

Cement Post Job Report

Client: PDC Energy

Well Name: California 10N

API #: 05-123-51099-00

Job Date: November 9, 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

JOB TREATMENT REPORT

Client	Well	Rig	Date	Job Type				
PDC	California 10N	Patterson 272	11/9/2022	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				
17322	7294	90	5000	3000				
Packer/Retainer/CIBP/DV Tool Depths		Top of Perfs	Bottom of Perfs	Number of Holes				
Pkr @ 3667.23, Wet Shoe sub @ 17270.2								
String - Surf, Int, Prod. Work etc	Grade	OD	Wt/ft	ID	OH Size	% XS Lead	% XS Tail	Total Depth (ft)
Production		5.5	20		8.5	0	0	17308

PRE-JOB MUD AND WELL CONDITIONS

Mud Type	OBM	Pipe Rotation		Circulation Data				Water Requirements (bbls)		
Mud wt. ppg	10.3	Rotate Y,N	No	Circulate Time (hrs)		3		Spacers	140	
Flow Temp		Rate		Circulation Rate (bpm)		10		Stage 1 Lead	118	
Vis. Sec/qt		Torque Val.		Full Circ?		Full		Stage 1 Tail	236	
PV (cP)		Time		Gas Present (Y,N)		Yes	Units	1800	Stage 2 Lead	0
Yield Pt		Pipe Reciprocation		Centralizers/Plugs				Stage 2 Tail	0	
10 sec gel		Recip Y,N	No	Quantity & Type		customer provided		Displacement	384	
10 min gel		Stroke (ft)		Top Plug/Type		1-5.5 customer provided		Wash up	20	
30 min gel		Recip time		Bottom Plug/Type		2-5.5 customer provided		Total + 10% Safety	988	

PRE-JOB CALCULATED MATERIALS, VOLUMES, & RATES

Preflush & Spacers		Stage 1 Lead: Class G		Stage 1 Tail: Type III		Stage 2 Lead		Stage 2 Tail		Displacement	
Spacer 1	Spacer	Density	12.9	Density	13.0	Density		Density		Fluid Type	Water
Density	12	Sacks	1276	Sacks	1192	Sacks		Sacks		Dens. ppg	8.33
Volume	140	Vol/bbls	256.8	Vol/bbls	352.4	Vol/bbls	0.0	Vol/bbls	0.0	Vol. bbl	384
Rate	10	Rate	10	Rate	10	Rate		Rate		Rate bpm	11
Spacer 2		Yield	1.13	Yield	1.66	Yield		Yield		Clay Stay?	
Density		Gal/Sk	3.90	Gal/Sk	8.30	Gal/Sk		Gal/Sk		Biocide ?	Yes
Volume		% Excess	0	% Excess	0	% Excess		% Excess		Slow @ bbl	360
Rate		TOL (ft)	2409	TOT (ft)	8683.5	TOL (ft)		TOT (ft)		Bump PSI	2900

POST JOB DETAILS, FINAL VOLUMES & PRESSURES

Final Displacement (bbls)	384
Bump Plug?	Yes
Final Bump Pressure (psi)	
Full Returns throughout job?	Full
Vol away/Time when returns lost	
Vol away/Time When returns regained	

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

Summary of Additives Used on Job

Spacer to Surface?	Yes
Spacer volume returned	100
Cement to surface?	No
Cement volume to surface stage 1 (bbls)	0 Stg 2 0
Surface top out?	no
Top out volume pumped (bbls)	na

Surfactants (gal)	238
Clay Stabilizer (gal)	0
Biocide (gal)	20
Corrosion Inhibitor (gal)	0
Defoamer (gal)	40
PhenoSeal (LCM lbs)	0
Fiber (LCM lbs)	290

