



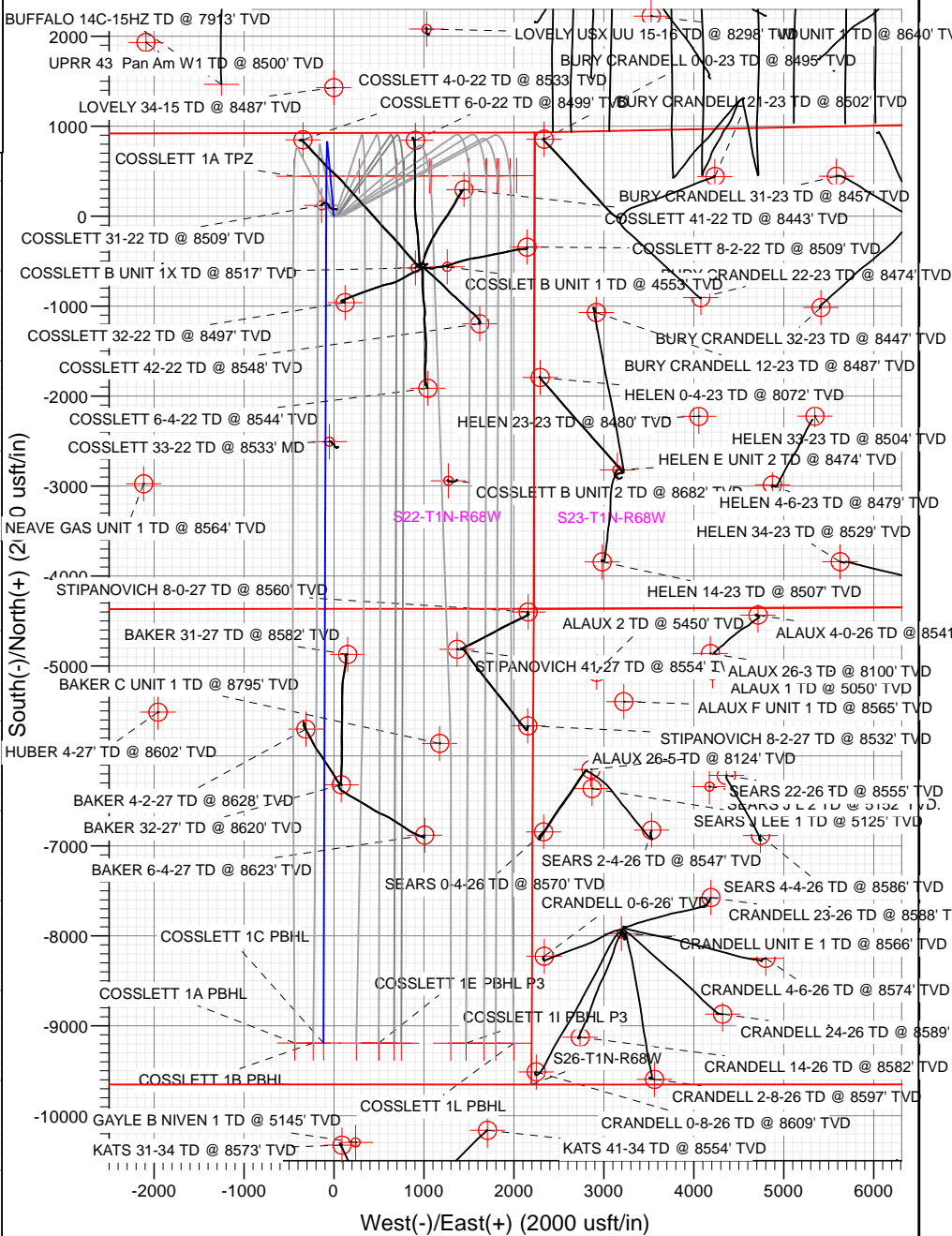
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	
3	765.06	7.30	354.91	764.07	23.14	-2.06	2.00	354.91	-23.11	
4	7055.22	7.30	354.91	7003.23	819.37	-72.95	0.00	0.00	-818.38	
5	8271.09	90.00	180.19	7810.00	108.97	-84.84	8.00	-174.68	-107.89	
6	17571.09	90.00	180.19	7810.00	-9190.98	-115.96	0.00	0.00	9191.71	COSSLETT 1C PBHL

