



## Directional Survey

Well Name: INTERCHANGE B S22-30-20N

API 0501420851	Surface Legal Location NESW S10 T1S R68W M6	Field Name WATTENBERG	License # 401504488	State/Province COLORADO	Well Configuration Type HORIZONTAL
Ground Elevation (ft) 5,205.00	Casing Flange Elevation (ft)	KB-Ground Distance (ft)	KB-Casing Flange Distance (ft)	Spud Date Production	Rig Release Date

Wellbore Name Original Hole	Parent Wellbore	Vertical Section Direction (°)
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### Kick Offs & Key Depths

Date	Point or Interval	Type	Top Depth (ftKB)	Depth Top (TVD) (ftKB)	Bottom Depth (ftKB)	Depth Bottom (TVD) (ftKB)	Length (ft)

### Deviation Surveys

Date 8/29/2021		Definitive? Yes		Description Actual		Proposed? No	
MD Tie In (ftKB) 0.00	TVDTie In (ftKB) 0.00	Inclination Tie In (°) 0.00	Azimuth Tie In (°) 0.00		NSTie In (ft) 0.00		EWTie In (ft) 0.00

### Survey Data

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Build (°/100ft)	Turn (°/100ft)	Unwrap Displace (ft)	Method	Survey Company
	105.00	0.44	260.43	105.00	-0.33	-0.07	-0.40	0.42	0.42	-94.83	0.40		
	192.00	1.01	55.73	192.00	0.15	0.31	-0.09	1.63	0.66	178.51	0.89		
	279.00	2.64	49.14	278.95	2.90	2.05	2.06	1.89	1.87	-7.57	3.65		
	367.00	4.97	54.95	366.75	8.70	5.57	6.71	2.68	2.65	6.60	9.49		
	454.00	6.94	45.72	453.28	17.68	11.40	13.56	2.51	2.26	-10.61	18.48		
	541.00	8.92	37.80	539.44	29.61	20.40	21.46	2.59	2.28	-9.10	30.46		
	628.00	9.84	55.30	625.30	43.62	29.97	31.71	3.43	1.06	20.11	44.48		
	715.00	10.81	55.12	710.89	59.03	38.86	44.51	1.12	1.11	-0.21	60.07		
	802.00	13.05	45.89	796.01	76.92	50.37	58.26	3.37	2.57	-10.61	78.00		
	890.00	15.51	48.62	881.29	98.62	65.06	74.22	2.90	2.80	3.10	99.69		
	977.00	18.15	49.93	964.55	123.77	81.48	93.32	3.07	3.03	1.51	124.88		
	1,064.00	20.30	48.35	1,046.70	152.38	100.23	114.97	2.54	2.47	-1.82	153.52		
	1,151.00	22.54	45.89	1,127.68	184.14	121.87	138.23	2.77	2.57	-2.83	185.29		
	1,239.00	24.74	42.55	1,208.30	219.38	147.18	162.79	2.93	2.50	-3.80	220.56		
	1,326.00	25.84	43.87	1,286.96	256.49	174.26	188.24	1.42	1.26	1.52	257.72		
	1,413.00	26.06	43.69	1,365.19	294.52	201.75	214.58	0.27	0.25	-0.21	295.79		
	1,500.00	27.91	44.92	1,442.71	333.97	229.99	242.17	2.22	2.13	1.41	335.27		
	1,587.00	29.93	45.98	1,518.86	376.04	259.49	272.15	2.40	2.32	1.22	377.33		
	1,631.00	29.88	46.15	1,557.00	397.97	274.71	287.95	0.22	-0.11	0.39	399.27		
	1,681.00	31.00	46.15	1,600.11	423.30	292.26	306.22	2.24	2.24	0.00	424.60		