#### WELL 16/11-27

#### MUD PROGRAM

#### 30" Casing at 430' RKB (36" hole)

Drill the 36" hole with sea water with returns to the sea floor. Pump slugs of thick mud through the hole frequently to clean and seal off surface sands. After the 36" hole has been drilled fill the 36" hole (300 bbls) with thick mud to run the conductor pipe. Mix the thick mud as follows:

#### Material

### Properties

Sea Water Attapulgite 10 to 15 ppb Flosal 2 to 3 ppb Weight 8.8 to 9.5 ppg Viscosity thick Fluid Loss No control

Run shearing device on suction pit (500 to 600 psi) to shear flosal.

## 20" Casing at 1500'RKB 26" hole

Drill the 26" hole with sea water with returns to the sea floor. Pump slugs of thick mud through the hole as needed to clean. After the 26" hole has been drilled pump 300bbls of 11.0 ppg mud into the hole to make a short trip. Pump the entire surface volume (800 bbls) into the hole to run the 20" casing. Mix the thick mud as above and increase the density to 11.0 ppg with barite.

#### 13 3/8" Casing at 4600'RKB 17 1/2" Hole

Drill the cement, float and shoe with Gyp-Sea water mud with the following properties:

Weight	9.5-9.8
Viscosity	45 to 50 sec/qt
Fluid Loss	<sup>±</sup> 15 cc 30/min.
Ph	9.5 to 10.0
Calcium	800 to 1000 ppm
Oil	5 to 6 %

#### Drilling 12 1/4" hole

Drill below the 13 3/8" casing with lignosulfonate sea-water mud. Condition the mud to a lignosulfonate mud while nippling up and waiting on cement, condition to the following properties:

Weight	11.0
Viscosity	45 to 50 sec/qt.
Fluid Loss	8 - 10  cc/30  min
Ph	10.0 to 10.5
Solids	15 %
Oil "	4 to 5 8
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As drilling proceeds, regulate the mud properties as required. It is anticipated that mud weight requirements will not exceed 12.0 ppg.

Run the contrifuge as needed for barite recovery.

#### Packer Fluid

Condition the mud as follows for testing and packer fluids: Dilute with water and centrifuge as needed and add:

Material		Properties						
Barite Caustic Soda	As needed 1 to 1½ ppb	Weight	12.0 ppg					
Desco	1 to $1_2^{\circ}$ ppb	Viscosity Ph	55 to 65 sec/qt.					
Bentonite	As needed	YP	14 to 18					
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Check bentonite by Methyl-blue test. Add no starch or lignosulfonate to packer fluid for conditioning.

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## DETAILS OF OPERATIONS

## MUD\_PROGRAM

Depth			Weight	Viscosity	PV	<u>YP</u>	Water Loss	
0 -	1505	ft.	(Sea water	with periodic	spotting	of hig	h viscosity	mud)
1505 -	3007	ft.	9.9	45	12	10	17	
3007 -	4596	ft.	10.	52	16	10	11.	
4596 -	6003	ft.	11.	43	16	9	6.	
6003 -	7295	ft.	lÍ.	45	17	9	5.8	
7295 -	7466	ft.	11.1	49	17	12	8.	
7466 -	7799	ft.	11.1	49	18	11	9.6	

# TESTING

The following intervals were perforated and tested.

	7420	)' -	738	4 '	1	No	shows
	7355	5'	732	0	. 1	JO	shows
Detailed	test	resi	ults	are	file	eđ	separately.