



CRESTONE PEAK
RESOURCES

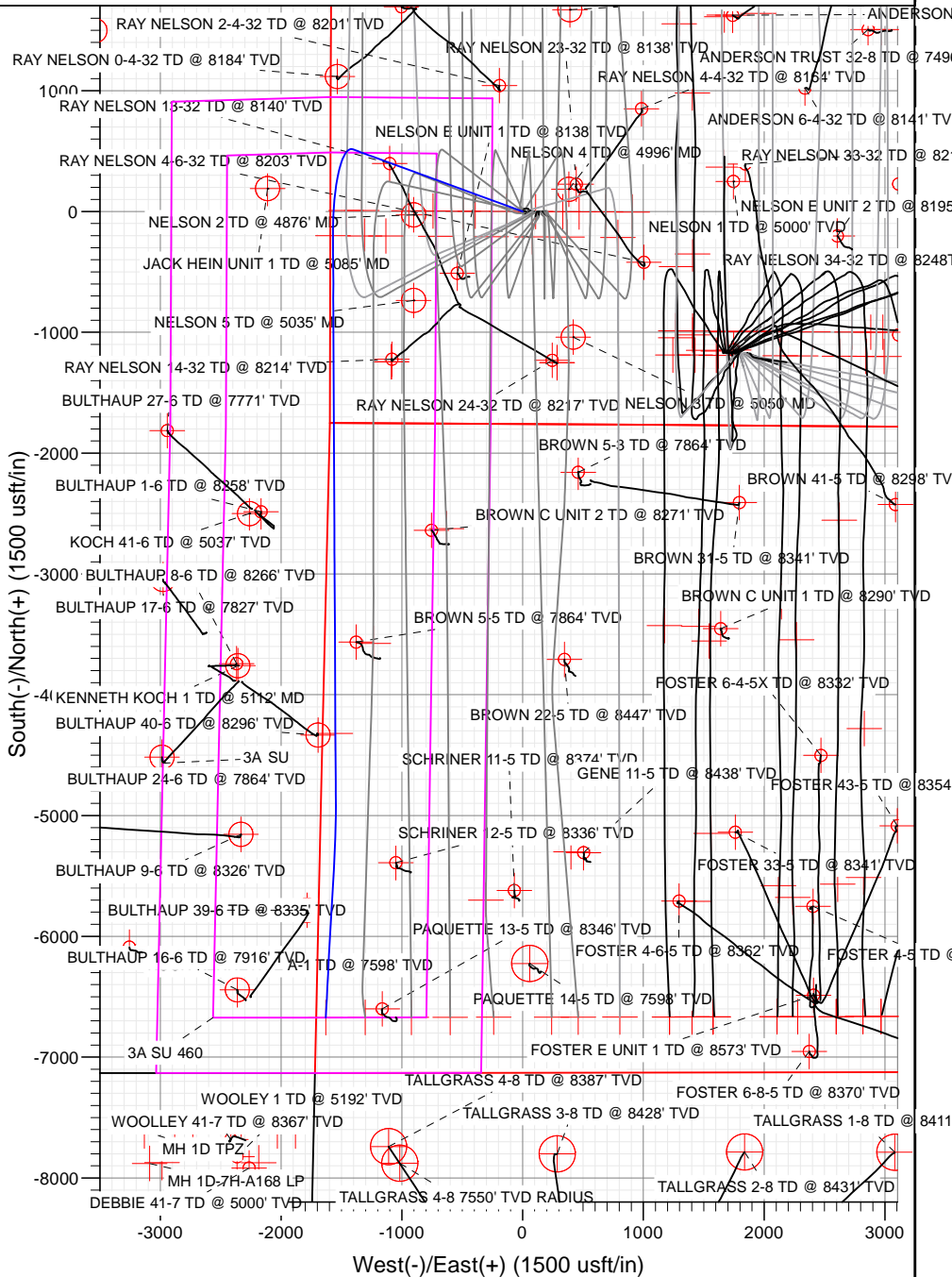
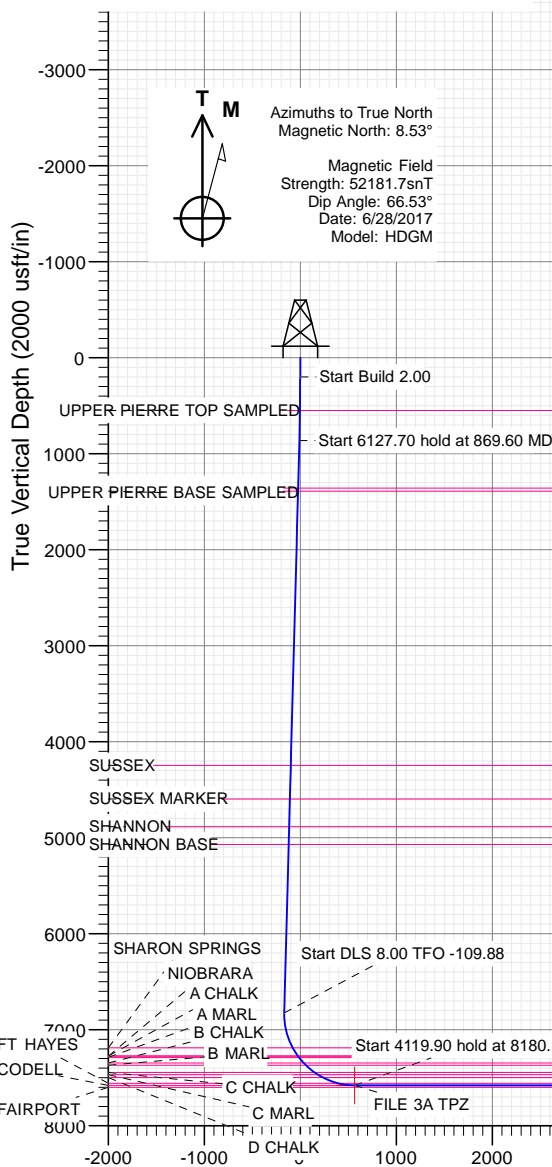
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
3	869.60	13.39	290.10	863.52	26.77	-73.15	2.00	290.10	-8.64	
4	6997.30	13.39	290.10	6824.60	514.42	-1405.99	0.00	0.00	-166.00	
5	8180.15	90.00	179.71	7580.00	-200.29	-1570.94	8.00	-109.88	567.44	FILE 3A TPZ
6	12300.05	90.00	179.71	7580.00	-4320.14	-1550.00	0.00	0.00	4564.58	FILE 3A TGT
7	13000.05	90.00	179.71	7580.00	-5020.13	-1546.44	0.00	0.00	5243.72	
8	13168.17	90.00	183.07	7580.00	-5188.18	-1550.52	2.00	90.00	5407.94	
9	14653.80	90.00	183.07	7580.00	-6671.68	-1630.12	0.00	0.00	6867.94	FILE 3A PBHL

