

## Survey Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well COSSLETT 1K-22H-B168
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 5196.00usft
<b>Site:</b>	S22-T1N-R68W (COSSLETT)	<b>MD Reference:</b>	23' KB @ 5196.00usft
<b>Well:</b>	COSSLETT 1K-22H-B168	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL	<b>Database:</b>	USA EDM 5000 Multi Users DB

<b>Project</b>	DJ BASIN		
<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 Northern Zone		

Site		S22-T1N-R68W (COSSLETT)			
Site Position:		Northing:	1,258,338.24 usft	Latitude:	40.041391
From:	Lat/Long	Easting:	3,143,327.55 usft	Longitude:	-104.988083
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.33 °

Well	COSSLETT 1K-22H-B168					
Well Position	+N/-S	0.00 usft	Northing:	1,258,338.44 usft	Latitude:	40.041390
	+E/-W	0.00 usft	Easting:	3,143,427.50 usft	Longitude:	-104.987726
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	5,173.00 usft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM_FILE	11/22/2018	8.35	66.38	52,014.40000000

<b>Design</b>	FINAL				
<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	169.41	

<b>Survey Program</b>	<b>Date</b>	11/30/2018			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
318.00	2,523.00	Survey #1 (OH)	VESSI_GYROFLEX	VESSI Gyroflex Gyro	
2,595.00	17,883.00	Survey #2 (OH)	MWD+HDGM	OWSG MWD + HDGM	

<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 (°/100usf)</b>	<b>Build Rate (°/100u)</b>	<b>Formations / Comments</b>
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
318.00	1.23	329.85	317.98	2.95	-1.71	-3.22	0.39	0.39	
585.00	1.67	323.79	584.89	8.57	-5.45	-9.42	0.17	0.16	
674.00	3.08	27.16	673.82	11.74	-5.13	-12.49	3.11	1.58	
763.00	5.72	43.68	762.56	17.08	-0.97	-16.97	3.26	2.97	
852.00	7.86	49.64	850.93	24.23	6.73	-22.58	2.53	2.40	
922.00	10.13	58.78	920.07	30.52	15.64	-27.13	3.82	3.24	
1,011.00	12.08	62.11	1,007.40	38.93	30.57	-32.65	2.31	2.19	
1,100.00	15.02	69.11	1,093.92	47.40	49.58	-37.49	3.78	3.30	
1,189.00	16.77	70.16	1,179.51	55.88	72.43	-41.61	1.99	1.97	
1,278.00	17.85	66.89	1,264.48	65.59	97.06	-46.63	1.63	1.21	
1,367.00	16.62	61.88	1,349.49	76.94	120.83	-53.42	2.16	-1.38	

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<b>Site:</b>	S22-T1N-R68W (COSSLETT)	<b>MD Reference:</b>	23' KB @ 5196.00usft
<b>Well:</b>	COSSLETT 1K-22H-B168	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL	<b>Database:</b>	USA EDM 5000 Multi Users DB

### Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
1,456.00	16.84	63.56	1,434.72	88.68	143.60	-60.78	0.60	0.25	
1,545.00	18.54	66.35	1,519.51	100.10	168.11	-67.50	2.13	1.91	
1,634.00	18.63	62.58	1,603.87	112.32	193.69	-74.81	1.35	0.10	
1,723.00	17.31	57.17	1,688.53	126.05	217.44	-83.94	2.39	-1.48	
1,812.00	17.94	56.37	1,773.36	140.82	239.97	-94.32	0.76	0.71	
1,901.00	18.41	58.35	1,857.92	155.78	263.35	-104.73	0.87	0.53	
1,990.00	17.83	61.07	1,942.50	169.75	287.24	-114.07	1.15	-0.65	
2,079.00	17.36	65.30	2,027.34	181.89	311.23	-121.59	1.53	-0.53	
2,168.00	16.71	62.12	2,112.44	193.42	334.60	-128.63	1.28	-0.73	
2,257.00	16.97	64.68	2,197.62	204.96	357.65	-135.74	0.88	0.29	
2,346.00	15.81	61.48	2,283.01	216.30	380.05	-142.77	1.65	-1.30	
2,435.00	15.97	65.72	2,368.61	227.13	401.86	-149.40	1.32	0.18	
2,523.00	14.86	62.93	2,453.44	237.24	422.95	-155.47	1.52	-1.26	
2,595.00	14.02	61.52	2,523.17	245.60	438.83	-160.77	1.26	-1.17	
2,684.00	12.26	55.99	2,609.84	256.03	456.15	-167.84	2.43	-1.98	
2,773.00	10.81	63.46	2,697.04	265.04	471.45	-173.89	2.34	-1.63	
2,862.00	11.16	64.69	2,784.41	272.46	486.70	-178.37	0.47	0.39	
2,951.00	11.60	67.41	2,871.66	279.57	502.75	-182.42	0.78	0.49	
3,040.00	13.01	64.07	2,958.62	287.39	520.02	-186.93	1.77	1.58	
3,129.00	14.06	62.05	3,045.15	296.84	538.58	-192.81	1.29	1.18	
3,218.00	14.24	64.16	3,131.45	306.68	557.98	-198.91	0.61	0.20	
3,307.00	14.81	65.22	3,217.60	316.22	578.16	-204.58	0.71	0.64	
3,396.00	14.99	63.46	3,303.61	326.13	598.78	-210.53	0.55	0.20	
3,485.00	14.59	59.15	3,389.66	337.02	618.71	-217.57	1.32	-0.45	
3,575.00	14.33	56.95	3,476.81	348.91	637.77	-225.75	0.68	-0.29	
3,664.00	13.76	58.45	3,563.15	360.45	656.03	-233.75	0.76	-0.64	
3,753.00	13.80	62.23	3,649.59	370.94	674.44	-240.67	1.01	0.04	
3,842.00	13.67	66.80	3,736.05	380.03	693.50	-246.10	1.23	-0.15	
3,963.00	13.98	64.69	3,853.55	391.91	719.85	-252.94	0.49	0.26	
4,052.00	13.23	63.46	3,940.05	401.05	738.68	-258.47	0.90	-0.84	
4,141.00	13.49	61.26	4,026.64	410.60	756.90	-264.50	0.64	0.29	
4,230.00	15.29	58.80	4,112.84	421.67	776.04	-271.86	2.14	2.02	
4,319.00	15.51	61.96	4,198.65	433.34	796.58	-279.56	0.97	0.25	
4,408.00	14.77	65.04	4,284.56	443.72	817.37	-285.95	1.23	-0.83	
4,497.00	16.26	64.07	4,370.32	453.96	838.86	-292.06	1.70	1.67	
4,586.00	18.11	66.36	4,455.34	464.95	862.74	-298.48	2.21	2.08	
4,675.00	20.96	63.72	4,539.21	477.55	889.69	-305.91	3.35	3.20	
4,765.00	20.26	63.02	4,623.45	491.75	918.01	-314.66	0.82	-0.78	
4,854.00	17.10	58.01	4,707.76	505.68	942.85	-323.79	3.98	-3.55	
4,943.00	16.17	56.16	4,793.03	519.51	964.24	-333.45	1.20	-1.04	
5,032.00	17.18	57.39	4,878.29	533.49	985.60	-343.27	1.20	1.13	
5,120.00	17.67	55.11	4,962.25	548.14	1,007.51	-353.64	0.95	0.56	
5,210.00	15.65	59.94	5,048.47	562.03	1,029.22	-363.31	2.72	-2.24	
5,299.00	14.50	58.98	5,134.41	573.79	1,049.16	-371.20	1.32	-1.29	
5,388.00	13.18	61.96	5,220.82	584.30	1,067.67	-378.13	1.69	-1.48	
5,477.00	13.23	64.42	5,307.47	593.47	1,085.81	-383.81	0.63	0.06	
5,566.00	15.43	68.03	5,393.70	602.30	1,105.98	-388.78	2.67	2.47	
5,655.00	15.91	61.44	5,479.40	612.56	1,127.67	-394.88	2.07	0.54	
5,744.00	15.60	58.01	5,565.05	624.73	1,148.54	-403.01	1.10	-0.35	
5,833.00	12.79	56.69	5,651.33	636.48	1,166.92	-411.18	3.18	-3.16	
5,922.00	11.69	57.22	5,738.30	646.77	1,182.74	-418.40	1.24	-1.24	
6,011.00	13.84	62.14	5,825.10	656.63	1,199.73	-424.96	2.70	2.42	
6,100.00	13.45	58.89	5,911.59	666.95	1,218.00	-431.75	0.97	-0.44	

