

# Cement Post Job Report

**Client:** PDC Energy

**Well Name:** Spinney 2N

**API #:** 05-123-51633-00

**Job Date:** May 15, 2023

**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	JOB TYPE	THREAD TYPE	WELLHEAD CONNECTION
<b>PDC Energy</b>	<b>Spinney 02N</b>	<b>Patterson 272</b>	<b>Production</b>	<b>Buttress</b>	<b>5 1/2" HP Cement Head</b>

WELL MD (FT)	WELL TVD (FT)	DEVIATION (DEG)	NUMBER OF STAGES	BHST (DEG)	BHCT (DEG)
<b>22861</b>	<b>7806</b>	<b>90</b>	<b>1</b>	<b>230</b>	<b>230</b>

PACKER/RETAINER/CIBP/DV TOOL DEPTHS	TOOL TYPE	TOP OF PERFS (FT)	BOTTOM OF PERFS (FT)	NUMBER OF HOLES
<b>3444</b>	<b>PACKER</b>			

CASING/TUBING/DP DETAILS								
STRING TYPE	GRADE	OD"	WT/FT	ID"	OH SIZE"	% EXCESS LEAD	% EXCESS TAIL	TOTAL DEPTH (FT)
<b>Surface</b>		<b>9.625</b>	<b>36</b>	<b>8.921</b>		<b>0</b>	<b>0</b>	<b>1750</b>
<b>Production</b>	<b>P-110</b>	<b>5.5</b>	<b>20</b>	<b>4.78</b>	<b>8.5</b>	<b>0</b>	<b>15</b>	<b>22849</b>
MAXIMUM CASING/TUBING/DP PSI			<b>9888</b>			MAXIMUM ANNULAR PSI		<b>8880</b>

Mud Type	OBM	Rotate Y,N	No	Circulation Data				Water Requirements (bbls)				
Mud ppg	<b>10.8</b>	Rate (rpm)		Circulate Time (hrs)		<b>4</b>		Spacers		<b>160</b>		
Flow Temp	<b>94</b>	Torque Val.		Circulation Rate (bpm)		<b>11</b>		Stage 1 Lead		<b>121</b>		
Vis. Sec/qt	<b>42</b>	Time (hr)		Full Circulation ? (Y,N,P)		<b>Yes</b>		Stage 1 Tail		<b>374</b>		
PV (cP)	<b>12</b>	Pipe Reciprocation		Gas Present (Y,N)		<b>No</b>	Units	<b>0</b>		Stage 2 Lead		
Yield Pt	<b>5</b>	Recip Y,N	<b>No</b>	Centralizers/Plugs				Stage 2 Tail				
10 sec gel	<b>2</b>	Stroke (ft)		Quantity & Type		<b>customer provided</b>				Displacement		<b>507</b>
10 min gel	<b>3</b>	Recip time		Top Plug/Type		<b>customer provided</b>				Wash up		<b>20</b>
30 min gel	<b>4</b>	Stuck ?		Bottom Plug/Type		<b>customer provided</b>				Total + 10% Safety		<b>1300</b>

Preflush & Spacers		Stage 1 Lead - Class G		Stage 1 Tail - Class G		Stage 2 Lead		Stage 2 Tail		Displacement	
Spacer 1	<b>Spacer</b>	Density	<b>12.9</b>	Density	<b>13.7</b>	Density		Density		Fluid Type	<b>Water</b>
	<b>12</b>	Sacks	<b>1276</b>	Sacks	<b>2367</b>	Sacks		Sacks		Dens. ppg	<b>8.34</b>
Volume	<b>160</b>	Vol/bbbls	<b>256.8</b>	Vol/bbbls	<b>577.5</b>	Vol/bbbls	<b>0.0</b>	Vol/bbbls	<b>0.0</b>	Vol. bbl	<b>507</b>
Rate	<b>11</b>	Rate	<b>11.5</b>	Rate	<b>10</b>	Rate		Rate		Rate bpm	<b>7</b>
Spacer 2		Yield	<b>1.13</b>	Yield	<b>1.37</b>	Yield		Yield		Clay Stay?	<b>No</b>
Density		Gal/Sk	<b>3.76</b>	Gal/Sk	<b>6.63</b>	Gal/Sk		Gal/Sk		Biocide ?	<b>Yes</b>
Volume		% Excess	<b>0</b>	% Excess	<b>15</b>	% Excess		% Excess		Slow @ bbl	<b>487</b>
Rate		TOL (ft)	<b>2386</b>	TOT (ft)	<b>8660</b>	TOL (ft)		TOT (ft)		Bump PSI	<b>3200</b>

Final Displacement (bbbls)	<b>506.9</b>
Bump Plug?	<b>Yes</b>
Final Bump Pressure (psi)	<b>3200</b>
Full Returns throughout job?	<b>Full</b>
Vol away/Time when returns lost	
Vol away when returns were regained	
Spacer to Surface?	<b>Yes</b>
Spacer volume returned (bbbls)	<b>47</b>
Cement to surface?	<b>No</b>
Cement volume to surface stage 1	<b>0</b>
Cement volume to surface stage 2	

Surface Top Out Details-Pumped		Job Summary Additional Chems Used	
Cement Type		MFC 47 (gal)	<b>70</b>
Dens. ppg	<b>NA</b>	MFC 67 (gal)	<b>168</b>
Sacks qty	<b>NA</b>	Defoamer (gal)	<b>40</b>
Gal/sk	<b>NA</b>	Biocide (gal)	<b>20</b>
Yield	<b>NA</b>	Corr. Inhib (gal)	<b>0</b>
Calcium Chlor. Used?	<b>NA</b>	Fiber (lbs)	<b>310</b>
Top out pipe used ?	<b>NA</b>	Chloride (lbs)	<b>0</b>
Annulus holding?	<b>NA</b>	Retarder (lbs)	<b>0</b>
		Clay Stabilizer (gal)	<b>0</b>
		Other	

