



Length in Casing above NB (#1)	360	Yield (cuft/sk)	1.38
	Volume in #1 (bbls)	Casing	# sks of cmt
BBLS in Casing	5.58	4.5", 11.6#	22.70
	5.724	4.5", 10.5#	23.29
	3.2904	3.5", 7.7#	13.39
	2.0844	2.875", 6.5#	8.48
	8.568	5.5", 15.5#	34.86
	8.352	5.5", 17#	33.98

Length in Casing above SX (#2a)	600	Yield (cuft/sk)	1.15
	Volume in #1 (bbls)	Casing	# sks of cmt
BBLS in Casing	9.3	4.5", 11.6#	45.40
	9.54	4.5", 10.5#	46.58
	5.484	3.5", 7.7#	26.77
	3.474	2.875", 6.5#	16.96
	14.28	5.5", 15.5#	69.72
	13.92	5.5", 17#	67.96

Length in Annulus over SX (#2b)	450	Open Hole Excess = 20%	
Yield (cf/sk)	Avg Hole Diameter	Volume (bbl)	# sks of cmt
1.15	9.5	30.60	179.28

Surface zone (#3)	Open Hole Excess = 20%	Yield(cf/sk)	1.33	Volume (bbl)	# sks of cmt
Length in Surface Casing	221	8.625", 24#		14.0556	365.66
Length in Production Casing	100	4.5", 11.6#		1.55	
Length in Production Borehole	675	9.5	inches	59.18	

Reference: Casing Capacity	
Casing	BBLS per Ft in Casing
1.25", 2.33#	0.00185
2.375", 4.7	0.00387
2.875", 6.5#	0.00579
3.5", 7.7#	0.00914
4.5", 10.5#	0.01590
4.5", 11.6#	0.01550
5.5", 15.5#	0.02380
5.5", 17#	0.02320
7", 17#	0.04150
8.625", 24#	0.06360

$$Volume(BBLs) = Length(ft) * \pi * \frac{Dia(in)^2}{576} * \frac{.0009714}{.005454}$$