

# **CRESTONE PEAK RESOURCES**

**ARAPAHOE COUNTY**

**SEC 30-T4S-R64W**

**WATKINS 4-64 30-29 3BH**

**OWB**

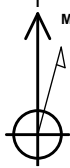
**Design: FINAL SURVEY**

## **Standard Survey Report**

**31 January, 2024**

Project: ARAPAHOE COUNTY  
Site: SEC 30-T4S-R64W  
Well: WATKINS 4-64 30-29 3BH  
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



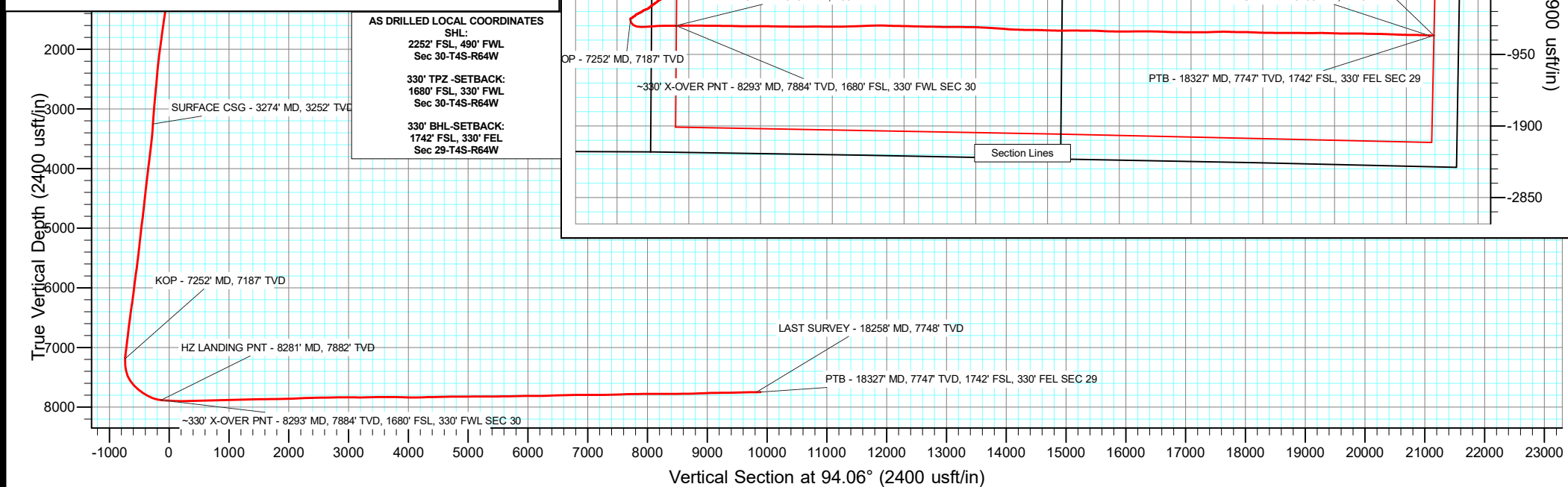
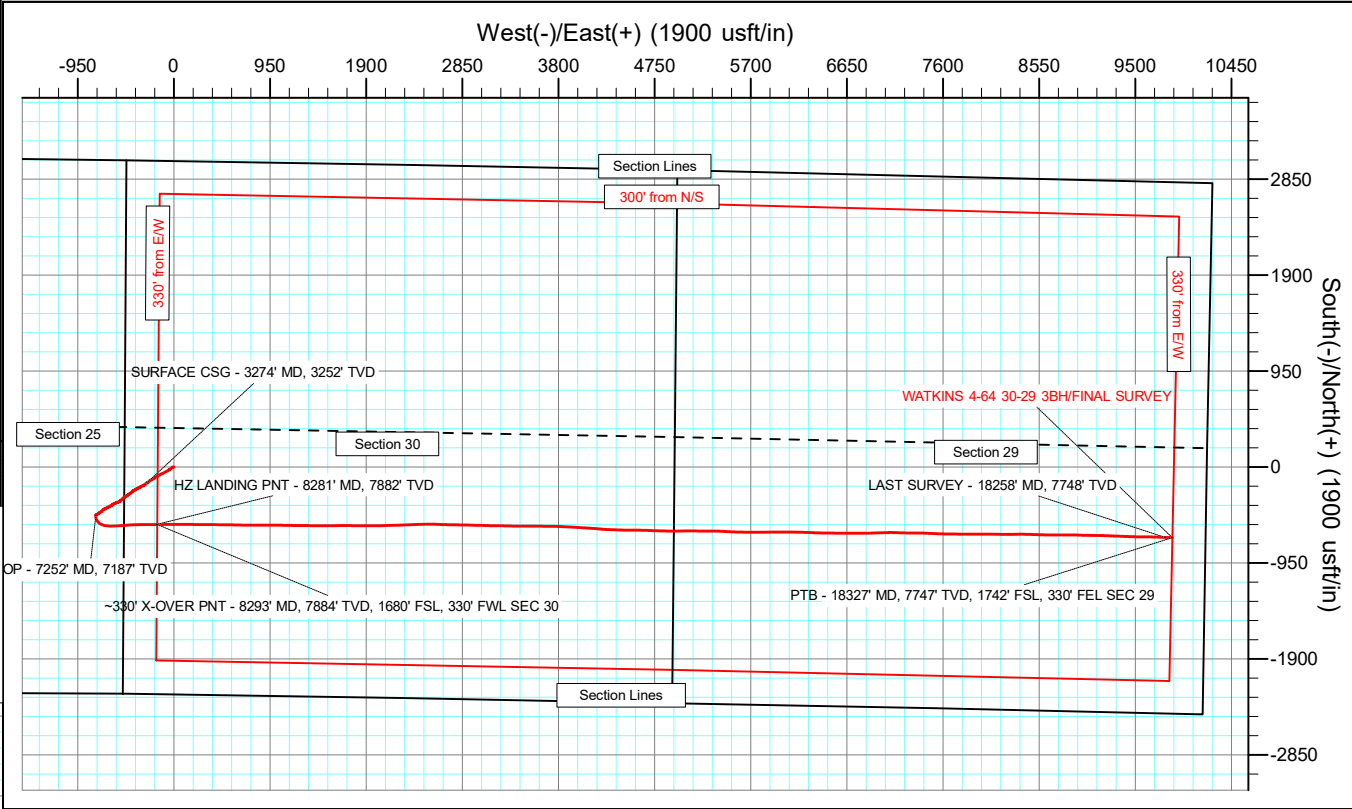
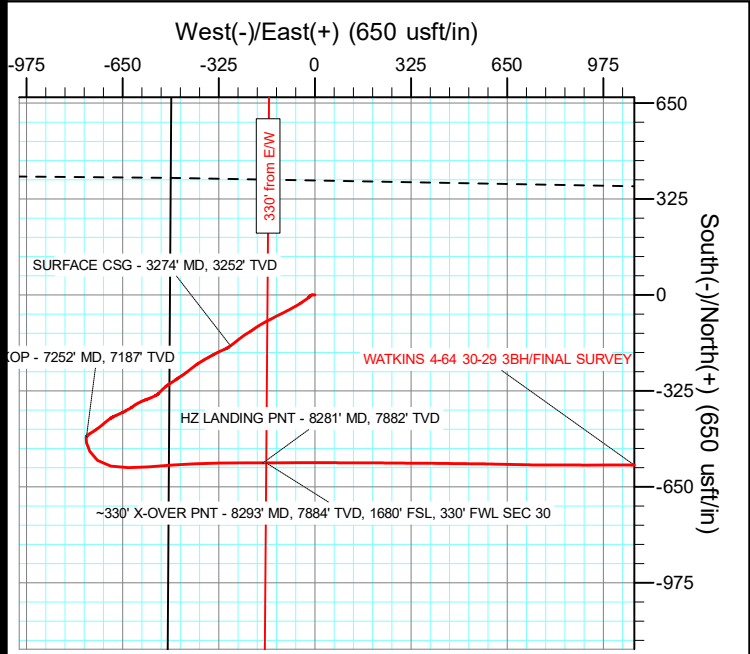
Azimuths to True North  
Magnetic North: 7.42°  
Magnetic Field  
Strength: 51308.5nT  
Dip Angle: 65.99°  
Date: 1/15/2024  
Model: IGRF2020