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<b>Well:</b>	COSSLETT 1K-22H-B168	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL	<b>Database:</b>	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
6,189.00	13.27	68.12	5,998.19	676.11	1,236.35	-437.38	2.40	-0.20	
6,278.00	14.02	69.17	6,084.68	683.75	1,255.90	-441.30	0.89	0.84	
6,367.00	17.31	62.49	6,170.37	693.70	1,277.73	-447.07	4.21	3.70	
6,457.00	19.60	55.02	6,255.75	708.55	1,301.98	-457.20	3.65	2.54	
6,546.00	18.19	51.33	6,339.95	725.79	1,325.06	-469.90	2.08	-1.58	
6,635.00	16.57	53.70	6,424.89	741.98	1,346.13	-481.95	1.99	-1.82	
6,724.00	16.35	61.08	6,510.25	755.55	1,367.33	-491.40	2.36	-0.25	
6,813.00	17.67	63.55	6,595.36	767.63	1,390.39	-499.03	1.69	1.48	
6,903.00	19.47	64.69	6,680.67	780.12	1,416.18	-506.57	2.04	2.00	
6,992.00	19.38	60.38	6,764.60	793.76	1,442.43	-515.16	1.61	-0.10	
7,081.00	16.61	64.95	6,849.25	806.45	1,466.79	-523.15	3.49	-3.11	
7,170.00	15.38	77.17	6,934.82	814.46	1,489.83	-526.79	4.02	-1.38	
7,259.00	14.99	85.69	7,020.73	817.95	1,512.82	-525.99	2.54	-0.44	
7,349.00	14.33	91.50	7,107.80	818.53	1,535.56	-522.38	1.79	-0.73	
7,438.00	16.26	114.26	7,193.72	813.12	1,557.95	-512.95	7.03	2.17	
7,527.00	19.73	128.50	7,278.40	798.64	1,581.09	-494.46	6.27	3.90	
7,616.00	24.87	133.24	7,360.72	776.45	1,606.50	-467.98	6.11	5.78	
7,705.00	29.27	134.56	7,439.95	748.34	1,635.65	-435.00	4.99	4.94	
7,794.00	31.73	138.96	7,516.64	715.42	1,666.53	-396.96	3.73	2.76	
7,883.00	36.52	146.95	7,590.33	675.52	1,696.37	-352.26	7.36	5.38	
7,972.00	41.88	156.45	7,659.34	626.01	1,722.72	-298.75	9.03	6.02	
8,061.00	47.94	164.88	7,722.40	566.78	1,743.25	-236.75	9.53	6.81	
8,150.00	50.89	175.25	7,780.38	500.35	1,754.75	-169.34	9.44	3.31	
8,213.04	55.61	177.99	7,818.10	449.95	1,757.68	-119.26	8.26	7.49	TPZ - 8213.04' MD (480 FNL, 393 FEL)
8,239.00	57.57	179.03	7,832.39	428.29	1,758.25	-97.86	8.26	7.55	
