PREPARED FOR:

Mr. Butch Willis NEARBURG PRODUCING COMPANY Midland, Texas

Red Lake 32 State # 1
Section 32
T-17-S
R-27-E
Eddy County, New Mexico

Prepared by: Randy Auburg August 30, 2005 August 30, 2005

Mr. Butch Willis Nearburg Producing Company 3300 North A Bldg. 2 Suite 120 Midland, Texas 79705-7806

Dear Mr. Willis,

Thank you for the opportunity to submit our drilling fluid recommendations for your Red Lake 32 State # 1 in Eddy County, New Mexico. These recommendations are based on information from your office, offset well data, and our knowledge of the area.

Of particular concern for this project is the potential for lost returns in the surface interval. Potential problems are discussed in the "Drilling Fluid Program" section of this proposal.

We estimate drilling time for this well to be 6 to 7 days at an estimated cost of \$3,500.00 to \$4,500.00. All support services, including warehousing and trucking for this well, are in Hobbs, New Mexico. Thank you for considering us to be a part of your drilling team.

Sincerely,

Randy Auburg
Technical Services Manager
Permian Division

DRILLING FLUID SYNOPSIS

NEARBURG PRODUCING COMPANY RED LAKE 32 STATE # 1

Section 32 T-17-S R-27-E Eddy County, New Mexico

Recommended Casing

8 5/8" at 1,300'

TD at 3,700'

DEPTH	MUD WEIGHT	VISCOSITY	FLUID LOSS	DRILL SOLIDS	COMMENTS
0-1,300'	8.6 to 9.0	32 to 33	No Control	<5%	Spud Mud
1,300'-3,700'	8.8 to 9.0	28 to 29	NC-<20cc	<5%	Cut Brine, Paper, Lime, Starch, Star NP-110

ESTIMATED FORMATION TOPS

QUEEN 865'

GRAYBURG 1,290'

SAN ANDRES 1,600'

GLORIETA 2,800'

YESO 2,900'

TD 3,700'

RECOMMENDED CASING PROGRAM

8 5/8"

at

1,300'

TD

at

3,700'

RECOMMENDED DRILLING FLUID PROGRAM

DEPTH	WEIGHT	VISCOSITY	FILTRATE
0-1,300'	8.6-9.0	32-33	No Control

Spud with an Amgel and Lime spud mud, circulating the working pits. Use Paper for seepage control and for sweeps. Use additions of Fresh Water to control weight and viscosity. There is a potential for lost returns in this interval. If lost returns are encountered and circulation cannot be regained after pumping several viscous LCM pills, you should consider dry drilling to casing point. We recommend periodically pumping a viscous LCM sweep while dry drilling in order to prevent solid accumulation in the well bore.

Southwestern E & P Company's, No Bluff State # 1, Section 36, T-17-S, R-27-E, reported lost circulation at 329' while drilling with an 8.4 ppg fluid weight.

DEPTH	WEIGHT	VISCOSITY	FILTRATE
1,300'-3,700'	8.8-9.0	28-33	NC-<20cc

Drill out from surface casing with Cut Brine, circulating the reserve. Use Paper to control seepage and for sweeps. Maintain a 9.0 to 9.5 pH with Lime. Use Star NP-110 for sweeps and for solids control. If abnormal pressures are encountered, we recommend additions of Brine as needed to control. H₂S may be present in this interval. If H₂S is encountered, we recommend using a H₂S scavenger for personnel safety and a filming amine to protect the Drill String.

At **3,600'** or prior to evaluation, return to the working pits and mud up with a **Starch/Star NP-110** type system. Maintain an API fluid loss of less than 20cc and funnel viscosity of 31 to 33 sec/1000cc with Starch. Use Xanthan Gum if additional viscosity is required. If lost circulation is encountered in this interval, please refer to Lone Star Mud's lost circulation procedure.

Estimated Drilling Fluid Cost: \$3,500.00 to \$4,500.00 Estimated Drilling Days: 6 to 7

Estimates are based on a 600 bbl system and do not include lost circulation, water flows, abnormal pressures, or multiple DST's.

AMBAR LONE STAR FLUID SERVICES LOST CIRCULATION PROCEDURES

Loss of circulation is a possibility on this well. Although each well is different, there are some basic procedures and drilling practices that can aid in reducing the severity or, in some cases, prevent lost circulation. Below is a list, which may prove helpful.

- 1. Maintain viscosities as low as possible and still clean the hole. We recommend a viscosity of 28 to 33 on this well.
- 2. Maintain mud weights as low as possible without jeopardizing safety.
- 3. Use slow trip speeds to prevent swabbing and surging.
- 4. Break circulation in stages with reduced pump strokes while tripping in the hole.
- 5. Rotate pipe prior to and while tripping in the hole.
- 6. Use an optimum hydraulics program.

Severe seepage to total loss of circulation may occur even when the above procedures are followed. For severe seepage, we recommend circulating pills (50-100 bbls. depending on hole size) containing 10-30 ppb of various (fibrous and flake) lost circulation material. It would be helpful to reduce pump rates until full returns are established. Once full returns are regained, normal pump rates should be returned to in stages. The inclusion of lost circulation material in the entire system is recommended only if the above procedures do not adequately seal off the loss zone.

For total loss of circulation, we recommend pulling enough stands to place the bit above the loss zone. A viscous pill containing the appropriate type of loss circulation material should be spotted. The size of the pill should be determined by hole size and should contain at <u>least</u> 30 ppb lost circulation material. Several attempts should be made before considering other alternatives. After returns are regained, we recommend staging back to bottom using the procedure outlined above.

If returns are not fully re-established, consideration should be given to dry drilling while pumping periodic sweeps to ensure hole cleaning.

REFERENCE WELLS

- 1. Devon Energy Corporation, Eagle 33N Federal # 9, Section 33, T-17-S, R-27-E, Eddy County, New Mexico
- 2. Devon Energy Corporation, Windfohr 4 Federal # 2, Section 4, T-18-S, R-27-E, Eddy County, New Mexico
- 3. Devon Energy Corporation, Windfohr 4 Federal # 3, Section 4, T-18-S, R-27-E, Eddy County, New Mexico
- 4. Devon Energy Corporation, Windfohr 4 Federal # 6, Section 4, T-18-S, R-27-E, Eddy County, New Mexico
- 5. Devon Energy Corporation, Eagle 34 A Federal # 1, Section 34, T-15-S, R-27-E, Eddy County, New Mexico