



CRESTONE PEAK  
RESOURCES

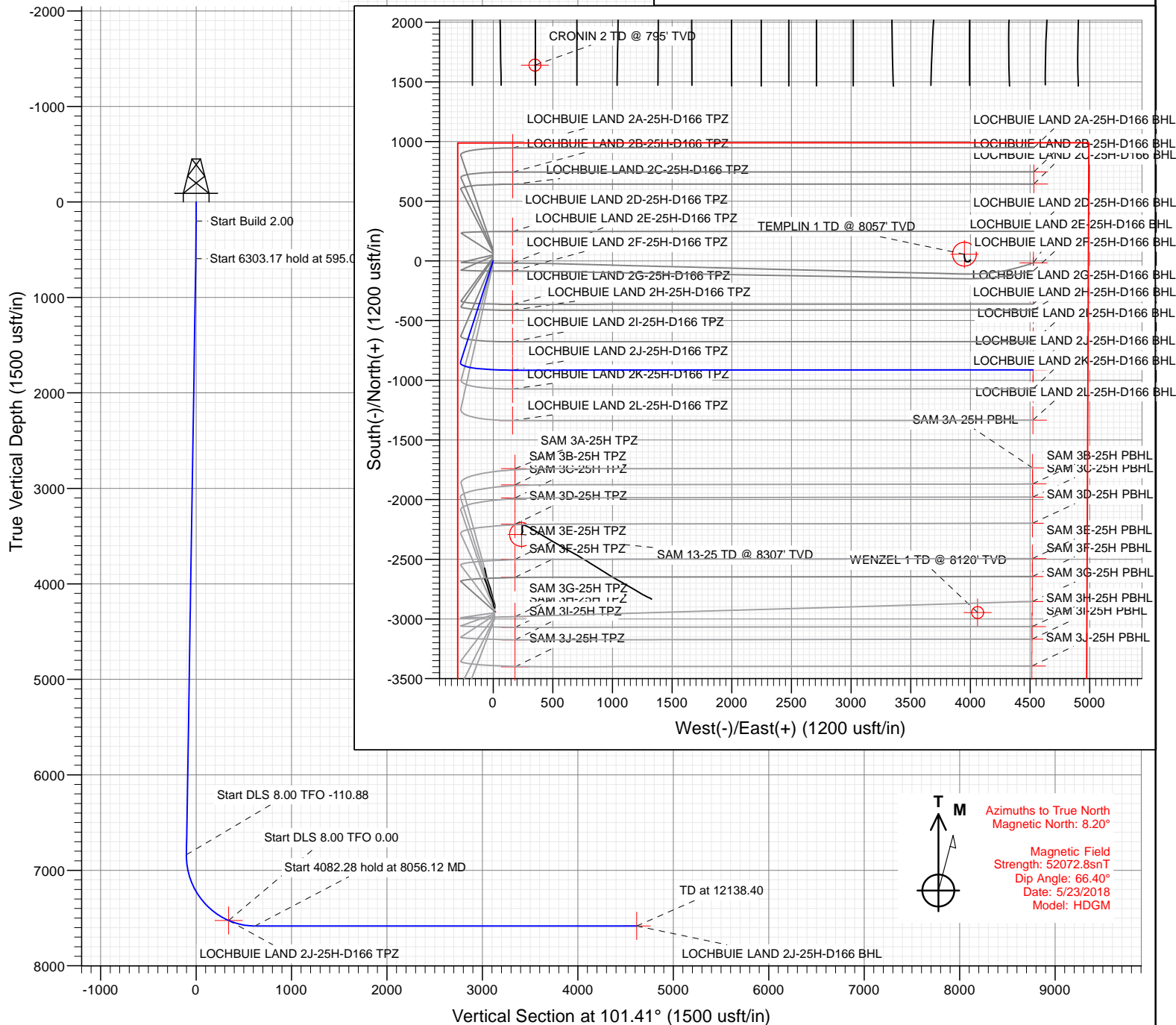
#### SECTION DETAILS

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	595.09	7.90	197.89	593.84	-25.89	-8.35	2.00	197.89	-3.07	
4	6898.26	7.90	197.89	6837.16	-850.55	-274.48	0.00	0.00	-100.79	
5	7768.62	67.00	89.97	7525.07	-915.47	162.95	8.00	-110.88	340.83	LOCHBUIE LAND 2J-25H-D166 TPZ
6	8056.12	90.00	89.97	7582.00	-915.32	442.79	8.00	0.00	615.11	
7	12138.40	90.00	89.97	7582.00	-913.23	4525.06	0.00	0.00	4616.30	LOCHBUIE LAND 2J-25H-D166 BHL

Project: DJ BASIN  
Site: S25-T1N-R66W (LOCHBUIE LAND)  
Well: LOCHBUIE LAND 2J-25H-D166  
Wellbore: OH  
Design: PLAN #1

PLAN #1  
LOCHBUIE LAND 2J-25H-D166  
KB @ 5099.00usft  
Ground Level @ 5076.00  
North American Datum 1983  
Well LOCHBUIE LAND 2J-25H-D166 - Slot LOCHBUIE LAND 2J-25H-D166 BHL, True North

Type	Target	No Target (Freehand)	Azimuth	Origin Type	N/S	E/W	From TVD
TD			101.41	Slot	0.00	0.00	0.00
Name			TVD	+N/-S	+E/-W	Latitude	Longitude
LOCHBUIE LAND 2J-25H-D166 TPZ			7525.07	-915.47	162.95	40.024309	-104.733319
LOCHBUIE LAND 2J-25H-D166 BHL			7582.00	-913.23	4525.06	40.024314	-104.717743



CATHEDRAL



# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well LOCHBUIE LAND 2J-25H-D166 - Slot LOC
<b>Company:</b>	Crestone Peak Resources	<b>TVD Reference:</b>	KB @ 5099.00usft