8,328.00	65.30	179.65	7,874.91	350.19	1,759.13	-20.93	8.71	8.69	
8,417.00	76.16	180.53	7,904.24	266.30	1,758.98	61.50	12.24	12.20	
8,507.00	80.20	181.58	7,922.68	178.24	1,757.35	147.76	4.63	4.49	
8,596.00	83.89	180.79	7,934.99	90.13	1,755.53	234.03	4.24	4.15	
8,685.00	87.76	181.67	7,941.47	1.41	1,753.62	320.90	4.46	4.35	
8,774.00	88.99	180.09	7,943.99	-87.54	1,752.26	408.08	2.25	1.38	
8,863.00	91.36	180.26	7,943.72	-176.53	1,751.98	495.51	2.67	2.66	
8,952.00	93.16	179.47	7,940.21	-265.46	1,752.19	582.96	2.21	2.02	
9,041.00	92.20	179.65	7,936.05	-354.36	1,752.88	670.47	1.10	-1.08	
9,130.00	90.75	181.41	7,933.76	-443.32	1,752.05	757.76	2.56	-1.63	
9,219.00	90.79	180.70	7,932.56	-532.30	1,750.41	844.92	0.80	0.04	
9,308.00	89.69	181.32	7,932.19	-621.28	1,748.85	932.10	1.42	-1.24	
9,397.00	89.65	180.35	7,932.70	-710.27	1,747.55	1,019.33	1.09	-0.04	
9,487.00	89.82	177.98	7,933.12	-800.25	1,748.86	1,108.02	2.64	0.19	
9,575.00	90.84	179.21	7,932.61	-888.22	1,751.02	1,194.89	1.82	1.16	
9,664.00	88.37	177.98	7,933.23	-977.18	1,753.20	1,282.74	3.10	-2.78	
9,754.00	88.77	181.06	7,935.47	-1,067.14	1,753.95	1,371.30	3.45	0.44	
9,843.00	89.34	182.64	7,936.94	-1,156.08	1,751.08	1,458.20	1.89	0.64	
9,932.00	90.35	182.02	7,937.18	-1,245.00	1,747.46	1,544.94	1.33	1.13	
10,021.00	87.98	183.08	7,938.48	-1,333.90	1,743.50	1,631.60	2.92	-2.66	
10,110.00	86.84	183.96	7,942.50	-1,422.64	1,738.05	1,717.82	1.62	-1.28	
10,199.00	88.68	182.99	7,945.98	-1,511.40	1,732.66	1,804.08	2.34	2.07	
10,288.00	88.86	182.64	7,947.89	-1,600.27	1,728.29	1,890.64	0.44	0.20	
10,377.00	89.56	181.23	7,949.12	-1,689.21	1,725.28	1,977.51	1.77	0.79	
10,466.00	86.88	182.46	7,951.88	-1,778.11	1,722.42	2,064.37	3.31	-3.01	
10,555.00	86.62	180.88	7,956.93	-1,866.93	1,719.83	2,151.20	1.80	-0.29	
10,617.00	87.56	180.09	7,960.07	-1,928.84	1,719.30	2,211.96	1.98	1.52	
10,706.00	88.04	178.33	7,963.49	-2,017.77	1,720.53	2,299.60	2.05	0.54	

