

# **CRESTONE PEAK RESOURCES**

**ARAPAHOE COUNTY**

**SEC 30-T4S-R64W**

**WATKINS 4-64 30-29 4AH**

**OWB**

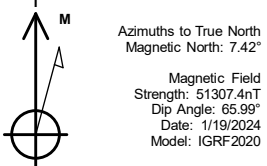
**Design: FINAL SURVEY**

## **Standard Survey Report**

**22 January, 2024**

Project: ARAPAHOE COUNTY  
Site: SEC 30-T4S-R64W  
Well: WATKINS 4-64 30-29 4AH  
Wellbore: OWB  
Design: FINAL SURVEY

PROJECT DETAILS: ARAPAHOE COUNTY  
Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: Colorado Central Zone  
System Datum: Mean Sea Level

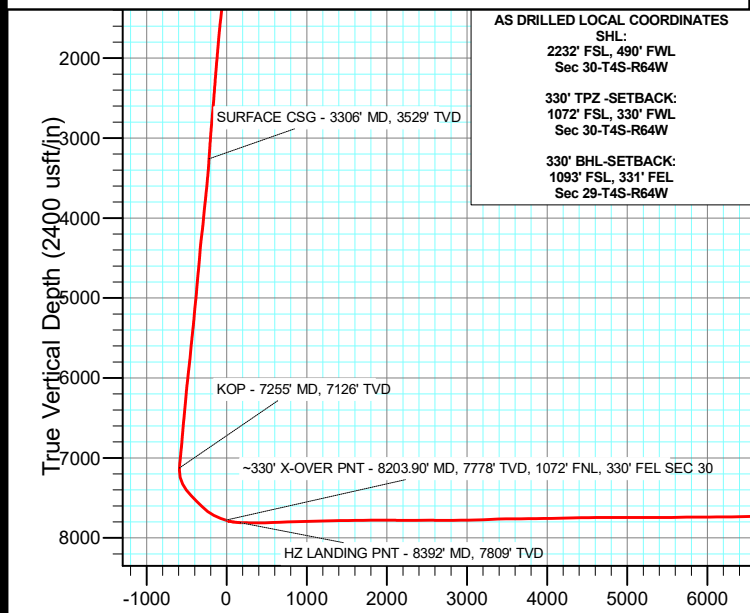
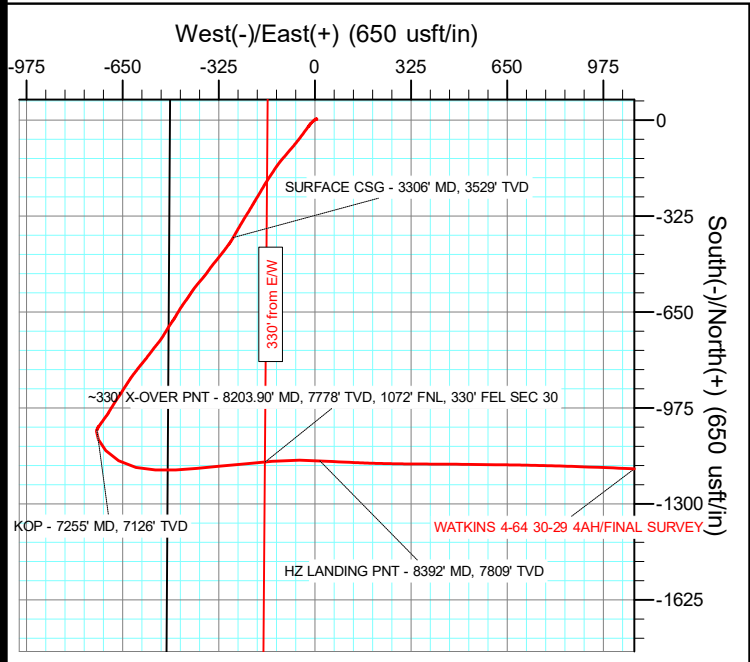


