UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT
GULF OF MEXICO REGION

ACCIDENT INVESTIGATION REPORT

1. OCCURRED
   DATE: **19-FEB-2012** TIME: **1700** HOURS

2. OPERATOR: **Anadarko Petroleum Corporation**
   REPRESENTATIVE:
   TELEPHONE:
   CONTRACTOR: **Ensco Offshore Co.**
   REPRESENTATIVE:
   TELEPHONE:

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

4. LEASE: **G14205**
   AREA: **EB** LATITUDE: **27.3957006**
   BLOCK: **602** LONGITUDE: **-94.4521714**

5. PLATFORM:
   RIG NAME: **ENSCO 8500**

6. ACTIVITY:
- [ ] EXPLORATION(POE)
- [X] 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
- [X] 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
- [X] OTHER **See remarks**

6. OPERATION:
- [ ] PRODUCTION
- [ ] DRILLING
- [ ] WORKOVER
- [X] COMPLETION
- [ ] HELICOPTER
- [ ] MOTOR VESSEL
- [ ] PIPELINE SEGMENT NO.
- [ ] OTHER

8. CAUSE:
- [ ] EQUIPMENT FAILURE
- [X] HUMAN ERROR
- [ ] EXTERNAL DAMAGE
- [ ] SLIP/TRIP/FALL
- [ ] WEATHER RELATED
- [ ] LEAK
- [ ] UPSET H2O TREATING
- [ ] OVERBOARD DRILLING FLUID
- [ ] OTHER _____

9. WATER DEPTH: **3675** FT.

10. DISTANCE FROM SHORE: **142** MI.

11. WIND DIRECTION: **N**
    SPEED: **14** M.P.H.

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

13. SEA STATE: **6** FT.

14. PICTURES TAKEN: **NO**

15. STATEMENT TAKEN: **YES**

17. INVESTIGATION FINDINGS:

The EB 602 SS Well 014 BP01 was completed to the approved depth, cased, and displaced with 9.0 CaCl2 completion fluids. Wireline was across the subsea BOP stack with logging tools in the well. An unintentional auto shear/EDS (Emergency Disconnect Sequence) activated, cutting wireline with the casing shears, the blind shear rams closed, the LMRP disconnected, and the boost line valves actuated to the open position. The logging tools and severed wireline dropped to the bottom of the well. The riser disconnect caused the discharge of 849 barrels of completion fluid to sea. The rig re-latched the LMRP to the BOP stack 7 hours after the EDS event. The blind shear rams were opened to verify that the well was still static and then the blind shear rams were closed. (Negative pressure test was successfully performed on 12 Feb 2012.)

Over a period of days prior to the EDS event, the driller's BOP control panel was experiencing an increasing amount of intermittent abnormalities with network connectivity. Rig personnel opened the panel to troubleshoot the network problems. While the panel was live, and well operations were ongoing, personnel were pushing and pulling on wires, cables, and connections. The troubleshooting techniques on the panel's wiring caused a voltage drop in the solid state relay. A voltage drop in the solid state relay activates the EDS.

Prior to rig personnel entering and accessing inside the driller's BOP control panel; the OIM was not notified nor his approval given, a proper JSA and risk assessment was not conducted, and a permit to work was not issued. In December GE/Hydril released Engineering Bulletin (EB) 11-011 addressing the issue of ribbon cables and Molex connectors causing an EDS when physically disturbed inside the panel while the system is online. Anadarko/ENSCO received the bulletin in early December and did not properly communicate the information with the rig and follow its safety recommendations during the troubleshooting the panel. A permit to work was not issued and there was no procedure utilized for entering the panel.

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

The troubleshooting techniques of pushing and pulling wires/cables in the panel caused a voltage drop in the solid state relay computer board. A voltage drop in the solid state relay computer board unintentionally activated the EDS.

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

Prior to rig personnel entering and accessing inside the driller's BOP control panel the OIM was not notified and a proper JSA and risk assessment was not conducted and a permit to work was not issued.

Also Anadarko/ENSCO received the Engineering Bulletin (EB) 11-011 in early December and did not properly communicate the information with the rig and follow its safety recommendations during the troubleshooting of the panel.

20. LIST THE ADDITIONAL INFORMATION:

Repairs to the network driller's nodes and media converter switches were completed before the rig resumed well operations.

Safety alert was issued to notify operators utilizing rigs with similar BOP control system to be aware of GE/ Hydril Engineering Bulletin 11-011.

21. PROPERTY DAMAGED:

7,400 feet of electric wireline and logging tools left in bottom hole section.

NATURE OF DAMAGE:

Wireline was cut and dropped when casing shears closed during EDS activation.

ESTIMATED AMOUNT (TOTAL): **$13,400**

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

The Lake Jackson District has no recommendations for the Agency.

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

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

E-100 Pollution INC, G-110 Facility Shut-In INC (containing 6 bullets) and D-601 Facility Shut-In INC were issued on May 10, 2012. INCs are recommended for Civil Penalty Review.

25. DATE OF ONSITE INVESTIGATION:

20-FEB-2012

26. ONSITE TEAM MEMBERS:

Jose Trevino III / Phillip Couvillion /

28. ACCIDENT CLASSIFICATION:

MINOR

29. ACCIDENT INVESTIGATION PANEL FORMED: **NO**

OCS REPORT:

30. DISTRICT SUPERVISOR:

John McCarroll

27. OPERATOR REPORT ON FILE: **NO**

APPROVED DATE: **14-JUN-2012**

POLLUTION ATTACHMENT

1. VOLUME: GAL **849** BBL

   YARDS LONG X YARDS WIDE

   APPEARANCE:

2. TYPE OF HYDROCARBON RELEASED:
   - [ ] OIL
   - [ ] DIESEL
   - [ ] CONDENSATE
   - [ ] HYDRAULIC
   - [ ] NATURAL GAS
   - [X] OTHER **CaCl2 from riser disconnect**

3. SOURCE OF HYDROCARBON RELEASED: **849 bbls of CaCl2 completion fluid was released during riser disconnect**

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: **0** 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**