

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

1. OCCURRED  
 DATE: **03-DEC-2008** TIME: **1930** HOURS

2. OPERATOR: **Mariner Energy, Inc.**  
 REPRESENTATIVE: **Dinger, Blaine**  
 TELEPHONE: **(713) 954-5588**  
 CONTRACTOR: **Rowan Drilling**  
 REPRESENTATIVE: **Fletcher, Thomas**  
 TELEPHONE: **(713) 422-4807**

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

4. LEASE:  
 AREA: **SM** LATITUDE: **28.2158**  
 BLOCK: **149** LONGITUDE: **-92.1244778**

5. PLATFORM:  
 RIG NAME: **ROWAN JP BUSSELL**

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  
 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: **234** FT.

10. DISTANCE FROM SHORE: **74** MI.

11. WIND DIRECTION: **SW**  
 SPEED: **13** M.P.H.

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

13. SEA STATE: **5** FT.

17. DESCRIBE IN SEQUENCE HOW ACCIDENT HAPPENED:

On December 3, 2008, at approximately 1930 hours, on the Mariner Energy, Inc.'s Lease OCS-G 02592, South Marsh Island Block 149 Platform D, utilizing the Rowan JP Bussell Rig, approximately 33 barrels (BBLs) of Zinc Bromide (ZnBr<sub>2</sub>) and approximately 37 BBLs of a weighted blend of Calcium Bromide (CaBr<sub>2</sub>) and Calcium Chloride (CaCl<sub>2</sub>) was released into the Gulf of Mexico (GOM), resulting from an upset condition during completion operations for Well D-1 (OCS-G 16325). At the time of the pollution incident, the rig crew was pulling drill pipe hanging from the well's storm packer. As the drill pipe was pulled, the wellbore volume was displaced with weighted completion fluid. While tripping drill pipe out of the hole the mud engineer reported to the Driller and Offshore Installation Manager (OIM) a loss of completion fluid from tank #4. Neither the Driller nor the OIM observed fluid loss since there was no increase in fluids entering the trip tank. Regardless, they decided to divert flow to tanks #1, #2, and #6 (work tank). Subsequent to diverting the flow, a continual loss of fluid occurred from tank #6 while the trip tank's level remained normal (no gain or loss). Upon investigation, it was discovered that the lost fluid was being delivered to the pre-load tank #39 (25 BBL capacity) and overboard into the GOM through an open dump valve #4. The pre-load tank was believed to be isolated from the completion fluids, but the tank's closed suction line's butterfly valve (new valve) #2 leaked. This allowed the completion fluids to enter the pre-load tank. From the pre-load tank, the 25 BBLs of fluid was recovered and the approximately 70 BBLs of ZnBr<sub>2</sub>, CaBr<sub>2</sub>, and CaCl<sub>2</sub> completion fluid blend was lost overboard.

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

The faulty (leaking) new butterfly valve #2, located on the suction line manifold, resulted in the undesired flow of completion fluid into the GOM through the open pre-load tank #39. It is unclear from the investigation what exactly caused the failure of valve #2. According to the OIM, the entire system is new, but this particular valve may have been damaged due to weathering and inactivity since installation.

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

The open pre-load tank suction valve #3 allowed unrestricted flow into the pre-load tank #39. Likewise, the open pre-load tank overflow valve #4 provided no means of protection from an undesired release into the GOM.

20. LIST THE ADDITIONAL INFORMATION:

MMS recommends the following:

\* Upon installation of any new equipment or system, a pressure test should be performed to verify all leaks are eliminated and the appropriate equipment, such as the leaking valve #2, function tested.

\* If this operation is conducted in the future using the same equipment configuration, close valves #3, #4, and #5, in conjunction with valve #2, in order to add another level of protection. Also, utilize a lockout/tagout program to prevent the undesired manipulation of the aforementioned valves.



21. PROPERTY DAMAGED:

**No physical property damage**

NATURE OF DAMAGE:

**N/A**

ESTIMATED AMOUNT (TOTAL):

22. RECOMMENDATIONS TO PREVENT RECURRENCE NARRATIVE:

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

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: **NO**

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

**No violations observed during onsite investigation or during records review process.**

25. DATE OF ONSITE INVESTIGATION:

**08-DEC-2008**

26. ONSITE TEAM MEMBERS:

**Douglas Frerich / Raymond Johnson  
/ Gerald Gonzales /**

29. ACCIDENT INVESTIGATION

PANEL FORMED: **NO**

OCS REPORT:

30. DISTRICT SUPERVISOR:

**Elliott S. Smith**

APPROVED

DATE: **27-JAN-2009**

# 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 :

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 :