WELL DETAILS: WATKINS 4-64 30-29 4AH

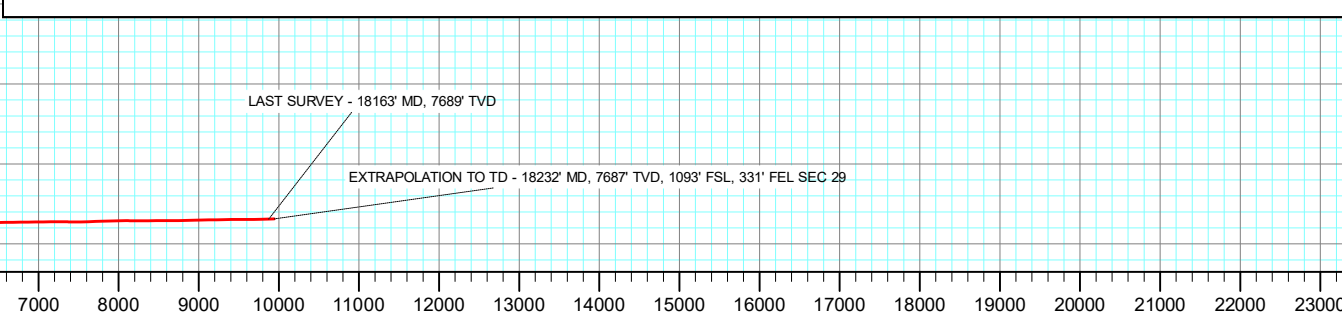
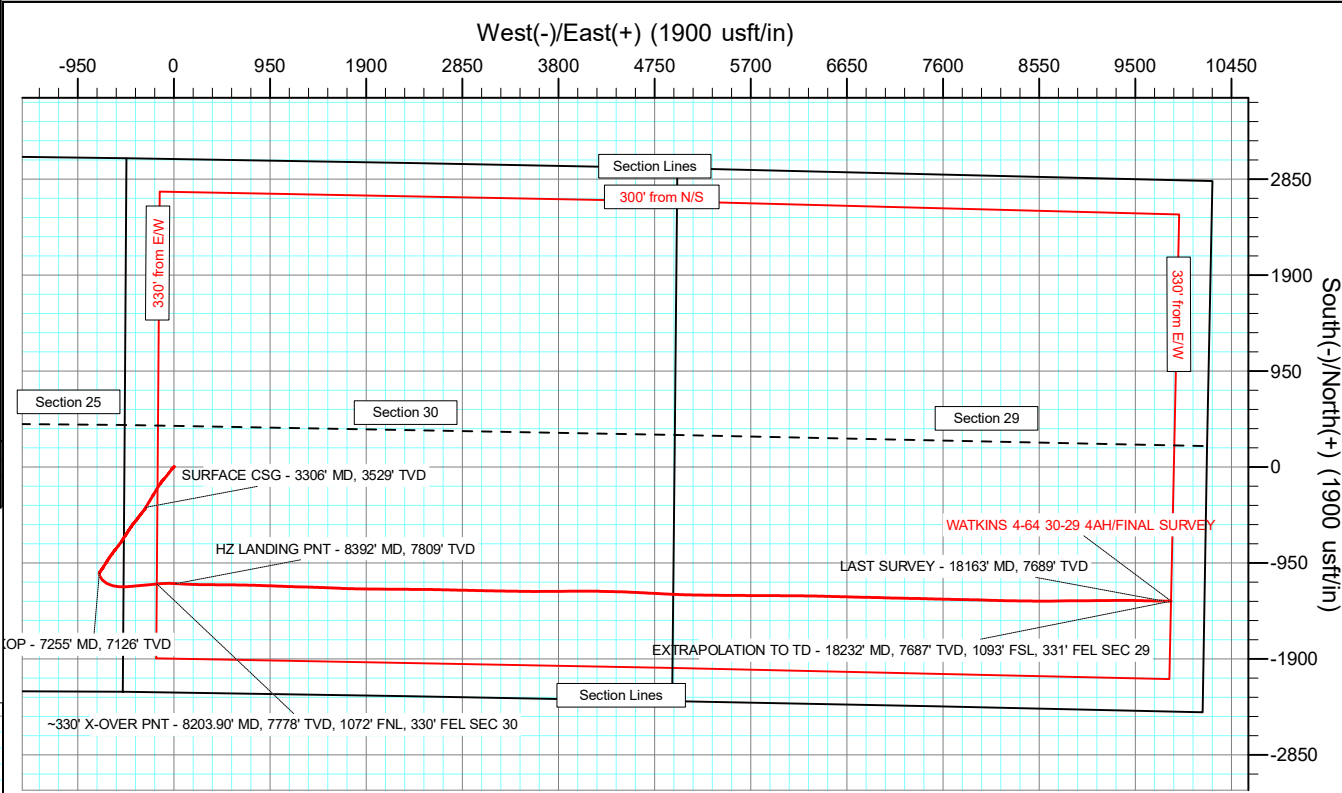
5767.00						Slot
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	1671397.56	3252836.95	39.673353°N	104.601774°W	

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
3306.00	9.40	210.34	3259.41	-397.70	-276.31	-220.71	502.10	SURFACE CSG - 3306' MD, 3529' TVD
7255.00	12.67	198.68	7126.11	-1049.16	-737.10	-590.35	1302.16	KOP - 7255' MD, 7126' TVD
8203.90	73.04	84.13	7778.49	-1157.70	-167.78	-11.64	1941.40	~330' X-OVER PNT - 8203.90' MD, 7778' TVD, 1072' FNL, 330' FEL SEC 30
8392.00	87.73	92.47	7808.52	-1154.23	17.00	171.03	2126.28	HZ LANDING PNT - 8392' MD, 7809' TVD
18163.00	91.52	90.99	7689.18	-1326.77	9783.66	9873.21	11895.58	LAST SURVEY - 18163' MD, 7689' TVD
18232.00	91.52	90.99	7687.35	-1327.97	9852.63	9941.72	11964.56	EXTRAPOLATION TO TD - 18232' MD, 7687' TVD, 1093' FSL, 331' FEL SEC 29



AS DRILLED LOCAL COORDINATES  
SHL:  
2232' FSL, 490' FWL  
Sec 30-T4S-R64W  
330' TPZ -SETBACK:  
1072' FSL, 330' FWL  
Sec 30-T4S-R64W  
330' BHL-SETBACK:  
1093' FSL, 331' FEL  
Sec 29-T4S-R64W