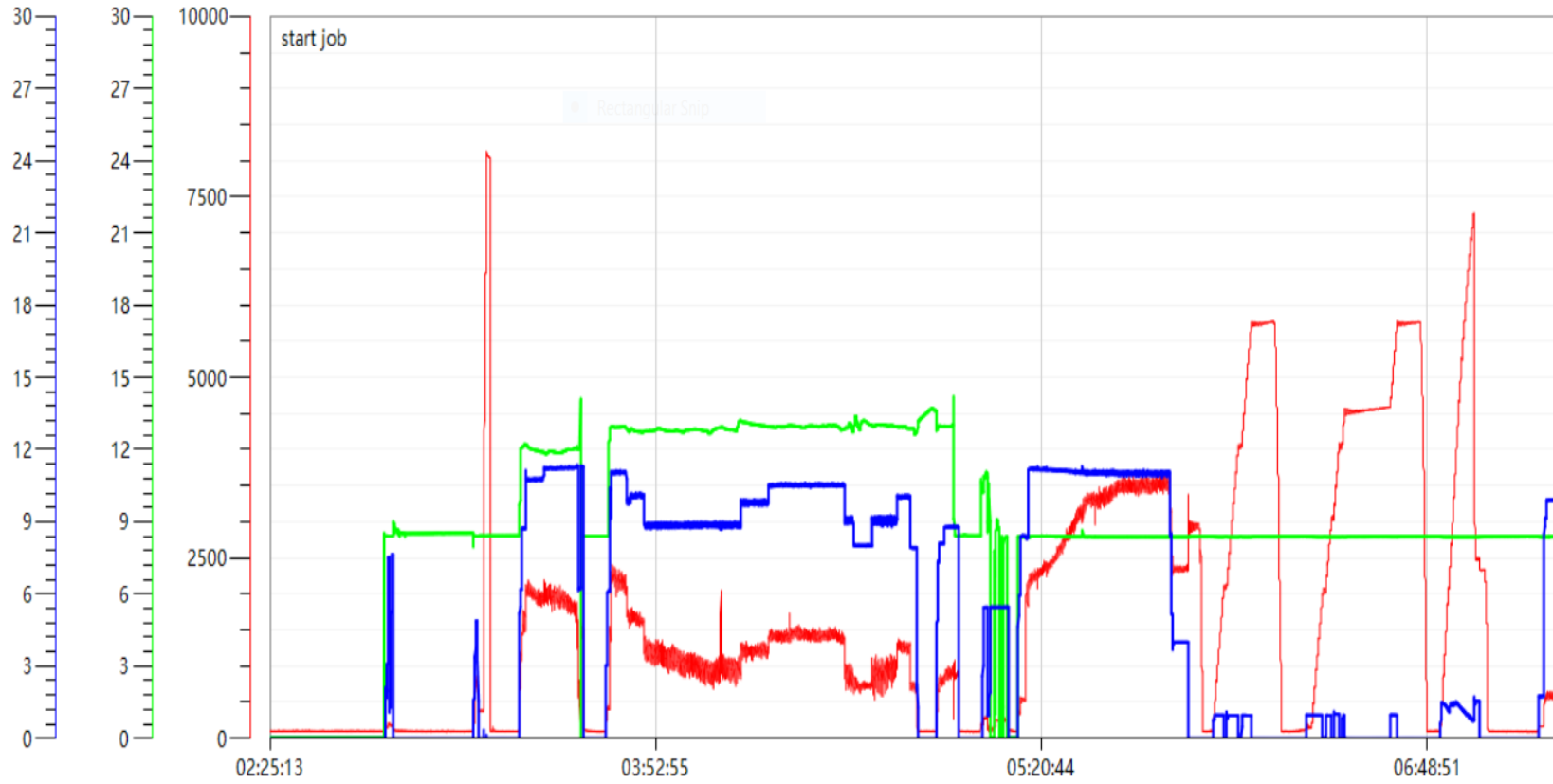
Job Treatment Log

Client		Well				Ambient Conditions (Temp / Humidity / Air Pressure)	
PDC		California 10N				31 Deg F / 82 % / 24.84 in	
Date DD/MM	Time HH:MM	Density (ppg)	Rate (bpm)	Vol. (bbl)	Total Vol. (bbl)	Pressure (psi)	Treatment Comments
11/8/22	10:30 PM						Arrived on location
	10:45 PM						Spot equipment
	11:00 PM						Rig up
11/9/22	2:30 AM						Safety meeting
	3:00 AM						Rig up floor
	3:10 AM	8.33					Fill lines
	3:13 AM	8.33					Pressure test
	3:19 AM						Load bottom plug #1
	3:21 AM	12.00					Pump 140 bbls spacer @ 12 ppg with fiber
	3:36 AM						Shutdown, load bottom plug #2
	3:40 AM	12.90		256.0	256.0		Pump 256 bbl lead cement @ 12.9 ppg
	4:11 AM	13.00		352.0	352.0		Pump 352 bbl tail cement @ 13 ppg
	4:59 AM	8.33		8.0	8.0		Pump 8 bbl sugar water
	5:01 AM	8.33					Shutdown, Wash pumps and lines, load top plug
	5:16 AM	8.33	11.00	10.0	10.0	2200	Pump displacement
	5:20 AM	8.33	11.00	50.0	50.0	2300	Pump displacement
	5:25 AM	8.33	11.00	100.0	100.0	2700	Pump displacement
	5:28 AM	8.33	11.00	150.0	150.0	3200	Pump displacement
	5:33 AM	8.33	11.00	200.0	200.0	3300	Pump displacement
	5:39 AM	8.33	11.00	250.0	250.0	3500	Pump displacement
	5:43 AM	8.33	11.00	300.0	300.0	3600	Pump displacement
	5:49 AM	8.33	11.00	250.0	350.0	3500	Pump displacement
	5:50 AM	8.33	4.00	360.0	360.0	2400	Pump displacement, Slow rate to 4bbl / min to bump plug
	5:53 AM	8.33		384.0	384.0	2900	Bump plug, Shutdown, Wait 5 mins
	5:58 AM						Check float, float held, 3 bbls back
	6:00 AM	8.33				5700	Set packer per tool hand
	6:53 AM	8.33	2.00	8.0	8.0	7230	Shift wet shoe sub per company rep, pump 2 bbl wet shoe, after sleeve shifts
	7:02 AM	8.33					Shutdown, Check float, float held
	7:10 AM	8.33					Wash Bop stack
	7:15 AM						Rig down
	8:00 AM						Depart location

California Fed 10N Production Pump Chart – Pressure / Rate / Density

Chart Report

— pressure1 psi — density backup lbs/gal — Combined Rate





Centralizer Depths

Well Name: California Federal 10N

Production, Set Depth: 17,308.0ftKB

API 05123510990000		Surface Legal Location SWSE 14 7N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,900.00	Original KB Elevation (ft) 4,928.00	KB-Ground Distance (ft) 28.00	Spud Date 11/5/2022 20:30	Rig Release Date 11/9/2022 09:30	On Production Date	Abandon Date					

