UNITED STATES DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE
GULF OF MEXICO REGION

ACCIDENT INVESTIGATION REPORT

1. OCCURRED
   DATE: **01-APR-2009** TIME: **1520** HOURS

2. OPERATOR: **Kerr-McGee Oil & Gas Corporation**
   REPRESENTATIVE: **Jensen, Sharon**
   TELEPHONE: **(832) 636-3269**
   CONTRACTOR: **Diamond Offshore**
   REPRESENTATIVE: **Guidry, Edwin**
   TELEPHONE: **(337) 789-9255**

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

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

5. PLATFORM:
   RIG NAME: **DIAMOND OCEAN VALIANT**

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.
- [ ] INCIDENT >$25K
- [ ] H2S/15MIN./20PPM
- [ ] REQUIRED MUSTER
- [ ] SHUTDOWN FROM GAS RELEASE
- [ ] OTHER

6. OPERATION:
- [ ] PRODUCTION
- [X] DRILLING
- [ ] WORKOVER
- [ ] 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: **3678** FT.

10. DISTANCE FROM SHORE: **108** MI.

11. WIND DIRECTION: **ESE**
    SPEED: **10** M.P.H.

12. CURRENT DIRECTION: **SSE**
    SPEED: **3** M.P.H.

13. SEA STATE: **5** FT.

17. DESCRIBE IN SEQUENCE HOW ACCIDENT HAPPENED:

Four contract workers (two two-man construction teams) were in SC-1 Area (dry storage area located beneath the lower level of the living quarters) of the Diamond Ocean Valiant Semi-submersible drilling rig installing new plumbing for a drain line on new quarters. Cutting, grinding, and welding were being conducted on a four inch pipe. One employee was grinding on the newly cut end. He left the area along with the second employee on break. No one was left in the area. Approximately twenty minutes after everyone had left, a third construction worker (from other team) attempted to return and saw smoke flowing into the hallway of the quarters at the entry point to SC-1 area below quarters level. With in a minute or two of the smoke coming into the quarters, the smoke detectors activated the fire alarm and the rig's Fire Team One was dispatched to scene, the well was closed securely as directed by the Day Tool Pusher, and all other personnel mustered at the life boat stations awaiting further instructions (there was no evacuation of the rig). Fire Team One formed two two-man entry teams. The first two-man group went in the area, located the fire after a five to ten minute search in thick smoke, used fire water hose, and ran out of air on their '30 air tanks.' The second two-man group went into the area and continuing efforts to extinguish the fire under heavy smoke and poor visibility. The second two-man group exited the area once air tanks were depleted. The first two-man team re-entered the area a second time and were successful in extinguishing the fire, giving the all clear approximately forty-five minutes after the initial alarm.

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

Grinding sparks landed on stored flammable items (i.e. sheets, towels, dry paper goods, aerosol cans, cleaners, etc.) located inside the hot work zone causing ignition of the fire. When workers went on break, the cutting torch was left unaccompanied inside the how work zone with charged fuel and oxygen in the hoses. The torch and hoses were melted and destroyed, allowing a continuous flow of fuel creating a larger fire.

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

1. Personnel did not remain in the hot work zone at least thirty-five minutes after work ended.
2. There was not a designated fire watch with fire watch duties only being performed.
3. All flammable materials had not been removed or covered properly within the thirty-five foot perimeter of hot work.
4. Workers did not remove shut-off oxygen and fuel gas bottles and bleed hoses down before leaving hot work zone.
5. Workers did not follow the issued and signed Job Safety Analysis Worksheet and Diamond Offshore Permit to Work (hot work permit).

20. LIST THE ADDITIONAL INFORMATION:

The operator failed to follow company policies containing the appropriate procedures and guidelines for hot work and construction as pertaining to the job task being conducted during incident.

21. PROPERTY DAMAGED:

*** Control Cables in raceway**
*** Airlines**
*** Ladder**
*** Linens & Sheets**
*** Bulk amounts of aerosol cans**
*** Stored cleaning supplies**
*** Cutting hoses & cutting torch**

NATURE OF DAMAGE:

Burnt, Singed, Melted, Heat Damage, and Soot damage due to fire, smoke and heat.

ESTIMATED AMOUNT (TOTAL): **$2,957**

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

The MMS Lake Jackson District makes no recommendation to the MMS Regional Office of Safety Management (OSM).

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

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

G-303 Failure to remove flammable materials at least thirty-five feet from hot work zone or securing a heat barrier over materials within perimeter in order to protect from falling slag and sparks.
G-311 Failure to maintain a designated Fire Watch assigned to fire watch duties only. Designated Fire Watch on location was also assigned to weld and grind.
G-314 Failure to have the designated Fire Watch remain on duty at hot work zone for a period of at least thirty minutes after hot work had been completed. All personnel left location immediately after hot work was ceased in order to go on twenty minute break.
G-110 Workers left a cutting torch pressured with oxygen and fuel gas in the hot work zone unattended upon going on break. A fire ignited and cutting torch and hoses were burnt in the fire and were contributing to a larger fire. After the fire alarm sounded, the worker remembered about pressure hoses and had to run to a remote location of the bottle storage rack (outside top deck) in order to shut-off oxygen and fuel gas valves.

25. DATE OF ONSITE INVESTIGATION:

01-APR-2009

26. ONSITE TEAM MEMBERS:

Marco DeLeon / Phillip Couvillion /

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

OCS REPORT:

30. DISTRICT SUPERVISOR:

JOHN MCCARROLL

APPROVED

DATE: **29-JUN-2009**

FIRE/EXPLOSION ATTACHMENT

1. SOURCE OF IGNITION: **Grindings Sparks**

2. TYPE OF FUEL:
- [ ] GAS
- [ ] OIL
- [ ] DIESEL
- [ ] CONDENSATE
- [ ] HYDRAULIC
- [X] OTHER **Flammable Materials in storage and/or flammable gas from cutting torch**

3. FUEL SOURCE: **Items stored in area where hot work was being conducted in hot work zone.**

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

5. TYPE OF FIREFIGHTING EQUIPMENT UTILIZED:
- [ ] HANDHELD
- [ ] WHEELED UNIT
- [ ] FIXED CHEMICAL
- [ ] FIXED WATER
- [ ] NONE
- [X] OTHER **Fire Water Hose**