## Civitas Resources

## Survey Report

<b>Company:</b>	CRESTONE PEAK RESOURCES	<b>Local Co-ordinate Reference:</b>	Well WATKINS 4-64 30-29 4AH
<b>Project:</b>	ARAPAHOE COUNTY	<b>TVD Reference:</b>	KB 25' @ 5792.00usft
<b>Site:</b>	SEC 30-T4S-R64W	<b>MD Reference:</b>	KB 25' @ 5792.00usft
<b>Well:</b>	WATKINS 4-64 30-29 4AH	<b>North Reference:</b>	True
<b>Wellbore:</b>	OWB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL SURVEY	<b>Database:</b>	EDM

<b>Project</b>	ARAPAHOE COUNTY		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Central Zone		Using geodetic scale factor

<b>Site</b>	SEC 30-T4S-R64W		
<b>Site Position:</b>		<b>Northing:</b>	1,669,168.52 usft
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,252,354.22 usft
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13.200 in
		<b>Latitude:</b>	39.667247°N
		<b>Longitude:</b>	104.603567°W
		<b>Grid Convergence:</b>	0.57 °

Well	WATKINS 4-64 30-29 4AH					
Well Position	+N/-S	0.00 usft	Northing:	1,671,397.56 usft	Latitude:	39.673353°N
	+E/-W	0.00 usft	Easting:	3,252,836.96 usft	Longitude:	104.601774°W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	5,767.00 usft

<b>Wellbore</b>	OWB				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2020	1/19/2024	7.42	65.99	51,307.35577768

<b>Design</b>	FINAL SURVEY				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	97.68	

<b>Survey Program</b>	<b>Date</b>	1/22/2024			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
212.00	3,229.00	SURFACE SURVEY (OWB)	MWD OWSG	OWSG MWD - Standard	
3,393.00	18,232.00	FINAL SURVEY (OWB)	MWD OWSG	OWSG MWD - Standard	

<b>Survey</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Vertical Section (usft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
212.00	2.03	59.18	211.96	1.92	3.22	2.94	0.96	0.96	0.00	
303.00	1.28	52.87	302.92	3.36	5.42	4.92	0.85	-0.82	-6.93	
394.00	0.35	7.78	393.91	4.25	6.27	5.64	1.17	-1.02	-49.55	
485.00	0.97	281.01	484.90	4.67	5.55	4.87	1.11	0.68	-95.35	
578.00	2.74	243.95	577.85	3.85	2.78	2.24	2.21	1.90	-39.85	
673.00	3.71	230.29	672.70	0.89	-1.63	-1.73	1.30	1.02	-14.38	
767.00	5.70	225.22	766.38	-4.34	-7.28	-6.63	2.16	2.12	-5.39	
862.00	7.20	221.08	860.78	-12.16	-14.54	-12.79	1.65	1.58	-4.36	
957.00	9.85	216.63	954.72	-23.17	-23.30	-20.00	2.87	2.79	-4.68	

# Civitas Resources

## Survey Report

<b>Company:</b>	CRESTONE PEAK RESOURCES	<b>Local Co-ordinate Reference:</b>	Well WATKINS 4-64 30-29 4AH
<b>Project:</b>	ARAPAHOE COUNTY	<b>TVD Reference:</b>	KB 25' @ 5792.00usft
<b>Site:</b>	SEC 30-T4S-R64W	<b>MD Reference:</b>	KB 25' @ 5792.00usft
<b>Well:</b>	WATKINS 4-64 30-29 4AH	<b>North Reference:</b>	True
<b>Wellbore:</b>	OWB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL SURVEY	<b>Database:</b>	EDM