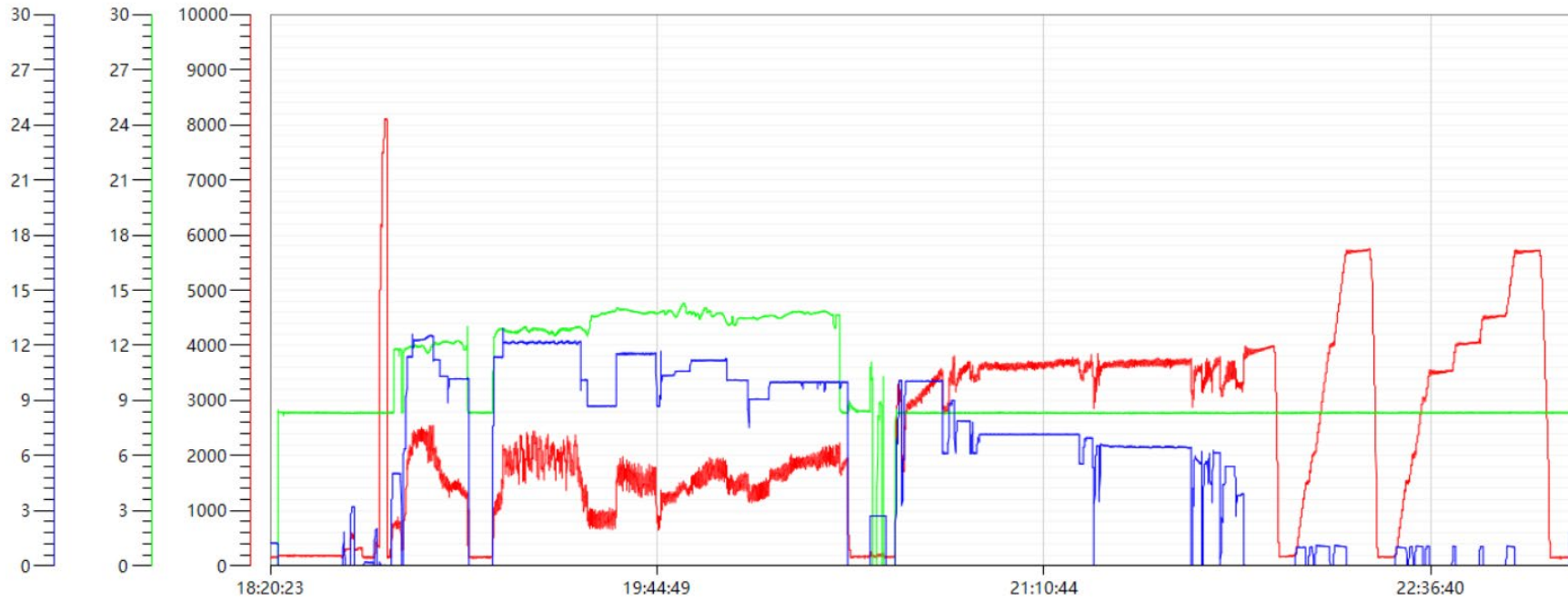
## JOB LOG

CLIENT	WELL	RIG	JOB TYPE	START DATE	Ambient Conditions		
PDC Energy	Spinney 02N	Patterson 272	Production	5/15/2023	Temp / Hum / Air Press 57 Deg F / 72 % / 25.25 in		
DATE (dd/mm)	TIME (hh:mm)	DENSITY (ppg)	RATE (bpm)	VOL. (bbl)	TOTAL VOL.	PRESSURE	TREATMENT COMMENTS
5/11/2023	11:25:00 AM						CREW CALLED OUT FOR MISC. PUMP JOB ON PATTERSON 272
5/11/2023	7:00:00 PM						CREW ARRIVED AT CUSTOMER LOCATION
5/11/2023	7:00:00 PM						CUSTOMER REP RELEASED EXERO CREW. CREW DEPARTED LOCATION
5/14/2023	9:00:00 PM						CREW CALLED OUT WITH ON LOCATION TIME OF 10:00 ON 05/15/2023
5/15/2023	10:40:00 AM						CREW ARRIVES AT CUSTOMER LOCATION
5/15/2023	2:00:00 PM						SPOT IN AND RIG UP ALL IRON AND HOSES
5/15/2023	6:11:00 PM						SAFETY MEETING WITH EXERO CREW, RIG CREW, AND CUSTOMER REP
5/15/2023	6:37:00 PM	8.34	3.0	3	3	500	FILL LINES WITH 3 BBLs FRESH WATER
5/15/2023	6:44:00 PM					8000	PRESSURE TEST PUMP AND LINES TO 8000 PSI
5/15/2023	6:46:00 PM	12	11.0	0	0	2100	BEGIN PUMPING 12 PPG SPACER + SURFACTANT + FIBER
5/15/2023	6:53:00 PM	12	12.0	50	50	2300	50 BBLs SPACER PUMPED
5/15/2023	6:56:00 PM	12	11.0	50	100	2100	100 BBLs SPACER PUMPED
5/15/2023	7:03:00 PM	12	10.0	60	160	900	160 BBLs SPACER PUMPED
5/15/2023	7:03:00 PM						SHUT DOWN, DROP BOTTOM PLUG
5/15/2023	7:09:00 PM	12.9	11.0	0	0	1000	BEGIN PUMPING 12.9 PPG LEAD CEMENT
5/15/2023	7:12:00 PM	12.9	12.0	50	50	1900	50 BBLs LEAD CEMENT PUMPED
5/15/2023	7:17:00 PM	12.9	12.0	50	100	2000	100 BBLs LEAD CEMENT PUMPED
5/15/2023	7:21:00 PM	12.9	12.0	50	150	2000	150 BBLs LEAD CEMENT PUMPED
5/15/2023	7:25:00 PM	12.9	12.0	50	200	2200	200 BBLs LEAD CEMENT PUMPED
5/15/2023	7:30:00 PM	12.9	8.0	56.8	256.8	800	256.8 BBLs LEAD CEMENT PUMPED
5/15/2023	7:30:00 PM	13.7	8.0	0	0	900	BEGIN PUMPING 13.7 PPG TAIL CEMENT
5/15/2023	7:36:00 PM	13.7	11.5	50	50	1500	50 BBLs TAIL CEMENT PUMPED
5/15/2023	7:39:00 PM	13.7	11.5	50	100	1700	100 BBLs TAIL CEMENT PUMPED
5/15/2023	7:43:00 PM	13.7	11.5	50	150	1700	150 BBLs TAIL CEMENT PUMPED
5/15/2023	7:48:00 PM	13.7	10.5	50	200	1200	200 BBLs TAIL CEMENT PUMPED
5/15/2023	7:53:00 PM	13.7	11.0	50	250	1500	250 BBLs TAIL CEMENT PUMPED
5/15/2023	7:59:00 PM	13.7	11.0	50	300	1800	300 BBLs TAIL CEMENT PUMPED
5/15/2023	8:04:00 PM	13.7	10.0	50	350	1400	350 BBLs TAIL CEMENT PUMPED
5/15/2023	8:07:00 PM	13.7	9.0	50	400	1200	400 BBLs TAIL CEMENT PUMPED
5/15/2023	8:13:00 PM	13.7	10.0	50	450	1600	450 BBLs TAIL CEMENT PUMPED
5/15/2023	8:18:00 PM	13.7	10.0	50	500	1900	500 BBLs TAIL CEMENT PUMPED
5/15/2023	8:23:00 PM	13.7	10.0	50	550	2000	550 BBLs TAIL CEMENT PUMPED
5/15/2023	8:26:00 PM	13.7	7.0	27.5	577.5	1800	577.5 BBLs TAIL CEMENT PUMPED
5/15/2023	8:26:00 PM	8.34	10.0	15	15	1900	PUMP 15 BBLs SUGAR WATER FOR WET SHOE
5/15/2023	8:28:00 PM						SHUT DOWN. WASH UP PUMP TO 4 SIDED TANK
5/15/2023	2:38:00 AM	8.34	10.0	0	0	3000	DROP TOP PLUG. WITNESSED BY CUSTOMER REP. BEGIN FRESH WATER DISPLACEMENT
5/15/2023	8:44:00 PM	8.34	10.0	50	50	3100	50 BBLs DISPLACEMENT PUMPED
5/15/2023	8:50:00 PM	8.34	9.0	50	100	3500	100 BBLs DISPLACEMENT PUMPED
5/15/2023	8:58:00 PM	8.34	7.0	50	150	3600	150 BBLs DISPLACEMENT PUMPED
5/15/2023	9:05:00 PM	8.34	7.0	50	200	3700	200 BBLs DISPLACEMENT PUMPED
5/15/2023	9:13:00 PM	8.34	7.0	50	250	3700	250 BBLs DISPLACEMENT PUMPED
5/15/2023	9:20:00 PM	8.34	7.0	50	300	3700	300 BBLs DISPLACEMENT PUMPED
5/15/2023	9:30:00 PM	8.34	6.5	50	350	3700	350 BBLs DISPLACEMENT PUMPED
5/15/2023	9:37:00 PM	8.34	6.5	50	400	3600	400 BBLs DISPLACEMENT PUMPED
5/15/2023	9:47:00 PM	8.34	6.0	60	460	3500	460 BBLs DISPLACEMENT PUMPED. SPACER TO SURFACE. 47 BBLs SPACER TO SURFACE
5/15/2023	9:54:00 PM	8.34	4.0	46.9	506.9	3200	506.9 BBLs DISPLACEMENT PUMPED
5/15/2023	9:54:00 PM					3900	LAND PLUG. FCP - 3200 PSI, BUMPED TO 3900 PSI
5/15/2023	10:02:00 PM						CHECK FLOATS. FLOATS HELD, 6.5 BBLs BACK
5/15/2023	10:04:00 PM	8.34	1.0			5800	SET PACKER AS PER TOOL HAND INSTRUCTION
5/15/2023	11:04:00 PM						RELEASE PRESSURE
5/15/2023	11:08:00 PM						FLUSH STACK
5/15/2023	11:18:00 PM						RIG DOWN ALL IRON AND HOSES
5/16/2023	12:15:00 AM						EXERO CREW DEPARTS LOCATION

