

Casing Program: (Continued)

(D) Protection Casing: (Continued)

Third Stage: Estimated 1250 sacks Trinity "Lite-Wate" (mixed at 12.4 PPG, yield factor 1.57 CF/sack, 8.6 gallons water per sack) followed by 100 sacks class "H" (mixed at 15.6 PPG, yield factor 1.18 CF/sack, 5.2 gallons water per sack). WOC 24 hours after last stage cementing is completed.

Prior to and after drilling each DV tool the casing is to be pressure tested to 4000 psi. Prior to drilling the float shoe the casing is to be tested to 4000 psi for 30 minutes.

(E) 7 5/8" Protection Liner:

The 7 5/8" liner is to be set in 8 1/2" hole at the Top of the Morrow, at an anticipated depth of 14100'--- the top of the liner is to be hung well above the bottom of the 9 5/8" casing shoe. Liner setting is anticipated as follows:

No. Jts.	Description	Thds Off Length	From	To
---	Distance KDB to liner top	10800	0	10800
---	Burns double slip hanger 9 5/8" X 7 5/8" with cement groove	4	10800	10804
81	7 5/8" OD 43.5#/ft S-95 Atlas Bradford FL-4S thread	3252	10804	14056
---	Float collar	2	14056	14058
1	7 5/8" OD 43.5#/ft S-95 Atlas Bradford FL-4S thread	40	14058	14098
---	Float shoe (whirler type)	2	14098	14100

Prior to running the liner, a caliper survey is to be run to determine the cement volume. After running the liner the hole is to be circulated and conditioned; then the liner is to be hung. The liner is to be cemented with 325 sacks (estimated) of class "H" 1 1/2% CFR-2 and 5# KCl per sack (mixed at 16.0 PPG, yield factor 1.23 CF/sack, 5.6 gallons water per sack). After cementing the liner, the liner setting tools are to be pulled without any attempt to reverse out excess cement on top of the liner. No centralizers are to be run. The bottom three joints are to be sand blasted. The bottom two joints are to be sealed with HOWCO-weld. API modified thread dope is to be used.

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