Casing Run Tally												
Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwry	Connections	Top (ftKB)	Cum Len (ft)
7	1	Casing Joints	5 1/2	20.00	P-110	Yes	45.58	Yes			17,224.6	83.38
8	2	Casing Joints	5 1/2	20.00	P-110	Yes	45.64	Yes			17,179.0	129.02
9	3	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			17,133.2	174.83
11	5	Casing Joints	5 1/2	20.00	P-110	Yes	43.54	Yes			17,052.8	255.17
13	7	Casing Joints	5 1/2	20.00	P-110	Yes	45.85	Yes			16,961.1	346.89
15	9	Casing Joints	5 1/2	20.00	P-110	Yes	45.63	Yes			16,871.2	436.84
17		Marker Joint	5 1/2	20.00	P-110	Yes	11.05	Yes			16,818.1	489.89
19	12	Casing Joints	5 1/2	20.00	P-110	Yes	45.59	Yes			16,726.9	581.10
21	14	Casing Joints	5 1/2	20.00	P-110	Yes	44.04	Yes			16,645.7	662.32
23	16	Casing Joints	5 1/2	20.00	P-110	Yes	43.92	Yes			16,555.9	752.12
25	18	Casing Joints	5 1/2	20.00	P-110	Yes	43.68	Yes			16,468.5	839.50
27	20	Casing Joints	5 1/2	20.00	P-110	Yes	43.93	Yes			16,380.8	927.24
29	22	Casing Joints	5 1/2	20.00	P-110	Yes	45.56	Yes			16,289.4	1,018.63
31	24	Casing Joints	5 1/2	20.00	P-110	Yes	43.68	Yes			16,204.5	1,103.55
33	26	Casing Joints	5 1/2	20.00	P-110	Yes	45.43	Yes			16,116.1	1,191.94
35	28	Casing Joints	5 1/2	20.00	P-110	Yes	45.59	Yes			16,025.0	1,282.97
37	30	Casing Joints	5 1/2	20.00	P-110	Yes	45.54	Yes			15,934.1	1,373.91
39	32	Casing Joints	5 1/2	20.00	P-110	Yes	44.90	Yes			15,843.4	1,464.61
41	34	Casing Joints	5 1/2	20.00	P-110	Yes	45.88	Yes			15,751.7	1,556.31
43	36	Casing Joints	5 1/2	20.00	P-110	Yes	43.80	Yes			15,664.3	1,643.72
45	38	Casing Joints	5 1/2	20.00	P-110	Yes	44.68	Yes			15,574.0	1,734.04
47	40	Casing Joints	5 1/2	20.00	P-110	Yes	44.18	Yes			15,483.9	1,824.07
49	42	Casing Joints	5 1/2	20.00	P-110	Yes	45.75	Yes			15,392.3	1,915.69
51	44	Casing Joints	5 1/2	20.00	P-110	Yes	45.68	Yes			15,300.9	2,007.07
53	46	Casing Joints	5 1/2	20.00	P-110	Yes	45.83	Yes			15,209.4	2,098.60
55	48	Casing Joints	5 1/2	20.00	P-110	Yes	43.76	Yes			15,120.1	2,187.94
57	50	Casing Joints	5 1/2	20.00	P-110	Yes	45.64	Yes			15,028.6	2,279.42
59	52	Casing Joints	5 1/2	20.00	P-110	Yes	45.66	Yes			14,937.5	2,370.48
61	54	Casing Joints	5 1/2	20.00	P-110	Yes	43.66	Yes			14,848.1	2,459.91
63	56	Casing Joints	5 1/2	20.00	P-110	Yes	43.20	Yes			14,759.3	2,548.71
65	58	Casing Joints	5 1/2	20.00	P-110	Yes	45.86	Yes			14,670.0	2,638.04



Centralizer Depths

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Production, Set Depth: 17,308.0ftKB

API 0512351099000		Surface Legal Location SWSE 14 7N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,900.00	Original KB Elevation (ft) 4,928.00	KB-Ground Distance (ft) 28.00	Spud Date 11/5/2022 20:30	Rig Release Date 11/9/2022 09:30	On Production Date	Abandon Date					

Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwry	Connections	Top (ftKB)	Cum Len (ft)
67	60	Casing Joints	5 1/2	20.00	P-110	Yes	45.41	Yes			14,578.7	2,729.29
69	62	Casing Joints	5 1/2	20.00	P-110	Yes	44.92	Yes			14,487.9	2,820.07
71	64	Casing Joints	5 1/2	20.00	P-110	Yes	45.85	Yes			14,396.4	2,911.56
73	66	Casing Joints	5 1/2	20.00	P-110	Yes	45.35	Yes			14,305.4	3,002.58
75	68	Casing Joints	5 1/2	20.00	P-110	Yes	43.62	Yes			14,216.2	3,091.83
77	70	Casing Joints	5 1/2	20.00	P-110	Yes	45.64	Yes			14,124.9	3,183.08
79	72	Casing Joints	5 1/2	20.00	P-110	Yes	43.42	Yes			14,035.6	3,272.40
81	74	Casing Joints	5 1/2	20.00	P-110	Yes	38.03	Yes			13,952.0	3,356.05
83	76	Casing Joints	5 1/2	20.00	P-110	Yes	43.72	Yes			13,864.5	3,443.47
85	78	Casing Joints	5 1/2	20.00	P-110	Yes	45.63	Yes			13,775.2	3,532.78
87	80	Casing Joints	5 1/2	20.00	P-110	Yes	41.37	Yes			13,690.7	3,617.35
89	82	Casing Joints	5 1/2	20.00	P-110	Yes	44.09	Yes			13,602.7	3,705.27
91	84	Casing Joints	5 1/2	20.00	P-110	Yes	42.87	Yes			13,515.8	3,792.21
93	86	Casing Joints	5 1/2	20.00	P-110	Yes	43.68	Yes			13,428.2	3,879.85
95	88	Casing Joints	5 1/2	20.00	P-110	Yes	43.70	Yes			13,340.8	3,967.24
97	90	Casing Joints	5 1/2	20.00	P-110	Yes	43.73	Yes			13,253.1	4,054.90
99	92	Casing Joints	5 1/2	20.00	P-110	Yes	43.67	Yes			13,165.7	4,142.29
101	94	Casing Joints	5 1/2	20.00	P-110	Yes	43.94	Yes			13,078.0	4,230.05
103	96	Casing Joints	5 1/2	20.00	P-110	Yes	43.94	Yes			12,988.4	4,319.59
105	98	Casing Joints	5 1/2	20.00	P-110	Yes	43.80	Yes			12,900.9	4,407.07
107	100	Casing Joints	5 1/2	20.00	P-110	Yes	43.80	Yes			12,813.7	4,494.29
109	102	Casing Joints	5 1/2	20.00	P-110	Yes	43.83	Yes			12,726.1	4,581.93
111		Marker Joint	5 1/2	20.00	P-110	Yes	11.16	Yes			12,671.2	4,636.79
113	105	Casing Joints	5 1/2	20.00	P-110	Yes	45.68	Yes			12,581.7	4,726.27
115	107	Casing Joints	5 1/2	20.00	P-110	Yes	45.87	Yes			12,490.0	4,818.03
117	109	Casing Joints	5 1/2	20.00	P-110	Yes	44.10	Yes			12,400.0	4,908.01
119	111	Casing Joints	5 1/2	20.00	P-110	Yes	43.85	Yes			12,312.3	4,995.71
121	113	Casing Joints	5 1/2	20.00	P-110	Yes	45.69	Yes			12,220.7	5,087.27
123	115	Casing Joints	5 1/2	20.00	P-110	Yes	45.87	Yes			12,129.0	5,179.03
125	117	Casing Joints	5 1/2	20.00	P-110	Yes	43.67	Yes			12,041.5	5,266.55
127	119	Casing Joints	5 1/2	20.00	P-110	Yes	44.08	Yes			11,957.9	5,350.10