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,051.00	10.16	216.32	1,047.29	-36.30	-33.01	-27.87	0.33	0.33	-0.33
1,145.00	10.56	216.76	1,139.76	-49.88	-43.08	-36.03	0.43	0.43	0.47
1,240.00	11.36	217.64	1,233.03	-64.26	-54.00	-44.93	0.86	0.84	0.93
1,334.00	11.67	218.52	1,325.13	-79.03	-65.57	-54.43	0.38	0.33	0.94
1,429.00	11.93	220.46	1,418.13	-94.02	-77.93	-64.67	0.50	0.27	2.04
1,524.00	11.98	220.90	1,511.07	-108.94	-90.76	-75.39	0.11	0.05	0.46
1,617.00	11.09	220.42	1,602.19	-123.05	-102.88	-85.52	0.96	-0.96	-0.52
1,713.00	10.16	219.76	1,696.54	-136.59	-114.28	-95.01	0.98	-0.97	-0.69
1,807.00	9.32	216.28	1,789.18	-149.10	-124.08	-103.06	1.09	-0.89	-3.70
1,902.00	10.96	213.85	1,882.70	-162.80	-133.67	-110.72	1.78	1.73	-2.56
1,997.00	11.40	213.06	1,975.89	-178.17	-143.82	-118.73	0.49	0.46	-0.83
2,092.00	11.27	213.46	2,069.04	-193.78	-154.06	-126.79	0.16	-0.14	0.42
2,186.00	10.74	212.93	2,161.31	-208.79	-163.89	-134.53	0.57	-0.56	-0.56
2,281.00	11.58	210.46	2,254.52	-224.44	-173.53	-142.00	1.02	0.88	-2.60
2,375.00	11.00	209.84	2,346.70	-240.36	-182.78	-149.03	0.63	-0.62	-0.66
2,471.00	11.36	210.90	2,440.87	-256.41	-192.19	-156.22	0.43	0.37	1.10
2,566.00	10.96	211.96	2,534.08	-272.10	-201.77	-163.62	0.47	-0.42	1.12
2,661.00	12.81	209.71	2,627.04	-288.91	-211.77	-171.29	2.01	1.95	-2.37
2,755.00	12.81	211.65	2,718.70	-306.84	-222.41	-179.43	0.46	0.00	2.06
2,850.00	12.02	212.00	2,811.48	-324.19	-233.18	-187.78	0.84	-0.83	0.37
2,945.00	11.27	211.43	2,904.52	-340.50	-243.26	-195.60	0.80	-0.79	-0.60
3,040.00	11.05	209.49	2,997.72	-356.35	-252.58	-202.72	0.46	-0.23	-2.04
3,134.00	10.65	210.77	3,090.04	-371.65	-261.46	-209.47	0.50	-0.43	1.36
3,229.00	9.99	208.78	3,183.51	-386.42	-269.92	-215.88	0.79	-0.69	-2.09
3,306.00	9.40	210.34	3,259.41	-397.70	-276.31	-220.71	0.83	-0.76	2.03
SURFACE CSG - 3306' MD, 3529' TVD									
3,393.00	8.75	212.35	3,345.32	-409.42	-283.44	-226.21	0.83	-0.75	2.31
3,488.00	10.69	217.55	3,438.95	-422.51	-292.68	-233.62	2.24	2.04	5.47
3,583.00	10.25	215.92	3,532.37	-436.34	-303.01	-242.01	0.56	-0.46	-1.72
3,678.00	11.75	218.66	3,625.62	-450.74	-314.01	-250.99	1.67	1.58	2.88
3,773.00	10.87	217.99	3,718.78	-465.36	-325.57	-260.49	0.94	-0.93	-0.71
3,868.00	12.46	219.45	3,811.81	-480.33	-337.59	-270.41	1.70	1.67	1.54
3,963.00	11.40	217.69	3,904.76	-495.68	-349.85	-280.50	1.18	-1.12	-1.85
4,057.00	10.08	214.65	3,997.11	-509.79	-360.20	-288.88	1.53	-1.40	-3.23
4,151.00	11.67	217.60	4,089.42	-524.09	-370.68	-297.35	1.79	1.69	3.14
4,245.00	13.57	221.04	4,181.15	-539.95	-383.72	-308.16	2.17	2.02	3.66
4,341.00	12.33	219.18	4,274.70	-556.39	-397.59	-319.71	1.36	-1.29	-1.94
4,530.00	8.97	212.93	4,460.43	-584.41	-418.36	-336.55	1.88	-1.78	-3.31
4,625.00	10.83	213.90	4,554.01	-598.03	-427.36	-343.65	1.97	1.96	1.02
4,720.00	12.77	216.32	4,647.00	-613.90	-438.56	-352.63	2.11	2.04	2.55
4,816.00	11.14	213.46	4,740.91	-630.19	-449.96	-361.75	1.81	-1.70	-2.98
4,910.00	12.77	211.61	4,832.87	-646.61	-460.41	-369.92	1.78	1.73	-1.97
5,005.00	11.18	209.62	4,925.80	-663.56	-470.47	-377.62	1.73	-1.67	-2.09

# Civitas Resources

## Survey Report

<b>Company:</b>	CRESTONE PEAK RESOURCES	<b>Local Co-ordinate Reference:</b>	Well WATKINS 4-64 30-29 4AH
<b>Project:</b>	ARAPAHOE COUNTY	<b>TVD Reference:</b>	KB 25' @ 5792.00usft
<b>Site:</b>	SEC 30-T4S-R64W	<b>MD Reference:</b>	KB 25' @ 5792.00usft
<b>Well:</b>	WATKINS 4-64 30-29 4AH	<b>North Reference:</b>	True
<b>Wellbore:</b>	OWB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL SURVEY	<b>Database:</b>	EDM

