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: 29-JUN-2012 TIME: 0830 HOURS	STRUCTURAL DAMAGE X CRANE OTHER LIFTING DEVICE
2.	OPERATOR: Union Oil Company of California REPRESENTATIVE: TELEPHONE: CONTRACTOR: REPRESENTATIVE: TELEPHONE:	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:
500	LEASE: G00989 AREA: EI LATITUDE: BLOCK: 276 LONGITUDE: PLATFORM: C	X PRODUCTION DRILLING WORKOVER COMPLETION HELICOPTER MOTOR VESSEL PIPELINE SEGMENT NO.
6	RIG NAME:	OTHER 8. CAUSE:
	ACTIVITY: EXPLORATION (POE) DEVELOPMENT/PRODUCTION (DOCD/POD) TYPE: HISTORIC INJURY REQUIRED EVACUATION LTA (1-3 days) LTA (>3 days RW/JT (1-3 days) RW/JT (>3 days)	X EQUIPMENT FAILURE X HUMAN ERROR EXTERNAL DAMAGE SLIP/TRIP/FALL WEATHER RELATED LEAK UPSET H2O TREATING OVERBOARD DRILLING FLUID OTHER
	Other Injury FATALITY POLLUTION	9. WATER DEPTH: 168 FT. 10. DISTANCE FROM SHORE: 51 MI.
	FIRE EXPLOSION	11. WIND DIRECTION:
	LWC HISTORIC BLOWOUT UNDERGROUND SURFACE DEVERTER SURFACE EQUIPMENT FAILURE OR PROCEDURES	SPEED: M.P.H. 12. CURRENT DIRECTION: SPEED: M.P.H.
	COLLISION HISTORIC >\$25K <=\$25K	13. SEA STATE: FT.

MMS - FORM 2010 PAGE: 1 OF 10

17. INVESTIGATION FINDINGS:

On 29 June 2012 at approximately 0830 hours, a Crane Operator (CO) was moving a diesel tote tank weighing 5000 pounds to supply the diesel generators on the northwest side of the structure. The diesel tank was being placed from one deck to another on the facility. The Rigger attached the sling to the tank so the CO could perform the lift. Once the diesel tank was lifted approximately four inches, the auxiliary cable shifted out of the sheave on the horsehead causing the auxiliary cable to part. The diesel tank landed on the deck as the cable and auxiliary ball struck the top of the diesel tank and fell to the deck. There were no injuries or damage to the facility due to this incident. After further investigation of the horsehead assembly, the sheave assembly was not designed as per the manufacture specifications. Also, annual crane inspections were performed by the lessee as well as third party from 2008 to 2011. After reviewing the annual crane inspections, there was no mention of any discrepancies to the sheave assembly that would have prevented the auxiliary cable to part. According to the annual crane inspections, the auxiliary cable was changed 5-10-09 and 11-15-11. The failed design of the assembly should have been observed while installing the new auxiliary cable.

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

- A. The auxiliary cable shifted out of the sheave on the horsehead assembly causing the auxiliary cable to part.
- B. After further investigation of the horsehead assembly, the sheave assembly was not designed as per manufacture specifications.
- C. Personnel performing the annual crane inspection and changing the auxiliary line should have acknowledged the discrepancies to the sheave assembly
- 19. LIST THE CONTRIBUTING CAUSE(S) OF ACCIDENT:

None

20. LIST THE ADDITIONAL INFORMATION:

As a result of the incident, the lessee has inspected all cranes with the same sheave assembly to ensure it meets manufacturer specifications. Also, a Mechanical Safety Team meeting is scheduled on 09-Aug-2012 with all companies who conduct business with the lessee pertaining to rotating equipment to review the Internal Reports as well as the Root Cause Analysis.

MMS - FORM 2010 PAGE: 2 OF 10

NATURE OF DAMAGE:

None N/A

ESTIMATED AMOUNT (TOTAL):

Ś

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

The BSEE Lafayette District office makes no recommendations to the Regional Office of Safety Management (OSM).

- 23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: YES
- 24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

INC G-110 is issued "After the Fact" to document that Union Oil Company of California failed to protect health, safety and the environment by not performing operations in a safe and workmanlike manner as follows: An auxiliary cable parted causing a 5000 lb. tote tank to fall four inches to the deck. The auxiliary cable shifted out of the sheave on the horsehead assembly causing the cable to part. After further investigation, it was discovered the sheave assembly was not designed as per manufacturer's specifications. Annual crane inspections and maintenance performed by the lessee and third party failed to discover the discrepancies that could have prevented this incident. The lessee failed to adequately inspect the crane's sheave assembly to prevent this incident from occurring.

