

BUFFALO GARDENS U13-4J

Existing Features	
KB	13

Assumed TOC	200
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Surface csg shoe at	318
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Sliding Sleeve	767
Bottom of Foxhills	873

Sussex	Top	4248
Productive within 1 mile		

Shannon	Bottom	4840
Productive within 1 mile		

Estimated TOC Existing	6338
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Geologic Top		7185
Niobrara	Perf Top	7185
	Perf Bottom	7478

Geologic Top	7456
Codell	None

Geologic Top		7878
J SAND	Perf Top	7878
	Perf Bottom	7922

PBMD	8000
BOC Cement existing	8040
4-1/2" CSG. 11.6#	8040

Proposed Additions for P&A

80	CIBP w/ redi mix
100	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.

970	Casing Stub
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1070	Bottom of cement
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3850	Top Squeeze Perf
3880	CICR (5-1/2")

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 and 10" hole size

4890	Bottom Squeeze Perf
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6340	TOC in pipe
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Cement Blend: "G" w/ 20% silica flour , 0.4% CD-32, 0.4% ASA-301 and R-3 to achieve 2:30 pump time mixed at 15.8 ppg and 1.38 cuft/sk.

7125	CIBP (5-1/2")
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7820	CIBP (5-1/2")
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API# 0512314250				
Well: Buffalo Gardens U13-4J				
Equipment	Specs.	Depth	Capacity (bbl/ft)	Capacity ft ³ /ft
Surface Casing	8 5/8" 24#	318	0.0637	0.3576
Production Casing	5-1/2" 15.5#	8040	0.0238	0.1336
Tubing String	2-3/8"	7852	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

NO CBL AND DENSITY LOG ON FILE

Cement Calculations				
Section	Volume	Cement Sacks	approximate	Top Plug
S/C hole	77.96	50.95		12" hole size
P/C annular hole	426.72	278.90	20% excess	
P/C hole	13.36	8.73		
Total Top Plug	518.04	338.59	340	

In Hole	513.93	446.89		SX/ SH Plug
In pipe	138.94	120.82	20% excess	10" hole size
Total		567.71	570	

NB/CD Annular			20% excess	NB/CD Plug
NB/CD Csg.	104.88	61.33		
Total		61.33	70	

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

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