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
5,099.00	13.79	215.00	5,017.57	-680.66	-481.40	-386.17	3.04	2.78	5.72	
5,194.00	13.21	212.84	5,109.95	-699.06	-493.78	-395.98	0.81	-0.61	-2.27	
5,289.00	11.75	210.11	5,202.70	-716.55	-504.52	-404.29	1.66	-1.54	-2.87	
5,384.00	12.51	211.47	5,295.58	-733.69	-514.75	-412.13	0.85	0.80	1.43	
5,479.00	12.33	219.40	5,388.36	-750.31	-526.56	-421.62	1.80	-0.19	8.35	
5,575.00	11.58	218.79	5,482.28	-765.74	-539.10	-431.98	0.79	-0.78	-0.64	
5,670.00	10.74	216.50	5,575.48	-780.28	-550.34	-441.18	1.00	-0.88	-2.41	
5,859.00	11.36	218.08	5,760.98	-809.09	-572.29	-459.09	0.37	0.33	0.84	
5,954.00	12.95	219.98	5,853.85	-824.62	-584.90	-469.51	1.73	1.67	2.00	
6,049.00	11.53	217.38	5,946.69	-840.32	-597.51	-479.91	1.60	-1.49	-2.74	
6,144.00	13.12	217.95	6,039.49	-856.37	-609.90	-490.05	1.68	1.67	0.60	
6,239.00	12.24	214.65	6,132.18	-873.15	-622.26	-500.05	1.20	-0.93	-3.47	
6,334.00	11.00	212.27	6,225.23	-889.10	-632.83	-508.39	1.40	-1.31	-2.51	
6,428.00	12.68	213.63	6,317.23	-905.27	-643.33	-516.64	1.81	1.79	1.45	
6,522.00	11.80	210.90	6,409.09	-922.11	-653.98	-524.95	1.12	-0.94	-2.90	
6,617.00	13.04	215.48	6,501.87	-939.18	-665.19	-533.78	1.67	1.31	4.82	
6,711.00	11.53	211.91	6,593.71	-955.79	-676.31	-542.58	1.80	-1.61	-3.80	
6,806.00	12.24	212.00	6,686.68	-972.39	-686.66	-550.62	0.75	0.75	0.09	
6,901.00	10.83	209.84	6,779.75	-988.67	-696.44	-558.14	1.55	-1.48	-2.27	
6,995.00	12.42	217.25	6,871.83	-1,004.38	-706.96	-566.46	2.32	1.69	7.88	
7,091.00	10.96	214.51	6,965.84	-1,020.12	-718.38	-575.68	1.63	-1.52	-2.85	
7,186.00	12.86	217.77	7,058.79	-1,035.92	-729.97	-585.05	2.12	2.00	3.43	
7,255.00	12.67	198.68	7,126.11	-1,049.16	-737.10	-590.35	6.09	-0.28	-27.67	
KOP - 7255' MD, 7126' TVD										
7,281.00	12.95	191.64	7,151.47	-1,054.72	-738.60	-591.10	6.09	1.08	-27.06	
7,376.00	23.38	152.03	7,241.92	-1,081.96	-731.86	-580.78	16.44	10.98	-41.69	
7,471.00	32.88	141.63	7,325.65	-1,118.93	-706.95	-551.15	11.22	10.00	-10.95	
7,565.00	40.57	118.18	7,401.31	-1,153.59	-663.89	-503.85	16.89	8.18	-24.95	
7,660.00	43.00	103.99	7,472.30	-1,176.07	-605.08	-442.56	10.26	2.56	-14.94	
7,755.00	46.00	91.57	7,540.18	-1,184.85	-539.35	-376.25	9.68	3.16	-13.07	
7,851.00	45.12	87.82	7,607.41	-1,184.51	-470.83	-308.39	2.94	-0.92	-3.91	
7,945.00	53.16	84.12	7,668.87	-1,179.38	-400.01	-238.89	9.05	8.55	-3.94	
8,039.00	63.99	85.22	7,717.81	-1,171.98	-320.26	-160.84	11.56	11.52	1.17	
8,134.00	68.94	84.56	7,755.73	-1,164.22	-233.53	-75.93	5.25	5.21	-0.69	
8,203.90	73.04	84.13	7,778.49	-1,157.70	-167.78	-11.64	5.90	5.87	-0.61	
~330' X-OVER PNT - 8203.90' MD, 7778' TVD, 1072' FSL, 330' FEL SEC 30										
8,228.00	74.46	83.99	7,785.23	-1,155.31	-144.77	10.85	5.90	5.87	-0.59	
8,323.00	83.61	91.57	7,803.31	-1,151.80	-51.74	102.57	12.41	9.63	7.98	
8,392.00	87.73	92.47	7,808.52	-1,154.23	17.00	171.03	6.11	5.97	1.31	
HZ LANDING PNT - 8392' MD, 7809' TVD										
8,417.00	89.22	92.80	7,809.19	-1,155.38	41.97	195.92	6.11	5.97	1.30	
8,511.00	88.78	92.62	7,810.83	-1,159.82	135.85	289.55	0.51	-0.47	-0.19	
8,607.00	89.93	91.30	7,811.91	-1,163.10	231.78	385.07	1.82	1.20	-1.37	
8,701.00	91.56	90.46	7,810.68	-1,164.55	325.76	478.39	1.95	1.73	-0.89	

# Civitas Resources

## Survey Report

<b>Company:</b>	CRESTONE PEAK RESOURCES	<b>Local Co-ordinate Reference:</b>	Well WATKINS 4-64 30-29 4AH
<b>Project:</b>	ARAPAHOE COUNTY	<b>TVD Reference:</b>	KB 25' @ 5792.00usft
<b>Site:</b>	SEC 30-T4S-R64W	<b>MD Reference:</b>	KB 25' @ 5792.00usft
<b>Well:</b>	WATKINS 4-64 30-29 4AH	<b>North Reference:</b>	True
<b>Wellbore:</b>	OWB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL SURVEY	<b>Database:</b>	EDM