Centralizer Depths

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Casing Run Tally												
Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwry	Connections	Top (ftKB)	Cum Len (ft)
129	121	Casing Joints	5 1/2	20.00	P-110	Yes	45.68	Yes			11,868.5	5,439.46
131	123	Casing Joints	5 1/2	20.00	P-110	Yes	45.68	Yes			11,779.1	5,528.89
133	125	Casing Joints	5 1/2	20.00	P-110	Yes	43.70	Yes			11,691.6	5,616.40
135	127	Casing Joints	5 1/2	20.00	P-110	Yes	43.80	Yes			11,606.3	5,701.66
137	129	Casing Joints	5 1/2	20.00	P-110	Yes	45.87	Yes			11,514.6	5,793.38
139	131	Casing Joints	5 1/2	20.00	P-110	Yes	43.85	Yes			11,426.9	5,881.14
141	133	Casing Joints	5 1/2	20.00	P-110	Yes	43.65	Yes			11,341.2	5,966.79
143	135	Casing Joints	5 1/2	20.00	P-110	Yes	41.94	Yes			11,256.9	6,051.08
145	137	Casing Joints	5 1/2	20.00	P-110	Yes	45.86	Yes			11,166.9	6,141.15
147	139	Casing Joints	5 1/2	20.00	P-110	Yes	43.86	Yes			11,077.3	6,230.71
149	141	Casing Joints	5 1/2	20.00	P-110	Yes	45.63	Yes			10,988.0	6,320.04
151	143	Casing Joints	5 1/2	20.00	P-110	Yes	45.88	Yes			10,896.2	6,411.79
153	145	Casing Joints	5 1/2	20.00	P-110	Yes	45.64	Yes			10,806.9	6,501.13
155	147	Casing Joints	5 1/2	20.00	P-110	Yes	45.85	Yes			10,715.1	6,592.86
157	149	Casing Joints	5 1/2	20.00	P-110	Yes	45.90	Yes			10,624.9	6,683.09
159	151	Casing Joints	5 1/2	20.00	P-110	Yes	45.43	Yes			10,534.1	6,773.94
161	153	Casing Joints	5 1/2	20.00	P-110	Yes	45.62	Yes			10,442.6	6,865.41
163	155	Casing Joints	5 1/2	20.00	P-110	Yes	45.85	Yes			10,350.9	6,957.10
165	157	Casing Joints	5 1/2	20.00	P-110	Yes	44.90	Yes			10,263.4	7,044.64
167	159	Casing Joints	5 1/2	20.00	P-110	Yes	45.60	Yes			10,173.5	7,134.46
169	161	Casing Joints	5 1/2	20.00	P-110	Yes	45.61	Yes			10,082.3	7,225.71
171	163	Casing Joints	5 1/2	20.00	P-110	Yes	45.80	Yes			9,991.1	7,316.89
173	165	Casing Joints	5 1/2	20.00	P-110	Yes	45.85	Yes			9,899.9	7,408.11
175	167	Casing Joints	5 1/2	20.00	P-110	Yes	45.68	Yes			9,808.8	7,499.16
177	169	Casing Joints	5 1/2	20.00	P-110	Yes	44.16	Yes			9,719.4	7,588.63
179	171	Casing Joints	5 1/2	20.00	P-110	Yes	43.88	Yes			9,630.0	7,678.03
181	173	Casing Joints	5 1/2	20.00	P-110	Yes	43.86	Yes			9,542.3	7,765.69
183	175	Casing Joints	5 1/2	20.00	P-110	Yes	45.68	Yes			9,451.0	7,856.98
185	177	Casing Joints	5 1/2	20.00	P-110	Yes	45.67	Yes			9,361.3	7,946.73
187	179	Casing Joints	5 1/2	20.00	P-110	Yes	43.70	Yes			9,273.7	8,034.26
189	181	Casing Joints	5 1/2	20.00	P-110	Yes	43.65	Yes			9,194.5	8,113.51



