacted three (3) utility boats that were located in the field to assist in extinguishing the fire. At approximately 0915 hours, the fire was extinguished by the assisting boats. There were no injuries or pollution as a result of the incident.

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

Human Error:

The hot fueling process was unsafe for the following reasons:

- 1) The N2 Unit was not attended during the entire hot refueling process.
- 2) The 400 HP engine running at 1800 RPMs were used to run the pumps that fed the refueling hose.
- 3) The pump hose was not secured to prevent movement during the refueling process.
- 4) There was no Job Safety Analysis (JSA) or any type of written procedure for the hot fueling process.

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

- 1) No fire water system existed aboard the facility during the incident.
- 2) The hot refueling process occurred inside a building with a hot engine running.
- 3) High winds.
- 4) Poor communications between the operators and the third party contractor.
- 5) The discharge hose did not have a shut-down valve on the end of the hose going to the tank.

20. LIST THE ADDITIONAL INFORMATION:

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

**N2 Unit**

**Fire**

ESTIMATED AMOUNT (TOTAL): **\$200,000**

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

**The MMS New Orleans District makes no recommendations to the MMS Regional Office of Safety Management (OSM).**

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

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

**The following INC's were issued during the December 9, 2008, accident investigation:**

**G-111: After investigation the N2 Unit fire, it was determined that the diesel tank's hot refueling process was unsafe. The Unit was left unattended for a short period of time, but long enough to enable an uncontrollable fire. The resulting fire and subsequent abandonment of the facility at WD 40B resulted from: 1) The 400 HP engine running at 1800 RPMs use to run the pumps that fed the refueling hose, 2) The hose was not secured to prevent movement. 3) Hot refueling of the N2 Unit was unsafe and the Unit was in an enclosed area. 4) Attendant did not stay with the N2 Unit during the entire refueling process.**

**G-110: No JSA written to address the hot refueling process.**

**G-110: Operator did not have fire water system on the facility, therefore hot refueling should have been prohibited. The engine was a 400 HP running approximately at 1800 RPM's (extremely hot unit).**

**F-103: The batteries inside the N2 Unit were not inside an explosion proof storage box to protect the batteries.**

25. DATE OF ONSITE INVESTIGATION:

**09-DEC-2008**

26. ONSITE TEAM MEMBERS:

**Michael Singleton / Elbert Clemens  
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29. ACCIDENT INVESTIGATION

PANEL FORMED: **NO**

OCS REPORT:

30. DISTRICT SUPERVISOR:

**David Trocquet**

APPROVED

DATE: 24-JUN-2009

# FIRE/EXPLOSION ATTACHMENT

1. SOURCE OF IGNITION: **Diesel fuel contacting hot engine**

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

3. FUEL SOURCE: **Diesel tank**

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