



**U.S. Department of the Interior
Minerals Management Service
Gulf of Mexico OCS Region**

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Erroneous Activation of Dump Valve Causes Loss of 165 bbls of Oil-Based Mud

During drilling operations, drilling personnel working the pit room shifted an actuator handle that controlled the degasser suction valve, according to the posted line schematic. However, the rig immediately began losing mud. After about three minutes, the actuator-controlled valve was shut.

An investigation discovered that the actuator did not control the degasser suction valve as shown on the line schematic, but was connected to the dump valve of the process tank. As a result of the incident, 165 barrels of synthetic oil-based drilling fluid and cuttings, including 96 barrels of oil, were lost overboard. It was also found that no master dump valve was installed downstream of the individual compartment dump valves and manifold.

The investigation found that the piping/schematic error had been previously discovered during a separate incident, but only a hand label, overwriting the integral label of the line schematic, warned that the handle controlled the dump valve. The line schematic itself was not corrected. The crews were previously instructed that the hand label was correct and they were to ignore the piping diagram shown on the line schematic. However, in the course of performing the operation, the drilling personnel referred to the faulty line schematic and failed to notice the written hand label correction beside the actuator handle.

The MMS recommends the following to operators:

- Consider installing a master dump valve downstream of the individual lines as a secondary barrier to inadvertent fluid dumping. Several recent incidents involving the inadvertent dumping of mud would have been prevented by this practice.
- Avoid temporary hookups and hand labeling when line schematic variances are discovered. Correct the plumbing and the schematics immediately so as to remove the possibility of misinterpretation.

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