

# Cement Post Job Report

**Client:** PDC Energy

**Well Name:** Bost Farm 9N-8C-L

**API #:** 05-123-51446-00

**Job Date:** May 16, 2022

**Job Type:** New Well - 5.5" Production String

**Cement Company & Contact:** EXERO Well Integrity -  
Cheve Meyer 720-239-3819



ROCK SOLID  
WELL INTEGRITY  
SOLUTIONS

### TREATMENT REPORT

Client	Well	Rig	Date	Job Type				
PDC Energy	Bost Farm 9N-8C-L	Patterson 272	5/16/2022	Production				
Connection Type	Thread Type	Number of Stages	BHST Deg	BHCT Deg				
5 1/2" HP Cement Head	Buttress	1	255	195				
Well MD (ft)	Well TVD (ft)	Deg Dev.	Max-Cas/DP PSI	Max Ann. PSI				
17865	7269	90	8000	2000				
Packer/Retainer/CIBP/DV Tool Depths		Top of Perfs	Bottom of Perfs	Number of Holes				
String	Casing/Tubing Type	OD	Wt/ft	ID	OH Size	% XS Lead	% XS Tail	Depth (ft)
Surface	Casing	9.625	36					1659
Production	Casing	5.5	20	4.778	8.5	0	0	17854

### PRE-JOB MUD AND WELL CONDITIONS

Mud Type	OBM	Pipe Rotation		Circulation Data				Water Requirements (bbls)	
Mud wt. ppg	10.6	Rotate Y,N	No	Circulate Time (hrs)	3			Spacers	140
Flow Temp		Rate		Circulation Rate (bpm)	8			Stage 1 Lead	118
Vis. Sec/qt		Torque Val.		Full Circ?	Full			Stage 1 Tail	241
PV (cP)		Time		Gas Present (Y,N)		Units		Stage 2 Lead	0
Yield Pt		Pipe Reciprocation		Centralizers/Plugs				Stage 2 Tail	0
10 sec gel		Recip Y,N	No	Quantity & Type				Displacement	396
10 min gel		Stroke (ft)		Top Plug/Type	operator provided			Wash up	20
30 min gel		Recip time		Bottom Plug/Type/Burst p	operator provided			Total + 10% Safety	1007

### PRE-JOB CALCULATED MATERIALS, VOLUMES, & RATES

Preflush & Spacers		Stage 1 Lead: Class G		Stage 1 Tail: Class G		Stage 2 Lead: NA		Stage 2 Tail: NA		Displacement	
Spacer 1	Spacer	Density	12.9	Density	13.7	Density		Density		Fluid Type	Water
Density	12	Sacks	1276	Sacks	1524	Sacks		Sacks		Dens. ppg	8.34
Volume	140	Vol/bbls	256.8	Vol/bbls	371.9	Vol/bbls	0.0	Vol/bbls	0.0	Vol. bbl	396
Rate	10	Rate	11	Rate	11	Rate		Rate		Rate bpm	8
Spacer 2		Yield	1.13	Yield	1.37	Yield		Yield		Clay Stay?	No
Density		Gal/Sk	3.90	Gal/Sk	6.63	Gal/Sk		Gal/Sk		Biocide ?	Yes
Volume		% Excess	0	% Excess	0	% Excess		% Excess		Slow @ bbl	370
Rate		TOL (ft)	2302	TOT (ft)	8601	TOL (ft)		TOT (ft)		Bump PSI	1947

### POST JOB DETAILS, FINAL VOLUMES & PRESSURES

Final Displacement (bbls)	396
Bump Plug?	Yes
Final Bump Pressure (psi)	3500
Full Returns throughout job?	Full
Vol away/Time when returns lost	
Vol away/Time When returns regained	

Spacer to Surface?	yes
Spacer volume returned	40
Cement to surface?	no
Cement volume to surface stage 1 (bbls)	Stg 2
Surface top out?	No
Top out volume pumped (bbls)	

Top out cement type	
Density	
Sack Quantity	
Mix water requirement (gal/sk)	
Yield	