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
8,796.00	92.36	90.29	7,807.43	-1,165.17	420.70	572.57	0.86	0.84	-0.18	
8,891.00	92.14	90.64	7,803.71	-1,165.94	515.62	666.74	0.43	-0.23	0.37	
8,985.00	92.49	90.64	7,799.91	-1,166.99	609.54	759.96	0.37	0.37	0.00	
9,079.00	90.77	91.04	7,797.23	-1,168.37	703.49	853.25	1.88	-1.83	0.43	
9,175.00	91.07	91.65	7,795.69	-1,170.62	799.45	948.65	0.71	0.31	0.64	
9,270.00	91.52	92.05	7,793.55	-1,173.69	894.38	1,043.14	0.63	0.47	0.42	
9,365.00	91.74	92.18	7,790.84	-1,177.19	989.27	1,137.65	0.27	0.23	0.14	
9,459.00	92.18	92.40	7,787.63	-1,180.94	1,083.14	1,231.18	0.52	0.47	0.23	
9,554.00	90.99	91.48	7,785.00	-1,184.16	1,178.05	1,325.67	1.58	-1.25	-0.97	
9,649.00	90.90	91.43	7,783.43	-1,186.57	1,273.01	1,420.09	0.11	-0.09	-0.05	
9,744.00	90.81	92.09	7,782.02	-1,189.49	1,367.95	1,514.58	0.70	-0.09	0.69	
9,838.00	90.46	92.40	7,780.97	-1,193.17	1,461.87	1,608.15	0.50	-0.37	0.33	
9,933.00	90.68	92.31	7,780.03	-1,197.07	1,556.79	1,702.73	0.25	0.23	-0.09	
10,028.00	90.50	92.36	7,779.05	-1,200.94	1,651.70	1,797.32	0.20	-0.19	0.05	
10,123.00	90.32	91.48	7,778.37	-1,204.13	1,746.65	1,891.83	0.95	-0.19	-0.93	
10,218.00	90.06	90.68	7,778.06	-1,205.92	1,841.63	1,986.20	0.89	-0.27	-0.84	
10,312.00	89.26	90.77	7,778.61	-1,207.11	1,935.62	2,079.51	0.86	-0.85	0.10	
10,407.00	88.64	90.60	7,780.36	-1,208.24	2,030.59	2,173.79	0.68	-0.65	-0.18	
10,501.00	90.72	90.64	7,780.88	-1,209.26	2,124.58	2,267.07	2.21	2.21	0.04	
10,595.00	90.50	90.38	7,779.88	-1,210.10	2,218.57	2,360.33	0.36	-0.23	-0.28	
10,784.00	90.01	90.24	7,779.04	-1,211.12	2,407.57	2,547.77	0.27	-0.26	-0.07	
10,877.00	89.09	90.55	7,779.77	-1,211.76	2,500.56	2,640.01	1.04	-0.99	0.33	
10,973.00	90.77	91.43	7,779.89	-1,213.42	2,596.54	2,735.36	1.98	1.75	0.92	
11,067.00	89.57	91.26	7,779.61	-1,215.62	2,690.51	2,828.78	1.29	-1.28	-0.18	
11,162.00	90.94	91.52	7,779.18	-1,217.93	2,785.48	2,923.21	1.47	1.44	0.27	
11,257.00	90.32	90.77	7,778.14	-1,219.83	2,880.46	3,017.58	1.02	-0.65	-0.79	
11,350.00	92.27	91.70	7,776.04	-1,221.83	2,973.41	3,109.97	2.32	2.10	1.00	
11,445.00	92.40	91.21	7,772.17	-1,224.24	3,068.30	3,204.33	0.53	0.14	-0.52	
11,539.00	93.02	90.77	7,767.72	-1,225.86	3,162.18	3,297.58	0.81	0.66	-0.47	
11,634.00	91.07	91.26	7,764.33	-1,227.54	3,257.10	3,391.88	2.12	-2.05	0.52	
11,729.00	91.74	90.64	7,762.00	-1,229.12	3,352.05	3,486.20	0.96	0.71	-0.65	
11,824.00	90.10	90.99	7,760.48	-1,230.47	3,447.03	3,580.50	1.77	-1.73	0.37	
11,918.00	90.23	90.42	7,760.21	-1,231.63	3,541.02	3,673.80	0.62	0.14	-0.61	
12,012.00	90.54	89.32	7,759.58	-1,231.41	3,635.02	3,766.93	1.22	0.33	-1.17	
12,108.00	90.59	89.67	7,758.63	-1,230.57	3,731.01	3,861.95	0.37	0.05	0.36	
12,203.00	90.90	89.36	7,757.39	-1,229.76	3,826.00	3,955.98	0.46	0.33	-0.33	
12,297.00	91.30	89.10	7,755.59	-1,228.50	3,919.97	4,048.94	0.51	0.43	-0.28	
12,392.00	91.30	90.46	7,753.43	-1,228.14	4,014.94	4,143.01	1.43	0.00	1.43	
12,486.00	91.91	89.98	7,750.80	-1,228.50	4,108.91	4,236.18	0.83	0.65	-0.51	
12,581.00	90.54	91.57	7,748.77	-1,229.78	4,203.87	4,330.47	2.21	-1.44	1.67	
12,676.00	90.63	91.48	7,747.80	-1,232.31	4,298.83	4,424.91	0.13	0.09	-0.09	
12,770.00	91.47	91.04	7,746.08	-1,234.38	4,392.79	4,518.31	1.01	0.89	-0.47	
12,865.00	90.15	92.80	7,744.74	-1,237.56	4,487.72	4,612.81	2.32	-1.39	1.85	