WELL DETAILS: WATKINS 4-64 30-29 3BH

5767.00						Slot
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	1671417.59	3252836.75	39.673408°N	104.601774°W	

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
3274.00	4.93	233.84	3251.96	-171.88	-285.20	-272.33	336.25	SURFACE CSG - 3274' MD, 3252' TVD
7252.00	7.67	206.27	7186.80	-479.17	-772.29	-736.46	916.83	KOP - 7252' MD, 7187' TVD
8281.00	83.79	89.99	7882.31	-569.03	-175.83	-135.14	1576.81	HZ LANDING PNT - 8281' MD, 7882' TVD
8293.34	84.70	89.77	7883.54	-569.00	-163.55	-122.89	1589.05	~330' X-OVER PNT - 8293' MD, 7884' TVD, 1680' FSL, 330' FWL SEC 30
18258.00	91.25	92.18	7748.01	-696.86	9795.14	9819.90	11550.81	LAST SURVEY - 18258' MD, 7748' TVD
18327.00	91.25	92.18	7746.51	-699.48	9864.08	9888.85	11619.79	PTB - 18327' MD, 7747' TVD, 1742' FSL, 330' FEL SEC 29



## Civitas Resources

## Survey Report

<b>Company:</b>	CRESTONE PEAK RESOURCES	<b>Local Co-ordinate Reference:</b>	Well WATKINS 4-64 30-29 3BH
<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 3BH	<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

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

Well		WATKINS 4-64 30-29 3BH				
Well Position	+N/-S	0.00 usft	Northing:	1,671,417.59 usft	Latitude:	39.673408°N
	+E/-W	0.00 usft	Easting:	3,252,836.76 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	1/15/2024	7.42	65.99	51,308.53868800

<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	94.06	

<b>Survey Program</b>	<b>Date</b>	1/31/2024			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
212.00	3,218.00	SURFACE SURVEY (OWB)	MWD OWSG	OWSG MWD - Standard	
3,367.00	18,327.00	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	1.19	269.77	211.98	-0.01	-2.20	-2.20	0.56	0.56	0.00	
303.00	1.37	272.24	302.96	0.03	-4.23	-4.22	0.21	0.20	2.71	
394.00	1.72	278.68	393.93	0.28	-6.67	-6.67	0.43	0.38	7.08	
485.00	0.93	281.23	484.90	0.63	-8.74	-8.77	0.87	-0.87	2.80	
578.00	0.49	252.85	577.90	0.66	-9.87	-9.89	0.59	-0.47	-30.52	
673.00	0.71	294.10	672.89	0.78	-10.79	-10.82	0.49	0.23	43.42	
767.00	2.03	223.64	766.87	-0.19	-12.47	-12.43	2.04	1.40	-74.96	
862.00	4.07	223.42	861.73	-3.86	-15.95	-15.64	2.15	2.15	-0.23	
957.00	7.07	233.15	956.27	-9.81	-22.95	-22.20	3.30	3.16	10.24	

