

MCLAUGHLIN 33-8 (76813)

Existing Features	
KB	10

Surface csg shoe at	392
Bottom of Foxhills	664

Sussex	Top	4133
	No Perfs	

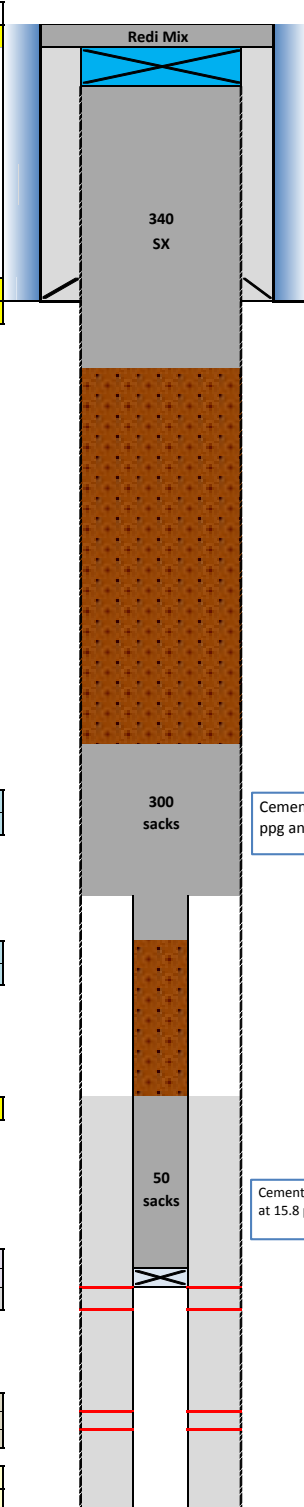
Shannon	Bottom	4550
No shannon production w/in 1 mile radius		

TOC Cement existing	5710
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Geologic	Top	6850
Niobrara	Perf Top	6872
	Perf Bottom	6942

Geologic Top		7130
Codell	Perf Top	7132
	Perf Bottom	7142

PBMD	7194
3-1/2" CSG 7.7#	7276



Proposed Additions for P&A	
80	CIBP (8-5/8")
190	TOC

Cement Blend: Type III w/ cello flake and CaCl₂, mixed at 14.0 ppg and 1.53 cuft/sk. with 20% excess and 12" hole size.

860	Bottom of cement
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3730	Top of cement
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Cement Blend: "G" w/ 0.25 pps cello flake , 0.4% CD-32, 0.4% ASA - 301, mixed at 15.8 ppg and 1.15 cuft/sk, with 20% excess used and considering hole size of 9".

4340	Casing Stub
4390	Bottom of cement

5710	Top of in pipe cement
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Cement Blend: "G" w/ 20% silica flour, 0.4% Cd-32, 0.4% ASA-301 and R-3 to acheive 2:30 pump time mixed at 15.8 ppg and 1.15 cuft/sk

6810	CIBP 3-1/2"
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API# 0512317773				
Well: MCLAUGHLIN 33-8 (76813)				
Equipment	Specs.	Depth	Capacity (bbl/ft)	Capacity ft ³ /ft
Surface Casing	8 5/8" 24#	392	0.0637	0.3576
Production Casing	3.50 (7.7#)	7276	0.009141	0.0513
Tubing String	2-1/16" (3.25#)	7016	N/A	N/A
Hole Size	9"		0.0787	0.4418
Hole Size	10"		0.0971	0.5454
Hole Size	12"		0.1399	0.7854

Cement Calculations				
Section	Volume	Cement Sacks	approximate	Top Plug
S/C hole	72.24	47.21		10" hole
Open Hole	441.08	288.29	20% excess	
P/C hole				
Total Top Plug	513.32	335.50	340	

In Hole	323.40	281.22		SX/ SH Plug 9" HOLE
In pipe	19.53	16.98		
Total		298.19	300	

NB/CD Annular				NB/CD Plug
NB/CD Csg.	56.43	40.89		
Total		40.89	50	

Cement Yield	1.53	1.15	1.71	1.38
	Top Plug	SX/SH	NB/Cd Squeeze	NB/Cd in pipe

Legend	
	Existing cement with CBL
	assumed cement w/ no CBL
	cast iron cement retainer
	cast iron bridge plug
	mud