



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

Notice No. 069

December 6, 1977

### OCS Operations Safety Alert

#### Blowout -- Platform Loss

Recently, a sequence of events led to a gas blowout of the fourth development well from an offshore platform. The operator had drilled three exploratory wells and three platform wells in the area and had, therefore, obtained information concerning shallow sediments, hydrocarbon bearing zones, and reservoir pressures.

Serious drilling problems occurred while attempting to kill a deep saltwater flow which resulted in the release of gas from a shallow gas sand into the well bore and eventual loss of well control.

During the first circulating cycle in the kill process, with no more than 25 psi casing pressure, over 100 bbls of mud were lost. Lost mud returns of approximately 425 bbls and 380 bbls were noted on subsequent kill attempts. The flow of saltwater cut the mud, reduced the weight and viscosity, and allowed the release of gas from a gas sand some 2000 feet shallower. The severity of the situation worsened during the second day of the kill attempt, bubbles were noted breaking the water surface on the north and east sides of the platform. Pumping additional mud into the well and allowing flow through the casing were unsuccessful final control efforts.

The platform toppled into the Gulf shortly after all personnel were safely evacuated. The platform was structurally intact; however, the platform legs lost support because of the large crater caused by the violent jetting action of the gas blowout around the surface pipe at the Gulf floor.

In retrospect, there were several operations during the course of drilling which gave trouble or signs of potential trouble which should have alerted the operator to reassess the drilling plan for this hole. These operations were:

1. Drilling with no circulation for approximately 1000 feet of the surface casing hole. To regain circulation a cement plug was placed below 700 feet. When drilling resumed a slight dog-leg probably resulted as the drill bit moved over and would not re-enter the old hole.
2. Circulation loss while cementing surface casing necessitated grouting with 400 sacks of cement.
3. Two squeeze-cement jobs using a total of 500 sacks were performed to achieve a successful surface-casing shoe test of 14.0 lb/gal. equivalent mud weight.
4. Loss of rig electrical power while drilling at 4500 feet which resulted in stuck pipe and a 12 day fishing job with considerable jarring and tripping through surface casing which was suspected of having a dog-leg at approximately 700 feet.
5. Continuing to drill an additional 2100 feet of hole after recovering the fish at 4500 feet without assuring casing integrity.

In order to prevent a recurrence of this type accident and to insure the maximum competency of the well bore, the operator will incorporate the following practices and additional safety measures into the drilling program.

1. A cement bond log or temperature survey will be run when lost circulation problems are encountered during casing cementing operations.

2. The surface casing seat will be tested to an equivalent mud weight to exceed the anticipated mud weight required to set intermediate casing.
3. The surface string will be pressure tested, calipered, or otherwise evaluated to confirm integrity after unscheduled drilling operations or after drilling through the same casing for more than 30 days.
4. All drilling personnel will continue to be trained in well control, pressure detection, and the latest available drilling technology.
5. The well drilling prognosis will be reevaluated following any significant operational deviation from the original plan.

[signed] D.J. Bourgeois

for D.W. Solanas

Oil and Gas Supervisor

Field Operations

Gulf of Mexico Area