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Casing Run Tally												
Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwry	Connections	Top (ftKB)	Cum Len (ft)
191	183	Casing Joints	5 1/2	20.00	P-110	Yes	44.06	Yes			9,106.8	8,201.24
193	185	Casing Joints	5 1/2	20.00	P-110	Yes	44.07	Yes			9,019.1	8,288.95
195	187	Casing Joints	5 1/2	20.00	P-110	Yes	44.06	Yes			8,931.3	8,376.67
197	189	Casing Joints	5 1/2	20.00	P-110	Yes	40.17	Yes			8,847.3	8,460.67
199	191	Casing Joints	5 1/2	20.00	P-110	Yes	44.09	Yes			8,759.3	8,548.71
201	193	Casing Joints	5 1/2	20.00	P-110	Yes	43.85	Yes			8,671.5	8,636.51
203	195	Casing Joints	5 1/2	20.00	P-110	Yes	42.53	Yes			8,585.4	8,722.64
205	197	Casing Joints	5 1/2	20.00	P-110	Yes	43.83	Yes			8,497.9	8,810.15
207	199	Casing Joints	5 1/2	20.00	P-110	Yes	43.84	Yes			8,410.2	8,897.79
209	201	Casing Joints	5 1/2	20.00	P-110	Yes	44.09	Yes			8,320.3	8,987.73
211	203	Casing Joints	5 1/2	20.00	P-110	Yes	41.78	Yes			8,234.4	9,073.59
213	205	Casing Joints	5 1/2	20.00	P-110	Yes	43.64	Yes			8,149.1	9,158.88
215	207	Casing Joints	5 1/2	20.00	P-110	Yes	45.41	Yes			8,058.1	9,249.89
217	209	Casing Joints	5 1/2	20.00	P-110	Yes	43.66	Yes			7,969.0	9,338.98
218		Marker Joint	5 1/2	20.00	P-110	Yes	11.40	Yes			7,957.6	9,350.38
219	210	Casing Joints	5 1/2	20.00	P-110	Yes	43.83	Yes			7,913.8	9,394.21
220	211	Casing Joints	5 1/2	20.00	P-110	Yes	45.60	Yes			7,868.2	9,439.81
221	212	Casing Joints	5 1/2	20.00	P-110	Yes	45.58	Yes			7,822.6	9,485.39
222	213	Casing Joints	5 1/2	20.00	P-110	Yes	45.66	Yes			7,777.0	9,531.05
223	214	Casing Joints	5 1/2	20.00	P-110	Yes	45.56	Yes			7,731.4	9,576.61
224	215	Casing Joints	5 1/2	20.00	P-110	Yes	45.43	Yes			7,686.0	9,622.04
225	216	Casing Joints	5 1/2	20.00	P-110	Yes	45.41	Yes			7,640.6	9,667.45
226	217	Casing Joints	5 1/2	20.00	P-110	Yes	45.43	Yes			7,595.1	9,712.88
227	218	Casing Joints	5 1/2	20.00	P-110	Yes	45.62	Yes			7,549.5	9,758.50
228	219	Casing Joints	5 1/2	20.00	P-110	Yes	45.41	Yes			7,504.1	9,803.91
229	220	Casing Joints	5 1/2	20.00	P-110	Yes	45.68	Yes			7,458.4	9,849.59
230	221	Casing Joints	5 1/2	20.00	P-110	Yes	45.84	Yes			7,412.6	9,895.43
231	222	Casing Joints	5 1/2	20.00	P-110	Yes	45.34	Yes			7,367.2	9,940.77
232	223	Casing Joints	5 1/2	20.00	P-110	Yes	45.68	Yes			7,321.6	9,986.45
233	224	Casing Joints	5 1/2	20.00	P-110	Yes	45.57	Yes			7,276.0	10,032.02
234	225	Casing Joints	5 1/2	20.00	P-110	Yes	45.88	Yes			7,230.1	10,077.90



Centralizer Depths

Well Name: California Federal 10N

Production, Set Depth: 17,308.0ftKB

API 05123510990000		Surface Legal Location SWSE 14 7N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,900.00	Original KB Elevation (ft) 4,928.00	KB-Ground Distance (ft) 28.00	Spud Date 11/5/2022 20:30	Rig Release Date 11/9/2022 09:30	On Production Date	Abandon Date					

Casing Run Tally												
Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwry	Connections	Top (ftKB)	Cum Len (ft)
235	226	Casing Joints	5 1/2	20.00	P-110	Yes	45.84	Yes			7,184.3	10,123.74
236	227	Casing Joints	5 1/2	20.00	P-110	Yes	45.44	Yes			7,138.8	10,169.18
237	228	Casing Joints	5 1/2	20.00	P-110	Yes	45.41	Yes			7,093.4	10,214.59
238	229	Casing Joints	5 1/2	20.00	P-110	Yes	45.57	Yes			7,047.8	10,260.16
239	230	Casing Joints	5 1/2	20.00	P-110	Yes	45.40	Yes			7,002.4	10,305.56
240	231	Casing Joints	5 1/2	20.00	P-110	Yes	45.44	Yes			6,957.0	10,351.00
241	232	Casing Joints	5 1/2	20.00	P-110	Yes	45.68	Yes			6,911.3	10,396.68
242		Marker Joint	5 1/2	20.00	P-110	Yes	23.10	Yes			6,888.2	10,419.78
243	233	Casing Joints	5 1/2	20.00	P-110	Yes	45.84	Yes			6,842.4	10,465.62
244	234	Casing Joints	5 1/2	20.00	P-110	Yes	43.69	Yes			6,798.7	10,509.31
245	235	Casing Joints	5 1/2	20.00	P-110	Yes	43.68	Yes			6,755.0	10,552.99
246	236	Casing Joints	5 1/2	20.00	P-110	Yes	45.61	Yes			6,709.4	10,598.60
247	237	Casing Joints	5 1/2	20.00	P-110	Yes	45.42	Yes			6,664.0	10,644.02
248	238	Casing Joints	5 1/2	20.00	P-110	Yes	45.43	Yes			6,618.6	10,689.45
249	239	Casing Joints	5 1/2	20.00	P-110	Yes	45.34	Yes			6,573.2	10,734.79
250	240	Casing Joints	5 1/2	20.00	P-110	Yes	45.37	Yes			6,527.8	10,780.16
251	241	Casing Joints	5 1/2	20.00	P-110	Yes	45.37	Yes			6,482.5	10,825.53
252	242	Casing Joints	5 1/2	20.00	P-110	Yes	45.42	Yes			6,437.1	10,870.95
253	243	Casing Joints	5 1/2	20.00	P-110	Yes	45.36	Yes			6,391.7	10,916.31
254	244	Casing Joints	5 1/2	20.00	P-110	Yes	45.61	Yes			6,346.1	10,961.92
255	245	Casing Joints	5 1/2	20.00	P-110	Yes	45.63	Yes			6,300.5	11,007.55
256	246	Casing Joints	5 1/2	20.00	P-110	Yes	45.42	Yes			6,255.0	11,052.97
257	247	Casing Joints	5 1/2	20.00	P-110	Yes	45.58	Yes			6,209.5	11,098.55
258	248	Casing Joints	5 1/2	20.00	P-110	Yes	45.34	Yes			6,164.1	11,143.89
259	249	Casing Joints	5 1/2	20.00	P-110	Yes	45.43	Yes			6,118.7	11,189.32
260	250	Casing Joints	5 1/2	20.00	P-110	Yes	45.86	Yes			6,072.8	11,235.18
261	251	Casing Joints	5 1/2	20.00	P-110	Yes	45.00	Yes			6,027.8	11,280.18
262	252	Casing Joints	5 1/2	20.00	P-110	Yes	45.87	Yes			5,982.0	11,326.05
263	253	Casing Joints	5 1/2	20.00	P-110	Yes	45.64	Yes			5,936.3	11,371.69
264	254	Casing Joints	5 1/2	20.00	P-110	Yes	45.85	Yes			5,890.5	11,417.54
265	255	Casing Joints	5 1/2	20.00	P-110	Yes	42.67	Yes			5,847.8	11,460.21



