# Accident Investigation Report

**For Public Release**

## 1. Occurred

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>28-Oct-2015</td>
<td>0255</td>
<td></td>
</tr>
</tbody>
</table>

## 2. Operator:

**Chevron U.S.A. Inc.**

**Representative:**

**Telephone:**

**Contractor:** Transocean Offshore

**Representative:**

**Telephone:**

## 3. Operator/Contractor Representative/Supervisor on Site at Time of Incident:

## 4. Lease:

<table>
<thead>
<tr>
<th>Area</th>
<th>Latitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>GB</td>
<td>978</td>
</tr>
</tbody>
</table>

## 5. Platform:

**Rig Name:** T.O. Discoverer India

## 6. Activity:

**Exploration (POE)**

**Development/Production (DOCD/POD)**

## 7. Type:

- **Required Evacuation**
  - LTA (1-3 days)
  - LTA (>3 days)
  - RW/JT (1-3 days)
  - RW/JT (>3 days)
  - Other Injury

## 8. Cause:

- **Equipment Failure**

## 9. Water Depth:

<table>
<thead>
<tr>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>3803 ft</td>
</tr>
</tbody>
</table>

## 10. Distance From Shore:

<table>
<thead>
<tr>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>225 mi</td>
</tr>
</tbody>
</table>

## 11. Wind Direction:

**WSW**

**Speed:** 10 M.P.H.

## 12. Current Direction:

**NNE**

**Speed:** 2 M.P.H.

## 13. Sea State:

<table>
<thead>
<tr>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ft</td>
</tr>
</tbody>
</table>
CHIEF MECHANIC/INJURED PERSON (IP) AND MECHANIC WERE IN THE PROCESS OF REMOVING A GEAR BOX COUPLING AND MUD AGITATOR SHAFT TO REPAIR A LEAKING OIL SEAL FROM THE GEARBOX ON SURFACE/ACTIVE PIT S6. IP AND MECHANIC HAD LIFTED GEAR BOX WITH TAPERED COUPLING AND AGITATOR SHAFT ATTACHED IN ORDER TO PLACE SAFETY CLAMP (DRILL COLLAR CLAMP) ON THE AGITATOR SHAFT BEFORE SEPARATING THE AGITATOR SHAFT FROM THE GEARBOX.


TRANSOCEAN AND LESSEE HAD PRIOR KNOWLEDGE OF SUDDEN UNEXPECTED SEPARATION OF THE AGITATOR GEARBOX OUTPUT SHAFT FROM AGITATOR SHAFT TAPERED COUPLING. ON THREE DIFFERENT OCCASIONS DATING BACK TO 2010, AGAIN IN 2014, AND AGAIN IN 2015 SUDDEN UNEXPECTED SEPARATION OF THE AGITATOR SHAFT FROM THE OUTPUT SHAFT ON THE GEARBOX OCCURRED. TRANSOCEAN HAD PRIOR KNOWLEDGE OF TWO AGITATOR SHAFTS SEPARATING UNEXPECTEDLY ON THE DISCOVERER INDIA. THERE WERE NO ADDITIONAL PRECAUTIONARY MEASURES TAKEN TO MITIGATE THE HAZARD OF UNEXPECTED COUPLING FAILURE CAUSING SEPARATION OF THE AGITATOR SHAFT FROM THE GEARBOX OUTPUT SHAFT WHILE PERSONNEL WERE PERFORMING REPAIRS ON THIS EQUIPMENT. PROCEDURES AND WRA’S WERE NOT UPDATED TO INCLUDE THESE HAZARDS, CAUSING THREAT OF INJURY TO PERSONNEL.
18. LIST THE PROBABLE CAUSE(S) OF ACCIDENT:

LESSEE FAILED TO MITIGATE THE HAZARDS ASSOCIATED WITH UNEXPECTED SEPARATION OF THE AGITATOR SHAFT AND GEARBOX NOT IDENTIFIED BY THE MANUFACTURER’S PROCEDURES, AFTER MULTIPLE UNEXPECTED SEPARATIONS ON THE DISCOVERER INDIA AND MULTIPLE PRODUCT SAFETY BULLETINS FROM THE MANUFACTURER. CREW MEMBERS NOT FOLLOWING COMPANY POLICY IN REGARDS TO EACH PARTICIPATING MEMBER OF A JOB TASK MUST SIGN THE WRA INDIVIDUALLY. FAILURE OF IP FOLLOWING MANUFACTURER’S PROCEDURE IN THE PERFORMANCE OF THE TASK.

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

LESSEE'S PRIOR KNOWLEDGE OF UNEXPECTED AND SUDDEN SEPARATIONS OF THE AGITATOR SHAFT AND GEARBOX.

20. LIST THE ADDITIONAL INFORMATION:

None.

21. PROPERTY DAMAGED:                NATURE OF DAMAGE:

None                None

ESTIMATED AMOUNT (TOTAL):  $

22. RECOMMENDATIONS TO PREVENT RECURRENCE NARRATIVE:

No recommendations from the Lake Jackson District at this time.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: YES

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

G-111(C): 30 CFR 250.107
G-110(C): 30 CFR 250.107(a)

25. DATE OF ONSITE INVESTIGATION:

30-OCT-2015

26. ONSITE TEAM MEMBERS:                29. ACCIDENT INVESTIGATION

John Orsini / Casey Conklin /            PANEL FORMED: NO

30. DISTRICT SUPERVISOR:

John McCarroll

MMS - FORM 2010

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25-FEB-2016