# Civitas Resources

## Survey Report

<b>Company:</b>	CRESTONE PEAK RESOURCES	<b>Local Co-ordinate Reference:</b>	Well WATKINS 4-64 30-29 4AH
<b>Project:</b>	ARAPAHOE COUNTY	<b>TVD Reference:</b>	KB 25' @ 5792.00usft
<b>Site:</b>	SEC 30-T4S-R64W	<b>MD Reference:</b>	KB 25' @ 5792.00usft
<b>Well:</b>	WATKINS 4-64 30-29 4AH	<b>North Reference:</b>	True
<b>Wellbore:</b>	OWB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL SURVEY	<b>Database:</b>	EDM

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
12,960.00	90.99	92.76	7,743.79	-1,242.17	4,582.61	4,707.46	0.89	0.88	-0.04	
13,054.00	89.44	93.02	7,743.44	-1,246.91	4,676.48	4,801.13	1.67	-1.65	0.28	
13,148.00	89.44	92.98	7,744.36	-1,251.83	4,770.35	4,894.81	0.04	0.00	-0.04	
13,243.00	89.62	92.93	7,745.14	-1,256.72	4,865.22	4,989.49	0.20	0.19	-0.05	
13,338.00	89.93	92.27	7,745.51	-1,261.03	4,960.12	5,084.11	0.77	0.33	-0.69	
13,433.00	90.37	91.65	7,745.26	-1,264.28	5,055.06	5,178.64	0.80	0.46	-0.65	
13,527.00	90.10	91.04	7,744.87	-1,266.49	5,149.04	5,272.07	0.71	-0.29	-0.65	
13,622.00	90.01	90.77	7,744.78	-1,267.99	5,244.02	5,366.40	0.30	-0.09	-0.28	
13,716.00	90.28	90.60	7,744.55	-1,269.11	5,338.02	5,459.70	0.34	0.29	-0.18	
13,811.00	91.03	90.51	7,743.46	-1,270.03	5,433.01	5,553.96	0.80	0.79	-0.09	
13,906.00	91.12	90.33	7,741.68	-1,270.73	5,527.99	5,648.19	0.21	0.09	-0.19	
14,000.00	90.50	90.42	7,740.35	-1,271.34	5,621.97	5,741.41	0.67	-0.66	0.10	
14,095.00	89.35	89.98	7,740.47	-1,271.67	5,716.97	5,835.60	1.30	-1.21	-0.46	
14,190.00	90.81	90.51	7,740.34	-1,272.08	5,811.97	5,929.80	1.63	1.54	0.56	
14,284.00	90.90	90.46	7,738.94	-1,272.88	5,905.95	6,023.05	0.11	0.10	-0.05	
14,379.00	90.37	90.24	7,737.88	-1,273.46	6,000.95	6,117.27	0.60	-0.56	-0.23	
14,473.00	90.19	90.42	7,737.42	-1,274.00	6,094.94	6,210.50	0.27	-0.19	0.19	
14,568.00	90.77	90.77	7,736.63	-1,274.98	6,189.93	6,304.77	0.71	0.61	0.37	
14,662.00	91.12	90.60	7,735.08	-1,276.11	6,283.91	6,398.06	0.41	0.37	-0.18	
14,758.00	91.25	91.48	7,733.09	-1,277.85	6,379.88	6,493.39	0.93	0.14	0.92	
14,852.00	91.07	91.70	7,731.19	-1,280.46	6,473.82	6,586.85	0.30	-0.19	0.23	
14,946.00	91.16	91.17	7,729.36	-1,282.81	6,567.77	6,680.27	0.57	0.10	-0.56	
15,041.00	90.81	91.61	7,727.73	-1,285.12	6,662.73	6,774.68	0.59	-0.37	0.46	
15,136.00	90.77	91.35	7,726.42	-1,287.57	6,757.69	6,869.12	0.28	-0.04	-0.27	
15,231.00	90.77	91.21	7,725.14	-1,289.69	6,852.66	6,963.52	0.15	0.00	-0.15	
15,326.00	90.28	91.61	7,724.27	-1,292.03	6,947.63	7,057.95	0.67	-0.52	0.42	
15,421.00	90.23	91.79	7,723.85	-1,294.85	7,042.58	7,152.43	0.20	-0.05	0.19	
15,516.00	90.15	91.21	7,723.53	-1,297.33	7,137.55	7,246.88	0.62	-0.08	-0.61	
15,610.00	89.62	91.21	7,723.72	-1,299.32	7,231.53	7,340.28	0.56	-0.56	0.00	
15,705.00	89.09	90.73	7,724.79	-1,300.93	7,326.51	7,434.62	0.75	-0.56	-0.51	
15,800.00	91.12	91.92	7,724.62	-1,303.12	7,421.48	7,529.03	2.48	2.14	1.25	
15,894.00	91.43	91.48	7,722.53	-1,305.91	7,515.41	7,622.50	0.57	0.33	-0.47	
15,988.00	92.67	91.17	7,719.16	-1,308.08	7,609.32	7,715.86	1.36	1.32	-0.33	
16,082.00	91.21	91.30	7,715.98	-1,310.11	7,703.24	7,809.21	1.56	-1.55	0.14	
16,177.00	91.34	91.21	7,713.87	-1,312.19	7,798.20	7,903.59	0.17	0.14	-0.09	
16,272.00	92.22	90.86	7,710.92	-1,313.90	7,893.14	7,997.91	1.00	0.93	-0.37	
16,368.00	89.57	91.96	7,709.42	-1,316.27	7,989.09	8,093.31	2.99	-2.76	1.15	
16,462.00	89.88	91.87	7,709.87	-1,319.41	8,083.03	8,186.84	0.34	0.33	-0.10	
16,557.00	90.06	91.17	7,709.92	-1,321.93	8,178.00	8,281.29	0.76	0.19	-0.74	
16,650.00	90.19	91.04	7,709.71	-1,323.72	8,270.98	8,373.68	0.20	0.14	-0.14	
16,746.00	90.41	90.73	7,709.21	-1,325.20	8,366.97	8,469.00	0.40	0.23	-0.32	
16,841.00	90.59	90.68	7,708.38	-1,326.37	8,461.96	8,563.30	0.20	0.19	-0.05	
16,936.00	90.01	90.20	7,707.89	-1,327.10	8,556.95	8,657.54	0.79	-0.61	-0.51	
17,030.00	90.50	89.41	7,707.47	-1,326.78	8,650.95	8,750.65	0.99	0.52	-0.84	