# Civitas Resources

## Survey Report

<b>Company:</b>	CRESTONE PEAK RESOURCES	<b>Local Co-ordinate Reference:</b>	Well WATKINS 4-64 30-29 3BH
<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 3BH	<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	7.16	234.65	1,049.55	-16.67	-32.35	-31.09	0.22	0.10	1.60
1,145.00	6.98	234.04	1,142.83	-23.41	-41.76	-40.00	0.21	-0.19	-0.65
1,240.00	8.62	239.15	1,236.95	-30.45	-52.54	-50.26	1.87	1.73	5.38
1,334.00	9.10	239.81	1,329.83	-37.80	-65.01	-62.18	0.52	0.51	0.70
1,429.00	9.54	241.66	1,423.58	-45.32	-78.44	-75.03	0.56	0.46	1.95
1,524.00	9.68	242.54	1,517.24	-52.74	-92.45	-88.49	0.21	0.15	0.93
1,617.00	9.63	242.54	1,608.92	-59.93	-106.29	-101.79	0.05	-0.05	0.00
1,713.00	8.88	244.30	1,703.67	-66.85	-120.09	-115.07	0.83	-0.78	1.83
1,807.00	8.53	242.89	1,796.59	-73.17	-132.84	-127.33	0.44	-0.37	-1.50
1,902.00	8.88	241.79	1,890.50	-79.85	-145.57	-139.56	0.41	0.37	-1.16
1,997.00	9.63	243.11	1,984.26	-86.91	-159.12	-152.57	0.82	0.79	1.39
2,092.00	8.44	240.51	2,078.08	-93.93	-172.27	-165.20	1.32	-1.25	-2.74
2,186.00	8.13	238.53	2,171.10	-100.80	-183.95	-176.36	0.45	-0.33	-2.11
2,281.00	7.47	238.31	2,265.22	-107.55	-194.93	-186.84	0.70	-0.69	-0.23
2,375.00	6.81	234.56	2,358.49	-113.99	-204.67	-196.10	0.86	-0.70	-3.99
2,471.00	5.79	235.62	2,453.91	-120.03	-213.31	-204.28	1.07	-1.06	1.10
2,566.00	6.81	238.75	2,548.33	-125.66	-222.08	-212.63	1.13	1.07	3.29
2,661.00	7.07	237.03	2,642.64	-131.76	-231.80	-221.90	0.35	0.27	-1.81
2,755.00	6.23	235.14	2,736.01	-137.82	-240.84	-230.48	0.92	-0.89	-2.01
2,850.00	6.63	232.63	2,830.41	-144.10	-249.42	-238.61	0.51	0.42	-2.64
2,945.00	7.03	231.92	2,924.73	-151.01	-258.36	-247.03	0.43	0.42	-0.75
3,040.00	6.23	230.55	3,019.10	-157.87	-266.92	-255.08	0.86	-0.84	-1.44
3,134.00	5.88	232.32	3,112.57	-164.06	-274.66	-262.37	0.42	-0.37	1.88
3,218.00	5.26	233.99	3,196.18	-168.95	-281.18	-268.53	0.76	-0.74	1.99
3,274.00	4.93	233.84	3,251.96	-171.88	-285.20	-272.33	0.60	-0.60	-0.26
SURFACE CSG - 3274' MD, 3252' TVD									
3,367.00	4.37	233.55	3,344.65	-176.34	-291.28	-278.07	0.60	-0.60	-0.32
3,462.00	6.10	245.54	3,439.25	-180.58	-298.78	-285.26	2.15	1.82	12.62
3,557.00	7.64	244.74	3,533.57	-185.36	-309.09	-295.20	1.62	1.62	-0.84
3,652.00	7.16	245.85	3,627.78	-190.48	-320.20	-305.93	0.53	-0.51	1.17
3,747.00	8.48	241.84	3,721.89	-196.21	-331.78	-317.07	1.50	1.39	-4.22
3,841.00	7.25	242.94	3,815.00	-202.18	-343.17	-328.01	1.32	-1.31	1.17
3,936.00	9.28	240.82	3,909.01	-208.64	-355.20	-339.55	2.16	2.14	-2.23
4,034.00	7.47	241.00	4,025.75	-217.00	-370.22	-353.94	1.53	-1.53	0.15
4,148.00	9.06	237.52	4,118.77	-223.94	-381.81	-365.01	1.77	1.69	-3.70
4,242.00	7.51	239.41	4,211.79	-231.04	-393.34	-376.01	1.67	-1.65	2.01
4,337.00	9.32	232.14	4,305.76	-238.92	-404.76	-386.84	2.21	1.91	-7.65
4,432.00	7.95	231.48	4,399.68	-247.73	-415.97	-397.41	1.45	-1.44	-0.69
4,527.00	8.79	231.57	4,493.67	-256.34	-426.80	-407.60	0.88	0.88	0.09
4,622.00	7.25	234.26	4,587.74	-264.35	-437.35	-417.56	1.67	-1.62	2.83
4,717.00	8.88	235.67	4,681.80	-271.99	-448.27	-427.91	1.73	1.72	1.48
4,812.00	7.25	236.33	4,775.85	-279.45	-459.32	-438.40	1.72	-1.72	0.69
4,907.00	10.34	236.15	4,869.73	-287.52	-471.39	-449.87	3.25	3.25	-0.19

