

Permit Information:

Well Name: Nautilus 16 State Com No. 711H

Location:

SL: 186' FNL & 1762' FWL, Section 16, T-26-S, R-34-E, Lea Co., N.M.

BHL: 230' FSL & 2319' FWL, Section 16, T-26-S, R-34-E, Lea Co., N.M.

Casing Program:

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	DF _{min} Tension
14.75"	0 - 810'	10.75"	40.5#	J55	STC	1.125	1.25	1.60
8.75"	0' - 11,700'	7.625"	29.7#	HCP-110	FlushMax III	1.125	1.25	1.60
6.75"	0'-17,632'	5.5"	17#	HCP-110	LTC	1.125	1.25	1.60

Cement Program:

Depth	No. Sacks	Wt. ppg	Yld Ft ³ /ft	Slurry Description
810'	400	13.5	1.73	Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% CaCl ₂ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	300	14.8	1.34	Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
11,700'	250	14.8	1.38	Class C + 5% Gypsum + 3% CaCl ₂ (TOC @ Surface)
	2000	14.8	1.38	Class C + 5% Gypsum + 3% CaCl ₂
	550	14.4	1.20	50:50 Class H:Poz + 0.25% CPT20A + 0.40% CPT49 + 0.20% CPT35 + 0.80% CPT16A + 0.25% CPT503P
17,632'	800	14.2	1.31	Class H + 0.1% C-20 + 0.05% CSA-1000 + 0.20% C-49 + 0.40% C-17 (TOC @ 11,200')

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 - 810'	Fresh - Gel	8.6-8.8	28-34	N/c
810' - 11,700'	Brine	8.8-10.0	28-34	N/c
11,700' - 12,361'	Oil Base	10.0-11.5	58-68	3 - 6
12,361' - 17,632' Lateral	Oil Base	10.0-11.5	58-68	3 - 6