PLAN #1
FILE 3A-32H-K268
23 KB @ 4993.00usft
Ground Level @ 4970.00
North American Datum 1983
Well FILE 3A-32H-K268, True North

Type	Target	No Target (Freehand)	Azimuth	Origin Type	N/S	E/W	From TVD
Name	TVD	+N/-S	+E/-W	Latitude	Longitude		
FILE 3A PBHL	7580.00	-6671.68	-1630.12	40.074261	-105.037043		
FILE 3A TGT	7580.00	-4320.14	-1550.00	40.090716	-105.036757		
FILE 3A TPZ	7580.00	-200.29	-1570.94	40.092026	-105.036833		

Project: DJ BASIN
Site: S32-T2N-R68W
Well: FILE 3A-32H-K268
Wellbore: OH
Design: PLAN #1



Vertical Section at 193.73° (2000 usft/in)

WELL DETAILS: FILE 3A-32H-K268

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1276916.68	3131152.07	40.092576	-105.031218

CATHEDRAL



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well FILE 3A-32H-K268
Company:	Crestone Peak Resources	TVD Reference:	23' KB @ 4993.00usft
Project:	DJ BASIN	MD Reference:	23' KB @ 4993.00usft
Site:	S32-T2N-R68W	North Reference:	True
Well:	FILE 3A-32H-K268	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Project	DJ BASIN		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		S32-T2N-R68W			
Site Position:		Northing:	1,275,752.56 usft	Latitude:	40.089356
From:	Lat/Long	Easting:	3,132,818.22 usft	Longitude:	-105.025285
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.31 °

Well	FILE 3A-32H-K268					
Well Position	+N/-S	0.00 usft	Northing:	1,276,916.68 usft	Latitude:	40.092576
	+E/-W	0.00 usft	Easting:	3,131,152.07 usft	Longitude:	-105.031218
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	4,970.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	HDGM	6/28/2017	8.53	66.53	52,181.70000000

Design	PLAN #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	193.73

Plan Sections										
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	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
869.60	13.39	290.10	863.52	26.77	-73.15	2.00	2.00	0.00	290.10	
6,997.30	13.39	290.10	6,824.60	514.42	-1,405.99	0.00	0.00	0.00	0.00	
8,180.15	90.00	179.71	7,580.00	-200.29	-1,570.94	8.00	6.48	-9.33	-109.88	FILE 3A TPZ
12,300.05	90.00	179.71	7,580.00	-4,320.14	-1,550.00	0.00	0.00	0.00	0.00	FILE 3A TGT
13,000.05	90.00	179.71	7,580.00	-5,020.13	-1,546.44	0.00	0.00	0.00	0.00	
13,168.17	90.00	183.07	7,580.00	-5,188.18	-1,550.52	2.00	0.00	2.00	90.00	
14,653.80	90.00	183.07	7,580.00	-6,671.68	-1,630.12	0.00	0.00	0.00	0.00	FILE 3A PBHL