# Spinney 2N Production Pump Chart – Pressure / Rate / Density

## Chart Report

— discharge pressure PS psi    — backup density lbm/galUS    — combined rate bbl/min





## Centralizer Depths

**Well Name: Spinney 02N**

**Production, Set Depth: 22,849.0ftKB**

API 05123516330000		Surface Legal Location SWSW 9 3N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,861.00		Original KB Elevation (ft) 4,889.50		KB-Ground Distance (ft) 28.50		Spud Date 5/7/2023 07:00		Rig Release Date 5/16/2023 00:00		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	42.12	Yes			22,767.9	81.08
9	3	Casing Joints	5 1/2	20.00	P-110	Yes	43.90	Yes			22,678.4	170.65
11	5	Casing Joints	5 1/2	20.00	P-110	Yes	43.91	Yes			22,588.6	260.40
13	7	Casing Joints	5 1/2	20.00	P-110	Yes	44.44	Yes			22,500.1	348.92
15	9	Casing Joints	5 1/2	20.00	P-110	Yes	45.61	Yes			22,408.6	440.41
17		Marker Joint	5 1/2	20.00	P-110	Yes	23.73	Yes			22,339.9	509.06
19	12	Casing Joints	5 1/2	20.00	P-110	Yes	43.85	Yes			22,250.2	598.77
21	14	Casing Joints	5 1/2	20.00	P-110	Yes	45.69	Yes			22,158.7	690.33
23	16	Casing Joints	5 1/2	20.00	P-110	Yes	45.84	Yes			22,069.7	779.31
25	18	Casing Joints	5 1/2	20.00	P-110	Yes	45.71	Yes			21,978.3	870.72
27	20	Casing Joints	5 1/2	20.00	P-110	Yes	45.67	Yes			21,887.4	961.64
29	22	Casing Joints	5 1/2	20.00	P-110	Yes	43.74	Yes			21,797.8	1,051.20
31	24	Casing Joints	5 1/2	20.00	P-110	Yes	45.82	Yes			21,706.1	1,142.86
33	26	Casing Joints	5 1/2	20.00	P-110	Yes	45.86	Yes			21,614.7	1,234.31
35	28	Casing Joints	5 1/2	20.00	P-110	Yes	45.69	Yes			21,523.2	1,325.83
37	30	Casing Joints	5 1/2	20.00	P-110	Yes	45.69	Yes			21,434.1	1,414.95
39	32	Casing Joints	5 1/2	20.00	P-110	Yes	45.67	Yes			21,342.7	1,506.32
41	34	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			21,251.2	1,597.82
43	36	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			21,159.8	1,689.20
45	38	Casing Joints	5 1/2	20.00	P-110	Yes	44.16	Yes			21,069.8	1,779.17
47	40	Casing Joints	5 1/2	20.00	P-110	Yes	45.60	Yes			20,978.6	1,870.45
49	42	Casing Joints	5 1/2	20.00	P-110	Yes	45.82	Yes			20,886.9	1,962.10
51	44	Casing Joints	5 1/2	20.00	P-110	Yes	45.69	Yes			20,795.4	2,053.60
53	46	Casing Joints	5 1/2	20.00	P-110	Yes	45.68	Yes			20,704.0	2,144.96
55	48	Casing Joints	5 1/2	20.00	P-110	Yes	45.68	Yes			20,612.5	2,236.46
57	50	Casing Joints	5 1/2	20.00	P-110	Yes	45.84	Yes			20,521.0	2,328.00
59	52	Casing Joints	5 1/2	20.00	P-110	Yes	45.84	Yes			20,429.5	2,419.54
61	54	Casing Joints	5 1/2	20.00	P-110	Yes	44.77	Yes			20,339.9	2,509.09
63	56	Casing Joints	5 1/2	20.00	P-110	Yes	35.54	Yes			20,258.5	2,590.47
65	58	Casing Joints	5 1/2	20.00	P-110	Yes	44.84	Yes			20,168.0	2,680.96
67	60	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			20,078.5	2,770.51



