



CRESTONE PEAK
RESOURCES

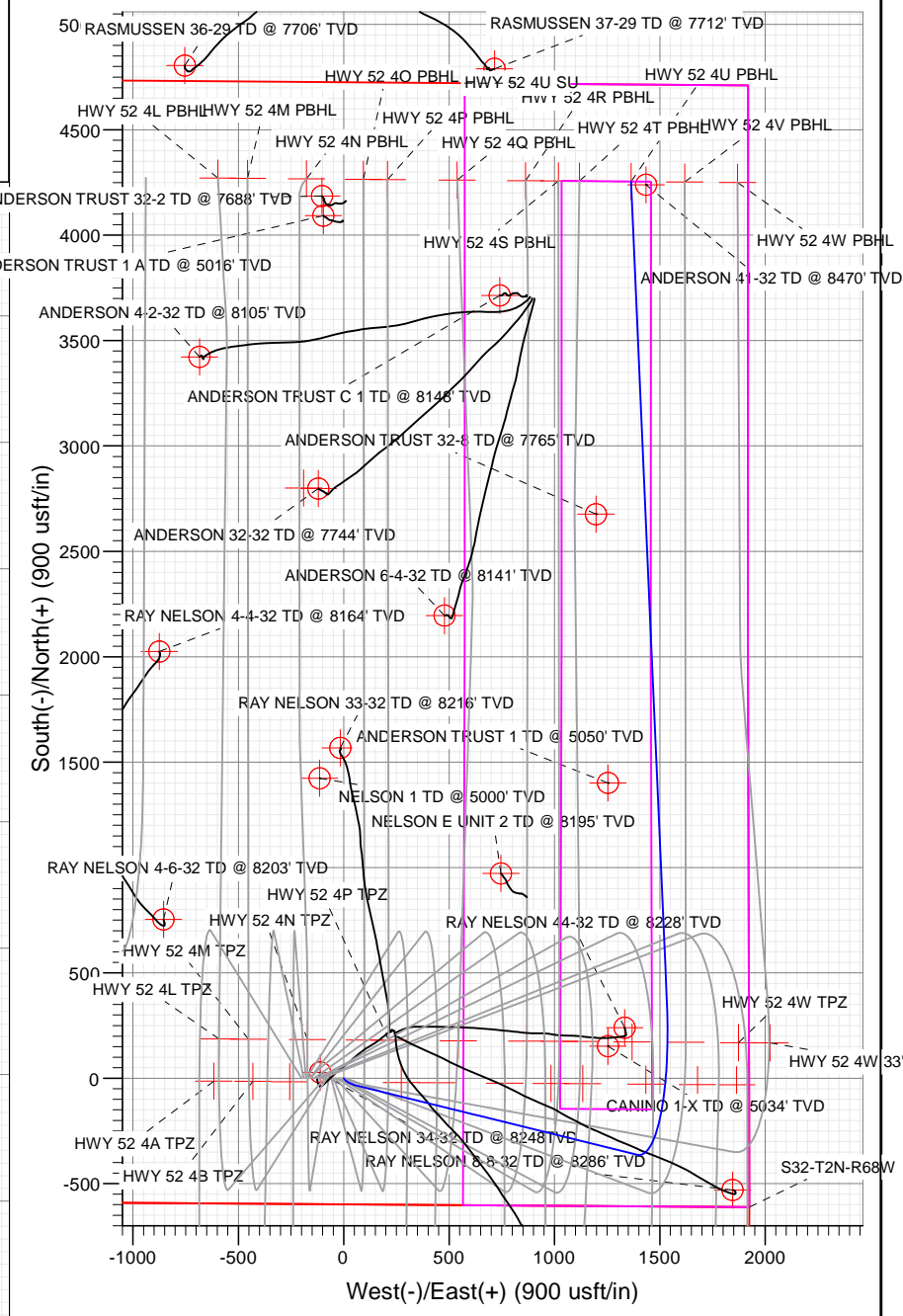
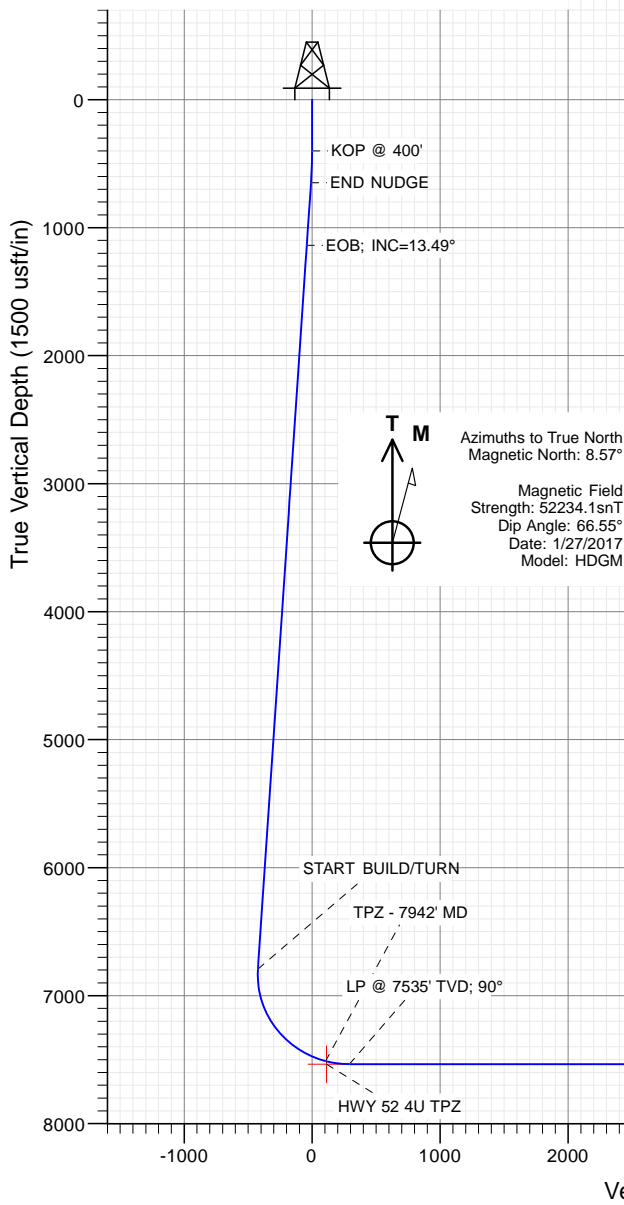
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	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	650.00	5.00	140.00	649.68	-8.35	7.01	2.00	140.00	-8.65	
4	1144.53	13.49	103.83	1137.66	-38.72	77.02	2.00	-53.24	-42.05	
5	6958.42	13.49	103.83	6791.27	-362.92	1393.46	0.00	0.00	-423.36	
6	8130.43	90.00	357.50	7535.00	358.52	1533.28	8.00	-105.91	291.30	
7	12030.43	90.00	357.50	7535.00	4254.81	1363.17	0.00	0.00	4191.30	HWY 52 4U PBHL

PLAN #2
HWY52 4U-32H-O268
17X00; LR
23 KB @ 5015.00usft
Ground Level @ 4992.00
North American Datum 1983
Well HWY52 4U-32H-O268, True North

Type User	Target No Target (Freehand)	Azimuth	Origin Type Slot	N/S	E/W	From TVD
Name		TVD	+N/-S	+E/-W	Latitude	Longitude
HWY 52 4U PBHL		7535.00	4254.81	1363.17	40.101033	-105.019698
HWY 52 4U TPZ		7535.00	172.35	1368.15	40.089826	-105.019681

Project: DJ BASIN
Site: S32-T2N-R68W
Well: HWY52 4U-32H-O268
Wellbore: OH
Design: PLAN #2



WELL DETAILS: HWY52 4U-32H-O268

+N/-S	+E/-W	Northing	Ground Level: Easting	4992.00	Latitude	Longitude
0.00	0.00	1275752.53	3133017.99		40.089353	-105.024571

CATHEDRAL



Cathedral Energy Services

Planning Report

Database: USA EDM 5000 Multi Users DB	Local Co-ordinate Reference: Well HWY52 4U-32H-O268
Company: Crestone Peak Resources	TVD Reference: 23' KB @ 5015.00usft
Project: DJ BASIN	MD Reference: 23' KB @ 5015.00usft
Site: S32-T2N-R68W	North Reference: True
Well: HWY52 4U-32H-O268	Survey Calculation Method: Minimum Curvature
Wellbore: OH	
Design: PLAN #2	

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 HWY52 4U-32H-O268					
Well Position	+N/-S	0.00 usft	Northing:	1,275,752.53 usft	Latitude: 40.089353
	+E/-W	0.00 usft	Easting:	3,133,017.99 usft	Longitude: -105.024571
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level: 4,992.00 usft

Wellbore OH					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	HDGM	1/27/2017	8.57	66.55	52,234

Design PLAN #2				
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	357.50

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	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
650.00	5.00	140.00	649.68	-8.35	7.01	2.00	2.00	0.00	140.00	
1,144.53	13.49	103.83	1,137.66	-38.72	77.02	2.00	1.72	-7.31	-53.24	
6,958.42	13.49	103.83	6,791.27	-362.92	1,393.46	0.00	0.00	0.00	0.00	
8,130.43	90.00	357.50	7,535.00	358.52	1,533.28	8.00	6.53	-9.07	-105.91	
12,030.43	90.00	357.50	7,535.00	4,254.81	1,363.17	0.00	0.00	0.00	0.00	HWY 52 4U PBHL

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Company:	Crestone Peak Resources	TVD Reference:	23' KB @ 5015.00usft
Project:	DJ BASIN	MD Reference:	23' KB @ 5015.00usft
Site:	S32-T2N-R68W	North Reference:	True
Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2		

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	KOP @ 400'
500.00	2.00	140.00	499.98	-1.34	1.12	-1.38	2.00	2.00	
600.00	4.00	140.00	599.84	-5.35	4.49	-5.54	2.00	2.00	
650.00	5.00	140.00	649.68	-8.35	7.01	-8.65	2.00	2.00	END NUDGE
700.00	5.66	131.84	699.47	-11.66	10.24	-12.10	2.00	1.31	
800.00	7.21	120.47	798.84	-18.13	19.32	-18.96	2.00	1.55	
900.00	8.94	113.29	897.85	-24.39	31.86	-25.75	2.00	1.73	
1,000.00	10.76	108.47	996.37	-30.42	47.85	-32.47	2.00	1.82	
1,100.00	12.64	105.05	1,094.29	-36.22	67.28	-39.12	2.00	1.88	
1,144.53	13.49	103.83	1,137.66	-38.72	77.02	-42.05	2.00	1.90	EOB; INC=13.49°
1,200.00	13.49	103.83	1,191.61	-41.82	89.58	-45.68	0.00	0.00	
1,300.00	13.49	103.83	1,288.85	-47.39	112.23	-52.24	0.00	0.00	
1,400.00	13.49	103.83	1,386.09	-52.97	134.87	-58.80	0.00	0.00	
1,500.00	13.49	103.83	1,483.34	-58.54	157.51	-65.36	0.00	0.00	
1,600.00	13.49	103.83	1,580.58	-64.12	180.15	-71.92	0.00	0.00	
1,700.00	13.49	103.83	1,677.82	-69.70	202.80	-78.48	0.00	0.00	
1,800.00	13.49	103.83	1,775.07	-75.27	225.44	-85.04	0.00	0.00	
1,900.00	13.49	103.83	1,872.31	-80.85	248.08	-91.59	0.00	0.00	
2,000.00	13.49	103.83	1,969.55	-86.43	270.73	-98.15	0.00	0.00	
2,100.00	13.49	103.83	2,066.79	-92.00	293.37	-104.71	0.00	0.00	
2,200.00	13.49	103.83	2,164.04	-97.58	316.01	-111.27	0.00	0.00	
2,300.00	13.49	103.83	2,261.28	-103.15	338.66	-117.83	0.00	0.00	
2,400.00	13.49	103.83	2,358.52	-108.73	361.30	-124.39	0.00	0.00	
2,500.00	13.49	103.83	2,455.77	-114.31	383.94	-130.95	0.00	0.00	
2,600.00	13.49	103.83	2,553.01	-119.88	406.58	-137.50	0.00	0.00	
2,700.00	13.49	103.83	2,650.25	-125.46	429.23	-144.06	0.00	0.00	
2,800.00	13.49	103.83	2,747.50	-131.04	451.87	-150.62	0.00	0.00	
2,900.00	13.49	103.83	2,844.74	-136.61	474.51	-157.18	0.00	0.00	
3,000.00	13.49	103.83	2,941.98	-142.19	497.16	-163.74	0.00	0.00	
3,100.00	13.49	103.83	3,039.22	-147.76	519.80	-170.30	0.00	0.00	
3,200.00	13.49	103.83	3,136.47	-153.34	542.44	-176.86	0.00	0.00	
3,300.00	13.49	103.83	3,233.71	-158.92	565.09	-183.41	0.00	0.00	
3,400.00	13.49	103.83	3,330.95	-164.49	587.73	-189.97	0.00	0.00	
3,500.00	13.49	103.83	3,428.20	-170.07	610.37	-196.53	0.00	0.00	
3,600.00	13.49	103.83	3,525.44	-175.65	633.02	-203.09	0.00	0.00	
3,700.00	13.49	103.83	3,622.68	-181.22	655.66	-209.65	0.00	0.00	
3,800.00	13.49	103.83	3,719.93	-186.80	678.30	-216.21	0.00	0.00	
3,900.00	13.49	103.83	3,817.17	-192.37	700.94	-222.77	0.00	0.00	
4,000.00	13.49	103.83	3,914.41	-197.95	723.59	-229.32	0.00	0.00	
4,100.00	13.49	103.83	4,011.65	-203.53	746.23	-235.88	0.00	0.00	
4,200.00	13.49	103.83	4,108.90	-209.10	768.87	-242.44	0.00	0.00	
4,300.00	13.49	103.83	4,206.14	-214.68	791.52	-249.00	0.00	0.00	
4,400.00	13.49	103.83	4,303.38	-220.26	814.16	-255.56	0.00	0.00	
4,500.00	13.49	103.83	4,400.63	-225.83	836.80	-262.12	0.00	0.00	
4,600.00	13.49	103.83	4,497.87	-231.41	859.45	-268.68	0.00	0.00	
4,700.00	13.49	103.83	4,595.11	-236.98	882.09	-275.23	0.00	0.00	
4,800.00	13.49	103.83	4,692.36	-242.56	904.73	-281.79	0.00	0.00	
4,900.00	13.49	103.83	4,789.60	-248.14	927.38	-288.35	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Company:	Crestone Peak Resources	TVD Reference:	23' KB @ 5015.00usft
Project:	DJ BASIN	MD Reference:	23' KB @ 5015.00usft
Site:	S32-T2N-R68W	North Reference:	True
Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2		

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
5,000.00	13.49	103.83	4,886.84	-253.71	950.02	-294.91	0.00	0.00	
5,100.00	13.49	103.83	4,984.08	-259.29	972.66	-301.47	0.00	0.00	
5,200.00	13.49	103.83	5,081.33	-264.87	995.30	-308.03	0.00	0.00	
5,300.00	13.49	103.83	5,178.57	-270.44	1,017.95	-314.59	0.00	0.00	
5,400.00	13.49	103.83	5,275.81	-276.02	1,040.59	-321.14	0.00	0.00	
5,500.00	13.49	103.83	5,373.06	-281.59	1,063.23	-327.70	0.00	0.00	
5,600.00	13.49	103.83	5,470.30	-287.17	1,085.88	-334.26	0.00	0.00	
5,700.00	13.49	103.83	5,567.54	-292.75	1,108.52	-340.82	0.00	0.00	
5,800.00	13.49	103.83	5,664.79	-298.32	1,131.16	-347.38	0.00	0.00	
5,900.00	13.49	103.83	5,762.03	-303.90	1,153.81	-353.94	0.00	0.00	
6,000.00	13.49	103.83	5,859.27	-309.48	1,176.45	-360.50	0.00	0.00	
6,100.00	13.49	103.83	5,956.51	-315.05	1,199.09	-367.06	0.00	0.00	
6,200.00	13.49	103.83	6,053.76	-320.63	1,221.73	-373.61	0.00	0.00	
6,300.00	13.49	103.83	6,151.00	-326.20	1,244.38	-380.17	0.00	0.00	
6,400.00	13.49	103.83	6,248.24	-331.78	1,267.02	-386.73	0.00	0.00	
6,500.00	13.49	103.83	6,345.49	-337.36	1,289.66	-393.29	0.00	0.00	
6,600.00	13.49	103.83	6,442.73	-342.93	1,312.31	-399.85	0.00	0.00	
6,700.00	13.49	103.83	6,539.97	-348.51	1,334.95	-406.41	0.00	0.00	
6,800.00	13.49	103.83	6,637.21	-354.08	1,357.59	-412.97	0.00	0.00	
6,900.00	13.49	103.83	6,734.46	-359.66	1,380.24	-419.52	0.00	0.00	
6,958.42	13.49	103.83	6,791.27	-362.92	1,393.46	-423.36	0.00	0.00	START BUILD/TURN
7,000.00	12.97	89.44	6,831.76	-364.03	1,402.84	-424.88	8.00	-1.25	
7,100.00	14.97	56.86	6,928.94	-356.85	1,424.91	-418.66	8.00	2.01	
7,200.00	20.15	36.34	7,024.34	-335.88	1,445.97	-398.63	8.00	5.18	
7,300.00	26.71	24.71	7,116.09	-301.53	1,465.60	-365.17	8.00	6.56	
7,400.00	33.87	17.55	7,202.41	-254.46	1,483.43	-318.93	8.00	7.15	
7,500.00	41.30	12.69	7,281.62	-195.61	1,499.11	-260.81	8.00	7.43	
7,600.00	48.89	9.09	7,352.17	-126.10	1,512.33	-191.95	8.00	7.59	
7,700.00	56.56	6.24	7,412.70	-47.30	1,522.83	-113.68	8.00	7.67	
7,800.00	64.29	3.86	7,462.03	39.26	1,530.41	-27.53	8.00	7.73	
7,900.00	72.05	1.78	7,499.19	131.90	1,534.93	64.83	8.00	7.76	
7,942.16	75.33	0.95	7,511.02	172.35	1,535.89	105.19	8.00	7.78	TPZ - 7942' MD
8,000.00	79.83	359.86	7,523.46	228.82	1,536.29	161.59	8.00	7.79	
8,100.00	87.63	358.05	7,534.37	328.12	1,534.46	260.88	8.00	7.79	
8,130.43	90.00	357.50	7,535.00	358.52	1,533.28	291.30	8.00	7.80	LP @ 7535' TVD; 90°
8,200.00	90.00	357.50	7,535.00	428.03	1,530.25	360.87	0.00	0.00	
8,300.00	90.00	357.50	7,535.00	527.93	1,525.88	460.87	0.00	0.00	
8,400.00	90.00	357.50	7,535.00	627.84	1,521.52	560.87	0.00	0.00	
8,500.00	90.00	357.50	7,535.00	727.74	1,517.16	660.87	0.00	0.00	
8,600.00	90.00	357.50	7,535.00	827.65	1,512.80	760.87	0.00	0.00	
8,700.00	90.00	357.50	7,535.00	927.55	1,508.44	860.87	0.00	0.00	
8,800.00	90.00	357.50	7,535.00	1,027.46	1,504.08	960.87	0.00	0.00	
8,900.00	90.00	357.50	7,535.00	1,127.36	1,499.71	1,060.87	0.00	0.00	
9,000.00	90.00	357.50	7,535.00	1,227.27	1,495.35	1,160.87	0.00	0.00	
9,100.00	90.00	357.50	7,535.00	1,327.17	1,490.99	1,260.87	0.00	0.00	
9,200.00	90.00	357.50	7,535.00	1,427.08	1,486.63	1,360.87	0.00	0.00	
9,300.00	90.00	357.50	7,535.00	1,526.98	1,482.27	1,460.87	0.00	0.00	
9,400.00	90.00	357.50	7,535.00	1,626.88	1,477.90	1,560.87	0.00	0.00	
9,500.00	90.00	357.50	7,535.00	1,726.79	1,473.54	1,660.87	0.00	0.00	
9,600.00	90.00	357.50	7,535.00	1,826.69	1,469.18	1,760.87	0.00	0.00	
9,700.00	90.00	357.50	7,535.00	1,926.60	1,464.82	1,860.87	0.00	0.00	
9,800.00	90.00	357.50	7,535.00	2,026.50	1,460.46	1,960.87	0.00	0.00	

Cathedral Energy Services

Planning Report

Database: USA EDM 5000 Multi Users DB	Local Co-ordinate Reference: Well HWY52 4U-32H-O268
Company: Crestone Peak Resources	TVD Reference: 23' KB @ 5015.00usft
Project: DJ BASIN	MD Reference: 23' KB @ 5015.00usft
Site: S32-T2N-R68W	North Reference: True
Well: HWY52 4U-32H-O268	Survey Calculation Method: Minimum Curvature
Wellbore: OH	
Design: PLAN #2	

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
9,900.00	90.00	357.50	7,535.00	2,126.41	1,456.09	2,060.87	0.00	0.00	
10,000.00	90.00	357.50	7,535.00	2,226.31	1,451.73	2,160.87	0.00	0.00	
10,100.00	90.00	357.50	7,535.00	2,326.22	1,447.37	2,260.87	0.00	0.00	
10,200.00	90.00	357.50	7,535.00	2,426.12	1,443.01	2,360.87	0.00	0.00	
10,300.00	90.00	357.50	7,535.00	2,526.03	1,438.65	2,460.87	0.00	0.00	
10,400.00	90.00	357.50	7,535.00	2,625.93	1,434.28	2,560.87	0.00	0.00	
10,500.00	90.00	357.50	7,535.00	2,725.84	1,429.92	2,660.87	0.00	0.00	
10,600.00	90.00	357.50	7,535.00	2,825.74	1,425.56	2,760.87	0.00	0.00	
10,700.00	90.00	357.50	7,535.00	2,925.65	1,421.20	2,860.87	0.00	0.00	
10,800.00	90.00	357.50	7,535.00	3,025.55	1,416.84	2,960.87	0.00	0.00	
10,900.00	90.00	357.50	7,535.00	3,125.46	1,412.47	3,060.87	0.00	0.00	
11,000.00	90.00	357.50	7,535.00	3,225.36	1,408.11	3,160.87	0.00	0.00	
11,100.00	90.00	357.50	7,535.00	3,325.27	1,403.75	3,260.87	0.00	0.00	
11,200.00	90.00	357.50	7,535.00	3,425.17	1,399.39	3,360.87	0.00	0.00	
11,300.00	90.00	357.50	7,535.00	3,525.08	1,395.03	3,460.87	0.00	0.00	
11,400.00	90.00	357.50	7,535.00	3,624.98	1,390.66	3,560.87	0.00	0.00	
11,500.00	90.00	357.50	7,535.00	3,724.89	1,386.30	3,660.87	0.00	0.00	
11,600.00	90.00	357.50	7,535.00	3,824.79	1,381.94	3,760.87	0.00	0.00	
11,700.00	90.00	357.50	7,535.00	3,924.70	1,377.58	3,860.87	0.00	0.00	
11,800.00	90.00	357.50	7,535.00	4,024.60	1,373.22	3,960.87	0.00	0.00	
11,900.00	90.00	357.50	7,535.00	4,124.51	1,368.86	4,060.87	0.00	0.00	
12,000.00	90.00	357.50	7,535.00	4,224.41	1,364.49	4,160.87	0.00	0.00	
12,030.43	90.00	357.50	7,535.00	4,254.81	1,363.17	4,191.30	0.00	0.00	TD at 12030.43

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
HWY 52 4U PBHL - hit/miss target - Shape - Point	0.00	0.00	7,535.00	4,254.81	1,363.17	1,280,014.59	3,134,358.33	40.101033	-105.019698
HWY 52 4U TPZ - plan misses target center by 169.41usft at 7946.16usft MD (7512.03 TVD, 176.22 N, 1535.95 E) - Point	0.00	0.00	7,535.00	172.35	1,368.15	1,275,932.21	3,134,385.20	40.089826	-105.019681

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
400.00	400.00	0.00	0.00	KOP @ 400'
650.00	649.68	-8.35	7.01	END NUDGE
1,144.53	1,137.66	-38.72	77.02	EOB; INC=13.49°
6,958.42	6,791.27	-362.92	1,393.46	START BUILD/TURN
7,942.16	7,511.02	172.35	1,535.89	TPZ - 7942' MD
8,130.43	7,535.00	358.52	1,533.28	LP @ 7535' TVD; 90°
12,030.43	7,535.00	4,254.81	1,363.17	TD at 12030.43

Crestone Peak Resources

DJ BASIN

S32-T2N-R68W

HWY52 4U-32H-O268

OH

PLAN #2

Anticollision Report

22 February, 2017

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Reference	PLAN #2		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,500.00usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	2/22/2017		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	12,030.43	PLAN #2 (OH)	MWD+HDGM	OWSG MWD + HDGM	

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference	Offset	Distance		Separation Factor	Warning
	Measured Depth (usft)	Measured Depth (usft)	Between Centres (usft)	Between Ellipses (usft)		
S32-T2N-R68W						
Anderson 32-32 - CPR WELL - SURVEYS						Out of range
Anderson 41-32 - CPR - NO SURVEYS	12,011.66	7,415.00	70.58	-18.57	0.792	Level 1, CC, ES, SF
Anderson 4-2-32 - CPR WELL - SURVEYS						Out of range
Anderson 6-4-32 - CPR WELL - SURVEYS	10,000.00	7,708.91	963.22	886.61	12.573	SF
Anderson 6-4-32 - CPR WELL - SURVEYS	10,013.41	7,708.89	963.12	886.55	12.578	CC, ES
Anderson Trust 1 - KPK - NO SURVEYS						Out of range
Anderson Trust 1 A - CPR WELL - SURVEYS						Out of range
Anderson Trust 32-2 - CPR WELL - GYRO	12,023.66	7,457.23	1,467.22	1,382.66	17.351	CC
Anderson Trust 32-2 - CPR WELL - GYRO	12,030.43	7,457.28	1,467.23	1,382.62	17.342	ES, SF
Anderson Trust 32-8 - CPR - NO SURVEYS	10,460.42	7,493.00	235.35	168.49	3.520	CC, ES, SF
Anderson Trust C 1 - CPR WELL - GYRO	11,523.04	7,457.46	629.17	552.53	8.210	CC, ES, SF
Anderson Trust C Unit 2 - CPR WELL - GYRO						Out of range
Brown 22-5 - CPR WELL - SURVEYS						Out of range
Brown 31-5 - CPR WELL - SURVEYS						Out of range
Brown 41-5 - CPR WELL - SURVEYS	1,719.09	1,680.62	152.98	141.15	12.934	CC, ES
Brown 41-5 - CPR WELL - SURVEYS	1,800.00	1,757.13	154.60	142.40	12.669	SF
Brown 5-3 - CPR WELL - GYRO						Out of range
Brown C Unit 1 - CPR WELL - GYRO						Out of range
Brown C Unit 2 - CPR WELL - GYRO						Out of range
Canino 1-X - HUGHES CW - NO SURVEYS	5,235.90	5,034.00	489.40	455.85	14.586	CC, ES, SF
Champlin 86 Amoco F 6 - KPK - NO SURVEYS						Out of range
Champlin Amoco 86 F 7 - KPK WELL - SURVEYS						Out of range
Foster 33-5 - CPR WELL - SURVEYS						Out of range
Foster 43-5 - CPR WELL - SURVEYS						Out of range
Foster 4-5 - CPR WELL - SURVEYS						Out of range
Foster 4-6-5 - CPR WELL - SURVEYS						Out of range
Foster 6-4-5 - CPR - SURVEYS						Out of range
Foster 6-4-5X - CPR WELL - SURVEYS						Out of range
Foster 6-8-5 - CPR WELL - SURVEYS						Out of range
Foster 8-8-5 - CPR WELL - SURVEYS						Out of range
Foster E Unit 1 - CPR - GYRO						Out of range
Gene 11-5 - KERR-MCGEE - SURVEYS						Out of range
HWY52 4A-32H-O268 - OH - PLAN #2	200.00	200.00	199.77	198.78	201.186	CC, ES
HWY52 4A-32H-O268 - OH - PLAN #2	1,100.00	1,065.52	334.52	327.09	45.040	SF
HWY52 4B-32H-O268 - OH - PLAN #2	300.00	300.00	189.98	188.27	111.104	CC
HWY52 4B-32H-O268 - OH - PLAN #2	400.00	398.62	190.34	187.92	78.569	ES
HWY52 4B-32H-O268 - OH - PLAN #2	1,144.53	1,123.16	303.28	295.52	39.095	SF
HWY52 4C-32H-O268 - OH - PLAN #2	400.00	400.00	179.91	177.48	74.131	CC, ES
HWY52 4C-32H-O268 - OH - PLAN #2	1,100.00	1,084.37	269.51	262.08	36.295	SF
HWY52 4D-32H-O268 - OH - PLAN #2	400.00	400.00	169.83	167.41	69.981	CC, ES
HWY52 4D-32H-O268 - OH - PLAN #2	8,246.52	7,674.07	1,230.99	1,172.82	21.162	SF
HWY52 4E-32H-O268 - OH - PLAN #2	400.00	400.00	160.04	157.61	65.946	CC, ES
HWY52 4E-32H-O268 - OH - PLAN #2	7,473.57	8,107.24	1,071.84	1,014.48	18.687	SF
HWY52 4F-32H-O268 - OH - PLAN #2	661.85	674.12	146.32	141.93	33.303	CC
HWY52 4F-32H-O268 - OH - PLAN #2	700.00	713.27	146.50	141.82	31.306	ES
HWY52 4F-32H-O268 - OH - PLAN #2	7,750.00	8,044.21	772.71	714.41	13.254	SF
HWY52 4G-32H-O268 - OH - PLAN #2	400.00	400.00	139.90	137.47	57.645	CC, ES
HWY52 4G-32H-O268 - OH - PLAN #2	8,100.00	7,869.27	595.01	535.66	10.025	SF
HWY52 4H-32H-O268 - OH - PLAN #2	400.00	400.00	129.82	127.40	53.494	CC, ES
HWY52 4H-32H-O268 - OH - PLAN #2	7,700.00	8,014.63	349.16	290.69	5.972	SF
HWY52 4I-32H-O268 - OH - PLAN #2	7,950.00	7,979.38	73.71	13.35	1.221	Level 2, SF
HWY52 4I-32H-O268 - OH - PLAN #2	7,964.57	7,966.93	73.33	13.32	1.222	Level 2, CC, ES
HWY52 4J-32H-O268 - OH - PLAN #2	749.21	760.32	106.57	101.57	21.297	CC

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference	Offset	Distance		Separation Factor	Warning
	Measured Depth (usft)	Measured Depth (usft)	Between Centres (usft)	Between Ellipses (usft)		
S32-T2N-R68W						
HWY52 4J-32H-O268 - OH - PLAN #2	800.00	812.32	106.80	101.42	19.852	ES
HWY52 4J-32H-O268 - OH - PLAN #2	8,228.72	7,836.82	213.72	151.46	3.432	SF
HWY52 4K-32H-O268 - OH - PLAN #2	802.85	815.10	84.86	79.41	15.563	CC, ES
HWY52 4K-32H-O268 - OH - PLAN #2	7,950.00	7,971.13	380.36	318.82	6.181	SF
HWY52 4L-32H-O268 - OH - PLAN #2	200.00	200.00	89.81	88.82	90.450	CC, ES
HWY52 4L-32H-O268 - OH - PLAN #2	800.00	789.95	140.94	135.64	26.614	SF
HWY52 4M-32H-O268 - OH - PLAN #2	200.00	200.00	80.02	79.03	80.588	CC, ES
HWY52 4M-32H-O268 - OH - PLAN #2	800.00	792.91	124.28	118.99	23.513	SF
HWY52 4N-32H-O268 - OH - PLAN #2	300.00	300.00	69.95	68.24	40.907	CC
HWY52 4N-32H-O268 - OH - PLAN #2	400.00	399.56	70.25	67.84	29.147	ES
HWY52 4N-32H-O268 - OH - PLAN #2	800.00	797.57	95.64	90.40	18.270	SF
HWY52 4O-32H-O268 - OH - PLAN #2	445.24	446.01	58.18	55.46	21.375	CC
HWY52 4O-32H-O268 - OH - PLAN #2	500.00	500.66	58.54	55.43	18.836	ES
HWY52 4O-32H-O268 - OH - PLAN #2	12,030.43	12,163.85	1,276.14	1,121.92	8.275	SF
HWY52 4P-32H-O268 - OH - PLAN #2	400.00	400.00	49.80	47.38	20.522	CC, ES
HWY52 4P-32H-O268 - OH - PLAN #2	12,030.43	12,046.49	1,155.03	1,001.56	7.526	SF
HWY52 4Q-32H-O268 - OH - PLAN #2	400.00	400.00	40.01	37.58	16.487	CC, ES
HWY52 4Q-32H-O268 - OH - PLAN #2	12,030.43	11,940.03	830.14	680.54	5.549	SF
HWY52 4R-32H-O268 - OH - PLAN #2	400.00	400.00	29.94	27.51	12.336	CC, ES
HWY52 4R-32H-O268 - OH - PLAN #2	12,030.43	12,095.28	499.66	347.28	3.279	SF
HWY52 4S-32H-O268 - OH - PLAN #2	400.00	400.00	19.87	17.44	8.186	CC, ES
HWY52 4S-32H-O268 - OH - PLAN #2	12,030.43	12,250.40	366.87	216.38	2.438	SF
HWY52 4T-32H-O268 - OH - PLAN #2	400.00	400.00	9.80	7.37	4.037	CC, ES
HWY52 4T-32H-O268 - OH - PLAN #2	12,030.43	12,042.69	264.41	124.97	1.896	SF
HWY52 4V-32H-O268 - OH - PLAN #2	300.00	300.00	10.07	8.36	5.891	CC, ES
HWY52 4V-32H-O268 - OH - PLAN #2	7,700.00	7,828.89	93.45	34.51	1.585	SF
HWY52 4W-32H-O268 - OH - PLAN #2	115.99	117.99	20.14	19.75	50.639	CC
HWY52 4W-32H-O268 - OH - PLAN #2	200.00	201.99	20.15	19.15	20.148	ES
HWY52 4W-32H-O268 - OH - PLAN #2	12,030.43	12,243.21	519.98	373.84	3.558	SF
Nelson 1 - TEXAS TEA - NO SURVEYS	400.00	354.00	1,427.81	1,425.97	773.031	CC, ES
Nelson 1 - TEXAS TEA - NO SURVEYS	1,400.00	1,340.09	1,497.09	1,489.59	199.671	SF
Nelson E Unit 1 - CPR WELL - GYRO						Out of range
Nelson E Unit 2 - CPR WELL - GYRO	8,700.00	7,462.80	749.76	707.47	17.729	SF
Nelson E Unit 2 - CPR WELL - GYRO	8,758.98	7,464.48	747.44	705.29	17.733	CC, ES
Oskarson 2-8-33 - CPR WELL - SURVEYS						Out of range
Oskarson 23-33 - CPR WELL - GYRO						Out of range
Oskarson 4 - HRM - NO SURVEYS						Out of range
Oskarson 4-4-33 - CPR WELL - SURVEYS						Out of range
Oskarson 4-6-33 - CPR WELL - SURVEYS						Out of range
Oskarson 4-8-33 - CPR WELL - SURVEYS						Out of range
Oskarson E Unit 1 - CPR WELL - GYRO	8,067.61	7,500.00	1,284.52	1,246.18	33.506	CC, ES
Oskarson E Unit 1 - CPR WELL - GYRO	8,500.00	7,512.06	1,362.65	1,320.62	32.417	SF
Paquette 14-5 - KERR-MCGEE - GYRO						Out of range
Rasmussen 10-29 - KMG WELL - SURVEYS						Out of range
Rasmussen 16-29 - KMG WELL - SURVEYS	12,030.43	7,661.65	1,246.76	1,174.80	17.324	CC, ES, SF
Rasmussen 19-29 - KMG WELL - SURVEYS						Out of range
Rasmussen 20-29 - CPR WELL - SURVEYS						Out of range
Rasmussen 22-29 - KMG WELL - SURVEYS						Out of range
Rasmussen 23-29 - KMG WELL - KMG WELL						Out of range
Rasmussen 25-29 - KMG WELL - SURVEYS						Out of range
Rasmussen 36-29 - KMG WELL - SURVEYS						Out of range
Rasmussen 37-29 - KMG WELL - SURVEYS	12,030.43	7,618.72	842.32	747.46	8.880	CC, ES, SF
Rasmussen 39-29 - KMG WELL - SURVEYS						Out of range

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
S32-T2N-R68W						
Rasmussen Fed 35-29 - KMG WELL - SURVEYS						Out of range
Ray Nelson 13-32 - CPR WELL - SURVEYS						Out of range
Ray Nelson 14-32 - CPR WELL - SURVEYS						Out of range
Ray Nelson 23-32 - CPR WELL - GYRO						Out of range
Ray Nelson 24-32 - CPR WELL - SURVEYS						Out of range
Ray Nelson 2-4-32 - CPR WELL - SURVEYS						Out of range
Ray Nelson 33-32 - CPR WELL - SURVEYS	1,170.59	1,127.17	295.68	289.57	48.412	CC, ES
Ray Nelson 33-32 - CPR WELL - SURVEYS	9,500.00	7,702.99	1,496.58	1,428.62	22.023	SF
Ray Nelson 34-32 - CPR WELL - SURVEYS	1,516.69	1,478.21	293.16	284.82	35.183	CC, ES
Ray Nelson 34-32 - CPR WELL - SURVEYS	2,500.00	2,440.20	376.81	362.62	26.560	SF
Ray Nelson 44-32 - CPR WELL - SURVEYS	8,000.07	7,633.81	200.95	158.32	4.713	CC, ES
Ray Nelson 44-32 - CPR WELL - SURVEYS	8,050.00	7,641.71	206.52	162.50	4.691	SF
Ray Nelson 4-4-32 - CPR WELL - SURVEYS						Out of range
Ray Nelson 4-6-32 - CPR WELL - SURVEYS						Out of range
Ray Nelson 8-8-32 - CPR WELL - SURVEYS	100.00	76.27	321.64	321.39	1,266.696	CC, ES
Ray Nelson 8-8-32 - CPR WELL - SURVEYS	7,550.00	7,599.16	515.02	466.32	10.575	SF
SEC Four 12-4 - KMG WELL - SURVEYS						Out of range
SEC Four 13-4 - KMG WELL - SURVEYS						Out of range
SEC Four 14-4 - KMG WELL - SURVEYS						Out of range
SEC Four 21-4 - KMG WELL - SURVEYS						Out of range
SEC Four 22-4 - KMG WELL - SURVEYS						Out of range
SEC Four 31-4 - KMG WELL - SURVEYS						Out of range
SEC Four 32-4 - KMG WELL - SURVEYS						Out of range
SEC Four 33-4 - KMG WELL - SURVEYS						Out of range
SEC Four 3-4 - KMG WELL - SURVEYS						Out of range
SEC Four 35-4 - KMG WELL - SURVEYS						Out of range
SEC Four 4-4 - KMG WELL - SURVEYS						Out of range
SEC Four 5-4 - KMG WELL - SURVEYS						Out of range
SEC Four 6-4 - KMG WELL - SURVEYS						Out of range
Tallgrass 1-8 - KMG - SURVEYS						Out of range
Tallgrass 2-8 - KMG - SURVEYS						Out of range
Tallgrass 3-8 - KMG - SURVEYS						Out of range
Tallgrass 4-8 - KMG - SURVEYS						Out of range
Tallgrass 5-8 - KMG - NO SURVEYS						Out of range

