

1. **Well Name:** Doucet #1
2. **Field/Block Name:**
3. **State & Country:** United States of America
4. **Onshore or Offshore:** Offshore
5. **Hole Sizes, Intervals where Liquid Casing-Coarse used:** 8 ½" Side tracked hole
6. **Rates of Losses before spotting the Liquid Casing (coarse & Fine)Pill:** 130 to 200 bbl
7. **Operator Name:** New Field Exploration company
8. **Mud Company name:** Dresser Magcobar
9. **In which Mud System Liquid Casing-Coarse is used:** Oil based Mud
10. **Date of the using the LCM Pill:** June-1998
11. **Dosage of Liquid casing-Coarse and Fine used in the pill:** 50 bbl of Liquid Casing-coarse with 26 ppb and another 50 bbl of Liquid Casing-Fine with 32 ppb dosage. Total Pills volume is 100 bbl.
12. **Mud Density:** 11.0 ppg to 14.7 ppg (Raised prior to reach TD)

Brief Description of the Job Performed:

It is a side tracked well with cutting a window in 9 5/8" casing and make it horizontal. The well is displaced to 11.0 ppg Oil based mud in side 9 5/8" casing and later raised it to 11.7 ppg due to necessitate 12.0 ppg with in 1000' kicking off. Due to various problems while cutting window, the mud wt. raised to 12.2 ppg. While drilling side tracked hole, there was salt water flow from formation into oil-based mud necessitated to raise mud wt. to 13.0 ppg. The salt water kick resulted in 130 bbl of mud loss and controlled with conventional LCM. However, while drilling, severe tight spots and complete loss circulation. Filled the well with water initially till new volume of OBM arrived. To control losses, the mud wt. was cut from 14.8 to 14.6 ppg. At this stage, Liquid casing-Fine and Liquid Casing-Coarse (Coarse is originally called as OM SEAL and later renamed it as Liquid Casing-coarse) pills were spotted. A 50 bbl Liquid Casing-coarse (OM SEAL) with 26 ppb dosage followed by another 50 bbl Liquid Casing- Fine pill with dosage of 32 ppb pumped across the culprit zone. The bit was kept 480' above culprit zone. During spotting of Liquid Casing Pills, no returns. However, within 200 strokes (23 bbl) after the calculated arrival time, pump pressure gradually increased from 300 psi to 580 psi where full circulation was regained. Reamed the section with no further loss of mud. Raised the mud wt. form 14.7 to 14.9 to control salt water kick, but pipe got differentially stuck. Spotting of Pipelax pills removed the mud cake and completely and pipe is free. When mud cake is totally removed, again lost circulation occurred. At this stage, a 80 bbl Liquid Casing-coarse pill with 35 ppb dosage is pumped to cure losses and circulation regained completely. At this stage, it was decided to treat the whole Oil based mud system with 4 ppb of Liquid Casing-Fine and periodical addition of 2 sacks per every 100 ft of new hole drilled added to the mud system to replenish the product depletion going into filter cake and to seal the low pressure zone. No further losses were encountered and drilled the 8 ½" section to 13,350' (Section TD) without any problem. Prior to run 7" liner, ta 200 bbl of oil-based mud treated with 12 ppb Liquid Casing was spotted at open hole. This was done to seal any porocity which may have contributed to differential sticking and to reduce mud loss caused by pressure surges.. No mud loss while running 7" liner and also no mud loss while doing liner cementation. The operator attributed all credit to liquid Casing-Fine & Coarse as they lost 800 bbl of Oil-based mud and 7" liner was stuck at 200' off bottom in the previous well. Later after cementation, the liner lap was tested at 18 ppg EMW and found holding without any drop in pressure.