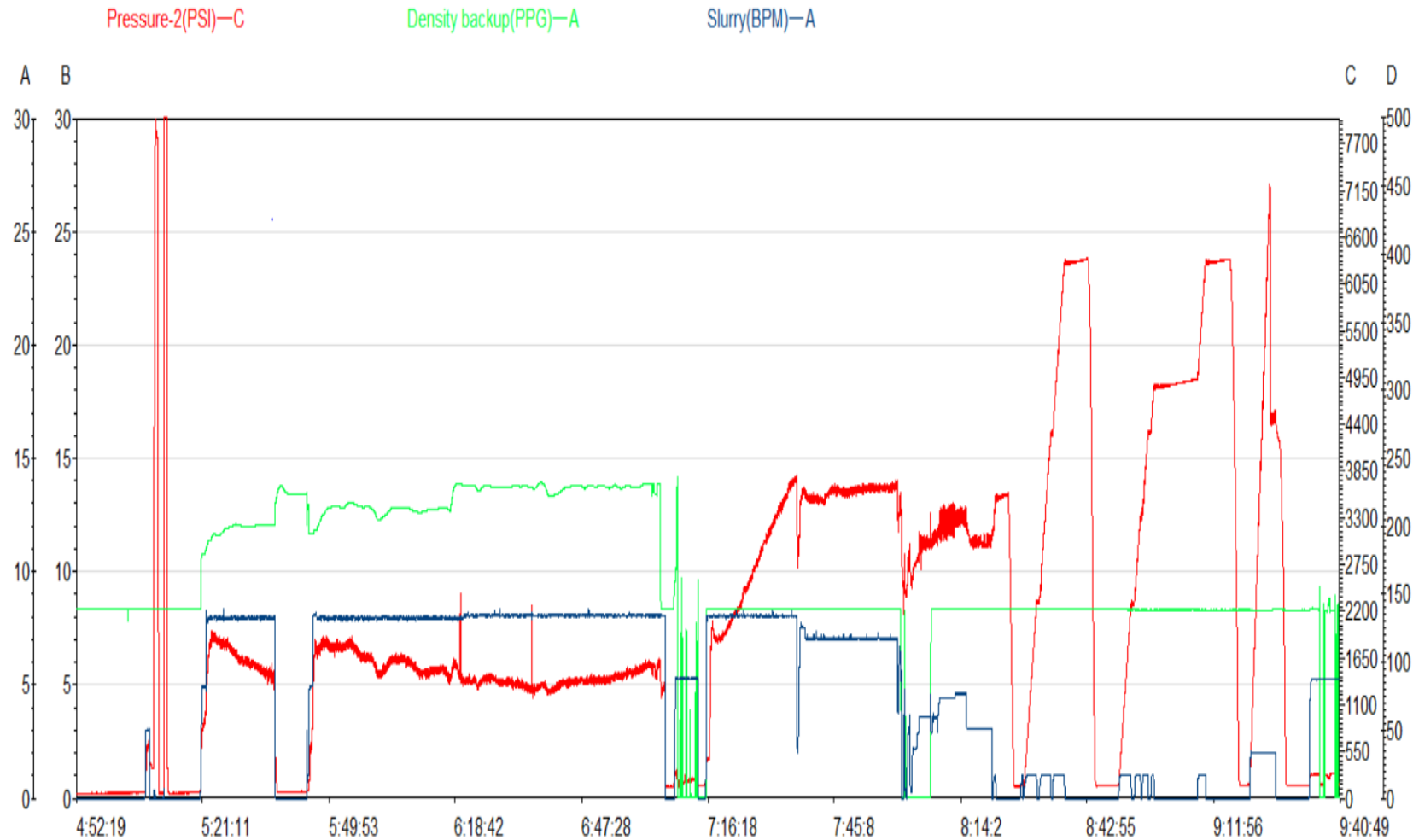
### Summary of Additives Used on Job

Surfactants (gal)	
Clay Stabilizer (gal)	
Biocide (gal)	20
Corrosion Inhibitor (gal)	
Defoamer (gal)	
PhenoSeal (LCM lbs)	
Fiber (LCM lbs)	

## Job Treatment Log

Client				Well			Exero Supervisor
PDC Energy				Bost Farm 9N-8C-L			Ryan Pfeifer 307-258-1708
Ambient Conditions ( Temperature / Pressure / Rate )						55 Deg F / 51 % / 24.99 in	
Date DD/MM	Time HH:MM	Density (ppg)	Rate (bpm)	Vol. (bbl)	Total Vol. (bbl)	Pressure (psi)	Treatment Comments
5/15/22	10:00 PM						arrived on location. Requested at 01:30
5/16/22	4:30 AM						began spotting trucks and commenced rig up
	6:00 AM						finished with rig up. Waiting on rig to finish circulating
	7:30 AM						pre-job safety meeting with rig crew
	7:58 AM	8.33	3.00	3.0		700	filled lines with fresh water
	8:00 AM					8000	tested lines to 8000 psi
	8:03 AM						dropped first bottom plug
	8:10 AM	12.00	8.00	140.0		1600	pumped spacer with surfactant at 12 ppg
	8:30 AM						shut down dropped 2nd bottom plug
	8:35 AM	12.90	8.00	256.0		1800	pumped 1276 sks lead cement at 12.9ppg
	9:05 AM	13.70	8.00	372.0		1400	pumped 1524 sks tail cement at 13.7 ppg
	9:55 AM	8.34	8.00	8.0		1500	sugar water behind cement
	9:57 AM						shut down to wash lines and drop top plug
	10:05 AM	8.33	8.00	50.0		2000	started fresh water displacement. Sugar in first 10. biocide in all.
	10:12 AM	8.33	8.00	50.0	50.0	2100	displacement
	10:18 AM	8.33	8.00	50.0	100.0	3000	displacement
	10:25 AM	8.33	8.00	50.0	150.0	3600	displacement
	10:32 AM	8.33	7.00	50.0	200.0	3500	displacement
	10:40 AM	8.33	7.00	50.0	250.0	3600	displacement
	10:47 AM	8.33	7.00	25.0	300.0	3600	displacement
	10:52 AM	8.33	4.00	25.0	325.0	3000	pressure started spiking slowed rate and continued displacement
	11:01 AM	8.33	4.50	20.0	350.0	3300	displacement
	11:07 AM	8.33	3.00	26.0	370.0	3000	slowed rate to land plug
	11:12 AM				396.0	3500	bumped plug 3000 to 3500
	11:17 AM						checked floats. 5 bbls back.
	11:19 AM						started setting packer per tool hand
	12:10 PM					6900	pressured up to burst wet shoe sub. Opened at 6900psi
	12:14 PM	8.33	2.00	2.0		4500	pumped 2 bbl wet shoe
	12:18 PM						checked floats got 5.5 bbls back
	12:25 PM						commenced rig down
	1:00 PM						departed from location

Bost Farm 9N-8C-L Pump Chart – Pressure / Rate / Density



Chart



## Centralizer Depths

Well Name: Bost Farm 9N-8C-L

Production, Set Depth: 17,854.0ftKB

API 05123514460000		Surface Legal Location SWNW 7 5N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal	
Ground Elevation (ft) 4,874.00		Original KB Elevation (ft) 4,902.00		KB-Ground Distance (ft) 28.00		Spud Date 5/12/2022 14:30		Rig Release Date 5/16/2022 13:30	
						On Production Date		Abandon Date	

### Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jw/ry	Connections	Top (ftKB)	Cum Len (ft)
7	1	Casing Joints	5 1/2	20.00	P-110	Yes	47.34	Yes			17,768.3	85.75
9	3	Casing Joints	5 1/2	20.00	P-110	Yes	47.21	Yes			17,673.8	180.18
11	5	Casing Joints	5 1/2	20.00	P-110	Yes	47.31	Yes			17,579.2	274.81
13	7	Casing Joints	5 1/2	20.00	P-110	Yes	46.21	Yes			17,485.7	368.34
15	9	Casing Joints	5 1/2	20.00	P-110	Yes	46.70	Yes			17,392.2	461.80
17		Marker Joint	5 1/2	20.00	P-110	Yes	23.76	Yes			17,321.1	532.88
19	12	Casing Joints	5 1/2	20.00	P-110	Yes	47.35	Yes			17,226.5	627.55
21	14	Casing Joints	5 1/2	20.00	P-110	Yes	46.27	Yes			17,132.9	721.14
23	16	Casing Joints	5 1/2	20.00	P-110	Yes	46.80	Yes			17,038.8	815.25
25	18	Casing Joints	5 1/2	20.00	P-110	Yes	46.68	Yes			16,945.4	908.63
27	20	Casing Joints	5 1/2	20.00	P-110	Yes	46.70	Yes			16,851.9	1,002.13
29	22	Casing Joints	5 1/2	20.00	P-110	Yes	46.55	Yes			16,758.6	1,095.44
31	24	Casing Joints	5 1/2	20.00	P-110	Yes	46.82	Yes			16,664.9	1,189.07
33	26	Casing Joints	5 1/2	20.00	P-110	Yes	46.69	Yes			16,571.5	1,282.48
35	28	Casing Joints	5 1/2	20.00	P-110	Yes	46.68	Yes			16,478.1	1,375.86
37	30	Casing Joints	5 1/2	20.00	P-110	Yes	46.70	Yes			16,384.7	1,469.31
39	32	Casing Joints	5 1/2	20.00	P-110	Yes	45.87	Yes			16,292.2	1,561.82
41	34	Casing Joints	5 1/2	20.00	P-110	Yes	46.77	Yes			16,200.5	1,653.51
43	36	Casing Joints	5 1/2	20.00	P-110	Yes	45.13	Yes			16,108.6	1,745.45
45	38	Casing Joints	5 1/2	20.00	P-110	Yes	46.66	Yes			16,015.2	1,838.78
47	40	Casing Joints	5 1/2	20.00	P-110	Yes	46.77	Yes			15,921.7	1,932.29
49	42	Casing Joints	5 1/2	20.00	P-110	Yes	46.80	Yes			15,828.4	2,025.65
51	44	Casing Joints	5 1/2	20.00	P-110	Yes	46.77	Yes			15,734.8	2,119.20
53	46	Casing Joints	5 1/2	20.00	P-110	Yes	47.18	Yes			15,643.0	2,210.98
55	48	Casing Joints	5 1/2	20.00	P-110	Yes	47.15	Yes			15,548.7	2,305.30
57	50	Casing Joints	5 1/2	20.00	P-110	Yes	47.06	Yes			15,454.6	2,399.41
59	52	Casing Joints	5 1/2	20.00	P-110	Yes	47.17	Yes			15,360.2	2,493.78
61	54	Casing Joints	5 1/2	20.00	P-110	Yes	47.18	Yes			15,266.0	2,588.00
63	56	Casing Joints	5 1/2	20.00	P-110	Yes	47.16	Yes			15,171.7	2,682.32
65	58	Casing Joints	5 1/2	20.00	P-110	Yes	47.07	Yes			15,077.6	2,776.42
67	60	Casing Joints	5 1/2	20.00	P-110	Yes	47.03	Yes			14,983.3	2,870.66



## Centralizer Depths

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API 05123514460000		Surface Legal Location SWNW 7 5N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal	
Ground Elevation (ft) 4,874.00		Original KB Elevation (ft) 4,902.00		KB-Ground Distance (ft) 28.00		Spud Date 5/12/2022 14:30		Rig Release Date 5/16/2022 13:30	
						On Production Date		Abandon Date	

### Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jw/ry	Connections	Top (ftKB)	Cum Len (ft)
69	62	Casing Joints	5 1/2	20.00	P-110	Yes	47.16	Yes			14,889.2	2,964.85
71	64	Casing Joints	5 1/2	20.00	P-110	Yes	46.96	Yes			14,795.0	3,058.99
73	66	Casing Joints	5 1/2	20.00	P-110	Yes	47.19	Yes			14,700.7	3,153.34
75	68	Casing Joints	5 1/2	20.00	P-110	Yes	46.62	Yes			14,607.0	3,247.01
77	70	Casing Joints	5 1/2	20.00	P-110	Yes	44.35	Yes			14,516.7	3,337.28
79	72	Casing Joints	5 1/2	20.00	P-110	Yes	47.20	Yes			14,422.3	3,431.67
81	74	Casing Joints	5 1/2	20.00	P-110	Yes	47.15	Yes			14,328.0	3,525.98
83	76	Casing Joints	5 1/2	20.00	P-110	Yes	47.04	Yes			14,233.9	3,620.07
85	78	Casing Joints	5 1/2	20.00	P-110	Yes	47.03	Yes			14,140.2	3,713.76
87	80	Casing Joints	5 1/2	20.00	P-110	Yes	45.07	Yes			14,048.0	3,806.01
89	82	Casing Joints	5 1/2	20.00	P-110	Yes	46.13	Yes			13,957.1	3,896.95
91	84	Casing Joints	5 1/2	20.00	P-110	Yes	46.74	Yes			13,863.1	3,990.89
93	86	Casing Joints	5 1/2	20.00	P-110	Yes	47.20	Yes			13,769.0	4,085.05
95	88	Casing Joints	5 1/2	20.00	P-110	Yes	47.20	Yes			13,675.1	4,178.88
97	90	Casing Joints	5 1/2	20.00	P-110	Yes	47.05	Yes			13,581.3	4,272.68
99	92	Casing Joints	5 1/2	20.00	P-110	Yes	45.24	Yes			13,489.0	4,364.98
101	94	Casing Joints	5 1/2	20.00	P-110	Yes	45.38	Yes			13,396.6	4,457.41
103	96	Casing Joints	5 1/2	20.00	P-110	Yes	47.02	Yes			13,302.5	4,551.47
105	98	Casing Joints	5 1/2	20.00	P-110	Yes	47.07	Yes			13,208.4	4,645.57
107	100	Casing Joints	5 1/2	20.00	P-110	Yes	45.90	Yes			13,115.6	4,738.42
109	102	Casing Joints	5 1/2	20.00	P-110	Yes	36.77	Yes			13,032.9	4,821.13
111	104	Casing Joints	5 1/2	20.00	P-110	Yes	47.08	Yes			12,938.9	4,915.15
113		Marker Joint	5 1/2	20.00	P-110	Yes	23.71	Yes			12,868.2	4,985.76
115	107	Casing Joints	5 1/2	20.00	P-110	Yes	46.90	Yes			12,774.3	5,079.68
117	109	Casing Joints	5 1/2	20.00	P-110	Yes	45.97	Yes			12,681.4	5,172.60
119	111	Casing Joints	5 1/2	20.00	P-110	Yes	46.97	Yes			12,587.5	5,266.48
121	113	Casing Joints	5 1/2	20.00	P-110	Yes	47.07	Yes			12,493.5	5,360.50
123	115	Casing Joints	5 1/2	20.00	P-110	Yes	47.05	Yes			12,399.4	5,454.58
125	117	Casing Joints	5 1/2	20.00	P-110	Yes	46.98	Yes			12,305.5	5,548.53
127	119	Casing Joints	5 1/2	20.00	P-110	Yes	46.82	Yes			12,211.8	5,642.25
129	121	Casing Joints	5 1/2	20.00	P-110	Yes	46.40	Yes			12,118.4	5,735.61