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
S32-T2N-R68W (File/Hwy 52)						
File 3A-32H-K268 - Hz - FINAL						Out of range
File 3A-32H-K268 - Hz - Plan #7						Out of range
File 3B-32H-K268 - Hz - FINAL						Out of range
File 3B-32H-K268 - Hz - Plan #4						Out of range
File 3C-32H-K268 - Hz - FINAL						Out of range
File 3C-32H-K268 - Hz - Plan #4						Out of range
File 3D-32H-K268 - Hz - FINAL						Out of range
File 3D-32H-K268 - Hz - Plan #4						Out of range
File 3E-32H-K268 - Hz - FINAL						Out of range
File 3E-32H-K268 - Hz - Plan #3						Out of range
File 3F-32H-K268 - Hz - FINAL						Out of range
File 3F-32H-K268 - Hz - Plan #3						Out of range
File 3G-32H-K268 - Hz - FINAL						Out of range
File 3G-32H-K268 - Hz - Plan #6						Out of range
File 3H-32H-K268 - Hz - FINAL						Out of range
File 3H-32H-K268 - Hz - Plan #3						Out of range
File 3I-32H-K268 - Hz - FINAL						Out of range
File 3I-32H-K268 - Hz - Plan #5						Out of range
File 3J-32H-K268 - Hz - FINAL						Out of range
File 3J-32H-K268 - Hz - Plan #3						Out of range
File 3K-32H-K268 - Hz - FINAL						Out of range
File 3K-32H-K268 - Hz - Plan #3						Out of range
File 3L-32H-K268 - Hz - FINAL						Out of range
File 3L-32H-K268 - Hz - Plan #4						Out of range
File 3M-32H-K268 - Hz - FINAL						Out of range
File 3M-32H-K268 - Hz - Plan #4						Out of range
File 3N-32H-K268 - Hz - FINAL						Out of range
File 3N-32H-K268 - Hz - Plan #3						Out of range
File 3O-32H-K268 - Hz - FINAL						Out of range
File 3O-32H-K268 - Hz - Plan #3						Out of range
File 3P-32H-K268 - Hz - FINAL						Out of range
File 3P-32H-K268 - Hz - Plan #5						Out of range

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
S32-T2N-R68W - Anderson 41-32 - CPR - NO SURVEYS													Offset Well Error:	0.00 usft
Survey Program: 8470-MWD+HDGM														
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning	
10,600.00	7,535.00	7,415.00	7,415.00	56.50	13.29	90.00	4,239.14	1,434.50	1,413.43	1,364.51	48.91	28.897		
10,700.00	7,535.00	7,415.00	7,415.00	57.87	13.29	90.00	4,239.14	1,434.50	1,313.56	1,264.69	48.87	26.880		
10,800.00	7,535.00	7,415.00	7,415.00	59.24	13.29	90.00	4,239.14	1,434.50	1,213.72	1,164.90	48.82	24.863		
10,900.00	7,535.00	7,415.00	7,415.00	60.63	13.29	90.00	4,239.14	1,434.50	1,113.90	1,065.15	48.75	22.847		
11,000.00	7,535.00	7,415.00	7,415.00	62.04	13.29	90.00	4,239.14	1,434.50	1,014.12	965.44	48.68	20.832		
11,100.00	7,535.00	7,415.00	7,415.00	63.45	13.29	90.00	4,239.14	1,434.50	914.39	865.80	48.59	18.817		
11,200.00	7,535.00	7,415.00	7,415.00	64.87	13.29	90.00	4,239.14	1,434.50	814.73	766.24	48.49	16.802		
11,300.00	7,535.00	7,415.00	7,415.00	66.30	13.29	90.00	4,239.14	1,434.50	715.16	666.79	48.37	14.786		
11,400.00	7,535.00	7,415.00	7,415.00	67.74	13.29	90.00	4,239.14	1,434.50	615.72	567.50	48.23	12.767		
11,500.00	7,535.00	7,415.00	7,415.00	69.19	13.29	90.00	4,239.14	1,434.50	516.51	468.43	48.08	10.743		
11,600.00	7,535.00	7,415.00	7,415.00	70.65	13.29	90.00	4,239.14	1,434.50	417.67	369.70	47.97	8.707		
11,700.00	7,535.00	7,415.00	7,415.00	72.11	13.29	90.00	4,239.14	1,434.50	319.56	271.48	48.08	6.647		
11,800.00	7,535.00	7,415.00	7,415.00	73.58	13.29	90.00	4,239.14	1,434.50	223.12	173.87	49.25	4.530		
11,900.00	7,535.00	7,415.00	7,415.00	75.06	13.29	90.00	4,239.14	1,434.50	132.10	75.79	56.31	2.346		
12,000.00	7,535.00	7,415.00	7,415.00	76.55	13.29	90.00	4,239.14	1,434.50	71.54	-14.99	86.53	0.827	Level 1	
12,011.66	7,535.00	7,415.00	7,415.00	76.72	13.29	90.00	4,239.14	1,434.50	70.58	-18.57	89.15	0.792	Level 1, CC, ES, SF	
12,030.43	7,535.00	7,415.00	7,415.00	77.00	13.29	90.00	4,239.14	1,434.50	73.03	-16.99	90.03	0.811	Level 1	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
S32-T2N-R68W - Anderson 6-4-32 - CPR WELL - SURVEYS													Offset Well Error:	0.00 usft
Survey Program: 71-Geolink MWD														
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning	
8,900.00	7,535.00	7,710.29	7,467.10	37.58	30.40	-89.05	2,197.70	489.07	1,472.17	1,407.76	64.41	22.857		
9,000.00	7,535.00	7,710.16	7,466.97	38.23	30.40	-89.05	2,197.70	489.07	1,398.07	1,332.46	65.61	21.308		
9,100.00	7,535.00	7,710.03	7,466.85	38.99	30.40	-89.04	2,197.70	489.08	1,327.37	1,260.46	66.92	19.837		
9,200.00	7,535.00	7,709.91	7,466.72	39.85	30.40	-89.03	2,197.70	489.08	1,260.65	1,192.34	68.31	18.456		
9,300.00	7,535.00	7,709.78	7,466.60	40.78	30.40	-89.02	2,197.70	489.08	1,198.56	1,128.80	69.77	17.179		
9,400.00	7,535.00	7,709.66	7,466.47	41.78	30.40	-89.02	2,197.70	489.08	1,141.87	1,070.61	71.26	16.024		
9,500.00	7,535.00	7,709.53	7,466.34	42.83	30.40	-89.01	2,197.70	489.08	1,091.42	1,018.69	72.72	15.007		
9,600.00	7,535.00	7,709.41	7,466.22	43.93	30.40	-89.00	2,197.70	489.09	1,048.10	974.01	74.09	14.146		
9,700.00	7,535.00	7,709.28	7,466.10	45.07	30.40	-88.99	2,197.70	489.09	1,012.83	937.57	75.26	13.458		
9,800.00	7,535.00	7,709.16	7,465.97	46.24	30.40	-88.99	2,197.70	489.09	986.48	910.36	76.13	12.958		
9,900.00	7,535.00	7,709.03	7,465.85	47.44	30.40	-88.98	2,197.70	489.09	969.78	893.18	76.60	12.660		
10,000.00	7,535.00	7,708.91	7,465.72	48.67	30.40	-88.97	2,197.70	489.10	963.22	886.61	76.61	12.573 SF		
10,013.41	7,535.00	7,708.89	7,465.71	48.84	30.40	-88.97	2,197.70	489.10	963.12	886.55	76.57	12.578 CC, ES		
10,100.00	7,535.00	7,708.79	7,465.60	49.93	30.40	-88.97	2,197.70	489.10	967.01	890.88	76.13	12.703		
10,200.00	7,535.00	7,708.66	7,465.48	51.20	30.40	-88.96	2,197.70	489.10	981.03	905.85	75.18	13.049		
10,300.00	7,535.00	7,708.54	7,465.35	52.50	30.40	-88.95	2,197.70	489.10	1,004.86	931.01	73.85	13.607		
10,400.00	7,535.00	7,708.42	7,465.23	53.82	30.40	-88.94	2,197.70	489.10	1,037.82	965.59	72.23	14.369		
10,500.00	7,535.00	7,708.29	7,465.11	55.15	30.40	-88.94	2,197.70	489.11	1,079.06	1,008.63	70.43	15.320		
10,600.00	7,535.00	7,708.17	7,464.99	56.50	30.40	-88.93	2,197.71	489.11	1,127.70	1,059.12	68.57	16.445		
10,700.00	7,535.00	7,708.05	7,464.86	57.87	30.40	-88.92	2,197.71	489.11	1,182.80	1,116.08	66.72	17.727		
10,800.00	7,535.00	7,707.93	7,464.74	59.24	30.40	-88.91	2,197.71	489.11	1,243.52	1,178.56	64.95	19.145		
10,900.00	7,535.00	7,707.81	7,464.62	60.63	30.40	-88.91	2,197.71	489.12	1,309.07	1,245.77	63.30	20.682		
11,000.00	7,535.00	7,707.69	7,464.50	62.04	30.40	-88.90	2,197.71	489.12	1,378.76	1,316.98	61.78	22.319		
11,100.00	7,535.00	7,707.57	7,464.38	63.45	30.40	-88.89	2,197.71	489.12	1,452.00	1,391.59	60.40	24.038		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft	
Survey Program: 100- GyroFlex													Offset Well Error:		0.00 usft
Reference		Offset		Semi Major Axis			Distance				Total		Separation		Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis	Factor			
11,800.00	7,535.00	7,455.62	7,453.66	73.58	8.66	-89.71	4,184.04	-102.34	1,484.17	1,401.98	82.18	18.059			
11,900.00	7,535.00	7,456.34	7,454.38	75.06	8.66	-89.74	4,184.05	-102.34	1,472.42	1,389.00	83.42	17.651			
12,000.00	7,535.00	7,457.06	7,455.10	76.55	8.66	-89.77	4,184.05	-102.35	1,467.41	1,383.03	84.38	17.391			
12,023.66	7,535.00	7,457.23	7,455.27	76.90	8.66	-89.78	4,184.05	-102.35	1,467.22	1,382.66	84.56	17.351 CC			
12,030.43	7,535.00	7,457.28	7,455.32	77.00	8.66	-89.78	4,184.05	-102.35	1,467.23	1,382.62	84.61	17.342 ES, SF			

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft	
Survey Program: 7765-MWD+HDGM													Offset Well Error:		0.00 usft
Reference				Offset			Semi Major Axis			Distance			Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
9,000.00	7,535.00	7,493.00	7,493.00	38.23	13.41	-90.00	2,676.03	1,196.52	1,479.26	1,429.13	50.13	29.509			
9,100.00	7,535.00	7,493.00	7,493.00	38.99	13.41	-90.00	2,676.03	1,196.52	1,380.63	1,330.32	50.31	27.443			
9,200.00	7,535.00	7,493.00	7,493.00	39.85	13.41	-90.00	2,676.03	1,196.52	1,282.20	1,231.68	50.52	25.381			
9,300.00	7,535.00	7,493.00	7,493.00	40.78	13.41	-90.00	2,676.03	1,196.52	1,184.04	1,133.28	50.77	23.323			
9,400.00	7,535.00	7,493.00	7,493.00	41.78	13.41	-90.00	2,676.03	1,196.52	1,086.22	1,035.15	51.07	21.269			
9,500.00	7,535.00	7,493.00	7,493.00	42.83	13.41	-90.00	2,676.03	1,196.52	988.83	937.39	51.44	19.222			
9,600.00	7,535.00	7,493.00	7,493.00	43.93	13.41	-90.00	2,676.03	1,196.52	892.03	840.12	51.91	17.185			
9,700.00	7,535.00	7,493.00	7,493.00	45.07	13.41	-90.00	2,676.03	1,196.52	796.01	743.50	52.50	15.161			
9,800.00	7,535.00	7,493.00	7,493.00	46.24	13.41	-90.00	2,676.03	1,196.52	701.10	647.82	53.29	13.158			
9,900.00	7,535.00	7,493.00	7,493.00	47.44	13.41	-90.00	2,676.03	1,196.52	607.83	553.49	54.34	11.185			
10,000.00	7,535.00	7,493.00	7,493.00	48.67	13.41	-90.00	2,676.03	1,196.52	517.08	461.28	55.81	9.265			
10,100.00	7,535.00	7,493.00	7,493.00	49.93	13.41	-90.00	2,676.03	1,196.52	430.46	372.57	57.89	7.436			
10,200.00	7,535.00	7,493.00	7,493.00	51.20	13.41	-90.00	2,676.03	1,196.52	351.01	290.19	60.82	5.771			
10,300.00	7,535.00	7,493.00	7,493.00	52.50	13.41	-90.00	2,676.03	1,196.52	284.83	220.33	64.49	4.416			
10,400.00	7,535.00	7,493.00	7,493.00	53.82	13.41	-90.00	2,676.03	1,196.52	242.99	175.77	67.22	3.615			
10,460.42	7,535.00	7,493.00	7,493.00	54.62	13.41	-90.00	2,676.03	1,196.52	235.35	168.49	66.86	3.520	CC, ES, SF		
10,500.00	7,535.00	7,493.00	7,493.00	55.15	13.41	-90.00	2,676.03	1,196.52	238.66	173.12	65.54	3.641			
10,600.00	7,535.00	7,493.00	7,493.00	56.50	13.41	-90.00	2,676.03	1,196.52	273.63	213.52	60.11	4.552			
10,700.00	7,535.00	7,493.00	7,493.00	57.87	13.41	-90.00	2,676.03	1,196.52	335.84	280.69	55.16	6.089			
10,800.00	7,535.00	7,493.00	7,493.00	59.24	13.41	-90.00	2,676.03	1,196.52	413.17	361.13	52.04	7.940			
10,900.00	7,535.00	7,493.00	7,493.00	60.63	13.41	-90.00	2,676.03	1,196.52	498.62	448.35	50.27	9.918			
11,000.00	7,535.00	7,493.00	7,493.00	62.04	13.41	-90.00	2,676.03	1,196.52	588.68	539.39	49.29	11.944			
11,100.00	7,535.00	7,493.00	7,493.00	63.45	13.41	-90.00	2,676.03	1,196.52	681.51	632.78	48.73	13.986			
11,200.00	7,535.00	7,493.00	7,493.00	64.87	13.41	-90.00	2,676.03	1,196.52	776.13	727.71	48.41	16.031			
11,300.00	7,535.00	7,493.00	7,493.00	66.30	13.41	-90.00	2,676.03	1,196.52	871.95	823.71	48.24	18.076			
11,400.00	7,535.00	7,493.00	7,493.00	67.74	13.41	-90.00	2,676.03	1,196.52	968.61	920.47	48.14	20.119			
11,500.00	7,535.00	7,493.00	7,493.00	69.19	13.41	-90.00	2,676.03	1,196.52	1,065.89	1,017.79	48.10	22.159			
11,600.00	7,535.00	7,493.00	7,493.00	70.65	13.41	-90.00	2,676.03	1,196.52	1,163.63	1,115.54	48.09	24.196			
11,700.00	7,535.00	7,493.00	7,493.00	72.11	13.41	-90.00	2,676.03	1,196.52	1,261.73	1,213.63	48.10	26.230			
11,800.00	7,535.00	7,493.00	7,493.00	73.58	13.41	-90.00	2,676.03	1,196.52	1,360.10	1,311.97	48.13	28.261			
11,900.00	7,535.00	7,493.00	7,493.00	75.06	13.41	-90.00	2,676.03	1,196.52	1,458.69	1,410.53	48.16	30.289			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft		
Survey Program: 100- GyroFlex													Offset Well Error:		0.00 usft	
S32-T2N-R68W - Anderson Trust C 1 - CPR WELL - GYRO																
Reference				Offset				Semi Major Axis			Distance					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning			
10,200.00	7,535.00	7,481.74	7,480.09	51.20	8.21	-91.28	3,720.02	756.41	1,464.85	1,416.04	48.80	30.016				
10,300.00	7,535.00	7,479.62	7,477.96	52.50	8.21	-91.09	3,720.06	756.45	1,375.23	1,325.30	49.92	27.546				
10,400.00	7,535.00	7,477.54	7,475.89	53.82	8.20	-90.90	3,720.10	756.48	1,287.13	1,235.91	51.22	25.127				
10,500.00	7,535.00	7,475.52	7,473.87	55.15	8.20	-90.72	3,720.14	756.52	1,200.90	1,148.17	52.74	22.772				
10,600.00	7,535.00	7,473.55	7,471.90	56.50	8.20	-90.54	3,720.18	756.55	1,116.97	1,062.48	54.49	20.498				
10,700.00	7,535.00	7,471.63	7,469.98	57.87	8.20	-90.36	3,720.21	756.58	1,035.89	979.36	56.53	18.326				
10,800.00	7,535.00	7,469.76	7,468.11	59.24	8.19	-90.19	3,720.25	756.61	958.38	899.52	58.87	16.280				
10,900.00	7,535.00	7,467.93	7,466.28	60.63	8.19	-90.03	3,720.28	756.64	885.40	823.87	61.53	14.389				
11,000.00	7,535.00	7,466.14	7,464.49	62.04	8.19	-89.86	3,720.31	756.67	818.14	753.65	64.49	12.686				
11,100.00	7,535.00	7,464.40	7,462.75	63.45	8.19	-89.70	3,720.34	756.70	758.14	690.49	67.65	11.207				
11,200.00	7,535.00	7,462.70	7,461.05	64.87	8.18	-89.55	3,720.37	756.72	707.24	636.43	70.81	9.988				
11,300.00	7,535.00	7,461.04	7,459.38	66.30	8.18	-89.40	3,720.40	756.75	667.53	593.89	73.64	9.064				
11,400.00	7,535.00	7,459.41	7,457.76	67.74	8.18	-89.25	3,720.43	756.78	641.09	565.37	75.72	8.467				
11,500.00	7,535.00	7,457.82	7,456.17	69.19	8.18	-89.11	3,720.46	756.80	629.60	552.97	76.62	8.217				
11,523.04	7,535.00	7,457.46	7,455.81	69.53	8.18	-89.07	3,720.46	756.81	629.17	552.53	76.64	8.210	CC, ES, SF			
11,600.00	7,535.00	7,456.27	7,454.62	70.65	8.18	-88.96	3,720.48	756.82	633.86	557.71	76.15	8.324				
11,700.00	7,535.00	7,454.75	7,453.10	72.11	8.17	-88.83	3,720.51	756.85	653.58	579.19	74.39	8.786				
11,800.00	7,535.00	7,453.26	7,451.61	73.58	8.17	-88.69	3,720.53	756.87	687.42	615.72	71.70	9.587				
11,900.00	7,535.00	7,451.81	7,450.16	75.06	8.17	-88.56	3,720.56	756.89	733.43	664.89	68.54	10.701				
12,000.00	7,535.00	7,450.38	7,448.73	76.55	8.17	-88.43	3,720.58	756.91	789.49	724.20	65.29	12.093				
12,030.43	7,535.00	7,449.96	7,448.31	77.00	8.17	-88.39	3,720.59	756.92	808.23	743.91	64.32	12.566				

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft	
Survey Program: 41-Geolink MWD													Offset Well Error:		0.00 usft
Reference				Offset				Semi Major Axis			Distance		Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
0.00	0.00	0.00	0.00	0.00	0.00	50.22	202.89	243.69	317.79						
100.00	100.00	76.86	76.86	0.14	0.11	50.28	202.84	244.18	317.45	317.20	0.25	1,260.518			
200.00	200.00	176.41	176.40	0.50	0.28	50.40	202.82	245.18	318.21	317.43	0.78	407.366			
300.00	300.00	277.47	277.46	0.85	0.46	50.57	202.57	246.32	318.92	317.61	1.31	242.560			
400.00	400.00	386.41	386.37	1.21	0.65	50.87	200.71	246.70	318.12	316.24	1.87	169.796			
500.00	499.98	494.72	494.50	1.56	0.86	-88.72	194.65	246.42	314.36	311.93	2.44	128.979			
600.00	599.84	603.47	602.64	1.90	1.12	-88.20	183.18	246.80	307.94	304.90	3.03	101.545			
650.00	649.68	657.55	656.13	2.08	1.28	-87.86	175.29	247.19	303.59	300.23	3.36	90.470			
700.00	699.47	709.70	707.51	2.25	1.44	-79.30	166.40	247.72	298.24	294.56	3.68	81.074			
800.00	798.84	805.35	801.60	2.62	1.75	-67.22	149.30	249.59	285.69	281.38	4.31	66.258			
900.00	897.85	902.81	897.30	3.00	2.09	-59.28	131.20	253.28	271.38	266.38	5.01	54.196			
1,000.00	996.37	1,003.94	996.25	3.41	2.49	-53.60	110.87	257.96	254.06	248.28	5.78	43.946			
1,100.00	1,094.29	1,103.15	1,092.27	3.83	2.95	-48.52	86.72	264.11	232.85	226.21	6.64	35.081			
1,144.53	1,137.66	1,143.93	1,131.44	4.03	3.15	-46.34	75.89	267.34	222.66	215.63	7.03	31.683			
1,200.00	1,191.61	1,194.80	1,180.25	4.28	3.40	-44.79	62.36	272.09	210.37	202.85	7.52	27.981			
1,300.00	1,288.85	1,286.94	1,268.26	4.75	3.89	-41.04	37.35	282.95	190.60	182.15	8.45	22.552			
1,400.00	1,386.09	1,378.71	1,355.64	5.22	4.37	-36.31	12.81	296.50	174.76	165.38	9.38	18.632			
1,500.00	1,483.34	1,471.73	1,443.94	5.70	4.88	-30.65	-11.31	313.07	163.61	153.33	10.27	15.927			
1,600.00	1,580.58	1,567.59	1,534.45	6.19	5.43	-23.81	-36.62	331.94	156.29	145.22	11.08	14.108			
1,700.00	1,677.82	1,662.60	1,624.04	6.69	5.99	-16.76	-61.00	352.06	153.07	141.35	11.72	13.057			
1,719.09	1,696.39	1,680.62	1,640.98	6.78	6.10	-15.39	-65.64	356.10	152.98	141.15	11.83	12.934 CC, ES			
1,800.00	1,775.07	1,757.13	1,712.56	7.19	6.58	-9.40	-85.88	373.99	154.60	142.40	12.20	12.669 SF			
1,900.00	1,872.31	1,854.24	1,802.57	7.69	7.23	-1.40	-113.64	397.59	160.63	148.10	12.54	12.814			
2,000.00	1,969.55	1,951.30	1,892.36	8.19	7.87	6.45	-142.71	420.22	169.33	156.63	12.70	13.330			
2,100.00	2,066.79	2,051.08	1,985.25	8.69	8.51	12.71	-169.85	444.52	180.48	167.58	12.89	13.998			
2,200.00	2,164.04	2,146.11	2,073.95	9.20	9.13	17.76	-194.93	467.63	192.97	179.90	13.07	14.767			
2,300.00	2,261.28	2,245.31	2,166.29	9.71	9.77	22.37	-221.48	492.33	207.58	194.27	13.31	15.600			
2,400.00	2,358.52	2,344.49	2,259.00	10.22	10.40	26.01	-246.39	517.22	222.32	208.69	13.63	16.316			
2,500.00	2,455.77	2,442.68	2,350.70	10.73	11.03	29.34	-271.75	541.50	238.08	224.08	14.00	17.009			
2,600.00	2,553.01	2,546.65	2,448.46	11.24	11.67	32.85	-298.56	564.56	252.71	238.22	14.49	17.439			
2,700.00	2,650.25	2,643.96	2,540.36	11.75	12.26	36.09	-323.75	584.29	266.95	251.96	15.00	17.801			
2,800.00	2,747.50	2,730.96	2,621.96	12.26	12.85	38.65	-347.33	603.06	283.85	268.36	15.48	18.331			
2,900.00	2,844.74	2,819.16	2,703.33	12.78	13.49	41.11	-374.63	623.40	305.47	289.41	16.06	19.021			
3,000.00	2,941.98	2,913.80	2,790.07	13.29	14.18	43.32	-404.70	646.37	329.11	312.33	16.78	19.617			
3,100.00	3,039.22	3,017.07	2,884.97	13.80	14.91	45.33	-436.74	671.53	352.54	334.90	17.64	19.986			
3,200.00	3,136.47	3,119.42	2,979.90	14.32	15.60	47.30	-467.53	694.24	374.34	355.80	18.54	20.193			
3,300.00	3,233.71	3,213.93	3,067.78	14.83	16.25	49.00	-495.75	714.54	395.97	376.58	19.39	20.421			
3,400.00	3,330.95	3,298.89	3,146.18	15.35	16.86	50.46	-522.84	732.86	419.87	399.71	20.16	20.829			
3,500.00	3,428.20	3,392.88	3,232.22	15.86	17.55	52.01	-554.77	753.16	446.09	425.02	21.06	21.179			
3,600.00	3,525.44	3,512.02	3,342.64	16.38	18.34	53.72	-592.06	777.86	469.63	447.36	22.27	21.085			
3,700.00	3,622.68	3,633.98	3,457.58	16.89	19.06	55.29	-625.25	801.47	489.06	465.60	23.46	20.846			
3,800.00	3,719.93	3,776.78	3,595.44	17.41	19.67	57.60	-656.78	820.80	501.89	477.09	24.80	20.236			
3,900.00	3,817.17	3,883.93	3,700.57	17.93	20.07	59.57	-674.96	830.66	508.77	482.81	25.96	19.597			
4,000.00	3,914.41	3,989.85	3,804.55	18.44	20.46	61.35	-692.11	841.31	515.70	488.58	27.12	19.016			
4,100.00	4,011.65	4,103.08	3,916.07	18.96	20.83	62.99	-707.05	853.89	520.28	492.00	28.28	18.400			
4,200.00	4,108.90	4,194.17	4,005.81	19.48	21.16	64.20	-718.41	864.63	524.69	495.34	29.34	17.880			
4,300.00	4,206.14	4,279.02	4,089.00	19.99	21.50	65.26	-731.12	875.47	531.98	501.60	30.37	17.515			
4,400.00	4,303.38	4,364.70	4,172.58	20.51	21.88	66.23	-745.61	887.48	541.69	510.32	31.37	17.266			
4,500.00	4,400.63	4,455.99	4,261.01	21.03	22.31	67.14	-763.58	901.36	554.44	522.06	32.39	17.120			
4,600.00	4,497.87	4,569.51	4,371.24	21.54	22.81	68.13	-783.95	919.26	565.72	532.19	33.53	16.874			
4,700.00	4,595.11	4,652.83	4,452.29	22.06	23.21	68.90	-798.72	931.70	576.93	542.45	34.48	16.732			
4,800.00	4,692.36	4,734.62	4,531.11	22.58	23.64	69.57	-816.11	944.82	591.81	556.42	35.39	16.722			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft	
Survey Program: 41-Geolink MWD													Offset Well Error:		0.00 usft
Reference				Offset				Semi Major Axis		Distance				Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor			
4,900.00	4,789.60	4,816.30	4,609.12	23.10	24.12	70.04	-835.16	959.73	609.16	572.91	36.25	16.806			
5,000.00	4,886.84	4,895.31	4,683.69	23.62	24.62	70.34	-855.84	975.67	629.59	592.59	37.00	17.016			
5,100.00	4,984.08	4,987.02	4,769.78	24.13	25.19	70.77	-882.16	993.17	652.50	614.60	37.90	17.217			
5,200.00	5,081.33	5,086.93	4,864.19	24.65	25.78	71.42	-910.31	1,009.79	674.74	635.80	38.93	17.330			
5,300.00	5,178.57	5,193.21	4,964.88	25.17	26.39	72.19	-940.19	1,026.04	696.96	656.89	40.07	17.393			
5,400.00	5,275.81	5,294.00	5,060.79	25.69	26.97	72.85	-966.90	1,041.73	717.61	676.47	41.14	17.443			
5,500.00	5,373.06	5,381.00	5,143.19	26.21	27.50	73.26	-990.36	1,056.82	738.92	696.90	42.02	17.584			
5,600.00	5,470.30	5,514.18	5,270.15	26.72	28.21	73.94	-1,023.98	1,078.78	758.31	714.91	43.40	17.473			
5,700.00	5,567.54	5,629.71	5,381.42	27.24	28.77	74.67	-1,050.00	1,095.69	775.15	730.58	44.58	17.390			
5,800.00	5,664.79	5,752.38	5,500.86	27.76	29.28	75.66	-1,073.92	1,110.17	788.93	743.11	45.83	17.215			
5,900.00	5,762.03	5,845.70	5,592.05	28.28	29.65	76.50	-1,091.33	1,119.58	802.13	755.26	46.86	17.117			
6,000.00	5,859.27	5,941.25	5,685.57	28.80	30.01	77.50	-1,109.47	1,126.91	815.95	768.03	47.92	17.028			
6,100.00	5,956.51	6,027.78	5,770.39	29.31	30.33	78.58	-1,126.20	1,130.60	830.61	781.68	48.94	16.973			
6,200.00	6,053.76	6,138.60	5,878.72	29.83	30.72	79.91	-1,149.07	1,135.21	847.07	796.90	50.17	16.884			
6,300.00	6,151.00	6,298.24	6,036.21	30.35	31.20	81.66	-1,173.44	1,143.99	858.30	806.58	51.71	16.597			
6,400.00	6,248.24	6,420.54	6,157.76	30.87	31.47	83.04	-1,185.18	1,150.49	864.11	811.20	52.91	16.331			
6,500.00	6,345.49	6,523.34	6,260.02	31.39	31.72	84.17	-1,193.98	1,156.21	869.35	815.30	54.05	16.085			
6,600.00	6,442.73	6,626.67	6,362.59	31.91	31.98	85.12	-1,203.26	1,164.59	874.92	819.78	55.14	15.867			
6,700.00	6,539.97	6,755.77	6,491.00	32.43	32.25	86.32	-1,210.85	1,175.39	877.43	821.16	56.27	15.594			
6,800.00	6,637.21	6,842.05	6,576.89	32.94	32.43	87.14	-1,215.30	1,182.25	879.76	822.46	57.30	15.353			
6,900.00	6,734.46	6,933.86	6,668.31	33.46	32.62	88.08	-1,221.23	1,188.26	883.86	825.51	58.34	15.149			
6,958.42	6,791.27	6,995.26	6,729.49	33.77	32.73	88.74	-1,225.13	1,191.68	886.44	827.48	58.97	15.033			
7,000.00	6,831.76	7,040.80	6,774.91	33.98	32.81	103.31	-1,227.67	1,193.90	889.27	829.87	59.40	14.970			
7,050.00	6,880.45	7,094.20	6,828.19	34.22	32.90	120.99	-1,230.32	1,196.30	895.56	835.67	59.89	14.953			
7,100.00	6,928.94	7,146.42	6,880.31	34.44	32.98	136.32	-1,232.64	1,198.55	905.00	844.66	60.34	14.999			
7,150.00	6,976.98	7,196.75	6,930.56	34.64	33.05	148.30	-1,234.69	1,200.59	917.59	856.86	60.73	15.109			
7,200.00	7,024.34	7,246.07	6,979.80	34.82	33.13	157.34	-1,236.54	1,202.49	933.29	872.21	61.08	15.279			
7,250.00	7,070.78	7,294.24	7,027.91	34.99	33.19	164.21	-1,238.23	1,204.26	952.03	890.65	61.39	15.509			
7,300.00	7,116.09	7,340.13	7,073.75	35.14	33.26	169.57	-1,239.73	1,205.86	973.73	912.09	61.64	15.796			
7,350.00	7,160.03	7,384.34	7,117.92	35.28	33.32	173.91	-1,241.12	1,207.31	998.31	936.46	61.86	16.139			
7,400.00	7,202.41	7,428.13	7,161.66	35.40	33.37	177.55	-1,242.41	1,208.63	1,025.64	963.61	62.03	16.534			
7,450.00	7,243.00	7,470.21	7,203.72	35.51	33.42	-179.27	-1,243.53	1,209.82	1,055.55	993.38	62.17	16.979			
7,500.00	7,281.62	7,509.52	7,243.00	35.60	33.47	-176.38	-1,244.50	1,210.86	1,087.92	1,025.65	62.27	17.471			
7,550.00	7,318.07	7,546.45	7,279.91	35.68	33.52	-173.64	-1,245.36	1,211.80	1,122.64	1,060.30	62.33	18.010			
7,600.00	7,352.17	7,580.07	7,313.51	35.75	33.56	-170.92	-1,246.11	1,212.63	1,159.54	1,097.18	62.37	18.593			
7,650.00	7,383.77	7,610.24	7,343.66	35.81	33.59	-168.08	-1,246.78	1,213.32	1,198.52	1,136.15	62.37	19.218			
7,700.00	7,412.70	7,637.73	7,371.14	35.85	33.62	-164.99	-1,247.39	1,213.90	1,239.38	1,177.05	62.34	19.881			
7,750.00	7,438.83	7,664.20	7,397.60	35.89	33.65	-161.52	-1,247.98	1,214.42	1,281.94	1,219.65	62.29	20.580			
7,800.00	7,462.03	7,689.59	7,422.98	35.91	33.68	-157.49	-1,248.48	1,214.90	1,325.95	1,263.73	62.22	21.310			
7,850.00	7,482.18	7,711.71	7,445.09	35.93	33.70	-152.57	-1,248.87	1,215.32	1,371.22	1,309.09	62.13	22.069			
7,900.00	7,499.19	7,730.40	7,463.78	35.94	33.72	-146.32	-1,249.16	1,215.66	1,417.56	1,355.53	62.03	22.854			
7,950.00	7,512.97	7,744.90	7,478.27	35.94	33.73	-138.15	-1,249.36	1,215.92	1,464.77	1,402.87	61.90	23.663			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 usft	
Survey Program: 5034-MWD+HDGM												Offset Well Error:	0.00 usft	
Reference				Offset			Semi Major Axis			Distance		Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
0.00	0.00	0.00	0.00	0.00	0.00	83.07	152.30	1,253.72	1,263.84					
100.00	100.00	52.00	52.00	0.14	0.09	83.07	152.30	1,253.72	1,262.93	1,262.70	0.23	5,457.501		
200.00	200.00	152.00	152.00	0.50	0.27	83.07	152.30	1,253.72	1,262.93	1,262.16	0.77	1,642.058		
300.00	300.00	252.00	252.00	0.85	0.45	83.07	152.30	1,253.72	1,262.93	1,261.63	1.31	966.417		
400.00	400.00	352.00	352.00	1.21	0.63	83.07	152.30	1,253.72	1,262.93	1,261.09	1.84	684.694		
500.00	499.98	451.98	451.98	1.56	0.81	-57.01	152.30	1,253.72	1,261.98	1,259.61	2.37	533.000		
600.00	599.84	551.84	551.84	1.90	0.99	-57.26	152.30	1,253.72	1,259.14	1,256.25	2.89	436.190		
650.00	649.68	601.68	601.68	2.08	1.08	-57.44	152.30	1,253.72	1,257.02	1,253.87	3.15	398.928		
700.00	699.47	651.47	651.47	2.25	1.17	-49.49	152.30	1,253.72	1,254.24	1,250.82	3.42	366.928		
800.00	798.84	750.84	750.84	2.62	1.35	-38.56	152.30	1,253.72	1,246.11	1,242.15	3.96	314.685		
900.00	897.85	849.85	849.85	3.00	1.52	-31.83	152.30	1,253.72	1,234.56	1,230.05	4.51	273.720		
1,000.00	996.37	948.37	948.37	3.41	1.70	-27.50	152.30	1,253.72	1,219.63	1,214.56	5.07	240.730		
1,100.00	1,094.29	1,046.29	1,046.29	3.83	1.88	-24.61	152.30	1,253.72	1,201.32	1,195.70	5.63	213.468		
1,144.53	1,137.66	1,089.66	1,089.66	4.03	1.95	-23.64	152.30	1,253.72	1,192.10	1,186.22	5.88	202.671		
1,200.00	1,191.61	1,143.61	1,143.61	4.28	2.05	-23.89	152.30	1,253.72	1,180.21	1,174.01	6.19	190.547		
1,300.00	1,288.85	1,240.85	1,240.85	4.75	2.22	-24.35	152.30	1,253.72	1,158.83	1,152.07	6.76	171.495		
1,400.00	1,386.09	1,338.09	1,338.09	5.22	2.40	-24.84	152.30	1,253.72	1,137.52	1,130.19	7.33	155.263		
1,500.00	1,483.34	1,435.34	1,435.34	5.70	2.57	-25.34	152.30	1,253.72	1,116.30	1,108.40	7.90	141.291		
1,600.00	1,580.58	1,532.58	1,532.58	6.19	2.75	-25.86	152.30	1,253.72	1,095.16	1,086.68	8.48	129.152		
1,700.00	1,677.82	1,629.82	1,629.82	6.69	2.92	-26.40	152.30	1,253.72	1,074.11	1,065.05	9.06	118.518		
1,800.00	1,775.07	1,727.07	1,727.07	7.19	3.10	-26.96	152.30	1,253.72	1,053.16	1,043.51	9.65	109.133		
1,900.00	1,872.31	1,824.31	1,824.31	7.69	3.27	-27.54	152.30	1,253.72	1,032.31	1,022.06	10.24	100.795		
2,000.00	1,969.55	1,921.55	1,921.55	8.19	3.44	-28.15	152.30	1,253.72	1,011.56	1,000.72	10.84	93.342		
2,100.00	2,066.79	2,018.79	2,018.79	8.69	3.62	-28.78	152.30	1,253.72	990.93	979.50	11.44	86.645		
2,200.00	2,164.04	2,116.04	2,116.04	9.20	3.79	-29.44	152.30	1,253.72	970.43	958.39	12.04	80.597		
2,300.00	2,261.28	2,213.28	2,213.28	9.71	3.97	-30.12	152.30	1,253.72	950.05	937.40	12.65	75.112		
2,400.00	2,358.52	2,310.52	2,310.52	10.22	4.14	-30.84	152.30	1,253.72	929.81	916.55	13.26	70.116		
2,500.00	2,455.77	2,407.77	2,407.77	10.73	4.32	-31.59	152.30	1,253.72	909.72	895.84	13.88	65.549		
2,600.00	2,553.01	2,505.01	2,505.01	11.24	4.49	-32.37	152.30	1,253.72	889.78	875.28	14.50	61.361		
2,700.00	2,650.25	2,602.25	2,602.25	11.75	4.66	-33.18	152.30	1,253.72	870.02	854.89	15.13	57.509		
2,800.00	2,747.50	2,699.50	2,699.50	12.26	4.84	-34.03	152.30	1,253.72	850.43	834.67	15.76	53.956		
2,900.00	2,844.74	2,796.74	2,796.74	12.78	5.01	-34.93	152.30	1,253.72	831.04	814.64	16.40	50.671		
3,000.00	2,941.98	2,893.98	2,893.98	13.29	5.19	-35.86	152.30	1,253.72	811.85	794.81	17.05	47.627		
3,100.00	3,039.22	2,991.22	2,991.22	13.80	5.36	-36.84	152.30	1,253.72	792.89	775.19	17.70	44.801		
3,200.00	3,136.47	3,088.47	3,088.47	14.32	5.54	-37.86	152.30	1,253.72	774.16	755.80	18.36	42.172		
3,300.00	3,233.71	3,185.71	3,185.71	14.83	5.71	-38.94	152.30	1,253.72	755.69	736.67	19.02	39.723		
3,400.00	3,330.95	3,282.95	3,282.95	15.35	5.88	-40.06	152.30	1,253.72	737.49	717.79	19.70	37.439		
3,500.00	3,428.20	3,380.20	3,380.20	15.86	6.06	-41.24	152.30	1,253.72	719.59	699.21	20.38	35.306		
3,600.00	3,525.44	3,477.44	3,477.44	16.38	6.23	-42.48	152.30	1,253.72	702.01	680.94	21.07	33.312		
3,700.00	3,622.68	3,574.68	3,574.68	16.89	6.41	-43.78	152.30	1,253.72	684.77	662.99	21.77	31.448		
3,800.00	3,719.93	3,671.93	3,671.93	17.41	6.58	-45.15	152.30	1,253.72	667.90	645.41	22.49	29.704		
3,900.00	3,817.17	3,769.17	3,769.17	17.93	6.76	-46.58	152.30	1,253.72	651.43	628.22	23.21	28.071		
4,000.00	3,914.41	3,866.41	3,866.41	18.44	6.93	-48.08	152.30	1,253.72	635.38	611.45	23.94	26.544		
4,100.00	4,011.65	3,963.65	3,963.65	18.96	7.10	-49.66	152.30	1,253.72	619.80	595.12	24.68	25.115		
4,200.00	4,108.90	4,060.90	4,060.90	19.48	7.28	-51.32	152.30	1,253.72	604.72	579.29	25.43	23.780		
4,300.00	4,206.14	4,158.14	4,158.14	19.99	7.45	-53.06	152.30	1,253.72	590.17	563.98	26.19	22.533		
4,400.00	4,303.38	4,255.38	4,255.38	20.51	7.63	-54.88	152.30	1,253.72	576.20	549.24	26.96	21.370		
4,500.00	4,400.63	4,352.63	4,352.63	21.03	7.80	-56.78	152.30	1,253.72	562.85	535.11	27.74	20.287		
4,600.00	4,497.87	4,449.87	4,449.87	21.54	7.98	-58.77	152.30	1,253.72	550.16	521.63	28.53	19.282		
4,700.00	4,595.11	4,547.11	4,547.11	22.06	8.15	-60.85	152.30	1,253.72	538.19	508.86	29.33	18.350		
4,800.00	4,692.36	4,644.36	4,644.36	22.58	8.32	-63.02	152.30	1,253.72	526.98	496.85	30.13	17.490		
4,900.00	4,789.60	4,741.60	4,741.60	23.10	8.50	-65.27	152.30	1,253.72	516.57	485.64	30.93	16.699		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
S32-T2N-R68W - Canino 1-X - HUGHES CW - NO SURVEYS													Offset Well Error:	0.00 usft
Survey Program: 5034-MWD+HDGM														
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning	
5,000.00	4,886.84	4,838.84	4,838.84	23.62	8.67	-67.61	152.30	1,253.72	507.03	475.29	31.74	15.974		
5,100.00	4,984.08	4,936.08	4,936.08	24.13	8.85	-70.03	152.30	1,253.72	498.39	465.85	32.54	15.315		
5,200.00	5,081.33	5,033.33	5,033.33	24.65	9.02	-72.52	152.30	1,253.72	490.72	457.38	33.34	14.718		
5,235.90	5,116.24	5,034.00	5,034.00	24.84	9.02	-72.54	152.30	1,253.72	489.40	455.85	33.55	14.586	CC, ES, SF	
5,300.00	5,178.57	5,034.00	5,034.00	25.17	9.02	-72.54	152.30	1,253.72	493.58	460.08	33.50	14.734		
5,400.00	5,275.81	5,034.00	5,034.00	25.69	9.02	-72.54	152.30	1,253.72	516.18	483.76	32.42	15.923		
5,500.00	5,373.06	5,034.00	5,034.00	26.21	9.02	-72.54	152.30	1,253.72	556.11	525.62	30.50	18.236		
5,600.00	5,470.30	5,034.00	5,034.00	26.72	9.02	-72.54	152.30	1,253.72	609.98	581.77	28.22	21.618		
5,700.00	5,567.54	5,034.00	5,034.00	27.24	9.02	-72.54	152.30	1,253.72	674.46	648.53	25.93	26.007		
5,800.00	5,664.79	5,034.00	5,034.00	27.76	9.02	-72.54	152.30	1,253.72	746.81	722.97	23.83	31.334		
5,900.00	5,762.03	5,034.00	5,034.00	28.28	9.02	-72.54	152.30	1,253.72	824.95	802.96	21.98	37.526		
6,000.00	5,859.27	5,034.00	5,034.00	28.80	9.02	-72.54	152.30	1,253.72	907.39	887.00	20.39	44.509		
6,100.00	5,956.51	5,034.00	5,034.00	29.31	9.02	-72.54	152.30	1,253.72	993.06	974.04	19.02	52.204		
6,200.00	6,053.76	5,034.00	5,034.00	29.83	9.02	-72.54	152.30	1,253.72	1,081.20	1,063.34	17.86	60.536		
6,300.00	6,151.00	5,034.00	5,034.00	30.35	9.02	-72.54	152.30	1,253.72	1,171.24	1,154.37	16.87	69.425		
6,400.00	6,248.24	5,034.00	5,034.00	30.87	9.02	-72.54	152.30	1,253.72	1,262.79	1,246.76	16.03	78.798		
6,500.00	6,345.49	5,034.00	5,034.00	31.39	9.02	-72.54	152.30	1,253.72	1,355.53	1,340.22	15.30	88.580		
6,600.00	6,442.73	5,034.00	5,034.00	31.91	9.02	-72.54	152.30	1,253.72	1,449.23	1,434.55	14.68	98.698		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
0.00	0.00	0.00	0.00	0.00	0.00	-89.69	1.10	-199.77	199.77					
100.00	100.00	100.00	100.00	0.14	0.14	-89.69	1.10	-199.77	199.77	199.49	0.28	723.745		
200.00	200.00	200.00	200.00	0.50	0.50	-89.69	1.10	-199.77	199.77	198.78	0.99	201.186 CC, ES		
300.00	300.00	296.40	296.38	0.85	0.84	-89.29	2.48	-200.62	200.67	198.96	1.71	117.504		
400.00	400.00	392.58	392.44	1.21	1.19	-88.14	6.60	-203.17	203.41	200.98	2.43	83.612		
500.00	499.98	488.15	487.66	1.56	1.54	133.95	13.42	-207.37	209.38	206.22	3.15	66.392		
600.00	599.84	582.91	581.77	1.90	1.90	137.08	22.83	-213.17	220.22	216.34	3.88	56.788		
650.00	649.68	631.83	630.28	2.08	2.08	138.90	28.22	-216.50	227.31	223.08	4.24	53.663		
700.00	699.47	680.61	678.65	2.25	2.27	148.90	33.60	-219.82	235.40	230.80	4.59	51.260		
800.00	798.84	777.81	775.03	2.62	2.65	163.47	44.32	-226.43	254.68	249.38	5.30	48.031		
900.00	897.85	874.44	870.85	3.00	3.03	173.20	54.97	-233.01	277.82	271.81	6.01	46.193		
1,000.00	996.37	970.38	965.98	3.41	3.41	179.99	65.55	-239.54	304.51	297.79	6.72	45.299		
1,100.00	1,094.29	1,065.52	1,060.31	3.83	3.79	-175.11	76.04	-246.01	334.52	327.09	7.43	45.040 SF		
1,144.53	1,137.66	1,107.59	1,102.03	4.03	3.96	-173.37	80.68	-248.87	348.90	341.16	7.74	45.054		
1,200.00	1,191.61	1,159.88	1,153.88	4.28	4.17	-172.91	86.45	-252.43	367.21	359.08	8.13	45.165		
1,300.00	1,288.85	1,254.15	1,247.35	4.75	4.54	-172.19	96.84	-258.84	400.27	391.44	8.83	45.351		
1,400.00	1,386.09	1,348.41	1,340.83	5.22	4.92	-171.58	107.24	-265.25	433.37	423.85	9.53	45.490		
1,500.00	1,483.34	1,442.68	1,434.30	5.70	5.29	-171.05	117.63	-271.67	466.52	456.28	10.23	45.594		
1,600.00	1,580.58	1,536.95	1,527.77	6.19	5.67	-170.60	128.02	-278.08	499.69	488.75	10.94	45.672		
1,700.00	1,677.82	1,631.22	1,621.25	6.69	6.05	-170.20	138.42	-284.49	532.89	521.23	11.65	45.731		
1,800.00	1,775.07	1,725.49	1,714.72	7.19	6.42	-169.85	148.81	-290.91	566.10	553.74	12.37	45.776		
1,900.00	1,872.31	1,819.75	1,808.19	7.69	6.80	-169.53	159.21	-297.32	599.34	586.25	13.08	45.809		
2,000.00	1,969.55	1,914.02	1,901.67	8.19	7.18	-169.25	169.60	-303.74	632.59	618.78	13.80	45.834		
2,100.00	2,066.79	2,008.29	1,995.14	8.69	7.56	-169.00	180.00	-310.15	665.85	651.33	14.52	45.852		
2,200.00	2,164.04	2,102.56	2,088.61	9.20	7.94	-168.77	190.39	-316.56	699.12	683.88	15.24	45.864		
2,300.00	2,261.28	2,196.83	2,182.09	9.71	8.31	-168.57	200.79	-322.98	732.40	716.43	15.97	45.872		
2,400.00	2,358.52	2,291.09	2,275.56	10.22	8.69	-168.38	211.18	-329.39	765.69	749.00	16.69	45.878		
2,500.00	2,455.77	2,385.36	2,369.03	10.73	9.07	-168.20	221.58	-335.80	798.98	781.57	17.41	45.880		
2,600.00	2,553.01	2,479.63	2,462.51	11.24	9.45	-168.04	231.97	-342.22	832.28	814.14	18.14	45.881		
2,700.00	2,650.25	2,573.90	2,555.98	11.75	9.83	-167.90	242.36	-348.63	865.59	846.72	18.87	45.880		
2,800.00	2,747.50	2,668.17	2,649.45	12.26	10.20	-167.76	252.76	-355.04	898.90	879.31	19.59	45.877		
2,900.00	2,844.74	2,762.43	2,742.93	12.78	10.58	-167.63	263.15	-361.46	932.21	911.89	20.32	45.874		
3,000.00	2,941.98	2,856.70	2,836.40	13.29	10.96	-167.51	273.55	-367.87	965.53	944.48	21.05	45.870		
3,100.00	3,039.22	2,950.97	2,929.87	13.80	11.34	-167.40	283.94	-374.28	998.86	977.08	21.78	45.865		
3,200.00	3,136.47	3,045.24	3,023.35	14.32	11.72	-167.30	294.34	-380.70	1,032.18	1,009.67	22.51	45.859		
3,300.00	3,233.71	3,139.51	3,116.82	14.83	12.10	-167.20	304.73	-387.11	1,065.51	1,042.27	23.24	45.854		
3,400.00	3,330.95	3,233.77	3,210.29	15.35	12.47	-167.11	315.13	-393.52	1,098.84	1,074.87	23.97	45.848		
3,500.00	3,428.20	3,328.04	3,303.77	15.86	12.85	-167.03	325.52	-399.94	1,132.17	1,107.48	24.70	45.842		
3,600.00	3,525.44	3,422.31	3,397.24	16.38	13.23	-166.95	335.91	-406.35	1,165.51	1,140.08	25.43	45.835		
3,700.00	3,622.68	3,516.58	3,490.71	16.89	13.61	-166.87	346.31	-412.76	1,198.84	1,172.69	26.16	45.829		
3,800.00	3,719.93	3,610.85	3,584.19	17.41	13.99	-166.80	356.70	-419.18	1,232.18	1,205.29	26.89	45.822		
3,900.00	3,817.17	3,705.11	3,677.66	17.93	14.37	-166.73	367.10	-425.59	1,265.52	1,237.90	27.62	45.816		
4,000.00	3,914.41	3,799.38	3,771.13	18.44	14.74	-166.67	377.49	-432.00	1,298.87	1,270.51	28.35	45.809		
4,100.00	4,011.65	3,893.65	3,864.61	18.96	15.12	-166.60	387.89	-438.42	1,332.21	1,303.12	29.09	45.803		
4,200.00	4,108.90	3,987.92	3,958.08	19.48	15.50	-166.55	398.28	-444.83	1,365.55	1,335.74	29.82	45.796		
4,300.00	4,206.14	4,082.19	4,051.55	19.99	15.88	-166.49	408.68	-451.24	1,398.90	1,368.35	30.55	45.790		
4,400.00	4,303.38	4,176.45	4,145.03	20.51	16.26	-166.44	419.07	-457.66	1,432.25	1,400.96	31.28	45.783		
4,500.00	4,400.63	4,270.72	4,238.50	21.03	16.64	-166.39	429.47	-464.07	1,465.60	1,433.58	32.02	45.777		
4,600.00	4,497.87	4,364.99	4,331.97	21.54	17.02	-166.34	439.86	-470.48	1,498.94	1,466.20	32.75	45.771		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft					
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft					
Reference													Semi Major Axis		Distance		Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)									
0.00	0.00	0.00	0.00	0.00	0.00	-89.67	1.08	-189.98	189.98										
100.00	100.00	100.00	100.00	0.14	0.14	-89.67	1.08	-189.98	189.98	189.70	0.28	688.268							
200.00	200.00	200.00	200.00	0.50	0.50	-89.67	1.08	-189.98	189.98	188.99	0.99	191.324							
300.00	300.00	300.00	300.00	0.85	0.85	-89.67	1.08	-189.98	189.98	188.27	1.71	111.104 CC							
400.00	400.00	398.62	398.60	1.21	1.21	-89.17	2.74	-190.31	190.34	187.92	2.42	78.569 ES							
500.00	499.98	496.89	496.73	1.56	1.57	132.65	7.71	-191.32	192.68	189.56	3.12	61.692							
600.00	599.84	594.16	593.65	1.90	1.92	135.98	15.87	-192.98	198.70	194.87	3.83	51.922							
650.00	649.68	642.90	642.10	2.08	2.10	138.08	21.03	-194.03	203.31	199.12	4.19	48.559							
700.00	699.47	691.96	690.86	2.25	2.28	148.39	26.30	-195.10	209.00	204.45	4.55	45.958							
800.00	798.84	789.84	788.15	2.62	2.65	163.54	36.81	-197.23	223.67	218.40	5.27	42.438							
900.00	897.85	887.31	885.03	3.00	3.02	173.80	47.28	-199.36	242.41	236.41	5.99	40.439							
1,000.00	996.37	984.24	981.38	3.41	3.39	-178.98	57.69	-201.47	264.86	258.14	6.72	39.438							
1,100.00	1,094.29	1,080.52	1,077.09	3.83	3.75	-173.77	68.03	-203.57	290.72	283.29	7.43	39.104							
1,144.53	1,137.66	1,123.16	1,119.46	4.03	3.92	-171.93	72.61	-204.50	303.28	295.52	7.76	39.095 SF							
1,200.00	1,191.61	1,176.17	1,172.15	4.28	4.12	-171.34	78.30	-205.65	319.33	311.18	8.15	39.170							
1,300.00	1,288.85	1,271.73	1,267.14	4.75	4.49	-170.42	88.56	-207.74	348.33	339.46	8.86	39.298							
1,400.00	1,386.09	1,367.30	1,362.13	5.22	4.85	-169.63	98.82	-209.82	377.40	367.82	9.58	39.395							
1,500.00	1,483.34	1,462.86	1,457.12	5.70	5.22	-168.96	109.09	-211.91	406.52	396.22	10.30	39.467							
1,600.00	1,580.58	1,558.43	1,552.11	6.19	5.59	-168.38	119.35	-213.99	435.69	424.66	11.02	39.522							
1,700.00	1,677.82	1,653.99	1,647.10	6.69	5.96	-167.88	129.61	-216.07	464.89	453.14	11.75	39.563							
1,800.00	1,775.07	1,749.56	1,742.09	7.19	6.33	-167.43	139.88	-218.16	494.12	481.64	12.48	39.594							
1,900.00	1,872.31	1,845.12	1,837.08	7.69	6.70	-167.03	150.14	-220.24	523.38	510.17	13.21	39.617							
2,000.00	1,969.55	1,940.69	1,932.07	8.19	7.07	-166.68	160.40	-222.33	552.66	538.71	13.94	39.633							
2,100.00	2,066.79	2,036.25	2,027.06	8.69	7.44	-166.36	170.66	-224.41	581.95	567.27	14.68	39.645							
2,200.00	2,164.04	2,131.82	2,122.05	9.20	7.81	-166.07	180.93	-226.49	611.26	595.85	15.42	39.653							
2,300.00	2,261.28	2,227.38	2,217.04	9.71	8.18	-165.81	191.19	-228.58	640.59	624.43	16.15	39.658							
2,400.00	2,358.52	2,322.94	2,312.02	10.22	8.55	-165.57	201.45	-230.66	669.92	653.03	16.89	39.661							
2,500.00	2,455.77	2,418.51	2,407.01	10.73	8.92	-165.35	211.71	-232.75	699.26	681.63	17.63	39.662							
2,600.00	2,553.01	2,514.07	2,502.00	11.24	9.29	-165.15	221.98	-234.83	728.62	710.25	18.37	39.661							
2,700.00	2,650.25	2,609.64	2,596.99	11.75	9.66	-164.96	232.24	-236.91	757.98	738.87	19.11	39.659							
2,800.00	2,747.50	2,705.20	2,691.98	12.26	10.03	-164.79	242.50	-239.00	787.34	767.49	19.85	39.657							
2,900.00	2,844.74	2,800.77	2,786.97	12.78	10.40	-164.63	252.77	-241.08	816.72	796.12	20.60	39.653							
3,000.00	2,941.98	2,896.33	2,881.96	13.29	10.77	-164.48	263.03	-243.16	846.10	824.76	21.34	39.649							
3,100.00	3,039.22	2,991.90	2,976.95	13.80	11.14	-164.34	273.29	-245.25	875.48	853.40	22.08	39.645							
3,200.00	3,136.47	3,087.46	3,071.94	14.32	11.51	-164.21	283.55	-247.33	904.87	882.04	22.83	39.640							
3,300.00	3,233.71	3,183.03	3,166.93	14.83	11.88	-164.09	293.82	-249.42	934.26	910.69	23.57	39.635							
3,400.00	3,330.95	3,278.59	3,261.92	15.35	12.25	-163.97	304.08	-251.50	963.66	939.34	24.32	39.630							
3,500.00	3,428.20	3,374.16	3,356.91	15.86	12.62	-163.87	314.34	-253.58	993.05	967.99	25.06	39.625							
3,600.00	3,525.44	3,469.72	3,451.90	16.38	12.99	-163.76	324.60	-255.67	1,022.46	996.65	25.81	39.619							
3,700.00	3,622.68	3,565.29	3,546.89	16.89	13.36	-163.67	334.87	-257.75	1,051.86	1,025.31	26.55	39.614							
3,800.00	3,719.93	3,660.85	3,641.87	17.41	13.73	-163.58	345.13	-259.84	1,081.27	1,053.97	27.30	39.608							
3,900.00	3,817.17	3,756.42	3,736.86	17.93	14.10	-163.49	355.39	-261.92	1,110.68	1,082.63	28.05	39.603							
4,000.00	3,914.41	3,851.98	3,831.85	18.44	14.47	-163.41	365.66	-264.00	1,140.09	1,111.30	28.79	39.597							
4,100.00	4,011.65	3,947.55	3,926.84	18.96	14.84	-163.33	375.92	-266.09	1,169.50	1,139.96	29.54	39.592							
4,200.00	4,108.90	4,043.11	4,021.83	19.48	15.21	-163.26	386.18	-268.17	1,198.92	1,168.63	30.29	39.587							
4,300.00	4,206.14	4,138.68	4,116.82	19.99	15.58	-163.19	396.44	-270.26	1,228.34	1,197.30	31.03	39.581							
4,400.00	4,303.38	4,234.24	4,211.81	20.51	15.95	-163.12	406.71	-272.34	1,257.75	1,225.97	31.78	39.576							
4,500.00	4,400.63	4,329.80	4,306.80	21.03	16.32	-163.06	416.97	-274.42	1,287.18	1,254.65	32.53	39.571							
4,600.00	4,497.87	4,425.37	4,401.79	21.54	16.69	-163.00	427.23	-276.51	1,316.60	1,283.32	33.28	39.566							
4,700.00	4,595.11	4,520.93	4,496.78	22.06	17.06	-162.94	437.49	-278.59	1,346.02	1,312.00	34.02	39.561							
4,800.00	4,692.36	4,616.50	4,591.77	22.58	17.43	-162.89	447.76	-280.68	1,375.44	1,340.67	34.77	39.556							
4,900.00	4,789.60	4,712.06	4,686.76	23.10	17.80	-162.83	458.02	-282.76	1,404.87	1,369.35	35.52	39.551							