Centralizer Depths

Well Name: California Federal 10N

Production, Set Depth: 17,308.0ftKB

API 05123510990000		Surface Legal Location SWSE 14 7N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,900.00	Original KB Elevation (ft) 4,928.00	KB-Ground Distance (ft) 28.00	Spud Date 11/5/2022 20:30	Rig Release Date 11/9/2022 09:30	On Production Date	Abandon Date					

Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwry	Connections	Top (ftKB)	Cum Len (ft)
266	256	Casing Joints	5 1/2	20.00	P-110	Yes	45.86	Yes			5,801.9	11,506.07
267	257	Casing Joints	5 1/2	20.00	P-110	Yes	45.87	Yes			5,756.1	11,551.94
268	258	Casing Joints	5 1/2	20.00	P-110	Yes	45.86	Yes			5,710.2	11,597.80
269	259	Casing Joints	5 1/2	20.00	P-110	Yes	45.88	Yes			5,664.3	11,643.68
270	260	Casing Joints	5 1/2	20.00	P-110	Yes	45.66	Yes			5,618.7	11,689.34
271	261	Casing Joints	5 1/2	20.00	P-110	Yes	45.86	Yes			5,572.8	11,735.20
272	262	Casing Joints	5 1/2	20.00	P-110	Yes	45.85	Yes			5,527.0	11,781.05
273	263	Casing Joints	5 1/2	20.00	P-110	Yes	45.82	Yes			5,481.1	11,826.87
274	264	Casing Joints	5 1/2	20.00	P-110	Yes	45.65	Yes			5,435.5	11,872.52
275	265	Casing Joints	5 1/2	20.00	P-110	Yes	45.71	Yes			5,389.8	11,918.23
276	266	Casing Joints	5 1/2	20.00	P-110	Yes	43.81	Yes			5,346.0	11,962.04
277	267	Casing Joints	5 1/2	20.00	P-110	Yes	45.68	Yes			5,300.3	12,007.72
278	268	Casing Joints	5 1/2	20.00	P-110	Yes	45.67	Yes			5,254.6	12,053.39
279	269	Casing Joints	5 1/2	20.00	P-110	Yes	45.64	Yes			5,209.0	12,099.03
280	270	Casing Joints	5 1/2	20.00	P-110	Yes	45.63	Yes			5,163.3	12,144.66
281	271	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			5,117.6	12,190.36
282	272	Casing Joints	5 1/2	20.00	P-110	Yes	45.88	Yes			5,071.8	12,236.24
283	273	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			5,026.1	12,281.94
284	274	Casing Joints	5 1/2	20.00	P-110	Yes	45.72	Yes			4,980.3	12,327.66
285	275	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			4,936.1	12,371.86
286	276	Casing Joints	5 1/2	20.00	P-110	Yes	45.68	Yes			4,890.5	12,417.54
287	277	Casing Joints	5 1/2	20.00	P-110	Yes	45.86	Yes			4,844.6	12,463.40
288	278	Casing Joints	5 1/2	20.00	P-110	Yes	45.68	Yes			4,798.9	12,509.08
289	279	Casing Joints	5 1/2	20.00	P-110	Yes	45.69	Yes			4,753.2	12,554.77
290	280	Casing Joints	5 1/2	20.00	P-110	Yes	45.68	Yes			4,707.6	12,600.45
291	281	Casing Joints	5 1/2	20.00	P-110	Yes	45.71	Yes			4,661.8	12,646.16
292	282	Casing Joints	5 1/2	20.00	P-110	Yes	44.64	Yes			4,617.2	12,690.80
293	283	Casing Joints	5 1/2	20.00	P-110	Yes	45.67	Yes			4,571.5	12,736.47
294	284	Casing Joints	5 1/2	20.00	P-110	Yes	45.68	Yes			4,525.9	12,782.15
295	285	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			4,480.2	12,827.85
296	286	Casing Joints	5 1/2	20.00	P-110	Yes	45.68	Yes			4,434.5	12,873.53