## Centralizer Depths

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Ground Elevation (ft) 4,874.00		Original KB Elevation (ft) 4,902.00		KB-Ground Distance (ft) 28.00		Spud Date 5/12/2022 14:30		Rig Release Date 5/16/2022 13:30	
						On Production Date		Abandon Date	

### Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jw/ry	Connections	Top (ftKB)	Cum Len (ft)
131	123	Casing Joints	5 1/2	20.00	P-110	Yes	46.97	Yes			12,024.5	5,829.50
133	125	Casing Joints	5 1/2	20.00	P-110	Yes	47.05	Yes			11,930.4	5,923.61
135	127	Casing Joints	5 1/2	20.00	P-110	Yes	47.06	Yes			11,837.4	6,016.63
137	129	Casing Joints	5 1/2	20.00	P-110	Yes	47.07	Yes			11,743.2	6,110.78
139	131	Casing Joints	5 1/2	20.00	P-110	Yes	47.08	Yes			11,649.1	6,204.95
141	133	Casing Joints	5 1/2	20.00	P-110	Yes	46.97	Yes			11,555.1	6,298.88
143	135	Casing Joints	5 1/2	20.00	P-110	Yes	45.97	Yes			11,463.2	6,390.83
145	137	Casing Joints	5 1/2	20.00	P-110	Yes	47.08	Yes			11,369.1	6,484.88
147	139	Casing Joints	5 1/2	20.00	P-110	Yes	47.00	Yes			11,275.2	6,578.81
149	141	Casing Joints	5 1/2	20.00	P-110	Yes	46.64	Yes			11,181.6	6,672.38
151	143	Casing Joints	5 1/2	20.00	P-110	Yes	47.08	Yes			11,087.8	6,766.19
153	145	Casing Joints	5 1/2	20.00	P-110	Yes	47.08	Yes			10,993.6	6,860.36
155	147	Casing Joints	5 1/2	20.00	P-110	Yes	44.98	Yes			10,902.0	6,952.01
157	149	Casing Joints	5 1/2	20.00	P-110	Yes	46.66	Yes			10,808.6	7,045.37
159	151	Casing Joints	5 1/2	20.00	P-110	Yes	46.76	Yes			10,715.2	7,138.83
161	153	Casing Joints	5 1/2	20.00	P-110	Yes	46.66	Yes			10,621.9	7,232.14
163	155	Casing Joints	5 1/2	20.00	P-110	Yes	46.68	Yes			10,528.6	7,325.42
165	157	Casing Joints	5 1/2	20.00	P-110	Yes	46.67	Yes			10,435.3	7,418.75
167	159	Casing Joints	5 1/2	20.00	P-110	Yes	46.65	Yes			10,341.8	7,512.16
169	161	Casing Joints	5 1/2	20.00	P-110	Yes	46.72	Yes			10,248.3	7,605.66
171	163	Casing Joints	5 1/2	20.00	P-110	Yes	44.78	Yes			10,156.2	7,697.77
173	165	Casing Joints	5 1/2	20.00	P-110	Yes	46.63	Yes			10,062.9	7,791.12
175	167	Casing Joints	5 1/2	20.00	P-110	Yes	46.75	Yes			9,969.5	7,884.47
177	169	Casing Joints	5 1/2	20.00	P-110	Yes	45.12	Yes			9,879.2	7,974.76
179	171	Casing Joints	5 1/2	20.00	P-110	Yes	46.64	Yes			9,786.0	8,068.05
181	173	Casing Joints	5 1/2	20.00	P-110	Yes	46.65	Yes			9,692.9	8,161.11
183	175	Casing Joints	5 1/2	20.00	P-110	Yes	46.67	Yes			9,599.8	8,254.18
185	177	Casing Joints	5 1/2	20.00	P-110	Yes	46.63	Yes			9,506.4	8,347.61
187	179	Casing Joints	5 1/2	20.00	P-110	Yes	46.63	Yes			9,413.0	8,440.98
189	181	Casing Joints	5 1/2	20.00	P-110	Yes	42.84	Yes			9,323.4	8,530.57
191	183	Casing Joints	5 1/2	20.00	P-110	Yes	46.78	Yes			9,229.9	8,624.09



## Centralizer Depths

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Production, Set Depth: 17,854.0ftKB