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well FILE 3A-32H-K268
Company:	Crestone Peak Resources	TVD Reference:	23' KB @ 4993.00usft
Project:	DJ BASIN	MD Reference:	23' KB @ 4993.00usft
Site:	S32-T2N-R68W	North Reference:	True
Well:	FILE 3A-32H-K268	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	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	2.00	290.10	299.98	0.60	-1.64	-0.19	2.00	2.00	
400.00	4.00	290.10	399.84	2.40	-6.55	-0.77	2.00	2.00	
500.00	6.00	290.10	499.45	5.39	-14.74	-1.74	2.00	2.00	
550.88	7.02	290.10	550.00	7.37	-20.15	-2.38	2.00	2.00	UPPER PIERRE TOP SAMPLED
600.00	8.00	290.10	598.70	9.58	-26.18	-3.09	2.00	2.00	
700.00	10.00	290.10	697.47	14.95	-40.87	-4.83	2.00	2.00	
800.00	12.00	290.10	795.62	21.51	-58.79	-6.94	2.00	2.00	
869.60	13.39	290.10	863.52	26.77	-73.15	-8.64	2.00	2.00	
900.00	13.39	290.10	893.09	29.19	-79.77	-9.42	0.00	0.00	
1,000.00	13.39	290.10	990.37	37.14	-101.52	-11.99	0.00	0.00	
1,100.00	13.39	290.10	1,087.65	45.10	-123.27	-14.55	0.00	0.00	
1,200.00	13.39	290.10	1,184.94	53.06	-145.02	-17.12	0.00	0.00	
1,300.00	13.39	290.10	1,282.22	61.02	-166.77	-19.69	0.00	0.00	
1,378.93	13.39	290.10	1,359.00	67.30	-183.94	-21.72	0.00	0.00	UPPER PIERRE AQ BASE
1,400.00	13.39	290.10	1,379.50	68.98	-188.52	-22.26	0.00	0.00	
1,410.80	13.39	290.10	1,390.00	69.83	-190.87	-22.54	0.00	0.00	UPPER PIERRE BASE SAMPLED
1,500.00	13.39	290.10	1,476.78	76.93	-210.27	-24.83	0.00	0.00	
1,600.00	13.39	290.10	1,574.06	84.89	-232.02	-27.39	0.00	0.00	
1,700.00	13.39	290.10	1,671.34	92.85	-253.78	-29.96	0.00	0.00	
1,800.00	13.39	290.10	1,768.62	100.81	-275.53	-32.53	0.00	0.00	
1,900.00	13.39	290.10	1,865.90	108.77	-297.28	-35.10	0.00	0.00	
2,000.00	13.39	290.10	1,963.18	116.72	-319.03	-37.67	0.00	0.00	
2,100.00	13.39	290.10	2,060.46	124.68	-340.78	-40.23	0.00	0.00	
2,200.00	13.39	290.10	2,157.74	132.64	-362.53	-42.80	0.00	0.00	
2,300.00	13.39	290.10	2,255.03	140.60	-384.28	-45.37	0.00	0.00	
2,400.00	13.39	290.10	2,352.31	148.56	-406.03	-47.94	0.00	0.00	
2,500.00	13.39	290.10	2,449.59	156.51	-427.78	-50.51	0.00	0.00	
2,600.00	13.39	290.10	2,546.87	164.47	-449.53	-53.08	0.00	0.00	
2,700.00	13.39	290.10	2,644.15	172.43	-471.28	-55.64	0.00	0.00	
2,800.00	13.39	290.10	2,741.43	180.39	-493.04	-58.21	0.00	0.00	
2,900.00	13.39	290.10	2,838.71	188.35	-514.79	-60.78	0.00	0.00	
3,000.00	13.39	290.10	2,935.99	196.31	-536.54	-63.35	0.00	0.00	
3,100.00	13.39	290.10	3,033.27	204.26	-558.29	-65.92	0.00	0.00	
3,200.00	13.39	290.10	3,130.55	212.22	-580.04	-68.48	0.00	0.00	
3,300.00	13.39	290.10	3,227.83	220.18	-601.79	-71.05	0.00	0.00	
