

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: **14-FEB-2016** TIME: **0230** HOURS

2. OPERATOR: **Energy XXI GOM, LLC**

REPRESENTATIVE:

TELEPHONE:

CONTRACTOR:

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: **G02429**

AREA: **HI** LATITUDE:

BLOCK: **A 351** LONGITUDE:

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

5. PLATFORM: **C**

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: **284** FT.

10. DISTANCE FROM SHORE: **114** MI.

11. WIND DIRECTION: **E**
SPEED: **8** M.P.H.

12. CURRENT DIRECTION: **ENE**
SPEED: **2** M.P.H.

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

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

On 14 February 2016, Energy XXI reported a crane incident had occurred at HIA 351C, lease G02429. The crane operator was off-loading the workover equipment from the Motor Vessel Grizzly utilizing the facilities crane to the main deck of the facility. While off-loading a hose reel weighing approximately 2,400lbs to the facility main deck, the operator noticed the load had stopped descending.

The operator then let off the control lever and the load suddenly dropped 7-8 feet stopping approximately 1 foot above the deck. The crane operator then lowered the hose reel to the deck, that is when a coil tubing crew member noticed the load cable was frayed "All Stop" was called and the crane was shut down.

Investigation revealed the crane operator had paid out excessive cable during prior loads, resulting in the cable to slack causing the cable to overlap and lay on the spool improperly. This improper spooling built up/bird nesting of cable resulted in binding the cable between the drum end cap and winch housing. The cable showed signs of this being done repetitively, which resulted in severe damage and weakening of the cable. The operator had paid out an excessive amount of cable before realizing the load was not descending. The shock of the load suddenly dropping and stopping one foot from the deck, caused the already severely damaged cable to part.

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

1. The crane operator's inattentiveness while paying in and out the load line caused the cable to pile up on the drum and rub against the winch housing which damaged the cable. To the extent the cable bound up between the drum end cap and winch housing; it prevented the load from descending even though the operator was paying out cable.

2. The excessive amount of cable slacked due to the cable being in a bind, when the bind suddenly freed the 2,400lb load, it drop approximately 7-8 feet resulting in shock loading to the crane hoist system. The shock loading of the hoist system caused the already damaged load cable to part.

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

20. LIST THE ADDITIONAL INFORMATION:

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

ESTIMATED AMOUNT (TOTAL): **\$6,000**

22. RECOMMENDATIONS TO PREVENT RECURRENCE NARRATIVE:

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

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

G-110 (C) Crane operator failed to operate crane correctly.

25. DATE OF ONSITE INVESTIGATION:

16-FEB-2016

26. ONSITE TEAM MEMBERS:

Kirby Calhoun / Edward Keown /

29. ACCIDENT INVESTIGATION

PANEL FORMED: **NO**

OCS REPORT:

30. DISTRICT SUPERVISOR:

Stephen P. Martinez

APPROVED

DATE: **20-JUN-2016**

Crane/Other Material-Handling Equipment Attachment

Equipment Information

Installation date: **19-FEB-07**

Manufacturer: **NAUTILUS**

Manufacture date: **01-JAN-98**

Make/Model: **NAUTILUS / 180B1-80**

Any modifications since manufactured? Describe and include date(s).

What was the maximum lifting capacity at the time of the lift?

Static: Dynamic:

Was a tag line utilized during the lift? **Y**

Were there any known documented deficiencies prior to conducting the lift? If yes, what were the deficiencies?

List specific type of failure that occurred during this incident. (e.g. cable parted, sticking control valve, etc.)

If sling/loose gear failure occurred does operator have a sling/loose gear inspection program in place?

Type of lift: **MD**

For crane only:

Type of crane: **HYDRAULIC**

Boom angle at time of incident: Degrees: **64** Radius: **36**

What was load limit at that angle? **27922**

Crane equipped with: **L**

Which line was in use at time of incident? **L**

If load line involved, what configuration is the load block: **2** part.

Load Information

What was being lifted? **WORK-OVER EQUIPMENT**

Description of what was being lifted (e.g. 10 joints of 2 3/8-inch pipe, ten 500-lb. sacks of sand, 2 employees, etc.)

