DROPPED STRING – HIGH POTENTIAL INCIDENT RESULTS FROM PULLING AGAINST CLOSED BOP PIPE RAMS

WHAT HAPPENED:

While laying down 5" drill pipe the crew proceeded until there were 3 stands in the well. The Company Man stopped the operation and instructed the drill crew to use the cementing unit pump to conduct an integrity test on the cement plug and casing against the BOP top pipe rams. A pre-job safety meeting was conducted by the Senior Toolpusher (STP) for the driller and the drilling crew. After pressure testing, the cement plug / casing showed pressure leakage. The pressure was bled off and the STP went to the Company Man’s office for further instructions. Prior to leaving the rig floor the STP informed the driller not to forget to open up the top rams and to pull out the string. The driller decided to assist the crew in disconnecting and lying down the cementing line, valve and circulation head prior to pulling the final three stands of drill pipe. When starting to pull the last three stands out of the hole the driller felt an over-pull and remembered that top rams were still closed. No remarkable change in Martin Decker reading was observed by the driller since the lower tool joint wasn’t against the top rams due to the spacing out for pressure testing. When the tool joint reached to the top rams, the drill pipe started to stretch and unfortunately, the driller didn't have enough time to respond and stop the operation especially, since the string had already traveled 6 ft. upwards. The drill string parted and the rest of the string (8 joints of pipe + about 27' of the parted joint of DP) was dropped down into the well.

WHAT CAUSED IT:

- Lack of supervision from STP.
- Inexperienced driller as he was recently promoted and still in the probation period.
- By “testing against the top BOP rams, the rig crew did not follow the company’s recommended drilling practices.
- Drilling instrumentation / drilling chart recorder wasn’t operating thus it was not possible to verify the maximum over-pull.

CORRECTIVE ACTIONS: To address this incident, this company did the following:

Short Term Actions:

- Instructions were given to all rig crews to always perform as cement / casing integrity test against blind rams.
- Rig Superintendents are to provide coaching by at rig sites.

Long Term Actions:

- Rig supervisors are to perform proper planning of work scopes and divide them up to several sub-operations with each having their own pre-job meetings.
- Additional supervisory resources shall be assigned to company rigs i.e. additional field superintendent.

The Corrective Actions stated in this alert are one company’s attempts to address the incident, and do not necessarily reflect the position of IADC or the IADC HSE Committee.