# Civitas Resources

## Survey Report

<b>Company:</b>	CRESTONE PEAK RESOURCES	<b>Local Co-ordinate Reference:</b>	Well WATKINS 4-64 30-29 3BH
<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 3BH	<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)	
5,002.00	9.01	236.46	4,963.37	-296.38	-484.67	-462.49	1.40	-1.40	0.33	
5,096.00	7.38	236.59	5,056.41	-303.77	-495.84	-473.12	1.73	-1.73	0.14	
5,191.00	9.28	228.57	5,150.41	-312.20	-506.68	-483.33	2.34	2.00	-8.44	
5,286.00	9.15	225.88	5,244.18	-322.53	-517.85	-493.74	0.47	-0.14	-2.83	
5,381.00	8.53	224.65	5,338.05	-332.80	-528.22	-503.36	0.68	-0.65	-1.29	
5,476.00	8.57	242.94	5,432.01	-341.03	-539.48	-514.00	2.85	0.04	19.25	
5,571.00	8.22	245.76	5,526.00	-347.04	-551.97	-526.04	0.57	-0.37	2.97	
5,666.00	6.89	251.27	5,620.17	-351.66	-563.56	-537.28	1.59	-1.40	5.80	
5,761.00	10.03	248.80	5,714.13	-356.48	-576.68	-550.02	3.33	3.31	-2.60	
5,856.00	8.18	243.82	5,807.93	-362.46	-590.46	-563.34	2.11	-1.95	-5.24	
5,951.00	9.41	239.59	5,901.81	-369.37	-603.22	-575.58	1.46	1.29	-4.45	
6,046.00	7.78	232.23	5,995.74	-377.24	-615.00	-586.78	2.07	-1.72	-7.75	
6,141.00	9.46	240.60	6,089.67	-385.01	-626.89	-598.08	2.20	1.77	8.81	
6,236.00	8.31	239.72	6,183.53	-392.30	-639.62	-610.27	1.22	-1.21	-0.93	
6,330.00	10.65	245.98	6,276.24	-399.27	-653.42	-623.54	2.72	2.49	6.66	
6,425.00	9.37	244.70	6,369.79	-406.15	-668.43	-638.03	1.37	-1.35	-1.35	
6,519.00	7.64	244.52	6,462.75	-412.10	-680.99	-650.14	1.84	-1.84	-0.19	
6,614.00	10.47	234.74	6,556.57	-419.81	-693.74	-662.31	3.38	2.98	-10.29	
6,708.00	9.68	230.69	6,649.12	-429.74	-706.83	-674.66	1.13	-0.84	-4.31	
6,803.00	8.62	228.26	6,742.91	-439.54	-718.32	-685.43	1.19	-1.12	-2.56	
6,897.00	9.63	235.05	6,835.72	-448.74	-730.03	-696.46	1.57	1.07	7.22	
6,992.00	8.22	233.82	6,929.57	-457.30	-742.02	-707.82	1.50	-1.48	-1.29	
7,087.00	9.28	239.28	7,023.46	-465.22	-754.09	-719.29	1.42	1.12	5.75	
7,183.00	7.78	238.35	7,118.40	-472.59	-766.27	-730.93	1.57	-1.56	-0.97	
7,252.00	7.67	206.27	7,186.80	-479.17	-772.29	-736.46	6.17	-0.16	-46.49	
KOP - 7252' MD, 7187' TVD										
7,278.00	8.22	195.34	7,212.55	-482.52	-773.55	-737.48	6.17	2.11	-42.04	
7,373.00	15.38	164.45	7,305.57	-501.24	-771.97	-734.58	9.80	7.54	-32.52	
7,467.00	22.58	154.93	7,394.42	-529.64	-760.96	-721.59	8.31	7.66	-10.13	
7,562.00	28.37	127.48	7,480.44	-560.03	-735.21	-693.76	13.69	6.09	-28.89	
7,657.00	35.31	101.52	7,561.48	-579.36	-690.13	-647.42	16.01	7.31	-27.33	
7,752.00	42.42	89.89	7,635.50	-584.80	-631.04	-588.09	10.70	7.48	-12.24	
7,847.00	49.27	86.10	7,701.65	-582.28	-562.99	-520.39	7.76	7.21	-3.99	
7,942.00	56.47	84.96	7,758.96	-576.35	-487.53	-445.54	7.64	7.58	-1.20	
8,036.00	61.78	88.00	7,807.19	-571.46	-407.05	-365.60	6.29	5.65	3.23	
8,130.00	67.52	88.52	7,847.42	-568.89	-322.17	-281.12	6.13	6.11	0.55	
8,225.00	79.63	90.99	7,874.23	-568.56	-231.23	-190.43	12.99	12.75	2.60	
8,281.00	83.79	89.99	7,882.31	-569.03	-175.83	-135.14	7.63	7.42	-1.79	
HZ LANDING PNT - 8281' MD, 7882' TVD										
8,293.34	84.70	89.77	7,883.54	-569.00	-163.55	-122.89	7.63	7.43	-1.77	
~330' X-OVER PNT - 8293' MD, 7884' TVD, 1680' FSL, 330' FWL SEC 30										
8,319.00	86.61	89.32	7,885.49	-568.80	-137.96	-97.39	7.63	7.43	-1.76	
8,414.00	85.90	89.41	7,891.69	-567.75	-43.17	-2.91	0.75	-0.75	0.09	
8,508.00	87.67	90.77	7,896.96	-567.90	50.67	90.72	2.37	1.88	1.45	