<b>Project:</b>	DJ BASIN	<b>MD Reference:</b>	KB @ 5099.00usft
<b>Site:</b>	S25-T1N-R66W (LOCHBUIE LAND)	<b>North Reference:</b>	True
<b>Well:</b>	LOCHBUIE LAND 2J-25H-D166	<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		S25-T1N-R66W (LOCHBUIE LAND)			
Site Position:		Northing:	1,253,634.19 usft	Latitude:	40.027069
From:	Map	Easting:	3,214,538.35 usft	Longitude:	-104.733898
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.50 °

Well	LOCHBUIE LAND 2J-25H-D166 - Slot LOCHBUIE LAND 2J-25H-D166 SHL					
Well Position	+N/-S	0.00 usft	Northing:	1,253,544.19 usft	Latitude:	40.026822
	+E/-W	0.00 usft	Easting:	3,214,538.35 usft	Longitude:	-104.733901
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	5,076.00 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	5/23/2018	8.20	66.40	52,072.80000000

<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	101.41

<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	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
595.09	7.90	197.89	593.84	-25.89	-8.35	2.00	2.00	0.00	197.89	
6,898.26	7.90	197.89	6,837.16	-850.55	-274.48	0.00	0.00	0.00	0.00	
7,768.62	67.00	89.97	7,525.07	-915.47	162.95	8.00	6.79	-12.40	-110.88	LOCHBUIE LAND 2J-
8,056.12	90.00	89.97	7,582.00	-915.32	442.79	8.00	8.00	0.00	0.00	
12,138.40	90.00	89.97	7,582.00	-913.23	4,525.06	0.00	0.00	0.00	0.00	LOCHBUIE LAND 2J-

