

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: 21-SEP-2016 TIME: 0828 HOURS

2. OPERATOR:

Energy XXI GOM, LLC

REPRESENTATIVE:

TELEPHONE:

CONTRACTOR: Wood Group Production Services

REPRESENTATIVE:

TELEPHONE:

- STRUCTURAL DAMAGE
- CRANE
- OTHER LIFTING DEVICE
- DAMAGED/DISABLED SAFETY SYS.
- INCIDENT >\$25K
- H2S/15MIN./20PPM
- REQUIRED MUSTER
- SHUTDOWN FROM GAS RELEASE
- OTHER

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

6. OPERATION:

4. LEASE: 00367

AREA: WD LATITUDE: 29.12853654
BLOCK: 32 LONGITUDE: -89.69010213

- PRODUCTION
- DRILLING
- WORKOVER
- COMPLETION
- HELICOPTER
- MOTOR VESSEL
- PIPELINE SEGMENT NO.
- OTHER

5. PLATFORM: E

RIG NAME:

6. ACTIVITY:

- EXPLORATION(POE)
- DEVELOPMENT/PRODUCTION
(DOCD/POD)

8. CAUSE:

- EQUIPMENT FAILURE
- HUMAN ERROR
- EXTERNAL DAMAGE
- SLIP/TRIP/FALL
- WEATHER RELATED
- LEAK
- UPSET H2O TREATING
- OVERBOARD DRILLING FLUID
- OTHER _____

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

9. WATER DEPTH: 63 FT.

10. DISTANCE FROM SHORE: 10 MI.

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

12. CURRENT DIRECTION:
SPEED: 1 M.P.H.

13. SEA STATE: 1 FT.

COLLISION HISTORIC >\$25K <=\$25K

17. INVESTIGATION FINDINGS:

1. On Wednesday, 9/21/2016 at 8:30 am BSEE Inspectors tracked an oil sheen by helicopter, 7 miles long and 1 mile wide, back to WD 32 DAE Platform facilities. The volume estimated at 8.05 barrels of oil as reported to the USCG.
2. The Inspectors landed and found the facilities to be unmanned at the time of the incident. The platform was in-service and producing. There were no indications of equipment shut-in. The liquid outlet from the Freewater Knockout (MAM-100A), all wells, outflow to the LP System, pipelines KAQ-400A and KAA-500 and Compressor (CBA-900) were found in service.
3. Inspectors observed produced crude oil discharging out of the produced overboard water line from the WD 32 E platform into the Gulf Water's below. Thick, brown crude oil was visible at the water level and around the "E" Platform. The BSEE investigation revealed that the Fisher 2500 Overboard Water Level Controller was discharging oil and water out the overboard water outlet. In addition, the Fisher 2100 LSH 1 shut down device did not activate to initiate platform shut-in.
4. The Inspectors observed the (Wemco) Overboard Water Treatment Flootation Cell (ABM-410), located on the top deck, full of thick, brown, produced oil and dumping the oil out of the overboard water outlet, down to the Gulf Waters below. The Wet Oil Transfer Pump (PBA-410E) required transferring oil from the Flootation Cell's (ABM-410) oil chamber, failed to pump due to a stuck, internal pump shifting/slider valve.
5. Inspectors observed a work boat approaching 10 minutes later that dropped off Energy XXI personnel at the facility. The Inspectors directed personnel to immediately shut the platform in and stop the source of the oil discharge into the Gulf. BSEE Inspectors directed the Personnel In Charge (PIC) to report the pollution incident to the USCG to receive a NRC number. The NRC number issued was # 1159691 later to be updated to NRC # 1159663.
6. Inspectors issued the operator an E-100 Incident of Non-Compliance (INC) for this pollution event.
7. After follow up investigations and research, BSEE has issued an additional E-104 INC.

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

1. The Wet Oil Transfer Pump (PBA-410E) required to transfer oil from the Flootation Cell's (ABM-410) oil chamber, failed to pump due to a stuck, internal pump shifting/slider valve.
2. The oil level in the oil chamber raised up to the level with the produced water side of the floatation cell and flowed back into the overboard discharge chamber. As the Fisher 2500 Level Controller for the water discharge maintains the preset level, oil was discharging out the overboard water outlet.
3. The Level Safety High (LSH 1) shut down device for the oil chamber was not installed in the oil chamber as requested by Energy XXI and approved by BSEE. As such, the high oil level in the oil chamber could not activate the shut in of: the liquid outlet from the Freewater Knockout (MAM-100A), all wells, outflow to the LP System, pipelines KAQ-400A and KAA- 500 and Compressor (CBA-900).

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

The LSH 1 shut down device (Fisher 2100) was installed external to the overboard water chamber of the floatation cell and not in the oil chamber as required. The Fisher 2500 Level Controller, controlling the overboard water dump valve, discharged all fluids (water and oil) to maintain the preset level in the unit. Oil build up in the water chamber could not activate the LSH 1 shut down as the preset level was constantly maintained by the level controller.

