

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

1. OCCURRED

DATE: **22-JUL-2005** TIME: **1500** HOURS

2. OPERATOR: **BP Exploration & Production Inc.**

REPRESENTATIVE: **Linda Onstott**

TELEPHONE: **(281) 366-0219**

3. LEASE: **G15610**

AREA: **GC** LATITUDE: **27.1882854**

BLOCK: **782** LONGITUDE: **-90.26894694**

4. PLATFORM:

RIG NAME **PRIDE MAD DOG SPAR RIG**

5. ACTIVITY: EXPLORATION (POE)

DEVELOPMENT/PRODUCTION (DOCD/POD)

6. TYPE: FIRE

EXPLOSION

BLOWOUT

COLLISION

INJURY NO. 0

FATALITY NO. 0

POLLUTION

OTHER **Dropped Object**

7. OPERATION: PRODUCTION

DRILLING

WORKOVER

COMPLETION

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: **4420** FT.

10. DISTANCE FROM SHORE: **130** MI.

11. WIND DIRECTION: **N**

SPEED: **1** M.P.H.

12. CURRENT DIRECTION: **N**

SPEED: **1** M.P.H.

13. SEA STATE: **2** FT.

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

Dan Stone

CITY: **Houston**

STATE: **TX**

TELEPHONE: **(281) 366-6617**

CONTRACTOR: **Pride Offshore**

CONTRACTOR REPRESENTATIVE/
SUPERVISOR ON SITE AT TIME OF INCIDENT:

Robert Ward

CITY: **Lafayette**

STATE: **LA**

TELEPHONE: **(337) 735-6761**

17. DESCRIBE IN SEQUENCE HOW ACCIDENT HAPPENED:

On 7/22/05, the telescopic joint was loaded on the rig floor by the crane. The running tool for the telescopic joint was already installed when delivered to the rig floor. The running tool was inspected by the driller when it reached the rig floor to ensure that the load bearing dogs (total of 4) were properly engaged and the anti-rotation safety pin was properly set, all was OK.

At 1100 hours, the telescopic joint was picked up by the elevators (5' pup joint on top of running tool) in the locked position and set on the rotary. The outer barrel was then unlocked from the inner barrel and the telescopic joint stroked to full stroked position (+/-80'; inner barrel connected to the running tool). The outer barrel was then lowered through the rotary (Kvaerner clip connector for stack connection on bottom) approximately 65' until the top of the outer barrel was at the shaker deck level. At this level the top of the outer barrel is easily accessible and the numerous koomey coflex BOP control lines and the Choke/Kill lines are connected. During this time the top of the inner barrel with the running tool secured in the elevators was +/-15' above the rig floor hanging from the block. The bottom of the telescopic joint was secured at the hatch cover level by two tuggers to secure from slight swinging due to spar motion. The time was 1230 hours at this point.

Connection of the control lines at the shaker deck level continued from 1230 hours until 1500 hours. At that point all koomey lines and the choke line had been connected. Most of the drill crew was or had been involved in the line connection to the telescopic joint on the shaker deck. The toolpusher and rig manager were in the driller's shack on the rig floor. No personnel were around the rotary on the rig floor. At 1500 hours, while attaching the safety cable shackle pin for the choke line safety cable at the shaker deck level, without warning the telescopic joint outer barrel dropped clear of the shaker deck level, the bottom of the telescopic joint (Kvaerner connector) landing directly on the top of the stack. The inner barrel followed and as the outer barrel impacted the stack, the inner barrel collapsed into the outer barrel. The collapsed telescopic joint then leaned to the Northeast and came to rest on the Northeast corner of the A-4 hatch cover. The bottom connector remained wedged onto the top of the stack connector. The telescopic joint fell approximately 15 feet.

After ascertaining that no personnel were injured and all were accounted for and the telescopic joint was secure in it's fallen position, it was determined at the rig floor that the running tool was still in the elevators. The running tool was lowered to the rotary and inspected. The four load bearing dogs were completely sheared off. It appeared to not be a "clean" shear, more of a ripping/tearing failure. Again, the telescopic joint was stationary and had been for 2-1/2 hours. There was still one more line to connect to the outer barrel at the time of the running tool failure, so the blocks and telescopic joint were not moving. In fact the drawworks brake was locked out for safety at that point.

Approximately 3 gallons of "Sea Blue", a vegetable based hydraulic fluid leaked from the telescopic joint hydraulic lines onto the moon pool deck. A small quantity of "Sea Blue" about ½ a gallon make it's way into the water of the Spar center well.

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

BP's investigation team determined the root cause of the incident was the failure of four telescopic joint running tool j-pins. Sometime during the normal use of the telescopic joint running tool the stress loading on the j-pins exceeded the equipment design limits. This probably occurred during the handoff from the crane to the drill floor and righting of the telescopic joint into the derrick.

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

A contributing factor was the lack of documented manufacturer telescopic joint running tool operating perimeters. Kvaerner's "Installation, Inspection and Maintenance Procedures" states: "The lifting and operational capacity of the tool is determined by the yield capacity of the heads of the four socket head cap screws and is determined to be 100,000 pounds." No manufacturer reference was found with regards to the maximum length of lifting sub attached to the running tool vs. stress loads on the j-pins. Kvaerner's "Installation, Inspection and Maintenance Procedures" also states: "Inspect the lift sub thread for any sign of wear or damage. Check the four socket head cap screws are in place and tight and check that there are no signs of damage, replace if necessary. Visually check all welds for any signs of damage or cracks. At least once each year all welds should be inspected using ultrasonic or other NDT methods." Prior to each use the rig personnel visually inspect the running tool for sign of damage. During tool preparation and visual inspection no sign of external damage was found. Had the socket head cap screws been over stress at the neck of the bolt, routine visual inspection would not have discovered any damage.

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

The inner stab on the Kvaerner connector at the bottom of telescopic joint, several koomey coflex control lines, and rotary damage from the inner barrel upper housing striking rotary as it passed through.

The inner stab was creased significantly. The koomey lines was smashed between the fallen telescopic joint and the hatch cover opening.

ESTIMATED AMOUNT (TOTAL): \$200,000

22. RECOMMENDATIONS TO PREVENT RECURRENCE NARRATIVE:

Due to the specific nature of this incident, the Houma District has nothing to report to the Regional Office.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: NO

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

n/a

25. DATE OF ONSITE INVESTIGATION:

23-JUL-2005

26. ONSITE TEAM MEMBERS:

Amy Gresham / Kelly Bouzigard /

29. ACCIDENT INVESTIGATION

PANEL FORMED: NO

OCS REPORT:

30. DISTRICT SUPERVISOR:

Michael J. Saucier

APPROVED

DATE: 25-OCT-2005