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well LOCHBUIE LAND 2J-25H-D166 - Slot LOC
<b>Company:</b>	Crestone Peak Resources	<b>TVD Reference:</b>	KB @ 5099.00usft
<b>Project:</b>	DJ BASIN	<b>MD Reference:</b>	KB @ 5099.00usft
<b>Site:</b>	S25-T1N-R66W (LOCHBUIE LAND)	<b>North Reference:</b>	True
<b>Well:</b>	LOCHBUIE LAND 2J-25H-D166	<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	2.00	197.89	299.98	-1.66	-0.54	-0.20	2.00	2.00	
400.00	4.00	197.89	399.84	-6.64	-2.14	-0.79	2.00	2.00	
500.00	6.00	197.89	499.45	-14.94	-4.82	-1.77	2.00	2.00	
595.09	7.90	197.89	593.84	-25.89	-8.35	-3.07	2.00	2.00	
600.00	7.90	197.89	598.70	-26.53	-8.56	-3.14	0.00	0.00	
700.00	7.90	197.89	697.75	-39.61	-12.78	-4.69	0.00	0.00	
800.00	7.90	197.89	796.80	-52.70	-17.00	-6.24	0.00	0.00	
900.00	7.90	197.89	895.85	-65.78	-21.23	-7.79	0.00	0.00	
1,000.00	7.90	197.89	994.90	-78.86	-25.45	-9.35	0.00	0.00	
1,100.00	7.90	197.89	1,093.95	-91.95	-29.67	-10.90	0.00	0.00	
1,200.00	7.90	197.89	1,193.01	-105.03	-33.89	-12.45	0.00	0.00	
1,300.00	7.90	197.89	1,292.06	-118.11	-38.12	-14.00	0.00	0.00	
1,400.00	7.90	197.89	1,391.11	-131.19	-42.34	-15.55	0.00	0.00	
1,500.00	7.90	197.89	1,490.16	-144.28	-46.56	-17.10	0.00	0.00	
1,600.00	7.90	197.89	1,589.21	-157.36	-50.78	-18.65	0.00	0.00	
1,700.00	7.90	197.89	1,688.26	-170.44	-55.00	-20.20	0.00	0.00	
1,800.00	7.90	197.89	1,787.31	-183.53	-59.23	-21.75	0.00	0.00	
1,900.00	7.90	197.89	1,886.36	-196.61	-63.45	-23.30	0.00	0.00	
2,000.00	7.90	197.89	1,985.41	-209.69	-67.67	-24.85	0.00	0.00	
2,100.00	7.90	197.89	2,084.46	-222.78	-71.89	-26.40	0.00	0.00	
2,200.00	7.90	197.89	2,183.51	-235.86	-76.11	-27.95	0.00	0.00	
2,300.00	7.90	197.89	2,282.56	-248.94	-80.34	-29.50	0.00	0.00	
2,400.00	7.90	197.89	2,381.61	-262.03	-84.56	-31.05	0.00	0.00	
2,500.00	7.90	197.89	2,480.66	-275.11	-88.78	-32.60	0.00	0.00	
2,600.00	7.90	197.89	2,579.71	-288.19	-93.00	-34.15	0.00	0.00	
2,700.00	7.90	197.89	2,678.76	-301.28	-97.22	-35.70	0.00	0.00	
2,800.00	7.90	197.89	2,777.81	-314.36	-101.45	-37.25	0.00	0.00	
2,900.00	7.90	197.89	2,876.86	-327.44	-105.67	-38.80	0.00	0.00	
3,000.00	7.90	197.89	2,975.91	-340.53	-109.89	-40.35	0.00	0.00	
3,100.00	7.90	197.89	3,074.96	-353.61	-114.11	-41.90	0.00	0.00	
3,200.00	7.90	197.89	3,174.02	-366.69	-118.33	-43.45	0.00	0.00	
3,300.00	7.90	197.89	3,273.07	-379.78	-122.56	-45.00	0.00	0.00	
3,400.00	7.90	197.89	3,372.12	-392.86	-126.78	-46.55	0.00	0.00	
3,500.00	7.90	197.89	3,471.17	-405.94	-131.00	-48.10	0.00	0.00	
3,600.00	7.90	197.89	3,570.22	-419.03	-135.22	-49.65	0.00	0.00	
3,700.00	7.90	197.89	3,669.27	-432.11	-139.44	-51.20	0.00	0.00	
3,800.00	7.90	197.89	3,768.32	-445.19	-143.67	-52.75	0.00	0.00	
3,900.00	7.90	197.89	3,867.37	-458.28	-147.89	-54.31	0.00	0.00	
4,000.00	7.90	197.89	3,966.42	-471.36	-152.11	-55.86	0.00	0.00	
4,100.00	7.90	197.89	4,065.47	-484.44	-156.33	-57.41	0.00	0.00	
4,200.00	7.90	197.89	4,164.52	-497.53	-160.55	-58.96	0.00	0.00	
4,300.00	7.90	197.89	4,263.57	-510.61	-164.78	-60.51	0.00	0.00	
4,400.00	7.90	197.89	4,362.62	-523.69	-169.00	-62.06	0.00	0.00	
4,500.00	7.90	197.89	4,461.67	-536.78	-173.22	-63.61	0.00	0.00	
4,600.00	7.90	197.89	4,560.72	-549.86	-177.44	-65.16	0.00	0.00	
4,700.00	7.90	197.89	4,659.77	-562.94	-181.66	-66.71	0.00	0.00	
4,800.00	7.90	197.89	4,758.82	-576.03	-185.89	-68.26	0.00	0.00	
4,900.00	7.90	197.89	4,857.87	-589.11	-190.11	-69.81	0.00	0.00	
5,000.00	7.90	197.89	4,956.92	-602.19	-194.33	-71.36	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 LOCHBUIE LAND 2J-25H-D166 - Slot LOC
<b>Company:</b>	Crestone Peak Resources	<b>TVD Reference:</b>	KB @ 5099.00usft
<b>Project:</b>	DJ BASIN	<b>MD Reference:</b>	KB @ 5099.00usft
<b>Site:</b>	S25-T1N-R66W (LOCHBUIE LAND)	<b>North Reference:</b>	True
<b>Well:</b>	LOCHBUIE LAND 2J-25H-D166	<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	7.90	197.89	5,055.97	-615.28	-198.55	-72.91	0.00	0.00	
5,200.00	7.90	197.89	5,155.03	-628.36	-202.77	-74.46	0.00	0.00	
5,300.00	7.90	197.89	5,254.08	-641.44	-207.00	-76.01	0.00	0.00	
5,400.00	7.90	197.89	5,353.13	-654.53	-211.22	-77.56	0.00	0.00	
5,500.00	7.90	197.89	5,452.18	-667.61	-215.44	-79.11	0.00	0.00	
5,600.00	7.90	197.89	5,551.23	-680.69	-219.66	-80.66	0.00	0.00	
5,700.00	7.90	197.89	5,650.28	-693.78	-223.88	-82.21	0.00	0.00	
5,800.00	7.90	197.89	5,749.33	-706.86	-228.11	-83.76	0.00	0.00	
5,900.00	7.90	197.89	5,848.38	-719.94	-232.33	-85.31	0.00	0.00	
6,000.00	7.90	197.89	5,947.43	-733.03	-236.55	-86.86	0.00	0.00	
6,100.00	7.90	197.89	6,046.48	-746.11	-240.77	-88.41	0.00	0.00	
6,200.00	7.90	197.89	6,145.53	-759.19	-244.99	-89.96	0.00	0.00	
6,300.00	7.90	197.89	6,244.58	-772.28	-249.22	-91.51	0.00	0.00	
6,400.00	7.90	197.89	6,343.63	-785.36	-253.44	-93.06	0.00	0.00	
6,500.00	7.90	197.89	6,442.68	-798.44	-257.66	-94.61	0.00	0.00	
6,600.00	7.90	197.89	6,541.73	-811.53	-261.88	-96.16	0.00	0.00	
6,700.00	7.90	197.89	6,640.78	-824.61	-266.10	-97.71	0.00	0.00	
6,800.00	7.90	197.89	6,739.83	-837.69	-270.33	-99.27	0.00	0.00	
6,898.26	7.90	197.89	6,837.16	-850.55	-274.48	-100.79	0.00	0.00	
6,900.00	7.85	196.93	6,838.88	-850.77	-274.55	-100.81	8.00	-2.79	
7,000.00	9.08	140.94	6,937.95	-863.46	-271.56	-95.38	8.00	1.23	
7,100.00	15.18	115.32	7,035.74	-875.21	-254.72	-76.55	8.00	6.10	
7,200.00	22.49	105.05	7,130.34	-885.79	-224.36	-44.69	8.00	7.31	
7,300.00	30.14	99.71	7,219.92	-895.01	-181.07	-0.44	8.00	7.65	
7,400.00	37.93	96.39	7,302.74	-902.67	-125.69	55.36	8.00	7.78	
7,500.00	45.77	94.06	7,377.17	-908.64	-59.31	121.62	8.00	7.85	
7,600.00	53.66	92.29	7,441.78	-912.79	16.80	197.04	8.00	7.89	
7,700.00	61.57	90.84	7,495.30	-915.04	101.15	280.17	8.00	7.91	
7,768.62	67.00	89.97	7,525.07	-915.47	162.95	340.83	8.00	7.92	LOCHBUIE LAND 2J-25H-D166 TPZ
7,800.00	69.51	89.97	7,536.69	-915.45	192.09	369.39	8.00	8.00	
7,900.00	77.51	89.97	7,565.06	-915.40	287.90	463.30	8.00	8.00	
8,000.00	85.51	89.97	7,579.81	-915.35	386.72	560.16	8.00	8.00	
8,056.12	90.00	89.97	7,582.00	-915.32	442.79	615.11	8.00	8.00	
8,100.00	90.00	89.97	7,582.00	-915.30	486.66	658.12	0.00	0.00	
8,200.00	90.00	89.97	7,582.00	-915.25	586.66	756.13	0.00	0.00	
8,300.00	90.00	89.97	7,582.00	-915.20	686.66	854.15	0.00	0.00	
8,400.00	90.00	89.97	7,582.00	-915.15	786.66	952.16	0.00	0.00	
8,500.00	90.00	89.97	7,582.00	-915.10	886.66	1,050.17	0.00	0.00	
8,600.00	90.00	89.97	7,582.00	-915.04	986.66	1,148.19	0.00	0.00	
8,700.00	90.00	89.97	7,582.00	-914.99	1,086.66	1,246.20	0.00	0.00	
8,800.00	90.00	89.97	7,582.00	-914.94	1,186.66	1,344.21	0.00	0.00	
8,900.00	90.00	89.97	7,582.00	-914.89	1,286.66	1,442.23	0.00	0.00	
9,000.00	90.00	89.97	7,582.00	-914.84	1,386.66	1,540.24	0.00	0.00	
9,100.00	90.00	89.97	7,582.00	-914.79	1,486.66	1,638.25	0.00	0.00	
9,200.00	90.00	89.97	7,582.00	-914.74	1,586.66	1,736.27	0.00	0.00	
9,300.00	90.00	89.97	7,582.00	-914.69	1,686.66	1,834.28	0.00	0.00	
9,400.00	90.00	89.97	7,582.00	-914.63	1,786.66	1,932.29	0.00	0.00	
9,500.00	90.00	89.97	7,582.00	-914.58	1,886.66	2,030.31	0.00	0.00	
9,600.00	90.00	89.97	7,582.00	-914.53	1,986.66	2,128.32	0.00	0.00	
9,700.00	90.00	89.97	7,582.00	-914.48	2,086.66	2,226.33	0.00	0.00	
9,800.00	90.00	89.97	7,582.00	-914.43	2,186.66	2,324.35	0.00	0.00	
