ATTACHMENT TO STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION FORM C-105

C. W. Stumhoffer SHIPMAN # 1 SW/4 NE/4 Section 35-T22S-R37E LEA COUNTY, NEW MEXICO

28. CEMENTING RECORD

Surface casing, 8-5/8" OD, 23#, Cemented with 400 sks Class C with 4% gel, 2% CaCl, and 1/4# Flocele followed with 200 sks Class C with 2% CaCl and 1/4# Flocele. Cement circulated. 4-1/2" OD, 11.60#, Cemented in two stages. First stage cemented through float shoe set @ 3654' KB with 150 sks Class C pozmix with 2% CaCl and 9# salt/sk. Second stage cemented through DV tool set @ 3128' KB as follows: (1) Pumped 800 sks (200 Thixset, 400 Class C, 200 Thixset) w/

- 3% CaCl followed w/ 12 bbls fresh water to clear DV tool. (2) Balanced water flow from 7 Rvrs @ approximate depth
- of 3090' between casing and casing annulus to establish cement plug in casing annulus above 7 Rvrs. water flow.
- (3) Pumped 400 sks Class C cement with 3% CaCl through DV tool and over displaced by 12 bbls fresh water into 7 Rvrs water flow.
- (4) Squeezed 7 Rvrs water flow through DV tool with 200 sks Class C cement with 3% CaCl.
- (5) Re-squeezed 7 Rvrs water flow through DV tool with 200 sks Class C Thixset with 3% CaCl followed by 200 sks Class C with 3% CaCl.
- (6) Total cement used to cement production casing, 1800 sks.

32. Acid, Shot, Fracture, Cement Squeeze, Etc.			
52.	7/22/82	3642'-50' KB (Perf)	Acidize w/ 750 gals 15% NE.
	8/2/82	3642'-50' KB (Perf)	Frac w/ 12,000 gals gelled
			water, 7500# 20/40 sand, and
			6000# 10/20 sand.
	8/20/82	3642'-50' KB (Perf)	Cement squeeze w/ 100 sks
	•, -•, -•,	and 3654'-85' KB	50 sks Class C w/ 0.3% Halad 9
		open hole	and 50 sks Class C neat.
	8/23/82	3561'-3632' KB(Perf)	Acidize w/ 2000 gals 15% NE
	-,,-=	overall	acid w/ 60 ball sealers.
	8/25/82	3561'-3632' KB(Perf)	Frac w/ 40,000 gals gelled
	0, 20, 0-	overall	water, 40,000# 20/40 sand, and
		-	18,000# 10/20 sand in two stages.