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
S32-T2N-R68W - HWY52 4B-32H-O268 - OH - PLAN #2													Offset Well Error:	0.00 usft
Survey Program: 0-MWD+HDGM														
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
5,000.00	4,886.84	4,807.63	4,781.75	23.62	18.17	-162.78	468.28	-284.84	1,434.30	1,398.03	36.27	39.546		
5,100.00	4,984.08	4,903.19	4,876.73	24.13	18.54	-162.73	478.54	-286.93	1,463.72	1,426.71	37.02	39.541		
5,200.00	5,081.33	4,998.76	4,971.72	24.65	18.91	-162.69	488.81	-289.01	1,493.15	1,455.38	37.77	39.536		

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance			Total	Separation	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis	Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-89.66	1.06	-179.90	179.91					
100.00	100.00	100.00	100.00	0.14	0.14	-89.66	1.06	-179.90	179.91	179.63	0.28	651.778		
200.00	200.00	200.00	200.00	0.50	0.50	-89.66	1.06	-179.90	179.91	178.91	0.99	181.180		
300.00	300.00	300.00	300.00	0.85	0.85	-89.66	1.06	-179.90	179.91	178.20	1.71	105.214		
400.00	400.00	400.00	400.00	1.21	1.21	-89.66	1.06	-179.90	179.91	177.48	2.43	74.131	CC, ES	
500.00	499.98	499.38	499.36	1.56	1.57	131.28	2.78	-180.03	181.20	178.08	3.13	57.952		
600.00	599.84	598.10	597.95	1.90	1.93	134.00	7.89	-180.43	185.39	181.57	3.82	48.499		
650.00	649.68	647.02	646.72	2.08	2.11	135.93	11.68	-180.72	188.81	184.63	4.18	45.198		
700.00	699.47	695.60	695.07	2.25	2.28	146.26	16.26	-181.07	193.39	188.85	4.53	42.654		
800.00	798.84	793.18	792.06	2.62	2.64	161.96	27.01	-181.89	206.32	201.07	5.25	39.263		
900.00	897.85	890.77	889.04	3.00	3.00	172.76	37.87	-182.72	223.60	217.62	5.98	37.390		
1,000.00	996.37	987.87	985.53	3.41	3.37	-179.59	48.67	-183.55	244.78	238.08	6.70	36.515		
1,100.00	1,094.29	1,084.37	1,081.42	3.83	3.73	-174.04	59.41	-184.37	269.51	262.08	7.43	36.295	SF	
1,144.53	1,137.66	1,127.11	1,123.90	4.03	3.90	-172.07	64.17	-184.73	281.59	273.84	7.75	36.334		
1,200.00	1,191.61	1,180.26	1,176.72	4.28	4.10	-171.34	70.08	-185.19	297.05	288.91	8.15	36.462		
1,300.00	1,288.85	1,276.08	1,271.95	4.75	4.47	-170.20	80.75	-186.00	325.03	316.17	8.86	36.675		
1,400.00	1,386.09	1,371.91	1,367.17	5.22	4.83	-169.24	91.41	-186.82	353.11	343.53	9.58	36.847		
1,500.00	1,483.34	1,467.73	1,462.39	5.70	5.20	-168.42	102.07	-187.63	381.26	370.96	10.31	36.987		
1,600.00	1,580.58	1,563.55	1,557.62	6.19	5.57	-167.71	112.74	-188.45	409.48	398.44	11.04	37.102		
1,700.00	1,677.82	1,659.37	1,652.84	6.69	5.94	-167.10	123.40	-189.27	437.75	425.98	11.77	37.196		
1,800.00	1,775.07	1,755.20	1,748.06	7.19	6.31	-166.56	134.06	-190.08	466.06	453.55	12.50	37.275		
1,900.00	1,872.31	1,851.02	1,843.29	7.69	6.68	-166.08	144.73	-190.90	494.40	481.16	13.24	37.341		
2,000.00	1,969.55	1,946.84	1,938.51	8.19	7.05	-165.65	155.39	-191.71	522.77	508.79	13.98	37.397		
2,100.00	2,066.79	2,042.66	2,033.73	8.69	7.42	-165.27	166.05	-192.53	551.17	536.45	14.72	37.444		
2,200.00	2,164.04	2,138.48	2,128.96	9.20	7.79	-164.92	176.71	-193.35	579.58	564.12	15.46	37.484		
2,300.00	2,261.28	2,234.31	2,224.18	9.71	8.16	-164.61	187.38	-194.16	608.01	591.81	16.21	37.519		
2,400.00	2,358.52	2,330.13	2,319.40	10.22	8.53	-164.32	198.04	-194.98	636.46	619.51	16.95	37.548		
2,500.00	2,455.77	2,425.95	2,414.63	10.73	8.90	-164.06	208.70	-195.80	664.92	647.23	17.70	37.574		
2,600.00	2,553.01	2,521.77	2,509.85	11.24	9.27	-163.82	219.37	-196.61	693.40	674.95	18.44	37.596		
2,700.00	2,650.25	2,617.59	2,605.07	11.75	9.65	-163.60	230.03	-197.43	721.88	702.69	19.19	37.616		
2,800.00	2,747.50	2,713.42	2,700.30	12.26	10.02	-163.40	240.69	-198.24	750.37	730.43	19.94	37.633		
2,900.00	2,844.74	2,809.24	2,795.52	12.78	10.39	-163.21	251.36	-199.06	778.87	758.19	20.69	37.648		
3,000.00	2,941.98	2,905.06	2,890.74	13.29	10.76	-163.04	262.02	-199.88	807.38	785.94	21.44	37.661		
3,100.00	3,039.22	3,000.88	2,985.97	13.80	11.13	-162.87	272.68	-200.69	835.90	813.71	22.19	37.672		
3,200.00	3,136.47	3,096.70	3,081.19	14.32	11.50	-162.72	283.35	-201.51	864.42	841.48	22.94	37.682		
3,300.00	3,233.71	3,192.53	3,176.41	14.83	11.87	-162.58	294.01	-202.33	892.94	869.25	23.69	37.691		
3,400.00	3,330.95	3,288.35	3,271.64	15.35	12.25	-162.44	304.67	-203.14	921.47	897.03	24.44	37.699		
3,500.00	3,428.20	3,384.17	3,366.86	15.86	12.62	-162.31	315.33	-203.96	950.01	924.81	25.19	37.707		
3,600.00	3,525.44	3,479.99	3,462.08	16.38	12.99	-162.20	326.00	-204.77	978.55	952.60	25.95	37.713		
3,700.00	3,622.68	3,575.81	3,557.31	16.89	13.36	-162.08	336.66	-205.59	1,007.09	980.39	26.70	37.719		
3,800.00	3,719.93	3,671.64	3,652.53	17.41	13.73	-161.98	347.32	-206.41	1,035.63	1,008.18	27.45	37.724		
3,900.00	3,817.17	3,767.46	3,747.76	17.93	14.11	-161.88	357.99	-207.22	1,064.18	1,035.97	28.21	37.728		
4,000.00	3,914.41	3,863.28	3,842.98	18.44	14.48	-161.78	368.65	-208.04	1,092.73	1,063.77	28.96	37.732		
4,100.00	4,011.65	3,959.10	3,938.20	18.96	14.85	-161.69	379.31	-208.85	1,121.29	1,091.57	29.71	37.736		
4,200.00	4,108.90	4,054.93	4,033.43	19.48	15.22	-161.61	389.98	-209.67	1,149.84	1,119.38	30.47	37.739		
4,300.00	4,206.14	4,150.75	4,128.65	19.99	15.59	-161.53	400.64	-210.49	1,178.40	1,147.18	31.22	37.741		
4,400.00	4,303.38	4,246.57	4,223.87	20.51	15.97	-161.45	411.30	-211.30	1,206.96	1,174.99	31.98	37.744		
4,500.00	4,400.63	4,342.39	4,319.10	21.03	16.34	-161.37	421.97	-212.12	1,235.53	1,202.79	32.73	37.746		
4,600.00	4,497.87	4,438.21	4,414.32	21.54	16.71	-161.30	432.63	-212.94	1,264.09	1,230.60	33.49	37.748		
4,700.00	4,595.11	4,534.04	4,509.54	22.06	17.08	-161.24	443.29	-213.75	1,292.66	1,258.41	34.24	37.750		
4,800.00	4,692.36	4,629.86	4,604.77	22.58	17.45	-161.17	453.95	-214.57	1,321.23	1,286.23	35.00	37.751		
4,900.00	4,789.60	4,725.68	4,699.99	23.10	17.83	-161.11	464.62	-215.38	1,349.79	1,314.04	35.75	37.753		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W - HWY52 4C-32H-O268 - OH - PLAN #2													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
5,000.00	4,886.84	4,821.50	4,795.21	23.62	18.20	-161.05	475.28	-216.20	1,378.37	1,341.86	36.51	37.754		
5,100.00	4,984.08	4,917.32	4,890.44	24.13	18.57	-160.99	485.94	-217.02	1,406.94	1,369.67	37.27	37.755		
5,200.00	5,081.33	5,013.15	4,985.66	24.65	18.94	-160.94	496.61	-217.83	1,435.51	1,397.49	38.02	37.755		
5,300.00	5,178.57	5,108.97	5,080.88	25.17	19.31	-160.88	507.27	-218.65	1,464.09	1,425.31	38.78	37.756		
5,400.00	5,275.81	5,204.79	5,176.11	25.69	19.69	-160.83	517.93	-219.46	1,492.66	1,453.13	39.53	37.757		

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft					
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft					
Reference													Semi Major Axis		Distance		Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)									
0.00	0.00	0.00	0.00	0.00	0.00	-89.65	1.05	-169.83	169.83										
100.00	100.00	100.00	100.00	0.14	0.14	-89.65	1.05	-169.83	169.83	169.56	0.28	615.287							
200.00	200.00	200.00	200.00	0.50	0.50	-89.65	1.05	-169.83	169.83	168.84	0.99	171.037							
300.00	300.00	300.00	300.00	0.85	0.85	-89.65	1.05	-169.83	169.83	168.12	1.71	99.323							
400.00	400.00	400.00	400.00	1.21	1.21	-89.65	1.05	-169.83	169.83	167.41	2.43	69.981 CC, ES							
500.00	499.98	499.98	499.98	1.56	1.57	130.78	1.05	-169.83	170.97	167.84	3.13	54.635							
600.00	599.84	599.58	599.56	1.90	1.93	132.59	2.78	-169.83	174.51	170.68	3.83	45.609							
650.00	649.68	649.06	648.99	2.08	2.11	134.17	4.92	-169.83	177.34	173.16	4.18	42.438							
700.00	699.47	700.81	700.66	2.25	2.30	144.27	7.92	-169.49	180.80	176.26	4.54	39.817							
800.00	798.84	804.06	803.56	2.62	2.67	159.75	15.70	-166.66	189.10	183.82	5.27	35.854							
900.00	897.85	906.76	905.60	3.00	3.04	171.24	25.79	-161.04	199.47	193.46	6.02	33.158							
1,000.00	996.37	1,005.01	1,003.02	3.41	3.41	179.88	36.64	-154.24	213.03	206.29	6.74	31.593							
1,100.00	1,094.29	1,102.80	1,099.97	3.83	3.78	-173.65	47.44	-147.46	230.53	223.05	7.48	30.834							
1,144.53	1,137.66	1,146.20	1,143.00	4.03	3.94	-171.32	52.24	-144.46	239.49	231.68	7.81	30.673							
1,200.00	1,191.61	1,200.21	1,196.55	4.28	4.15	-170.14	58.20	-140.72	251.13	242.91	8.22	30.565							
1,300.00	1,288.85	1,297.58	1,293.09	4.75	4.53	-168.27	68.96	-133.97	272.34	263.38	8.96	30.407							
1,400.00	1,386.09	1,394.94	1,389.62	5.22	4.91	-166.67	79.71	-127.23	293.79	284.08	9.70	30.274							
1,500.00	1,483.34	1,492.31	1,486.16	5.70	5.29	-165.28	90.46	-120.48	315.43	304.97	10.46	30.159							
1,600.00	1,580.58	1,589.67	1,582.69	6.19	5.67	-164.08	101.22	-113.74	337.22	326.00	11.22	30.057							
1,700.00	1,677.82	1,687.04	1,679.23	6.69	6.05	-163.02	111.97	-107.00	359.13	347.15	11.98	29.967							
1,800.00	1,775.07	1,784.40	1,775.76	7.19	6.43	-162.08	122.72	-100.25	381.16	368.40	12.75	29.885							
1,900.00	1,872.31	1,881.77	1,872.30	7.69	6.82	-161.25	133.47	-93.51	403.26	389.74	13.53	29.810							
2,000.00	1,969.55	1,979.14	1,968.83	8.19	7.20	-160.50	144.23	-86.77	425.44	411.14	14.30	29.742							
2,100.00	2,066.79	2,076.50	2,065.37	8.69	7.59	-159.82	154.98	-80.02	447.69	432.60	15.08	29.679							
2,200.00	2,164.04	2,173.87	2,161.90	9.20	7.97	-159.21	165.73	-73.28	469.98	454.12	15.87	29.621							
2,300.00	2,261.28	2,271.23	2,258.44	9.71	8.36	-158.66	176.49	-66.53	492.33	475.68	16.65	29.567							
2,400.00	2,358.52	2,368.60	2,354.97	10.22	8.75	-158.15	187.24	-59.79	514.71	497.27	17.44	29.517							
2,500.00	2,455.77	2,465.96	2,451.51	10.73	9.13	-157.69	197.99	-53.05	537.13	518.90	18.23	29.470							
2,600.00	2,553.01	2,563.33	2,548.04	11.24	9.52	-157.26	208.75	-46.30	559.58	540.56	19.02	29.427							
2,700.00	2,650.25	2,660.69	2,644.58	11.75	9.91	-156.86	219.50	-39.56	582.06	562.25	19.81	29.386							
2,800.00	2,747.50	2,758.06	2,741.11	12.26	10.30	-156.50	230.25	-32.82	604.56	583.96	20.60	29.348							
2,900.00	2,844.74	2,855.43	2,837.65	12.78	10.68	-156.16	241.01	-26.07	627.08	605.69	21.39	29.312							
3,000.00	2,941.98	2,952.79	2,934.18	13.29	11.07	-155.84	251.76	-19.33	649.63	627.44	22.19	29.278							
3,100.00	3,039.22	3,050.16	3,030.71	13.80	11.46	-155.55	262.51	-12.58	672.19	649.20	22.98	29.246							
3,200.00	3,136.47	3,147.52	3,127.25	14.32	11.85	-155.27	273.27	-5.84	694.76	670.98	23.78	29.215							
3,300.00	3,233.71	3,244.89	3,223.78	14.83	12.24	-155.01	284.02	0.90	717.35	692.77	24.58	29.187							
3,400.00	3,330.95	3,342.25	3,320.32	15.35	12.62	-154.77	294.77	7.65	739.96	714.58	25.38	29.159							
3,500.00	3,428.20	3,439.62	3,416.85	15.86	13.01	-154.54	305.53	14.39	762.57	736.40	26.17	29.134							
3,600.00	3,525.44	3,536.98	3,513.39	16.38	13.40	-154.33	316.28	21.13	785.20	758.22	26.97	29.109							
3,700.00	3,622.68	3,634.35	3,609.92	16.89	13.79	-154.12	327.03	27.88	807.83	780.06	27.77	29.086							
3,800.00	3,719.93	3,731.72	3,706.46	17.41	14.18	-153.93	337.78	34.62	830.48	801.90	28.57	29.064							
3,900.00	3,817.17	3,829.08	3,802.99	17.93	14.57	-153.75	348.54	41.37	853.13	823.75	29.38	29.042							
4,000.00	3,914.41	3,926.45	3,899.53	18.44	14.96	-153.58	359.29	48.11	875.79	845.61	30.18	29.022							
4,100.00	4,011.65	4,023.81	3,996.06	18.96	15.35	-153.42	370.04	54.85	898.46	867.48	30.98	29.003							
4,200.00	4,108.90	4,121.18	4,092.60	19.48	15.74	-153.26	380.80	61.60	921.13	889.35	31.78	28.984							
4,300.00	4,206.14	4,218.54	4,189.13	19.99	16.12	-153.11	391.55	68.34	943.82	911.23	32.58	28.967							
4,400.00	4,303.38	4,315.91	4,285.67	20.51	16.51	-152.97	402.30	75.08	966.50	933.12	33.39	28.950							
4,500.00	4,400.63	4,413.28	4,382.20	21.03	16.90	-152.84	413.06	81.83	989.19	955.01	34.19	28.933							
4,600.00	4,497.87	4,510.64	4,478.74	21.54	17.29	-152.71	423.81	88.57	1,011.89	976.90	34.99	28.918							
4,700.00	4,595.11	4,608.01	4,575.27	22.06	17.68	-152.58	434.56	95.32	1,034.59	998.80	35.80	28.903							
4,800.00	4,692.36	4,705.37	4,671.81	22.58	18.07	-152.47	445.32	102.06	1,057.30	1,020.70	36.60	28.888							
4,900.00	4,789.60	4,802.74	4,768.34	23.10	18.46	-152.35	456.07	108.80	1,080.01	1,042.60	37.40	28.874							

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft					
Survey Program: O-MWD+HDGM													Offset Well Error:	0.00 usft					
Reference													Semi Major Axis		Distance		Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)									
5,000.00	4,886.84	4,900.10	4,864.87	23.62	18.85	-152.25	466.82	115.55	1,102.72	1,064.51	38.21	28.861							
5,100.00	4,984.08	4,997.47	4,961.41	24.13	19.24	-152.14	477.58	122.29	1,125.44	1,086.43	39.01	28.848							
5,200.00	5,081.33	5,094.83	5,057.94	24.65	19.63	-152.04	488.33	129.03	1,148.16	1,108.34	39.82	28.836							
5,300.00	5,178.57	5,192.20	5,154.48	25.17	20.02	-151.95	499.08	135.78	1,170.88	1,130.26	40.62	28.824							
5,400.00	5,275.81	5,289.57	5,251.01	25.69	20.41	-151.85	509.84	142.52	1,193.61	1,152.18	41.43	28.812							
5,500.00	5,373.06	5,386.93	5,347.55	26.21	20.80	-151.77	520.59	149.27	1,216.34	1,174.11	42.23	28.801							
5,600.00	5,470.30	5,484.30	5,444.08	26.72	21.19	-151.68	531.34	156.01	1,239.07	1,196.03	43.04	28.790							
5,700.00	5,567.54	5,581.66	5,540.62	27.24	21.58	-151.60	542.09	162.75	1,261.81	1,217.96	43.84	28.779							
5,800.00	5,664.79	5,679.03	5,637.15	27.76	21.96	-151.52	552.85	169.50	1,284.54	1,239.89	44.65	28.769							
5,900.00	5,762.03	5,776.39	5,733.69	28.28	22.35	-151.44	563.60	176.24	1,307.28	1,261.83	45.46	28.759							
6,000.00	5,859.27	5,873.76	5,830.22	28.80	22.74	-151.37	574.35	182.98	1,330.03	1,283.76	46.26	28.750							
6,100.00	5,956.51	5,971.13	5,926.76	29.31	23.13	-151.30	585.11	189.73	1,352.77	1,305.70	47.07	28.740							
6,200.00	6,053.76	6,068.49	6,023.29	29.83	23.52	-151.23	595.86	196.47	1,375.51	1,327.64	47.87	28.731							
6,300.00	6,151.00	6,165.86	6,119.83	30.35	23.91	-151.16	606.61	203.22	1,398.26	1,349.58	48.68	28.723							
6,400.00	6,248.24	6,263.22	6,216.36	30.87	24.30	-151.10	617.37	209.96	1,421.01	1,371.52	49.49	28.714							
6,500.00	6,345.49	6,360.59	6,312.90	31.39	24.69	-151.03	628.12	216.70	1,443.76	1,393.47	50.29	28.706							
6,600.00	6,442.73	6,457.95	6,409.43	31.91	25.08	-150.97	638.87	223.45	1,466.51	1,415.41	51.10	28.698							
6,700.00	6,539.97	6,555.32	6,505.96	32.43	25.47	-150.91	649.63	230.19	1,489.27	1,437.36	51.91	28.690							
6,800.00	6,637.21	6,652.77	6,605.00	32.94	25.86	-150.85	660.39	236.93	1,512.02	1,459.31	52.72	28.682							
6,900.00	6,734.46	6,750.13	6,685.00	33.46	26.25	-150.79	671.15	243.68	1,534.77	1,481.25	53.53	28.674							
6,958.42	6,791.27	6,807.04	6,765.00	33.77	26.43	-150.76	676.62	246.43	1,541.76	1,486.74	53.79	28.671							
7,000.00	6,831.76	6,848.24	6,785.00	33.98	26.61	-150.72	682.09	249.18	1,548.75	1,491.73	54.04	28.668							
7,050.00	6,880.45	6,897.27	6,785.00	34.22	26.79	-150.68	687.56	251.93	1,555.74	1,496.72	54.29	28.665							
7,100.00	6,928.94	6,946.16	6,785.00	34.44	26.97	-150.64	693.03	254.68	1,562.73	1,501.71	54.54	28.662							
7,150.00	6,976.98	6,994.19	6,785.00	34.66	27.15	-150.60	698.50	257.43	1,569.72	1,506.70	54.79	28.659							
7,200.00	7,024.34	7,041.62	6,785.00	34.88	27.33	-150.56	703.97	260.18	1,576.71	1,511.69	55.04	28.656							
7,250.00	7,070.78	7,088.06	6,785.00	35.09	27.51	-150.52	709.44	262.93	1,583.70	1,516.68	55.29	28.653							
7,300.00	7,116.09	7,133.50	6,785.00	35.14	27.69	-150.48	714.91	265.68	1,590.69	1,521.67	55.54	28.650							
7,350.00	7,160.03	7,177.94	6,785.00	35.28	27.87	-150.44	720.38	268.43	1,597.68	1,526.66	55.79	28.647							
7,400.00	7,202.41	7,220.41	6,785.00	35.40	28.05	-150.40	725.85	271.18	1,604.67	1,531.65	56.04	28.644							
7,450.00	7,243.00	7,262.85	6,785.00	35.51	28.23	-150.36	731.32	273.93	1,611.66	1,536.64	56.29	28.641							
7,500.00	7,281.62	7,322.29	6,785.00	35.60	28.41	-150.32	736.79	276.68	1,618.65	1,541.63	56.54	28.638							
7,550.00	7,318.07	7,369.73	6,785.00	35.68	28.59	-150.28	742.26	279.43	1,625.64	1,546.62	56.79	28.635							
7,600.00	7,352.17	7,411.19	6,785.00	35.75	28.77	-150.24	747.73	282.18	1,632.63	1,551.61	57.04	28.632							
7,650.00	7,383.77	7,452.65	6,785.00	35.81	28.95	-150.20	753.20	284.93	1,639.62	1,556.60	57.29	28.629							
7,700.00	7,412.70	7,494.13	6,785.00	35.85	29.13	-150.16	758.67	287.68	1,646.61	1,561.59	57.54	28.626							
7,750.00	7,438.83	7,535.61	6,785.00	35.89	29.31	-150.12	764.14	290.43	1,653.60	1,566.58	57.79	28.623							
7,800.00	7,462.03	7,577.09	6,785.00	35.91	29.49	-150.08	769.61	293.18	1,660.59	1,571.57	58.04	28.620							
7,850.00	7,482.18	7,618.57	6,785.00	35.93	29.67	-150.04	775.08	295.93	1,667.58	1,576.56	58.29	28.617							
7,900.00	7,499.19	7,660.05	6,785.00	35.94	29.85	-150.00	780.55	298.68	1,674.57	1,581.55	58.54	28.614							
7,950.00	7,512.97	7,701.53	6,785.00	35.94	30.03	-149.96	786.02	301.43	1,681.56	1,586.54	58.79	28.611							
8,000.00	7,523.46	7,743.01	6,785.00	35.94	30.21	-149.92	791.49	304.18	1,688.55	1,591.53	59.04	28.608							
8,050.00	7,530.60	7,784.49	6,785.00	35.94	30.39	-149.88	796.96	306.93	1,695.54	1,596.52	59.29	28.605							
8,100.00	7,534.37	7,825.97	6,785.00	35.94	30.57	-149.84	802.43	309.68	1,702.53	1,601.51	59.54	28.602							
8,130.43	7,535.00	7,867.45	6,785.00	35.94	30.75	-149.80	807.90	312.43	1,709.52	1,606.50	59.79	28.599							
8,200.00	7,535.00	7,908.93	6,785.00	35.94	30.93	-149.76	813.37	315.18	1,716.51	1,611.49	60.04	28.596							
8,246.52	7,535.00	7,950.41	6,785.00	35.95	31.11	-149.72	818.84	317.93	1,723.50	1,616.48	60.29	28.593	SF						
8,300.00	7,535.00	7,991.89	6,785.00	35.97	31.29	-149.68	824.31	320.68	1,730.49	1,621.47	60.54	28.590							
8,400.00	7,535.00	8,033.37	6,785.00	36.05	31.47	-149.64	829.78	323.43	1,737.48	1,626.46	60.79	28.587							
8,500.00	7,535.00	8,074.85	6,785.00	36.17	31.65	-149.60	835.25	326.18	1,744.47	1,631.45	61.04	28.584							
8,600.00	7,535.00	8,116.33	6,785.00	36.37	31.83	-149.56	840.72	328.93	1,751.46	1,636.44	61.29	28.581							
8,700.00	7,535.00	8,157.81	6,785.00	36.65	32.01	-149.52	846.19	331.68	1,758.45	1,641.43	61.54	28.578							

