

Prognosis

Discovery Operating, Inc.
Drilling Prognosis
University 11B #3
1750' FSL & 1750' FWL
Section 3, Block 11, ULS
Ground Elevation: 3316'
Andrews County, Texas

1. Permit #: 685250 TCEQ #: SC-13199
API #: 42-003-41183

2. Drilling Contractor: Robinson Drilling
Rig Number: 2 Phone: (432) 213-1400
Pusher: Kenneth Wagner Cell: (432) 213-8782
Drlg Supv: Don Noel Cell: (432) 213-1687
Office Phone: (432) 263-6820 Fax: (432) 264-6963
Yard Phone: (432) 466-2800

Water: Basic Energy Services Phone: (432) 530-0907
Len Garza Cell: (432)-664-9381

Cement & Float Equipment: Halliburton, Odessa Phone: (432) 682-4305
Cement Supervisor: Joe Morales Cell: (432) 202-1024

Mud: Mudsmith Phone: (432) 687-6837
Mud Engineer: Derek Goldsmith Cell: (432) 741-9832

Wellhead Equipment: J & W Services Phone: (432) 687-0515
James Hendry Cell: (432) 364-4317

Surface Casing: 8 5/8" 24#
United Casing Phone: (281) 586-8978
Mike Webb Cell: (432) 631-1051

Production Casing: 4 1/2" 10.5 & 11.6#
United Casing Phone: (281) 586-8978
Mike Webb Cell: (432) 631-1051

Open Hole Logging: Halliburton Phone: (432) 682-4305

Mud Logging: Suttles Logging Inc. Phone: (432) 687-3148
Sam Samford Cell: (432) 238-9522

Welding: W W Welding Phone: (432) 620-9096
Wes Ward Cell: (432) 528-4844
Pager: (432) 495-5678

Temperature Survey: Subsurface Well Testing Phone: (432) 682-7580
Allen Arnett

Trash Trailer: Big D Phone: (432) 688-8100

Porta Potty: B & W Chemical Toilets

Phone: (432) 685-1082

Rotating Head: Diamond Rotating Head
Matt Wiggins

Phone: (432) 561-8403
Cell: (432) 557-5566

Midland Health and Safety:

Phone: (432) 520-3838

3. Drill 12¼" hole to 1561' from ground level (about 1575' from KB) and set 8 5/8" casing to TD. Cement casing with 525 sx of Premium Plus cement w/3% salt, 0.125 lbm/sk Poly-E-Flake + 200 sx Premium Plus w/2% CaCl₂. Use notched shoe and 11 centralizers. Put the first centralizer on top of the shoe joint and then one every fourth joint to surface. Notify District 8 RRC in Midland prior to running surface casing (and prior to top out if cement does not circulate) @ (432) 684-5581. Measure bradenhead & spool so that the top of spool will be set at ground level.
4. Measure the elevation from top of bradenhead to top of the kelly bushing prior to installation of BOP and report on morning report. Report KB on morning report.
5. WOC at least 12 hours. Complete nipping up operations & test casing & BOP to 500 psi for 30 minutes. After a satisfactory test, drill out with 7 7/8" bit.
6. Install a rotating head prior to drilling the Yates formation.
7. Drilling time should be maintained by driller on 10' intervals from 4000' to TD. One copy should be faxed into Discovery Operating, Inc. with the daily drilling report.
8. Deviation surveys should be obtained at a minimum of 500' intervals from surface to TD. Be sure they are kept for company and RRC records.
9. One set of 10' drilling samples should be caught from 4000' to T.D. Samples should be well washed but not dried.
10. Install a mud logging unit at 5500'.
11. Strap drill pipe on any trip between 5000' and TD when making a bit trip. Pipe does not have to be strapped again if less than 1000' has been drilled since last strap.
12. Basic Mud Program is outlined below:

Surface to surface csg shoe: Fresh water and spud mud.

Surface csg shoe to 5500': Drill out with 10# brine circulating through the outer pit. Mix ground paper for seepage control. Use lime for pH control of 10-11.

5500' shoe to TD: Continue circulating the outer pit. Mix starch to improve filtrate and sample quality and provide invasion control. Use lime to maintain a 10-11 pH. Sweep hole with salt gel if heavy dragging on open hole logging occurs. Be ready with paper in case of heavy loss circulation.

Upon reaching TD (approximately TD=7,700') sweep hole and circulate at least two bottoms-up. LD drill string.

13. Condition hole to run 4½" csg.

14. A copy of the daily drilling report is to be faxed to Discovery 's Midland office daily @ (432) 687-1930. It is to be complete in all details. (This includes the number of loads of water delivered, the number of sacks of mud used, etc. for each 24 hour period.) The report must be checked for accuracy. This report is very important. It is the only way for Discovery Operating, Inc. to know how the well is doing on a daily basis. Accuracy is vital.

The daily drilling report should consist of the following:

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|----------------------|-------------------------|
| a) depth | e) bit data |
| b) formation | f) time distribution |
| c) mud data | g) materials used |
| d) deviation surveys | h) other pertinent data |

17. All calls should be made to the following in the order listed:

Discovery Operating	Office: (432) 683-5203	fax: (432) 687-1930	kpritchett@discoveryoperating.com
Spencer Cox	Cell: (432) 230-9600		scox@discoveryoperating.com
Shawn Dawsey	Cell: (432) 230-8700		sdawsey@discoveryoperating.com
Christian Cotton	Cell: (432) 556-0197		ccotton@discoveryoperating.com
Mark Maroney	Cell: (432) 559-8234		mmaroney@discoveryoperating.com
Jeff Sparks	Cell: (432) 556-9366	fax: (432) 694-4999	jsparks@discoveryoperating.com

If any unusual circumstances or problems arise, please notify someone with Discovery Operating, Inc. using the foregoing list.

Discovery Operating, Inc.

Spencer Cox
Engineer