## Centralizer Depths

**Well Name: Spinney 02N**

**Production, Set Depth: 22,849.0ftKB**

API 05123516330000		Surface Legal Location SWSW 9 3N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,861.00	Original KB Elevation (ft) 4,889.50	KB-Ground Distance (ft) 28.50	Spud Date 5/7/2023 07:00	Rig Release Date 5/16/2023 00:00	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)
69	62	Casing Joints	5 1/2	20.00	P-110	Yes	45.09	Yes			19,988.2	2,860.77
71	64	Casing Joints	5 1/2	20.00	P-110	Yes	45.65	Yes			19,896.9	2,952.12
73	66	Casing Joints	5 1/2	20.00	P-110	Yes	45.65	Yes			19,805.7	3,043.30
75	68	Casing Joints	5 1/2	20.00	P-110	Yes	45.83	Yes			19,714.3	3,134.74
77	70	Casing Joints	5 1/2	20.00	P-110	Yes	45.86	Yes			19,623.3	3,225.70
79	72	Casing Joints	5 1/2	20.00	P-110	Yes	45.09	Yes			19,532.6	3,316.41
81	74	Casing Joints	5 1/2	20.00	P-110	Yes	40.46	Yes			19,447.4	3,401.61
83	76	Casing Joints	5 1/2	20.00	P-110	Yes	45.85	Yes			19,355.7	3,493.27
85	78	Casing Joints	5 1/2	20.00	P-110	Yes	45.68	Yes			19,264.2	3,584.76
87	80	Casing Joints	5 1/2	20.00	P-110	Yes	45.82	Yes			19,174.8	3,674.20
89	82	Casing Joints	5 1/2	20.00	P-110	Yes	45.80	Yes			19,083.2	3,765.83
91	84	Casing Joints	5 1/2	20.00	P-110	Yes	45.10	Yes			18,993.0	3,856.01
93	86	Casing Joints	5 1/2	20.00	P-110	Yes	45.63	Yes			18,902.3	3,946.70
95	88	Casing Joints	5 1/2	20.00	P-110	Yes	45.59	Yes			18,811.9	4,037.15
97	90	Casing Joints	5 1/2	20.00	P-110	Yes	45.64	Yes			18,720.6	4,128.44
99	92	Casing Joints	5 1/2	20.00	P-110	Yes	45.82	Yes			18,629.1	4,219.87
101	94	Casing Joints	5 1/2	20.00	P-110	Yes	45.65	Yes			18,537.8	4,311.21
103	96	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			18,446.3	4,402.70
105	98	Casing Joints	5 1/2	20.00	P-110	Yes	45.06	Yes			18,355.4	4,493.59
107	100	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			18,264.9	4,584.14
109	102	Casing Joints	5 1/2	20.00	P-110	Yes	44.79	Yes			18,176.3	4,672.74
111	104	Casing Joints	5 1/2	20.00	P-110	Yes	45.84	Yes			18,084.8	4,764.21
113	106	Casing Joints	5 1/2	20.00	P-110	Yes	45.84	Yes			17,993.1	4,855.87
115	108	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			17,901.8	4,947.19
117	110	Casing Joints	5 1/2	20.00	P-110	Yes	43.77	Yes			17,812.2	5,036.81
119	112	Casing Joints	5 1/2	20.00	P-110	Yes	44.83	Yes			17,721.5	5,127.49
121	114	Casing Joints	5 1/2	20.00	P-110	Yes	45.10	Yes			17,630.8	5,218.24
123	116	Casing Joints	5 1/2	20.00	P-110	Yes	45.85	Yes			17,539.0	5,309.96
125	118	Casing Joints	5 1/2	20.00	P-110	Yes	45.52	Yes			17,451.1	5,397.94
127	120	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			17,359.7	5,489.27
129	122	Casing Joints	5 1/2	20.00	P-110	Yes	45.52	Yes			17,268.6	5,580.40



## Centralizer Depths

**Well Name: Spinney 02N**

**Production, Set Depth: 22,849.0ftKB**

API 05123516330000		Surface Legal Location SWSW 9 3N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,861.00	Original KB Elevation (ft) 4,889.50	KB-Ground Distance (ft) 28.50	Spud Date 5/7/2023 07:00	Rig Release Date 5/16/2023 00:00	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)
131	124	Casing Joints	5 1/2	20.00	P-110	Yes	45.61	Yes			17,177.9	5,671.11
133	126	Casing Joints	5 1/2	20.00	P-110	Yes	41.38	Yes			17,091.7	5,757.29
135	128	Casing Joints	5 1/2	20.00	P-110	Yes	45.68	Yes			17,000.2	5,848.78
137	130	Casing Joints	5 1/2	20.00	P-110	Yes	45.80	Yes			16,910.7	5,938.26
139	132	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			16,819.1	6,029.93
141	134	Casing Joints	5 1/2	20.00	P-110	Yes	45.84	Yes			16,727.6	6,121.45
143	136	Casing Joints	5 1/2	20.00	P-110	Yes	45.51	Yes			16,636.2	6,212.77
145	138	Casing Joints	5 1/2	20.00	P-110	Yes	45.84	Yes			16,545.3	6,303.66
147	140	Casing Joints	5 1/2	20.00	P-110	Yes	44.64	Yes			16,455.1	6,393.89
149	142	Casing Joints	5 1/2	20.00	P-110	Yes	45.86	Yes			16,363.5	6,485.54
151	144	Casing Joints	5 1/2	20.00	P-110	Yes	43.41	Yes			16,275.2	6,573.80
153	146	Casing Joints	5 1/2	20.00	P-110	Yes	44.84	Yes			16,184.5	6,664.48
155	148	Casing Joints	5 1/2	20.00	P-110	Yes	44.82	Yes			16,094.1	6,754.89
157	150	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			16,002.5	6,846.55
159	152	Casing Joints	5 1/2	20.00	P-110	Yes	45.77	Yes			15,910.9	6,938.12
161	154	Casing Joints	5 1/2	20.00	P-110	Yes	45.76	Yes			15,819.3	7,029.68
163	156	Casing Joints	5 1/2	20.00	P-110	Yes	45.76	Yes			15,727.8	7,121.16
165	158	Casing Joints	5 1/2	20.00	P-110	Yes	45.78	Yes			15,636.3	7,212.73
167	160	Casing Joints	5 1/2	20.00	P-110	Yes	45.80	Yes			15,544.7	7,304.31
169	162	Casing Joints	5 1/2	20.00	P-110	Yes	45.79	Yes			15,453.1	7,395.87
171	164	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			15,361.5	7,487.46
173	165	Casing Joints	5 1/2	20.00	P-110	Yes	45.79	Yes			15,292.1	7,556.92
175	167	Casing Joints	5 1/2	20.00	P-110	Yes	45.78	Yes			15,200.5	7,648.47
177	169	Casing Joints	5 1/2	20.00	P-110	Yes	45.80	Yes			15,109.0	7,740.05
179	171	Casing Joints	5 1/2	20.00	P-110	Yes	45.83	Yes			15,017.4	7,831.65
181	173	Casing Joints	5 1/2	20.00	P-110	Yes	45.76	Yes			14,925.8	7,923.17
183	175	Casing Joints	5 1/2	20.00	P-110	Yes	45.85	Yes			14,834.2	8,014.84
185	177	Casing Joints	5 1/2	20.00	P-110	Yes	45.78	Yes			14,742.6	8,106.40
187	179	Casing Joints	5 1/2	20.00	P-110	Yes	45.80	Yes			14,651.0	8,197.98
189	181	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			14,559.4	8,289.56
191	183	Casing Joints	5 1/2	20.00	P-110	Yes	45.74	Yes			14,467.9	8,381.11



## Centralizer Depths

**Well Name: Spinney 02N**

**Production, Set Depth: 22,849.0ftKB**

API 05123516330000		Surface Legal Location SWSW 9 3N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,861.00		Original KB Elevation (ft) 4,889.50		KB-Ground Distance (ft) 28.50		Spud Date 5/7/2023 07:00		Rig Release Date 5/16/2023 00:00		On Production Date Abandon Date	

### Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwly	Connections	Top (ftKB)	Cum Len (ft)
193	185	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			14,376.3	8,472.69
195	187	Casing Joints	5 1/2	20.00	P-110	Yes	41.91	Yes			14,288.6	8,560.39
197	189	Casing Joints	5 1/2	20.00	P-110	Yes	43.02	Yes			14,199.8	8,649.22
199	191	Casing Joints	5 1/2	20.00	P-110	Yes	45.79	Yes			14,108.2	8,740.83
201	193	Casing Joints	5 1/2	20.00	P-110	Yes	45.79	Yes			14,016.6	8,832.43
203	195	Casing Joints	5 1/2	20.00	P-110	Yes	45.80	Yes			13,925.0	8,924.04
205	197	Casing Joints	5 1/2	20.00	P-110	Yes	45.80	Yes			13,833.4	9,015.62
207	199	Casing Joints	5 1/2	20.00	P-110	Yes	45.79	Yes			13,741.8	9,107.21
209	201	Casing Joints	5 1/2	20.00	P-110	Yes	45.82	Yes			13,650.2	9,198.81
211	203	Casing Joints	5 1/2	20.00	P-110	Yes	45.21	Yes			13,560.8	9,288.19
213	205	Casing Joints	5 1/2	20.00	P-110	Yes	44.64	Yes			13,470.3	9,378.66
215	207	Casing Joints	5 1/2	20.00	P-110	Yes	45.68	Yes			13,379.0	9,470.01
217	209	Casing Joints	5 1/2	20.00	P-110	Yes	45.65	Yes			13,287.7	9,561.31
219	211	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			13,196.2	9,652.78
221	213	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			13,104.8	9,744.16
223	215	Casing Joints	5 1/2	20.00	P-110	Yes	44.72	Yes			13,014.3	9,834.71
225	217	Casing Joints	5 1/2	20.00	P-110	Yes	45.83	Yes			12,922.7	9,926.33
227	219	Casing Joints	5 1/2	20.00	P-110	Yes	45.84	Yes			12,831.2	10,017.81
229	221	Casing Joints	5 1/2	20.00	P-110	Yes	45.86	Yes			12,739.7	10,109.32
231	223	Casing Joints	5 1/2	20.00	P-110	Yes	45.83	Yes			12,648.2	10,200.83
233	225	Casing Joints	5 1/2	20.00	P-110	Yes	45.85	Yes			12,558.6	10,290.38
235	227	Casing Joints	5 1/2	20.00	P-110	Yes	45.75	Yes			12,467.0	10,381.97
237	229	Casing Joints	5 1/2	20.00	P-110	Yes	45.83	Yes			12,375.6	10,473.44
239	231	Casing Joints	5 1/2	20.00	P-110	Yes	45.74	Yes			12,284.0	10,565.01
241	233	Casing Joints	5 1/2	20.00	P-110	Yes	45.84	Yes			12,198.1	10,650.91
243	235	Casing Joints	5 1/2	20.00	P-110	Yes	45.83	Yes			12,106.4	10,742.59
245	237	Casing Joints	5 1/2	20.00	P-110	Yes	45.85	Yes			12,014.7	10,834.28
247	239	Casing Joints	5 1/2	20.00	P-110	Yes	45.58	Yes			11,923.5	10,925.51
249	241	Casing Joints	5 1/2	20.00	P-110	Yes	45.84	Yes			11,832.0	11,017.03
251	243	Casing Joints	5 1/2	20.00	P-110	Yes	43.90	Yes			11,742.3	11,106.73
253	245	Casing Joints	5 1/2	20.00	P-110	Yes	45.62	Yes			11,650.8	11,198.20



## Centralizer Depths

**Well Name: Spinney 02N**

**Production, Set Depth: 22,849.0ftKB**

API 05123516330000		Surface Legal Location SWSW 9 3N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,861.00	Original KB Elevation (ft) 4,889.50	KB-Ground Distance (ft) 28.50	Spud Date 5/7/2023 07:00	Rig Release Date 5/16/2023 00:00	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)
255	247	Casing Joints	5 1/2	20.00	P-110	Yes	45.84	Yes			11,559.3	11,289.67
257	249	Casing Joints	5 1/2	20.00	P-110	Yes	43.21	Yes			11,470.3	11,378.70
259	251	Casing Joints	5 1/2	20.00	P-110	Yes	45.83	Yes			11,378.8	11,470.17
261	253	Casing Joints	5 1/2	20.00	P-110	Yes	45.83	Yes			11,287.5	11,561.53
263	255	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			11,195.9	11,653.12
265	257	Casing Joints	5 1/2	20.00	P-110	Yes	45.82	Yes			11,104.3	11,744.74
267	259	Casing Joints	5 1/2	20.00	P-110	Yes	45.45	Yes			11,013.0	11,835.99
269	261	Casing Joints	5 1/2	20.00	P-110	Yes	45.78	Yes			10,921.7	11,927.32
271	263	Casing Joints	5 1/2	20.00	P-110	Yes	45.80	Yes			10,830.1	12,018.89
273	265	Casing Joints	5 1/2	20.00	P-110	Yes	45.52	Yes			10,738.8	12,110.23
275	267	Casing Joints	5 1/2	20.00	P-110	Yes	45.80	Yes			10,647.2	12,201.82
277	269	Casing Joints	5 1/2	20.00	P-110	Yes	45.83	Yes			10,555.8	12,293.21
279	271	Casing Joints	5 1/2	20.00	P-110	Yes	47.25	Yes			10,463.0	12,386.00
281	273	Casing Joints	5 1/2	20.00	P-110	Yes	45.82	Yes			10,371.4	12,477.60
283	275	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			10,279.8	12,569.19
285	277	Casing Joints	5 1/2	20.00	P-110	Yes	40.43	Yes			10,194.6	12,654.41
287	279	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			10,103.0	12,746.02
289	281	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			10,011.4	12,837.61
291	283	Casing Joints	5 1/2	20.00	P-110	Yes	45.82	Yes			9,919.7	12,929.25
293	285	Casing Joints	5 1/2	20.00	P-110	Yes	45.79	Yes			9,828.1	13,020.86
295	287	Casing Joints	5 1/2	20.00	P-110	Yes	45.78	Yes			9,736.6	13,112.44
297	289	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			9,644.9	13,204.09
299	291	Casing Joints	5 1/2	20.00	P-110	Yes	45.83	Yes			9,553.2	13,295.75
301	293	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			9,461.6	13,387.38
303	295	Casing Joints	5 1/2	20.00	P-110	Yes	45.22	Yes			9,370.6	13,478.41
305	297	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			9,279.0	13,570.04
307	299	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			9,187.3	13,661.66
309	301	Casing Joints	5 1/2	20.00	P-110	Yes	45.55	Yes			9,096.0	13,753.02
311	303	Casing Joints	5 1/2	20.00	P-110	Yes	45.78	Yes			9,004.4	13,844.55
313	305	Casing Joints	5 1/2	20.00	P-110	Yes	45.34	Yes			8,913.3	13,935.74
315	307	Casing Joints	5 1/2	20.00	P-110	Yes	45.79	Yes			8,821.9	14,027.08