Centralizer Depths

Well Name: California Federal 10N

Production, Set Depth: 17,308.0ftKB

API 0512351099000		Surface Legal Location SWSE 14 7N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,900.00	Original KB Elevation (ft) 4,928.00	KB-Ground Distance (ft) 28.00	Spud Date 11/5/2022 20:30	Rig Release Date 11/9/2022 09:30	On Production Date	Abandon Date					

Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwry	Connections	Top (ftKB)	Cum Len (ft)
297	287	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			4,388.8	12,919.23
298	288	Casing Joints	5 1/2	20.00	P-110	Yes	45.85	Yes			4,342.9	12,965.08
299	289	Casing Joints	5 1/2	20.00	P-110	Yes	45.71	Yes			4,297.2	13,010.79
300	290	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			4,251.5	13,056.49
301	291	Casing Joints	5 1/2	20.00	P-110	Yes	45.90	Yes			4,205.6	13,102.39
302	292	Casing Joints	5 1/2	20.00	P-110	Yes	45.87	Yes			4,159.7	13,148.26
303	293	Casing Joints	5 1/2	20.00	P-110	Yes	44.36	Yes			4,115.4	13,192.62
304	294	Casing Joints	5 1/2	20.00	P-110	Yes	39.76	Yes			4,075.6	13,232.38
305	295	Casing Joints	5 1/2	20.00	P-110	Yes	45.69	Yes			4,029.9	13,278.07
306	296	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			3,984.2	13,323.77
307	297	Casing Joints	5 1/2	20.00	P-110	Yes	37.47	Yes			3,946.8	13,361.24
308	298	Casing Joints	5 1/2	20.00	P-110	Yes	45.88	Yes			3,900.9	13,407.12
309	299	Casing Joints	5 1/2	20.00	P-110	Yes	45.64	Yes			3,855.2	13,452.76
310	300	Casing Joints	5 1/2	20.00	P-110	Yes	45.88	Yes			3,809.4	13,498.64
311	301	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			3,763.7	13,544.34
312	302	Casing Joints	5 1/2	20.00	P-110	Yes	45.87	Yes			3,717.8	13,590.21
313	303	Casing Joints	5 1/2	20.00	P-110	Yes	45.90	Yes			3,671.9	13,636.11
315	304	Casing Joints	5 1/2	20.00	P-110	Yes	45.71	Yes			3,612.9	13,695.08
316	305	Casing Joints	5 1/2	20.00	P-110	Yes	45.48	Yes			3,567.4	13,740.56
317	306	Casing Joints	5 1/2	20.00	P-110	Yes	45.61	Yes			3,521.8	13,786.17
318	307	Casing Joints	5 1/2	20.00	P-110	Yes	45.63	Yes			3,476.2	13,831.80
319	308	Casing Joints	5 1/2	20.00	P-110	Yes	45.67	Yes			3,430.5	13,877.47
320	309	Casing Joints	5 1/2	20.00	P-110	Yes	45.63	Yes			3,384.9	13,923.10
321	310	Casing Joints	5 1/2	20.00	P-110	Yes	45.62	Yes			3,339.3	13,968.72
322	311	Casing Joints	5 1/2	20.00	P-110	Yes	45.62	Yes			3,293.7	14,014.34
323	312	Casing Joints	5 1/2	20.00	P-110	Yes	45.88	Yes			3,247.8	14,060.22
324	313	Casing Joints	5 1/2	20.00	P-110	Yes	45.65	Yes			3,202.1	14,105.87
325	314	Casing Joints	5 1/2	20.00	P-110	Yes	45.64	Yes			3,156.5	14,151.51
326	315	Casing Joints	5 1/2	20.00	P-110	Yes	45.55	Yes			3,110.9	14,197.06
327	316	Casing Joints	5 1/2	20.00	P-110	Yes	45.50	Yes			3,065.4	14,242.56
328	317	Casing Joints	5 1/2	20.00	P-110	Yes	45.62	Yes			3,019.8	14,288.18



Centralizer Depths

Well Name: California Federal 10N

Production, Set Depth: 17,308.0ftKB

API 0512351099000		Surface Legal Location SWSE 14 7N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,900.00	Original KB Elevation (ft) 4,928.00	KB-Ground Distance (ft) 28.00	Spud Date 11/5/2022 20:30	Rig Release Date 11/9/2022 09:30	On Production Date	Abandon Date					