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<b>Well:</b>	COSSLETT 1K-22H-B168	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL	<b>Database:</b>	USA EDM 5000 Multi Users DB

### Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
10,795.00	89.05	174.64	7,965.75	-2,106.55	1,725.99	2,387.87	4.30	1.13	
10,884.00	90.07	178.24	7,966.43	-2,195.36	1,731.51	2,476.19	4.20	1.15	
10,973.00	90.02	177.36	7,966.36	-2,284.30	1,734.93	2,564.23	0.99	-0.06	
11,062.00	90.11	177.10	7,966.26	-2,373.19	1,739.23	2,652.41	0.31	0.10	
11,152.00	90.02	177.63	7,966.16	-2,463.10	1,743.37	2,741.54	0.60	-0.10	
11,241.00	90.07	179.91	7,966.09	-2,552.07	1,745.28	2,829.35	2.56	0.06	
11,330.00	90.11	182.99	7,965.95	-2,641.03	1,743.02	2,916.38	3.46	0.04	
11,419.00	90.02	182.64	7,965.85	-2,729.92	1,738.65	3,002.96	0.41	-0.10	
11,508.00	90.11	179.47	7,965.75	-2,818.90	1,737.01	3,090.11	3.56	0.10	
11,597.00	90.24	177.98	7,965.48	-2,907.87	1,738.99	3,177.94	1.68	0.15	
11,686.00	90.07	179.12	7,965.24	-2,996.84	1,741.25	3,265.80	1.30	-0.19	
11,775.00	90.20	178.33	7,965.03	-3,085.82	1,743.23	3,353.63	0.90	0.15	
11,864.00	91.08	177.80	7,964.03	-3,174.76	1,746.23	3,441.61	1.15	0.99	
11,954.00	91.08	177.45	7,962.34	-3,264.67	1,749.96	3,530.67	0.39	0.00	
12,043.00	91.08	179.21	7,960.66	-3,353.61	1,752.55	3,618.57	1.98	0.00	
12,132.00	91.08	181.67	7,958.98	-3,442.59	1,751.87	3,705.91	2.76	0.00	
12,221.00	91.12	179.91	7,957.27	-3,531.56	1,750.64	3,793.14	1.98	0.04	
12,310.00	91.03	180.00	7,955.60	-3,620.54	1,750.71	3,880.62	0.14	-0.10	
12,399.00	91.12	180.18	7,953.93	-3,709.53	1,750.57	3,968.06	0.23	0.10	
12,488.00	90.02	178.51	7,953.05	-3,798.51	1,751.59	4,055.72	2.25	-1.24	
12,577.00	90.20	177.98	7,952.88	-3,887.47	1,754.32	4,143.66	0.63	0.20	
12,666.00	90.20	178.33	7,952.57	-3,976.42	1,757.18	4,231.63	0.39	0.00	
12,755.00	90.20	178.15	7,952.26	-4,065.38	1,759.92	4,319.57	0.20	0.00	
12,844.00	90.02	178.42	7,952.09	-4,154.34	1,762.58	4,407.51	0.36	-0.20	
12,934.00	90.07	180.88	7,952.01	-4,244.33	1,763.13	4,496.07	2.73	0.06	