## Centralizer Depths

**Well Name: Spinney 02N**

**Production, Set Depth: 22,849.0ftKB**

API 05123516330000		Surface Legal Location SWSW 9 3N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,861.00		Original KB Elevation (ft) 4,889.50		KB-Ground Distance (ft) 28.50		Spud Date 5/7/2023 07:00		Rig Release Date 5/16/2023 00:00		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)
317	309	Casing Joints	5 1/2	20.00	P-110	Yes	45.65	Yes			8,732.2	14,116.78
319	311	Casing Joints	5 1/2	20.00	P-110	Yes	44.61	Yes			8,642.1	14,206.94
321	313	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			8,550.4	14,298.56
323	315	Casing Joints	5 1/2	20.00	P-110	Yes	45.65	Yes			8,459.0	14,390.04
325	317	Casing Joints	5 1/2	20.00	P-110	Yes	45.78	Yes			8,367.4	14,481.58
327	319	Casing Joints	5 1/2	20.00	P-110	Yes	43.72	Yes			8,277.9	14,571.09
329	321	Casing Joints	5 1/2	20.00	P-110	Yes	45.78	Yes			8,186.3	14,662.69
331	323	Casing Joints	5 1/2	20.00	P-110	Yes	45.83	Yes			8,094.6	14,754.37
333	325	Casing Joints	5 1/2	20.00	P-110	Yes	45.76	Yes			8,003.1	14,845.89
335	327	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			7,911.8	14,937.16
337	329	Casing Joints	5 1/2	20.00	P-110	Yes	45.69	Yes			7,823.6	15,025.43
338		Marker Joint	5 1/2	20.00	P-110	Yes	10.07	Yes			7,813.5	15,035.50
339	330	Casing Joints	5 1/2	20.00	P-110	Yes	45.82	Yes			7,767.7	15,081.32
340	331	Casing Joints	5 1/2	20.00	P-110	Yes	45.76	Yes			7,721.9	15,127.08
341	332	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			7,676.1	15,172.89
342	333	Casing Joints	5 1/2	20.00	P-110	Yes	45.79	Yes			7,630.3	15,218.68
343	334	Casing Joints	5 1/2	20.00	P-110	Yes	45.79	Yes			7,584.5	15,264.47
344	335	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			7,538.7	15,310.28
345	336	Casing Joints	5 1/2	20.00	P-110	Yes	45.77	Yes			7,492.9	15,356.05
346	337	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			7,447.1	15,401.86
347	338	Casing Joints	5 1/2	20.00	P-110	Yes	45.76	Yes			7,401.4	15,447.62
348	339	Casing Joints	5 1/2	20.00	P-110	Yes	45.78	Yes			7,355.6	15,493.40
349	340	Casing Joints	5 1/2	20.00	P-110	Yes	41.31	Yes			7,314.3	15,534.71
350	341	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			7,268.5	15,580.52
351	342	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			7,222.7	15,626.33
352	343	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			7,176.9	15,672.14
353	344	Casing Joints	5 1/2	20.00	P-110	Yes	45.55	Yes			7,131.3	15,717.69
354	345	Casing Joints	5 1/2	20.00	P-110	Yes	45.82	Yes			7,085.5	15,763.51
355	346	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			7,039.7	15,809.32
357	347	Casing Joints	5 1/2	20.00	P-110	Yes	45.80	Yes			6,992.2	15,856.81
358	348	Casing Joints	5 1/2	20.00	P-110	Yes	45.82	Yes			6,946.4	15,902.63



## Centralizer Depths

**Well Name: Spinney 02N**

**Production, Set Depth: 22,849.0ftKB**

API 05123516330000		Surface Legal Location SWSW 9 3N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,861.00		Original KB Elevation (ft) 4,889.50		KB-Ground Distance (ft) 28.50		Spud Date 5/7/2023 07:00		Rig Release Date 5/16/2023 00:00		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)
359	349	Casing Joints	5 1/2	20.00	P-110	Yes	45.80	Yes			6,900.6	15,948.43
360	350	Casing Joints	5 1/2	20.00	P-110	Yes	45.80	Yes			6,854.8	15,994.23
361	351	Casing Joints	5 1/2	20.00	P-110	Yes	45.69	Yes			6,809.1	16,039.92
362	352	Casing Joints	5 1/2	20.00	P-110	Yes	42.06	Yes			6,767.0	16,081.98
363	353	Casing Joints	5 1/2	20.00	P-110	Yes	45.69	Yes			6,721.3	16,127.67
364	354	Casing Joints	5 1/2	20.00	P-110	Yes	43.06	Yes			6,678.3	16,170.73
365	355	Casing Joints	5 1/2	20.00	P-110	Yes	45.82	Yes			6,632.4	16,216.55
366	356	Casing Joints	5 1/2	20.00	P-110	Yes	45.68	Yes			6,586.8	16,262.23
367	357	Casing Joints	5 1/2	20.00	P-110	Yes	45.83	Yes			6,540.9	16,308.06
368	358	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			6,495.1	16,353.87
369		Marker Joint	5 1/2	20.00	P-110	Yes	10.07	Yes			6,485.1	16,363.94
370	359	Casing Joints	5 1/2	20.00	P-110	Yes	45.83	Yes			6,439.2	16,409.77
371	360	Casing Joints	5 1/2	20.00	P-110	Yes	45.78	Yes			6,393.4	16,455.55
372	361	Casing Joints	5 1/2	20.00	P-110	Yes	44.23	Yes			6,349.2	16,499.78
373	362	Casing Joints	5 1/2	20.00	P-110	Yes	45.69	Yes			6,303.5	16,545.47
374	363	Casing Joints	5 1/2	20.00	P-110	Yes	45.71	Yes			6,257.8	16,591.18
375	364	Casing Joints	5 1/2	20.00	P-110	Yes	45.69	Yes			6,212.1	16,636.87
376	365	Casing Joints	5 1/2	20.00	P-110	Yes	45.83	Yes			6,166.3	16,682.70
377	366	Casing Joints	5 1/2	20.00	P-110	Yes	44.99	Yes			6,121.3	16,727.69
378	367	Casing Joints	5 1/2	20.00	P-110	Yes	45.04	Yes			6,076.3	16,772.73
379	368	Casing Joints	5 1/2	20.00	P-110	Yes	45.11	Yes			6,031.2	16,817.84
380	369	Casing Joints	5 1/2	20.00	P-110	Yes	45.13	Yes			5,986.0	16,862.97
381	370	Casing Joints	5 1/2	20.00	P-110	Yes	36.83	Yes			5,949.2	16,899.80
382	371	Casing Joints	5 1/2	20.00	P-110	Yes	43.88	Yes			5,905.3	16,943.68
383	372	Casing Joints	5 1/2	20.00	P-110	Yes	45.84	Yes			5,859.5	16,989.52
384	373	Casing Joints	5 1/2	20.00	P-110	Yes	43.12	Yes			5,816.4	17,032.64
385	374	Casing Joints	5 1/2	20.00	P-110	Yes	45.69	Yes			5,770.7	17,078.33
386	375	Casing Joints	5 1/2	20.00	P-110	Yes	43.71	Yes			5,727.0	17,122.04
387	376	Casing Joints	5 1/2	20.00	P-110	Yes	45.35	Yes			5,681.6	17,167.39
388	377	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			5,635.9	17,213.09
389	378	Casing Joints	5 1/2	20.00	P-110	Yes	45.82	Yes			5,590.1	17,258.91



