

Safety

ALERT

MODU Unlatched from Well

Alert 24-3

WHAT HAPPENED:

A moored semi-submersible Mobile Offshore Drilling Unit (MODU)(without dynamic positioning assist) exercised a controlled disconnect from the well and proceeded to move to survival draft due to increasing storm conditions. As the storm conditions worsened over a 3-day period, the MODU lost four of eight mooring lines. The loss of the four mooring lines caused the vessel to drift approximately 800 meters from its original surface (well) location while still connected to the remaining four mooring lines. Removal of non-essential personnel was undertaken after the loss of the fourth mooring line. The weather abated later on the 3rd day and a towline was secured to an attending anchor handling vessel the following day.

The immediate cause of the loss of the mooring lines was due to cyclic and very high dynamic loading of mooring lines on the unit's windward side over the three-day weather event. Examination of the mooring lines' failed chain-link arrangement revealed significant interlink chain wear at the crown of the failed links resulting from the aforementioned three-day weather event. Abraded chain link material resulted in a reduction of the subject mooring line's working load by an upwards of 20-25%.

CONTRIBUTING FACTORS:

1. Mooring analysis and procedural requirements to slacken tension imposed on mooring components were not followed. This inattention to necessary weather-safe protocols permitted excessive loading of windward mooring lines.

LESSONS LEARNED:

1. Recognized need to enhance personnel knowledge of heavy weather operation. Developed Well Specific Operating Guidelines to define clear parameters to aid decision making associated with watch circle operating criteria (eg. marine riser angle considerations, wind, currents, & impending weather forecasts).
2. Recognized imperative for enhancing procedures and developing training to improve understanding of the mooring analysis and optimizing performance and maintenance of the mooring system.

A Safety Alert can consist of any type of health, safety & environment (HSE) notification or Near Miss/Near Hit alert. Proactive Alerts on jobs well done are also encouraged.