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

ACCIDENT INVESTIGATION REPORT

For Public Release

1. OCCURRED
   DATE: **10-FEB-2012** TIME: **1815** HOURS

2. OPERATOR: **El Paso E&P Company, L.P.**
   REPRESENTATIVE:
   TELEPHONE:
   CONTRACTOR:
   REPRESENTATIVE:
   TELEPHONE:

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

4. LEASE: **G17182**
   AREA: **HI** LATITUDE:
   BLOCK: **A 472** LONGITUDE:

5. PLATFORM: **A-PROCESS**
   RIG NAME:

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
   - [ ] POLLUTION
   - [X] 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.
   - [X] INCIDENT >$25K **heater Treater fire tube**
   - [ ] H2S/15MIN./20PPM **leak**
   - [ ]
   - [ ] REQUIRED MUSTER
   - [X] SHUTDOWN FROM GAS RELEASE
   - OTHER **Heater Treater fire tube leak**

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

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

9. WATER DEPTH: **182** FT.

10. DISTANCE FROM SHORE: **87** MI.

11. WIND DIRECTION: **SE**
    SPEED: **5** M.P.H.

12. CURRENT DIRECTION:
    SPEED: **4** M.P.H.

13. SEA STATE: **3** FT.

17. INVESTIGATION FINDINGS: -

At 6:15 PM, Platform Operator noticed the oil heater treater stack emitting black smoke. The operator shut off the main burner and inspected inside of the fire tube and noticed a small flame on the bottom of the fire tube. The Operator notified the Person in Charge (PIC). The Operator and PIC returned to the heater treater and discovered fluid was dripping from the top of the fire tube. The fire tube was glowing hot and drooping significantly from the top. Buildup of solids (coking) on the outside of the fire tube caused the heat from the flame to be insufficiently dispersed to the oil inside the heater treater. The fire tube became overheated and failed causing a leak of oil into the fire tube. Also lack of maintenance and inspection of the fire tube and declining oil production required longer retention time of oil in treater to keep levels at acceptable operating range. This may have contributed to the buildup of solids on fire tube and sludge found in the vessel. Excessively high fuel gas pressure of 30 psi was found to be feeding the burner. This indicated proper heat transfer was not taking place. (The manufacturer recommends the fuel gas pressure be regulated between 10-15 psi.)

All personnel on board the platform were notified of the fire and the field vessel was notified to be on stand-by. Operations personnel utilized fire extinguishers to extinguish the flame. Nonessential personnel were evacuated to the stand-by boat. The remaining crew routed the firewater pump to the bad oil tank so that sea water could be pumped into the vessel to cool down the fire tube. At 9:00 PM the fire was completely extinguished and no hot spots were encountered for flash ignitions. The PIC gave the all clear to all personnel and the stand-by vessel. The platform remained shut-in until repairs were completed.

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

The fire tube became overheated due to a buildup of solids (coking) on the outside of the fire tube which caused the heat from the flame to be insufficiently dispersed to the oil inside the heater treater. This caused a failure of the fire tube which resulted in a leak of oil into the fire tube and this caused the fire.

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

Lack of maintenance and inspection of the fire tube and declining oil production required longer retention time of oil in treater to keep levels at acceptable operating range. This may have contributed to the buildup of solids on fire tube and sludge found in the vessel which contributed to the fire.

20. LIST THE ADDITIONAL INFORMATION:

Excessively high fuel gas pressure of 30 psi was found to be feeding the burner. This indicated proper heat transfer was not taking place. The manufacturer recommends the fuel gas pressure be regulated between 10-15 psi.

(Safety Alert number 9 was issued May 9, 2011 due to an earlier heater treater incident) -

21. PROPERTY DAMAGED: NATURE OF DAMAGE:

ESTIMATED AMOUNT (TOTAL): **$30,000**

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

The Lake Jackson Districts makes no recommendations to OSM related to this incident. (Safety Alert number 9 was issued May 9, 2011)

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

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

G-110 - Lessee failed to maintain Heater Treater in a safe manner. INC will be forwareded to OSM for Civil Penalty review.

25. DATE OF ONSITE INVESTIGATION:

14-FEB-2012

26. ONSITE TEAM MEMBERS:

Mark Osterman / Craig Pohler / Marco Deleon /

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

OCS REPORT:

30. DISTRICT SUPERVISOR:

John McCarroll

APPROVED DATE: **15-JUN-2012**

FIRE/EXPLOSION ATTACHMENT

1. SOURCE OF IGNITION: **Heater Treater Fire Tube Failure**-

2. TYPE OF FUEL:
- [ ] GAS
- [x] OIL
- [ ] DIESEL
- [ ] CONDENSATE
- [ ] HYDRAULIC
- [ ] OTHER

3. FUEL SOURCE: **Heater Treater Oil**

4. WERE PRECAUTIONS OR ACTIONS TAKEN TO ISOLATE KNOWN SOURCES OF IGNITION PRIOR TO THE ACCIDENT ? **NO**

5. TYPE OF FIREFIGHTING EQUIPMENT UTILIZED:
- [x] HANDHELD
- [ ] WHEELED UNIT
- [ ] FIXED CHEMICAL
- [x] FIXED WATER
- [ ] NONE
- [x] OTHER **routed water thru the Heater Treater**