## Centralizer Depths

**Well Name: Spinney 02N**

**Production, Set Depth: 22,849.0ftKB**

API 05123516330000		Surface Legal Location SWSW 9 3N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,861.00		Original KB Elevation (ft) 4,889.50		KB-Ground Distance (ft) 28.50		Spud Date 5/7/2023 07:00		Rig Release Date 5/16/2023 00:00		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)
390	379	Casing Joints	5 1/2	20.00	P-110	Yes	45.60	Yes			5,544.5	17,304.51
391	380	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			5,498.8	17,350.21
392	381	Casing Joints	5 1/2	20.00	P-110	Yes	43.30	Yes			5,455.5	17,393.51
393	382	Casing Joints	5 1/2	20.00	P-110	Yes	45.75	Yes			5,409.7	17,439.26
394	383	Casing Joints	5 1/2	20.00	P-110	Yes	43.60	Yes			5,366.1	17,482.86
395	384	Casing Joints	5 1/2	20.00	P-110	Yes	45.60	Yes			5,320.5	17,528.46
396	385	Casing Joints	5 1/2	20.00	P-110	Yes	45.65	Yes			5,274.9	17,574.11
397	386	Casing Joints	5 1/2	20.00	P-110	Yes	45.71	Yes			5,229.2	17,619.82
398	387	Casing Joints	5 1/2	20.00	P-110	Yes	45.84	Yes			5,183.3	17,665.66
399	388	Casing Joints	5 1/2	20.00	P-110	Yes	45.59	Yes			5,137.7	17,711.25
400	389	Casing Joints	5 1/2	20.00	P-110	Yes	43.65	Yes			5,094.1	17,754.90
401	390	Casing Joints	5 1/2	20.00	P-110	Yes	45.83	Yes			5,048.3	17,800.73
402	391	Casing Joints	5 1/2	20.00	P-110	Yes	45.63	Yes			5,002.6	17,846.36
403	392	Casing Joints	5 1/2	20.00	P-110	Yes	44.11	Yes			4,958.5	17,890.47
404	393	Casing Joints	5 1/2	20.00	P-110	Yes	45.56	Yes			4,913.0	17,936.03
405	394	Casing Joints	5 1/2	20.00	P-110	Yes	45.83	Yes			4,867.1	17,981.86
406	395	Casing Joints	5 1/2	20.00	P-110	Yes	44.08	Yes			4,823.1	18,025.94
407	396	Casing Joints	5 1/2	20.00	P-110	Yes	42.87	Yes			4,780.2	18,068.81
408	397	Casing Joints	5 1/2	20.00	P-110	Yes	42.81	Yes			4,737.4	18,111.62
409	398	Casing Joints	5 1/2	20.00	P-110	Yes	45.85	Yes			4,691.5	18,157.47
410	399	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			4,645.8	18,203.17
411	400	Casing Joints	5 1/2	20.00	P-110	Yes	45.83	Yes			4,600.0	18,249.00
412	401	Casing Joints	5 1/2	20.00	P-110	Yes	45.84	Yes			4,554.2	18,294.84
413	402	Casing Joints	5 1/2	20.00	P-110	Yes	45.61	Yes			4,508.5	18,340.45
414	403	Casing Joints	5 1/2	20.00	P-110	Yes	43.68	Yes			4,464.9	18,384.13
415	404	Casing Joints	5 1/2	20.00	P-110	Yes	45.84	Yes			4,419.0	18,429.97
416	405	Casing Joints	5 1/2	20.00	P-110	Yes	45.85	Yes			4,373.2	18,475.82
417	406	Casing Joints	5 1/2	20.00	P-110	Yes	45.87	Yes			4,327.3	18,521.69
418	407	Casing Joints	5 1/2	20.00	P-110	Yes	45.82	Yes			4,281.5	18,567.51
419	408	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			4,235.7	18,613.32
420	409	Casing Joints	5 1/2	20.00	P-110	Yes	45.60	Yes			4,190.1	18,658.92



## Centralizer Depths

**Well Name: Spinney 02N**

**Production, Set Depth: 22,849.0ftKB**

API 05123516330000		Surface Legal Location SWSW 9 3N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,861.00	Original KB Elevation (ft) 4,889.50	KB-Ground Distance (ft) 28.50	Spud Date 5/7/2023 07:00	Rig Release Date 5/16/2023 00:00	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)
421	410	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			4,144.4	18,704.62
422	411	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			4,098.7	18,750.32
423	412	Casing Joints	5 1/2	20.00	P-110	Yes	45.80	Yes			4,052.9	18,796.12
424	413	Casing Joints	5 1/2	20.00	P-110	Yes	45.82	Yes			4,007.1	18,841.94
425	414	Casing Joints	5 1/2	20.00	P-110	Yes	45.84	Yes			3,961.2	18,887.78
426	415	Casing Joints	5 1/2	20.00	P-110	Yes	45.69	Yes			3,915.5	18,933.47
427	416	Casing Joints	5 1/2	20.00	P-110	Yes	45.85	Yes			3,869.7	18,979.32
428	417	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			3,824.0	19,025.02
429	418	Casing Joints	5 1/2	20.00	P-110	Yes	45.40	Yes			3,778.6	19,070.42
430	419	Casing Joints	5 1/2	20.00	P-110	Yes	45.59	Yes			3,733.0	19,116.01
431	420	Casing Joints	5 1/2	20.00	P-110	Yes	45.87	Yes			3,687.1	19,161.88
432	421	Casing Joints	5 1/2	20.00	P-110	Yes	45.85	Yes			3,641.3	19,207.73
433	422	Casing Joints	5 1/2	20.00	P-110	Yes	45.83	Yes			3,595.4	19,253.56
434	423	Casing Joints	5 1/2	20.00	P-110	Yes	45.58	Yes			3,549.9	19,299.14
435	424	Casing Joints	5 1/2	20.00	P-110	Yes	44.77	Yes			3,505.1	19,343.91
436	425	Casing Joints	5 1/2	20.00	P-110	Yes	45.69	Yes			3,459.4	19,389.60
438	426	Casing Joints	5 1/2	20.00	P-110	Yes	45.66	Yes			3,398.5	19,450.48
439	427	Casing Joints	5 1/2	20.00	P-110	Yes	45.69	Yes			3,352.8	19,496.17
440	428	Casing Joints	5 1/2	20.00	P-110	Yes	45.83	Yes			3,307.0	19,542.00
441	429	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			3,261.3	19,587.70
442	430	Casing Joints	5 1/2	20.00	P-110	Yes	42.96	Yes			3,218.3	19,630.66
443	431	Casing Joints	5 1/2	20.00	P-110	Yes	45.71	Yes			3,172.6	19,676.37
444	432	Casing Joints	5 1/2	20.00	P-110	Yes	45.79	Yes			3,126.8	19,722.16
445	433	Casing Joints	5 1/2	20.00	P-110	Yes	45.83	Yes			3,081.0	19,767.99
446	434	Casing Joints	5 1/2	20.00	P-110	Yes	45.80	Yes			3,035.2	19,813.79
447	435	Casing Joints	5 1/2	20.00	P-110	Yes	45.69	Yes			2,989.5	19,859.48
448	436	Casing Joints	5 1/2	20.00	P-110	Yes	45.80	Yes			2,943.7	19,905.28
449	437	Casing Joints	5 1/2	20.00	P-110	Yes	45.82	Yes			2,897.9	19,951.10
450	438	Casing Joints	5 1/2	20.00	P-110	Yes	45.66	Yes			2,852.2	19,996.76
451	439	Casing Joints	5 1/2	20.00	P-110	Yes	45.05	Yes			2,807.2	20,041.81
452	440	Casing Joints	5 1/2	20.00	P-110	Yes	45.03	Yes			2,762.2	20,086.84



