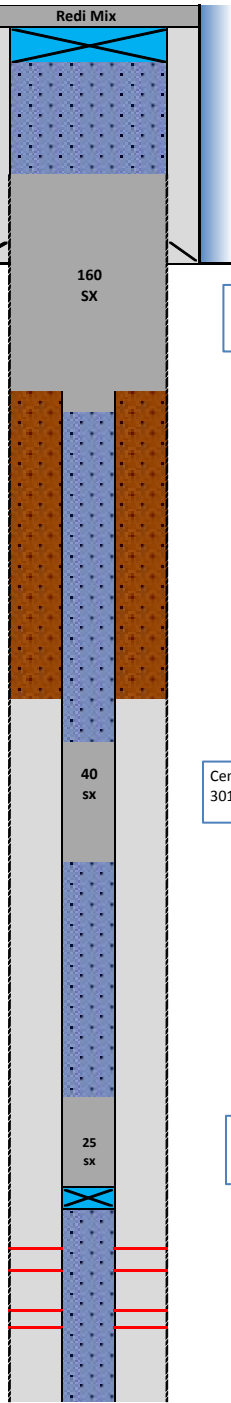


BROWN 16-35

Existing Features	
KB	11
7" Surface csg shoe at	
	861
Bottom of Foxhills (FHM)	
	1329

TOC (CBL)	
	3510
Sussex	Top
	4515
Sussex	Base
	4777
Shannon	Bottom
	5243
No shannon production w/in 1 mile radius	

Niobrara Geologic Top	
	7217
Cod	Perf Top
	7217
	Perf Bottom
	7374
Geologic Top	
Cod	Perf Top
	7493
	Perf Bottom
	7510
PBMD	
	7591
4-1/2" 11.6# CSG	
	7636



Proposed Additions for P&A	
100	CIBP (7")
660	TOC

Cement Blend: Type III w/ cello flake and CaCl₂, mixed at 14.8 ppg and 1.33 cuft/sk. with 20%

1450	Casing Stub
1550	Bottom of cement

4300	Top of cement (tag)
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Cement Blend: "G" w/ 0.4% CD-32, 0.4% ASA - 301, mixed at 15.8 ppg and 1.15 cuft/sk

4825	Bottom of cement
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6800	TOC
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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

7130	CIBP
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API# 0512325929				
Well: BROWN 16-35				
Equipment	Specs.	Depth	Capacity (bbl/ft)	Capacity ft ³ /ft
Surface Casing	7" 20#	870	0.0404	0.2273
Production Casing	4.50 (11.6#)	7636	0.0155	0.0872
Tubing Size				
Bit Size	6 1/4		0.0379	0.2131
Hole Size	6.25		0.0379	0.2131
Hole Size	9.5		0.0877	0.4922
Hole Size	11.5		0.1285	0.7213

Cement Calculations				
Section	Volume cu-ft	Cement Sacks	Excess	Top Plug
S/C hole	45.69	34.35		6.25 Caliper to 800'
Open Hole	150.59	113.22	20%	
P/C	8.72	6.56		
Total Top Plug	204.99	154.13	160	
212.8		cu-ft		

In Hole				SX/ SH Plug
In pipe	45.78	39.81		
Total	45.78	39.81	40	
46		cu-ft		

Cement Yield	1.33	1.15	1.71	1.38
	Top Plug	SX/SH	NB/Cd Squeeze	NB/Cd in pipe

NB csg	28.78	20.85		NB/CD Plug
Total	28.78	20.85	25	
34.50				

Legend	
	Existing cement with CBL
	assumed cement w/ no CBL
	cast iron cement retainer
	cast iron bridge plug
	mud
	2% KCL Water