3,400.00	13.39	290.10	3,325.11	228.14	-623.54	-73.62	0.00	0.00	
3,500.00	13.39	290.10	3,422.40	236.10	-645.29	-76.19	0.00	0.00	
3,600.00	13.39	290.10	3,519.68	244.05	-667.04	-78.76	0.00	0.00	
3,700.00	13.39	290.10	3,616.96	252.01	-688.79	-81.32	0.00	0.00	
3,800.00	13.39	290.10	3,714.24	259.97	-710.54	-83.89	0.00	0.00	
3,900.00	13.39	290.10	3,811.52	267.93	-732.30	-86.46	0.00	0.00	
4,000.00	13.39	290.10	3,908.80	275.89	-754.05	-89.03	0.00	0.00	
4,100.00	13.39	290.10	4,006.08	283.84	-775.80	-91.60	0.00	0.00	
4,200.00	13.39	290.10	4,103.36	291.80	-797.55	-94.16	0.00	0.00	
4,300.00	13.39	290.10	4,200.64	299.76	-819.30	-96.73	0.00	0.00	
4,347.65	13.39	290.10	4,247.00	303.55	-829.66	-97.96	0.00	0.00	SUSSEX
4,400.00	13.39	290.10	4,297.92	307.72	-841.05	-99.30	0.00	0.00	
4,500.00	13.39	290.10	4,395.20	315.68	-862.80	-101.87	0.00	0.00	
4,600.00	13.39	290.10	4,492.48	323.64	-884.55	-104.44	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well FILE 3A-32H-K268
Company:	Crestone Peak Resources	TVD Reference:	23' KB @ 4993.00usft
Project:	DJ BASIN	MD Reference:	23' KB @ 4993.00usft
Site:	S32-T2N-R68W	North Reference:	True
Well:	FILE 3A-32H-K268	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	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
4,700.00	13.39	290.10	4,589.77	331.59	-906.30	-107.00	0.00	0.00	
4,707.44	13.39	290.10	4,597.00	332.19	-907.92	-107.20	0.00	0.00	SUSSEX MARKER
4,800.00	13.39	290.10	4,687.05	339.55	-928.05	-109.57	0.00	0.00	
4,900.00	13.39	290.10	4,784.33	347.51	-949.81	-112.14	0.00	0.00	
5,000.00	13.39	290.10	4,881.61	355.47	-971.56	-114.71	0.00	0.00	
5,002.46	13.39	290.10	4,884.00	355.66	-972.09	-114.77	0.00	0.00	SHANNON
5,100.00	13.39	290.10	4,978.89	363.43	-993.31	-117.28	0.00	0.00	
5,193.66	13.39	290.10	5,070.00	370.88	-1,013.68	-119.68	0.00	0.00	SHANNON BASE
5,200.00	13.39	290.10	5,076.17	371.38	-1,015.06	-119.85	0.00	0.00	
5,300.00	13.39	290.10	5,173.45	379.34	-1,036.81	-122.41	0.00	0.00	
5,400.00	13.39	290.10	5,270.73	387.30	-1,058.56	-124.98	0.00	0.00	
5,500.00	13.39	290.10	5,368.01	395.26	-1,080.31	-127.55	0.00	0.00	
5,600.00	13.39	290.10	5,465.29	403.22	-1,102.06	-130.12	0.00	0.00	
5,700.00	13.39	290.10	5,562.57	411.17	-1,123.81	-132.69	0.00	0.00	
5,800.00	13.39	290.10	5,659.86	419.13	-1,145.56	-135.25	0.00	0.00	
5,900.00	13.39	290.10	5,757.14	427.09	-1,167.31	-137.82	0.00	0.00	
6,000.00	13.39	290.10	5,854.42	435.05	-1,189.07	-140.39	0.00	0.00	
6,100.00	13.39	290.10	5,951.70	443.01	-1,210.82	-142.96	0.00	0.00	
6,200.00	13.39	290.10	6,048.98	450.97	-1,232.57	-145.53	0.00	0.00	