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W - HWY52 4D-32H-O268 - OH - PLAN #2													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
8,800.00	7,535.00	7,416.57	7,343.24	37.05	28.13	-81.17	591.46	287.09	1,306.87	1,248.74	58.13	22.481		
8,900.00	7,535.00	7,388.31	7,318.89	37.58	28.10	-80.08	605.74	285.57	1,339.00	1,280.80	58.20	23.007		
9,000.00	7,535.00	7,363.51	7,297.09	38.23	28.07	-79.11	617.47	284.20	1,376.71	1,318.42	58.29	23.616		
9,100.00	7,535.00	7,350.00	7,285.05	38.99	28.05	-78.58	623.54	283.43	1,419.78	1,361.25	58.53	24.258		
9,200.00	7,535.00	7,322.23	7,259.94	39.85	28.01	-77.48	635.30	281.83	1,467.69	1,409.12	58.56	25.062		

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
0.00	0.00	0.00	0.00	0.00	0.00	-89.63	1.03	-160.04	160.04					
100.00	100.00	100.00	100.00	0.14	0.14	-89.63	1.03	-160.04	160.04	159.77	0.28	579.810		
200.00	200.00	200.00	200.00	0.50	0.50	-89.63	1.03	-160.04	160.04	159.05	0.99	161.175		
300.00	300.00	300.00	300.00	0.85	0.85	-89.63	1.03	-160.04	160.04	158.33	1.71	93.596		
400.00	400.00	400.00	400.00	1.21	1.21	-89.63	1.03	-160.04	160.04	157.61	2.43	65.946 CC, ES		
500.00	499.98	499.98	499.98	1.56	1.57	130.82	1.03	-160.04	161.18	158.05	3.13	51.506		
600.00	599.84	599.84	599.84	1.90	1.93	132.15	1.03	-160.04	164.65	160.82	3.83	43.016		
650.00	649.68	651.40	651.39	2.08	2.11	133.27	1.39	-159.75	167.05	162.87	4.19	39.900		
700.00	699.47	702.84	702.82	2.25	2.30	142.87	2.48	-158.90	169.76	165.22	4.55	37.319		
800.00	798.84	805.36	805.18	2.62	2.67	157.59	6.82	-155.49	176.70	171.42	5.28	33.483		
900.00	897.85	907.27	906.69	3.00	3.03	168.58	13.98	-149.87	185.95	179.94	6.01	30.939		
1,000.00	996.37	1,008.46	1,007.08	3.41	3.41	177.46	23.89	-142.08	197.84	191.09	6.75	29.329		
1,100.00	1,094.29	1,106.89	1,104.42	3.83	3.78	-175.34	35.34	-133.09	213.00	205.52	7.48	28.489		
1,144.53	1,137.66	1,150.38	1,147.44	4.03	3.94	-172.71	40.42	-129.10	221.01	213.20	7.81	28.310		
1,200.00	1,191.61	1,204.52	1,200.97	4.28	4.15	-171.17	46.74	-124.14	231.53	223.31	8.22	28.180		
1,300.00	1,288.85	1,302.11	1,297.48	4.75	4.53	-168.73	58.14	-115.18	250.85	241.89	8.96	27.997		
1,400.00	1,386.09	1,399.70	1,393.99	5.22	4.92	-166.63	69.53	-106.23	270.55	260.84	9.71	27.851		
1,500.00	1,483.34	1,497.29	1,490.50	5.70	5.30	-164.82	80.93	-97.28	290.56	280.08	10.48	27.731		
1,600.00	1,580.58	1,594.88	1,587.01	6.19	5.69	-163.25	92.33	-88.33	310.81	299.56	11.25	27.629		
1,700.00	1,677.82	1,692.47	1,683.52	6.69	6.08	-161.86	103.72	-79.38	331.26	319.23	12.03	27.541		
1,800.00	1,775.07	1,790.06	1,780.02	7.19	6.48	-160.64	115.12	-70.43	351.87	339.06	12.81	27.464		
1,900.00	1,872.31	1,887.65	1,876.53	7.69	6.87	-159.55	126.52	-61.48	372.62	359.02	13.60	27.396		
2,000.00	1,969.55	1,985.25	1,973.04	8.19	7.27	-158.58	137.91	-52.53	393.49	379.09	14.40	27.335		
2,100.00	2,066.79	2,082.84	2,069.55	8.69	7.66	-157.70	149.31	-43.57	414.45	399.26	15.19	27.279		
2,200.00	2,164.04	2,180.43	2,166.06	9.20	8.06	-156.91	160.70	-34.62	435.50	419.51	15.99	27.229		
2,300.00	2,261.28	2,278.02	2,262.57	9.71	8.46	-156.19	172.10	-25.67	456.62	439.82	16.80	27.183		
2,400.00	2,358.52	2,375.61	2,359.08	10.22	8.86	-155.54	183.50	-16.72	477.80	460.20	17.61	27.140		
2,500.00	2,455.77	2,473.20	2,455.59	10.73	9.26	-154.94	194.89	-7.77	499.04	480.63	18.41	27.101		
2,600.00	2,553.01	2,570.79	2,552.09	11.24	9.66	-154.39	206.29	1.18	520.33	501.10	19.23	27.065		
2,700.00	2,650.25	2,668.38	2,648.60	11.75	10.05	-153.88	217.69	10.13	541.66	521.62	20.04	27.031		
2,800.00	2,747.50	2,765.97	2,745.11	12.26	10.45	-153.41	229.08	19.08	563.02	542.17	20.85	26.999		
2,900.00	2,844.74	2,863.56	2,841.62	12.78	10.86	-152.98	240.48	28.04	584.42	562.75	21.67	26.970		
3,000.00	2,941.98	2,961.15	2,938.13	13.29	11.26	-152.57	251.88	36.99	605.85	583.37	22.49	26.943		
3,100.00	3,039.22	3,058.74	3,034.64	13.80	11.66	-152.19	263.27	45.94	627.31	604.00	23.31	26.917		
3,200.00	3,136.47	3,156.33	3,131.15	14.32	12.06	-151.84	274.67	54.89	648.79	624.66	24.13	26.892		
3,300.00	3,233.71	3,253.92	3,227.65	14.83	12.46	-151.51	286.06	63.84	670.29	645.35	24.95	26.870		
3,400.00	3,330.95	3,351.51	3,324.16	15.35	12.86	-151.20	297.46	72.79	691.82	666.05	25.77	26.848		
3,500.00	3,428.20	3,449.10	3,420.67	15.86	13.26	-150.91	308.86	81.74	713.36	686.77	26.59	26.828		
3,600.00	3,525.44	3,546.69	3,517.18	16.38	13.66	-150.64	320.25	90.69	734.91	707.50	27.41	26.808		
3,700.00	3,622.68	3,644.29	3,613.69	16.89	14.06	-150.38	331.65	99.65	756.48	728.25	28.24	26.790		
3,800.00	3,719.93	3,741.88	3,710.20	17.41	14.47	-150.14	343.05	108.60	778.07	749.01	29.06	26.773		
3,900.00	3,817.17	3,839.47	3,806.71	17.93	14.87	-149.91	354.44	117.55	799.67	769.78	29.89	26.756		
4,000.00	3,914.41	3,937.06	3,903.22	18.44	15.27	-149.69	365.84	126.50	821.28	790.57	30.71	26.741		
4,100.00	4,011.65	4,034.65	3,999.72	18.96	15.67	-149.49	377.24	135.45	842.90	811.36	31.54	26.726		
4,200.00	4,108.90	4,132.24	4,096.23	19.48	16.08	-149.29	388.63	144.40	864.53	832.16	32.37	26.711		
4,300.00	4,206.14	4,229.83	4,192.74	19.99	16.48	-149.10	400.03	153.35	886.17	852.98	33.19	26.698		
4,400.00	4,303.38	4,327.42	4,289.25	20.51	16.88	-148.92	411.42	162.30	907.82	873.80	34.02	26.685		
4,500.00	4,400.63	4,425.01	4,385.76	21.03	17.28	-148.75	422.82	171.26	929.48	894.63	34.85	26.672		
4,600.00	4,497.87	4,522.60	4,482.27	21.54	17.69	-148.59	434.22	180.21	951.14	915.46	35.68	26.661		
4,700.00	4,595.11	4,620.19	4,578.78	22.06	18.09	-148.44	445.61	189.16	972.81	936.31	36.50	26.649		
4,800.00	4,692.36	4,717.78	4,675.29	22.58	18.49	-148.29	457.01	198.11	994.49	957.15	37.33	26.638		
4,900.00	4,789.60	4,815.37	4,771.79	23.10	18.89	-148.15	468.41	207.06	1,016.17	978.01	38.16	26.628		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft					
Survey Program: O-MWD+HDGM													Offset Well Error:	0.00 usft					
Reference													Semi Major Axis		Distance		Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)									
5,000.00	4,886.84	4,912.96	4,868.30	23.62	19.30	-148.01	479.80	216.01	1,037.86	998.87	38.99	26.617							
5,100.00	4,984.08	5,010.55	4,964.81	24.13	19.70	-147.88	491.20	224.96	1,059.56	1,019.73	39.82	26.608							
5,200.00	5,081.33	5,108.14	5,061.32	24.65	20.10	-147.76	502.60	233.91	1,081.25	1,040.60	40.65	26.598							
5,300.00	5,178.57	5,205.73	5,157.83	25.17	20.51	-147.64	513.99	242.87	1,102.96	1,061.48	41.48	26.589							
5,400.00	5,275.81	5,303.33	5,254.34	25.69	20.91	-147.52	525.39	251.82	1,124.67	1,082.36	42.31	26.581							
5,500.00	5,373.06	5,400.92	5,350.85	26.21	21.31	-147.41	536.78	260.77	1,146.38	1,103.24	43.14	26.572							
5,600.00	5,470.30	5,498.51	5,447.35	26.72	21.72	-147.30	548.18	269.72	1,168.10	1,124.12	43.97	26.564							
5,700.00	5,567.54	5,596.10	5,543.86	27.24	22.12	-147.20	559.58	278.67	1,189.82	1,145.01	44.80	26.556							
5,800.00	5,664.79	5,693.69	5,640.37	27.76	22.52	-147.10	570.97	287.62	1,211.54	1,165.91	45.63	26.549							
5,900.00	5,762.03	5,791.28	5,736.88	28.28	22.92	-147.00	582.37	296.57	1,233.27	1,186.80	46.47	26.541							
6,000.00	5,859.27	5,888.87	5,833.39	28.80	23.33	-146.91	593.77	305.52	1,255.00	1,207.70	47.30	26.534							
6,100.00	5,956.51	5,986.46	5,929.90	29.31	23.73	-146.82	605.16	314.47	1,276.73	1,228.60	48.13	26.527							
6,200.00	6,053.76	6,084.05	6,026.41	29.83	24.13	-146.74	616.56	323.43	1,298.47	1,249.51	48.96	26.520							
6,300.00	6,151.00	6,181.64	6,122.92	30.35	24.54	-146.65	627.96	332.38	1,320.21	1,270.42	49.79	26.514							
6,400.00	6,248.24	6,279.23	6,219.42	30.87	24.94	-146.57	639.35	341.33	1,341.95	1,291.33	50.62	26.508							
6,500.00	6,345.49	6,376.82	6,315.93	31.39	25.34	-146.49	650.75	350.28	1,363.70	1,312.24	51.46	26.502							
6,600.00	6,442.73	6,473.46	6,415.00	31.91	25.74	-146.41	662.15	359.23	1,385.44	1,333.13	52.29	26.496							
6,700.00	6,539.97	6,571.20	6,455.00	32.43	26.14	-146.33	673.54	368.18	1,407.18	1,354.02	53.12	26.490							
6,800.00	6,637.21	6,669.24	6,455.00	32.94	26.54	-146.25	684.93	377.13	1,428.92	1,374.91	53.95	26.484							
6,900.00	6,734.46	6,766.89	6,455.00	33.46	26.94	-146.17	696.32	386.08	1,450.66	1,395.80	54.78	26.478							
6,958.42	6,791.27	6,823.92	6,455.00	33.77	27.14	-146.13	703.71	391.03	1,462.82	1,406.66	55.25	26.473							
7,000.00	6,831.76	6,864.41	6,455.00	33.98	27.34	-146.10	711.10	395.98	1,474.97	1,417.52	55.62	26.468							
7,050.00	6,880.45	6,913.50	6,455.00	34.22	27.54	-146.07	718.49	400.93	1,487.22	1,428.38	55.99	26.463							
7,100.00	6,928.94	6,962.59	6,455.00	34.44	27.74	-146.04	725.88	405.88	1,499.47	1,439.24	56.36	26.458							
7,150.00	6,976.98	7,011.68	6,455.00	34.64	27.94	-146.01	733.27	410.83	1,511.72	1,450.10	56.73	26.453							
7,200.00	7,024.34	7,060.77	6,455.00	34.82	28.14	-145.98	740.66	415.78	1,523.97	1,460.96	57.10	26.448							
7,250.00	7,070.78	7,109.86	6,455.00	34.99	28.34	-145.95	748.05	420.73	1,536.22	1,471.82	57.47	26.443							
7,300.00	7,116.09	7,158.95	6,455.00	35.14	28.54	-145.92	755.44	425.68	1,548.47	1,482.68	57.84	26.438							
7,350.00	7,160.03	7,208.04	6,455.00	35.28	28.74	-145.89	762.83	430.63	1,560.72	1,493.54	58.21	26.433							
7,400.00	7,202.41	7,257.13	6,455.00	35.40	28.94	-145.86	770.22	435.58	1,572.97	1,504.40	58.58	26.428							
7,450.00	7,243.00	7,306.22	6,455.00	35.51	29.14	-145.83	777.61	440.53	1,585.22	1,515.26	58.95	26.423							
7,473.57	7,261.46	7,325.41	6,455.00	35.55	29.18	-145.82	780.00	441.09	1,588.82	1,517.82	59.00	26.422							
7,500.00	7,281.62	7,345.60	6,455.00	35.60	29.22	-145.81	782.39	441.35	1,592.42	1,520.38	59.05	26.421							
7,550.00	7,318.07	7,382.05	6,455.00	35.68	29.26	-145.80	784.78	441.85	1,596.02	1,522.94	59.10	26.420							
7,600.00	7,352.17	7,418.50	6,455.00	35.75	29.30	-145.79	787.17	442.40	1,600.00	1,525.50	59.15	26.419							
7,650.00	7,383.77	7,454.95	6,455.00	35.81	29.34	-145.78	789.56	442.98	1,604.00	1,528.06	59.20	26.418							
7,700.00	7,412.70	7,491.40	6,455.00	35.85	29.38	-145.77	791.95	443.59	1,608.00	1,530.62	59.25	26.417							
7,750.00	7,438.83	7,527.85	6,455.00	35.89	29.42	-145.76	794.34	444.13	1,612.00	1,533.18	59.30	26.416							
7,800.00	7,462.03	7,564.30	6,455.00	35.91	29.46	-145.75	796.73	444.47	1,616.00	1,535.74	59.35	26.415							
7,850.00	7,482.18	7,599.75	6,455.00	35.93	29.50	-145.74	799.12	444.62	1,620.00	1,538.30	59.40	26.414							
7,900.00	7,499.19	7,635.20	6,455.00	35.94	29.54	-145.73	801.51	444.61	1,624.00	1,540.86	59.45	26.413							
7,950.00	7,512.97	7,670.65	6,455.00	35.94	29.58	-145.72	803.90	444.43	1,628.00	1,543.42	59.50	26.412							
8,000.00	7,523.46	7,706.10	6,455.00	35.94	29.62	-145.71	806.29	444.10	1,632.00	1,545.98	59.55	26.411							
8,050.00	7,530.60	7,741.55	6,455.00	35.94	29.66	-145.70	808.68	443.63	1,636.00	1,548.54	59.60	26.410							
8,100.00	7,534.37	7,777.00	6,455.00	35.94	29.70	-145.69	811.07	443.23	1,640.00	1,551.10	59.65	26.409							
8,130.43	7,535.00	7,793.34	6,455.00	35.94	29.72	-145.68	812.86	442.57	1,643.44	1,552.66	59.68	26.408							
8,200.00	7,535.00	7,809.68	6,455.00	35.94	29.74	-145.67	814.65	441.40	1,646.88	1,554.22	59.71	26.407							
8,300.00	7,535.00	7,826.02	6,455.00	35.97	29.76	-145.66	816.44	439.47	1,650.32	1,555.78	59.74	26.406							
8,400.00	7,535.00	7,842.36	6,455.00	36.05	29.78	-145.65	818.23	437.36	1,653.76	1,557.34	59.77	26.405							
8,500.00	7,535.00	7,858.70	6,455.00	36.17	29.79	-145.64	820.02	435.16	1,657.20	1,558.90	59.80	26.404							
8,600.00	7,535.00	7,875.04	6,455.00	36.37	29.79	-145.63	821.81	432.97	1,660.64	1,560.46	59.83	26.403							
8,700.00	7,535.00	7,891.38	6,455.00	36.65	29.78	-145.62	823.60	431.33	1,664.08	1,562.02	59.86	26.402							

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W - HWY52 4E-32H-O268 - OH - PLAN #2													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
8,800.00	7,535.00	7,300.00	7,194.85	37.05	27.96	-72.76	532.30	428.44	1,232.02	1,177.69	54.33	22.675		
8,900.00	7,535.00	7,274.42	7,174.89	37.58	27.95	-71.83	548.22	426.87	1,271.26	1,216.78	54.48	23.334		
9,000.00	7,535.00	7,250.00	7,155.32	38.23	27.94	-70.93	562.74	425.30	1,315.58	1,260.92	54.66	24.068		
9,100.00	7,535.00	7,220.66	7,131.17	38.99	27.92	-69.83	579.29	423.36	1,364.64	1,309.88	54.76	24.920		
9,200.00	7,535.00	7,200.00	7,113.77	39.85	27.90	-69.05	590.34	421.94	1,418.14	1,363.12	55.01	25.778		
9,300.00	7,535.00	7,176.86	7,093.92	40.78	27.88	-68.17	602.12	420.31	1,475.69	1,420.47	55.22	26.724		

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft					
Survey Program: O-MWD+HDGM													Offset Well Error:	0.00 usft					
Reference													Semi Major Axis		Distance		Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)									
0.00	0.00	0.00	0.00	0.00	0.00	-89.61	1.01	-149.97	149.97										
100.00	100.00	100.00	100.00	0.14	0.14	-89.61	1.01	-149.97	149.97	149.69		0.28	543.320						
200.00	200.00	200.00	200.00	0.50	0.50	-89.61	1.01	-149.97	149.97	148.98		0.99	151.031						
300.00	300.00	299.92	299.90	0.85	0.86	-88.95	2.76	-149.97	149.99	148.28		1.71	87.755						
400.00	400.00	402.19	402.04	1.21	1.23	-86.99	7.86	-149.53	149.75	147.31		2.44	61.375						
500.00	499.98	506.66	506.21	1.56	1.61	136.30	14.81	-146.03	148.16	144.98		3.19	46.481						
600.00	599.84	610.42	609.39	1.90	1.99	141.34	23.19	-139.09	146.69	142.76		3.93	37.315						
650.00	649.68	661.94	660.48	2.08	2.18	144.49	27.89	-134.36	146.34	142.03		4.30	33.993						
661.85	661.49	674.12	672.54	2.12	2.23	147.40	29.05	-133.12	146.32	141.93		4.39	33.303 CC						
700.00	699.47	713.27	711.25	2.25	2.38	156.02	32.92	-128.81	146.50	141.82		4.68	31.306 ES						
800.00	798.84	813.23	809.86	2.62	2.78	173.99	43.49	-116.19	149.27	143.86		5.41	27.576						
900.00	897.85	911.79	907.03	3.00	3.18	-173.20	54.00	-103.51	156.70	150.55		6.15	25.459						
1,000.00	996.37	1,010.34	1,004.20	3.41	3.59	-163.95	64.52	-90.83	168.25	161.33		6.92	24.323						
1,100.00	1,094.29	1,108.77	1,101.23	3.83	4.00	-157.33	75.02	-78.16	183.23	175.54		7.69	23.815						
1,144.53	1,137.66	1,152.52	1,144.37	4.03	4.18	-155.06	79.69	-72.54	190.88	182.83		8.05	23.723						
1,200.00	1,191.61	1,206.99	1,198.07	4.28	4.41	-154.02	85.50	-65.53	200.77	192.29		8.48	23.666						
1,300.00	1,288.85	1,305.18	1,294.88	4.75	4.83	-152.39	95.98	-52.89	218.76	209.48		9.28	23.573						
1,400.00	1,386.09	1,403.37	1,391.70	5.22	5.24	-151.00	106.45	-40.26	236.89	226.80		10.09	23.485						
1,500.00	1,483.34	1,501.57	1,488.51	5.70	5.66	-149.81	116.93	-27.62	255.13	244.23		10.90	23.402						
1,600.00	1,580.58	1,599.76	1,585.32	6.19	6.08	-148.79	127.41	-14.99	273.47	261.75		11.73	23.324						
1,700.00	1,677.82	1,697.95	1,682.13	6.69	6.50	-147.89	137.89	-2.35	291.88	279.33		12.55	23.251						
1,800.00	1,775.07	1,796.15	1,778.94	7.19	6.92	-147.09	148.36	10.28	310.36	296.97		13.39	23.182						
1,900.00	1,872.31	1,894.34	1,875.76	7.69	7.34	-146.39	158.84	22.91	328.88	314.66		14.23	23.119						
2,000.00	1,969.55	1,992.53	1,972.57	8.19	7.76	-145.76	169.32	35.55	347.45	332.38		15.07	23.059						
2,100.00	2,066.79	2,090.73	2,069.38	8.69	8.18	-145.20	179.79	48.18	366.05	350.14		15.91	23.004						
2,200.00	2,164.04	2,188.92	2,166.19	9.20	8.60	-144.69	190.27	60.82	384.69	367.93		16.76	22.953						
2,300.00	2,261.28	2,287.11	2,263.00	9.71	9.02	-144.22	200.75	73.45	403.35	385.74		17.61	22.905						
2,400.00	2,358.52	2,385.31	2,359.81	10.22	9.44	-143.80	211.22	86.09	422.04	403.58		18.46	22.860						
2,500.00	2,455.77	2,483.50	2,456.63	10.73	9.86	-143.41	221.70	98.72	440.74	421.43		19.32	22.818						
2,600.00	2,553.01	2,581.69	2,553.44	11.24	10.28	-143.06	232.18	111.36	459.47	439.29		20.17	22.779						
2,700.00	2,650.25	2,679.89	2,650.25	11.75	10.70	-142.73	242.66	123.99	478.20	457.18		21.03	22.742						
2,800.00	2,747.50	2,778.08	2,747.06	12.26	11.12	-142.43	253.13	136.62	496.96	475.07		21.89	22.707						
2,900.00	2,844.74	2,876.27	2,843.87	12.78	11.55	-142.15	263.61	149.26	515.72	492.98		22.74	22.675						
3,000.00	2,941.98	2,974.47	2,940.69	13.29	11.97	-141.89	274.09	161.89	534.50	510.89		23.60	22.644						
3,100.00	3,039.22	3,072.66	3,037.50	13.80	12.39	-141.64	284.56	174.53	553.28	528.82		24.46	22.616						
3,200.00	3,136.47	3,170.85	3,134.31	14.32	12.81	-141.42	295.04	187.16	572.08	546.75		25.33	22.588						
3,300.00	3,233.71	3,269.05	3,231.12	14.83	13.23	-141.20	305.52	199.80	590.88	564.69		26.19	22.563						
3,400.00	3,330.95	3,367.24	3,327.93	15.35	13.66	-141.00	315.99	212.43	609.69	582.64		27.05	22.538						
3,500.00	3,428.20	3,465.43	3,424.75	15.86	14.08	-140.82	326.47	225.06	628.51	600.60		27.92	22.515						
3,600.00	3,525.44	3,563.63	3,521.56	16.38	14.50	-140.64	336.95	237.70	647.34	618.56		28.78	22.493						
3,700.00	3,622.68	3,661.82	3,618.37	16.89	14.92	-140.47	347.43	250.33	666.16	636.52		29.64	22.472						
3,800.00	3,719.93	3,760.01	3,715.18	17.41	15.35	-140.32	357.90	262.97	685.00	654.49		30.51	22.452						
3,900.00	3,817.17	3,858.21	3,811.99	17.93	15.77	-140.17	368.38	275.60	703.84	672.46		31.37	22.433						
4,000.00	3,914.41	3,956.40	3,908.80	18.44	16.19	-140.02	378.86	288.24	722.68	690.44		32.24	22.415						
4,100.00	4,011.65	4,054.60	4,005.62	18.96	16.62	-139.89	389.33	300.87	741.53	708.42		33.11	22.398						
4,200.00	4,108.90	4,152.79	4,102.43	19.48	17.04	-139.76	399.81	313.51	760.38	726.41		33.97	22.382						
4,300.00	4,206.14	4,250.98	4,199.24	19.99	17.46	-139.64	410.29	326.14	779.23	744.39		34.84	22.366						
4,400.00	4,303.38	4,349.18	4,296.05	20.51	17.88	-139.53	420.76	338.77	798.09	762.39		35.71	22.351						
4,500.00	4,400.63	4,447.37	4,392.86	21.03	18.31	-139.42	431.24	351.41	816.95	780.38		36.57	22.337						
4,600.00	4,497.87	4,545.56	4,489.68	21.54	18.73	-139.31	441.72	364.04	835.82	798.37		37.44	22.323						
4,700.00	4,595.11	4,643.76	4,586.49	22.06	19.15	-139.21	452.20	376.68	854.68	816.37		38.31	22.310						
4,800.00	4,692.36	4,741.95	4,683.30	22.58	19.57	-139.11	462.67	389.31	873.55	834.37		39.18	22.297						

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft	
Survey Program: O-MWD+HDGM													Offset Well Error:		0.00 usft
Reference				Offset				Semi Major Axis			Distance		Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
4,900.00	4,789.60	4,840.14	4,780.11	23.10	20.00	-139.02	473.15	401.95	892.42	852.38	40.05	22.285			
5,000.00	4,886.84	4,938.34	4,876.92	23.62	20.42	-138.93	483.63	414.58	911.30	870.38	40.92	22.273			
5,100.00	4,984.08	5,036.53	4,973.74	24.13	20.84	-138.85	494.10	427.22	930.17	888.39	41.78	22.261			
5,200.00	5,081.33	5,134.72	5,070.55	24.65	21.27	-138.77	504.58	439.85	949.05	906.40	42.65	22.250			
5,300.00	5,178.57	5,232.92	5,167.36	25.17	21.69	-138.69	515.06	452.48	967.93	924.41	43.52	22.240			
5,400.00	5,275.81	5,331.11	5,264.17	25.69	22.11	-138.61	525.53	465.12	986.81	942.42	44.39	22.230			
5,500.00	5,373.06	5,429.30	5,360.98	26.21	22.54	-138.54	536.01	477.75	1,005.69	960.43	45.26	22.220			
5,600.00	5,470.30	5,527.50	5,457.79	26.72	22.96	-138.47	546.49	490.39	1,024.57	978.44	46.13	22.211			
5,700.00	5,567.54	5,625.69	5,554.61	27.24	23.38	-138.40	556.97	503.02	1,043.46	996.46	47.00	22.201			
5,800.00	5,664.79	5,723.88	5,651.42	27.76	23.80	-138.34	567.44	515.66	1,062.34	1,014.47	47.87	22.192			
5,900.00	5,762.03	5,822.08	5,748.23	28.28	24.23	-138.28	577.92	528.29	1,081.23	1,032.49	48.74	22.184			
6,000.00	5,859.27	5,920.27	5,845.04	28.80	24.65	-138.21	588.40	540.93	1,100.12	1,050.51	49.61	22.176			
6,100.00	5,956.51	6,018.46	5,941.85	29.31	25.07	-138.16	598.87	553.56	1,119.01	1,068.53	50.48	22.168			
6,200.00	6,053.76	6,116.66	6,038.67	29.83	25.50	-138.10	609.35	566.19	1,137.90	1,086.55	51.35	22.160			
6,300.00	6,151.00	6,214.85	6,135.48	30.35	25.92	-138.05	619.83	578.83	1,156.79	1,104.57	52.22	22.152			
6,400.00	6,248.24	6,313.04	6,232.29	30.87	26.34	-137.99	630.30	591.46	1,175.69	1,122.60	53.09	22.145			
6,500.00	6,345.49	6,411.24	6,329.10	31.39	26.77	-137.94	640.78	604.10	1,194.58	1,140.62	53.96	22.138			
6,600.00	6,442.73	6,509.43	6,425.91	31.91	27.19	-137.89	651.26	616.73	1,213.48	1,158.64	54.83	22.131			
6,700.00	6,539.97	6,607.62	6,524.38	32.43	27.61	-137.84	661.74	628.78	1,232.38	1,176.66	55.70	22.124			
6,800.00	6,637.21	6,705.87	6,620.00	32.95	28.03	-137.79	672.22	640.83	1,251.29	1,194.69	56.57	22.117			
6,900.00	6,734.46	6,804.12	6,735.00	33.47	28.45	-137.74	682.69	652.88	1,270.20	1,212.71	57.44	22.110			
6,958.42	6,791.27	6,840.98	6,760.00	33.77	30.59	169.04	-362.19	763.43	993.93	949.08	44.85	22.162			
7,000.00	6,831.76	6,840.09	7,560.00	33.98	30.60	-179.49	-363.30	763.43	969.12	922.98	46.14	21.005			
7,050.00	6,880.45	6,840.22	7,560.00	34.22	30.59	-165.10	-361.43	763.43	940.74	893.06	47.68	19.731			
7,100.00	6,928.94	6,896.88	7,560.00	34.44	30.56	-152.57	-356.09	763.44	914.21	865.03	49.19	18.586			
7,150.00	6,976.98	6,888.08	7,560.00	34.64	30.51	-142.89	-347.29	763.45	889.77	839.13	50.65	17.568			
7,200.00	7,024.34	6,875.88	7,560.00	34.82	30.44	-135.69	-335.09	763.46	867.62	815.59	52.03	16.676			
7,250.00	7,070.78	6,860.33	7,560.00	34.99	30.36	-130.21	-319.54	763.48	847.89	794.58	53.30	15.907			
7,300.00	7,116.09	6,841.51	7,560.00	35.14	30.26	-125.85	-300.72	763.50	830.67	776.21	54.45	15.254			
7,350.00	7,160.03	6,819.50	7,560.00	35.28	30.15	-122.17	-278.71	763.52	815.99	760.53	55.46	14.713			
7,400.00	7,202.41	6,829.43	7,560.00	35.40	30.04	-118.89	-253.64	763.55	803.80	747.50	56.31	14.276			
7,450.00	7,243.00	6,826.40	7,560.00	35.51	29.91	-115.86	-225.61	763.59	794.00	737.00	57.00	13.930			
7,500.00	7,281.62	6,825.55	7,560.00	35.60	29.80	-112.99	-194.76	763.62	786.41	728.88	57.53	13.669			
7,550.00	7,318.07	6,820.04	7,560.00	35.68	29.70	-110.22	-161.25	763.66	780.81	722.91	57.90	13.485			
7,600.00	7,352.17	6,816.03	7,560.00	35.75	29.61	-107.55	-125.24	763.70	776.94	718.79	58.15	13.360			
7,650.00	7,383.77	6,812.70	7,560.00	35.81	29.58	-104.98	-86.90	763.74	774.50	716.22	58.28	13.288			
7,700.00	7,412.70	6,808.22	7,560.00	35.85	29.58	-102.54	-46.43	763.79	773.20	714.88	58.32	13.258			
7,750.00	7,438.83	6,804.21	7,559.73	35.89	29.59	-100.23	-3.42	763.81	772.71	714.41	58.30	13.254 SF			
7,768.89	7,447.95	6,802.72	7,559.08	35.89	29.60	-99.39	13.06	763.74	772.67	714.39	58.28	13.258			
7,800.00	7,462.03	6,800.98	7,557.25	35.91	29.62	-98.03	39.73	763.53	772.77	714.54	58.23	13.271			
7,850.00	7,482.18	6,795.02	7,552.37	35.93	29.66	-95.97	81.39	762.94	773.32	715.20	58.12	13.306			
7,900.00	7,499.19	6,791.18	7,545.31	35.94	29.70	-94.03	121.60	762.07	774.30	716.32	57.98	13.356			
7,950.00	7,512.97	6,787.34	7,536.25	35.94	29.74	-92.22	160.38	760.93	775.67	717.87	57.80	13.420			
8,000.00	7,523.46	6,783.39	7,525.33	35.94	29.78	-90.52	197.74	759.55	777.36	719.75	57.61	13.494			
8,050.00	7,530.60	6,780.00	7,512.27	35.94	29.82	-88.89	234.85	757.89	779.31	721.92	57.39	13.579			
8,100.00	7,534.37	6,776.37	7,498.48	35.94	29.86	-87.47	268.30	756.13	781.45	724.26	57.20	13.663			
8,130.43	7,535.00	6,774.29	7,489.08	35.94	29.88	-86.63	288.69	754.93	782.83	725.75	57.07	13.716			
8,200.00	7,535.00	6,769.91	7,466.25	35.94	29.91	-84.97	332.37	752.00	787.11	730.33	56.78	13.862			
8,300.00	7,535.00	6,762.17	7,431.90	35.97	29.95	-82.51	387.04	747.59	797.64	741.35	56.29	14.169			
8,400.00	7,535.00	6,756.59	7,397.34	36.05	29.97	-80.07	432.86	743.14	814.16	758.38	55.78	14.597			
8,500.00	7,535.00	6,751.68	7,363.84	36.17	29.98	-77.76	470.93	738.81	837.30	782.01	55.30	15.142			
8,600.00	7,535.00	6,747.38	7,332.12	36.37	29.98	-75.62	502.44	734.71	867.37	812.45	54.92	15.792			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W - HWY52 4F-32H-O268 - OH - PLAN #2													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
8,700.00	7,535.00	7,434.18	7,302.58	36.65	29.97	-73.69	528.52	730.89	904.34	849.65	54.69	16.535		
8,800.00	7,535.00	7,400.00	7,275.96	37.05	29.95	-71.99	549.68	727.44	947.91	893.27	54.63	17.351		
8,900.00	7,535.00	7,368.21	7,250.33	37.58	29.93	-70.40	568.19	724.12	997.62	942.94	54.68	18.245		
9,000.00	7,535.00	7,350.00	7,235.29	38.23	29.91	-69.48	578.27	722.17	1,053.01	997.92	55.09	19.114		
9,100.00	7,535.00	7,316.09	7,206.63	38.99	29.88	-67.78	596.00	718.46	1,113.21	1,058.08	55.14	20.190		
9,200.00	7,535.00	7,300.00	7,192.74	39.85	29.86	-66.97	603.93	716.66	1,177.95	1,122.35	55.60	21.184		
9,300.00	7,535.00	7,274.28	7,170.20	40.78	29.83	-65.69	615.94	713.73	1,246.48	1,190.64	55.84	22.323		
9,400.00	7,535.00	7,250.00	7,148.53	41.78	29.80	-64.49	626.53	710.92	1,318.46	1,262.37	56.09	23.506		
9,500.00	7,535.00	7,250.00	7,148.53	42.83	29.80	-64.49	626.53	710.92	1,393.39	1,336.60	56.79	24.537		
9,600.00	7,535.00	7,225.50	7,126.32	43.93	29.76	-63.29	636.46	708.03	1,470.73	1,413.75	56.98	25.812		

