BP

9671.3.1

areas? channels created by stuck pipes?) around the blades. DNV is conducting at this point in time an exact laser scan to get the cross-sectional area of the region through which flow could have occurred. Seems to me on first blush that this new evidence affects our work in the following manner:
(1) We can get yet another estimate of initial versus final flow rate using the area of the opening and the initial bottom-hole pressure/final shut-in pressure. This will be an upper bound on the initial flow rate as it would assume that the opening has not increased in size through time.
(2) Does anyone have any ideas for how to model the erosion of the opening with time? This might be very difficult. In addition, Both of the blind shears are above where the mud was pumped during top kill. Mud wasn't bullheaded down through the blind shears, producing erosion that way. However, we did see quite a bit of mud exiting out the riser, clearly mud was coming back up from below. But that was just for a few days.
(3) Whatever the restriction of the blind shears, it can't be a lot, otherwise top kill would have worked. Tom: I know you spent a lot of time thinking about where the main restrictions were during top kill.
(4) In looking at our final curve for flow rate as a function of time, we do need to consider carefully the competing processes of depletion of the reservoir, which causes flow rate to decrease, and possible widening of the flow path, which causes the flow to increase. The final curve may be peaked in the middle for all I know.

Anyway, this is just food for thought. More to come.

Marcia

USGSUSGSUSGSUSGSUSGSUSGSUSGSUSGSUSGS

Dr. Marcia K. McNutt
Director, U.S. Geological Survey

Subject: RE: USGS Director McNutt would like to discuss BOP forensics

CONFIDENTIAL ETL080-009221

TREX 009671.0003