6,300.00	13.39	290.10	6,146.26	458.92	-1,254.32	-148.09	0.00	0.00	
6,400.00	13.39	290.10	6,243.54	466.88	-1,276.07	-150.66	0.00	0.00	
6,500.00	13.39	290.10	6,340.82	474.84	-1,297.82	-153.23	0.00	0.00	
6,600.00	13.39	290.10	6,438.10	482.80	-1,319.57	-155.80	0.00	0.00	
6,700.00	13.39	290.10	6,535.38	490.76	-1,341.32	-158.37	0.00	0.00	
6,800.00	13.39	290.10	6,632.66	498.71	-1,363.07	-160.93	0.00	0.00	
6,900.00	13.39	290.10	6,729.94	506.67	-1,384.82	-163.50	0.00	0.00	
6,997.30	13.39	290.10	6,824.60	514.42	-1,405.99	-166.00	0.00	0.00	
7,000.00	13.32	289.21	6,827.23	514.63	-1,406.57	-166.07	8.00	-2.66	
7,100.00	13.07	253.65	6,924.74	515.23	-1,428.34	-161.49	8.00	-0.25	
7,200.00	17.04	226.44	7,021.41	501.93	-1,449.85	-143.46	8.00	3.97	
7,300.00	23.15	211.18	7,115.34	474.97	-1,470.67	-112.33	8.00	6.11	
7,381.95	28.82	203.64	7,189.00	443.06	-1,486.95	-77.47	8.00	6.92	SHARON SPRINGS
7,400.00	30.11	202.34	7,204.71	434.89	-1,490.41	-68.71	8.00	7.17	
7,481.54	36.09	197.54	7,273.00	393.02	-1,505.44	-24.47	8.00	7.33	A CHALK
7,484.02	36.28	197.41	7,275.00	391.63	-1,505.88	-23.01	8.00	7.44	NIOBRARA
7,500.00	37.47	196.64	7,287.78	382.46	-1,508.69	-13.44	8.00	7.45	
7,501.53	37.58	196.57	7,289.00	381.56	-1,508.95	-12.51	8.00	7.47	A MARL
7,577.78	43.33	193.40	7,347.00	333.78	-1,521.65	36.92	8.00	7.53	B CHALK
7,600.00	45.01	192.60	7,362.94	318.70	-1,525.14	52.40	8.00	7.60	
7,611.49	45.89	192.20	7,371.00	310.70	-1,526.89	60.59	8.00	7.62	B MARL
7,700.00	52.67	189.51	7,428.71	244.85	-1,539.44	127.53	8.00	7.66	
7,727.54	54.79	188.77	7,445.00	222.93	-1,542.96	149.66	8.00	7.70	C CHALK
7,770.99	58.15	187.68	7,469.00	187.09	-1,548.14	185.71	8.00	7.72	C MARL
7,800.00	60.39	186.99	7,483.82	162.36	-1,551.32	210.49	8.00	7.74	
7,831.94	62.87	186.28	7,499.00	134.44	-1,554.56	238.38	8.00	7.75	D CHALK
7,900.00	68.15	184.84	7,527.20	72.82	-1,560.54	299.66	8.00	7.77	
8,000.00	75.94	182.91	7,558.00	-22.02	-1,566.94	393.30	8.00	7.79	
8,004.15	76.26	182.84	7,559.00	-26.04	-1,567.14	397.26	8.00	7.80	FT HAYES
8,100.00	83.74	181.11	7,575.63	-120.31	-1,570.37	489.60	8.00	7.80	
8,180.15	90.00	179.71	7,580.00	-200.29	-1,570.94	567.44	8.00	7.81	CODELL
8,200.00	90.00	179.71	7,580.00	-220.14	-1,570.84	586.70	0.00	0.00	
8,300.00	90.00	179.71	7,580.00	-320.14	-1,570.33	683.72	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well FILE 3A-32H-K268
Company:	Crestone Peak Resources	TVD Reference:	23' KB @ 4993.00usft
Project:	DJ BASIN	MD Reference:	23' KB @ 4993.00usft
Site:	S32-T2N-R68W	North Reference:	True
Well:	FILE 3A-32H-K268	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	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
