

# POWDER WASH GOVT. 5 : CEMENT CALCULATIONS

SURFACE CASING:									
CASING:	9.625 "	36#, K-55			0.4340 cu.ft./lin.ft			ID=	8.921
ANNULUS:	12.250 "	x 9.625" Gauge Hole			0.3131 cu.ft./lin.ft				
CONDUCTOR	16.000 "	STEEL PIPE			0.8908				
EXCESS:					100%				
CEMENT YIELD:	LEAD				2.65 cu.ft/sack	11.5 PPG			
	TAIL				1.26 cu.ft/sack	15.2 PPG			
CONDUCTOR DEPTH					80				
TOTAL DEPTH					1,500	Feet			
TOP OF TAIL					900	Feet			
TOP OF LEAD					0	Feet	(Surface)		
LEAD SLURRY					CU.FT				
COND/CSG ANN	80	TO	0	0.8908	71.27				
ANN (OH)	900	TO	80	0.3131	256.77				
ANN EXCESS				100%	256.77				
					584.80		221 SACKS	584.8	CU.FT.
TAIL SLURRY					CU.FT				
CSG SHOE (45')	1,500	TO	1,455	0.4340	19.53				
COND/CSG ANN	-	TO	-	0.8908	0.00				
ANN (OH)	1,500	TO	900	0.3131	187.88				
ANN EXCESS				100%	187.88				
					395.28		314 SACKS	395	CU.FT.
							DISPLACEMENT	112.5	BBLs

PRODUCTION CASING:									
CASING:	4.500 "	13.5#, P-110			0.0838 cu.ft./lin.ft			ID=	3.92
ANNULUS:	7.875 "	(For Gauge Hole)			0.2278 cu.ft./lin.ft				
	8.921 "	ID x 4-1/2" CASING ANNULUS			0.3236 cu.ft./lin.ft				
EXCESS:					15%				
CEMENT YIELD:	LEAD				2.63 cu.ft/sack	11.5 PPG			
	TAIL				1.49 cu.ft/sack	14.2 PPG			
TOTAL DEPTH					9,411	Feet			
TOP OF TAIL					4,200	Feet			
TOP OF LEAD					1,500	Feet			
							OPEN HOLE TOP		
							CASED HOLE TOP		
							SURFACE		
LEAD SLURRY					CU.FT				
ANN	4,200	TO	1,500	0.2278	614.93		7-7/8" (For Gauge hole)		
	1,500	TO	0	0.3236	485.34		9-5/8" X 4-1/2" Casing Annulus		
ANN EXCESS				15%	165.04				
					1265.31		481 SACKS	1265	CU.FT.
TAIL SLURRY					CU.FT				
CSG	9,411	TO	9,366	0.0838	3.77				
ANN	9,411	TO	4,200	0.2278	1186.82				
ANN EXCESS				15%	178.02				
					1368.62		919 SACKS	1369	CU.FT.
							DISPLACEMENT	139.8	BBLs