25. DATE OF ONSITE INVESTIGATION:

07-JUL-2012

26. ONSITE TEAM MEMBERS:

Wade Guillotte / Raymond Johnson / Gerald Gonzales /

29. ACCIDENT INVESTIGATION PANEL FORMED: NO

OCS REPORT:

30. DISTRICT SUPERVISOR:

Elliott S. Smith

APPROVED

DATE: 20-AUG-2012

MMS - FORM 2010 PAGE: 3 OF 10

Crane/Other Material-Handling Equipment Attachment

Equipment Information

```
Installation date: 01-JAN-1966
Manufacturer: UNIT
Manufacture date: 01-JAN-1900
Make/Model: 30227 / 2700
Any modifications since manufactured? Describe and include date(s).
What was the maximum lifting capacity at the time of the lift?
Static: 7200
                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?
Sheave assembly
List specific type of failure that occured during this
incident.(e.g. cable parted, sticking control valve, etc.)
Auxiliary line
If sling/loose gear failure occurred does operator
have a sling/loose gear inspection program in place? Y
Type of lift: DD
  For crane only:
Type of crane: HYDRAULIC
Boom angle at time of incident: Degrees: 65
                                             Radius: 33
What was load limit at that angle? 7200
Crane equipped with: F
Which line was in use at time of incident? F
```

If load line involved, what configuration is the load block: 1 part.

MMS - FORM 2010 PAGE: 4 OF 10

Load Information

What was being lifted? TANK

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.)

diesel tank

Approximate weight of load being lifted: 5000

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

Was the load identified with the correct or approximate weight? N

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.)

Lifting diesel tank with auxiliaryline

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.

MMS - FORM 2010 PAGE: 5 OF 10

Rigger/Operator Information

```
Has rigger had rigger training?
If yes, date of last training: 11-MAY-2010
How many years of rigger experience did rigger have? 32
How many hours was the operator on duty prior to the incident? 1
Was operator on medication when incident occurred?
How many hours was the rigger on duty prior to the incident?
How much sleep did rigger have in the 24 hours preceding this incident?
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?
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?
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?
  CHEVRON TRAINING CENTER
Where was institution located? LAFAYETTE LA
Was operator qualified on this type of crane? Y
```

MMS - FORM 2010 PAGE: 6 OF 10 EV2010R 21-AUG-2012

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

Years: 3 Months 0

List recent crane operator training dates.

22-MAY-2009

For other material-handling equipment only:

Has operator been trained to operate the lifting device involved in the incident? ${f N}$

How many years of experience did operator have operating the specific type of lifting device involved in the incident?

MMS - FORM 2010 PAGE: 7 OF 10

Inspection/Maintenance Information

For crane only:

```
Is the crane involved classified as Heavy, Moderate or Infrequent use.
Was pre-use inspeciton conducted?
For the annual/quarterly/monthly crane inspections, please fill out the following
information:
What was the date of the last inspection? 29-JUN-2012
Who performed the last inspection?
Was inspection conducted in-house or by a 3rd party?
Who qualified the inspector?
                               CHEVRON
Does operators' policy require load or pull test prior to heavy lift? Y
Which type of test was conducted prior to heavy lift? P
                                      Load test: 28-JUN-2012
Date of last pull test: 28-JUN-2012
Results: P
 If fail explain why:
 Test Parameters: Boom angle: 47
                                              Radius: 50
 What was the date of most recent crane maintenance performed? 28-JUN-2012
 Who performed crane maintenance? (Please clarify persons name or company name.)
 Was crane maintenance performed in-house or by a third party? TP
  What type of maintenance was performed?
  Installed engine manifold
```

MMS - FORM 2010 PAGE: 8 OF 10 EV2010R 21-AUG-2012

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?

MMS - FORM 2010 PAGE: 9 OF 10

Safety Management Systems

```
Does the company have a safety management program in place? Y
Does the company's safety management program address crane/other material-
handling equipment operations?
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?
Did operator have an operational or safety meeting prior to job being performed?
What precautions were taken by operator before conducting lift resulting in
incident?
Procedures in place for crane/other material-handling equipment activities:
 Did operator have procedures written?
 Did procedures cover the circumstances of this incident?
 Was a copy available for review prior to incident?
Were procedures available to MMS upon request?
Is it documented that operator's representative reviewed procedures before conducting
lift?
Additional observations or concerns:
```

MMS - FORM 2010 PAGE: 10 OF 10