8,400.00	90.00	179.71	7,580.00	-420.14	-1,569.82	780.74	0.00	0.00	
8,500.00	90.00	179.71	7,580.00	-520.14	-1,569.31	877.76	0.00	0.00	
8,600.00	90.00	179.71	7,580.00	-620.14	-1,568.81	974.78	0.00	0.00	
8,700.00	90.00	179.71	7,580.00	-720.14	-1,568.30	1,071.80	0.00	0.00	
8,800.00	90.00	179.71	7,580.00	-820.14	-1,567.79	1,168.82	0.00	0.00	
8,900.00	90.00	179.71	7,580.00	-920.14	-1,567.28	1,265.84	0.00	0.00	
9,000.00	90.00	179.71	7,580.00	-1,020.13	-1,566.77	1,362.86	0.00	0.00	
9,100.00	90.00	179.71	7,580.00	-1,120.13	-1,566.26	1,459.88	0.00	0.00	
9,200.00	90.00	179.71	7,580.00	-1,220.13	-1,565.76	1,556.90	0.00	0.00	
9,300.00	90.00	179.71	7,580.00	-1,320.13	-1,565.25	1,653.92	0.00	0.00	
9,400.00	90.00	179.71	7,580.00	-1,420.13	-1,564.74	1,750.94	0.00	0.00	
9,500.00	90.00	179.71	7,580.00	-1,520.13	-1,564.23	1,847.96	0.00	0.00	
9,600.00	90.00	179.71	7,580.00	-1,620.13	-1,563.72	1,944.98	0.00	0.00	
9,700.00	90.00	179.71	7,580.00	-1,720.13	-1,563.21	2,042.00	0.00	0.00	
9,800.00	90.00	179.71	7,580.00	-1,820.12	-1,562.71	2,139.02	0.00	0.00	
9,900.00	90.00	179.71	7,580.00	-1,920.12	-1,562.20	2,236.04	0.00	0.00	
10,000.00	90.00	179.71	7,580.00	-2,020.12	-1,561.69	2,333.06	0.00	0.00	
10,100.00	90.00	179.71	7,580.00	-2,120.12	-1,561.18	2,430.08	0.00	0.00	
10,200.00	90.00	179.71	7,580.00	-2,220.12	-1,560.67	2,527.11	0.00	0.00	
10,300.00	90.00	179.71	7,580.00	-2,320.12	-1,560.17	2,624.13	0.00	0.00	
10,400.00	90.00	179.71	7,580.00	-2,420.12	-1,559.66	2,721.15	0.00	0.00	
10,500.00	90.00	179.71	7,580.00	-2,520.12	-1,559.15	2,818.17	0.00	0.00	
10,600.00	90.00	179.71	7,580.00	-2,620.11	-1,558.64	2,915.19	0.00	0.00	
10,700.00	90.00	179.71	7,580.00	-2,720.11	-1,558.13	3,012.21	0.00	0.00	
10,800.00	90.00	179.71	7,580.00	-2,820.11	-1,557.62	3,109.23	0.00	0.00	
10,900.00	90.00	179.71	7,580.00	-2,920.11	-1,557.12	3,206.25	0.00	0.00	
11,000.00	90.00	179.71	7,580.00	-3,020.11	-1,556.61	3,303.27	0.00	0.00	
11,100.00	90.00	179.71	7,580.00	-3,120.11	-1,556.10	3,400.29	0.00	0.00	
11,200.00	90.00	179.71	7,580.00	-3,220.11	-1,555.59	3,497.31	0.00	0.00	
11,300.00	90.00	179.71	7,580.00	-3,320.10	-1,555.08	3,594.33	0.00	0.00	
11,400.00	90.00	179.71	7,580.00	-3,420.10	-1,554.57	3,691.35	0.00	0.00	
11,500.00	90.00	179.71	7,580.00	-3,520.10	-1,554.07	3,788.37	0.00	0.00	
11,600.00	90.00	179.71	7,580.00	-3,620.10	-1,553.56	3,885.39	0.00	0.00	
11,700.00	90.00	179.71	7,580.00	-3,720.10	-1,553.05	3,982.41	0.00	0.00	
11,800.00	90.00	179.71	7,580.00	-3,820.10	-1,552.54	4,079.43	0.00	0.00	
11,900.00	90.00	179.71	7,580.00	-3,920.10	-1,552.03	4,176.45	0.00	0.00	