Casing Run Tally												
Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwry	Connections	Top (ftKB)	Cum Len (ft)
329	318	Casing Joints	5 1/2	20.00	P-110	Yes	45.63	Yes			2,974.2	14,333.81
330	319	Casing Joints	5 1/2	20.00	P-110	Yes	41.41	Yes			2,932.8	14,375.22
331	320	Casing Joints	5 1/2	20.00	P-110	Yes	45.60	Yes			2,887.2	14,420.82
332	321	Casing Joints	5 1/2	20.00	P-110	Yes	45.61	Yes			2,841.6	14,466.43
333	322	Casing Joints	5 1/2	20.00	P-110	Yes	45.65	Yes			2,795.9	14,512.08
334	323	Casing Joints	5 1/2	20.00	P-110	Yes	45.61	Yes			2,750.3	14,557.69
335	324	Casing Joints	5 1/2	20.00	P-110	Yes	45.88	Yes			2,704.4	14,603.57
336	325	Casing Joints	5 1/2	20.00	P-110	Yes	45.68	Yes			2,658.8	14,649.25
337	326	Casing Joints	5 1/2	20.00	P-110	Yes	45.61	Yes			2,613.1	14,694.86
338	327	Casing Joints	5 1/2	20.00	P-110	Yes	45.86	Yes			2,567.3	14,740.72
339	328	Casing Joints	5 1/2	20.00	P-110	Yes	45.50	Yes			2,521.8	14,786.22
340	329	Casing Joints	5 1/2	20.00	P-110	Yes	45.65	Yes			2,476.1	14,831.87
341	330	Casing Joints	5 1/2	20.00	P-110	Yes	45.86	Yes			2,430.3	14,877.73
342	331	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			2,384.6	14,923.43
343	332	Casing Joints	5 1/2	20.00	P-110	Yes	43.38	Yes			2,341.2	14,966.81
344	333	Casing Joints	5 1/2	20.00	P-110	Yes	45.64	Yes			2,295.6	15,012.45
345	334	Casing Joints	5 1/2	20.00	P-110	Yes	45.63	Yes			2,249.9	15,058.08
346	335	Casing Joints	5 1/2	20.00	P-110	Yes	45.87	Yes			2,204.1	15,103.95
347	336	Casing Joints	5 1/2	20.00	P-110	Yes	45.63	Yes			2,158.4	15,149.58
348	337	Casing Joints	5 1/2	20.00	P-110	Yes	45.62	Yes			2,112.8	15,195.20
349	338	Casing Joints	5 1/2	20.00	P-110	Yes	45.64	Yes			2,067.2	15,240.84
350	339	Casing Joints	5 1/2	20.00	P-110	Yes	45.90	Yes			2,021.3	15,286.74
351	340	Casing Joints	5 1/2	20.00	P-110	Yes	43.77	Yes			1,977.5	15,330.51
352	341	Casing Joints	5 1/2	20.00	P-110	Yes	37.67	Yes			1,939.8	15,368.18
353	342	Casing Joints	5 1/2	20.00	P-110	Yes	45.37	Yes			1,894.5	15,413.55
354	343	Casing Joints	5 1/2	20.00	P-110	Yes	43.75	Yes			1,850.7	15,457.30
355	344	Casing Joints	5 1/2	20.00	P-110	Yes	45.45	Yes			1,805.3	15,502.75
356	345	Casing Joints	5 1/2	20.00	P-110	Yes	45.62	Yes			1,759.6	15,548.37
357	346	Casing Joints	5 1/2	20.00	P-110	Yes	45.35	Yes			1,714.3	15,593.72
358	347	Casing Joints	5 1/2	20.00	P-110	Yes	45.62	Yes			1,668.7	15,639.34
359	348	Casing Joints	5 1/2	20.00	P-110	Yes	43.48	Yes			1,625.2	15,682.82



Centralizer Depths

Well Name: California Federal 10N

Production, Set Depth: 17,308.0ftKB

API 0512351099000		Surface Legal Location SWSE 14 7N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,900.00	Original KB Elevation (ft) 4,928.00	KB-Ground Distance (ft) 28.00	Spud Date 11/5/2022 20:30	Rig Release Date 11/9/2022 09:30	On Production Date	Abandon Date					

Casing Run Tally												
Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwry	Connections	Top (ftKB)	Cum Len (ft)
360	349	Casing Joints	5 1/2	20.00	P-110	Yes	43.76	Yes			1,581.4	15,726.58
361	350	Casing Joints	5 1/2	20.00	P-110	Yes	43.25	Yes			1,538.2	15,769.83
362	351	Casing Joints	5 1/2	20.00	P-110	Yes	43.54	Yes			1,494.6	15,813.37
363	352	Casing Joints	5 1/2	20.00	P-110	Yes	45.38	Yes			1,449.3	15,858.75
364	353	Casing Joints	5 1/2	20.00	P-110	Yes	45.41	Yes			1,403.8	15,904.16
365	354	Casing Joints	5 1/2	20.00	P-110	Yes	45.84	Yes			1,358.0	15,950.00
366	355	Casing Joints	5 1/2	20.00	P-110	Yes	45.40	Yes			1,312.6	15,995.40
367	356	Casing Joints	5 1/2	20.00	P-110	Yes	44.08	Yes			1,268.5	16,039.48
368	357	Casing Joints	5 1/2	20.00	P-110	Yes	45.84	Yes			1,222.7	16,085.32
369	358	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			1,177.0	16,131.02
370	359	Casing Joints	5 1/2	20.00	P-110	Yes	45.83	Yes			1,131.2	16,176.85
371	360	Casing Joints	5 1/2	20.00	P-110	Yes	45.80	Yes			1,085.4	16,222.65
372	361	Casing Joints	5 1/2	20.00	P-110	Yes	45.28	Yes			1,040.1	16,267.93
373	362	Casing Joints	5 1/2	20.00	P-110	Yes	45.05	Yes			995.0	16,312.98
374	363	Casing Joints	5 1/2	20.00	P-110	Yes	45.66	Yes			949.4	16,358.64
375	364	Casing Joints	5 1/2	20.00	P-110	Yes	43.93	Yes			905.4	16,402.57
376	365	Casing Joints	5 1/2	20.00	P-110	Yes	45.87	Yes			859.6	16,448.44
377	366	Casing Joints	5 1/2	20.00	P-110	Yes	45.65	Yes			813.9	16,494.09
378	367	Casing Joints	5 1/2	20.00	P-110	Yes	45.63	Yes			768.3	16,539.72
379	368	Casing Joints	5 1/2	20.00	P-110	Yes	45.64	Yes			722.6	16,585.36
380	369	Casing Joints	5 1/2	20.00	P-110	Yes	45.86	Yes			676.8	16,631.22
381	370	Casing Joints	5 1/2	20.00	P-110	Yes	45.67	Yes			631.1	16,676.89
382	371	Casing Joints	5 1/2	20.00	P-110	Yes	45.65	Yes			585.5	16,722.54
383	372	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			539.6	16,768.35
384	373	Casing Joints	5 1/2	20.00	P-110	Yes	43.63	Yes			496.0	16,811.98