API 05123514460000		Surface Legal Location SWNW 7 5N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal					
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### Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwlry	Connections	Top (ftKB)	Cum Len (ft)
193	185	Casing Joints	5 1/2	20.00	P-110	Yes	46.73	Yes			9,138.3	8,715.72
195	187	Casing Joints	5 1/2	20.00	P-110	Yes	46.77	Yes			9,044.9	8,809.13
197	189	Casing Joints	5 1/2	20.00	P-110	Yes	46.74	Yes			8,951.3	8,902.67
199	191	Casing Joints	5 1/2	20.00	P-110	Yes	47.03	Yes			8,859.6	8,994.40
201	193	Casing Joints	5 1/2	20.00	P-110	Yes	47.16	Yes			8,765.3	9,088.71
203	195	Casing Joints	5 1/2	20.00	P-110	Yes	46.76	Yes			8,671.5	9,182.54
205	197	Casing Joints	5 1/2	20.00	P-110	Yes	46.98	Yes			8,578.5	9,275.48
207	199	Casing Joints	5 1/2	20.00	P-110	Yes	44.98	Yes			8,486.3	9,367.66
209	201	Casing Joints	5 1/2	20.00	P-110	Yes	47.07	Yes			8,392.3	9,461.67
211	203	Casing Joints	5 1/2	20.00	P-110	Yes	47.03	Yes			8,298.3	9,555.67
213	205	Casing Joints	5 1/2	20.00	P-110	Yes	45.15	Yes			8,208.3	9,645.69
215	207	Casing Joints	5 1/2	20.00	P-110	Yes	47.02	Yes			8,114.3	9,739.66
217	209	Casing Joints	5 1/2	20.00	P-110	Yes	47.07	Yes			8,021.7	9,832.28
219	211	Casing Joints	5 1/2	20.00	P-110	Yes	47.20	Yes			7,927.5	9,926.51
221		Marker Joint	5 1/2	20.00	P-110	Yes	23.35	Yes			7,857.1	9,996.93
222	213	Casing Joints	5 1/2	20.00	P-110	Yes	47.22	Yes			7,809.9	10,044.15
223	214	Casing Joints	5 1/2	20.00	P-110	Yes	45.24	Yes			7,764.6	10,089.39
224	215	Casing Joints	5 1/2	20.00	P-110	Yes	46.94	Yes			7,717.7	10,136.33
225	216	Casing Joints	5 1/2	20.00	P-110	Yes	43.20	Yes			7,674.5	10,179.53
226	217	Casing Joints	5 1/2	20.00	P-110	Yes	44.90	Yes			7,629.6	10,224.43
227	218	Casing Joints	5 1/2	20.00	P-110	Yes	44.95	Yes			7,584.6	10,269.38
228	219	Casing Joints	5 1/2	20.00	P-110	Yes	47.03	Yes			7,537.6	10,316.41
229	220	Casing Joints	5 1/2	20.00	P-110	Yes	45.97	Yes			7,491.6	10,362.38
230	221	Casing Joints	5 1/2	20.00	P-110	Yes	47.10	Yes			7,444.5	10,409.48
231	222	Casing Joints	5 1/2	20.00	P-110	Yes	47.05	Yes			7,397.5	10,456.53
232	223	Casing Joints	5 1/2	20.00	P-110	Yes	47.04	Yes			7,350.4	10,503.57
233	224	Casing Joints	5 1/2	20.00	P-110	Yes	47.21	Yes			7,303.2	10,550.78
234	225	Casing Joints	5 1/2	20.00	P-110	Yes	47.20	Yes			7,256.0	10,597.98
235	226	Casing Joints	5 1/2	20.00	P-110	Yes	44.88	Yes			7,211.1	10,642.86
236	227	Casing Joints	5 1/2	20.00	P-110	Yes	44.92	Yes			7,166.2	10,687.78
237	228	Casing Joints	5 1/2	20.00	P-110	Yes	45.86	Yes			7,120.4	10,733.64





## Centralizer Depths

Well Name: Bost Farm 9N-8C-L

Production, Set Depth: 17,854.0ftKB

API 05123514460000		Surface Legal Location SWNW 7 5N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal	
Ground Elevation (ft) 4,874.00		Original KB Elevation (ft) 4,902.00		KB-Ground Distance (ft) 28.00		Spud Date 5/12/2022 14:30		Rig Release Date 5/16/2022 13:30	
						On Production Date		Abandon Date	

### Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jw/ry	Connections	Top (ftKB)	Cum Len (ft)
238	229	Casing Joints	5 1/2	20.00	P-110	Yes	45.97	Yes			7,074.4	10,779.61
239	230	Casing Joints	5 1/2	20.00	P-110	Yes	45.95	Yes			7,028.4	10,825.56
240	231	Casing Joints	5 1/2	20.00	P-110	Yes	46.97	Yes			6,981.5	10,872.53
241	232	Casing Joints	5 1/2	20.00	P-110	Yes	47.05	Yes			6,934.4	10,919.58
242	233	Casing Joints	5 1/2	20.00	P-110	Yes	45.93	Yes			6,888.5	10,965.51
243	234	Casing Joints	5 1/2	20.00	P-110	Yes	46.92	Yes			6,841.6	11,012.43
244	235	Casing Joints	5 1/2	20.00	P-110	Yes	46.95	Yes			6,794.6	11,059.38
245	236	Casing Joints	5 1/2	20.00	P-110	Yes	47.18	Yes			6,747.4	11,106.56
246	237	Casing Joints	5 1/2	20.00	P-110	Yes	47.08	Yes			6,700.4	11,153.64
247	238	Casing Joints	5 1/2	20.00	P-110	Yes	45.93	Yes			6,654.4	11,199.57
248	239	Casing Joints	5 1/2	20.00	P-110	Yes	45.95	Yes			6,608.5	11,245.52
249	240	Casing Joints	5 1/2	20.00	P-110	Yes	46.98	Yes			6,561.5	11,292.50
250		Marker Joint	5 1/2	20.00	P-110	Yes	23.00	Yes			6,538.5	11,315.50
251	241	Casing Joints	5 1/2	20.00	P-110	Yes	47.20	Yes			6,491.3	11,362.70
252	242	Casing Joints	5 1/2	20.00	P-110	Yes	47.17	Yes			6,444.1	11,409.87
253	243	Casing Joints	5 1/2	20.00	P-110	Yes	46.01	Yes			6,398.1	11,455.88
254	244	Casing Joints	5 1/2	20.00	P-110	Yes	47.10	Yes			6,351.0	11,502.98
255	245	Casing Joints	5 1/2	20.00	P-110	Yes	47.17	Yes			6,303.9	11,550.15
256	246	Casing Joints	5 1/2	20.00	P-110	Yes	47.06	Yes			6,256.8	11,597.21
257	247	Casing Joints	5 1/2	20.00	P-110	Yes	47.04	Yes			6,209.8	11,644.25
258	248	Casing Joints	5 1/2	20.00	P-110	Yes	45.05	Yes			6,164.7	11,689.30
259	249	Casing Joints	5 1/2	20.00	P-110	Yes	47.02	Yes			6,117.7	11,736.32
260	250	Casing Joints	5 1/2	20.00	P-110	Yes	46.77	Yes			6,070.9	11,783.09
261	251	Casing Joints	5 1/2	20.00	P-110	Yes	47.18	Yes			6,023.7	11,830.27
262	252	Casing Joints	5 1/2	20.00	P-110	Yes	47.20	Yes			5,976.5	11,877.47
263	253	Casing Joints	5 1/2	20.00	P-110	Yes	47.05	Yes			5,929.5	11,924.52
264	254	Casing Joints	5 1/2	20.00	P-110	Yes	46.77	Yes			5,882.7	11,971.29
265	255	Casing Joints	5 1/2	20.00	P-110	Yes	46.97	Yes			5,835.7	12,018.26
266	256	Casing Joints	5 1/2	20.00	P-110	Yes	46.78	Yes			5,789.0	12,065.04
267	257	Casing Joints	5 1/2	20.00	P-110	Yes	46.70	Yes			5,742.3	12,111.74
268	258	Casing Joints	5 1/2	20.00	P-110	Yes	46.68	Yes			5,695.6	12,158.42



## Centralizer Depths

Well Name: Bost Farm 9N-8C-L

Production, Set Depth: 17,854.0ftKB

API 05123514460000		Surface Legal Location SWNW 7 5N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal	
Ground Elevation (ft) 4,874.00		Original KB Elevation (ft) 4,902.00		KB-Ground Distance (ft) 28.00		Spud Date 5/12/2022 14:30		Rig Release Date 5/16/2022 13:30	
						On Production Date		Abandon Date	

### Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jw/ry	Connections	Top (ftKB)	Cum Len (ft)
269	259	Casing Joints	5 1/2	20.00	P-110	Yes	46.66	Yes			5,648.9	12,205.08
270	260	Casing Joints	5 1/2	20.00	P-110	Yes	46.75	Yes			5,602.2	12,251.83
271	261	Casing Joints	5 1/2	20.00	P-110	Yes	47.03	Yes			5,555.1	12,298.86
272	262	Casing Joints	5 1/2	20.00	P-110	Yes	47.04	Yes			5,508.1	12,345.90
273	263	Casing Joints	5 1/2	20.00	P-110	Yes	47.03	Yes			5,461.1	12,392.93
274	264	Casing Joints	5 1/2	20.00	P-110	Yes	47.05	Yes			5,414.0	12,439.98
275	265	Casing Joints	5 1/2	20.00	P-110	Yes	46.75	Yes			5,367.3	12,486.73
276	266	Casing Joints	5 1/2	20.00	P-110	Yes	46.66	Yes			5,320.6	12,533.39
277	267	Casing Joints	5 1/2	20.00	P-110	Yes	46.67	Yes			5,273.9	12,580.06
278	268	Casing Joints	5 1/2	20.00	P-110	Yes	47.16	Yes			5,226.8	12,627.22
279	269	Casing Joints	5 1/2	20.00	P-110	Yes	47.18	Yes			5,179.6	12,674.40
280	270	Casing Joints	5 1/2	20.00	P-110	Yes	46.97	Yes			5,132.6	12,721.37
281	271	Casing Joints	5 1/2	20.00	P-110	Yes	45.65	Yes			5,087.0	12,767.02
282	272	Casing Joints	5 1/2	20.00	P-110	Yes	46.66	Yes			5,040.3	12,813.68
283	273	Casing Joints	5 1/2	20.00	P-110	Yes	46.67	Yes			4,993.7	12,860.35
284	274	Casing Joints	5 1/2	20.00	P-110	Yes	46.68	Yes			4,947.0	12,907.03
285	275	Casing Joints	5 1/2	20.00	P-110	Yes	46.70	Yes			4,900.3	12,953.73
286	276	Casing Joints	5 1/2	20.00	P-110	Yes	46.90	Yes			4,853.4	13,000.63
287	277	Casing Joints	5 1/2	20.00	P-110	Yes	46.80	Yes			4,806.6	13,047.43
288	278	Casing Joints	5 1/2	20.00	P-110	Yes	46.56	Yes			4,760.0	13,093.99
289	279	Casing Joints	5 1/2	20.00	P-110	Yes	46.75	Yes			4,713.3	13,140.74
290	280	Casing Joints	5 1/2	20.00	P-110	Yes	46.71	Yes			4,666.6	13,187.45
291	281	Casing Joints	5 1/2	20.00	P-110	Yes	46.67	Yes			4,619.9	13,234.12
292	282	Casing Joints	5 1/2	20.00	P-110	Yes	46.67	Yes			4,573.2	13,280.79
293	283	Casing Joints	5 1/2	20.00	P-110	Yes	46.76	Yes			4,526.5	13,327.55
294	284	Casing Joints	5 1/2	20.00	P-110	Yes	46.68	Yes			4,479.8	13,374.23
295	285	Casing Joints	5 1/2	20.00	P-110	Yes	46.66	Yes			4,433.1	13,420.89
296	286	Casing Joints	5 1/2	20.00	P-110	Yes	47.09	Yes			4,386.0	13,467.98
297	287	Casing Joints	5 1/2	20.00	P-110	Yes	47.08	Yes			4,338.9	13,515.06
298	288	Casing Joints	5 1/2	20.00	P-110	Yes	46.74	Yes			4,292.2	13,561.80
299	289	Casing Joints	5 1/2	20.00	P-110	Yes	46.75	Yes			4,245.5	13,608.55