# Civitas Resources

## Survey Report

<b>Company:</b>	CRESTONE PEAK RESOURCES	<b>Local Co-ordinate Reference:</b>	Well WATKINS 4-64 30-29 3BH
<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 3BH	<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)
8,603.00	89.48	89.89	7,899.32	-568.45	145.64	185.48	2.12	1.91	-0.93
8,698.00	90.77	90.68	7,899.12	-568.92	240.63	280.27	1.59	1.36	0.83
8,792.00	92.09	90.24	7,896.77	-569.67	334.60	374.05	1.48	1.40	-0.47
8,887.00	91.96	90.73	7,893.41	-570.48	429.53	468.81	0.53	-0.14	0.52
8,982.00	91.60	90.46	7,890.46	-571.46	524.48	563.59	0.47	-0.38	-0.28
9,076.00	91.60	91.39	7,887.84	-572.98	618.43	657.41	0.99	0.00	0.99
9,172.00	91.52	91.12	7,885.23	-575.08	714.37	753.26	0.29	-0.08	-0.28
9,267.00	90.68	89.71	7,883.40	-575.77	809.35	848.05	1.73	-0.88	-1.48
9,362.00	91.47	90.60	7,881.62	-576.03	904.33	942.81	1.25	0.83	0.94
9,456.00	91.25	89.23	7,879.39	-575.89	998.30	1,036.54	1.48	-0.23	-1.46
9,550.00	91.69	91.61	7,876.98	-576.57	1,092.26	1,130.31	2.57	0.47	2.53
9,645.00	91.83	90.29	7,874.06	-578.15	1,187.20	1,225.12	1.40	0.15	-1.39
9,740.00	91.78	90.64	7,871.07	-578.92	1,282.15	1,319.89	0.37	-0.05	0.37
9,834.00	91.87	91.87	7,868.07	-580.98	1,376.08	1,413.73	1.31	0.10	1.31
9,929.00	89.88	88.48	7,866.62	-581.27	1,471.05	1,508.48	4.14	-2.09	-3.57
10,025.00	91.21	90.11	7,865.71	-580.09	1,567.03	1,604.14	2.19	1.39	1.70
10,119.00	90.41	89.45	7,864.38	-579.72	1,661.02	1,697.87	1.10	-0.85	-0.70
10,215.00	90.81	90.86	7,863.36	-579.98	1,757.01	1,793.64	1.53	0.42	1.47
10,309.00	91.25	90.95	7,861.67	-581.47	1,850.99	1,887.48	0.48	0.47	0.10
10,498.00	92.14	88.13	7,856.08	-579.95	2,039.88	2,075.79	1.56	0.47	-1.49
10,592.00	92.14	88.57	7,852.57	-577.25	2,133.77	2,169.26	0.47	0.00	0.47
10,687.00	92.58	88.04	7,848.65	-574.44	2,228.65	2,263.70	0.72	0.46	-0.56
10,780.00	91.78	88.08	7,845.12	-571.29	2,321.53	2,356.12	0.86	-0.86	0.04
10,874.00	91.16	87.86	7,842.71	-567.97	2,415.44	2,449.56	0.70	-0.66	-0.23
10,969.00	90.32	89.36	7,841.48	-565.66	2,510.40	2,544.12	1.81	-0.88	1.58
11,064.00	90.59	92.58	7,840.72	-567.27	2,605.37	2,638.97	3.40	0.28	3.39
11,159.00	91.38	91.30	7,839.09	-570.49	2,700.30	2,733.89	1.58	0.83	-1.35
11,254.00	92.14	90.68	7,836.17	-572.13	2,795.24	2,828.71	1.03	0.80	-0.65
11,347.00	89.35	91.52	7,834.96	-573.91	2,888.20	2,921.56	3.13	-3.00	0.90
11,442.00	89.48	91.61	7,835.93	-576.51	2,983.16	3,016.47	0.17	0.14	0.09
11,536.00	89.62	91.48	7,836.67	-579.04	3,077.13	3,110.38	0.20	0.15	-0.14
11,631.00	90.10	90.38	7,836.90	-580.58	3,172.11	3,205.23	1.26	0.51	-1.16
11,726.00	90.85	91.43	7,836.12	-582.08	3,267.09	3,300.08	1.36	0.79	1.11
11,821.00	91.43	91.30	7,834.23	-584.35	3,362.05	3,394.96	0.63	0.61	-0.14
11,915.00	91.91	89.63	7,831.49	-585.11	3,456.00	3,488.73	1.85	0.51	-1.78
12,009.00	89.79	89.85	7,830.09	-584.68	3,549.98	3,582.45	2.27	-2.26	0.23
12,104.00	89.70	91.26	7,830.52	-585.60	3,644.98	3,677.27	1.49	-0.09	1.48
12,199.00	89.53	90.11	7,831.15	-586.74	3,739.97	3,772.10	1.22	-0.18	-1.21
12,294.00	88.33	93.20	7,832.93	-589.48	3,834.90	3,866.99	3.49	-1.26	3.25
12,388.00	87.85	93.24	7,836.06	-594.76	3,928.70	3,960.92	0.51	-0.51	0.04
12,483.00	89.44	93.20	7,838.31	-600.09	4,023.52	4,055.88	1.67	1.67	-0.04
12,577.00	91.52	93.86	7,837.52	-605.88	4,117.33	4,149.87	2.32	2.21	0.70
12,673.00	91.83	95.53	7,834.71	-613.73	4,212.96	4,245.82	1.77	0.32	1.74

