Lotos "11-F" Federal No. 2

Sonat requests approval for the following changes to the drilling program:

1. For economic reasons, Sonat requests permission to use the following 5-1/2" production casing design:

Top	1200' 5-1/2" 17# J55 LTC production casing
	6300' 5-1/2" 15.50# J55 LTC production casing
Bottom	1200' 5-1/2" 17# J55 LTC production casing

Sonat's design factors: Burst 1.1
Collapse 1.0
Tension 1.75

2. For economic reasons, Sonat requests permission to cement the 5-1/2" production casing in a single stage as follows:

Lead 400 sx Class C with 3 gal/sx fume silica, 5% salt, and 0.08 gal/sx FLA and dispersant. (11.5 ppg, 20.6 gal water/sx, 3.26 ft3/sx)
Compressive Strength: 850 psi in 24 hrs, 1125 psi in 72 hrs.
Calc fill from 4000' - 6650'.
Design TOC for 4000'. 8-5/8" intmt csg set at 4430'.

Tail 640 sx 50/50 Poz H with 2% gel, 5% salt, and 1/4# FC
(14.2 ppg, 6.26 gal water/sx, 1.36 ft3/sx)
Compressive Strength: 1325 psi in 24 hrs, 2100 psi in 72 hrs.
Calc fill from 6650' - TD.

Actual cement volumes to be calculated from the open hole caliper x 5-1/2" casing plus 30% excess.

Dowell's cement job simulator was used to analyze several cement jobs in the area. Based upon the data available, the proposed design will tie back cement into the intermediate casing using a single stage cement job, and will provide adequate compressive strength cement to complete the Delaware pay sands.

KGC 4/10/96
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Verbal approval obtained from Shannon Shaw - BLM at 5:00 pm 4/11/96.
KGC