# Civitas Resources

## Survey Report

<b>Company:</b>	CRESTONE PEAK RESOURCES	<b>Local Co-ordinate Reference:</b>	Well WATKINS 4-64 30-29 4AH
<b>Project:</b>	ARAPAHOE COUNTY	<b>TVD Reference:</b>	KB 25' @ 5792.00usft
<b>Site:</b>	SEC 30-T4S-R64W	<b>MD Reference:</b>	KB 25' @ 5792.00usft
<b>Well:</b>	WATKINS 4-64 30-29 4AH	<b>North Reference:</b>	True
<b>Wellbore:</b>	OWB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL SURVEY	<b>Database:</b>	EDM

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
17,124.00	91.07	89.19	7,706.18	-1,325.63	8,744.93	8,843.64	0.65	0.61	-0.23
17,219.00	92.22	89.01	7,703.45	-1,324.14	8,839.88	8,937.54	1.23	1.21	-0.19
17,314.00	90.68	90.02	7,701.05	-1,323.34	8,934.84	9,031.54	1.94	-1.62	1.06
17,409.00	90.90	89.63	7,699.74	-1,323.05	9,029.83	9,125.64	0.47	0.23	-0.41
17,504.00	90.99	89.32	7,698.17	-1,322.18	9,124.82	9,219.66	0.34	0.09	-0.33
17,599.00	91.12	89.71	7,696.42	-1,321.37	9,219.80	9,313.68	0.43	0.14	0.41
17,693.00	90.68	89.14	7,694.95	-1,320.43	9,313.78	9,406.69	0.77	-0.47	-0.61
17,882.00	90.15	91.30	7,693.58	-1,321.16	9,502.76	9,594.08	1.18	-0.28	1.14
17,978.00	90.63	91.08	7,692.92	-1,323.15	9,598.74	9,689.46	0.55	0.50	-0.23
18,072.00	91.25	91.21	7,691.38	-1,325.03	9,692.71	9,782.84	0.67	0.66	0.14
18,163.00	91.52	90.99	7,689.18	-1,326.77	9,783.66	9,873.21	0.38	0.30	-0.24
LAST SURVEY - 18163' MD, 7689' TVD									
18,232.00	91.52	90.99	7,687.35	-1,327.97	9,852.63	9,941.72	0.00	0.00	0.00
EXTRAPOLATION TO TD - 18232' MD, 7687' TVD, 1093' FSL, 331' FEL SEC 29									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL-WATKINS 4-64 4A	0.00	0.00	7,690.00	-1,361.17	9,853.36	1,670,133.89	3,262,703.15	39.669611°N	104.566772°W
- actual wellpath misses target center by 33.32usft at 18232.00usft MD (7687.35 TVD, -1327.97 N, 9852.63 E)									
- Point									
LP-WATKINS 4-64 4AH	0.00	0.00	7,805.00	-1,169.28	-167.78	1,670,226.69	3,252,680.75	39.670143°N	104.602370°W
- actual wellpath misses target center by 28.19usft at 8210.17usft MD (7780.30 TVD, -1157.09 N, -161.81 E)									
- Point									

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
3,306.00	3,259.41	-397.70	-276.31	SURFACE CSG - 3306' MD, 3529' TVD	
7,255.00	7,126.11	-1,049.16	-737.10	KOP - 7255' MD, 7126' TVD	
8,203.90	7,778.49	-1,157.70	-167.78	~330' X-OVER PNT - 8203.90' MD, 7778' TVD, 1072' FSL, 330' FEL SEC 30	
8,392.00	7,808.52	-1,154.23	17.00	HZ LANDING PNT - 8392' MD, 7809' TVD	
18,163.00	7,689.18	-1,326.77	9,783.66	LAST SURVEY - 18163' MD, 7689' TVD	
18,232.00	7,687.35	-1,327.97	9,852.63	EXTRAPOLATION TO TD - 18232' MD, 7687' TVD, 1093' FSL, 331' FEL SEC 2	

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_