13,023.00	90.11	182.90	7,951.87	-4,333.28	1,760.19	4,582.96	2.27	0.04	
13,112.00	90.15	182.55	7,951.67	-4,422.18	1,755.96	4,669.57	0.40	0.04	
13,201.00	90.07	182.20	7,951.50	-4,511.10	1,752.27	4,756.30	0.40	-0.09	
13,290.00	90.07	182.37	7,951.39	-4,600.03	1,748.73	4,843.06	0.19	0.00	
13,379.00	90.24	182.02	7,951.15	-4,688.96	1,745.32	4,929.85	0.44	0.19	
13,468.00	90.11	182.20	7,950.88	-4,777.90	1,742.04	5,016.67	0.25	-0.15	
13,557.00	90.07	181.85	7,950.74	-4,866.85	1,738.90	5,103.53	0.40	-0.04	
13,646.00	90.02	181.67	7,950.67	-4,955.80	1,736.16	5,190.47	0.21	-0.06	
13,736.00	89.10	180.70	7,951.36	-5,045.78	1,734.30	5,278.57	1.49	-1.02	
13,825.00	89.10	177.72	7,952.76	-5,134.75	1,735.53	5,366.25	3.35	0.00	
13,914.00	89.01	177.89	7,954.23	-5,223.67	1,738.94	5,454.28	0.22	-0.10	
14,003.00	88.13	176.92	7,956.45	-5,312.55	1,742.96	5,542.39	1.47	-0.99	
14,092.00	89.05	178.24	7,958.64	-5,401.44	1,746.72	5,630.45	1.81	1.03	
14,181.00	89.05	178.95	7,960.11	-5,490.40	1,748.90	5,718.30	0.80	0.00	
14,270.00	89.05	179.65	7,961.59	-5,579.38	1,749.99	5,805.97	0.79	0.00	
14,359.00	89.05	180.44	7,963.07	-5,668.37	1,749.92	5,893.42	0.89	0.00	
14,448.00	89.01	181.49	7,964.57	-5,757.34	1,748.42	5,980.61	1.18	-0.04	
14,539.00	89.19	180.18	7,966.00	-5,848.32	1,747.10	6,069.79	1.45	0.20	
14,628.00	89.14	179.74	7,967.30	-5,937.31	1,747.16	6,157.28	0.50	-0.06	
14,717.00	89.19	179.91	7,968.60	-6,026.30	1,747.43	6,244.80	0.20	0.06	
14,807.00	89.19	180.18	7,969.87	-6,116.29	1,747.36	6,333.25	0.30	0.00	
14,896.00	89.10	179.91	7,971.20	-6,205.28	1,747.29	6,420.71	0.32	-0.10	
14,985.00	89.19	180.00	7,972.52	-6,294.27	1,747.36	6,508.19	0.14	0.10	
15,074.00	89.19	179.21	7,973.78	-6,383.26	1,747.97	6,595.78	0.89	0.00	
15,163.00	91.12	180.26	7,973.54	-6,472.25	1,748.38	6,683.33	2.47	2.17	
15,252.00	90.86	181.32	7,972.00	-6,561.23	1,747.16	6,770.57	1.23	-0.29	
15,341.00	91.69	181.49	7,970.02	-6,650.18	1,744.98	6,857.60	0.95	0.93	
15,430.00	90.59	181.58	7,968.25	-6,739.13	1,742.59	6,944.60	1.24	-1.24	