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft					
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft					
Reference													Semi Major Axis		Distance		Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)									
0.00	0.00	0.00	0.00	0.00	0.00	-89.70	0.73	-139.89	139.90	139.62	0.28	506.824							
100.00	100.00	100.00	100.00	0.14	0.14	-89.70	0.73	-139.89	139.90	138.90	0.99	140.886							
200.00	200.00	200.00	200.00	0.50	0.50	-89.70	0.73	-139.89	139.90	138.19	1.71	81.814							
300.00	300.00	300.00	300.00	0.85	0.85	-89.70	0.73	-139.89	139.90	137.47	2.43	57.645 CC, ES							
400.00	400.00	400.00	400.00	1.21	1.21	-89.70	0.73	-139.89	139.90	137.90	3.13	45.068							
500.00	499.98	499.98	499.98	1.56	1.57	130.82	0.73	-139.89	141.03	140.68	3.83	37.754							
600.00	599.84	599.84	599.84	1.90	1.93	132.34	0.73	-139.89	144.51	143.00	4.18	35.198							
650.00	649.68	649.68	649.68	2.08	2.11	133.43	0.73	-139.89	147.18	146.11	4.54	33.201							
700.00	699.47	699.47	699.47	2.25	2.29	142.74	0.73	-139.89	150.65	153.74	5.27	30.189							
800.00	798.84	803.08	803.06	2.62	2.66	156.64	1.80	-138.38	159.01	162.49	6.01	28.058							
900.00	897.85	906.56	906.38	3.00	3.02	166.72	5.03	-133.82	168.49	172.53	6.75	26.573							
1,000.00	996.37	1,009.83	1,009.23	3.41	3.39	174.70	10.41	-126.24	179.28	184.05	7.49	25.566							
1,100.00	1,094.29	1,112.84	1,111.41	3.83	3.77	-178.57	17.90	-115.67	191.54	189.70	7.83	25.230							
1,144.53	1,137.66	1,158.60	1,156.64	4.03	3.95	-175.85	21.91	-110.01	197.53	196.72	8.25	24.857							
1,200.00	1,191.61	1,215.55	1,212.78	4.28	4.16	-173.94	27.48	-102.15	204.96	208.62	9.00	24.181							
1,300.00	1,288.85	1,316.04	1,311.39	4.75	4.56	-170.39	38.65	-86.39	217.62	221.02	9.76	23.640							
1,400.00	1,386.09	1,414.38	1,407.81	5.22	4.96	-167.19	49.84	-70.61	230.78	234.03	10.54	23.194							
1,500.00	1,483.34	1,512.72	1,504.23	5.70	5.37	-164.35	61.02	-54.82	244.58	247.56	11.34	22.823							
1,600.00	1,580.58	1,611.07	1,600.65	6.19	5.79	-161.81	72.21	-39.03	258.91	261.53	12.16	22.509							
1,700.00	1,677.82	1,709.41	1,697.07	6.69	6.21	-159.54	83.40	-23.25	273.69	275.86	12.99	22.242							
1,800.00	1,775.07	1,807.75	1,793.49	7.19	6.64	-157.50	94.59	-7.46	288.85	290.51	13.83	22.011							
1,900.00	1,872.31	1,906.09	1,889.91	7.69	7.07	-155.66	105.78	8.33	304.34	305.43	14.68	21.812							
2,000.00	1,969.55	2,004.44	1,986.33	8.19	7.50	-154.00	116.96	24.11	320.11	320.58	15.53	21.638							
2,100.00	2,066.79	2,102.78	2,082.75	8.69	7.93	-152.50	128.15	39.90	336.11	335.92	16.40	21.485							
2,200.00	2,164.04	2,201.12	2,179.17	9.20	8.37	-151.14	139.34	55.68	352.32	351.44	17.27	21.351							
2,300.00	2,261.28	2,299.46	2,275.59	9.71	8.81	-149.89	150.53	71.47	368.71	367.11	18.15	21.231							
2,400.00	2,358.52	2,397.81	2,372.01	10.22	9.25	-148.75	161.72	87.26	385.26	382.91	19.03	21.125							
2,500.00	2,455.77	2,496.15	2,468.43	10.73	9.69	-147.71	172.91	103.04	401.94	398.83	19.91	21.029							
2,600.00	2,553.01	2,594.49	2,564.85	11.24	10.13	-146.74	184.09	118.83	418.74	414.85	20.80	20.944							
2,700.00	2,650.25	2,692.83	2,661.27	11.75	10.57	-145.85	195.28	134.62	435.65	430.96	21.69	20.867							
2,800.00	2,747.50	2,791.18	2,757.69	12.26	11.01	-145.03	206.47	150.40	452.66	447.16	22.59	20.797							
2,900.00	2,844.74	2,889.52	2,854.11	12.78	11.46	-144.27	217.66	166.19	469.74	463.42	23.48	20.733							
3,000.00	2,941.98	2,987.86	2,950.53	13.29	11.90	-143.56	228.85	181.97	486.91	479.76	24.38	20.676							
3,100.00	3,039.22	3,086.20	3,046.95	13.80	12.35	-142.90	240.03	197.76	504.14	496.15	25.28	20.623							
3,200.00	3,136.47	3,184.55	3,143.37	14.32	12.79	-142.28	251.22	213.55	521.43	512.59	26.19	20.574							
3,300.00	3,233.71	3,282.89	3,239.79	14.83	13.24	-141.70	262.41	229.33	538.78	529.09	27.09	20.530							
3,400.00	3,330.95	3,381.23	3,336.21	15.35	13.69	-141.16	273.60	245.12	556.18	545.62	28.00	20.489							
3,500.00	3,428.20	3,479.58	3,432.63	15.86	14.13	-140.65	284.79	260.91	573.62	562.20	28.90	20.452							
3,600.00	3,525.44	3,577.92	3,529.05	16.38	14.58	-140.17	295.98	276.69	591.11	578.82	29.81	20.417							
3,700.00	3,622.68	3,676.26	3,625.47	16.89	15.03	-139.72	307.16	292.48	608.63	595.47	30.72	20.384							
3,800.00	3,719.93	3,774.60	3,721.89	17.41	15.48	-139.30	318.35	308.26	626.18	612.15	31.63	20.354							
3,900.00	3,817.17	3,872.95	3,818.31	17.93	15.93	-138.89	329.54	324.05	643.77	628.85	32.54	20.327							
4,000.00	3,914.41	3,971.29	3,914.73	18.44	16.37	-138.51	340.73	339.84	661.39	645.59	33.45	20.300							
4,100.00	4,011.65	4,069.63	4,011.15	18.96	16.82	-138.15	351.92	355.62	679.04	662.35	34.36	20.276							
4,200.00	4,108.90	4,167.97	4,107.58	19.48	17.27	-137.81	363.10	371.41	696.71	679.13	35.27	20.253							
4,300.00	4,206.14	4,266.32	4,204.00	19.99	17.72	-137.48	374.29	387.20	714.40	695.93	36.19	20.232							
4,400.00	4,303.38	4,364.66	4,300.42	20.51	18.17	-137.17	385.48	402.98	732.12	712.75	37.10	20.212							
4,500.00	4,400.63	4,463.00	4,396.84	21.03	18.62	-136.87	396.67	418.77	749.85	729.59	38.01	20.193							
4,600.00	4,497.87	4,561.34	4,493.26	21.54	19.07	-136.59	407.86	434.55	767.60	746.45	38.93	20.176							
4,700.00	4,595.11	4,659.69	4,589.68	22.06	19.52	-136.32	419.05	450.34	785.37	763.32	39.84	20.159							
4,800.00	4,692.36	4,758.03	4,686.10	22.58	19.97	-136.06	430.23	466.13	803.16	780.20	40.76	20.143							
4,900.00	4,789.60	4,856.37	4,782.52	23.10	20.42	-135.82	441.42	481.91	820.96										

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W - HWY52 4G-32H-O268 - OH - PLAN #2													Offset Site Error: 0.00 usft
Survey Program: O-MWD+HDGM													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,000.00	4,886.84	4,954.71	4,878.94	23.62	20.87	-135.58	452.61	497.70	838.78	797.11	41.67	20.128	
5,100.00	4,984.08	5,053.06	4,975.36	24.13	21.32	-135.35	463.80	513.49	856.61	814.02	42.59	20.114	
5,200.00	5,081.33	5,151.40	5,071.78	24.65	21.77	-135.14	474.99	529.27	874.45	830.94	43.50	20.101	
5,300.00	5,178.57	5,249.74	5,168.20	25.17	22.22	-134.93	486.17	545.06	892.30	847.88	44.42	20.088	
5,400.00	5,275.81	5,348.08	5,264.62	25.69	22.67	-134.73	497.36	560.84	910.16	864.83	45.33	20.076	
5,500.00	5,373.06	5,446.43	5,361.04	26.21	23.12	-134.54	508.55	576.63	928.04	881.79	46.25	20.065	
5,600.00	5,470.30	5,544.77	5,457.46	26.72	23.57	-134.35	519.74	592.42	945.92	898.75	47.17	20.054	
5,700.00	5,567.54	5,643.11	5,553.88	27.24	24.02	-134.17	530.93	608.20	963.82	915.73	48.09	20.044	
5,800.00	5,664.79	5,741.45	5,650.30	27.76	24.48	-134.00	542.12	623.99	981.72	932.72	49.00	20.034	
5,900.00	5,762.03	5,839.80	5,746.72	28.28	24.93	-133.83	553.30	639.78	999.63	949.71	49.92	20.025	
6,000.00	5,859.27	5,938.14	5,843.14	28.80	25.38	-133.67	564.49	655.56	1,017.55	966.71	50.84	20.016	
6,100.00	5,956.51	6,036.48	5,939.56	29.31	25.83	-133.52	575.68	671.35	1,035.47	983.72	51.76	20.007	
6,200.00	6,053.76	6,134.82	6,035.98	29.83	26.28	-133.37	586.87	687.13	1,053.40	1,000.73	52.67	19.999	
6,300.00	6,151.00	6,233.17	6,132.40	30.35	26.73	-133.23	598.06	702.92	1,071.34	1,017.75	53.59	19.991	
6,400.00	6,248.24	6,331.51	6,228.82	30.87	27.18	-133.09	609.24	718.71	1,089.29	1,034.78	54.51	19.983	
6,500.00	6,345.49	6,429.85	6,325.24	31.39	27.63	-132.95	620.43	734.49	1,107.24	1,051.81	55.43	19.976	
6,600.00	6,442.73	6,528.19	6,421.66	31.91	28.08	-132.82	631.62	750.28	1,125.20	1,068.85	56.35	19.969	
6,700.00	6,539.97	6,626.54	6,518.08	32.43	28.54	-132.69	642.81	766.07	1,143.16	1,085.90	57.26	19.963	
6,800.00	6,637.21	6,724.89	6,624.00	32.94	29.00	-132.56	654.00	781.86	1,161.11	1,103.93	58.17	19.957	
6,900.00	6,734.46	6,823.14	6,724.00	33.46	29.46	-132.43	665.19	797.65	1,179.06	1,121.94	59.08	19.951	
6,958.42	6,791.27	6,880.00	6,785.00	33.77	30.01	-132.30	676.38	813.44	1,197.01	1,140.00	59.99	19.945	
7,000.00	6,831.76	6,938.14	6,885.00	34.28	30.47	-132.17	687.57	829.23	1,214.96	1,158.05	60.90	19.939	
7,050.00	6,880.45	6,996.29	6,935.00	34.79	30.93	-132.04	698.76	845.02	1,232.91	1,176.10	61.81	19.933	
7,100.00	6,928.94	7,054.34	6,980.00	35.30	31.39	-131.91	709.95	860.77	1,250.86	1,194.15	62.72	19.927	
7,150.00	6,976.98	7,112.29	6,985.00	35.81	31.85	-131.78	721.14	876.52	1,268.81	1,212.20	63.63	19.921	
7,200.00	7,024.34	7,170.14	6,985.00	36.32	32.31	-131.65	732.33	892.27	1,286.76	1,230.25	64.54	19.915	
7,250.00	7,070.78	7,228.00	6,985.00	36.83	32.77	-131.52	743.52	908.02	1,304.71	1,248.30	65.45	19.909	
7,300.00	7,116.09	7,285.85	6,985.00	37.34	33.23	-131.39	754.71	923.77	1,322.66	1,266.35	66.36	19.903	
7,350.00	7,160.03	7,343.70	6,985.00	37.85	33.69	-131.26	765.90	939.52	1,340.61	1,284.40	67.27	19.897	
7,400.00	7,202.41	7,401.56	6,985.00	38.36	34.15	-131.13	777.09	955.27	1,358.56	1,302.45	68.18	19.891	
7,450.00	7,243.00	7,459.41	6,985.00	38.87	34.61	-131.00	788.28	971.02	1,376.51	1,320.50	69.09	19.885	
7,500.00	7,281.62	7,517.26	6,985.00	39.38	35.07	-130.87	799.47	986.77	1,394.46	1,338.55	69.99	19.879	
7,550.00	7,318.07	7,575.11	6,985.00	39.89	35.53	-130.74	810.66	1,002.52	1,412.41	1,356.60	70.90	19.873	
7,600.00	7,352.17	7,632.96	6,985.00	40.40	36.00	-130.61	821.85	1,018.27	1,430.36	1,374.65	71.81	19.867	
7,650.00	7,383.77	7,690.81	6,985.00	40.91	36.46	-130.48	833.04	1,034.02	1,448.31	1,392.70	72.72	19.861	
7,700.00	7,412.70	7,748.66	6,985.00	41.42	36.92	-130.35	844.23	1,049.77	1,466.26	1,410.75	73.63	19.855	
7,750.00	7,438.83	7,806.51	6,985.00	41.93	37.38	-130.22	855.42	1,065.52	1,484.21	1,428.80	74.54	19.849	
7,800.00	7,462.03	7,864.36	6,985.00	42.44	37.84	-130.09	866.61	1,081.27	1,502.16	1,446.85	75.45	19.843	
7,850.00	7,482.18	7,922.21	6,985.00	42.95	38.30	-129.96	877.80	1,097.02	1,520.11	1,464.90	76.36	19.837	
7,900.00	7,499.19	7,980.06	6,985.00	43.46	38.76	-129.83	889.00	1,112.77	1,538.06	1,482.95	77.27	19.831	
7,950.00	7,512.97	8,037.91	6,985.00	43.97	39.22	-129.70	900.19	1,128.52	1,556.01	1,501.00	78.18	19.825	
8,000.00	7,523.46	8,095.76	6,985.00	44.48	39.68	-129.57	911.38	1,144.27	1,573.96	1,519.05	79.09	19.819	
8,050.00	7,530.60	8,153.61	6,985.00	44.99	40.14	-129.44	922.57	1,159.99	1,591.91	1,537.10	79.99	19.813	
8,100.00	7,534.37	8,211.46	6,985.00	45.50	40.60	-129.31	933.76	1,175.74	1,609.86	1,555.15	80.90	19.807	
8,130.43	7,535.00	8,269.31	6,985.00	46.01	41.06	-129.18	944.95	1,191.49	1,627.81	1,573.20	81.81	19.801	
8,136.25	7,535.00	8,327.16	6,985.00	46.52	41.52	-129.05	956.14	1,207.24	1,645.76	1,591.25	82.72	19.795	
8,200.00	7,535.00	8,385.01	6,985.00	47.03	41.98	-128.92	967.33	1,222.99	1,663.71	1,609.30	83.63	19.789	
8,300.00	7,535.00	8,442.86	6,985.00	47.54	42.44	-128.79	978.52	1,238.74	1,681.66	1,627.35	84.54	19.783	
8,400.00	7,535.00	8,500.71	6,985.00	48.05	42.90	-128.66	989.71	1,254.49	1,699.61	1,645.40	85.45	19.777	
8,500.00	7,535.00	8,558.56	6,985.00	48.56	43.36	-128.53	1,000.90	1,270.24	1,717.56	1,663.45	86.36	19.771	
8,600.00	7,535.00	8,616.41	6,985.00	49.07	43.82	-128.40	1,012.09	1,285.99	1,735.51	1,681.50	87.27	19.765	
8,700.00	7,535.00	8,674.26	6,985.00	49.58	44.28	-128.27	1,023.28	1,301.74	1,753.46	1,699.55	88.18	19.759	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W - HWY52 4G-32H-O268 - OH - PLAN #2													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
8,800.00	7,535.00	7,500.00	7,356.52	37.05	31.64	-73.93	580.29	903.34	769.87	713.59	56.28	13.679		
8,900.00	7,535.00	7,466.14	7,327.88	37.58	31.60	-71.63	597.73	898.65	827.46	771.17	56.29	14.700		
9,000.00	7,535.00	7,450.00	7,313.96	38.23	31.58	-70.54	605.55	896.37	891.16	834.29	56.87	15.670		
9,100.00	7,535.00	7,418.38	7,286.18	38.99	31.53	-68.43	619.96	891.82	959.72	902.72	57.00	16.837		
9,200.00	7,535.00	7,400.00	7,269.75	39.85	31.51	-67.23	627.75	889.13	1,032.61	975.13	57.48	17.965		
9,300.00	7,535.00	7,380.78	7,252.37	40.78	31.47	-65.98	635.44	886.29	1,109.01	1,051.12	57.89	19.158		
9,400.00	7,535.00	7,350.00	7,224.13	41.78	31.41	-64.04	646.77	881.66	1,188.60	1,130.60	58.00	20.493		
9,500.00	7,535.00	7,350.00	7,224.13	42.83	31.41	-64.04	646.77	881.66	1,270.20	1,211.46	58.74	21.625		
9,600.00	7,535.00	7,350.00	7,224.13	43.93	31.41	-64.04	646.77	881.66	1,354.27	1,294.90	59.37	22.811		
9,700.00	7,535.00	7,325.85	7,201.65	45.07	31.36	-62.55	654.79	877.98	1,439.79	1,380.29	59.50	24.197		

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft					
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft					
Reference													Semi Major Axis		Distance		Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)									
0.00	0.00	0.00	0.00	0.00	0.00	-89.69	0.71	-129.82	129.82	129.55	0.28	470.333							
100.00	100.00	100.00	100.00	0.14	0.14	-89.69	0.71	-129.82	129.82	128.83	0.99	130.742							
200.00	200.00	200.00	200.00	0.50	0.50	-89.69	0.71	-129.82	129.82	128.11	1.71	75.924							
300.00	300.00	300.00	300.00	0.85	0.85	-89.69	0.71	-129.82	129.82	127.40	2.43	53.494 CC, ES							
400.00	400.00	400.00	400.00	1.21	1.21	-89.69	0.71	-129.82	129.82	127.40	3.13	41.849							
500.00	499.98	499.98	499.98	1.56	1.57	130.88	0.71	-129.82	130.96	127.83	3.83	35.125							
600.00	599.84	599.84	599.84	1.90	1.93	132.51	0.71	-129.82	134.44	130.62	4.19	32.648							
650.00	649.68	651.83	651.83	2.08	2.11	133.83	0.92	-129.40	136.74	132.55	4.55	30.537							
700.00	699.47	703.79	703.77	2.25	2.30	143.58	1.54	-128.13	139.07	134.52	5.29	27.272							
800.00	798.84	807.61	807.42	2.62	2.67	158.37	4.01	-123.06	144.35	139.06	6.04	24.937							
900.00	897.85	911.27	910.66	3.00	3.04	169.23	8.12	-114.64	150.61	144.57	6.79	23.276							
1,000.00	996.37	1,014.74	1,013.29	3.41	3.42	177.90	13.85	-102.88	158.01	151.22	7.54	22.098							
1,100.00	1,094.29	1,118.00	1,115.18	3.83	3.82	-174.77	21.19	-87.84	166.71	159.17	7.89	21.691							
1,144.53	1,137.66	1,163.89	1,160.26	4.03	4.00	-171.80	24.96	-80.10	171.04	163.15	8.31	21.210							
1,200.00	1,191.61	1,221.02	1,216.17	4.28	4.24	-169.57	30.10	-69.56	176.36	168.04	9.10	20.348							
1,300.00	1,288.85	1,322.02	1,314.49	4.75	4.67	-165.36	40.24	-48.77	185.08	175.99	9.89	19.647							
1,400.00	1,386.09	1,420.75	1,410.46	5.22	5.11	-161.49	50.39	-27.96	194.40	184.51	10.71	19.130							
1,500.00	1,483.34	1,516.78	1,503.83	5.70	5.55	-158.06	60.46	-7.90	204.80	194.09	11.56	18.785							
1,600.00	1,580.58	1,614.91	1,599.31	6.19	6.00	-154.83	71.67	11.77	217.12	205.57	12.44	18.502							
1,700.00	1,677.82	1,713.43	1,695.17	6.69	6.46	-151.95	82.93	31.52	230.07	217.64	13.33	18.270							
1,800.00	1,775.07	1,811.95	1,791.03	7.19	6.92	-149.37	94.20	51.27	243.54	230.21	14.24	18.080							
1,900.00	1,872.31	1,910.47	1,886.90	7.69	7.39	-147.07	105.46	71.02	257.44	243.20	15.16	17.922							
2,000.00	1,969.55	2,008.99	1,982.76	8.19	7.86	-145.00	116.72	90.77	271.72	256.56	16.09	17.792							
2,100.00	2,066.79	2,107.51	2,078.62	8.69	8.33	-143.14	127.99	110.51	286.31	270.22	17.03	17.683							
2,200.00	2,164.04	2,206.03	2,174.48	9.20	8.81	-141.46	139.25	130.26	301.17	284.13	17.98	17.593							
2,300.00	2,261.28	2,304.55	2,270.34	9.71	9.29	-139.93	150.51	150.01	316.26	298.28	18.93	17.517							
2,400.00	2,358.52	2,403.07	2,366.20	10.22	9.77	-138.55	161.78	169.76	331.54	312.62	19.88	17.454							
2,500.00	2,455.77	2,501.59	2,462.06	10.73	10.25	-137.29	173.04	189.51	347.01	327.13	20.84	17.400							
2,600.00	2,553.01	2,600.11	2,557.92	11.24	10.73	-136.13	184.30	209.25	362.62	341.78	21.80	17.355							
2,700.00	2,650.25	2,698.63	2,653.78	11.75	11.21	-135.08	195.57	229.00	378.37	356.56	22.77	17.317							
2,800.00	2,747.50	2,797.15	2,749.64	12.26	11.69	-134.10	206.83	248.75	394.23	371.46	23.73	17.285							
2,900.00	2,844.74	2,895.67	2,845.50	12.78	12.18	-133.20	218.09	268.50	410.19	386.46	24.70	17.258							
3,000.00	2,941.98	2,994.19	2,941.36	13.29	12.66	-132.37	229.36	288.25	426.25	401.55	25.67	17.236							
3,100.00	3,039.22	3,092.71	3,037.22	13.80	13.15	-131.60	240.62	307.99	442.39	416.72	26.64	17.216							
3,200.00	3,136.47	3,191.23	3,133.09	14.32	13.64	-130.88	251.88	327.74	458.60	431.96	27.61	17.200							
3,300.00	3,233.71	3,289.75	3,228.95	14.83	14.12	-130.21	263.15	347.49	474.88	447.27	28.58	17.187							
3,400.00	3,330.95	3,388.27	3,324.81	15.35	14.61	-129.59	274.41	367.24	491.21	462.63	29.55	17.176							
3,500.00	3,428.20	3,486.79	3,420.67	15.86	15.10	-129.00	285.67	386.99	507.60	478.05	30.53	17.167							
3,600.00	3,525.44	3,585.31	3,516.53	16.38	15.59	-128.46	296.94	406.73	524.04	493.51	31.50	17.159							
3,700.00	3,622.68	3,683.83	3,612.39	16.89	16.07	-127.94	308.20	426.48	540.52	509.02	32.48	17.153							
3,800.00	3,719.93	3,782.35	3,708.25	17.41	16.56	-127.46	319.46	446.23	557.04	524.56	33.45	17.148							
3,900.00	3,817.17	3,880.87	3,804.11	17.93	17.05	-127.00	330.73	465.98	573.60	540.15	34.43	17.144							
4,000.00	3,914.41	3,979.39	3,899.97	18.44	17.54	-126.57	341.99	485.73	590.19	555.76	35.40	17.141							
4,100.00	4,011.65	4,077.91	3,995.83	18.96	18.03	-126.17	353.25	505.47	606.81	571.41	36.38	17.139							
4,200.00	4,108.90	4,176.43	4,091.69	19.48	18.52	-125.78	364.52	525.22	623.46	587.08	37.35	17.138							
4,300.00	4,206.14	4,274.95	4,187.55	19.99	19.01	-125.42	375.78	544.97	640.13	602.78	38.33	17.137							
4,400.00	4,303.38	4,373.47	4,283.42	20.51	19.50	-125.07	387.04	564.72	656.83	618.50	39.31	17.136							
4,500.00	4,400.63	4,471.99	4,379.28	21.03	19.99	-124.74	398.31	584.47	673.55	634.25	40.28	17.137							
4,600.00	4,497.87	4,570.51	4,475.14	21.54	20.48	-124.43	409.57	604.21	690.30	650.02	41.26	17.137							
4,700.00	4,595.11	4,669.03	4,571.00	22.06	20.97	-124.13	420.83	623.96	707.06	665.80	42.24	17.138							
4,800.00	4,692.36	4,767.55	4,666.86	22.58	21.46	-123.84	432.10	643.71	723.84	681.60									
4,900.00	4,789.60	4,866.06	4,762.72	23.10	21.95	-123.57	443.36	663.46	740.63	697.42									

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft		
Survey Program: O-MWD+HDGM													Offset Well Error:		0.00 usft	
Reference																
Offset				Semi Major Axis			Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning			
5,000.00	4,886.84	4,964.58	4,858.58	23.62	22.44	-123.31	454.62	683.21	757.45	713.26	44.19	17.141				
5,100.00	4,984.08	5,063.10	4,954.44	24.13	22.94	-123.06	465.88	702.96	774.27	729.10	45.17	17.142				
5,200.00	5,081.33	5,161.62	5,050.30	24.65	23.43	-122.82	477.15	722.70	791.11	744.97	46.14	17.144				
5,300.00	5,178.57	5,260.14	5,146.16	25.17	23.92	-122.60	488.41	742.45	807.96	760.84	47.12	17.146				
5,400.00	5,275.81	5,358.66	5,242.02	25.69	24.41	-122.38	499.67	762.20	824.83	776.73	48.10	17.148				
5,500.00	5,373.06	5,457.18	5,337.88	26.21	24.90	-122.17	510.94	781.95	841.70	792.63	49.08	17.150				
5,600.00	5,470.30	5,555.70	5,433.74	26.72	25.39	-121.97	522.20	801.70	858.59	808.53	50.06	17.153				
5,700.00	5,567.54	5,654.22	5,529.61	27.24	25.88	-121.77	533.46	821.44	875.49	824.45	51.03	17.155				
5,800.00	5,664.79	5,752.74	5,625.47	27.76	26.38	-121.58	544.73	841.19	892.39	840.38	52.01	17.158				
5,900.00	5,762.03	5,851.26	5,721.33	28.28	26.87	-121.40	555.99	860.94	909.31	856.32	52.99	17.160				
6,000.00	5,859.27	5,949.78	5,817.19	28.80	27.36	-121.23	567.25	880.69	926.23	872.26	53.97	17.163				
6,100.00	5,956.51	6,048.30	5,913.05	29.31	27.85	-121.06	578.52	900.44	943.16	888.21	54.94	17.166				
6,200.00	6,053.76	6,146.82	6,008.91	29.83	28.34	-120.90	589.78	920.18	960.10	904.17	55.92	17.168				
6,300.00	6,151.00	6,245.34	6,104.77	30.35	28.83	-120.75	601.04	939.93	977.04	920.14	56.90	17.171				
6,400.00	6,248.24	6,343.86	6,200.63	30.87	29.33	-120.60	612.31	959.68	993.99	936.12	57.88	17.174				
6,500.00	6,345.49	6,442.38	6,296.49	31.39	29.82	-120.45	623.57	979.43	1,010.95	952.10	58.86	17.177				
6,600.00	6,442.73	6,540.10	6,455.00	31.91	30.31	-120.30	634.83	1,000.18	1,023.59	968.07	59.84	17.180				
6,700.00	6,539.97	6,637.48	6,550.00	32.43	30.80	-120.15	646.09	1,020.41	1,036.18	985.16	60.82	17.183				
6,800.00	6,637.21	6,734.86	6,650.00	32.94	31.29	-120.00	657.35	1,041.64	1,048.77	1,002.25	61.80	17.186				
6,900.00	6,734.46	6,832.25	6,750.00	33.46	31.78	-119.85	668.61	1,062.89	1,061.36	1,019.34	62.78	17.189				
6,958.42	6,791.27	6,889.81	6,810.00	33.77	32.01	-119.73	679.87	1,084.14	1,073.94	1,036.43	63.76	17.192				
7,000.00	6,831.76	6,930.33	6,850.00	33.98	32.24	-119.62	691.13	1,105.39	1,086.53	1,053.52	64.74	17.195				
7,050.00	6,880.45	6,979.44	6,900.00	34.22	32.47	-119.51	702.39	1,126.64	1,099.12	1,070.61	65.72	17.198				
7,100.00	6,928.94	7,028.10	6,950.00	34.44	32.70	-119.40	713.65	1,147.89	1,111.71	1,087.70	66.70	17.201				
7,150.00	6,976.98	7,076.77	6,990.00	34.64	32.93	-119.30	724.91	1,169.14	1,123.80	1,104.79	67.68	17.204				
7,200.00	7,024.34	7,125.05	7,030.00	34.82	33.16	-119.20	736.17	1,190.39	1,135.89	1,121.88	68.66	17.207				
7,250.00	7,070.78	7,172.02	7,070.00	34.99	33.39	-119.10	747.43	1,211.64	1,147.98	1,138.97	69.64	17.210				
7,300.00	7,116.09	7,218.72	7,110.00	35.14	33.62	-119.00	758.69	1,232.89	1,159.07	1,156.06	70.62	17.213				
7,350.00	7,160.03	7,264.28	7,150.00	35.28	33.85	-118.90	769.95	1,254.14	1,170.16	1,173.15	71.60	17.216				
7,400.00	7,202.41	7,308.79	7,190.00	35.40	34.08	-118.80	781.21	1,275.39	1,181.25	1,190.24	72.58	17.219				
7,450.00	7,243.00	7,352.38	7,230.00	35.51	34.31	-118.70	792.47	1,296.64	1,192.34	1,207.33	73.56	17.222				
7,500.00	7,281.62	7,395.20	7,270.00	35.60	34.54	-118.60	803.73	1,317.89	1,203.43	1,224.42	74.54	17.225				
7,550.00	7,318.07	7,437.38	7,310.00	35.68	34.77	-118.50	815.00	1,339.14	1,214.52	1,241.51	75.52	17.228				
7,600.00	7,352.17	7,478.09	7,350.00	35.75	34.99	-118.40	826.26	1,360.39	1,225.61	1,258.60	76.50	17.231				
7,650.00	7,383.77	7,517.52	7,390.00	35.81	35.22	-118.30	837.52	1,381.64	1,236.70	1,275.69	77.48	17.234				
7,700.00	7,412.70	7,555.63	7,430.00	35.85	35.45	-118.20	848.78	1,402.89	1,247.79	1,292.78	78.46	17.237				
7,721.50	7,424.29	7,571.81	7,445.02	35.87	35.49	-118.19	850.04	1,405.14	1,249.04	1,294.03	78.48	17.237				
7,750.00	7,438.83	7,587.81	7,460.54	35.89	35.53	-118.18	851.30	1,407.39	1,250.29	1,295.28	78.50	17.238				
7,800.00	7,462.03	7,603.96	7,476.07	35.91	35.57	-118.17	852.56	1,409.64	1,251.54	1,296.53	78.52	17.239				
7,850.00	7,482.18	7,620.00	7,491.60	35.93	35.61	-118.16	853.82	1,411.89	1,252.79	1,297.78	78.54	17.240				
7,900.00	7,499.19	7,636.04	7,507.13	35.94	35.65	-118.15	855.08	1,414.14	1,254.04	1,299.03	78.56	17.241				
7,950.00	7,512.97	7,651.20	7,522.66	35.94	35.69	-118.14	856.34	1,416.39	1,255.29	1,300.28	78.58	17.242				
8,000.00	7,523.46	7,666.36	7,538.19	35.94	35.73	-118.13	857.60	1,418.64	1,256.54	1,301.53	78.60	17.243				
8,050.00	7,530.60	7,679.79	7,553.72	35.94	35.77	-118.12	858.86	1,420.89	1,257.79	1,302.78	78.62	17.244				
8,100.00	7,534.37	7,725.80	7,569.25	35.94	35.81	-118.11	860.12	1,423.14	1,259.04	1,304.03	78.64	17.245				
8,130.43	7,535.00	7,771.81	7,584.78	35.94	35.85	-118.10	861.38	1,425.39	1,260.29	1,305.28	78.66	17.246				
8,200.00	7,535.00	7,817.82	7,600.31	35.94	35.89	-118.09	862.64	1,427.64	1,261.54	1,306.53	78.68	17.247				
8,300.00	7,535.00	7,863.83	7,615.84	35.97	35.93	-118.08	863.90	1,429.89	1,262.79	1,307.78	78.70	17.248				
8,400.00	7,535.00	7,909.84	7,631.37	36.05	35.97	-118.07	865.16	1,432.14	1,264.04	1,309.03	78.72	17.249				
8,500.00	7,535.00	7,955.85	7,646.90	36.17	36.01	-118.06	866.42	1,434.39	1,265.29	1,310.28	78.74	17.250				
8,600.00	7,535.00	8,001.86	7,662.43	36.37	36.05	-118.05	867.68	1,436.64	1,266.54	1,311.53	78.76	17.251				
8,700.00	7,535.00	8,047.87	7,677.96	36.65	36.09	-118.04	868.94	1,438.89	1,267.79	1,312.78	78.78	17.252				

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W - HWY52 4H-32H-O268 - OH - PLAN #2													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
8,800.00	7,535.00	7,382.85	7,182.83	37.05	33.23	-46.80	517.20	1,150.99	713.48	662.51	50.97	13.997		
8,900.00	7,535.00	7,350.00	7,156.93	37.58	33.21	-45.02	536.96	1,146.85	784.88	732.63	52.25	15.022		
9,000.00	7,535.00	7,324.86	7,136.52	38.23	33.18	-43.71	551.26	1,143.52	859.97	806.31	53.67	16.024		
9,100.00	7,535.00	7,300.00	7,115.88	38.99	33.16	-42.48	564.68	1,140.10	938.18	883.33	54.85	17.105		
9,200.00	7,535.00	7,278.01	7,097.25	39.85	33.13	-41.44	575.94	1,136.96	1,018.98	963.05	55.93	18.220		
9,300.00	7,535.00	7,250.00	7,073.06	40.78	33.09	-40.17	589.44	1,132.84	1,102.03	1,045.40	56.63	19.461		
9,400.00	7,535.00	7,250.00	7,073.06	41.78	33.09	-40.17	589.44	1,132.84	1,186.91	1,128.89	58.02	20.458		
9,500.00	7,535.00	7,223.07	7,049.34	42.83	33.04	-39.02	601.50	1,128.73	1,273.20	1,214.72	58.48	21.773		
9,600.00	7,535.00	7,200.00	7,028.68	43.93	33.00	-38.08	611.11	1,125.10	1,361.03	1,302.07	58.96	23.085		
9,700.00	7,535.00	7,200.00	7,028.68	45.07	33.00	-38.08	611.11	1,125.10	1,449.92	1,390.06	59.86	24.220		

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft					
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft					
Reference													Semi Major Axis		Distance		Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)									
0.00	0.00	0.00	0.00	0.00	0.00	-89.67	0.70	-120.03	120.03	119.75	0.28	434.856							
100.00	100.00	100.00	100.00	0.14	0.14	-89.67	0.70	-120.03	120.03	119.04	0.99	120.881							
200.00	200.00	200.00	200.00	0.50	0.50	-89.67	0.70	-120.03	120.03	118.32	1.71	70.197							
300.00	300.00	300.00	300.00	0.85	0.85	-89.67	0.70	-120.03	120.03	117.60	2.43	49.459							
400.00	400.00	400.00	400.00	1.21	1.21	-89.67	0.70	-120.03	120.03	116.60	3.13	38.720							
500.00	499.98	499.98	499.98	1.56	1.57	130.94	0.70	-120.03	121.17	118.04	3.85	31.989							
600.00	599.84	603.76	603.73	1.90	1.94	133.22	1.51	-118.34	123.08	119.23	4.21	29.388							
650.00	649.68	655.53	655.45	2.08	2.12	135.10	2.54	-116.23	123.85	119.64	4.58	27.217							
700.00	699.47	707.21	707.03	2.25	2.31	145.43	3.96	-113.29	124.74	120.16	5.33	23.919							
800.00	798.84	810.36	809.76	2.62	2.68	161.47	8.02	-104.91	127.43	122.10	6.07	21.653							
900.00	897.85	913.22	911.79	3.00	3.06	173.65	13.67	-93.26	131.52	125.45	6.83	20.109							
1,000.00	996.37	1,015.75	1,012.97	3.41	3.46	-176.37	20.89	-78.36	137.25	130.43	7.59	19.074							
1,100.00	1,094.29	1,117.93	1,113.15	3.83	3.88	-167.81	29.65	-60.29	144.80	137.21	7.94	18.729							
1,144.53	1,137.66	1,163.31	1,157.40	4.03	4.07	-164.34	34.03	-51.23	148.77	140.83	8.39	18.338							
1,200.00	1,191.61	1,219.73	1,212.18	4.28	4.32	-161.51	39.92	-39.10	153.82	145.43	9.21	17.695							
1,300.00	1,288.85	1,319.01	1,308.16	4.75	4.78	-156.45	50.99	-16.25	162.96	153.75	10.07	17.200							
1,400.00	1,386.09	1,417.60	1,403.45	5.22	5.25	-151.95	62.03	6.53	173.19	163.12	10.97	16.814							
1,500.00	1,483.34	1,516.19	1,498.74	5.70	5.73	-147.97	73.07	29.31	184.38	173.41	11.89	16.514							
1,600.00	1,580.58	1,614.79	1,594.02	6.19	6.22	-144.45	84.10	52.08	196.35	184.46	12.84	16.280							
1,700.00	1,677.82	1,713.38	1,689.31	6.69	6.72	-141.34	95.14	74.86	208.98	196.14	13.80	16.098							
1,800.00	1,775.07	1,811.97	1,784.60	7.19	7.22	-138.58	106.18	97.64	222.15	208.35	14.78	15.956							
1,900.00	1,872.31	1,910.56	1,879.88	7.69	7.72	-136.14	117.22	120.42	235.77	220.99	15.76	15.846							
2,000.00	1,969.55	2,009.15	1,975.17	8.19	8.23	-133.97	128.26	143.19	249.77	234.01	16.76	15.761							
2,100.00	2,066.79	2,107.74	2,070.45	8.69	8.74	-132.02	139.29	165.97	264.09	247.33	17.76	15.695							
2,200.00	2,164.04	2,206.33	2,165.74	9.20	9.25	-130.28	150.33	188.75	278.67	260.92	18.76	15.646							
2,300.00	2,261.28	2,304.92	2,261.03	9.71	9.77	-128.71	161.37	211.52	293.49	274.73	19.77	15.608							
2,400.00	2,358.52	2,403.51	2,356.31	10.22	10.28	-127.29	172.41	234.30	308.50	288.74	20.77	15.581							
2,500.00	2,455.77	2,502.10	2,451.60	10.73	10.80	-126.01	183.45	257.08	323.68	302.91	21.78	15.562							
2,600.00	2,553.01	2,600.69	2,546.89	11.24	11.32	-124.83	194.48	279.85	339.01	317.22	22.80	15.549							
2,700.00	2,650.25	2,699.28	2,642.17	11.75	11.84	-123.76	205.52	302.63	354.46	331.66	23.81	15.541							
2,800.00	2,747.50	2,797.87	2,737.46	12.26	12.36	-122.78	216.56	325.41	370.02	346.21	24.82	15.537							
2,900.00	2,844.74	2,896.46	2,832.75	12.78	12.88	-121.88	227.60	348.19	385.68	360.86	25.84	15.536							
3,000.00	2,941.98	2,995.05	2,928.03	13.29	13.40	-121.05	238.64	370.96	401.43	375.59	26.85	15.538							
3,100.00	3,039.22	3,093.65	3,023.32	13.80	13.92	-120.28	249.67	393.74	417.26	390.40	27.87	15.542							
3,200.00	3,136.47	3,192.24	3,118.60	14.32	14.44	-119.57	260.71	416.52	433.15	405.28	28.89	15.548							
3,300.00	3,233.71	3,290.83	3,213.89	14.83	14.97	-118.91	271.75	439.29	449.10	420.21	29.90	15.555							
3,400.00	3,330.95	3,389.42	3,309.18	15.35	15.49	-118.29	282.79	462.07	465.11	435.21	30.92	15.563							
3,500.00	3,428.20	3,488.01	3,404.46	15.86	16.01	-117.71	293.83	484.85	481.16	450.25	31.93	15.572							
3,600.00	3,525.44	3,586.60	3,499.75	16.38	16.54	-117.18	304.86	507.62	497.27	465.33	32.95	15.581							
3,700.00	3,622.68	3,685.19	3,595.04	16.89	17.06	-116.67	315.90	530.40	513.41	480.46	33.97	15.591							
3,800.00	3,719.93	3,783.78	3,690.32	17.41	17.59	-116.20	326.94	553.18	529.58	495.62	34.98	15.602							
3,900.00	3,817.17	3,882.37	3,785.61	17.93	18.11	-115.75	337.98	575.95	545.80	510.81	36.00	15.613							
4,000.00	3,914.41	3,980.96	3,880.90	18.44	18.64	-115.33	349.02	598.73	562.04	526.04	37.02	15.623							
4,100.00	4,011.65	4,079.55	3,976.18	18.96	19.16	-114.93	360.05	621.51	578.31	541.29	38.03	15.634							
4,200.00	4,108.90	4,178.14	4,071.47	19.48	19.69	-114.56	371.09	644.29	594.60	556.57	39.05	15.645							
4,300.00	4,206.14	4,276.73	4,166.75	19.99	20.22	-114.20	382.13	667.06	610.92	571.87	40.06	15.656							
4,400.00	4,303.38	4,375.32	4,262.04	20.51	20.74	-113.87	393.17	689.84	627.26	587.19	41.08	15.667							
4,500.00	4,400.63	4,473.91	4,357.33	21.03	21.27	-113.55	404.21	712.62	643.62	602.54	42.10	15.678							
4,600.00	4,497.87	4,572.51	4,452.61	21.54	21.79	-113.24	415.25	735.39	660.00	617.90	43.11	15.689							
4,700.00	4,595.11	4,671.10	4,547.90	22.06	22.32	-112.95	426.28	758.17	676.39	633.28	44.13	15.699							
4,800.00	4,692.36	4,769.69	4,643.19	22.58	22.85	-112.68	437.32	780.95	692.81	648.68	45.15	15.710							
4,900.00	4,789.60	4,868.28	4,738.47	23.10	23.38	-112.42	448.36	803.72	709.23	664.09									

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W - HWY52 4I-32H-O268 - OH - PLAN #2													Offset Site Error:	0.00 usft
Survey Program: O-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
5,000.00	4,886.84	4,966.87	4,833.76	23.62	23.90	-112.17	459.40	826.50	725.67	679.51	46.16	15.720		
5,100.00	4,984.08	5,065.46	4,929.05	24.13	24.43	-111.93	470.44	849.28	742.13	694.95	47.18	15.730		
5,200.00	5,081.33	5,164.05	5,024.33	24.65	24.96	-111.70	481.47	872.06	758.59	710.40	48.19	15.740		
5,300.00	5,178.57	5,262.64	5,119.62	25.17	25.48	-111.48	492.51	894.83	775.07	725.86	49.21	15.750		
5,400.00	5,275.81	5,361.23	5,214.90	25.69	26.01	-111.27	503.55	917.61	791.55	741.33	50.23	15.760		
5,500.00	5,373.06	5,459.82	5,310.19	26.21	26.54	-111.07	514.59	940.39	808.05	756.81	51.24	15.769		
5,600.00	5,470.30	5,558.41	5,405.48	26.72	27.07	-110.87	525.63	963.16	824.56	772.30	52.26	15.779		
5,700.00	5,567.54	5,657.00	5,500.76	27.24	27.59	-110.69	536.66	985.94	841.07	787.80	53.27	15.788		
5,800.00	5,664.79	5,755.59	5,596.05	27.76	28.12	-110.51	547.70	1,008.72	857.60	803.31	54.29	15.797		
5,900.00	5,762.03	5,854.18	5,691.34	28.28	28.65	-110.34	558.74	1,031.49	874.13	818.82	55.30	15.806		
6,000.00	5,859.27	5,952.77	5,786.62	28.80	29.18	-110.17	569.78	1,054.27	890.67	834.35	56.32	15.814		
6,100.00	5,956.51	6,051.37	5,881.91	29.31	29.71	-110.01	580.82	1,077.05	907.21	849.88	57.34	15.823		
6,200.00	6,053.76	6,149.96	5,977.20	29.83	30.23	-109.86	591.85	1,099.83	923.77	865.41	58.35	15.831		
6,300.00	6,151.00	6,248.55	6,072.48	30.35	30.76	-109.71	602.89	1,122.60	940.33	880.96	59.37	15.839		
6,400.00	6,248.24	6,347.14	6,167.77	30.87	31.29	-109.56	613.93	1,145.38	956.89	896.51	60.38	15.847		
6,500.00	6,345.49	6,445.73	6,263.05	31.39	31.82	-109.43	624.97	1,168.16	973.46	912.06	61.40	15.855		
6,600.00	6,442.73	6,544.32	6,358.34	31.91	32.35	-109.29	636.01	1,190.93	990.04	927.62	62.41	15.862		
6,700.00	6,539.97	6,642.91	6,453.63	32.43	32.87	-109.16	647.04	1,213.71	1,006.62	943.19	63.43	15.870		
6,800.00	6,637.21	6,741.38	6,553.00	32.94	33.39	-109.03	658.08	1,236.49	1,023.31	958.31	64.44	15.878		
6,900.00	6,734.46	6,845.73	6,658.27	33.46	33.91	-108.90	669.12	1,259.26	1,040.00	973.46	65.45	15.886		
6,958.42	6,791.27	6,852.61	6,714.08	33.77	34.29	-108.78	679.17	1,281.94	1,056.69	988.51	66.46	15.894		
7,000.00	6,831.76	6,943.00	6,819.00	33.98	34.67	-108.66	689.22	1,304.62	1,073.37	1,003.61	67.47	15.902		
7,050.00	6,880.45	6,999.00	6,874.00	34.22	35.05	-108.54	699.27	1,327.30	1,090.00	1,019.19	68.48	15.910		
7,100.00	6,928.94	7,055.00	6,929.00	34.44	35.43	-108.42	709.32	1,350.00	1,106.69	1,034.78	69.49	15.918		
7,150.00	6,976.98	7,111.00	6,984.00	34.66	35.81	-108.30	719.37	1,372.69	1,123.38	1,050.37	70.50	15.926		
7,200.00	7,024.34	7,167.00	7,039.00	34.88	36.19	-108.18	729.42	1,395.38	1,140.07	1,066.06	71.51	15.934		
7,250.00	7,070.78	7,223.00	7,094.00	35.10	36.57	-108.06	739.47	1,418.07	1,156.76	1,081.75	72.52	15.942		
7,300.00	7,116.09	7,279.00	7,149.00	35.32	36.95	-107.94	749.52	1,441.07	1,173.45	1,097.44	73.53	15.950		
7,350.00	7,160.03	7,335.00	7,204.00	35.54	37.33	-107.82	759.57	1,464.07	1,190.14	1,113.13	74.54	15.958		
7,400.00	7,202.41	7,391.00	7,259.00	35.76	37.71	-107.70	769.62	1,487.07	1,206.83	1,128.82	75.55	15.966		
7,450.00	7,243.00	7,447.00	7,314.00	35.98	38.09	-107.58	779.67	1,510.07	1,223.52	1,144.51	76.56	15.974		
7,500.00	7,281.62	7,503.00	7,369.00	36.20	38.47	-107.46	789.72	1,533.07	1,240.21	1,160.20	77.57	15.982		
7,550.00	7,318.07	7,559.00	7,424.00	36.42	38.85	-107.34	799.77	1,556.07	1,256.90	1,175.89	78.58	15.990		
7,600.00	7,352.17	7,615.00	7,479.00	36.64	39.23	-107.22	809.82	1,579.07	1,273.59	1,191.58	79.59	15.998		
7,650.00	7,383.77	7,671.00	7,534.00	36.86	39.61	-107.10	819.87	1,602.07	1,290.28	1,207.27	80.60	16.006		
7,700.00	7,412.70	7,727.00	7,589.00	37.08	40.00	-106.98	829.92	1,625.07	1,306.97	1,222.96	81.61	16.014		
7,750.00	7,438.83	7,783.00	7,644.00	37.30	40.38	-106.86	839.97	1,648.07	1,323.66	1,238.65	82.62	16.022		
7,800.00	7,462.03	7,839.00	7,699.00	37.52	40.76	-106.74	849.97	1,671.07	1,340.35	1,254.34	83.63	16.030		
7,850.00	7,482.18	7,895.00	7,754.00	37.74	41.14	-106.62	859.97	1,694.07	1,357.04	1,270.03	84.64	16.038		
7,900.00	7,499.19	7,951.00	7,809.00	37.96	41.52	-106.50	869.97	1,717.07	1,373.73	1,285.72	85.65	16.046		
7,950.00	7,512.97	7,979.38	7,829.71	38.18	41.90	-106.38	879.97	1,740.07	1,390.42	1,301.41	86.66	16.054		
7,964.57	7,516.37	7,966.93	7,826.07	38.18	41.90	-106.38	879.97	1,740.07	1,390.42	1,301.41	86.66	16.054	1.222 Level 2, CC, ES	
8,000.00	7,523.46	7,937.07	7,816.55	38.18	41.90	-106.38	879.97	1,740.07	1,390.42	1,301.41	86.66	16.054	1.320 Level 3	
8,050.00	7,530.60	7,895.89	7,801.55	38.18	41.90	-106.38	879.97	1,740.07	1,390.42	1,301.41	86.66	16.054	1.666	
8,100.00	7,534.37	7,855.71	7,784.88	38.18	41.90	-106.38	879.97	1,740.07	1,390.42	1,301.41	86.66	16.054	2.173	
8,130.43	7,535.00	7,831.70	7,773.98	38.18	41.90	-106.38	879.97	1,740.07	1,390.42	1,301.41	86.66	16.054	2.506	
8,200.00	7,535.00	7,779.37	7,744.87	38.18	41.90	-106.38	879.97	1,740.07	1,390.42	1,301.41	86.66	16.054	3.272	
8,300.00	7,535.00	7,711.84	7,709.59	38.18	41.90	-106.38	879.97	1,740.07	1,390.42	1,301.41	86.66	16.054	4.313	
8,400.00	7,535.00	7,650.00	7,670.26	38.18	41.90	-106.38	879.97	1,740.07	1,390.42	1,301.41	86.66	16.054	5.370	
8,500.00	7,535.00	7,600.00	7,635.68	38.18	41.90	-106.38	879.97	1,740.07	1,390.42	1,301.41	86.66	16.054	6.337	
8,600.00	7,535.00	7,550.00	7,598.81	38.18	41.90	-106.38	879.97	1,740.07	1,390.42	1,301.41	86.66	16.054	7.466	
8,700.00	7,535.00	7,518.17	7,574.21	38.18	41.90	-106.38	879.97	1,740.07	1,390.42	1,301.41	86.66	16.054	8.427	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
8,800.00	7,535.00	7,484.24	7,247.11	37.05	36.39	-23.04	570.21	1,401.47	549.98	492.36	57.62	9.544		
8,900.00	7,535.00	7,450.00	7,218.88	37.58	36.34	-22.07	588.46	1,394.96	633.49	574.54	58.96	10.745		
9,000.00	7,535.00	7,428.22	7,200.50	38.23	36.30	-21.52	599.34	1,390.72	719.12	658.54	60.58	11.871		
9,100.00	7,535.00	7,400.00	7,176.22	38.99	36.25	-20.89	612.58	1,385.10	806.59	745.12	61.47	13.122		
9,200.00	7,535.00	7,384.25	7,162.45	39.85	36.21	-20.58	619.54	1,381.90	895.48	832.85	62.63	14.297		
9,300.00	7,535.00	7,365.72	7,146.07	40.78	36.17	-20.23	627.32	1,378.10	985.65	922.22	63.43	15.540		
9,400.00	7,535.00	7,350.00	7,132.03	41.78	36.14	-19.95	633.58	1,374.83	1,076.88	1,012.74	64.14	16.790		
9,500.00	7,535.00	7,334.03	7,117.63	42.83	36.09	-19.69	639.62	1,371.47	1,169.00	1,104.31	64.69	18.070		
9,600.00	7,535.00	7,320.40	7,105.24	43.93	36.06	-19.49	644.50	1,368.58	1,261.90	1,196.70	65.20	19.355		
9,700.00	7,535.00	7,300.00	7,086.53	45.07	36.01	-19.20	651.37	1,364.22	1,355.53	1,290.07	65.46	20.708		
9,800.00	7,535.00	7,300.00	7,086.53	46.24	36.01	-19.20	651.37	1,364.22	1,449.62	1,383.53	66.09	21.933		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft					
Survey Program: O-MWD+HDGM													Offset Well Error:	0.00 usft					
Reference													Semi Major Axis		Distance		Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)									
0.00	0.00	0.00	0.00	0.00	0.00	-89.65	0.68	-109.96	109.96	109.68	0.28	398.365							
100.00	100.00	100.00	100.00	0.14	0.14	-89.65	0.68	-109.96	109.96	108.97	0.99	110.737							
200.00	200.00	200.00	200.00	0.50	0.50	-89.65	0.68	-109.96	109.96	108.25	1.71	64.306							
300.00	300.00	300.00	300.00	0.85	0.85	-89.65	0.68	-109.96	109.96	107.53	2.43	45.309							
400.00	400.00	400.00	400.00	1.21	1.21	-89.65	0.68	-109.96	109.96	106.28	3.16	34.684							
500.00	499.98	503.63	503.61	1.56	1.58	131.46	1.38	-108.22	109.43	104.21	3.89	27.784							
600.00	599.84	606.99	606.81	1.90	1.95	134.81	3.48	-103.03	108.10	103.07	4.26	25.180							
650.00	649.68	658.49	658.13	2.08	2.13	137.35	5.04	-99.15	107.33	102.13	4.63	23.038							
700.00	699.47	709.85	709.25	2.25	2.32	148.39	6.95	-94.43	106.77	101.57	5.00	21.297 CC							
749.21	748.40	760.32	759.37	2.43	2.51	157.66	9.15	-88.97	106.57	101.42	5.38	19.852 ES							
800.00	798.84	812.32	810.90	2.62	2.71	165.99	11.77	-82.49	106.80	102.52	6.13	17.731							
900.00	897.85	914.41	911.65	3.00	3.11	179.83	17.93	-67.25	108.65	105.70	6.89	16.350							
1,000.00	996.37	1,016.11	1,011.37	3.41	3.53	-168.55	25.39	-48.76	112.58	111.07	7.68	15.465							
1,100.00	1,094.29	1,117.41	1,109.93	3.83	3.98	-158.49	34.14	-27.10	118.75	114.18	8.05	15.183							
1,144.53	1,137.66	1,162.38	1,153.41	4.03	4.19	-154.43	38.44	-16.45	122.23	118.28	8.53	14.872							
1,200.00	1,191.61	1,218.26	1,207.18	4.28	4.46	-150.89	44.14	-2.34	126.81	126.21	9.43	14.389							
1,300.00	1,288.85	1,317.15	1,301.92	4.75	4.96	-144.67	54.76	23.96	135.64	135.48	10.38	14.056							
1,400.00	1,386.09	1,415.73	1,396.34	5.22	5.48	-139.25	65.36	50.21	145.86	145.86	11.37	13.833							
1,500.00	1,483.34	1,514.31	1,490.77	5.70	6.01	-134.56	75.97	76.45	157.22	157.11	12.38	13.691							
1,600.00	1,580.58	1,612.88	1,585.19	6.19	6.55	-130.53	86.57	102.70	169.49	169.08	13.41	13.609							
1,700.00	1,677.82	1,711.46	1,679.62	6.69	7.09	-127.04	97.17	128.95	182.48	181.61	14.45	13.570							
1,800.00	1,775.07	1,810.04	1,774.04	7.19	7.64	-124.02	107.77	155.20	196.06	194.61	15.49	13.560							
1,900.00	1,872.31	1,908.61	1,868.46	7.69	8.19	-121.40	118.37	181.45	210.10	207.99	16.54	13.573							
2,000.00	1,969.55	2,007.19	1,962.89	8.19	8.75	-119.10	128.97	207.70	224.53	221.67	17.59	13.600							
2,100.00	2,066.79	2,105.76	2,057.31	8.69	9.30	-117.09	139.57	233.95	239.27	235.62	18.64	13.637							
2,200.00	2,164.04	2,204.34	2,151.74	9.20	9.86	-115.31	150.18	260.20	254.26	249.77	19.70	13.681							
2,300.00	2,261.28	2,302.92	2,246.16	9.71	10.43	-113.72	160.78	286.45	269.47	264.11	20.75	13.730							
2,400.00	2,358.52	2,401.49	2,340.59	10.22	10.99	-112.31	171.38	312.70	284.86	278.60	21.80	13.781							
2,500.00	2,455.77	2,500.07	2,435.01	10.73	11.55	-111.04	181.98	338.95	300.40	293.22	22.85	13.833							
2,600.00	2,553.01	2,598.65	2,529.43	11.24	12.12	-109.90	192.58	365.19	316.07	307.96	23.90	13.885							
2,700.00	2,650.25	2,697.22	2,623.86	11.75	12.69	-108.86	203.18	391.44	331.86	322.79	24.95	13.938							
2,800.00	2,747.50	2,795.80	2,718.28	12.26	13.25	-107.92	213.78	417.69	347.74	337.70	26.00	13.989							
2,900.00	2,844.74	2,894.38	2,812.71	12.78	13.82	-107.06	224.39	443.94	363.70	352.69	27.05	14.040							
3,000.00	2,941.98	2,992.95	2,907.13	13.29	14.39	-106.28	234.99	470.19	379.74	367.75	28.09	14.090							
3,100.00	3,039.22	3,091.53	3,001.56	13.80	14.96	-105.55	245.59	496.44	395.84	382.86	29.14	14.138							
3,200.00	3,136.47	3,190.11	3,095.98	14.32	15.53	-104.88	256.19	522.69	412.00	398.02	30.19	14.184							
3,300.00	3,233.71	3,288.68	3,190.40	14.83	16.10	-104.27	266.79	548.94	428.21	413.23	31.24	14.229							
3,400.00	3,330.95	3,387.26	3,284.83	15.35	16.67	-103.70	277.39	575.19	444.46	428.47	32.28	14.273							
3,500.00	3,428.20	3,485.84	3,379.25	15.86	17.25	-103.17	287.99	601.44	460.76	443.76	33.33	14.315							
3,600.00	3,525.44	3,584.41	3,473.68	16.38	17.82	-102.67	298.59	627.69	477.09	459.08	34.37	14.355							
3,700.00	3,622.68	3,682.99	3,568.10	16.89	18.39	-102.21	309.20	653.93	493.45	474.42	35.42	14.394							
3,800.00	3,719.93	3,781.57	3,662.52	17.41	18.96	-101.78	319.80	680.18	509.84	489.79	36.46	14.432							
3,900.00	3,817.17	3,880.14	3,756.95	17.93	19.53	-101.37	330.40	706.43	526.26	505.19	37.51	14.468							
4,000.00	3,914.41	3,978.72	3,851.37	18.44	20.11	-100.99	341.00	732.68	542.70	520.61	38.55	14.503							
4,100.00	4,011.65	4,077.30	3,945.80	18.96	20.68	-100.63	351.60	758.93	559.17	536.05	39.60	14.537							
4,200.00	4,108.90	4,175.87	4,040.22	19.48	21.25	-100.29	362.20	785.18	575.65	551.51	40.64	14.570							
4,300.00	4,206.14	4,274.45	4,134.65	19.99	21.83	-99.97	372.80	811.43	592.15	566.99	41.69	14.601							
4,400.00	4,303.38	4,373.03	4,229.07	20.51	22.40	-99.67	383.41	837.68	608.67	582.48	42.73	14.631							
4,500.00	4,400.63	4,471.60	4,323.49	21.03	22.97	-99.38	394.01	863.93	625.21	597.98	43.78	14.660							
4,600.00	4,497.87	4,570.18	4,417.92	21.54	23.55	-99.11	404.61	890.18	641.76	613.50	44.82	14.688							
4,700.00	4,595.11	4,668.76	4,512.34	22.06	24.12	-98.85	415.21	916.42	658.32	629.03	45.86	14.716							
4,800.00	4,692.36	4,767.33	4,606.77	22.58	24.70	-98.61	425.81	942.67	674.90										

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft					
Survey Program: O-MWD+HDGM													Offset Well Error:	0.00 usft					
Reference													Semi Major Axis		Distance		Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)									
4,900.00	4,789.60	4,865.91	4,701.19	23.10	25.27	-98.38	436.41	968.92	691.48	644.58	46.91	14.742							
5,000.00	4,886.84	4,964.48	4,795.62	23.62	25.85	-98.15	447.01	995.17	708.08	660.13	47.95	14.767							
5,100.00	4,984.08	5,063.06	4,890.04	24.13	26.42	-97.94	457.62	1,021.42	724.69	675.70	48.99	14.792							
5,200.00	5,081.33	5,161.64	4,984.46	24.65	27.00	-97.74	468.22	1,047.67	741.31	691.27	50.04	14.815							
5,300.00	5,178.57	5,260.21	5,078.89	25.17	27.57	-97.54	478.82	1,073.92	757.93	706.85	51.08	14.838							
5,400.00	5,275.81	5,358.79	5,173.31	25.69	28.14	-97.36	489.42	1,100.17	774.57	722.44	52.12	14.861							
5,500.00	5,373.06	5,457.37	5,267.74	26.21	28.72	-97.18	500.02	1,126.42	791.21	738.04	53.17	14.882							
5,600.00	5,470.30	5,555.94	5,362.16	26.72	29.29	-97.01	510.62	1,152.67	807.85	753.65	54.21	14.903							
5,700.00	5,567.54	5,654.52	5,456.58	27.24	29.87	-96.85	521.22	1,178.92	824.51	769.26	55.25	14.923							
5,800.00	5,664.79	5,753.10	5,551.01	27.76	30.44	-96.69	531.83	1,205.16	841.17	784.88	56.29	14.942							
5,900.00	5,762.03	5,851.67	5,645.43	28.28	31.02	-96.54	542.43	1,231.41	857.84	800.50	57.34	14.961							
6,000.00	5,859.27	5,950.25	5,739.86	28.80	31.59	-96.39	553.03	1,257.66	874.51	816.13	58.38	14.980							
6,100.00	5,956.51	6,048.83	5,834.28	29.31	32.17	-96.25	563.63	1,283.91	891.19	831.77	59.42	14.998							
6,200.00	6,053.76	6,147.40	5,928.71	29.83	32.75	-96.12	574.23	1,310.16	907.87	847.41	60.46	15.015							
6,300.00	6,151.00	6,245.98	6,023.13	30.35	33.32	-95.99	584.83	1,336.41	924.56	863.05	61.51	15.032							
6,400.00	6,248.24	6,344.56	6,117.55	30.87	33.90	-95.86	595.43	1,362.66	941.25	878.70	62.55	15.048							
6,500.00	6,345.49	6,443.13	6,211.98	31.39	34.47	-95.74	606.04	1,388.91	957.95	894.35	63.59	15.064							
6,600.00	6,442.73	6,541.71	6,306.40	31.91	35.05	-95.63	616.64	1,415.16	974.65	910.01	64.64	15.079							
6,700.00	6,539.97	6,640.29	6,400.83	32.43	35.62	-95.51	627.24	1,441.41	991.35	925.67	65.68	15.094							
6,800.00	6,637.21	6,738.86	6,495.25	32.94	36.20	-95.41	637.84	1,467.66	1,008.06	941.34	66.72	15.109							
6,900.00	6,734.46	6,837.44	6,589.68	33.46	36.77	-95.30	648.44	1,493.90	1,024.77	957.01	67.76	15.123							
6,958.42	6,791.27	8,725.33	7,685.00	33.77	41.00	-28.50	-371.77	1,771.65	970.49	954.09	16.40	59.160							
7,000.00	6,831.76	8,726.22	7,685.00	33.98	41.00	4.18	-372.66	1,771.63	929.57	912.88	16.69	55.695							
7,050.00	6,880.45	8,724.11	7,685.00	34.22	41.00	40.00	-370.55	1,771.68	880.52	863.47	17.05	51.632							
7,100.00	6,928.94	8,718.52	7,685.00	34.44	40.99	67.59	-364.96	1,771.81	831.88	814.44	17.45	47.682							
7,150.00	6,976.98	8,709.49	7,685.00	34.64	40.98	87.24	-355.94	1,772.02	783.92	766.04	17.88	43.838							
7,200.00	7,024.34	8,697.06	7,685.00	34.82	40.97	100.97	-343.51	1,772.31	736.91	718.53	18.38	40.095							
7,250.00	7,070.78	8,681.30	7,685.00	34.99	40.95	110.62	-327.75	1,772.68	691.09	672.13	18.96	36.446							
7,300.00	7,116.09	8,662.26	7,685.00	35.14	40.94	117.46	-308.72	1,773.12	646.75	627.10	19.65	32.920							
7,350.00	7,160.03	8,640.06	7,685.00	35.28	40.92	122.35	-286.53	1,773.64	604.12	583.67	20.45	29.538							
7,400.00	7,202.41	8,614.80	7,685.00	35.40	40.91	125.81	-261.27	1,774.23	563.48	542.07	21.40	26.326							
7,450.00	7,243.00	8,586.60	7,685.00	35.51	40.89	128.19	-233.07	1,774.89	525.06	502.53	22.53	23.304							
7,500.00	7,281.62	8,555.59	7,685.00	35.60	40.88	129.73	-202.08	1,775.62	489.10	465.24	23.85	20.503							
7,550.00	7,318.07	8,521.94	7,685.00	35.68	40.87	130.59	-168.43	1,776.41	455.83	430.46	25.37	17.968							
7,600.00	7,352.17	8,485.80	7,685.00	35.75	40.86	130.88	-132.30	1,777.25	425.44	398.35	27.09	15.708							
7,650.00	7,383.77	8,447.34	7,685.00	35.81	40.87	130.69	-93.86	1,778.15	398.11	369.12	28.99	13.734							
7,700.00	7,412.70	8,406.77	7,685.00	35.85	40.88	130.11	-53.30	1,779.10	373.97	342.96	31.02	12.057							
7,750.00	7,438.83	8,349.19	7,684.15	35.89	40.90	128.21	4.26	1,780.21	352.68	319.44	33.24	10.610							
7,800.00	7,462.03	8,278.95	7,677.49	35.91	40.92	124.84	74.15	1,780.01	331.57	295.11	36.47	9.093							
7,850.00	7,482.18	8,214.09	7,665.50	35.93	40.95	121.09	137.85	1,778.20	310.65	270.29	40.36	7.698							
7,900.00	7,499.19	8,153.81	7,649.43	35.94	40.97	116.93	195.85	1,775.13	290.45	246.00	44.44	6.535							
7,950.00	7,512.97	8,097.43	7,630.20	35.94	40.98	112.35	248.67	1,771.07	271.52	223.10	48.42	5.607							
8,000.00	7,523.46	8,044.39	7,608.50	35.94	40.99	107.33	296.82	1,766.23	254.42	202.33	52.09	4.884							
8,050.00	7,530.60	7,994.18	7,584.87	35.94	40.98	101.88	340.76	1,760.75	239.71	184.41	55.30	4.335							
8,100.00	7,534.37	7,946.40	7,559.68	35.94	40.97	96.02	380.91	1,754.75	227.93	169.99	57.94	3.934							
8,130.43	7,535.00	7,918.36	7,543.72	35.94	40.96	92.28	403.64	1,750.89	222.40	163.15	59.26	3.753							
8,200.00	7,535.00	7,859.07	7,507.23	35.94	40.93	82.55	449.48	1,741.91	214.55	153.00	61.55	3.486							
8,228.72	7,535.00	7,836.82	7,492.62	35.95	40.91	78.56	465.85	1,738.27	213.72	151.46	62.26	3.432 SF							
8,300.00	7,535.00	7,786.69	7,457.95	35.97	40.86	69.15	500.99	1,729.55	219.41	155.87	63.54	3.453							
8,400.00	7,535.00	7,727.10	7,413.81	36.05	40.78	57.84	539.37	1,718.29	247.45	182.55	64.90	3.813							
8,500.00	7,535.00	7,677.84	7,375.11	36.17	40.69	49.01	568.16	1,708.31	295.91	229.59	66.32	4.462							
8,600.00	7,535.00	7,636.78	7,341.48	36.37	40.61	42.32	590.01	1,699.56	358.89	291.12	67.76	5.296							

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W - HWY52 4J-32H-O268 - OH - PLAN #2													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
8,700.00	7,535.00	7,600.00	7,310.38	36.65	40.53	36.93	607.87	1,691.41	431.43	362.56	68.87	6.264		
8,800.00	7,535.00	7,572.96	7,286.97	37.05	40.46	33.35	619.93	1,685.25	510.31	440.19	70.12	7.278		
8,900.00	7,535.00	7,550.00	7,266.78	37.58	40.40	30.55	629.44	1,679.91	593.58	522.47	71.11	8.347		
9,000.00	7,535.00	7,526.15	7,245.49	38.23	40.32	27.87	638.62	1,674.26	679.95	608.24	71.71	9.482		
9,100.00	7,535.00	7,500.00	7,221.85	38.99	40.24	25.17	647.83	1,667.97	768.70	696.70	72.00	10.676		
9,200.00	7,535.00	7,500.00	7,221.85	39.85	40.24	25.17	647.83	1,667.97	859.17	786.10	73.07	11.758		
9,300.00	7,535.00	7,475.94	7,199.82	40.78	40.16	22.91	655.50	1,662.08	950.87	877.72	73.14	13.000		
9,400.00	7,535.00	7,450.00	7,175.81	41.78	40.07	20.67	662.92	1,655.64	1,043.95	970.83	73.12	14.277		
9,500.00	7,535.00	7,450.00	7,175.81	42.83	40.07	20.67	662.92	1,655.64	1,137.54	1,063.82	73.71	15.432		
9,600.00	7,535.00	7,450.00	7,175.81	43.93	40.07	20.67	662.92	1,655.64	1,232.13	1,157.96	74.18	16.611		
9,700.00	7,535.00	7,431.14	7,158.21	45.07	40.00	19.17	667.74	1,650.91	1,327.15	1,252.98	74.17	17.894		
9,800.00	7,535.00	7,422.50	7,150.10	46.24	39.97	18.52	669.79	1,648.73	1,422.76	1,348.42	74.34	19.139		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W - HWY52 4K-32H-O268 - OH - PLAN #2													Offset Site Error:	0.00 usft
Survey Program: O-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
0.00	0.00	0.00	0.00	0.00	0.00	-89.62	0.66	-99.88	99.89					
100.00	100.00	100.00	100.00	0.14	0.14	-89.62	0.66	-99.88	99.89	99.61	0.28	361.875		
200.00	200.00	200.00	200.00	0.50	0.50	-89.62	0.66	-99.88	99.89	98.89	0.99	100.594		
300.00	300.00	300.00	300.00	0.85	0.85	-89.62	0.66	-99.88	99.89	98.18	1.71	58.416		
400.00	400.00	403.31	403.29	1.21	1.22	-89.23	1.33	-98.14	98.21	95.75	2.46	39.913		
500.00	499.98	506.38	506.20	1.56	1.59	132.91	3.31	-92.94	94.38	91.17	3.21	29.366		
600.00	599.84	608.96	608.36	1.90	1.96	137.84	6.60	-84.33	90.02	86.07	3.96	22.743		
650.00	649.68	659.99	659.04	2.08	2.16	141.48	8.72	-78.78	87.97	83.64	4.33	20.323		
700.00	699.47	710.85	709.44	2.25	2.35	153.77	11.15	-72.41	86.32	81.62	4.70	18.383		
800.00	798.84	812.23	809.50	2.62	2.75	174.20	16.95	-57.22	84.87	79.43	5.43	15.625		
802.85	801.66	815.10	812.33	2.63	2.76	174.72	17.13	-56.74	84.86	79.41	5.45	15.563	CC, ES	
900.00	897.85	913.12	908.45	3.00	3.18	-169.00	23.97	-38.82	86.30	80.12	6.18	13.971		
1,000.00	996.37	1,013.53	1,006.17	3.41	3.63	-154.72	32.19	-17.30	90.88	83.92	6.96	13.050		
1,100.00	1,094.29	1,113.44	1,102.55	3.83	4.11	-142.66	41.57	7.28	98.58	90.76	7.82	12.608		
1,144.53	1,137.66	1,157.76	1,145.00	4.03	4.35	-137.97	46.12	19.19	102.94	94.71	8.23	12.510		
1,200.00	1,191.61	1,212.66	1,197.33	4.28	4.64	-133.85	52.04	34.72	108.87	100.11	8.75	12.436		
1,300.00	1,288.85	1,311.10	1,291.04	4.75	5.18	-127.38	62.79	62.88	120.75	111.01	9.74	12.391		
1,400.00	1,386.09	1,409.54	1,384.75	5.22	5.74	-122.10	73.54	91.04	133.89	123.13	10.77	12.435		
1,500.00	1,483.34	1,507.99	1,478.46	5.70	6.30	-117.78	84.29	119.20	147.97	136.16	11.81	12.533		
1,600.00	1,580.58	1,606.43	1,572.18	6.19	6.88	-114.23	95.04	147.36	162.72	149.87	12.85	12.660		
1,700.00	1,677.82	1,704.87	1,665.89	6.69	7.46	-111.27	105.79	175.52	178.00	164.09	13.90	12.802		
1,800.00	1,775.07	1,803.31	1,759.60	7.19	8.04	-108.77	116.54	203.68	193.66	178.71	14.96	12.949		
1,900.00	1,872.31	1,901.75	1,853.31	7.69	8.63	-106.66	127.29	231.84	209.63	193.63	16.01	13.096		
2,000.00	1,969.55	2,000.19	1,947.03	8.19	9.22	-104.84	138.04	260.00	225.85	208.79	17.06	13.239		
2,100.00	2,066.79	2,098.63	2,040.74	8.69	9.81	-103.27	148.79	288.16	242.25	224.14	18.11	13.377		
2,200.00	2,164.04	2,197.07	2,134.45	9.20	10.40	-101.89	159.54	316.32	258.81	239.65	19.16	13.508		
2,300.00	2,261.28	2,295.51	2,228.16	9.71	11.00	-100.69	170.29	344.48	275.50	255.29	20.21	13.632		
2,400.00	2,358.52	2,393.95	2,321.88	10.22	11.59	-99.61	181.04	372.64	292.30	271.04	21.26	13.748		
2,500.00	2,455.77	2,492.39	2,415.59	10.73	12.19	-98.66	191.79	400.80	309.18	286.87	22.31	13.859		
2,600.00	2,553.01	2,590.83	2,509.30	11.24	12.79	-97.81	202.54	428.96	326.14	302.78	23.36	13.962		
2,700.00	2,650.25	2,689.27	2,603.01	11.75	13.39	-97.04	213.28	457.12	343.16	318.75	24.41	14.060		
2,800.00	2,747.50	2,787.71	2,696.73	12.26	13.99	-96.34	224.03	485.28	360.23	334.78	25.46	14.152		
2,900.00	2,844.74	2,886.15	2,790.44	12.78	14.59	-95.70	234.78	513.44	377.36	350.85	26.50	14.238		
3,000.00	2,941.98	2,984.60	2,884.15	13.29	15.19	-95.12	245.53	541.60	394.52	366.97	27.55	14.320		
3,100.00	3,039.22	3,083.04	2,977.86	13.80	15.79	-94.59	256.28	569.76	411.72	383.12	28.60	14.396		
3,200.00	3,136.47	3,181.48	3,071.58	14.32	16.39	-94.10	267.03	597.92	428.95	399.31	29.65	14.469		
3,300.00	3,233.71	3,279.92	3,165.29	14.83	16.99	-93.65	277.78	626.08	446.21	415.52	30.69	14.537		
3,400.00	3,330.95	3,378.36	3,259.00	15.35	17.59	-93.23	288.53	654.24	463.50	431.76	31.74	14.602		
3,500.00	3,428.20	3,476.80	3,352.71	15.86	18.20	-92.85	299.28	682.40	480.81	448.02	32.79	14.664		
3,600.00	3,525.44	3,575.24	3,446.43	16.38	18.80	-92.49	310.03	710.56	498.13	464.30	33.84	14.722		
3,700.00	3,622.68	3,673.68	3,540.14	16.89	19.40	-92.15	320.78	738.72	515.48	480.59	34.88	14.777		
3,800.00	3,719.93	3,772.12	3,633.85	17.41	20.01	-91.84	331.53	766.88	532.84	496.91	35.93	14.829		
3,900.00	3,817.17	3,870.56	3,727.56	17.93	20.61	-91.54	342.28	795.04	550.21	513.24	36.98	14.879		
4,000.00	3,914.41	3,969.00	3,821.28	18.44	21.22	-91.27	353.03	823.20	567.60	529.58	38.03	14.927		
4,100.00	4,011.65	4,067.44	3,914.99	18.96	21.82	-91.00	363.78	851.36	585.00	545.93	39.07	14.972		
4,200.00	4,108.90	4,165.88	4,008.70	19.48	22.42	-90.76	374.53	879.52	602.42	562.30	40.12	15.015		
4,300.00	4,206.14	4,264.32	4,102.41	19.99	23.03	-90.53	385.27	907.68	619.84	578.67	41.17	15.056		
4,400.00	4,303.38	4,362.77	4,196.13	20.51	23.63	-90.31	396.02	935.84	637.27	595.05	42.22	15.096		
4,500.00	4,400.63	4,461.21	4,289.84	21.03	24.24	-90.10	406.77	964.00	654.71	611.45	43.26	15.133		
4,600.00	4,497.87	4,559.65	4,383.55	21.54	24.84	-89.91	417.52	992.16	672.16	627.85	44.31	15.169		
4,700.00	4,595.11	4,658.09	4,477.26	22.06	25.45	-89.72	428.27	1,020.32	689.61	644.25	45.36	15.204		
4,800.00	4,692.36	4,756.53	4,570.98	22.58	26.05	-89.54	439.02	1,048.49	707.07	660.67	46.40	15.237		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft								
Survey Program: O-MWD+HDGM													Offset Well Error:		0.00 usft							
Reference													Offset		Semi Major Axis		Distance				Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning									
4,900.00	4,789.60	4,854.97	4,664.69	23.10	26.66	-89.37	449.77	1,076.65	724.54	677.09	47.45	15.269										
5,000.00	4,886.84	4,953.41	4,758.40	23.62	27.26	-89.21	460.52	1,104.81	742.01	693.52	48.50	15.300										
5,100.00	4,984.08	5,051.85	4,852.11	24.13	27.87	-89.06	471.27	1,132.97	759.49	709.95	49.55	15.329										
5,200.00	5,081.33	5,150.29	4,945.83	24.65	28.48	-88.91	482.02	1,161.13	776.98	726.38	50.59	15.357										
5,300.00	5,178.57	5,248.73	5,039.54	25.17	29.08	-88.77	492.77	1,189.29	794.47	742.82	51.64	15.384										
5,400.00	5,275.81	5,347.17	5,133.25	25.69	29.69	-88.64	503.52	1,217.45	811.96	759.27	52.69	15.410										
5,500.00	5,373.06	5,445.61	5,226.96	26.21	30.29	-88.51	514.27	1,245.61	829.46	775.72	53.74	15.436										
5,600.00	5,470.30	5,544.05	5,320.68	26.72	30.90	-88.39	525.02	1,273.77	846.96	792.17	54.78	15.460										
5,700.00	5,567.54	5,642.49	5,414.39	27.24	31.50	-88.27	535.77	1,301.93	864.46	808.63	55.83	15.484										
5,800.00	5,664.79	5,740.94	5,508.10	27.76	32.11	-88.16	546.52	1,330.09	881.97	825.09	56.88	15.506										
5,900.00	5,762.03	5,839.38	5,601.81	28.28	32.72	-88.05	557.27	1,358.25	899.48	841.56	57.93	15.528										
6,000.00	5,859.27	5,937.82	5,695.53	28.80	33.32	-87.94	568.01	1,386.41	917.00	858.02	58.97	15.549										
6,100.00	5,956.51	6,036.26	5,789.24	29.31	33.93	-87.84	578.76	1,414.57	934.51	874.49	60.02	15.570										
6,200.00	6,053.76	6,134.70	5,882.95	29.83	34.54	-87.75	589.51	1,442.73	952.03	890.97	61.07	15.590										
6,300.00	6,151.00	6,233.14	5,976.66	30.35	35.14	-87.65	600.26	1,470.89	969.56	907.44	62.12	15.609										
6,400.00	6,248.24	6,331.58	6,070.38	30.87	35.75	-87.56	611.01	1,499.05	987.08	923.92	63.16	15.627										
6,500.00	6,345.49	6,430.02	6,164.09	31.39	36.35	-87.48	621.76	1,527.21	1,004.61	940.40	64.21	15.645										
6,600.00	6,442.73	6,528.46	6,257.80	31.91	36.96	-87.39	632.51	1,555.37	1,022.14	956.88	65.26	15.663										
6,700.00	6,539.97	6,626.90	6,351.51	32.43	37.57	-87.31	643.26	1,583.53	1,039.67	973.36	66.31	15.680										
6,800.00	6,637.21	6,725.34	6,445.22	32.94	38.18	-87.23	654.01	1,611.69	1,056.89	990.24	67.36	15.696										
6,900.00	6,734.46	6,823.78	6,538.93	33.46	38.79	-87.15	664.76	1,639.76	1,074.16	1,007.32	68.41	15.712										
6,958.42	6,791.27	6,882.82	6,597.00	33.77	39.00	-87.10	675.51	1,667.61	1,091.59	1,022.43	69.46	15.727										
7,000.00	6,831.76	6,923.31	6,645.51	33.98	39.21	-87.05	686.26	1,695.36	1,108.07	1,037.41	70.51	15.742										
7,050.00	6,880.45	6,972.00	6,694.02	34.22	39.42	-87.00	697.01	1,723.01	1,124.50	1,053.83	71.56	15.757										
7,100.00	6,928.94	7,020.70	6,742.53	34.44	39.63	-86.95	707.76	1,750.66	1,141.59	1,070.85	72.61	15.772										
7,150.00	6,976.98	7,069.40	6,791.04	34.64	39.84	-86.90	718.51	1,778.31	1,159.68	1,088.47	73.66	15.787										
7,200.00	7,024.34	7,118.10	6,839.55	34.82	40.05	-86.85	729.26	1,805.86	1,177.77	1,106.59	74.71	15.802										
7,250.00	7,070.78	7,166.80	6,888.06	34.99	40.26	-86.80	740.01	1,833.41	1,196.86	1,124.71	75.76	15.817										
7,300.00	7,116.09	7,215.50	6,936.57	35.14	40.47	-86.75	750.76	1,860.96	1,215.95	1,142.83	76.81	15.832										
7,350.00	7,160.03	7,264.20	6,985.08	35.28	40.68	-86.70	761.51	1,888.51	1,235.04	1,161.95	77.86	15.847										
7,400.00	7,202.41	7,312.90	7,033.59	35.40	40.89	-86.65	772.26	1,916.06	1,254.13	1,181.07	78.91	15.862										
7,450.00	7,243.00	7,361.60	7,082.10	35.51	41.10	-86.60	783.01	1,943.61	1,273.22	1,200.19	79.96	15.877										
7,500.00	7,281.62	7,409.30	7,130.61	35.60	41.31	-86.55	793.76	1,971.16	1,292.31	1,219.31	81.01	15.892										
7,550.00	7,318.07	7,458.00	7,179.12	35.68	41.52	-86.50	804.51	1,998.71	1,311.40	1,238.43	82.06	15.907										
7,600.00	7,352.17	7,506.70	7,227.63	35.75	41.73	-86.45	815.26	2,026.26	1,330.49	1,257.55	83.11	15.922										
7,650.00	7,383.77	7,555.40	7,276.14	35.81	41.94	-86.40	826.01	2,053.81	1,349.58	1,276.67	84.16	15.937										
7,700.00	7,412.70	7,604.10	7,324.65	35.85	42.15	-86.35	836.76	2,081.36	1,368.67	1,295.79	85.21	15.952										
7,750.00	7,438.83	7,652.80	7,373.16	35.89	42.36	-86.30	847.51	2,108.91	1,387.76	1,314.91	86.26	15.967										
7,800.00	7,462.03	7,701.50	7,421.67	35.91	42.57	-86.25	858.26	2,136.46	1,406.85	1,334.03	87.31	15.982										
7,850.00	7,482.18	7,750.20	7,470.18	35.93	42.78	-86.20	869.01	2,164.01	1,425.94	1,353.15	88.36	15.997										
7,900.00	7,499.19	7,798.90	7,518.69	35.94	42.99	-86.15	879.76	2,191.56	1,445.03	1,372.27	89.41	16.012										
7,907.92	7,501.59	7,806.30	7,526.20	35.94	43.00	-86.15	880.51	2,193.01	1,446.48	1,373.72	89.46	16.017										
7,950.00	7,512.97	7,813.70	7,533.71	35.94	43.01	-86.15	881.26	2,194.46	1,447.93	1,375.17	89.51	16.022										
8,000.00	7,523.46	7,821.10	7,541.22	35.94	43.02	-86.15	882.01	2,195.91	1,449.38	1,376.62	89.56	16.027										
8,050.00	7,530.60	7,828.50	7,548.73	35.94	43.03	-86.15	882.76	2,197.36	1,450.83	1,378.07	89.61	16.032										
8,100.00	7,534.37	7,835.90	7,556.24	35.94	43.04	-86.15	883.51	2,198.81	1,452.28	1,379.52	89.66	16.037										
8,130.43	7,535.00	7,838.30	7,558.75	35.94	43.05	-86.15	884.26	2,199.26	1,453.73	1,380.97	89.71	16.042										
8,200.00	7,535.00	7,840.70	7,561.26	35.94	43.06	-86.15	885.01	2,200.71	1,455.18	1,382.42	89.76	16.047										
8,300.00	7,535.00	7,843.10	7,563.77	35.97	43.07	-86.15	885.76	2,202.16	1,456.63	1,383.87	89.81	16.052										
8,400.00	7,535.00	7,845.50	7,566.28	36.05	43.08	-86.15	886.51	2,203.61	1,458.08	1,385.32	89.86	16.057										
8,500.00	7,535.00	7,847.90	7,568.79	36.17	43.09	-86.15	887.26	2,205.06	1,459.53	1,386.77	89.91	16.062										
8,600.00	7,535.00	7,850.30	7,571.30	36.37	43.10	-86.15	888.01	2,206.51	1,460.98	1,388.22	90.00	16.070										

