



Directional Survey

Well Name: INTERCHANGE A S22-30-21N

API 0501420852	Surface Legal Location SWNW S10 T1S R68W M6	Field Name WATTENBERG	License # 401504460	State/Province COLORADO	Well Configuration Type HORIZONTAL
Ground Elevation (ft) 5,236.00	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 8/27/2021		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
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	105.00	0.88	166.21	105.00	-0.80	-0.78	0.19	0.84	0.84	158.30	0.81		
	192.00	0.75	175.79	191.99	-2.02	-2.00	0.39	0.22	-0.15	11.01	2.04		
	279.00	0.79	177.29	278.98	-3.14	-3.17	0.46	0.05	0.05	1.72	3.21		
	367.00	2.33	331.89	366.96	-1.95	-2.19	-0.35	3.48	1.75	175.68	4.48		
	454.00	4.44	343.93	453.80	3.16	2.60	-2.12	2.55	2.43	13.84	9.59		
	541.00	6.30	343.40	540.42	11.29	10.41	-4.41	2.14	2.14	-0.61	17.73		
	628.00	7.56	342.17	626.78	21.78	20.44	-7.53	1.46	1.45	-1.41	28.23		
	715.00	8.70	342.70	712.91	34.07	32.17	-11.24	1.31	1.31	0.61	40.53		
	802.00	11.16	342.17	798.60	49.07	46.47	-15.77	2.83	2.83	-0.61	55.53		
	890.00	12.92	339.71	884.66	67.42	63.80	-21.79	2.08	2.00	-2.80	73.88		
	977.00	14.41	338.57	969.19	87.96	83.00	-29.12	1.74	1.71	-1.31	94.43		
	1,064.00	16.04	340.68	1,053.14	110.80	104.42	-37.05	1.98	1.87	2.43	117.28		
	1,151.00	17.67	340.32	1,136.40	136.03	128.20	-45.48	1.88	1.87	-0.41	142.50		
	1,239.00	18.50	340.32	1,220.05	163.34	153.92	-54.68	0.94	0.94	0.00	169.82		
	1,326.00	21.14	341.03	1,301.89	192.84	181.76	-64.43	3.05	3.03	0.82	199.31		
	1,413.00	20.43	341.16	1,383.22	223.71	210.97	-74.43	0.82	-0.82	0.15	230.19		
	1,500.00	19.20	340.85	1,465.07	253.20	238.85	-84.03	1.42	-1.41	-0.36	259.68		
	1,585.00	20.70	340.59	1,544.97	282.20	266.23	-93.60	1.77	1.76	-0.31	288.68		
	1,635.00	20.70	340.60	1,591.74	299.88	282.90	-99.48	0.01	0.00	0.02	306.35		