Hose Reel

Approximate weight of load being lifted: **2200**

Was crane/lifting device equipped with an operable weight indicator? **Y**

Was the load identified with the correct or approximate weight? **Y**

Where was the lift started, where was it destined to finish, and at what point in the lift did the incident occur? Give specific details (e.g. pipe rack, riser cart, drill floor, etc.)

Lifted from M/V to Facility deck

If personnel was being lifted at the time of this incident, give specific details of lifting device and riding apparatus in use (e.g. 1) crane-personnel basket, 2) air hoist-boatswain chair, other)

Were personnel wearing a safety harness?

Was a lifeline available and utilized?

List property lost overboard.

Rigger/Operator Information

Has rigger had rigger training? **Y**

If yes, date of last training: **08-SEP-15**

How many years of rigger experience did rigger have? **7**

How many hours was the operator on duty prior to the incident? **8**

Was operator on medication when incident occurred? **N**

How many hours was the rigger on duty prior to the incident? **8**

How much sleep did rigger have in the 24 hours preceding this incident? **8**

Was rigger on medication when incident occurred? **N**

Were all personnel involved in the lift drug tested immediately following this incident?

Operator: **N** Rigger: **N** Other:

While conducting the lift, was line of sight between operator and load maintained?

Y

Does operator wear glasses or contact lenses? **N**

If so, were glasses or contacts in use at time of the incident? **N**

Does operator wear a hearing aid? **N**

If so, was operator using hearing aid at time of the incident? **N**

What type of communication system was being utilized between operator and rigger at time of this incident?

RADIO/VHF

For crane only:

What crane training institution did crane operator attend?

SAFE ZONE

Where was institution located? **HOUMA, LA**

Was operator qualified on this type of crane? **Y**

How much actual operational time did operator have on this particular crane involved in this incident?

Years: **9** Months: **0**

List recent crane operator training dates.

03-JUN-2014

For other material-handling equipment only:

Has operator been trained to operate the lifting device involved in the incident? **N**

How many years of experience did operator have operating the specific type of

Inspection/Maintenance Information

For crane only:

Is the crane involved classified as Heavy, Moderate or Infrequent use.

M

Was pre-use inspeciton conducted? **Y**

For the annual/quarterly/monthly crane inspections, please fill out the following information:

What was the date of the last inspection? **14-DEC-15**

Who performed the last inspection? **SEATRAX**

Was inspection conducted in-house or by a 3rd party? **IH**

Who qualified the inspector? **SPARROWS**

Does operators' policy require load or pull test prior to heavy lift? **Y**

Which type of test was conducted prior to heavy lift? **L**

Date of last pull test: **29-JAN-16** Load test: **29-JAN-16**

Results: **P**

If fail explain why:

Test Parameters: Boom angle: **76** Radius: **20**

What was the date of most recent crane maintenance performed? **14-DEC-15**

Who performed crane maintenance? (Please clarify persons name or company name.)

SEATRAX

Was crane maintenance performed in-house or by a third party? **IH**

What type of maintenance was performed?

None

For other material-handling equipment only:

Was equipment visually inspected before the lift took place?

What is the manufacture's recommendation for performing periodic inspection on the equipment involved in this incident?

Safety Management Systems

Does the company have a safety management program in place? **N**

Does the company's safety management program address crane/other material-handling equipment operations?

N

Provide any remarks you may have that applies to the company's safety management program and this incident?

Did operator fill out a Job Safety Analysis (JSA) prior to job being performed?

Y

Did operator have an operational or safety meeting prior to job being performed?

Y

What precautions were taken by operator before conducting lift resulting in ir

Procedures in place for crane/other material-handling equipment activities:

Did operator have procedures written? **Y**

Did procedures cover the circumstances of this incident? **N**

Was a copy available for review prior to incident? **Y**

Were procedures available to MMS upon request? **N**

Is it documented that operator's representative reviewed procedures before conducting lift?

Y

Additional observations or concerns: