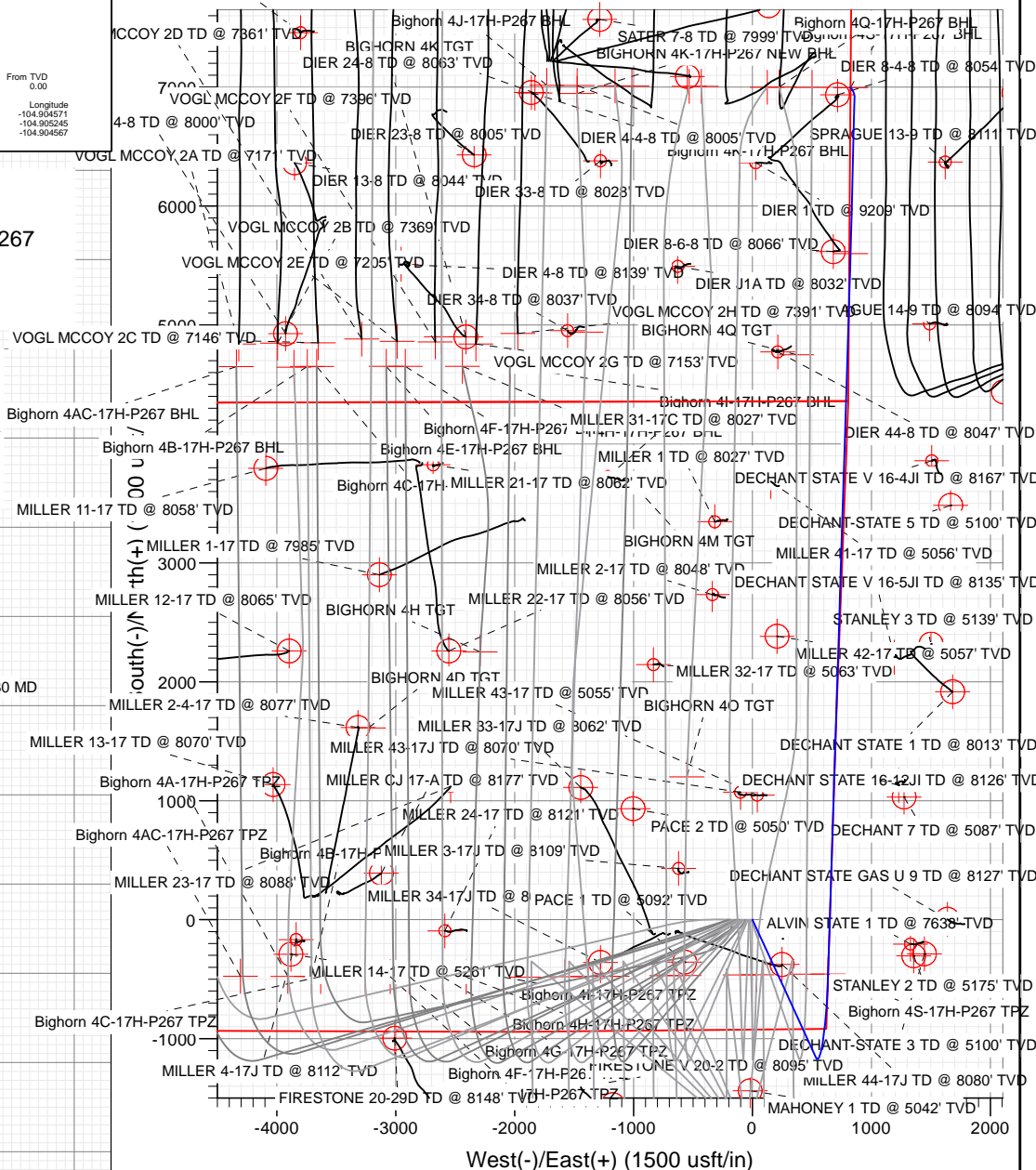




Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
3	799.30	11.99	155.26	794.94	-56.73	26.14	2.00	155.26	-53.28	
4	6636.14	11.99	155.26	6504.52	-1157.63	533.41	0.00	0.00	-1087.37	
5	7894.99	90.00	1.79	7350.00	-456.76	635.55	8.00	-152.96	-379.36	Bighorn 4S-17H-P267 TPZ
6	13954.71	90.00	1.79	7350.00	5600.00	825.00	0.00	0.00	5658.04	
7	13972.91	90.00	1.39	7350.00	5618.20	825.51	2.19	-90.00	5676.17	
8	15266.69	90.00	1.39	7350.00	6911.59	856.97	0.00	0.00	6964.38	
9	15349.47	90.00	320.00	7350.00	6988.03	830.19	50.00	-90.00	7037.17	
10	15359.47	90.00	320.00	7350.00	6995.69	823.76	0.00	0.00	7044.03	Bighorn 4S-17H-P267 BHL

Type TD	Target No Target (Freehand)	Azimuth 6.71	Origin Type Slot	N/S 0.00	E/W 0.00	From TVD 0.00
Name	TVD	+N-S	+E-W	Latitude	Longitude	
Bighorn 4S-17H-P267 BHL	7350.00	6995.69	823.76	40.152885	-104.904571	
Bighorn 4S-17H-P267 TPZ	7350.00	-456.76	635.55	40.132427	-104.905245	
Interp @ 7350.00 (BIGHORN 4S-17H-P267 OH P26700)			825.00	40.149054	-104.904567	



Start Turn -2.19

Start 1293.77 hold at 13972.91 MD

Start DLS 50.00 TFO -90.00

TD at 15359.47

Bighorn 4S-17H-P267 BHL

Interp @ 7350.00 (BIGHORN 4S-17H-P267 OH PLAN #2)

Vertical Section at 6.71° (2000 usft/in)



CATHEDRAL

WELL DETAILS: BIGHORN 4S-17H-P267

			4960.00		
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1292097.07	3165659.36	40.133681	-104.907518



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well BIGHORN 4S-17H-P267
Company:	Crestone Peak Resources	TVD Reference:	23' KB @ 4983.00usft
Project:	DJ BASIN	MD Reference:	23' KB @ 4983.00usft
Site:	BIGHORN	North Reference:	True
Well:	BIGHORN 4S-17H-P267	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #3		

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		BIGHORN			
Site Position:		Northing:	1,292,097.01 usft	Latitude:	40.133684
From:	Lat/Long	Easting:	3,165,479.29 usft	Longitude:	-104.908162
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.38 °

Well	BIGHORN 4S-17H-P267					
Well Position	+N/-S	0.00 usft	Northing:	1,292,097.07 usft	Latitude:	40.133681
	+E/-W	0.00 usft	Easting:	3,165,659.36 usft	Longitude:	-104.907518
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	4,960.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	HDGM	3/20/2018	8.47	66.55	52,180.50000000

Design	PLAN #3			
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	6.71

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	
799.30	11.99	155.26	794.94	-56.73	26.14	2.00	2.00	0.00	155.26	
6,636.14	11.99	155.26	6,504.52	-1,157.63	533.41	0.00	0.00	0.00	0.00	
7,894.99	90.00	1.79	7,350.00	-456.76	635.55	8.00	6.20	-12.19	-152.96	Bighorn 4S-17H-P267
13,954.71	90.00	1.79	7,350.00	5,600.00	825.00	0.00	0.00	0.00	0.00	Interp @ 7350.00 (BK
13,972.91	90.00	1.39	7,350.00	5,618.20	825.51	2.19	0.00	-2.19	-90.00	
15,266.69	90.00	1.39	7,350.00	6,911.59	856.97	0.00	0.00	0.00	0.00	
15,349.47	90.00	320.00	7,350.00	6,988.03	830.19	50.00	0.00	-50.00	-90.00	
15,359.47	90.00	320.00	7,350.00	6,995.69	823.76	0.00	0.00	0.00	0.00	Bighorn 4S-17H-P267

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well BIGHORN 4S-17H-P267
Company:	Crestone Peak Resources	TVD Reference:	23' KB @ 4983.00usft
Project:	DJ BASIN	MD Reference:	23' KB @ 4983.00usft
Site:	BIGHORN	North Reference:	True
Well:	BIGHORN 4S-17H-P267	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #3		

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	155.26	299.98	-1.58	0.73	-1.49	2.00	2.00	
400.00	4.00	155.26	399.84	-6.34	2.92	-5.95	2.00	2.00	
500.00	6.00	155.26	499.45	-14.25	6.57	-13.39	2.00	2.00	
600.00	8.00	155.26	598.70	-25.32	11.67	-23.78	2.00	2.00	
700.00	10.00	155.26	697.47	-39.53	18.21	-37.13	2.00	2.00	
799.30	11.99	155.26	794.94	-56.73	26.14	-53.28	2.00	2.00	
800.00	11.99	155.26	795.62	-56.86	26.20	-53.41	0.00	0.00	
900.00	11.99	155.26	893.44	-75.72	34.89	-71.12	0.00	0.00	
1,000.00	11.99	155.26	991.26	-94.58	43.58	-88.84	0.00	0.00	
1,100.00	11.99	155.26	1,089.08	-113.44	52.27	-106.56	0.00	0.00	
1,200.00	11.99	155.26	1,186.90	-132.30	60.96	-124.27	0.00	0.00	
1,300.00	11.99	155.26	1,284.72	-151.16	69.65	-141.99	0.00	0.00	
1,400.00	11.99	155.26	1,382.54	-170.03	78.34	-159.71	0.00	0.00	
1,500.00	11.99	155.26	1,480.36	-188.89	87.04	-177.42	0.00	0.00	
1,600.00	11.99	155.26	1,578.18	-207.75	95.73	-195.14	0.00	0.00	
1,700.00	11.99	155.26	1,676.00	-226.61	104.42	-212.85	0.00	0.00	
1,800.00	11.99	155.26	1,773.82	-245.47	113.11	-230.57	0.00	0.00	
1,900.00	11.99	155.26	1,871.64	-264.33	121.80	-248.29	0.00	0.00	
2,000.00	11.99	155.26	1,969.46	-283.19	130.49	-266.00	0.00	0.00	
2,100.00	11.99	155.26	2,067.28	-302.05	139.18	-283.72	0.00	0.00	
2,200.00	11.99	155.26	2,165.10	-320.92	147.87	-301.44	0.00	0.00	
2,300.00	11.99	155.26	2,262.92	-339.78	156.56	-319.15	0.00	0.00	
2,400.00	11.99	155.26	2,360.74	-358.64	165.25	-336.87	0.00	0.00	
2,500.00	11.99	155.26	2,458.56	-377.50	173.94	-354.59	0.00	0.00	
2,600.00	11.99	155.26	2,556.38	-396.36	182.64	-372.30	0.00	0.00	
2,700.00	11.99	155.26	2,654.20	-415.22	191.33	-390.02	0.00	0.00	
2,800.00	11.99	155.26	2,752.02	-434.08	200.02	-407.74	0.00	0.00	
2,900.00	11.99	155.26	2,849.84	-452.95	208.71	-425.45	0.00	0.00	
3,000.00	11.99	155.26	2,947.66	-471.81	217.40	-443.17	0.00	0.00	
3,100.00	11.99	155.26	3,045.48	-490.67	226.09	-460.89	0.00	0.00	
3,200.00	11.99	155.26	3,143.30	-509.53	234.78	-478.60	0.00	0.00	
3,300.00	11.99	155.26	3,241.12	-528.39	243.47	-496.32	0.00	0.00	
3,400.00	11.99	155.26	3,338.94	-547.25	252.16	-514.04	0.00	0.00	
3,500.00	11.99	155.26	3,436.76	-566.11	260.85	-531.75	0.00	0.00	
3,600.00	11.99	155.26	3,534.58	-584.97	269.54	-549.47	0.00	0.00	
3,700.00	11.99	155.26	3,632.40	-603.84	278.24	-567.19	0.00	0.00	
3,800.00	11.99	155.26	3,730.22	-622.70	286.93	-584.90	0.00	0.00	
3,900.00	11.99	155.26	3,828.04	-641.56	295.62	-602.62	0.00	0.00	
4,000.00	11.99	155.26	3,925.86	-660.42	304.31	-620.34	0.00	0.00	
4,100.00	11.99	155.26	4,023.68	-679.28	313.00	-638.05	0.00	0.00	
4,200.00	11.99	155.26	4,121.50	-698.14	321.69	-655.77	0.00	0.00	
4,300.00	11.99	155.26	4,219.32	-717.00	330.38	-673.48	0.00	0.00	
4,400.00	11.99	155.26	4,317.14	-735.87	339.07	-691.20	0.00	0.00	
4,500.00	11.99	155.26	4,414.96	-754.73	347.76	-708.92	0.00	0.00	
4,600.00	11.99	155.26	4,512.78	-773.59	356.45	-726.63	0.00	0.00	
4,700.00	11.99	155.26	4,610.60	-792.45	365.14	-744.35	0.00	0.00	
4,800.00	11.99	155.26	4,708.42	-811.31	373.84	-762.07	0.00	0.00	
4,900.00	11.99	155.26	4,806.24	-830.17	382.53	-779.78	0.00	0.00	
5,000.00	11.99	155.26	4,904.06	-849.03	391.22	-797.50	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well BIGHORN 4S-17H-P267
Company:	Crestone Peak Resources	TVD Reference:	23' KB @ 4983.00usft
Project:	DJ BASIN	MD Reference:	23' KB @ 4983.00usft
Site:	BIGHORN	North Reference:	True
Well:	BIGHORN 4S-17H-P267	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #3		

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	11.99	155.26	5,001.88	-867.90	399.91	-815.22	0.00	0.00	
5,200.00	11.99	155.26	5,099.70	-886.76	408.60	-832.93	0.00	0.00	
5,300.00	11.99	155.26	5,197.51	-905.62	417.29	-850.65	0.00	0.00	
5,400.00	11.99	155.26	5,295.33	-924.48	425.98	-868.37	0.00	0.00	
5,500.00	11.99	155.26	5,393.15	-943.34	434.67	-886.08	0.00	0.00	
5,600.00	11.99	155.26	5,490.97	-962.20	443.36	-903.80	0.00	0.00	
5,700.00	11.99	155.26	5,588.79	-981.06	452.05	-921.52	0.00	0.00	
5,800.00	11.99	155.26	5,686.61	-999.92	460.75	-939.23	0.00	0.00	
5,900.00	11.99	155.26	5,784.43	-1,018.79	469.44	-956.95	0.00	0.00	
6,000.00	11.99	155.26	5,882.25	-1,037.65	478.13	-974.67	0.00	0.00	
6,100.00	11.99	155.26	5,980.07	-1,056.51	486.82	-992.38	0.00	0.00	
6,200.00	11.99	155.26	6,077.89	-1,075.37	495.51	-1,010.10	0.00	0.00	
6,300.00	11.99	155.26	6,175.71	-1,094.23	504.20	-1,027.82	0.00	0.00	
6,400.00	11.99	155.26	6,273.53	-1,113.09	512.89	-1,045.53	0.00	0.00	
6,500.00	11.99	155.26	6,371.35	-1,131.95	521.58	-1,063.25	0.00	0.00	
6,600.00	11.99	155.26	6,469.17	-1,150.82	530.27	-1,080.97	0.00	0.00	
6,636.14	11.99	155.26	6,504.52	-1,157.63	533.41	-1,087.37	0.00	0.00	
6,700.00	7.78	137.87	6,567.44	-1,166.87	539.09	-1,095.88	8.00	-6.58	
6,800.00	5.92	67.84	6,666.87	-1,169.95	548.43	-1,097.85	8.00	-1.86	
6,900.00	11.71	29.01	6,765.72	-1,159.11	558.15	-1,085.94	8.00	5.79	
7,000.00	19.16	17.63	6,862.07	-1,134.56	568.06	-1,060.40	8.00	7.44	
7,100.00	26.91	12.56	6,954.04	-1,096.77	577.97	-1,021.72	8.00	7.76	
7,200.00	34.77	9.64	7,039.83	-1,046.49	587.68	-970.64	8.00	7.86	
7,300.00	42.68	7.69	7,117.79	-984.68	597.01	-908.17	8.00	7.91	
7,400.00	50.61	6.26	7,186.38	-912.56	605.77	-835.52	8.00	7.93	
7,500.00	58.56	5.12	7,244.29	-831.53	613.80	-754.10	8.00	7.95	
7,600.00	66.51	4.15	7,290.37	-743.16	620.94	-665.51	8.00	7.95	
7,700.00	74.47	3.30	7,323.74	-649.17	627.04	-571.45	8.00	7.96	
7,800.00	82.44	2.51	7,343.74	-551.40	632.00	-473.77	8.00	7.96	
7,894.99	90.00	1.79	7,350.00	-456.76	635.55	-379.36	8.00	7.96	Bighorn 4S-17H-P267 TPZ
7,900.00	90.00	1.79	7,350.00	-451.75	635.71	-374.37	0.00	0.00	
8,000.00	90.00	1.79	7,350.00	-351.80	638.84	-274.73	0.00	0.00	
8,100.00	90.00	1.79	7,350.00	-251.85	641.96	-175.10	0.00	0.00	
8,200.00	90.00	1.79	7,350.00	-151.89	645.09	-75.47	0.00	0.00	
8,300.00	90.00	1.79	7,350.00	-51.94	648.21	24.16	0.00	0.00	
8,400.00	90.00	1.79	7,350.00	48.01	651.34	123.79	0.00	0.00	
8,500.00	90.00	1.79	7,350.00	147.96	654.47	223.42	0.00	0.00	
8,600.00	90.00	1.79	7,350.00	247.91	657.59	323.06	0.00	0.00	
8,700.00	90.00	1.79	7,350.00	347.86	660.72	422.69	0.00	0.00	
8,800.00	90.00	1.79	7,350.00	447.81	663.85	522.32	0.00	0.00	
8,900.00	90.00	1.79	7,350.00	547.76	666.97	621.95	0.00	0.00	
9,000.00	90.00	1.79	7,350.00	647.71	670.10	721.58	0.00	0.00	
9,100.00	90.00	1.79	7,350.00	747.67	673.23	821.21	0.00	0.00	
9,200.00	90.00	1.79	7,350.00	847.62	676.35	920.85	0.00	0.00	
9,300.00	90.00	1.79	7,350.00	947.57	679.48	1,020.48	0.00	0.00	
9,400.00	90.00	1.79	7,350.00	1,047.52	682.60	1,120.11	0.00	0.00	
9,500.00	90.00	1.79	7,350.00	1,147.47	685.73	1,219.74	0.00	0.00	
9,600.00	90.00	1.79	7,350.00	1,247.42	688.86	1,319.37	0.00	0.00	
9,700.00	90.00	1.79	7,350.00	1,347.37	691.98	1,419.00	0.00	0.00	
9,800.00	90.00	1.79	7,350.00	1,447.32	695.11	1,518.64	0.00	0.00	
9,900.00	90.00	1.79	7,350.00	1,547.27	698.24	1,618.27	0.00	0.00	
10,000.00	90.00	1.79	7,350.00	1,647.23	701.36	1,717.90	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well BIGHORN 4S-17H-P267
Company:	Crestone Peak Resources	TVD Reference:	23' KB @ 4983.00usft
Project:	DJ BASIN	MD Reference:	23' KB @ 4983.00usft
Site:	BIGHORN	North Reference:	True
Well:	BIGHORN 4S-17H-P267	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #3		

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
10,100.00	90.00	1.79	7,350.00	1,747.18	704.49	1,817.53	0.00	0.00	
10,200.00	90.00	1.79	7,350.00	1,847.13	707.62	1,917.16	0.00	0.00	
10,300.00	90.00	1.79	7,350.00	1,947.08	710.74	2,016.79	0.00	0.00	
10,400.00	90.00	1.79	7,350.00	2,047.03	713.87	2,116.43	0.00	0.00	
10,500.00	90.00	1.79	7,350.00	2,146.98	716.99	2,216.06	0.00	0.00	
10,600.00	90.00	1.79	7,350.00	2,246.93	720.12	2,315.69	0.00	0.00	
10,700.00	90.00	1.79	7,350.00	2,346.88	723.25	2,415.32	0.00	0.00	
10,800.00	90.00	1.79	7,350.00	2,446.83	726.37	2,514.95	0.00	0.00	
10,900.00	90.00	1.79	7,350.00	2,546.79	729.50	2,614.58	0.00	0.00	
11,000.00	90.00	1.79	7,350.00	2,646.74	732.63	2,714.22	0.00	0.00	
11,100.00	90.00	1.79	7,350.00	2,746.69	735.75	2,813.85	0.00	0.00	
11,200.00	90.00	1.79	7,350.00	2,846.64	738.88	2,913.48	0.00	0.00	
11,300.00	90.00	1.79	7,350.00	2,946.59	742.00	3,013.11	0.00	0.00	
11,400.00	90.00	1.79	7,350.00	3,046.54	745.13	3,112.74	0.00	0.00	
11,500.00	90.00	1.79	7,350.00	3,146.49	748.26	3,212.37	0.00	0.00	
11,600.00	90.00	1.79	7,350.00	3,246.44	751.38	3,312.01	0.00	0.00	
11,700.00	90.00	1.79	7,350.00	3,346.39	754.51	3,411.64	0.00	0.00	
11,800.00	90.00	1.79	7,350.00	3,446.35	757.64	3,511.27	0.00	0.00	
11,900.00	90.00	1.79	7,350.00	3,546.30	760.76	3,610.90	0.00	0.00	
12,000.00	90.00	1.79	7,350.00	3,646.25	763.89	3,710.53	0.00	0.00	
12,100.00	90.00	1.79	7,350.00	3,746.20	767.02	3,810.16	0.00	0.00	
12,200.00	90.00	1.79	7,350.00	3,846.15	770.14	3,909.80	0.00	0.00	
12,300.00	90.00	1.79	7,350.00	3,946.10	773.27	4,009.43	0.00	0.00	
12,400.00	90.00	1.79	7,350.00	4,046.05	776.39	4,109.06	0.00	0.00	
12,500.00	90.00	1.79	7,350.00	4,146.00	779.52	4,208.69	0.00	0.00	
12,600.00	90.00	1.79	7,350.00	4,245.95	782.65	4,308.32	0.00	0.00	
12,700.00	90.00	1.79	7,350.00	4,345.91	785.77	4,407.95	0.00	0.00	
12,800.00	90.00	1.79	7,350.00	4,445.86	788.90	4,507.59	0.00	0.00	
12,900.00	90.00	1.79	7,350.00	4,545.81	792.03	4,607.22	0.00	0.00	
13,000.00	90.00	1.79	7,350.00	4,645.76	795.15	4,706.85	0.00	0.00	
13,100.00	90.00	1.79	7,350.00	4,745.71	798.28	4,806.48	0.00	0.00	
13,200.00	90.00	1.79	7,350.00	4,845.66	801.41	4,906.11	0.00	0.00	
13,300.00	90.00	1.79	7,350.00	4,945.61	804.53	5,005.74	0.00	0.00	
13,400.00	90.00	1.79	7,350.00	5,045.56	807.66	5,105.38	0.00	0.00	
13,500.00	90.00	1.79	7,350.00	5,145.51	810.78	5,205.01	0.00	0.00	
13,600.00	90.00	1.79	7,350.00	5,245.47	813.91	5,304.64	0.00	0.00	
13,700.00	90.00	1.79	7,350.00	5,345.42	817.04	5,404.27	0.00	0.00	
13,800.00	90.00	1.79	7,350.00	5,445.37	820.16	5,503.90	0.00	0.00	
13,900.00	90.00	1.79	7,350.00	5,545.32	823.29	5,603.53	0.00	0.00	
13,954.71	90.00	1.79	7,350.00	5,600.00	825.00	5,658.04	0.00	0.00	Interp @ 7350.00 (BIGHORN 4S-17H-P267 OH
13,972.91	90.00	1.39	7,350.00	5,618.20	825.51	5,676.17	2.19	0.00	
14,000.00	90.00	1.39	7,350.00	5,645.28	826.16	5,703.14	0.00	0.00	
14,100.00	90.00	1.39	7,350.00	5,745.25	828.60	5,802.71	0.00	0.00	
14,200.00	90.00	1.39	7,350.00	5,845.22	831.03	5,902.28	0.00	0.00	
14,300.00	90.00	1.39	7,350.00	5,945.19	833.46	6,001.85	0.00	0.00	
14,400.00	90.00	1.39	7,350.00	6,045.16	835.89	6,101.42	0.00	0.00	
14,500.00	90.00	1.39	7,350.00	6,145.13	838.32	6,200.99	0.00	0.00	
14,600.00	90.00	1.39	7,350.00	6,245.10	840.75	6,300.56	0.00	0.00	
14,700.00	90.00	1.39	7,350.00	6,345.07	843.19	6,400.13	0.00	0.00	
14,800.00	90.00	1.39	7,350.00	6,445.04	845.62	6,499.70	0.00	0.00	
14,900.00	90.00	1.39	7,350.00	6,545.01	848.05	6,599.27	0.00	0.00	
15,000.00	90.00	1.39	7,350.00	6,644.98	850.48	6,698.84	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well BIGHORN 4S-17H-P267
Company:	Crestone Peak Resources	TVD Reference:	23' KB @ 4983.00usft
Project:	DJ BASIN	MD Reference:	23' KB @ 4983.00usft
Site:	BIGHORN	North Reference:	True
Well:	BIGHORN 4S-17H-P267	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #3		

