

30-025-41007

Original production casing proposal:

Hole Size	Interval MD	OD Casing	Weight	Grade	Condition	Jt.	brst/clps/ten
17 1/2"	0-943' / 940'	13 3/8"	48#	H-40/J-55 Hybrid	New	ST&C	1.83/1.85/8.17
12 1/4"	943'-2250'	9 5/8"	40#	J/K-55	New	ST&C	1.76/2.20/14.00
8 3/4"	2250'-6173'	7"	26#	L-80	New	LT&C	1.17/1.83/3.70
8 3/4"	6173'-7095'	5 1/2"	17#	L-80	New	LT&C	2.08/2.82/4.36
7 7/8"	7095'-11070'	5 1/2"	17#	L-80	New	LT&C	2.08/2.82/4.36

New production casing proposal:

Hole Size	Interval MD	OD Casing	Weight	Grade	Condition	Coupling	Burst	Collapse	Tension
17 1/2"	0-943' / 940'	13 3/8"	48#	H-40/J-55 Hybrid	New	ST&C	1.48	1.71	7.11
12 1/4"	943'-2250'	9 5/8"	40#	J/K-55	New	LT&C	1.32	2.2	5.78
8 3/4"	2250'-5279'	7"	26#	L-80	New	LT&C	1.33	3.24	2.27
8 3/4"	5279'-6106'	5 1/2"	17#	L-80	New	LT&C	1.33	2.61	3.19
7 7/8"	6106'-11518'	5 1/2"	17#	L-80	New	LT&C	1.33	2.61	6.37

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New production cement:

Single Stage:

500 psi							
Interval	Hole Size	Sacks	Yield (cf/sx)	Cement wt (ppg)	Wtr Required (gal/sx)	Excess (%)	Time (hrs)
0-5279'	8.75	475	2.01	12.5	11.4	42	30
5279'-6106'	8.75	220	1.37	14	6.5	61	12
6106'-11518'	7.875	1130	1.37	14	6.5	61	12

Multi-stage: Dr tool @ 4064 per Gary Gerhard 6/22/15

500 psi							
Interval	Hole Size	Sacks	Yield (cf/sx)	Cement wt (ppg)	Wtr Required (gal/sx)	Excess (%)	Time (hrs)
0-3631	8.75	225	2.01	12.5	11.4	30	30
3631-4064	8.75	150	1.02	16.8	4	128	6
4064'-5279'	8.75	175	2.01	12.5	11.4	93	30
5279'-6106'	8.75	220	1.37	14	6.5	61	12
6106'-11518'	7.875	1130	1.37	14	6.5	61	12

This sundry was necessary because bottom hole location was changed. TVD was changed and another ¼" mile was added to EOL. The casing changes will help us install larger pumping equipment and L-80 has better corrosion resistance than P110.