# Civitas Resources

## Survey Report

<b>Company:</b>	CRESTONE PEAK RESOURCES	<b>Local Co-ordinate Reference:</b>	Well WATKINS 4-64 30-29 3BH
<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 3BH	<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)	
12,767.00	91.60	91.57	7,831.90	-619.55	4,306.72	4,339.76	4.22	-0.24	-4.21	
12,862.00	91.12	92.09	7,829.64	-622.58	4,401.65	4,434.66	0.74	-0.51	0.55	
12,956.00	90.81	90.51	7,828.06	-624.71	4,495.60	4,528.53	1.71	-0.33	-1.68	
13,050.00	91.52	90.20	7,826.15	-625.30	4,589.58	4,622.32	0.82	0.76	-0.33	
13,145.00	90.59	92.49	7,824.40	-627.53	4,684.53	4,717.19	2.60	-0.98	2.41	
13,240.00	89.97	91.48	7,823.94	-630.82	4,779.47	4,812.12	1.25	-0.65	-1.06	
13,335.00	90.41	91.35	7,823.62	-633.16	4,874.44	4,907.02	0.48	0.46	-0.14	
13,429.00	90.68	89.41	7,822.73	-633.79	4,968.43	5,000.82	2.08	0.29	-2.06	
13,524.00	90.77	89.71	7,821.53	-633.06	5,063.42	5,095.52	0.33	0.09	0.32	
13,618.00	89.57	90.33	7,821.25	-633.09	5,157.42	5,189.28	1.44	-1.28	0.66	
13,713.00	89.93	90.20	7,821.66	-633.53	5,252.42	5,284.07	0.40	0.38	-0.14	
13,808.00	89.70	90.51	7,821.97	-634.12	5,347.41	5,378.87	0.41	-0.24	0.33	
13,902.00	91.12	93.64	7,821.29	-637.52	5,441.34	5,472.80	3.66	1.51	3.33	
13,997.00	90.81	92.14	7,819.69	-642.31	5,536.20	5,567.77	1.61	-0.33	-1.58	
14,092.00	91.12	90.51	7,818.09	-644.50	5,631.16	5,662.64	1.75	0.33	-1.72	
14,187.00	91.52	90.68	7,815.91	-645.49	5,726.13	5,757.44	0.46	0.42	0.18	
14,281.00	90.99	88.92	7,813.85	-645.16	5,820.10	5,851.16	1.95	-0.56	-1.87	
14,376.00	90.50	90.24	7,812.61	-644.47	5,915.09	5,945.86	1.48	-0.52	1.39	
14,470.00	89.57	89.23	7,812.55	-644.03	6,009.08	6,039.59	1.46	-0.99	-1.07	
14,565.00	90.50	90.99	7,812.50	-644.21	6,104.08	6,134.36	2.10	0.98	1.85	
14,659.00	91.56	91.04	7,810.81	-645.88	6,198.05	6,228.21	1.13	1.13	0.05	
14,754.00	91.43	92.62	7,808.33	-648.91	6,292.96	6,323.10	1.67	-0.14	1.66	
14,849.00	92.31	91.26	7,805.23	-652.13	6,387.86	6,417.98	1.70	0.93	-1.43	
14,943.00	91.21	90.55	7,802.34	-653.61	6,481.80	6,511.79	1.39	-1.17	-0.76	
15,038.00	91.34	90.33	7,800.23	-654.34	6,576.77	6,606.58	0.27	0.14	-0.23	
15,133.00	92.14	90.07	7,797.34	-654.67	6,671.73	6,701.32	0.89	0.84	-0.27	
15,228.00	90.68	89.98	7,795.01	-654.71	6,766.69	6,796.06	1.54	-1.54	-0.09	
15,323.00	90.06	89.49	7,794.39	-654.27	6,861.69	6,890.78	0.83	-0.65	-0.52	
15,417.00	90.41	87.29	7,794.01	-651.63	6,955.65	6,984.32	2.37	0.37	-2.34	
15,512.00	89.44	88.88	7,794.13	-648.46	7,050.59	7,078.80	1.96	-1.02	1.67	
15,607.00	90.10	92.36	7,794.51	-649.49	7,145.57	7,173.61	3.73	0.69	3.66	
15,702.00	90.28	91.08	7,794.20	-652.34	7,240.52	7,268.53	1.36	0.19	-1.35	
15,796.00	91.47	89.58	7,792.76	-652.88	7,334.51	7,362.31	2.04	1.27	-1.60	
15,891.00	91.69	92.71	7,790.14	-654.78	7,429.44	7,457.14	3.30	0.23	3.29	
15,985.00	92.62	92.40	7,786.61	-658.96	7,523.28	7,551.04	1.04	0.99	-0.33	
16,079.00	91.96	91.17	7,782.85	-661.89	7,617.15	7,644.89	1.48	-0.70	-1.31	
16,174.00	90.50	90.55	7,780.81	-663.31	7,712.12	7,739.72	1.67	-1.54	-0.65	
16,269.00	90.90	90.33	7,779.65	-664.04	7,807.11	7,834.52	0.48	0.42	-0.23	
16,365.00	90.32	90.38	7,778.63	-664.64	7,903.10	7,930.32	0.61	-0.60	0.05	
16,459.00	89.70	89.58	7,778.61	-664.61	7,997.10	8,024.08	1.08	-0.66	-0.85	
16,553.00	90.32	90.60	7,778.60	-664.75	8,091.10	8,117.85	1.27	0.66	1.09	
16,647.00	90.68	90.68	7,777.78	-665.80	8,185.09	8,211.68	0.39	0.38	0.09	
16,742.00	90.19	89.23	7,777.05	-665.73	8,280.08	8,306.43	1.61	-0.52	-1.53	
16,837.00	89.09	90.11	7,777.65	-665.18	8,375.08	8,401.15	1.48	-1.16	0.93	