## Centralizer Depths

**Well Name: Spinney 02N**

**Production, Set Depth: 22,849.0ftKB**

API 05123516330000		Surface Legal Location SWSW 9 3N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,861.00	Original KB Elevation (ft) 4,889.50	KB-Ground Distance (ft) 28.50	Spud Date 5/7/2023 07:00	Rig Release Date 5/16/2023 00:00	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)
453	441	Casing Joints	5 1/2	20.00	P-110	Yes	45.67	Yes			2,716.5	20,132.51
454	442	Casing Joints	5 1/2	20.00	P-110	Yes	45.82	Yes			2,670.7	20,178.33
455	443	Casing Joints	5 1/2	20.00	P-110	Yes	43.31	Yes			2,627.4	20,221.64
456	444	Casing Joints	5 1/2	20.00	P-110	Yes	45.69	Yes			2,581.7	20,267.33
457	445	Casing Joints	5 1/2	20.00	P-110	Yes	45.85	Yes			2,535.8	20,313.18
458	446	Casing Joints	5 1/2	20.00	P-110	Yes	45.83	Yes			2,490.0	20,359.01
459	447	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			2,444.3	20,404.71
460	448	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			2,398.6	20,450.41
461	449	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			2,352.8	20,496.22
462	450	Casing Joints	5 1/2	20.00	P-110	Yes	45.68	Yes			2,307.1	20,541.90
463	451	Casing Joints	5 1/2	20.00	P-110	Yes	45.85	Yes			2,261.2	20,587.75
464	452	Casing Joints	5 1/2	20.00	P-110	Yes	45.79	Yes			2,215.5	20,633.54
465	453	Casing Joints	5 1/2	20.00	P-110	Yes	45.61	Yes			2,169.8	20,679.15
466	454	Casing Joints	5 1/2	20.00	P-110	Yes	45.61	Yes			2,124.2	20,724.76
467	455	Casing Joints	5 1/2	20.00	P-110	Yes	45.71	Yes			2,078.5	20,770.47
468	456	Casing Joints	5 1/2	20.00	P-110	Yes	45.85	Yes			2,032.7	20,816.32
469	457	Casing Joints	5 1/2	20.00	P-110	Yes	45.09	Yes			1,987.6	20,861.41
470	458	Casing Joints	5 1/2	20.00	P-110	Yes	45.68	Yes			1,941.9	20,907.09
471	459	Casing Joints	5 1/2	20.00	P-110	Yes	45.82	Yes			1,896.1	20,952.91
472	460	Casing Joints	5 1/2	20.00	P-110	Yes	45.65	Yes			1,850.4	20,998.56
473	461	Casing Joints	5 1/2	20.00	P-110	Yes	43.98	Yes			1,806.5	21,042.54
474	462	Casing Joints	5 1/2	20.00	P-110	Yes	45.62	Yes			1,760.8	21,088.16
475	463	Casing Joints	5 1/2	20.00	P-110	Yes	45.84	Yes			1,715.0	21,134.00
476	464	Casing Joints	5 1/2	20.00	P-110	Yes	45.80	Yes			1,669.2	21,179.80
477	465	Casing Joints	5 1/2	20.00	P-110	Yes	45.10	Yes			1,624.1	21,224.90
478	466	Casing Joints	5 1/2	20.00	P-110	Yes	45.83	Yes			1,578.3	21,270.73
479	467	Casing Joints	5 1/2	20.00	P-110	Yes	45.68	Yes			1,532.6	21,316.41
480	468	Casing Joints	5 1/2	20.00	P-110	Yes	41.10	Yes			1,491.5	21,357.51
481	469	Casing Joints	5 1/2	20.00	P-110	Yes	45.63	Yes			1,445.9	21,403.14
482	470	Casing Joints	5 1/2	20.00	P-110	Yes	45.66	Yes			1,400.2	21,448.80
483	471	Casing Joints	5 1/2	20.00	P-110	Yes	45.63	Yes			1,354.6	21,494.43



## Centralizer Depths

**Well Name: Spinney 02N**

**Production, Set Depth: 22,849.0ftKB**

API 05123516330000		Surface Legal Location SWSW 9 3N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,861.00		Original KB Elevation (ft) 4,889.50		KB-Ground Distance (ft) 28.50		Spud Date 5/7/2023 07:00		Rig Release Date 5/16/2023 00:00		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)
484	472	Casing Joints	5 1/2	20.00	P-110	Yes	45.82	Yes			1,308.7	21,540.25
485	473	Casing Joints	5 1/2	20.00	P-110	Yes	45.69	Yes			1,263.1	21,585.94
486	474	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			1,217.2	21,631.75
487	475	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			1,171.5	21,677.45
488	476	Casing Joints	5 1/2	20.00	P-110	Yes	45.84	Yes			1,125.7	21,723.29
489	477	Casing Joints	5 1/2	20.00	P-110	Yes	45.65	Yes			1,080.1	21,768.94
490	478	Casing Joints	5 1/2	20.00	P-110	Yes	45.83	Yes			1,034.2	21,814.77
491	479	Casing Joints	5 1/2	20.00	P-110	Yes	45.52	Yes			988.7	21,860.29
492	480	Casing Joints	5 1/2	20.00	P-110	Yes	45.85	Yes			942.9	21,906.14
493	481	Casing Joints	5 1/2	20.00	P-110	Yes	45.76	Yes			897.1	21,951.90
494	482	Casing Joints	5 1/2	20.00	P-110	Yes	35.38	Yes			861.7	21,987.28
495	483	Casing Joints	5 1/2	20.00	P-110	Yes	45.71	Yes			816.0	22,032.99
496	484	Casing Joints	5 1/2	20.00	P-110	Yes	45.83	Yes			770.2	22,078.82
497	485	Casing Joints	5 1/2	20.00	P-110	Yes	45.67	Yes			724.5	22,124.49
498	486	Casing Joints	5 1/2	20.00	P-110	Yes	45.69	Yes			678.8	22,170.18
499	487	Casing Joints	5 1/2	20.00	P-110	Yes	45.83	Yes			633.0	22,216.01
500	488	Casing Joints	5 1/2	20.00	P-110	Yes	45.86	Yes			587.1	22,261.87
501	489	Casing Joints	5 1/2	20.00	P-110	Yes	43.37	Yes			543.8	22,305.24
502	490	Casing Joints	5 1/2	20.00	P-110	Yes	45.82	Yes			497.9	22,351.06