12,000.00	90.00	179.71	7,580.00	-4,020.10	-1,551.53	4,273.47	0.00	0.00	
12,100.00	90.00	179.71	7,580.00	-4,120.09	-1,551.02	4,370.49	0.00	0.00	
12,200.00	90.00	179.71	7,580.00	-4,220.09	-1,550.51	4,467.51	0.00	0.00	
12,300.00	90.00	179.71	7,580.00	-4,320.09	-1,550.00	4,564.54	0.00	0.00	
12,300.05	90.00	179.71	7,580.00	-4,320.14	-1,550.00	4,564.58	0.00	0.00	
12,400.00	90.00	179.71	7,580.00	-4,420.09	-1,549.49	4,661.56	0.00	0.00	
12,500.00	90.00	179.71	7,580.00	-4,520.09	-1,548.98	4,758.58	0.00	0.00	
12,600.00	90.00	179.71	7,580.00	-4,620.09	-1,548.48	4,855.60	0.00	0.00	
12,700.00	90.00	179.71	7,580.00	-4,720.09	-1,547.97	4,952.62	0.00	0.00	
12,800.00	90.00	179.71	7,580.00	-4,820.09	-1,547.46	5,049.64	0.00	0.00	
12,900.00	90.00	179.71	7,580.00	-4,920.08	-1,546.95	5,146.66	0.00	0.00	
13,000.00	90.00	179.71	7,580.00	-5,020.08	-1,546.44	5,243.68	0.00	0.00	
13,000.05	90.00	179.71	7,580.00	-5,020.13	-1,546.44	5,243.72	0.00	0.00	
13,100.00	90.00	181.71	7,580.00	-5,120.07	-1,547.68	5,341.10	2.00	0.00	
13,168.17	90.00	183.07	7,580.00	-5,188.18	-1,550.52	5,407.94	2.00	0.00	
13,200.00	90.00	183.07	7,580.00	-5,219.96	-1,552.23	5,439.22	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well FILE 3A-32H-K268
Company:	Crestone Peak Resources	TVD Reference:	23' KB @ 4993.00usft
Project:	DJ BASIN	MD Reference:	23' KB @ 4993.00usft
Site:	S32-T2N-R68W	North Reference:	True
Well:	FILE 3A-32H-K268	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	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
13,300.00	90.00	183.07	7,580.00	-5,319.82	-1,557.58	5,537.49	0.00	0.00	
13,400.00	90.00	183.07	7,580.00	-5,419.68	-1,562.94	5,635.77	0.00	0.00	
13,500.00	90.00	183.07	7,580.00	-5,519.53	-1,568.30	5,734.04	0.00	0.00	
13,600.00	90.00	183.07	7,580.00	-5,619.39	-1,573.66	5,832.32	0.00	0.00	
13,700.00	90.00	183.07	7,580.00	-5,719.25	-1,579.01	5,930.59	0.00	0.00	
13,800.00	90.00	183.07	7,580.00	-5,819.10	-1,584.37	6,028.87	0.00	0.00	
13,900.00	90.00	183.07	7,580.00	-5,918.96	-1,589.73	6,127.14	0.00	0.00	
14,000.00	90.00	183.07	7,580.00	-6,018.81	-1,595.09	6,225.42	0.00	0.00	
14,100.00	90.00	183.07	7,580.00	-6,118.67	-1,600.45	6,323.69	0.00	0.00	
14,200.00	90.00	183.07	7,580.00	-6,218.53	-1,605.80	6,421.97	0.00	0.00	
14,300.00	90.00	183.07	7,580.00	-6,318.38	-1,611.16	6,520.24	0.00	0.00	
14,400.00	90.00	183.07	7,580.00	-6,418.24	-1,616.52	6,618.51	0.00	0.00	
14,500.00	90.00	183.07	7,580.00	-6,518.10	-1,621.88	6,716.79	0.00	0.00	
14,600.00	90.00	183.07	7,580.00	-6,617.95	-1,627.24	6,815.06	0.00	0.00	
14,653.80	90.00	183.07	7,580.00	-6,671.68	-1,630.12	6,867.94	0.00	0.00	