9,900.00	90.00	89.97	7,582.00	-914.38	2,286.66	2,422.36	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 LOCHBUIE LAND 2J-25H-D166 - Slot LOC
<b>Company:</b>	Crestone Peak Resources	<b>TVD Reference:</b>	KB @ 5099.00usft
<b>Project:</b>	DJ BASIN	<b>MD Reference:</b>	KB @ 5099.00usft
<b>Site:</b>	S25-T1N-R66W (LOCHBUIE LAND)	<b>North Reference:</b>	True
<b>Well:</b>	LOCHBUIE LAND 2J-25H-D166	<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	89.97	7,582.00	-914.33	2,386.66	2,520.38	0.00	0.00	
10,100.00	90.00	89.97	7,582.00	-914.28	2,486.66	2,618.39	0.00	0.00	
10,200.00	90.00	89.97	7,582.00	-914.23	2,586.66	2,716.40	0.00	0.00	
10,300.00	90.00	89.97	7,582.00	-914.17	2,686.66	2,814.42	0.00	0.00	
10,400.00	90.00	89.97	7,582.00	-914.12	2,786.66	2,912.43	0.00	0.00	
10,500.00	90.00	89.97	7,582.00	-914.07	2,886.66	3,010.44	0.00	0.00	
10,600.00	90.00	89.97	7,582.00	-914.02	2,986.66	3,108.46	0.00	0.00	
10,700.00	90.00	89.97	7,582.00	-913.97	3,086.66	3,206.47	0.00	0.00	
10,800.00	90.00	89.97	7,582.00	-913.92	3,186.66	3,304.48	0.00	0.00	
10,900.00	90.00	89.97	7,582.00	-913.87	3,286.66	3,402.50	0.00	0.00	
11,000.00	90.00	89.97	7,582.00	-913.82	3,386.66	3,500.51	0.00	0.00	
11,100.00	90.00	89.97	7,582.00	-913.77	3,486.66	3,598.52	0.00	0.00	
11,200.00	90.00	89.97	7,582.00	-913.71	3,586.66	3,696.54	0.00	0.00	
11,300.00	90.00	89.97	7,582.00	-913.66	3,686.66	3,794.55	0.00	0.00	
11,400.00	90.00	89.97	7,582.00	-913.61	3,786.66	3,892.56	0.00	0.00	
11,500.00	90.00	89.97	7,582.00	-913.56	3,886.66	3,990.58	0.00	0.00	
11,600.00	90.00	89.97	7,582.00	-913.51	3,986.66	4,088.59	0.00	0.00	
11,700.00	90.00	89.97	7,582.00	-913.46	4,086.66	4,186.61	0.00	0.00	
11,800.00	90.00	89.97	7,582.00	-913.41	4,186.66	4,284.62	0.00	0.00	
11,900.00	90.00	89.97	7,582.00	-913.36	4,286.66	4,382.63	0.00	0.00	
12,000.00	90.00	89.97	7,582.00	-913.30	4,386.66	4,480.65	0.00	0.00	
12,100.00	90.00	89.97	7,582.00	-913.25	4,486.66	4,578.66	0.00	0.00	
12,138.40	90.00	89.97	7,582.00	-913.23	4,525.06	4,616.30	0.00	0.00	LOCHBUIE LAND 2J-25H-D166 BHL

### 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									
LOCHBUIE LAND 2J-25	0.00	0.00	7,582.00	-913.23	4,525.06	1,252,670.09	3,219,071.13	40.024314	-104.717743
- plan hits target center									
- Point									
LOCHBUIE LAND 2J-25	0.00	0.00	7,525.07	-915.47	162.95	1,252,630.17	3,214,709.20	40.024309	-104.733319
- plan hits target center									
- Point									