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W - HWY52 4K-32H-O268 - OH - PLAN #2													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
8,700.00	7,535.00	7,500.00	7,160.36	36.65	41.95	38.85	558.90	1,826.58	614.39	548.20	66.19	9.282		
8,800.00	7,535.00	7,472.10	7,138.13	37.05	41.88	36.69	574.36	1,819.90	680.11	612.16	67.95	10.009		
8,900.00	7,535.00	7,450.00	7,120.11	37.58	41.83	35.03	585.96	1,814.49	751.22	681.62	69.60	10.793		
9,000.00	7,535.00	7,416.96	7,092.56	38.23	41.74	32.63	602.21	1,806.21	826.48	756.10	70.39	11.742		
9,100.00	7,535.00	7,400.00	7,078.15	38.99	41.69	31.44	610.03	1,801.88	905.35	833.75	71.60	12.644		
9,200.00	7,535.00	7,373.84	7,055.58	39.85	41.61	29.66	621.39	1,795.10	986.98	914.77	72.21	13.668		
9,300.00	7,535.00	7,350.00	7,034.68	40.78	41.54	28.10	630.98	1,788.82	1,071.03	998.28	72.75	14.723		
9,400.00	7,535.00	7,350.00	7,034.68	41.78	41.54	28.10	630.98	1,788.82	1,157.07	1,083.22	73.84	15.669		
9,500.00	7,535.00	7,324.76	7,012.23	42.83	41.45	26.52	640.35	1,782.07	1,244.52	1,170.46	74.06	16.805		
9,600.00	7,535.00	7,300.00	6,989.92	43.93	41.36	25.03	648.72	1,775.37	1,333.60	1,259.37	74.22	17.967		
9,700.00	7,535.00	7,300.00	6,989.92	45.07	41.36	25.03	648.72	1,775.37	1,423.56	1,348.65	74.91	19.005		

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W - HWY52 4L-32H-O268 - OH - PLAN #2													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
0.00	0.00	0.00	0.00	0.00	0.00	-89.59	0.64	-89.81	89.81					
100.00	100.00	100.00	100.00	0.14	0.14	-89.59	0.64	-89.81	89.81	89.54	0.28	325.385		
200.00	200.00	200.00	200.00	0.50	0.50	-89.59	0.64	-89.81	89.81	88.82	0.99	90.450	CC, ES	
300.00	300.00	297.97	297.95	0.85	0.84	-90.39	-0.62	-90.91	90.93	89.22	1.71	53.217		
400.00	400.00	395.71	395.56	1.21	1.18	-92.68	-4.41	-94.18	94.39	91.95	2.44	38.660		
500.00	499.98	493.00	492.49	1.56	1.53	124.56	-10.68	-99.60	101.43	98.25	3.18	31.909		
600.00	599.84	592.08	591.01	1.90	1.90	122.84	-18.63	-106.47	112.10	108.22	3.87	28.946		
650.00	649.68	641.71	640.36	2.08	2.09	122.61	-22.62	-109.92	118.16	113.94	4.22	27.973		
700.00	699.47	691.25	689.62	2.25	2.28	130.79	-26.61	-113.36	124.89	120.32	4.58	27.281		
800.00	798.84	789.95	787.76	2.62	2.66	142.25	-34.54	-120.22	140.94	135.64	5.30	26.614	SF	
900.00	897.85	888.03	885.28	3.00	3.04	149.57	-42.43	-127.04	160.42	154.39	6.02	26.626		
1,000.00	996.37	985.37	982.07	3.41	3.42	154.54	-50.26	-133.80	183.30	176.54	6.76	27.125		
1,100.00	1,094.29	1,081.85	1,078.00	3.83	3.80	158.11	-58.02	-140.51	209.56	202.07	7.49	27.970		
1,144.53	1,137.66	1,124.50	1,120.42	4.03	3.96	159.39	-61.45	-143.47	222.33	214.51	7.82	28.419		
1,200.00	1,191.61	1,177.51	1,173.13	4.28	4.17	159.52	-65.71	-147.16	238.66	230.43	8.23	29.006		
1,300.00	1,288.85	1,273.08	1,268.15	4.75	4.55	159.71	-73.40	-153.80	268.09	259.14	8.96	29.932		
1,400.00	1,386.09	1,368.65	1,363.18	5.22	4.92	159.86	-81.08	-160.44	297.53	287.84	9.69	30.703		
1,500.00	1,483.34	1,464.21	1,458.20	5.70	5.29	159.98	-88.77	-167.08	326.97	316.54	10.43	31.354		
1,600.00	1,580.58	1,559.78	1,553.23	6.19	5.67	160.09	-96.45	-173.73	356.40	345.24	11.17	31.910		
1,700.00	1,677.82	1,655.35	1,648.26	6.69	6.05	160.17	-104.14	-180.37	385.84	373.93	11.91	32.390		
1,800.00	1,775.07	1,750.91	1,743.28	7.19	6.42	160.25	-111.82	-187.01	415.28	402.63	12.66	32.808		
1,900.00	1,872.31	1,846.48	1,838.31	7.69	6.80	160.32	-119.51	-193.65	444.72	431.32	13.40	33.176		
2,000.00	1,969.55	1,942.05	1,933.33	8.19	7.17	160.37	-127.19	-200.29	474.17	460.01	14.15	33.502		
2,100.00	2,066.79	2,037.62	2,028.36	8.69	7.55	160.42	-134.88	-206.93	503.61	488.70	14.90	33.792		
2,200.00	2,164.04	2,133.18	2,123.38	9.20	7.92	160.47	-142.56	-213.58	533.05	517.40	15.65	34.052		
2,300.00	2,261.28	2,228.75	2,218.41	9.71	8.30	160.51	-150.25	-220.22	562.49	546.09	16.41	34.287		
2,400.00	2,358.52	2,324.32	2,313.43	10.22	8.68	160.54	-157.93	-226.86	591.93	574.78	17.16	34.499		
2,500.00	2,455.77	2,419.88	2,408.46	10.73	9.05	160.58	-165.62	-233.50	621.38	603.47	17.91	34.693		
2,600.00	2,553.01	2,515.45	2,503.49	11.24	9.43	160.61	-173.30	-240.14	650.82	632.15	18.66	34.869		
2,700.00	2,650.25	2,611.02	2,598.51	11.75	9.80	160.63	-180.99	-246.79	680.26	660.84	19.42	35.031		
2,800.00	2,747.50	2,706.58	2,693.54	12.26	10.18	160.66	-188.67	-253.43	709.70	689.53	20.17	35.180		
2,900.00	2,844.74	2,802.15	2,788.56	12.78	10.56	160.68	-196.36	-260.07	739.15	718.22	20.93	35.318		
3,000.00	2,941.98	2,897.72	2,883.59	13.29	10.93	160.70	-204.05	-266.71	768.59	746.91	21.68	35.446		
3,100.00	3,039.22	2,993.28	2,978.61	13.80	11.31	160.72	-211.73	-273.35	798.03	775.59	22.44	35.564		
3,200.00	3,136.47	3,088.85	3,073.64	14.32	11.68	160.74	-219.42	-280.00	827.48	804.28	23.20	35.674		
3,300.00	3,233.71	3,184.42	3,168.66	14.83	12.06	160.76	-227.10	-286.64	856.92	832.97	23.95	35.777		
3,400.00	3,330.95	3,279.98	3,263.69	15.35	12.44	160.78	-234.79	-293.28	886.36	861.66	24.71	35.874		
3,500.00	3,428.20	3,375.55	3,358.71	15.86	12.81	160.79	-242.47	-299.92	915.81	890.34	25.46	35.964		
3,600.00	3,525.44	3,471.12	3,453.74	16.38	13.19	160.80	-250.16	-306.56	945.25	919.03	26.22	36.048		
3,700.00	3,622.68	3,566.69	3,548.77	16.89	13.57	160.82	-257.84	-313.21	974.70	947.72	26.98	36.128		
3,800.00	3,719.93	3,662.25	3,643.79	17.41	13.94	160.83	-265.53	-319.85	1,004.14	976.40	27.74	36.203		
3,900.00	3,817.17	3,757.82	3,738.82	17.93	14.32	160.84	-273.21	-326.49	1,033.58	1,005.09	28.49	36.274		
4,000.00	3,914.41	3,853.39	3,833.84	18.44	14.70	160.85	-280.90	-333.13	1,063.03	1,033.78	29.25	36.341		
4,100.00	4,011.65	3,948.95	3,928.87	18.96	15.07	160.86	-288.58	-339.77	1,092.47	1,062.46	30.01	36.405		
4,200.00	4,108.90	4,044.52	4,023.89	19.48	15.45	160.87	-296.27	-346.41	1,121.91	1,091.15	30.77	36.465		
4,300.00	4,206.14	4,140.09	4,118.92	19.99	15.82	160.88	-303.95	-353.06	1,151.36	1,119.83	31.52	36.522		
4,400.00	4,303.38	4,235.65	4,213.94	20.51	16.20	160.89	-311.64	-359.70	1,180.80	1,148.52	32.28	36.577		
4,500.00	4,400.63	4,331.22	4,308.97	21.03	16.58	160.90	-319.33	-366.34	1,210.25	1,177.20	33.04	36.628		
4,600.00	4,497.87	4,426.79	4,404.00	21.54	16.95	160.91	-327.01	-372.98	1,239.69	1,205.89	33.80	36.678		
4,700.00	4,595.11	4,522.35	4,499.02	22.06	17.33	160.91	-334.70	-379.62	1,269.13	1,234.58	34.56	36.725		
4,800.00	4,692.36	4,617.92	4,594.05	22.58	17.71	160.92	-342.38	-386.27	1,298.58	1,263.26	35.32	36.770		
4,900.00	4,789.60	4,713.49	4,689.07	23.10	18.08	160.93	-350.07	-392.91	1,328.02	1,291.95	36.08	36.813		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W - HWY52 4L-32H-O268 - OH - PLAN #2													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
5,000.00	4,886.84	4,809.05	4,784.10	23.62	18.46	160.94	-357.75	-399.55	1,357.47	1,320.63	36.83	36.854		
5,100.00	4,984.08	4,904.62	4,879.12	24.13	18.84	160.94	-365.44	-406.19	1,386.91	1,349.32	37.59	36.893		
5,200.00	5,081.33	5,000.19	4,974.15	24.65	19.21	160.95	-373.12	-412.83	1,416.35	1,378.00	38.35	36.931		
5,300.00	5,178.57	5,095.76	5,069.17	25.17	19.59	160.95	-380.81	-419.48	1,445.80	1,406.69	39.11	36.967		
5,400.00	5,275.81	5,191.32	5,164.20	25.69	19.97	160.96	-388.49	-426.12	1,475.24	1,435.37	39.87	37.002		

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft	
Survey Program: O-MWD+HDGM													Offset Well Error:		0.00 usft
Reference															
Offset				Semi Major Axis			Distance								
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning		
0.00	0.00	0.00	0.00	0.00	0.00	-89.55	0.63	-80.02	80.02						
100.00	100.00	100.00	100.00	0.14	0.14	-89.55	0.63	-80.02	80.02	79.75	0.28	289.908			
200.00	200.00	200.00	200.00	0.50	0.50	-89.55	0.63	-80.02	80.02	79.03	0.99	80.588	CC, ES		
300.00	300.00	298.52	298.50	0.85	0.84	-90.57	-0.81	-80.92	80.94	79.23	1.70	47.503			
400.00	400.00	396.81	396.65	1.21	1.18	-93.49	-5.10	-83.60	83.83	81.40	2.43	34.511			
500.00	499.98	495.01	494.49	1.56	1.54	122.94	-12.19	-88.04	89.99	86.83	3.15	28.533			
600.00	599.84	594.55	593.57	1.90	1.91	120.98	-20.35	-93.15	98.98	95.13	3.85	25.710			
650.00	649.68	644.28	643.07	2.08	2.09	120.73	-24.43	-95.70	104.17	99.96	4.20	24.775			
700.00	699.47	693.94	692.49	2.25	2.28	128.92	-28.50	-98.25	110.01	105.45	4.56	24.116			
800.00	798.84	792.91	791.00	2.62	2.66	140.44	-36.61	-103.32	124.28	118.99	5.29	23.513	SF		
900.00	897.85	891.32	888.95	3.00	3.04	147.86	-44.68	-108.37	141.97	135.95	6.02	23.585			
1,000.00	996.37	989.06	986.23	3.41	3.41	152.95	-52.69	-113.39	163.09	156.33	6.76	24.132			
1,100.00	1,094.29	1,086.00	1,082.71	3.83	3.79	156.64	-60.64	-118.36	187.59	180.09	7.50	25.015			
1,144.53	1,137.66	1,128.87	1,125.39	4.03	3.95	157.97	-64.15	-120.56	199.59	191.75	7.83	25.480			
1,200.00	1,191.61	1,182.17	1,178.44	4.28	4.16	158.16	-68.52	-123.29	214.95	206.70	8.24	26.082			
1,300.00	1,288.85	1,278.26	1,274.07	4.75	4.53	158.44	-76.40	-128.22	242.64	233.66	8.98	27.029			
1,400.00	1,386.09	1,374.34	1,369.70	5.22	4.90	158.67	-84.27	-133.15	270.34	260.62	9.72	27.820			
1,500.00	1,483.34	1,470.42	1,465.33	5.70	5.27	158.85	-92.15	-138.08	298.04	287.58	10.46	28.490			
1,600.00	1,580.58	1,566.50	1,560.97	6.19	5.64	159.01	-100.03	-143.01	325.74	314.53	11.21	29.064			
1,700.00	1,677.82	1,662.59	1,656.60	6.69	6.01	159.13	-107.90	-147.94	353.45	341.49	11.96	29.560			
1,800.00	1,775.07	1,758.67	1,752.23	7.19	6.39	159.24	-115.78	-152.86	381.15	368.44	12.71	29.993			
1,900.00	1,872.31	1,854.75	1,847.86	7.69	6.76	159.34	-123.65	-157.79	408.86	395.40	13.46	30.375			
2,000.00	1,969.55	1,950.84	1,943.50	8.19	7.13	159.42	-131.53	-162.72	436.57	422.35	14.21	30.713			
2,100.00	2,066.79	2,046.92	2,039.13	8.69	7.50	159.49	-139.41	-167.65	464.28	449.31	14.97	31.015			
2,200.00	2,164.04	2,143.00	2,134.76	9.20	7.88	159.56	-147.28	-172.58	491.99	476.26	15.73	31.287			
2,300.00	2,261.28	2,239.08	2,230.39	9.71	8.25	159.62	-155.16	-177.51	519.70	503.22	16.48	31.532			
2,400.00	2,358.52	2,335.17	2,326.03	10.22	8.62	159.67	-163.04	-182.44	547.41	530.17	17.24	31.754			
2,500.00	2,455.77	2,431.25	2,421.66	10.73	9.00	159.72	-170.91	-187.37	575.12	557.12	18.00	31.956			
2,600.00	2,553.01	2,527.33	2,517.29	11.24	9.37	159.76	-178.79	-192.30	602.83	584.07	18.76	32.141			
2,700.00	2,650.25	2,623.42	2,612.92	11.75	9.74	159.80	-186.66	-197.22	630.54	611.03	19.51	32.311			
2,800.00	2,747.50	2,719.50	2,708.56	12.26	10.11	159.83	-194.54	-202.15	658.25	637.98	20.27	32.468			
2,900.00	2,844.74	2,815.58	2,804.19	12.78	10.49	159.87	-202.42	-207.08	685.97	664.93	21.03	32.613			
3,000.00	2,941.98	2,911.66	2,899.82	13.29	10.86	159.90	-210.29	-212.01	713.68	691.88	21.79	32.747			
3,100.00	3,039.22	3,007.75	2,995.45	13.80	11.23	159.92	-218.17	-216.94	741.39	718.84	22.55	32.871			
3,200.00	3,136.47	3,103.83	3,091.09	14.32	11.61	159.95	-226.05	-221.87	769.10	745.79	23.31	32.988			
3,300.00	3,233.71	3,199.91	3,186.72	14.83	11.98	159.97	-233.92	-226.80	796.82	772.74	24.08	33.096			
3,400.00	3,330.95	3,295.99	3,282.35	15.35	12.35	160.00	-241.80	-231.73	824.53	799.69	24.84	33.198			
3,500.00	3,428.20	3,392.08	3,377.98	15.86	12.73	160.02	-249.67	-236.66	852.24	826.64	25.60	33.293			
3,600.00	3,525.44	3,488.16	3,473.62	16.38	13.10	160.04	-257.55	-241.58	879.95	853.59	26.36	33.382			
3,700.00	3,622.68	3,584.24	3,569.25	16.89	13.47	160.06	-265.43	-246.51	907.67	880.55	27.12	33.467			
3,800.00	3,719.93	3,680.33	3,664.88	17.41	13.84	160.07	-273.30	-251.44	935.38	907.50	27.88	33.546			
3,900.00	3,817.17	3,776.41	3,760.51	17.93	14.22	160.09	-281.18	-256.37	963.09	934.45	28.65	33.621			
4,000.00	3,914.41	3,872.49	3,856.15	18.44	14.59	160.10	-289.06	-261.30	990.81	961.40	29.41	33.692			
4,100.00	4,011.65	3,968.57	3,951.78	18.96	14.96	160.12	-296.93	-266.23	1,018.52	988.35	30.17	33.760			
4,200.00	4,108.90	4,064.66	4,047.41	19.48	15.34	160.13	-304.81	-271.16	1,046.23	1,015.30	30.93	33.824			
4,300.00	4,206.14	4,160.74	4,143.04	19.99	15.71	160.15	-312.68	-276.09	1,073.95	1,042.25	31.69	33.884			
4,400.00	4,303.38	4,256.82	4,238.68	20.51	16.08	160.16	-320.56	-281.02	1,101.66	1,069.20	32.46	33.942			
4,500.00	4,400.63	4,352.91	4,334.31	21.03	16.46	160.17	-328.44	-285.94	1,129.37	1,096.15	33.22	33.997			
4,600.00	4,497.87	4,448.99	4,429.94	21.54	16.83	160.18	-336.31	-290.87	1,157.09	1,123.11	33.98	34.049			
4,700.00	4,595.11	4,545.07	4,525.57	22.06	17.20	160.19	-344.19	-295.80	1,184.80	1,150.06	34.75	34.099			
4,800.00	4,692.36	4,641.15	4,621.21	22.58	17.58	160.20	-352.07	-300.73	1,212.52	1,177.01	35.51	34.147			
4,900.00	4,789.60	4,737.24	4,716.84	23.10	17.95	160.21	-359.94	-305.66	1,240.23	1,203.96	36.27	34.193			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W - HWY52 4M-32H-O268 - OH - PLAN #2													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
5,000.00	4,886.84	4,833.32	4,812.47	23.62	18.32	160.22	-367.82	-310.59	1,267.94	1,230.91	37.03	34.236		
5,100.00	4,984.08	4,929.40	4,908.10	24.13	18.70	160.23	-375.69	-315.52	1,295.66	1,257.86	37.80	34.278		
5,200.00	5,081.33	5,025.49	5,003.74	24.65	19.07	160.24	-383.57	-320.45	1,323.37	1,284.81	38.56	34.318		
5,300.00	5,178.57	5,121.57	5,099.37	25.17	19.44	160.25	-391.45	-325.38	1,351.09	1,311.76	39.32	34.357		
5,400.00	5,275.81	5,217.65	5,195.00	25.69	19.82	160.26	-399.32	-330.30	1,378.80	1,338.71	40.09	34.394		
5,500.00	5,373.06	5,313.73	5,290.63	26.21	20.19	160.26	-407.20	-335.23	1,406.51	1,365.66	40.85	34.430		
5,600.00	5,470.30	5,409.82	5,386.27	26.72	20.56	160.27	-415.08	-340.16	1,434.23	1,392.61	41.62	34.464		
5,700.00	5,567.54	5,505.90	5,481.90	27.24	20.94	160.28	-422.95	-345.09	1,461.94	1,419.56	42.38	34.497		
5,800.00	5,664.79	5,601.98	5,577.53	27.76	21.31	160.28	-430.83	-350.02	1,489.66	1,446.51	43.14	34.528		

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft					
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft					
Reference													Semi Major Axis		Distance		Total	Separation	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis	Factor							
0.00	0.00	0.00	0.00	0.00	0.00	-89.70	0.36	-69.95	69.95										
100.00	100.00	100.00	100.00	0.14	0.14	-89.70	0.36	-69.95	69.95	69.67	0.28	253.412							
200.00	200.00	200.00	200.00	0.50	0.50	-89.70	0.36	-69.95	69.95	68.95	0.99	70.443							
300.00	300.00	300.00	300.00	0.85	0.85	-89.70	0.36	-69.95	69.95	68.24	1.71	40.907	CC						
400.00	400.00	399.56	399.54	1.21	1.20	-91.09	-1.34	-70.24	70.25	67.84	2.41	29.147	ES						
500.00	499.98	498.94	498.78	1.56	1.54	125.91	-6.44	-71.11	72.42	69.32	3.10	23.391							
600.00	599.84	598.44	597.94	1.90	1.89	123.08	-14.49	-72.48	77.53	73.74	3.79	20.445							
650.00	649.68	648.32	647.64	2.08	2.07	122.43	-18.72	-73.20	80.90	76.75	4.15	19.502							
700.00	699.47	698.15	697.28	2.25	2.25	130.27	-22.94	-73.92	84.95	80.44	4.51	18.849							
800.00	798.84	797.57	796.34	2.62	2.62	141.22	-31.38	-75.36	95.64	90.40	5.23	18.270	SF						
900.00	897.85	896.56	894.96	3.00	2.99	148.21	-39.77	-76.80	109.78	103.81	5.97	18.378							
1,000.00	996.37	995.00	993.03	3.41	3.35	153.00	-48.12	-78.22	127.36	120.64	6.72	18.957							
1,100.00	1,094.29	1,092.77	1,090.44	3.83	3.72	156.48	-56.41	-79.63	148.34	140.88	7.47	19.868							
1,144.53	1,137.66	1,136.05	1,133.56	4.03	3.89	157.74	-60.08	-80.26	158.78	150.98	7.80	20.348							
1,200.00	1,191.61	1,189.88	1,187.19	4.28	4.09	157.86	-64.65	-81.04	172.20	163.98	8.22	20.957							
1,300.00	1,288.85	1,286.90	1,283.85	4.75	4.46	158.03	-72.88	-82.44	196.39	187.43	8.96	21.913							
1,400.00	1,386.09	1,383.93	1,380.52	5.22	4.82	158.16	-81.11	-83.85	220.59	210.88	9.71	22.711							
1,500.00	1,483.34	1,480.96	1,477.19	5.70	5.19	158.27	-89.34	-85.25	244.79	234.32	10.47	23.387							
1,600.00	1,580.58	1,577.99	1,573.86	6.19	5.56	158.35	-97.57	-86.66	268.98	257.76	11.22	23.966							
1,700.00	1,677.82	1,675.01	1,670.53	6.69	5.93	158.43	-105.79	-88.06	293.18	281.20	11.98	24.467							
1,800.00	1,775.07	1,772.04	1,767.19	7.19	6.30	158.49	-114.02	-89.46	317.38	304.63	12.74	24.905							
1,900.00	1,872.31	1,869.07	1,863.86	7.69	6.67	158.54	-122.25	-90.87	341.58	328.07	13.51	25.290							
2,000.00	1,969.55	1,966.10	1,960.53	8.19	7.04	158.59	-130.48	-92.27	365.77	351.50	14.27	25.632							
2,100.00	2,066.79	2,063.12	2,057.20	8.69	7.41	158.63	-138.71	-93.68	389.97	374.94	15.04	25.938							
2,200.00	2,164.04	2,160.15	2,153.86	9.20	7.78	158.66	-146.94	-95.08	414.17	398.37	15.80	26.212							
2,300.00	2,261.28	2,257.18	2,250.53	9.71	8.15	158.69	-155.17	-96.48	438.37	421.80	16.57	26.459							
2,400.00	2,358.52	2,354.21	2,347.20	10.22	8.52	158.72	-163.40	-97.89	462.57	445.23	17.34	26.684							
2,500.00	2,455.77	2,451.24	2,443.87	10.73	8.89	158.75	-171.63	-99.29	486.77	468.66	18.10	26.888							
2,600.00	2,553.01	2,548.26	2,540.54	11.24	9.26	158.77	-179.86	-100.70	510.97	492.10	18.87	27.076							
2,700.00	2,650.25	2,645.29	2,637.20	11.75	9.63	158.79	-188.09	-102.10	535.17	515.53	19.64	27.248							
2,800.00	2,747.50	2,742.32	2,733.87	12.26	10.00	158.81	-196.31	-103.51	559.37	538.96	20.41	27.406							
2,900.00	2,844.74	2,839.35	2,830.54	12.78	10.38	158.83	-204.54	-104.91	583.56	562.38	21.18	27.552							
3,000.00	2,941.98	2,936.37	2,927.21	13.29	10.75	158.84	-212.77	-106.31	607.76	585.81	21.95	27.688							
3,100.00	3,039.22	3,033.40	3,023.88	13.80	11.12	158.86	-221.00	-107.72	631.96	609.24	22.72	27.814							
3,200.00	3,136.47	3,130.43	3,120.54	14.32	11.49	158.87	-229.23	-109.12	656.16	632.67	23.49	27.932							
3,300.00	3,233.71	3,227.46	3,217.21	14.83	11.86	158.88	-237.46	-110.53	680.36	656.10	24.26	28.042							
3,400.00	3,330.95	3,324.48	3,313.88	15.35	12.23	158.90	-245.69	-111.93	704.56	679.53	25.03	28.144							
3,500.00	3,428.20	3,421.51	3,410.55	15.86	12.60	158.91	-253.92	-113.33	728.76	702.96	25.81	28.241							
3,600.00	3,525.44	3,518.54	3,507.21	16.38	12.97	158.92	-262.15	-114.74	752.96	726.38	26.58	28.332							
3,700.00	3,622.68	3,615.57	3,603.88	16.89	13.34	158.93	-270.38	-116.14	777.16	749.81	27.35	28.417							
3,800.00	3,719.93	3,712.59	3,700.55	17.41	13.72	158.94	-278.61	-117.55	801.36	773.24	28.12	28.497							
3,900.00	3,817.17	3,809.62	3,797.22	17.93	14.09	158.95	-286.83	-118.95	825.56	796.67	28.89	28.573							
4,000.00	3,914.41	3,906.65	3,893.89	18.44	14.46	158.95	-295.06	-120.35	849.76	820.09	29.66	28.645							
4,100.00	4,011.65	4,003.68	3,990.55	18.96	14.83	158.96	-303.29	-121.76	873.96	843.52	30.44	28.714							
4,200.00	4,108.90	4,100.71	4,087.22	19.48	15.20	158.97	-311.52	-123.16	898.16	866.95	31.21	28.778							
4,300.00	4,206.14	4,197.73	4,183.89	19.99	15.57	158.98	-319.75	-124.57	922.36	890.38	31.98	28.840							
4,400.00	4,303.38	4,294.76	4,280.56	20.51	15.94	158.98	-327.98	-125.97	946.56	913.80	32.75	28.898							
4,500.00	4,400.63	4,391.79	4,377.23	21.03	16.31	158.99	-336.21	-127.38	970.76	937.23	33.53	28.954							
4,600.00	4,497.87	4,488.82	4,473.89	21.54	16.68	158.99	-344.44	-128.78	994.96	960.66	34.30	29.007							
4,700.00	4,595.11	4,585.84	4,570.56	22.06	17.06	159.00	-352.67	-130.18	1,019.16	984.08	35.07	29.058							
4,800.00	4,692.36	4,682.87	4,667.23	22.58	17.43	159.00	-360.90	-131.59	1,043.36	1,007.51	35.85	29.106							
4,900.00	4,789.60	4,779.90	4,763.90	23.10	17.80	159.01	-369.13	-132.99	1,067.56	1,030.94	36.62	29.153							

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
S32-T2N-R68W - HWY52 4N-32H-O268 - OH - PLAN #2														
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
5,000.00	4,886.84	4,876.93	4,860.56	23.62	18.17	159.02	-377.35	-134.40	1,091.76	1,054.36	37.39	29.197		
5,100.00	4,984.08	4,973.95	4,957.23	24.13	18.54	159.02	-385.58	-135.80	1,115.96	1,077.79	38.17	29.240		
5,200.00	5,081.33	5,070.98	5,053.90	24.65	18.91	159.02	-393.81	-137.20	1,140.16	1,101.22	38.94	29.280		
5,300.00	5,178.57	5,168.01	5,150.57	25.17	19.28	159.03	-402.04	-138.61	1,164.36	1,124.64	39.71	29.319		
5,400.00	5,275.81	5,265.04	5,247.24	25.69	19.66	159.03	-410.27	-140.01	1,188.56	1,148.07	40.49	29.357		
5,500.00	5,373.06	5,362.06	5,343.90	26.21	20.03	159.04	-418.50	-141.42	1,212.75	1,171.49	41.26	29.393		
5,600.00	5,470.30	5,459.09	5,440.57	26.72	20.40	159.04	-426.73	-142.82	1,236.95	1,194.92	42.03	29.428		
5,700.00	5,567.54	5,556.12	5,537.24	27.24	20.77	159.04	-434.96	-144.22	1,261.15	1,218.35	42.81	29.461		
5,800.00	5,664.79	5,653.15	5,633.91	27.76	21.14	159.05	-443.19	-145.63	1,285.35	1,241.77	43.58	29.493		
5,900.00	5,762.03	5,750.18	5,730.58	28.28	21.51	159.05	-451.42	-147.03	1,309.55	1,265.20	44.35	29.525		
6,000.00	5,859.27	5,847.20	5,827.24	28.80	21.88	159.05	-459.64	-148.44	1,333.75	1,288.62	45.13	29.554		
6,100.00	5,956.51	5,944.23	5,923.91	29.31	22.26	159.06	-467.87	-149.84	1,357.95	1,312.05	45.90	29.583		
6,200.00	6,053.76	6,041.26	6,020.58	29.83	22.63	159.06	-476.10	-151.25	1,382.15	1,335.48	46.68	29.611		
6,300.00	6,151.00	6,138.29	6,117.25	30.35	23.00	159.06	-484.33	-152.65	1,406.35	1,358.90	47.45	29.638		
6,400.00	6,248.24	6,235.31	6,213.91	30.87	23.37	159.07	-492.56	-154.05	1,430.55	1,382.33	48.22	29.664		
6,500.00	6,345.49	6,332.34	6,310.58	31.39	23.74	159.07	-500.79	-155.46	1,454.75	1,405.75	49.00	29.689		
6,600.00	6,442.73	6,429.37	6,407.25	31.91	24.11	159.07	-509.02	-156.86	1,478.95	1,429.18	49.77	29.714		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 usft					
Survey Program: O-MWD+HDGM												Offset Well Error:	0.00 usft					
Reference												Semi Major Axis		Distance		Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)								
0.00	0.00	0.00	0.00	0.00	0.00	-89.67	0.35	-59.87	59.88									
100.00	100.00	100.00	100.00	0.14	0.14	-89.67	0.35	-59.87	59.88	59.60	0.28	216.921						
200.00	200.00	200.00	200.00	0.50	0.50	-89.67	0.35	-59.87	59.88	58.88	0.99	60.299						
300.00	300.00	300.51	300.49	0.85	0.84	-91.31	-1.36	-59.42	59.44	57.74	1.70	34.971						
400.00	400.00	400.78	400.61	1.21	1.19	-96.34	-6.45	-58.06	58.42	56.01	2.41	24.289						
445.24	445.24	446.01	445.70	1.37	1.36	120.53	-9.85	-57.15	58.18	55.46	2.72	21.375 CC						
500.00	499.98	500.66	500.17	1.56	1.55	117.23	-14.26	-55.97	58.54	55.43	3.11	18.836 ES						
600.00	599.84	600.57	599.72	1.90	1.92	113.69	-22.34	-53.82	60.73	56.91	3.82	15.910						
650.00	649.68	650.53	649.51	2.08	2.11	113.11	-26.38	-52.74	62.41	58.23	4.18	14.935						
700.00	699.47	700.48	699.29	2.25	2.29	121.16	-30.42	-51.66	64.68	60.14	4.54	14.236						
800.00	798.84	800.22	798.68	2.62	2.67	132.81	-38.49	-49.50	71.77	66.49	5.28	13.584						
900.00	897.85	899.66	897.77	3.00	3.04	140.74	-46.53	-47.36	82.26	76.22	6.03	13.631						
1,000.00	996.37	998.67	996.43	3.41	3.42	146.54	-54.53	-45.22	96.15	89.36	6.79	14.156						
1,100.00	1,094.29	1,097.13	1,094.55	3.83	3.79	150.97	-62.50	-43.09	113.46	105.90	7.55	15.021						
1,144.53	1,137.66	1,140.77	1,138.03	4.03	3.96	152.63	-66.02	-42.15	122.26	114.37	7.90	15.484						
1,200.00	1,191.61	1,195.05	1,192.12	4.28	4.16	153.19	-70.41	-40.98	133.66	125.34	8.32	16.070						
1,300.00	1,288.85	1,292.89	1,289.61	4.75	4.53	154.00	-78.32	-38.87	154.23	145.15	9.08	16.992						
1,400.00	1,386.09	1,390.73	1,387.11	5.22	4.91	154.61	-86.24	-36.75	174.82	164.98	9.84	17.768						
1,500.00	1,483.34	1,488.57	1,484.61	5.70	5.28	155.10	-94.15	-34.64	195.43	184.82	10.60	18.429						
1,600.00	1,580.58	1,586.41	1,582.11	6.19	5.65	155.49	-102.06	-32.53	216.05	204.67	11.37	18.998						
1,700.00	1,677.82	1,684.25	1,679.61	6.69	6.02	155.82	-109.97	-30.42	236.67	224.53	12.14	19.494						
1,800.00	1,775.07	1,782.10	1,777.11	7.19	6.39	156.09	-117.88	-28.30	257.31	244.39	12.91	19.928						
1,900.00	1,872.31	1,879.94	1,874.60	7.69	6.77	156.32	-125.79	-26.19	277.94	264.26	13.68	20.312						
2,000.00	1,969.55	1,977.78	1,972.10	8.19	7.14	156.52	-133.71	-24.08	298.58	284.13	14.46	20.654						
2,100.00	2,066.79	2,075.62	2,069.60	8.69	7.51	156.69	-141.62	-21.97	319.23	304.00	15.23	20.961						
2,200.00	2,164.04	2,173.46	2,167.10	9.20	7.88	156.85	-149.53	-19.85	339.87	323.87	16.00	21.237						
2,300.00	2,261.28	2,271.30	2,264.60	9.71	8.26	156.98	-157.44	-17.74	360.52	343.74	16.78	21.487						
2,400.00	2,358.52	2,369.15	2,362.10	10.22	8.63	157.10	-165.35	-15.63	381.17	363.62	17.55	21.714						
2,500.00	2,455.77	2,466.99	2,459.59	10.73	9.00	157.21	-173.26	-13.52	401.83	383.50	18.33	21.922						
2,600.00	2,553.01	2,564.83	2,557.09	11.24	9.38	157.31	-181.18	-11.40	422.48	403.37	19.11	22.112						
2,700.00	2,650.25	2,662.67	2,654.59	11.75	9.75	157.40	-189.09	-9.29	443.13	423.25	19.88	22.287						
2,800.00	2,747.50	2,760.51	2,752.09	12.26	10.12	157.48	-197.00	-7.18	463.79	443.13	20.66	22.449						
2,900.00	2,844.74	2,858.35	2,849.59	12.78	10.50	157.55	-204.91	-5.07	484.44	463.01	21.44	22.598						
3,000.00	2,941.98	2,956.19	2,947.09	13.29	10.87	157.62	-212.82	-2.95	505.10	482.89	22.21	22.737						
3,100.00	3,039.22	3,054.04	3,044.58	13.80	11.24	157.68	-220.73	-0.84	525.76	502.76	22.99	22.867						
3,200.00	3,136.47	3,151.88	3,142.08	14.32	11.61	157.74	-228.64	1.27	546.41	522.64	23.77	22.988						
3,300.00	3,233.71	3,249.72	3,239.58	14.83	11.99	157.79	-236.56	3.38	567.07	542.52	24.55	23.101						
3,400.00	3,330.95	3,347.56	3,337.08	15.35	12.36	157.84	-244.47	5.50	587.73	562.41	25.33	23.207						
3,500.00	3,428.20	3,445.40	3,434.58	15.86	12.73	157.89	-252.38	7.61	608.39	582.29	26.10	23.306						
3,600.00	3,525.44	3,543.24	3,532.08	16.38	13.11	157.93	-260.29	9.72	629.05	602.17	26.88	23.400						
3,700.00	3,622.68	3,641.09	3,629.57	16.89	13.48	157.97	-268.20	11.83	649.71	622.05	27.66	23.488						
3,800.00	3,719.93	3,738.93	3,727.07	17.41	13.85	158.01	-276.11	13.95	670.37	641.93	28.44	23.571						
3,900.00	3,817.17	3,836.77	3,824.57	17.93	14.23	158.05	-284.03	16.06	691.03	661.81	29.22	23.650						
4,000.00	3,914.41	3,934.61	3,922.07	18.44	14.60	158.08	-291.94	18.17	711.69	681.69	30.00	23.725						
4,100.00	4,011.65	4,032.45	4,019.57	18.96	14.97	158.11	-299.85	20.29	732.35	701.57	30.78	23.795						
4,200.00	4,108.90	4,130.29	4,117.07	19.48	15.35	158.14	-307.76	22.40	753.01	721.46	31.56	23.863						
4,300.00	4,206.14	4,228.14	4,214.56	19.99	15.72	158.17	-315.67	24.51	773.67	741.34	32.34	23.926						
4,400.00	4,303.38	4,325.98	4,312.06	20.51	16.09	158.20	-323.58	26.62	794.33	761.22	33.11	23.987						
4,500.00	4,400.63	4,423.82	4,409.56	21.03	16.47	158.22	-331.50	28.74	815.00	781.10	33.89	24.045						
4,600.00	4,497.87	4,521.66	4,507.06	21.54	16.84	158.25	-339.41	30.85	835.66	800.98	34.67	24.101						
4,700.00	4,595.11	4,619.50	4,604.56	22.06	17.21	158.27	-347.32	32.96	856.32	820.87	35.45	24.154						
4,800.00	4,692.36	4,717.34	4,702.06	22.58	17.59	158.29	-355.23	35.07	876.98	840.75	36.23	24.204						