Type TD	Target No Target (Freehand)	Azimuth 180.72	Origin Type Slot	N/S 0.00	E/W 0.00	From TVD 0.00
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	
COSSLETT 1C TPZ	7726.37	444.82	-83.71	40.042612	-104.988311	
COSSLETT 1C PBHL	7810.00	-9190.98	-115.96	40.016160	-104.988426	

Azimuths to True North  
 Magnetic North: 8.45°

Magnetic Field  
 Strength: 52177.9snT  
 Dip Angle: 66.47°  
 Date: 7/7/2017  
 Model: HDGM

Start Build 2.00  
 Start 6290.16 hold at 765.06 MD  
 Start DLS 8.00 TFO -174.68  
 COSSLETT 1C TPZ  
 Start 9300.00 hold at 8271.09 MD



Vertical Section at 180.72° (2000 usft/in)

5174.00					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1258338.31	3143347.43	40.041391	-104.988012



# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well COSSLETT 1C-22H-B168
<b>Company:</b>	Crestone Peak Resources	<b>TVD Reference:</b>	23' KB @ 5197.00usft
<b>Project:</b>	DJ BASIN	<b>MD Reference:</b>	23' KB @ 5197.00usft
<b>Site:</b>	S22-T1N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	COSSLETT 1C-22H-B168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1		

<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			
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 1C-22H-B168					
Well Position	+N/-S	0.00 usft	Northing:	1,258,338.31 usft	Latitude:	40.041391
	+E/-W	0.00 usft	Easting:	3,143,347.43 usft	Longitude:	-104.988012
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	5,174.00 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</b>
			(°)	(°)	(nT)
	HDGM	7/7/2017	8.45	66.47	52,177.90000000

<b>Design</b>	PLAN #1				
<b>Audit Notes:</b>					
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00	
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>	
	(usft)	(usft)	(usft)	(°)	
	0.00	0.00	0.00	180.72	

<b>Plan Sections</b>										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
765.06	7.30	354.91	764.07	23.14	-2.06	2.00	2.00	0.00	354.91	
7,055.22	7.30	354.91	7,003.23	819.37	-72.95	0.00	0.00	0.00	0.00	
8,271.09	90.00	180.19	7,810.00	108.97	-84.84	8.00	6.80	-14.37	-174.68	
17,571.09	90.00	180.19	7,810.00	-9,190.98	-115.96	0.00	0.00	0.00	0.00	COSSLETT 1C PBHL

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well COSSLETT 1C-22H-B168
<b>Company:</b>	Crestone Peak Resources	<b>TVD Reference:</b>	23' KB @ 5197.00usft
<b>Project:</b>	DJ BASIN	<b>MD Reference:</b>	23' KB @ 5197.00usft
<b>Site:</b>	S22-T1N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	COSSLETT 1C-22H-B168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1		

### Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	
500.00	2.00	354.91	499.98	1.74	-0.15	-1.74	2.00	2.00	
600.00	4.00	354.91	599.84	6.95	-0.62	-6.94	2.00	2.00	
700.00	6.00	354.91	699.45	15.63	-1.39	-15.61	2.00	2.00	
765.06	7.30	354.91	764.07	23.14	-2.06	-23.11	2.00	2.00	
800.00	7.30	354.91	798.73	27.56	-2.45	-27.53	0.00	0.00	
900.00	7.30	354.91	897.92	40.22	-3.58	-40.17	0.00	0.00	
1,000.00	7.30	354.91	997.11	52.88	-4.71	-52.81	0.00	0.00	
1,100.00	7.30	354.91	1,096.30	65.53	-5.83	-65.46	0.00	0.00	
1,200.00	7.30	354.91	1,195.49	78.19	-6.96	-78.10	0.00	0.00	
1,300.00	7.30	354.91	1,294.68	90.85	-8.09	-90.74	0.00	0.00	
1,400.00	7.30	354.91	1,393.86	103.51	-9.22	-103.39	0.00	0.00	
1,500.00	7.30	354.91	1,493.05	116.17	-10.34	-116.03	0.00	0.00	
1,600.00	7.30	354.91	1,592.24	128.83	-11.47	-128.67	0.00	0.00	
1,700.00	7.30	354.91	1,691.43	141.49	-12.60	-141.31	0.00	0.00	
1,800.00	7.30	354.91	1,790.62	154.14	-13.72	-153.96	0.00	0.00	
1,900.00	7.30	354.91	1,889.81	166.80	-14.85	-166.60	0.00	0.00	
2,000.00	7.30	354.91	1,989.00	179.46	-15.98	-179.24	0.00	0.00	
2,100.00	7.30	354.91	2,088.19	192.12	-17.10	-191.89	0.00	0.00	
2,200.00	7.30	354.91	2,187.38	204.78	-18.23	-204.53	0.00	0.00	
2,300.00	7.30	354.91	2,286.57	217.44	-19.36	-217.17	0.00	0.00	
2,400.00	7.30	354.91	2,385.76	230.09	-20.49	-229.82	0.00	0.00	
2,500.00	7.30	354.91	2,484.95	242.75	-21.61	-242.46	0.00	0.00	
2,600.00	7.30	354.91	2,584.13	255.41	-22.74	-255.10	0.00	0.00	
2,700.00	7.30	354.91	2,683.32	268.07	-23.87	-267.75	0.00	0.00	
2,800.00	7.30	354.91	2,782.51	280.73	-24.99	-280.39	0.00	0.00	
2,900.00	7.30	354.91	2,881.70	293.39	-26.12	-293.03	0.00	0.00	
3,000.00	7.30	354.91	2,980.89	306.04	-27.25	-305.68	0.00	0.00	
3,100.00	7.30	354.91	3,080.08	318.70	-28.37	-318.32	0.00	0.00	
3,200.00	7.30	354.91	3,179.27	331.36	-29.50	-330.96	0.00	0.00	
3,300.00	7.30	354.91	3,278.46	344.02	-30.63	-343.61	0.00	0.00	
3,400.00	7.30	354.91	3,377.65	356.68	-31.76	-356.25	0.00	0.00	
3,500.00	7.30	354.91	3,476.84	369.34	-32.88	-368.89	0.00	0.00	
3,600.00	7.30	354.91	3,576.03	381.99	-34.01	-381.53	0.00	0.00	
3,700.00	7.30	354.91	3,675.22	394.65	-35.14	-394.18	0.00	0.00	
3,800.00	7.30	354.91	3,774.41	407.31	-36.26	-406.82	0.00	0.00	
3,900.00	7.30	354.91	3,873.59	419.97	-37.39	-419.46	0.00	0.00	
4,000.00	7.30	354.91	3,972.78	432.63	-38.52	-432.11	0.00	0.00	
4,100.00	7.30	354.91	4,071.97	445.29	-39.64	-444.75	0.00	0.00	
4,200.00	7.30	354.91	4,171.16	457.94	-40.77	-457.39	0.00	0.00	
4,300.00	7.30	354.91	4,270.35	470.60	-41.90	-470.04	0.00	0.00	
4,400.00	7.30	354.91	4,369.54	483.26	-43.03	-482.68	0.00	0.00	
4,500.00	7.30	354.91	4,468.73	495.92	-44.15	-495.32	0.00	0.00	
4,600.00	7.30	354.91	4,567.92	508.58	-45.28	-507.97	0.00	0.00	
4,700.00	7.30	354.91	4,667.11	521.24	-46.41	-520.61	0.00	0.00	
4,800.00	7.30	354.91	4,766.30	533.90	-47.53	-533.25	0.00	0.00	
4,900.00	7.30	354.91	4,865.49	546.55	-48.66	-545.90	0.00	0.00	
5,000.00	7.30	354.91	4,964.68	559.21	-49.79	-558.54	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well COSSLETT 1C-22H-B168
<b>Company:</b>	Crestone Peak Resources	<b>TVD Reference:</b>	23' KB @ 5197.00usft
<b>Project:</b>	DJ BASIN	<b>MD Reference:</b>	23' KB @ 5197.00usft
<b>Site:</b>	S22-T1N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	COSSLETT 1C-22H-B168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1		

### Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
5,100.00	7.30	354.91	5,063.86	571.87	-50.91	-571.18	0.00	0.00	
5,200.00	7.30	354.91	5,163.05	584.53	-52.04	-583.83	0.00	0.00	
5,300.00	7.30	354.91	5,262.24	597.19	-53.17	-596.47	0.00	0.00	
5,400.00	7.30	354.91	5,361.43	609.85	-54.30	-609.11	0.00	0.00	
5,500.00	7.30	354.91	5,460.62	622.50	-55.42	-621.75	0.00	0.00	
5,600.00	7.30	354.91	5,559.81	635.16	-56.55	-634.40	0.00	0.00	
5,700.00	7.30	354.91	5,659.00	647.82	-57.68	-647.04	0.00	0.00	
5,800.00	7.30	354.91	5,758.19	660.48	-58.80	-659.68	0.00	0.00	
5,900.00	7.30	354.91	5,857.38	673.14	-59.93	-672.33	0.00	0.00	
6,000.00	7.30	354.91	5,956.57	685.80	-61.06	-684.97	0.00	0.00	
6,100.00	7.30	354.91	6,055.76	698.45	-62.18	-697.61	0.00	0.00	
6,200.00	7.30	354.91	6,154.95	711.11	-63.31	-710.26	0.00	0.00	
6,300.00	7.30	354.91	6,254.13	723.77	-64.44	-722.90	0.00	0.00	
6,400.00	7.30	354.91	6,353.32	736.43	-65.57	-735.54	0.00	0.00	
6,500.00	7.30	354.91	6,452.51	749.09	-66.69	-748.19	0.00	0.00	
6,600.00	7.30	354.91	6,551.70	761.75	-67.82	-760.83	0.00	0.00	
6,700.00	7.30	354.91	6,650.89	774.40	-68.95	-773.47	0.00	0.00	
6,800.00	7.30	354.91	6,750.08	787.06	-70.07	-786.12	0.00	0.00	
6,900.00	7.30	354.91	6,849.27	799.72	-71.20	-798.76	0.00	0.00	
7,000.00	7.30	354.91	6,948.46	812.38	-72.33	-811.40	0.00	0.00	
7,055.22	7.30	354.91	7,003.23	819.37	-72.95	-818.38	0.00	0.00	
7,100.00	3.75	349.83	7,047.80	823.65	-73.46	-822.65	8.00	-7.93	
7,200.00	4.37	189.08	7,147.71	823.10	-74.64	-822.10	8.00	0.62	
7,300.00	12.33	183.28	7,246.57	808.66	-75.85	-807.64	8.00	7.97	
7,400.00	20.32	182.02	7,342.46	780.60	-77.08	-779.57	8.00	7.99	
7,500.00	28.32	181.45	7,433.51	739.47	-78.29	-738.42	8.00	8.00	
7,600.00	36.32	181.11	7,517.95	686.06	-79.46	-685.00	8.00	8.00	
7,700.00	44.32	180.88	7,594.13	621.42	-80.58	-620.35	8.00	8.00	
7,800.00	52.32	180.71	7,660.58	546.80	-81.61	-545.73	8.00	8.00	