20. LIST THE ADDITIONAL INFORMATION:

1. BSEE Inspectors were on their way to perform a scheduled inspection at WD 109 A when they discovered the sheen coming from WD 32 E. They flew a 10 mile area before trailing the sheen back to WD 32 DAE facility.
2. WD 32 DAE was an unmanned facility with 4 flowing wells. The average production rates are 95 - 106 Barrels Oil Per Day (BOPD) and 370 Barrels Water Per Day (BWPD).
3. The Level Safety Low (LSL 1) as well as the Level Safety High (LSH 1) shut down devices were not installed in the oil chamber of the floatation cell. They were installed external to the overboard water chamber.
4. A mystery sheen (NRC # 1159546) was reported by the operator to have been called in earlier that morning and another sheen (NRC #1159440) on the previous day, Tuesday, 9/20/2016.
5. Initially, Energy XXI did not identify WD 32 E as the source of the reported mystery sheen on 9/21/2016.
6. Energy XXI became the current designated operator in February 2014, formerly operated by Black Elk Energy Offshore Operations, LLC.
7. The WD DAE facility had an approved Pollution Inspection Frequency of 3 times per week; however, due to several reported nuisance overboard water upsets and sheens, and a recalculation of the pollution matrix, BSEE has rescinded the departure and requires a daily pollution inspection.
8. On 9/15/2016 during a Random BSEE Inspection, a small sheen from the Floatation Cell was observed by the inspectors who then requested the operator to call the NRC, NRC #1159048. The operator made adjustments to the chemical pump, no INC was issued.
9. Subsequently, a follow up inspection was made on 10/18/2016 by BSEE Accident Investigator and 2 Scientist with BSEE Water Quality Office of Environmental Compliance.

21. PROPERTY DAMAGED:

None

NATURE OF DAMAGE: **For Public Release**

None

ESTIMATED AMOUNT (TOTAL): \$

22. RECOMMENDATIONS TO PREVENT RECURRENCE NARRATIVE:

BSEE New Orleans District makes no recommendations to the Office of Incident Investigations

Operator's action to prevent recurrence:

The LSH 1 (Fisher 2100) shut down device has been installed and functioned tested in the oil chamber of the floatation cell to prevent a carry-over of produced oil back into the water chamber and activate system shut in.

BSEE

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

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

E-100 The facility operator failed to prevent unauthorized discharge of hydrocarbons into offshore waters.

E-104 On 9/21/2016, it was discovered that the The Floatation Cell ABM-410 was not designed, installed, and operated to prevent pollution of offshore waters. The location of the LSH was not adequate to prevent hydrocarbons from entering the overboard water discharge, and the level control system was not properly maintained. This resulted in a carryover of hydrocarbons into the produced water and a discharge of pollutants into offshore waters on 9/21/2016. (LSH has been properly installed.

25. DATE OF ONSITE INVESTIGATION:

21-SEP-2016

26. ONSITE TEAM MEMBERS:

Gerald Taylor - Accident Investigator / James Carrier - Engineer / Steven Stonaker - Engineer / Carl Bohling- Civil Penalty Case Developer /

29. ACCIDENT INVESTIGATION

PANEL FORMED: **NO**

OCS REPORT:

30. DISTRICT SUPERVISOR:

David Trocquet

APPROVED

DATE: **08-DEC-2016**

INJURY/FATALITY/WITNESS ATTACHMENT

<input type="checkbox"/> OPERATOR REPRESENTATIVE	<input type="checkbox"/> INJURY
<input checked="" type="checkbox"/> CONTRACTOR REPRESENTATIVE	<input type="checkbox"/> FATALITY
<input type="checkbox"/> OTHER _____	<input checked="" type="checkbox"/> WITNESS

NAME: **Lead Operator**

HOME ADDRESS:

CITY: STATE:

WORK PHONE: TOTAL OFFSHORE EXPERIENCE: YEARS

EMPLOYED BY: **Wood Group Production Services / 21503**

BUSINESS ADDRESS:

CITY: STATE:

ZIP CODE:

<input type="checkbox"/> OPERATOR REPRESENTATIVE	<input type="checkbox"/> INJURY
<input checked="" type="checkbox"/> CONTRACTOR REPRESENTATIVE	<input type="checkbox"/> FATALITY
<input type="checkbox"/> OTHER _____	<input checked="" type="checkbox"/> WITNESS

NAME: **A- Operator**

HOME ADDRESS:

CITY: STATE:

WORK PHONE: TOTAL OFFSHORE EXPERIENCE: YEARS

EMPLOYED BY: **Wood Group Production Services / 21503**

BUSINESS ADDRESS:

CITY: STATE:

ZIP CODE:

