Coring/DST Procedure

Time (est)

5 hrs

1. Perform Hi-Resolution mud logging from 2930' to 3075' while drilling 12-1/4" hole. WOB = 20,000 RPM = 60 ROP = approx. 30'/hr

2 hrs

2. TOH w/ 12-1/4" bit and drilling assembly @ 3075'

8 hrs

3. Pick up coring assembly. Check spacing between core bit and PVC liner. Install survey tools into non-mag drill collars.

Coring assembly:

7-7/8" X 3-1/2" RC-3 Core bit

6-1/4" X 30' Core barrel w/ PVC inner barrel

- 2 Non magnetic drill collars
- 1 Hydraulic Jar
- 4. TIH w/ coring assembly to core point @ 3075'.
- 5. Begin coring oriented core w/ approx. 5K = WOB, 40-50 = RPM. Core from 3075' to 3105'
- 6. TOH w/ core #1. Lay down core. Cut and place core in desorbtion canisters.

18 hrs

7. Pick up DST assembly, spacing out packers as needed to test interval.

DST Assembly:

Length (ft)

- 4 Blanked off running case
- 25 Flush joint anchor
- 6 Open hole packer
- 6 Open hole packer
- 2.8 VR Safety Joint
- 5 Hydraulic Jar
- 14 Running Case
- 5 Hydrospring Tester
- 7 Dual Fluid Sampler
- 90 Drill Collars
- 1 Impact Reversing Sub

to surface Drill Collars & Drill Pipe

8. TIH w/ DST assembly slowly so as not to surge or breakdown test interval.

NOTE:

Check drill pipe every 10 stands for leaks.

Tools are closed when TIH.

- 9. Tag bottom to verify no fill. Load drill pipe w/ nitrogen to provide cushion for initial flow to 500 psi. After drill pipe is loaded w/ nitrogen, set packers and open tool. Once tool is opened, bleed off nitrogen slowly during 1st flow leaving approximately one-half of the nitrogen in tool for 2nd flow period.
- 10. Test well in the following manner:

Open tool w/ 4 rotations to the right. Flow well for 30 min.

Close tool w/ 11 rotations to the right. Shut well in for 60 min.

Open tool w/ 12 rotations to the right. Flow well for 120 min.

Close tool w/ 16 rotations to the right. Shut well in for 240 min.

- 11. After final shut in, pick up tools, reverse circulate any fluid recovery out of drill string. TOH w/ tools.
- 6 hrs 12. TIH w/ 7-7/8" Mill tooth drilling bit, DC's, and DP. Control drill w/ 20K = WOB, 60 RPM from 3105' to 3194'.
- 2 hrs 13. TOH w/ drilling assembly.
- 8 hrs Pick up coring assembly. Check spacing between core bit and PVC liner. Install survey tools into non-mag drill collars.

Coring assembly:

7-7/8" X 3-1/2" RC-3 Core bit

6-1/4" X 30' Core barrel w/ PVC inner barrel

- 2 Non magnetic drill collars
- 1 Hydraulic Jar
- 15. TIH w/ coring assembly to core point @ 3194'.
- 16. Begin coring oriented core w/ approx. 5K = WOB, 40-50 = RPM. Core from 3194' to 3224'.
- 17. TOH w/ core #1. Lay down core. Cut and place core in desorbtion canisters.
- 18 hrs 18. Pick up DST assembly, spacing out packers as needed to test interval.

DST Assembly:

Length (ft)

- 4 Blanked off running case
- 25 Flush joint anchor
- 6 Open hole packer
- 6 Open hole packer
- 2.8 VR Safety Joint
- 5 Hydraulic Jar
- 14 Running Case
- 5 Hydrospring Tester
- 7 Dual Fluid Sampler
- 90 Drill Collars
- 1 Impact Reversing Sub

to surface Drill Collars & Drill Pipe

19. TIH w/ DST assembly slowly so as not to surge or breakdown test interval. NOTE:

Check drill pipe every 10 stands for leaks.

Tools are closed when TIH.

- 20. Tag bottom to verify no fill. Load drill pipe w/ nitrogen to provide cushion for initial flow to 500 psi. After drill pipe is loaded w/ nitrogen, set packers and open tool. Once tool is opened, bleed off nitrogen slowly during 1st flow leaving approximately one-half of the nitrogen in tool for 2nd flow period.
- 21. Test well in the following manner:

Open tool w/ 4 rotations to the right. Flow well for 30 min.

Close tool w/ 11 rotations to the right. Shut well in for 60 min.

Open tool w/ 12 rotations to the right. Flow well for 120 min.

Close tool w/ 16 rotations to the right. Shut well in for 240 min.

- 22. After final shut in, pick up tools, reverse circulate any fluid recovery out of drill string. TOH w/ tools.
- 5 hrs 23. TIH w/ 12-1/4" bit and drilling assembly. Ream 7-7/8" hole from 3075' to 3194'.
 - 24. Continue normal drilling operations.

Total estimated time = 72 hrs (6 days)