# 4. PROPOSED CASING PROGRAM

Size	<u>Casing Seat</u>	<u>Footage</u>	<u>Grade</u>	<u>Weight &amp; Threads</u>
13 3/8"	2251	225'	J-55	54.5# STC
9 5/8"	20001	1775 <b>′</b>	J-55	36 <b># 8R STC</b>
7"	92001	5480′	J-55	23# 8R LTC
		1720′	J-55	26 <b># 8R LTC</b>
4 1/2"	98001	6500 <b>′</b>	N-80	11.6# 8R LTC
, -		33001	J-55	10.5# 8R STC
2 7/8"	9800 <b>′</b>	98001	N-80	4.7# 8R MOD

#### PROPOSED CEMENTING PROGRAM

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- A. Surface: Cement to the surface with 225 sks. PP 2% CaCl<sub>2</sub> B. Intermediate: Cement to the surface.
- Lead: 500 sks. + 1/4# Flocele + 2% CaCl<sub>2</sub> Tail: 200 sks. PP + 2% CaCl<sub>2</sub>
- C. 2nd Intermediate: Cement back to 6500' 500 gal. Flochek-21. 125 sks. 50/50 P/Poz-2% Gel-5# KCL-5/10 of 1% Halad-22A-3/10 of 1% CFR-3
- D. Production: Precede the cement with 10 bbls. chemical wash. Cement back to 8800'. 500 gal. Flochek-21. 115 sks. 50/50 P/Poz-2% Gel-5# KCL-5/10% Halad-22A-3/10% CFR-3

#### 5. TYPE AND MUD SYSTEM CHARACTERISTICS

From	To	<u>Type</u>	Weight	<u>Vis.</u>	<u>Wtr. Loss</u>	<u>0i1</u>
0	300	Spud Mud	9.0	35	N/C 10PH	
300	2500	Native Mud(Fw	) 9.0	32-33	N/C 10PH	
2500	7200	FW/Cut Brine	8.5-9.0	38	N/C 10PH	
7200	9000	Salt Mud	9.0	35	N/C 10PH	5%
9000	9800	Salt Mud	9.0-9.5	38	15cc 10PH	

## 6. TESTING PROGRAM

Possible DST's will be performed as dictated by shows. Such tests, if necessary, will be conducted under prudent industry practice standards. Open hole logs planned: DLL/MSFL/GR CNL/LD/GR/CAL SONIC WITH GR Gamma ray logs will be run to the surface.

### 7. POTENTIAL HAZARDS

No  $H_2S$ , abnormal temperatures or abnormal pressures are anticipated. None of the above problems were reported on the producing wells in this field.

### 8. ESTIMATED STARTING DATE

Anticipate starting as soon as possible subject to approval of this permit.