## Centralizer Depths

Well Name: Bost Farm 9N-8C-L

Production, Set Depth: 17,854.0ftKB

API 05123514460000		Surface Legal Location SWNW 7 5N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal	
Ground Elevation (ft) 4,874.00		Original KB Elevation (ft) 4,902.00		KB-Ground Distance (ft) 28.00		Spud Date 5/12/2022 14:30		Rig Release Date 5/16/2022 13:30	
						On Production Date		Abandon Date	

### Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwlry	Connections	Top (ftKB)	Cum Len (ft)
300	290	Casing Joints	5 1/2	20.00	P-110	Yes	46.65	Yes			4,198.8	13,655.20
301	291	Casing Joints	5 1/2	20.00	P-110	Yes	47.05	Yes			4,151.8	13,702.25
302	292	Casing Joints	5 1/2	20.00	P-110	Yes	46.77	Yes			4,105.0	13,749.02
303	293	Casing Joints	5 1/2	20.00	P-110	Yes	47.10	Yes			4,057.9	13,796.12
304	294	Casing Joints	5 1/2	20.00	P-110	Yes	47.07	Yes			4,010.8	13,843.19
305	295	Casing Joints	5 1/2	20.00	P-110	Yes	46.86	Yes			3,964.0	13,890.05
307	297	Casing Joints	5 1/2	20.00	P-110	Yes	47.06	Yes			3,870.0	13,983.96
308	298	Casing Joints	5 1/2	20.00	P-110	Yes	47.08	Yes			3,823.0	14,031.04
309	299	Casing Joints	5 1/2	20.00	P-110	Yes	46.95	Yes			3,776.0	14,077.99
310	300	Casing Joints	5 1/2	20.00	P-110	Yes	43.13	Yes			3,732.9	14,121.12
311	301	Casing Joints	5 1/2	20.00	P-110	Yes	47.05	Yes			3,685.8	14,168.17
312	302	Casing Joints	5 1/2	20.00	P-110	Yes	47.17	Yes			3,638.7	14,215.34
313	303	Casing Joints	5 1/2	20.00	P-110	Yes	46.84	Yes			3,591.8	14,262.18
314	304	Casing Joints	5 1/2	20.00	P-110	Yes	47.10	Yes			3,544.7	14,309.28
315	305	Casing Joints	5 1/2	20.00	P-110	Yes	38.49	Yes			3,506.2	14,347.77
316	306	Casing Joints	5 1/2	20.00	P-110	Yes	47.07	Yes			3,459.2	14,394.84
317	307	Casing Joints	5 1/2	20.00	P-110	Yes	47.02	Yes			3,412.1	14,441.86
318	308	Casing Joints	5 1/2	20.00	P-110	Yes	47.06	Yes			3,365.1	14,488.92
319	309	Casing Joints	5 1/2	20.00	P-110	Yes	47.03	Yes			3,318.1	14,535.95
320	310	Casing Joints	5 1/2	20.00	P-110	Yes	47.06	Yes			3,271.0	14,583.01
321	311	Casing Joints	5 1/2	20.00	P-110	Yes	47.20	Yes			3,223.8	14,630.21
322	312	Casing Joints	5 1/2	20.00	P-110	Yes	46.07	Yes			3,177.7	14,676.28
323	313	Casing Joints	5 1/2	20.00	P-110	Yes	47.02	Yes			3,130.7	14,723.30
324	314	Casing Joints	5 1/2	20.00	P-110	Yes	47.18	Yes			3,083.5	14,770.48
325	315	Casing Joints	5 1/2	20.00	P-110	Yes	47.06	Yes			3,036.5	14,817.54
326	316	Casing Joints	5 1/2	20.00	P-110	Yes	47.20	Yes			2,989.3	14,864.74
327	317	Casing Joints	5 1/2	20.00	P-110	Yes	47.06	Yes			2,942.2	14,911.80
329	318	Casing Joints	5 1/2	20.00	P-110	Yes	47.05	Yes			2,880.0	14,973.98
330	319	Casing Joints	5 1/2	20.00	P-110	Yes	47.03	Yes			2,833.0	15,021.01
331	320	Casing Joints	5 1/2	20.00	P-110	Yes	47.22	Yes			2,785.8	15,068.23
332	321	Casing Joints	5 1/2	20.00	P-110	Yes	47.15	Yes			2,738.6	15,115.38



## Centralizer Depths

Well Name: Bost Farm 9N-8C-L

Production, Set Depth: 17,854.0ftKB

API 05123514460000		Surface Legal Location SWNW 7 5N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal	
Ground Elevation (ft) 4,874.00		Original KB Elevation (ft) 4,902.00		KB-Ground Distance (ft) 28.00		Spud Date 5/12/2022 14:30		Rig Release Date 5/16/2022 13:30	
						On Production Date		Abandon Date	

### Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwlry	Connections	Top (ftKB)	Cum Len (ft)
333	322	Casing Joints	5 1/2	20.00	P-110	Yes	47.21	Yes			2,691.4	15,162.59
334	323	Casing Joints	5 1/2	20.00	P-110	Yes	46.98	Yes			2,644.4	15,209.57
335	324	Casing Joints	5 1/2	20.00	P-110	Yes	47.17	Yes			2,597.3	15,256.74
336	325	Casing Joints	5 1/2	20.00	P-110	Yes	47.06	Yes			2,550.2	15,303.80
337	326	Casing Joints	5 1/2	20.00	P-110	Yes	47.20	Yes			2,503.0	15,351.00
338	327	Casing Joints	5 1/2	20.00	P-110	Yes	47.10	Yes			2,455.9	15,398.10
339	328	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			2,410.2	15,443.80
340	329	Casing Joints	5 1/2	20.00	P-110	Yes	47.16	Yes			2,363.0	15,490.96
341	330	Casing Joints	5 1/2	20.00	P-110	Yes	47.18	Yes			2,315.9	15,538.14
342	331	Casing Joints	5 1/2	20.00	P-110	Yes	47.05	Yes			2,268.8	15,585.19
343	332	Casing Joints	5 1/2	20.00	P-110	Yes	47.03	Yes			2,221.8	15,632.22
344	333	Casing Joints	5 1/2	20.00	P-110	Yes	47.06	Yes			2,174.7	15,679.28
345	334	Casing Joints	5 1/2	20.00	P-110	Yes	46.98	Yes			2,127.7	15,726.26
346	335	Casing Joints	5 1/2	20.00	P-110	Yes	47.17	Yes			2,080.6	15,773.43
347	336	Casing Joints	5 1/2	20.00	P-110	Yes	46.77	Yes			2,033.8	15,820.20
348	337	Casing Joints	5 1/2	20.00	P-110	Yes	44.11	Yes			1,989.7	15,864.31
349	338	Casing Joints	5 1/2	20.00	P-110	Yes	44.15	Yes			1,945.5	15,908.46
350	339	Casing Joints	5 1/2	20.00	P-110	Yes	44.43	Yes			1,901.1	15,952.89
351	340	Casing Joints	5 1/2	20.00	P-110	Yes	46.77	Yes			1,854.3	15,999.66
352	341	Casing Joints	5 1/2	20.00	P-110	Yes	47.33	Yes			1,807.0	16,046.99
353	342	Casing Joints	5 1/2	20.00	P-110	Yes	44.96	Yes			1,762.1	16,091.95
354	343	Casing Joints	5 1/2	20.00	P-110	Yes	47.35	Yes			1,714.7	16,139.30
355	344	Casing Joints	5 1/2	20.00	P-110	Yes	44.53	Yes			1,670.2	16,183.83
356	345	Casing Joints	5 1/2	20.00	P-110	Yes	45.18	Yes			1,625.0	16,229.01
357	346	Casing Joints	5 1/2	20.00	P-110	Yes	47.30	Yes			1,577.7	16,276.31
358	347	Casing Joints	5 1/2	20.00	P-110	Yes	47.31	Yes			1,530.4	16,323.62
359	348	Casing Joints	5 1/2	20.00	P-110	Yes	45.18	Yes			1,485.2	16,368.80
360	349	Casing Joints	5 1/2	20.00	P-110	Yes	44.98	Yes			1,440.2	16,413.78
361	350	Casing Joints	5 1/2	20.00	P-110	Yes	41.80	Yes			1,398.4	16,455.58
362	351	Casing Joints	5 1/2	20.00	P-110	Yes	47.30	Yes			1,351.1	16,502.88
363	352	Casing Joints	5 1/2	20.00	P-110	Yes	47.34	Yes			1,303.8	16,550.22



## Centralizer Depths

Well Name: Bost Farm 9N-8C-L

Production, Set Depth: 17,854.0ftKB

API 05123514460000		Surface Legal Location SWNW 7 5N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal		
Ground Elevation (ft) 4,874.00	Original KB Elevation (ft) 4,902.00	KB-Ground Distance (ft) 28.00		Spud Date 5/12/2022 14:30		Rig Release Date 5/16/2022 13:30		On Production Date		Abandon Date

### Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jw/ry	Connections	Top (ftKB)	Cum Len (ft)
364	353	Casing Joints	5 1/2	20.00	P-110	Yes	46.63	Yes			1,257.2	16,596.85
365	354	Casing Joints	5 1/2	20.00	P-110	Yes	44.53	Yes			1,212.6	16,641.38
366	355	Casing Joints	5 1/2	20.00	P-110	Yes	46.80	Yes			1,165.8	16,688.18
367	356	Casing Joints	5 1/2	20.00	P-110	Yes	47.08	Yes			1,118.7	16,735.26
368	357	Casing Joints	5 1/2	20.00	P-110	Yes	46.54	Yes			1,072.2	16,781.80
369	358	Casing Joints	5 1/2	20.00	P-110	Yes	46.67	Yes			1,025.5	16,828.47
370	359	Casing Joints	5 1/2	20.00	P-110	Yes	46.64	Yes			978.9	16,875.11
371	360	Casing Joints	5 1/2	20.00	P-110	Yes	47.35	Yes			931.5	16,922.46
372	361	Casing Joints	5 1/2	20.00	P-110	Yes	46.95	Yes			884.6	16,969.41
373	362	Casing Joints	5 1/2	20.00	P-110	Yes	45.07	Yes			839.5	17,014.48
374	363	Casing Joints	5 1/2	20.00	P-110	Yes	45.05	Yes			794.5	17,059.53
375	364	Casing Joints	5 1/2	20.00	P-110	Yes	45.27	Yes			749.2	17,104.80
376	365	Casing Joints	5 1/2	20.00	P-110	Yes	45.08	Yes			704.1	17,149.88
377	366	Casing Joints	5 1/2	20.00	P-110	Yes	47.32	Yes			656.8	17,197.20
378	367	Casing Joints	5 1/2	20.00	P-110	Yes	47.37	Yes			609.4	17,244.57
379	368	Casing Joints	5 1/2	20.00	P-110	Yes	47.31	Yes			562.1	17,291.88
380	369	Casing Joints	5 1/2	20.00	P-110	Yes	47.29	Yes			514.8	17,339.17
381	370	Casing Joints	5 1/2	20.00	P-110	Yes	47.45	Yes			467.4	17,386.62
382	371	Casing Joints	5 1/2	20.00	P-110	Yes	46.37	Yes			421.0	17,432.99