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FILE 3A TPZ - plan hits target center - Point	0.00	0.00	7,580.00	-200.29	-1,570.94	1,276,708.08	3,129,582.21	40.092026	-105.036833
FILE 3A TGT - plan hits target center - Point	0.00	0.00	7,580.00	-4,320.14	-1,550.00	1,272,588.40	3,129,624.93	40.080716	-105.036757
FILE 3A PBHL - plan hits target center - Point	0.00	0.00	7,580.00	-6,671.68	-1,630.12	1,270,236.48	3,129,557.25	40.074261	-105.037043

Cathedral Energy Services

Planning Report

Database: USA EDM 5000 Multi Users DB
Company: Crestone Peak Resources
Project: DJ BASIN
Site: S32-T2N-R68W
Well: FILE 3A-32H-K268
Wellbore: OH
Design: PLAN #1

Local Co-ordinate Reference: Well FILE 3A-32H-K268
TVD Reference: 23' KB @ 4993.00usft
MD Reference: 23' KB @ 4993.00usft
North Reference: True
Survey Calculation Method: Minimum Curvature

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
550.88	550.00	UPPER PIERRE TOP SAMPLED				
1,378.93	1,359.00	UPPER PIERRE AQ BASE				
1,410.80	1,390.00	UPPER PIERRE BASE SAMPLED				
4,347.65	4,247.00	SUSSEX				
4,707.44	4,597.00	SUSSEX MARKER				
5,002.46	4,884.00	SHANNON				
5,193.66	5,070.00	SHANNON BASE				
7,381.95	7,189.00	SHARON SPRINGS				
7,481.54	7,273.00	A CHALK				
7,484.02	7,275.00	NIOBRARA				
7,501.53	7,289.00	A MARL				
7,577.78	7,347.00	B CHALK				
7,611.49	7,371.00	B MARL				
7,727.54	7,445.00	C CHALK				
7,770.99	7,469.00	C MARL				
7,831.94	7,499.00	D CHALK				
8,004.15	7,559.00	FT HAYES				
8,180.15	7,580.00	CODELL				