7,900.00	60.31	180.58	7,716.00	463.67	-82.54	-462.59	8.00	8.00	
7,921.51	62.04	180.55	7,726.37	444.83	-82.73	-443.75	8.00	8.00	COSSLETT 1C TPZ
8,000.00	68.31	180.46	7,759.31	373.63	-83.35	-372.54	8.00	8.00	
8,100.00	76.31	180.36	7,789.66	278.43	-84.03	-277.35	8.00	8.00	
8,200.00	84.31	180.26	7,806.47	179.94	-84.56	-178.86	8.00	8.00	
8,271.09	90.00	180.19	7,810.00	108.97	-84.84	-107.89	8.00	8.00	
8,300.00	90.00	180.19	7,810.00	80.06	-84.93	-78.98	0.00	0.00	
8,400.00	90.00	180.19	7,810.00	-19.94	-85.27	21.02	0.00	0.00	
8,500.00	90.00	180.19	7,810.00	-119.94	-85.60	121.01	0.00	0.00	
8,600.00	90.00	180.19	7,810.00	-219.94	-85.94	221.01	0.00	0.00	
8,700.00	90.00	180.19	7,810.00	-319.94	-86.27	321.00	0.00	0.00	
8,800.00	90.00	180.19	7,810.00	-419.94	-86.61	421.00	0.00	0.00	
8,900.00	90.00	180.19	7,810.00	-519.94	-86.94	521.00	0.00	0.00	
9,000.00	90.00	180.19	7,810.00	-619.94	-87.28	620.99	0.00	0.00	
9,100.00	90.00	180.19	7,810.00	-719.94	-87.61	720.99	0.00	0.00	
9,200.00	90.00	180.19	7,810.00	-819.94	-87.95	820.98	0.00	0.00	
9,300.00	90.00	180.19	7,810.00	-919.94	-88.28	920.98	0.00	0.00	
9,400.00	90.00	180.19	7,810.00	-1,019.94	-88.61	1,020.97	0.00	0.00	
9,500.00	90.00	180.19	7,810.00	-1,119.94	-88.95	1,120.97	0.00	0.00	
9,600.00	90.00	180.19	7,810.00	-1,219.94	-89.28	1,220.97	0.00	0.00	
9,700.00	90.00	180.19	7,810.00	-1,319.94	-89.62	1,320.96	0.00	0.00	
9,800.00	90.00	180.19	7,810.00	-1,419.94	-89.95	1,420.96	0.00	0.00	
9,900.00	90.00	180.19	7,810.00	-1,519.93	-90.29	1,520.95	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well COSSLETT 1C-22H-B168
<b>Company:</b>	Crestone Peak Resources	<b>TVD Reference:</b>	23' KB @ 5197.00usft
<b>Project:</b>	DJ BASIN	<b>MD Reference:</b>	23' KB @ 5197.00usft
<b>Site:</b>	S22-T1N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	COSSLETT 1C-22H-B168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1		

### Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
10,000.00	90.00	180.19	7,810.00	-1,619.93	-90.62	1,620.95	0.00	0.00	
10,100.00	90.00	180.19	7,810.00	-1,719.93	-90.96	1,720.94	0.00	0.00	
10,200.00	90.00	180.19	7,810.00	-1,819.93	-91.29	1,820.94	0.00	0.00	
10,300.00	90.00	180.19	7,810.00	-1,919.93	-91.63	1,920.94	0.00	0.00	
10,400.00	90.00	180.19	7,810.00	-2,019.93	-91.96	2,020.93	0.00	0.00	
10,500.00	90.00	180.19	7,810.00	-2,119.93	-92.30	2,120.93	0.00	0.00	
10,600.00	90.00	180.19	7,810.00	-2,219.93	-92.63	2,220.92	0.00	0.00	
10,700.00	90.00	180.19	7,810.00	-2,319.93	-92.96	2,320.92	0.00	0.00	
10,800.00	90.00	180.19	7,810.00	-2,419.93	-93.30	2,420.91	0.00	0.00	
10,900.00	90.00	180.19	7,810.00	-2,519.93	-93.63	2,520.91	0.00	0.00	
11,000.00	90.00	180.19	7,810.00	-2,619.93	-93.97	2,620.91	0.00	0.00	
11,100.00	90.00	180.19	7,810.00	-2,719.93	-94.30	2,720.90	0.00	0.00	
11,200.00	90.00	180.19	7,810.00	-2,819.93	-94.64	2,820.90	0.00	0.00	
11,300.00	90.00	180.19	7,810.00	-2,919.93	-94.97	2,920.89	0.00	0.00	
11,400.00	90.00	180.19	7,810.00	-3,019.93	-95.31	3,020.89	0.00	0.00	
11,500.00	90.00	180.19	7,810.00	-3,119.93	-95.64	3,120.88	0.00	0.00	
11,600.00	90.00	180.19	7,810.00	-3,219.93	-95.98	3,220.88	0.00	0.00	
11,700.00	90.00	180.19	7,810.00	-3,319.92	-96.31	3,320.88	0.00	0.00	
11,800.00	90.00	180.19	7,810.00	-3,419.92	-96.65	3,420.87	0.00	0.00	
11,900.00	90.00	180.19	7,810.00	-3,519.92	-96.98	3,520.87	0.00	0.00	
12,000.00	90.00	180.19	7,810.00	-3,619.92	-97.31	3,620.86	0.00	0.00	
12,100.00	90.00	180.19	7,810.00	-3,719.92	-97.65	3,720.86	0.00	0.00	
12,200.00	90.00	180.19	7,810.00	-3,819.92	-97.98	3,820.85	0.00	0.00	
12,300.00	90.00	180.19	7,810.00	-3,919.92	-98.32	3,920.85	0.00	0.00	
12,400.00	90.00	180.19	7,810.00	-4,019.92	-98.65	4,020.85	0.00	0.00	
12,500.00	90.00	180.19	7,810.00	-4,119.92	-98.99	4,120.84	0.00	0.00	
12,600.00	90.00	180.19	7,810.00	-4,219.92	-99.32	4,220.84	0.00	0.00	
12,700.00	90.00	180.19	7,810.00	-4,319.92	-99.66	4,320.83	0.00	0.00	
12,800.00	90.00	180.19	7,810.00	-4,419.92	-99.99	4,420.83	0.00	0.00	
12,900.00	90.00	180.19	7,810.00	-4,519.92	-100.33	4,520.82	0.00	0.00	
13,000.00	90.00	180.19	7,810.00	-4,619.92	-100.66	4,620.82	0.00	0.00	
13,100.00	90.00	180.19	7,810.00	-4,719.92	-101.00	4,720.82	0.00	0.00	
13,200.00	90.00	180.19	7,810.00	-4,819.92	-101.33	4,820.81	0.00	0.00	
13,300.00	90.00	180.19	7,810.00	-4,919.92	-101.66	4,920.81	0.00	0.00	
13,400.00	90.00	180.19	7,810.00	-5,019.92	-102.00	5,020.80	0.00	0.00	
13,500.00	90.00	180.19	7,810.00	-5,119.91	-102.33	5,120.80	0.00	0.00	
13,600.00	90.00	180.19	7,810.00	-5,219.91	-102.67	5,220.79	0.00	0.00	
13,700.00	90.00	180.19	7,810.00	-5,319.91	-103.00	5,320.79	0.00	0.00	
13,800.00	90.00	180.19	7,810.00	-5,419.91	-103.34	5,420.79	0.00	0.00	
13,900.00	90.00	180.19	7,810.00	-5,519.91	-103.67	5,520.78	0.00	0.00	
14,000.00	90.00	180.19	7,810.00	-5,619.91	-104.01	5,620.78	0.00	0.00	
14,100.00	90.00	180.19	7,810.00	-5,719.91	-104.34	5,720.77	0.00	0.00	
14,200.00	90.00	180.19	7,810.00	-5,819.91	-104.68	5,820.77	0.00	0.00	
14,300.00	90.00	180.19	7,810.00	-5,919.91	-105.01	5,920.76	0.00	0.00	