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
15,100.00	90.00	1.39	7,350.00	6,744.95	852.91	6,798.41	0.00	0.00	
15,200.00	90.00	1.39	7,350.00	6,844.92	855.34	6,897.98	0.00	0.00	
15,266.69	90.00	1.39	7,350.00	6,911.59	856.97	6,964.38	0.00	0.00	
15,300.00	90.00	344.74	7,350.00	6,944.54	852.96	6,996.64	50.00	0.00	
15,349.47	90.00	320.00	7,350.00	6,988.03	830.19	7,037.17	50.00	0.00	
15,359.47	90.00	320.00	7,350.00	6,995.69	823.76	7,044.03	0.00	0.00	Bighorn 4S-17H-P267 BHL

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
Interp @ 7350.00 (BIGH - plan hits target center - Point	0.00	0.00	7,350.00	5,600.00	825.00	1,297,702.46	3,166,446.92	40.149054	-104.904567
Bighorn 4S-17H-P267 B - plan hits target center - Point	0.00	0.00	7,350.00	6,995.69	823.76	1,299,098.11	3,166,436.36	40.152885	-104.904571
Bighorn 4S-17H-P267 T - plan hits target center - Point	0.00	0.00	7,350.00	-456.76	635.55	1,291,644.57	3,166,297.95	40.132427	-104.905245