## Survey Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well COSSLETT 1K-22H-B168
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 5196.00usft
<b>Site:</b>	S22-T1N-R68W (COSSLETT)	<b>MD Reference:</b>	23' KB @ 5196.00usft
<b>Well:</b>	COSSLETT 1K-22H-B168	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL	<b>Database:</b>	USA EDM 5000 Multi Users DB

### Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
15,519.00	89.98	182.11	7,967.81	-6,828.08	1,739.73	7,031.51	0.91	-0.69	
15,608.00	89.58	182.81	7,968.15	-6,917.00	1,735.91	7,118.21	0.91	-0.45	
15,697.00	89.80	183.16	7,968.63	-7,005.88	1,731.27	7,204.72	0.46	0.25	
15,786.00	89.63	183.52	7,969.08	-7,094.72	1,726.09	7,291.10	0.45	-0.19	
15,875.00	89.27	178.95	7,969.93	-7,183.68	1,724.17	7,378.19	5.15	-0.40	
15,964.00	89.49	174.29	7,970.89	-7,272.49	1,729.41	7,466.45	5.24	0.25	
16,054.00	88.92	169.98	7,972.14	-7,361.62	1,741.73	7,556.32	4.83	-0.63	
16,143.00	88.04	170.60	7,974.51	-7,449.31	1,756.73	7,645.28	1.21	-0.99	
16,232.00	85.14	172.44	7,979.80	-7,537.17	1,769.83	7,734.05	3.86	-3.26	
16,321.00	84.18	174.73	7,988.08	-7,625.22	1,779.73	7,822.42	2.78	-1.08	
16,410.00	85.98	179.30	7,995.72	-7,713.74	1,784.35	7,910.28	5.50	2.02	
16,499.00	89.10	181.32	7,999.54	-7,802.64	1,783.86	7,997.58	4.17	3.51	
16,588.00	89.14	180.79	8,000.91	-7,891.62	1,782.22	8,084.74	0.60	0.04	
16,678.00	89.19	180.44	8,002.22	-7,981.60	1,781.26	8,173.01	0.39	0.06	
16,767.00	89.19	180.88	8,003.48	-8,070.59	1,780.23	8,260.30	0.49	0.00	
16,856.00	89.23	180.35	8,004.70	-8,159.57	1,779.28	8,347.59	0.60	0.04	
16,945.00	89.23	180.26	8,005.90	-8,248.56	1,778.80	8,434.98	0.10	0.00	
17,034.00	89.23	180.44	8,007.10	-8,337.55	1,778.26	8,522.35	0.20	0.00	
17,123.00	89.19	179.91	8,008.32	-8,426.55	1,777.99	8,609.78	0.60	-0.04	
17,212.00	89.19	180.79	8,009.58	-8,515.53	1,777.44	8,697.15	0.99	0.00	
17,301.00	90.20	182.64	8,010.05	-8,604.49	1,774.78	8,784.10	2.37	1.13	
17,390.00	90.81	184.31	8,009.27	-8,693.32	1,769.39	8,870.42	2.00	0.69	
17,479.00	90.90	186.68	8,007.94	-8,781.89	1,760.87	8,955.93	2.66	0.10	
17,568.00	88.62	190.20	8,008.31	-8,869.91	1,747.81	9,040.04	4.71	-2.56	
17,657.00	88.18	194.85	8,010.80	-8,956.73	1,728.52	9,121.84	5.25	-0.49	
17,746.00	88.13	194.94	8,013.67	-9,042.70	1,705.65	9,202.14	0.12	-0.06	
17,837.00	88.18	194.94	8,016.60	-9,130.57	1,682.21	9,284.21	0.05	0.05	LAST SURVEY - 17837.00' MD
17,883.00	88.18	194.94	8,018.06	-9,175.00	1,670.35	9,325.70	0.00	0.00	PTB - 17883.00' MD (478 FSL, 448 FEL)

## Survey Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well COSSLETT 1K-22H-B168
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 5196.00usft
<b>Site:</b>	S22-T1N-R68W (COSSLETT)	<b>MD Reference:</b>	23' KB @ 5196.00usft
<b>Well:</b>	COSSLETT 1K-22H-B168	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL	<b>Database:</b>	USA EDM 5000 Multi Users DB

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
COSSLETT 1K 2735' TC	0.00	0.00	7,956.00	-2,735.00	1,740.67	1,255,613.54	3,145,183.94	40.033882	-104.981510
- actual wellpath misses target center by 10.10usft at 11424.05usft MD (7965.85 TVD, -2734.97 N, 1738.43 E)									
- Point									
COSSLETT 1K 5735' TC	0.00	0.00	7,964.00	-5,735.00	1,730.68	1,252,613.53	3,145,191.29	40.025646	-104.981546
- actual wellpath misses target center by 18.26usft at 14425.95usft MD (7964.19 TVD, -5735.30 N, 1748.94 E)									
- Point									
COSSLETT 1K PBHL	0.00	0.00	7,998.00	-9,193.14	1,719.18	1,249,155.39	3,145,199.76	40.016153	-104.981588
- actual wellpath misses target center by 55.81usft at 17883.00usft MD (8018.06 TVD, -9175.00 N, 1670.35 E)									
- Point									
COSSLETT 1K TPZ	0.00	0.00	7,957.00	449.95	1,735.50	1,258,798.41	3,145,160.38	40.042625	-104.981527
- actual wellpath misses target center by 120.57usft at 8279.36usft MD (7852.98 TVD, 393.58 N, 1758.74 E)									
- Point									

Design Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(usft)	(usft)	+N/-S	+E/-W	Comment	
(usft)	(usft)	(usft)	(usft)		
8,213.04	7,818.10	449.95	1,757.68	TPZ - 8213.04' MD (480 FNL, 393 FEL)	
17,837.00	8,016.60	-9,130.57	1,682.21	LAST SURVEY - 17837.00' MD	
17,883.00	8,018.06	-9,175.00	1,670.35	PTB - 17883.00' MD (478 FSL, 448 FEL)	

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