# Civitas Resources

## Survey Report

<b>Company:</b>	CRESTONE PEAK RESOURCES	<b>Local Co-ordinate Reference:</b>	Well WATKINS 4-64 30-29 3BH
<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 3BH	<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)
16,932.00	90.59	92.14	7,777.92	-667.05	8,470.05	8,496.02	2.66	1.58	2.14
17,026.00	91.25	91.74	7,776.41	-670.23	8,563.98	8,589.94	0.82	0.70	-0.43
17,121.00	90.41	89.85	7,775.03	-671.55	8,658.96	8,684.77	2.18	-0.88	-1.99
17,216.00	92.49	90.51	7,772.63	-671.84	8,753.92	8,779.52	2.30	2.19	0.69
17,311.00	92.36	89.54	7,768.61	-671.89	8,848.84	8,874.20	1.03	-0.14	-1.02
17,406.00	91.60	92.67	7,765.32	-673.72	8,943.75	8,969.00	3.39	-0.80	3.29
17,501.00	92.31	90.64	7,762.08	-676.46	9,038.65	9,063.86	2.26	0.75	-2.14
17,596.00	90.19	90.73	7,760.01	-677.59	9,133.61	9,158.67	2.23	-2.23	0.09
17,690.00	90.15	92.45	7,759.73	-680.20	9,227.57	9,252.57	1.83	-0.04	1.83
17,785.00	91.03	91.92	7,758.75	-683.82	9,322.50	9,347.52	1.08	0.93	-0.56
17,879.00	91.21	92.53	7,756.92	-687.47	9,416.41	9,441.45	0.68	0.19	0.65
17,974.00	91.65	90.90	7,754.55	-690.32	9,511.33	9,536.34	1.78	0.46	-1.72
18,069.00	92.09	90.16	7,751.45	-691.19	9,606.28	9,631.11	0.91	0.46	-0.78
18,164.00	90.41	92.27	7,749.37	-693.21	9,701.23	9,725.96	2.84	-1.77	2.22
18,258.00	91.25	92.18	7,748.01	-696.86	9,795.14	9,819.90	0.90	0.89	-0.10
LAST SURVEY - 18258' MD, 7748' TVD									
18,327.00	91.25	92.18	7,746.51	-699.48	9,864.08	9,888.85	0.00	0.00	0.00
PTB - 18327' MD, 7747' TVD, 1742' FSL, 330' 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 3BH	0.00	0.00	7,770.00	-721.52	9,864.36	1,670,793.65	3,262,707.63	39.671422°N	104.566732°W
- actual wellpath misses target center by 32.21usft at 18327.00usft MD (7746.51 TVD, -699.48 N, 9864.08 E)									
- Point									
LP-WATKINS 4-64 3BH	0.00	0.00	7,890.00	-529.26	-163.55	1,670,886.74	3,252,678.45	39.671955°N	104.602355°W
- actual wellpath misses target center by 40.25usft at 8294.14usft MD (7883.62 TVD, -569.00 N, -162.75 E)									
- Point									

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
3,274.00	3,251.96	-171.88	-285.20	SURFACE CSG - 3274' MD, 3252' TVD	
7,252.00	7,186.80	-479.17	-772.29	KOP - 7252' MD, 7187' TVD	
8,281.00	7,882.31	-569.03	-175.83	HZ LANDING PNT - 8281' MD, 7882' TVD	
8,293.34	7,883.54	-569.00	-163.55	~330' X-OVER PNT - 8293' MD, 7884' TVD, 1680' FSL, 330' FWL SEC 30	
18,258.00	7,748.01	-696.86	9,795.14	LAST SURVEY - 18258' MD, 7748' TVD	
18,327.00	7,746.51	-699.48	9,864.08	PTB - 18327' MD, 7747' TVD, 1742' FSL, 330' FEL SEC 29	

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