14,400.00	90.00	180.19	7,810.00	-6,019.91	-105.35	6,020.76	0.00	0.00	
14,500.00	90.00	180.19	7,810.00	-6,119.91	-105.68	6,120.76	0.00	0.00	
14,600.00	90.00	180.19	7,810.00	-6,219.91	-106.01	6,220.75	0.00	0.00	
14,700.00	90.00	180.19	7,810.00	-6,319.91	-106.35	6,320.75	0.00	0.00	
14,800.00	90.00	180.19	7,810.00	-6,419.91	-106.68	6,420.74	0.00	0.00	
14,900.00	90.00	180.19	7,810.00	-6,519.91	-107.02	6,520.74	0.00	0.00	
15,000.00	90.00	180.19	7,810.00	-6,619.91	-107.35	6,620.73	0.00	0.00	
15,100.00	90.00	180.19	7,810.00	-6,719.91	-107.69	6,720.73	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well COSSLETT 1C-22H-B168
<b>Company:</b>	Crestone Peak Resources	<b>TVD Reference:</b>	23' KB @ 5197.00usft
<b>Project:</b>	DJ BASIN	<b>MD Reference:</b>	23' KB @ 5197.00usft
<b>Site:</b>	S22-T1N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	COSSLETT 1C-22H-B168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
15,200.00	90.00	180.19	7,810.00	-6,819.91	-108.02	6,820.73	0.00	0.00	
15,300.00	90.00	180.19	7,810.00	-6,919.90	-108.36	6,920.72	0.00	0.00	
15,400.00	90.00	180.19	7,810.00	-7,019.90	-108.69	7,020.72	0.00	0.00	
15,500.00	90.00	180.19	7,810.00	-7,119.90	-109.03	7,120.71	0.00	0.00	
15,600.00	90.00	180.19	7,810.00	-7,219.90	-109.36	7,220.71	0.00	0.00	
15,700.00	90.00	180.19	7,810.00	-7,319.90	-109.70	7,320.70	0.00	0.00	
15,800.00	90.00	180.19	7,810.00	-7,419.90	-110.03	7,420.70	0.00	0.00	
15,900.00	90.00	180.19	7,810.00	-7,519.90	-110.36	7,520.70	0.00	0.00	
16,000.00	90.00	180.19	7,810.00	-7,619.90	-110.70	7,620.69	0.00	0.00	
16,100.00	90.00	180.19	7,810.00	-7,719.90	-111.03	7,720.69	0.00	0.00	
16,200.00	90.00	180.19	7,810.00	-7,819.90	-111.37	7,820.68	0.00	0.00	
16,300.00	90.00	180.19	7,810.00	-7,919.90	-111.70	7,920.68	0.00	0.00	
16,400.00	90.00	180.19	7,810.00	-8,019.90	-112.04	8,020.67	0.00	0.00	
16,500.00	90.00	180.19	7,810.00	-8,119.90	-112.37	8,120.67	0.00	0.00	
16,600.00	90.00	180.19	7,810.00	-8,219.90	-112.71	8,220.67	0.00	0.00	
16,700.00	90.00	180.19	7,810.00	-8,319.90	-113.04	8,320.66	0.00	0.00	
16,800.00	90.00	180.19	7,810.00	-8,419.90	-113.38	8,420.66	0.00	0.00	
16,900.00	90.00	180.19	7,810.00	-8,519.90	-113.71	8,520.65	0.00	0.00	
17,000.00	90.00	180.19	7,810.00	-8,619.90	-114.05	8,620.65	0.00	0.00	
17,100.00	90.00	180.19	7,810.00	-8,719.89	-114.38	8,720.64	0.00	0.00	
17,200.00	90.00	180.19	7,810.00	-8,819.89	-114.71	8,820.64	0.00	0.00	
17,300.00	90.00	180.19	7,810.00	-8,919.89	-115.05	8,920.63	0.00	0.00	
17,400.00	90.00	180.19	7,810.00	-9,019.89	-115.38	9,020.63	0.00	0.00	
17,500.00	90.00	180.19	7,810.00	-9,119.89	-115.72	9,120.63	0.00	0.00	
17,571.09	90.00	180.19	7,810.00	-9,190.98	-115.96	9,191.71	0.00	0.00	COSSLETT 1C PBHL

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
COSSLETT 1C TPZ	0.00	0.00	7,726.37	444.82	-83.71	1,258,782.64	3,143,261.15	40.042612	-104.988311
- hit/miss target									
- plan misses target center by 0.99usft at 7921.52usft MD (7726.38 TVD, 444.81 N, -82.73 E)									
- Shape									
- Point									
COSSLETT 1C PBHL	0.00	0.00	7,810.00	-9,190.98	-115.96	1,249,146.81	3,143,284.54	40.016160	-104.988426
- plan hits target center									
- Point									