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W - HWY52 4U-32H-O268 - OH - PLAN #2													Offset Site Error:	0.00 usft
Survey Program: O-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
4,900.00	4,789.60	4,815.19	4,799.55	23.10	17.96	158.31	-363.14	37.19	897.64	860.63	37.01	24.253		
5,000.00	4,886.84	4,913.03	4,897.05	23.62	18.33	158.33	-371.05	39.30	918.30	880.51	37.79	24.299		
5,100.00	4,984.08	5,010.87	4,994.55	24.13	18.71	158.35	-378.96	41.41	938.97	900.40	38.57	24.343		
5,200.00	5,081.33	5,108.71	5,092.05	24.65	19.08	158.37	-386.88	43.52	959.63	920.28	39.35	24.386		
5,300.00	5,178.57	5,206.55	5,189.55	25.17	19.45	158.39	-394.79	45.64	980.29	940.16	40.13	24.427		
5,400.00	5,275.81	5,304.39	5,287.05	25.69	19.83	158.41	-402.70	47.75	1,000.95	960.04	40.91	24.466		
5,500.00	5,373.06	5,402.24	5,384.54	26.21	20.20	158.42	-410.61	49.86	1,021.62	979.93	41.69	24.504		
5,600.00	5,470.30	5,500.08	5,482.04	26.72	20.57	158.44	-418.52	51.97	1,042.28	999.81	42.47	24.541		
5,700.00	5,567.54	5,597.92	5,579.54	27.24	20.95	158.45	-426.43	54.09	1,062.94	1,019.69	43.25	24.576		
5,800.00	5,664.79	5,695.76	5,677.04	27.76	21.32	158.47	-434.35	56.20	1,083.60	1,039.57	44.03	24.610		
5,900.00	5,762.03	5,793.60	5,774.54	28.28	21.69	158.48	-442.26	58.31	1,104.27	1,059.46	44.81	24.642		
6,000.00	5,859.27	5,891.44	5,872.04	28.80	22.07	158.50	-450.17	60.42	1,124.93	1,079.34	45.59	24.674		
6,100.00	5,956.51	5,989.28	5,969.53	29.31	22.44	158.51	-458.08	62.54	1,145.59	1,099.22	46.37	24.704		
6,200.00	6,053.76	6,087.13	6,067.03	29.83	22.81	158.52	-465.99	64.65	1,166.26	1,119.10	47.15	24.734		
6,300.00	6,151.00	6,184.97	6,164.53	30.35	23.19	158.53	-473.90	66.76	1,186.92	1,138.99	47.93	24.762		
6,400.00	6,248.24	6,282.81	6,262.03	30.87	23.56	158.54	-481.82	68.87	1,207.58	1,158.87	48.71	24.790		
6,500.00	6,345.49	6,380.65	6,359.53	31.39	23.93	158.56	-489.73	70.99	1,228.25	1,178.75	49.49	24.816		
6,600.00	6,442.73	6,478.49	6,457.03	31.91	24.31	158.57	-497.64	73.10	1,248.91	1,198.64	50.27	24.842		
6,700.00	6,539.97	6,576.33	6,554.52	32.43	24.68	158.58	-505.55	75.21	1,269.57	1,218.52	51.05	24.867		
6,800.00	6,637.21	6,674.18	6,652.02	32.94	25.05	158.59	-513.46	77.32	1,290.24	1,238.40	51.83	24.891		
6,900.00	6,734.46	6,772.02	6,749.52	33.46	25.43	158.60	-521.37	79.44	1,310.90	1,258.28	52.62	24.915		
6,958.42	6,791.27	6,829.18	6,806.48	33.77	25.64	158.60	-526.00	80.67	1,322.97	1,269.90	53.07	24.928		
7,000.00	6,831.76	6,869.82	6,846.98	33.98	25.80	173.28	-529.28	81.55	1,331.67	1,278.28	53.39	24.940		
7,050.00	6,880.45	6,921.36	6,898.35	34.22	25.99	-169.04	-533.34	82.66	1,342.39	1,288.59	53.80	24.952		
7,100.00	6,928.94	6,985.46	6,962.40	34.44	26.21	-153.80	-534.56	84.04	1,353.01	1,298.75	54.25	24.938		
7,150.00	6,976.98	7,050.46	7,027.20	34.64	26.41	-141.90	-529.94	85.44	1,363.28	1,308.63	54.65	24.947		
7,200.00	7,024.34	7,116.26	7,092.09	34.82	26.58	-132.95	-519.30	86.82	1,373.14	1,318.15	54.99	24.970		
7,250.00	7,070.78	7,182.72	7,156.37	34.99	26.74	-126.18	-502.55	88.19	1,382.54	1,327.24	55.29	25.003		
7,300.00	7,116.09	7,249.71	7,219.31	35.14	26.90	-120.95	-479.72	89.52	1,391.41	1,335.85	55.56	25.045		
7,350.00	7,160.03	7,317.05	7,280.15	35.28	27.04	-116.78	-450.94	90.79	1,399.71	1,343.93	55.78	25.092		
7,400.00	7,202.41	7,384.55	7,338.16	35.40	27.17	-113.38	-416.49	92.00	1,407.39	1,351.41	55.98	25.140		
7,450.00	7,243.00	7,452.04	7,392.65	35.51	27.30	-110.53	-376.74	93.13	1,414.42	1,358.26	56.17	25.183		
7,500.00	7,281.62	7,519.30	7,443.00	35.60	27.43	-108.11	-332.19	94.16	1,420.77	1,364.43	56.34	25.218		
7,550.00	7,318.07	7,586.15	7,488.69	35.68	27.56	-106.01	-283.43	95.08	1,426.41	1,369.89	56.52	25.239		
7,600.00	7,352.17	7,652.41	7,529.29	35.75	27.70	-104.16	-231.11	95.90	1,431.32	1,374.61	56.70	25.242		
7,650.00	7,383.77	7,717.91	7,564.51	35.81	27.85	-102.53	-175.92	96.59	1,435.50	1,378.58	56.91	25.222		
7,700.00	7,412.70	7,782.49	7,594.16	35.85	28.01	-101.07	-118.57	97.16	1,438.94	1,381.79	57.15	25.179		
7,750.00	7,438.83	7,846.04	7,618.18	35.89	28.18	-99.78	-59.76	97.60	1,441.65	1,384.23	57.41	25.110		
7,800.00	7,462.03	7,908.44	7,636.61	35.91	28.37	-98.62	-0.16	97.92	1,443.62	1,385.92	57.71	25.016		
7,850.00	7,482.18	7,969.63	7,649.57	35.93	28.58	-97.59	59.62	98.13	1,444.88	1,386.85	58.03	24.898		
7,900.00	7,499.19	8,029.54	7,657.28	35.94	28.80	-96.68	119.01	98.22	1,445.43	1,387.05	58.38	24.757		
7,950.00	7,512.97	8,088.14	7,659.99	35.94	29.02	-95.88	177.54	98.21	1,445.29	1,386.54	58.76	24.597		
8,000.00	7,523.46	8,137.65	7,660.00	35.94	29.24	-95.33	227.04	98.15	1,444.61	1,385.47	59.14	24.428		
8,050.00	7,530.60	8,187.12	7,660.00	35.94	29.47	-95.01	276.52	98.09	1,443.50	1,383.96	59.54	24.245		
8,100.00	7,534.37	8,236.95	7,660.00	35.94	29.72	-94.92	326.35	98.03	1,441.92	1,381.94	59.98	24.038		
8,130.43	7,535.00	8,267.35	7,660.00	35.94	29.89	-94.98	356.75	97.99	1,440.73	1,380.46	60.27	23.904		
8,200.00	7,535.00	8,336.86	7,660.00	35.94	30.28	-94.99	426.26	97.90	1,437.79	1,376.80	60.99	23.576		
8,300.00	7,535.00	8,436.77	7,660.00	35.97	30.91	-95.01	526.17	97.78	1,433.57	1,371.43	62.14	23.072		
8,400.00	7,535.00	8,536.68	7,660.00	36.05	31.61	-95.02	626.08	97.65	1,429.35	1,365.92	63.43	22.536		
8,500.00	7,535.00	8,636.59	7,660.00	36.17	32.37	-95.04	725.99	97.53	1,425.12	1,360.27	64.85	21.976		
8,600.00	7,535.00	8,736.50	7,660.00	36.37	33.19	-95.05	825.90	97.41	1,420.90	1,354.51	66.40	21.400		
8,700.00	7,535.00	8,836.41	7,660.00	36.65	34.07	-95.07	925.81	97.28	1,416.68	1,348.62	68.06	20.816		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference: S32-T2N-R68W - HWY52 4O-32H-O268 - OH - PLAN #2														
Reference				Offset			Semi Major Axis			Distance				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning	
8,800.00	7,535.00	8,936.32	7,660.00	37.05	34.99	-95.08	1,025.72	97.16	1,412.46	1,342.63	69.83	20.227		
8,900.00	7,535.00	9,036.23	7,660.00	37.58	35.96	-95.10	1,125.63	97.04	1,408.24	1,336.54	71.70	19.641		
9,000.00	7,535.00	9,136.14	7,660.00	38.23	36.98	-95.11	1,225.54	96.91	1,404.02	1,330.36	73.66	19.061		
9,100.00	7,535.00	9,236.05	7,660.00	38.99	38.03	-95.13	1,325.45	96.79	1,399.79	1,324.09	75.71	18.490		
9,200.00	7,535.00	9,335.96	7,660.00	39.85	39.12	-95.14	1,425.36	96.67	1,395.57	1,317.74	77.83	17.931		
9,300.00	7,535.00	9,435.87	7,660.00	40.78	40.24	-95.16	1,525.27	96.54	1,391.35	1,311.33	80.02	17.387		
9,400.00	7,535.00	9,535.78	7,660.00	41.78	41.39	-95.17	1,625.18	96.42	1,387.13	1,304.84	82.29	16.857		
9,500.00	7,535.00	9,635.69	7,660.00	42.83	42.57	-95.19	1,725.09	96.29	1,382.91	1,298.30	84.61	16.345		
9,600.00	7,535.00	9,735.60	7,660.00	43.93	43.78	-95.21	1,825.00	96.17	1,378.69	1,291.70	86.99	15.849		
9,700.00	7,535.00	9,835.51	7,660.00	45.07	45.01	-95.22	1,924.91	96.05	1,374.47	1,285.05	89.42	15.371		
9,800.00	7,535.00	9,935.42	7,660.00	46.24	46.26	-95.24	2,024.82	95.92	1,370.25	1,278.35	91.89	14.911		
9,900.00	7,535.00	10,035.33	7,660.00	47.44	47.53	-95.25	2,124.73	95.80	1,366.03	1,271.61	94.41	14.468		
10,000.00	7,535.00	10,135.24	7,660.00	48.67	48.82	-95.27	2,224.64	95.68	1,361.81	1,264.83	96.98	14.043		
10,100.00	7,535.00	10,235.15	7,660.00	49.93	50.13	-95.29	2,324.55	95.55	1,357.58	1,258.01	99.57	13.634		
10,200.00	7,535.00	10,335.06	7,660.00	51.20	51.45	-95.30	2,424.46	95.43	1,353.36	1,251.16	102.20	13.242		
10,300.00	7,535.00	10,434.97	7,660.00	52.50	52.79	-95.32	2,524.37	95.31	1,349.14	1,244.28	104.87	12.865		
10,400.00	7,535.00	10,534.88	7,660.00	53.82	54.14	-95.34	2,624.28	95.18	1,344.92	1,237.36	107.56	12.504		
10,500.00	7,535.00	10,634.79	7,660.00	55.15	55.50	-95.35	2,724.19	95.06	1,340.70	1,230.42	110.28	12.157		
10,600.00	7,535.00	10,734.70	7,660.00	56.50	56.88	-95.37	2,824.10	94.94	1,336.48	1,223.46	113.03	11.825		
10,700.00	7,535.00	10,834.61	7,660.00	57.87	58.27	-95.39	2,924.01	94.81	1,332.26	1,216.47	115.79	11.505		
10,800.00	7,535.00	10,934.52	7,660.00	59.24	59.66	-95.41	3,023.92	94.69	1,328.05	1,209.46	118.58	11.199		
10,900.00	7,535.00	11,034.43	7,660.00	60.63	61.07	-95.42	3,123.83	94.56	1,323.83	1,202.43	121.39	10.905		
11,000.00	7,535.00	11,134.34	7,660.00	62.04	62.48	-95.44	3,223.74	94.44	1,319.61	1,195.38	124.22	10.623		
11,100.00	7,535.00	11,234.25	7,660.00	63.45	63.90	-95.46	3,323.65	94.32	1,315.39	1,188.32	127.07	10.352		
11,200.00	7,535.00	11,334.16	7,660.00	64.87	65.33	-95.48	3,423.56	94.19	1,311.17	1,181.24	129.93	10.091		
11,300.00	7,535.00	11,434.07	7,660.00	66.30	66.77	-95.49	3,523.47	94.07	1,306.95	1,174.14	132.81	9.841		
11,400.00	7,535.00	11,533.98	7,660.00	67.74	68.21	-95.51	3,623.38	93.95	1,302.73	1,167.03	135.70	9.600		
11,500.00	7,535.00	11,633.89	7,660.00	69.19	69.66	-95.53	3,723.29	93.82	1,298.51	1,159.90	138.61	9.368		
11,600.00	7,535.00	11,733.80	7,660.00	70.65	71.12	-95.55	3,823.20	93.70	1,294.29	1,152.77	141.53	9.145		
11,700.00	7,535.00	11,833.71	7,660.00	72.11	72.58	-95.57	3,923.11	93.58	1,290.07	1,145.62	144.46	8.931		
11,800.00	7,535.00	11,933.63	7,660.00	73.58	74.04	-95.58	4,023.02	93.45	1,285.86	1,138.46	147.40	8.724		
11,900.00	7,535.00	12,033.54	7,660.00	75.06	75.52	-95.60	4,122.93	93.33	1,281.64	1,131.29	150.35	8.524		
12,000.00	7,535.00	12,133.45	7,660.00	76.55	76.99	-95.62	4,222.84	93.21	1,277.42	1,124.11	153.31	8.332		
12,030.43	7,535.00	12,163.85	7,660.00	77.00	77.44	-95.63	4,253.24	93.17	1,276.14	1,121.92	154.21	8.275 SF		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft	
Survey Program: O-MWD+HDGM													Offset Well Error:		0.00 usft
Reference															
Offset				Semi Major Axis			Distance								
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning		
0.00	0.00	0.00	0.00	0.00	0.00	-89.62	0.33	-49.80	49.80						
100.00	100.00	100.00	100.00	0.14	0.14	-89.62	0.33	-49.80	49.80	49.53	0.28	180.431			
200.00	200.00	200.00	200.00	0.50	0.50	-89.62	0.33	-49.80	49.80	48.81	0.99	50.156			
300.00	300.00	300.00	300.00	0.85	0.85	-89.62	0.33	-49.80	49.80	48.09	1.71	29.126			
400.00	400.00	400.00	400.00	1.21	1.21	-89.62	0.33	-49.80	49.80	47.38	2.43	20.522 CC, ES			
500.00	499.98	499.98	499.98	1.56	1.57	131.86	0.33	-49.80	50.95	47.82	3.13	16.282			
600.00	599.84	599.84	599.84	1.90	1.93	135.90	0.33	-49.80	54.58	50.76	3.83	14.260			
650.00	649.68	649.68	649.68	2.08	2.11	138.58	0.33	-49.80	57.47	53.29	4.18	13.742			
700.00	699.47	699.47	699.47	2.25	2.29	149.33	0.33	-49.80	61.23	56.69	4.54	13.495			
800.00	798.84	798.84	798.84	2.62	2.64	164.36	0.33	-49.80	71.55	66.30	5.25	13.625			
900.00	897.85	897.85	897.85	3.00	3.00	173.47	0.33	-49.80	85.32	79.36	5.97	14.297			
1,000.00	996.37	998.65	998.63	3.41	3.34	178.26	-1.23	-49.12	101.30	94.62	6.68	15.166			
1,100.00	1,094.29	1,099.57	1,099.41	3.83	3.68	179.73	-6.04	-47.03	118.33	110.94	7.39	16.018			
1,144.53	1,137.66	1,144.47	1,144.17	4.03	3.83	179.68	-9.23	-45.64	126.32	118.61	7.71	16.384			
1,200.00	1,191.61	1,200.16	1,199.61	4.28	4.02	177.92	-14.06	-43.53	136.21	128.11	8.11	16.801			
1,300.00	1,288.85	1,298.34	1,297.29	4.75	4.36	175.16	-23.17	-39.56	153.94	145.12	8.82	17.453			
1,400.00	1,386.09	1,396.51	1,394.96	5.22	4.70	172.97	-32.29	-35.59	171.93	162.39	9.54	18.014			
1,500.00	1,483.34	1,494.69	1,492.63	5.70	5.05	171.20	-41.41	-31.61	190.13	179.85	10.28	18.496			
1,600.00	1,580.58	1,592.87	1,590.30	6.19	5.41	169.74	-50.53	-27.64	208.47	197.44	11.02	18.913			
1,700.00	1,677.82	1,691.05	1,687.97	6.69	5.77	168.52	-59.64	-23.67	226.91	215.14	11.77	19.275			
1,800.00	1,775.07	1,789.22	1,785.64	7.19	6.13	167.48	-68.76	-19.69	245.45	232.92	12.53	19.592			
1,900.00	1,872.31	1,887.40	1,883.32	7.69	6.50	166.58	-77.88	-15.72	264.05	250.76	13.29	19.870			
2,000.00	1,969.55	1,985.58	1,980.99	8.19	6.87	165.81	-87.00	-11.75	282.71	268.65	14.05	20.116			
2,100.00	2,066.79	2,083.75	2,078.66	8.69	7.24	165.13	-96.11	-7.78	301.41	286.58	14.82	20.335			
2,200.00	2,164.04	2,181.93	2,176.33	9.20	7.61	164.52	-105.23	-3.80	320.14	304.55	15.59	20.530			
2,300.00	2,261.28	2,280.11	2,274.00	9.71	7.98	163.99	-114.35	0.17	338.91	322.54	16.37	20.706			
2,400.00	2,358.52	2,378.28	2,371.68	10.22	8.35	163.51	-123.47	4.14	357.70	340.56	17.14	20.864			
2,500.00	2,455.77	2,476.46	2,469.35	10.73	8.73	163.08	-132.58	8.12	376.51	358.59	17.92	21.008			
2,600.00	2,553.01	2,574.64	2,567.02	11.24	9.10	162.69	-141.70	12.09	395.35	376.64	18.70	21.138			
2,700.00	2,650.25	2,672.81	2,664.69	11.75	9.48	162.34	-150.82	16.06	414.19	394.71	19.48	21.258			
2,800.00	2,747.50	2,770.99	2,762.36	12.26	9.85	162.01	-159.94	20.04	433.06	412.79	20.27	21.367			
2,900.00	2,844.74	2,869.17	2,860.04	12.78	10.23	161.72	-169.05	24.01	451.93	430.88	21.05	21.468			
3,000.00	2,941.98	2,967.35	2,957.71	13.29	10.61	161.44	-178.17	27.98	470.82	448.98	21.84	21.560			
3,100.00	3,039.22	3,065.52	3,055.38	13.80	10.98	161.19	-187.29	31.95	489.71	467.09	22.62	21.646			
3,200.00	3,136.47	3,163.70	3,153.05	14.32	11.36	160.96	-196.41	35.93	508.61	485.20	23.41	21.726			
3,300.00	3,233.71	3,261.88	3,250.72	14.83	11.74	160.74	-205.52	39.90	527.52	503.33	24.20	21.800			
3,400.00	3,330.95	3,360.05	3,348.39	15.35	12.12	160.54	-214.64	43.87	546.44	521.45	24.99	21.869			
3,500.00	3,428.20	3,458.23	3,446.07	15.86	12.50	160.35	-223.76	47.85	565.36	539.59	25.78	21.933			
3,600.00	3,525.44	3,556.41	3,543.74	16.38	12.88	160.18	-232.88	51.82	584.29	557.73	26.57	21.993			
3,700.00	3,622.68	3,654.58	3,641.41	16.89	13.26	160.01	-241.99	55.79	603.23	575.87	27.36	22.050			
3,800.00	3,719.93	3,752.76	3,739.08	17.41	13.64	159.86	-251.11	59.77	622.17	594.02	28.15	22.103			
3,900.00	3,817.17	3,850.94	3,836.75	17.93	14.02	159.71	-260.23	63.74	641.11	612.17	28.94	22.153			
4,000.00	3,914.41	3,949.11	3,934.43	18.44	14.40	159.58	-269.35	67.71	660.05	630.32	29.73	22.200			
4,100.00	4,011.65	4,047.29	4,032.10	18.96	14.78	159.45	-278.46	71.68	679.00	648.48	30.52	22.245			
4,200.00	4,108.90	4,145.47	4,129.77	19.48	15.16	159.32	-287.58	75.66	697.96	666.64	31.32	22.287			
4,300.00	4,206.14	4,243.65	4,227.44	19.99	15.54	159.21	-296.70	79.63	716.91	684.80	32.11	22.327			
4,400.00	4,303.38	4,341.82	4,325.11	20.51	15.92	159.10	-305.82	83.60	735.87	702.97	32.90	22.364			
4,500.00	4,400.63	4,440.00	4,422.78	21.03	16.30	158.99	-314.93	87.58	754.83	721.13	33.70	22.400			
4,600.00	4,497.87	4,538.18	4,520.46	21.54	16.68	158.89	-324.05	91.55	773.79	739.30	34.49	22.434			
4,700.00	4,595.11	4,636.35	4,618.13	22.06	17.07	158.80	-333.17	95.52	792.76	757.47	35.29	22.467			
4,800.00	4,692.36	4,734.53	4,715.80	22.58	17.45	158.71	-342.29	99.50	811.73	775.65	36.08	22.498			
4,900.00	4,789.60	4,832.71	4,813.47	23.10	17.83	158.62	-351.40	103.47	830.70	793.82	36.87	22.527			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W - HWY52 4P-32H-O268 - OH - PLAN #2													Offset Site Error:	0.00 usft
Survey Program: O-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance			Total Uncertainty Axis	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)				Between Ellipses (usft)	
5,000.00	4,886.84	4,930.88	4,911.14	23.62	18.21	158.54	-360.52	107.44	849.67	812.00	37.67	22.556		
5,100.00	4,984.08	5,029.06	5,008.82	24.13	18.59	158.46	-369.64	111.41	868.64	830.17	38.46	22.583		
5,200.00	5,081.33	5,127.24	5,106.49	24.65	18.97	158.39	-378.76	115.39	887.61	848.35	39.26	22.608		
5,300.00	5,178.57	5,225.41	5,204.16	25.17	19.36	158.32	-387.87	119.36	906.59	866.53	40.06	22.633		
5,400.00	5,275.81	5,323.59	5,301.83	25.69	19.74	158.25	-396.99	123.33	925.57	884.71	40.85	22.657		
5,500.00	5,373.06	5,421.77	5,399.50	26.21	20.12	158.18	-406.11	127.31	944.54	902.90	41.65	22.680		
5,600.00	5,470.30	5,519.94	5,497.18	26.72	20.50	158.12	-415.23	131.28	963.52	921.08	42.44	22.701		
5,700.00	5,567.54	5,618.12	5,594.85	27.24	20.88	158.05	-424.34	135.25	982.50	939.26	43.24	22.722		
5,800.00	5,664.79	5,716.30	5,692.52	27.76	21.27	158.00	-433.46	139.23	1,001.48	957.45	44.04	22.742		
5,900.00	5,762.03	5,814.48	5,790.19	28.28	21.65	157.94	-442.58	143.20	1,020.47	975.63	44.83	22.762		
6,000.00	5,859.27	5,912.65	5,887.86	28.80	22.03	157.88	-451.70	147.17	1,039.45	993.82	45.63	22.781		
6,100.00	5,956.51	6,010.83	5,985.53	29.31	22.41	157.83	-460.81	151.14	1,058.43	1,012.01	46.43	22.798		
6,200.00	6,053.76	6,109.01	6,083.21	29.83	22.80	157.78	-469.93	155.12	1,077.42	1,030.20	47.22	22.816		
6,300.00	6,151.00	6,207.18	6,180.88	30.35	23.18	157.73	-479.05	159.09	1,096.40	1,048.39	48.02	22.833		
6,400.00	6,248.24	6,305.36	6,278.55	30.87	23.56	157.68	-488.17	163.06	1,115.39	1,066.57	48.82	22.849		
6,500.00	6,345.49	6,403.54	6,376.22	31.39	23.94	157.64	-497.28	167.04	1,134.38	1,084.76	49.61	22.864		
6,600.00	6,442.73	6,501.71	6,473.89	31.91	24.33	157.59	-506.40	171.01	1,153.37	1,102.96	50.41	22.879		
6,700.00	6,539.97	6,599.89	6,571.57	32.43	24.71	157.55	-515.52	174.98	1,172.35	1,121.15	51.21	22.894		
6,800.00	6,637.21	6,698.07	6,669.24	32.94	25.09	157.51	-524.64	178.96	1,191.34	1,139.34	52.01	22.908		
6,900.00	6,734.46	6,800.74	6,771.40	33.46	25.49	157.48	-533.93	183.11	1,210.31	1,157.47	52.83	22.907		
6,958.42	6,791.27	6,876.23	6,846.79	33.77	25.75	157.73	-535.02	186.17	1,220.76	1,167.40	53.36	22.877		
7,000.00	6,831.76	6,929.39	6,899.74	33.98	25.91	172.64	-531.01	188.31	1,227.83	1,174.15	53.68	22.873		
7,050.00	6,880.45	6,992.65	6,962.15	34.22	26.08	-169.25	-521.14	190.83	1,236.13	1,182.12	54.01	22.887		
7,100.00	6,928.94	7,055.11	7,022.69	34.44	26.24	-153.49	-506.02	193.27	1,244.18	1,189.89	54.29	22.917		
7,150.00	6,976.98	7,116.70	7,080.87	34.64	26.38	-141.08	-486.01	195.60	1,251.96	1,197.43	54.53	22.959		
7,200.00	7,024.34	7,177.36	7,136.29	34.82	26.51	-131.64	-461.47	197.82	1,259.44	1,204.70	54.74	23.009		
7,250.00	7,070.78	7,237.07	7,188.61	34.99	26.62	-124.41	-432.83	199.91	1,266.60	1,211.68	54.92	23.062		
7,300.00	7,116.09	7,295.77	7,237.56	35.14	26.73	-118.74	-400.52	201.85	1,273.43	1,218.34	55.09	23.115		
7,350.00	7,160.03	7,353.47	7,282.94	35.28	26.83	-114.17	-364.95	203.65	1,279.90	1,224.65	55.25	23.165		
7,400.00	7,202.41	7,410.16	7,324.59	35.40	26.92	-110.41	-326.56	205.29	1,285.99	1,230.58	55.41	23.209		
7,450.00	7,243.00	7,465.83	7,362.42	35.51	27.02	-107.23	-285.76	206.78	1,291.69	1,236.12	55.57	23.245		
7,500.00	7,281.62	7,520.50	7,396.39	35.60	27.12	-104.52	-242.95	208.10	1,296.97	1,241.23	55.73	23.271		
7,550.00	7,318.07	7,574.19	7,426.47	35.68	27.22	-102.16	-198.51	209.26	1,301.81	1,245.90	55.91	23.286		
7,600.00	7,352.17	7,626.91	7,452.69	35.75	27.33	-100.10	-152.80	210.27	1,306.20	1,250.11	56.09	23.288		
7,650.00	7,383.77	7,678.70	7,475.11	35.81	27.44	-98.29	-106.14	211.12	1,310.13	1,253.84	56.29	23.276		
7,700.00	7,412.70	7,729.58	7,493.80	35.85	27.57	-96.68	-58.83	211.82	1,313.56	1,257.07	56.49	23.251		
7,750.00	7,438.83	7,779.58	7,508.85	35.89	27.71	-95.26	-11.16	212.37	1,316.50	1,259.78	56.72	23.212		
7,800.00	7,462.03	7,828.75	7,520.37	35.91	27.86	-94.01	36.62	212.78	1,318.92	1,261.97	56.95	23.159		
7,850.00	7,482.18	7,877.10	7,528.49	35.93	28.02	-92.91	84.28	213.05	1,320.82	1,263.62	57.20	23.091		
7,900.00	7,499.19	7,924.68	7,533.32	35.94	28.19	-91.96	131.60	213.19	1,322.18	1,264.72	57.46	23.009		
7,950.00	7,512.97	7,971.52	7,535.00	35.94	28.37	-91.14	178.40	213.20	1,322.99	1,265.25	57.74	22.914		
8,000.00	7,523.46	8,020.29	7,535.00	35.94	28.58	-90.48	227.18	213.14	1,323.20	1,265.14	58.05	22.792		
8,050.00	7,530.60	8,069.77	7,535.00	35.94	28.80	-90.08	276.65	213.08	1,322.70	1,264.28	58.42	22.642		
8,100.00	7,534.37	8,119.60	7,535.00	35.94	29.05	-89.95	326.48	213.01	1,321.45	1,262.62	58.83	22.462		
8,130.43	7,535.00	8,150.00	7,535.00	35.94	29.21	-90.00	356.88	212.98	1,320.31	1,261.19	59.11	22.335		
8,200.00	7,535.00	8,219.51	7,535.00	35.94	29.60	-90.00	426.39	212.89	1,317.36	1,257.55	59.81	22.026		
8,300.00	7,535.00	8,319.42	7,535.00	35.97	30.24	-90.00	526.30	212.77	1,313.12	1,252.18	60.94	21.547		
8,400.00	7,535.00	8,419.33	7,535.00	36.05	30.94	-90.00	626.21	212.64	1,308.88	1,246.66	62.22	21.036		
8,500.00	7,535.00	8,519.24	7,535.00	36.17	31.70	-90.00	726.12	212.52	1,304.64	1,241.01	63.64	20.502		
8,600.00	7,535.00	8,619.15	7,535.00	36.37	32.53	-90.00	826.03	212.39	1,300.41	1,235.23	65.18	19.952		
8,700.00	7,535.00	8,719.06	7,535.00	36.65	33.41	-90.00	925.94	212.27	1,296.17	1,229.33	66.84	19.393		
8,800.00	7,535.00	8,818.97	7,535.00	37.05	34.34	-90.00	1,025.85	212.15	1,291.93	1,223.32	68.61	18.830		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference				Offset				Semi Major Axis		Distance				Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
8,900.00	7,535.00	8,918.88	7,535.00	37.58	35.31	-90.00	1,125.76	212.02	1,287.69	1,217.21	70.48	18.270		
9,000.00	7,535.00	9,018.79	7,535.00	38.23	36.33	-90.00	1,225.67	211.90	1,283.45	1,211.01	72.45	17.715		
9,100.00	7,535.00	9,118.70	7,535.00	38.99	37.39	-90.00	1,325.58	211.77	1,279.22	1,204.71	74.50	17.170		
9,200.00	7,535.00	9,218.61	7,535.00	39.85	38.49	-90.00	1,425.49	211.65	1,274.98	1,198.34	76.63	16.637		
9,300.00	7,535.00	9,318.52	7,535.00	40.78	39.62	-90.00	1,525.40	211.53	1,270.74	1,191.90	78.84	16.118		
9,400.00	7,535.00	9,418.43	7,535.00	41.78	40.78	-90.00	1,625.31	211.40	1,266.50	1,185.39	81.11	15.614		
9,500.00	7,535.00	9,518.34	7,535.00	42.83	41.97	-90.00	1,725.22	211.28	1,262.26	1,178.82	83.45	15.126		
9,600.00	7,535.00	9,618.25	7,535.00	43.93	43.18	-90.00	1,825.13	211.15	1,258.03	1,172.19	85.84	14.655		
9,700.00	7,535.00	9,718.16	7,535.00	45.07	44.42	-90.00	1,925.04	211.03	1,253.79	1,165.51	88.28	14.202		
9,800.00	7,535.00	9,818.07	7,535.00	46.24	45.68	-90.00	2,024.95	210.91	1,249.55	1,158.78	90.78	13.765		
9,900.00	7,535.00	9,917.98	7,535.00	47.44	46.95	-90.00	2,124.86	210.78	1,245.31	1,152.00	93.31	13.346		
10,000.00	7,535.00	10,017.89	7,535.00	48.67	48.25	-90.00	2,224.77	210.66	1,241.08	1,145.19	95.89	12.943		
10,100.00	7,535.00	10,117.80	7,535.00	49.93	49.56	-90.00	2,324.68	210.53	1,236.84	1,138.34	98.50	12.557		
10,200.00	7,535.00	10,217.71	7,535.00	51.20	50.89	-90.00	2,424.59	210.41	1,232.60	1,131.45	101.15	12.186		
10,300.00	7,535.00	10,317.62	7,535.00	52.50	52.24	-90.00	2,524.50	210.29	1,228.36	1,124.53	103.83	11.831		
10,400.00	7,535.00	10,417.53	7,535.00	53.82	53.59	-90.00	2,624.41	210.16	1,224.12	1,117.59	106.54	11.490		
10,500.00	7,535.00	10,517.44	7,535.00	55.15	54.96	-90.00	2,724.32	210.04	1,219.89	1,110.61	109.27	11.164		
10,600.00	7,535.00	10,617.35	7,535.00	56.50	56.34	-90.00	2,824.23	209.91	1,215.65	1,103.61	112.04	10.851		
10,700.00	7,535.00	10,717.26	7,535.00	57.87	57.73	-90.00	2,924.14	209.79	1,211.41	1,096.59	114.82	10.550		
10,800.00	7,535.00	10,817.17	7,535.00	59.24	59.13	-90.00	3,024.05	209.67	1,207.17	1,089.54	117.63	10.263		
10,900.00	7,535.00	10,917.08	7,535.00	60.63	60.54	-90.00	3,123.96	209.54	1,202.93	1,082.48	120.46	9.987		
11,000.00	7,535.00	11,016.99	7,535.00	62.04	61.96	-90.00	3,223.87	209.42	1,198.70	1,075.40	123.30	9.722		
11,100.00	7,535.00	11,116.90	7,535.00	63.45	63.39	-90.00	3,323.78	209.29	1,194.46	1,068.29	126.16	9.467		
11,200.00	7,535.00	11,216.81	7,535.00	64.87	64.82	-90.00	3,423.69	209.17	1,190.22	1,061.18	129.04	9.223		
11,300.00	7,535.00	11,316.72	7,535.00	66.30	66.27	-90.00	3,523.60	209.05	1,185.98	1,054.04	131.94	8.989		
11,400.00	7,535.00	11,416.63	7,535.00	67.74	67.71	-90.00	3,623.51	208.92	1,181.74	1,046.90	134.85	8.763		
11,500.00	7,535.00	11,516.54	7,535.00	69.19	69.17	-90.00	3,723.42	208.80	1,177.51	1,039.73	137.77	8.547		
11,600.00	7,535.00	11,616.45	7,535.00	70.65	70.63	-90.00	3,823.33	208.67	1,173.27	1,032.56	140.71	8.338		
11,700.00	7,535.00	11,716.36	7,535.00	72.11	72.09	-90.00	3,923.24	208.55	1,169.03	1,025.38	143.66	8.138		
11,800.00	7,535.00	11,816.27	7,535.00	73.58	73.56	-90.00	4,023.15	208.42	1,164.79	1,018.18	146.61	7.945		
11,900.00	7,535.00	11,916.18	7,535.00	75.06	75.04	-90.00	4,123.06	208.30	1,160.56	1,010.97	149.58	7.759		
12,000.00	7,535.00	12,016.09	7,535.00	76.55	76.51	-90.00	4,222.97	208.18	1,156.32	1,003.76	152.56	7.579		
12,030.43	7,535.00	12,046.49	7,535.00	77.00	76.97	-90.00	4,253.38	208.14	1,155.03	1,001.56	153.47	7.526 SF		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: O-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
0.00	0.00	0.00	0.00	0.00	0.00	-89.55	0.31	-40.01	40.01	39.73	0.28	144.954		
100.00	100.00	100.00	100.00	0.14	0.14	-89.55	0.31	-40.01	40.01	39.02	0.99	40.294		
200.00	200.00	200.00	200.00	0.50	0.50	-89.55	0.31	-40.01	40.01	38.30	1.71	23.399		
300.00	300.00	300.00	300.00	0.85	0.85	-89.55	0.31	-40.01	40.01	37.58	2.43	16.487	CC, ES	
400.00	400.00	400.00	400.00	1.21	1.21	-89.55	0.31	-40.01	40.01	37.58	2.43	16.487	CC, ES	
500.00	499.98	499.98	499.98	1.56	1.57	132.28	0.31	-40.01	41.16	38.04	3.13	13.154		
600.00	599.84	599.84	599.84	1.90	1.93	137.18	0.31	-40.01	44.85	41.03	3.83	11.718		
650.00	649.68	649.68	649.68	2.08	2.11	140.33	0.31	-40.01	47.81	43.63	4.18	11.432		
700.00	699.47	699.47	699.47	2.25	2.29	151.45	0.31	-40.01	51.66	47.12	4.54	11.385		
800.00	798.84	798.84	798.84	2.62	2.64	166.70	0.31	-40.01	62.13	56.88	5.25	11.834		
900.00	897.85	900.14	900.12	3.00	2.99	175.00	-0.97	-38.82	74.50	68.53	5.96	12.492		
1,000.00	996.37	1,001.83	1,001.66	3.41	3.33	178.59	-4.92	-35.20	87.04	80.36	6.68	13.030		
1,100.00	1,094.29	1,103.74	1,103.17	3.83	3.68	179.31	-11.53	-29.12	99.90	92.49	7.41	13.482		
1,144.53	1,137.66	1,149.15	1,148.28	4.03	3.84	179.00	-15.33	-25.62	105.81	98.07	7.74	13.668		
1,200.00	1,191.61	1,204.46	1,203.15	4.28	4.04	177.10	-20.45	-20.91	113.13	104.99	8.14	13.893		
1,300.00	1,288.85	1,303.38	1,301.28	4.75	4.40	174.23	-29.66	-12.44	126.53	117.66	8.87	14.267		
1,400.00	1,386.09	1,402.30	1,399.40	5.22	4.77	171.92	-38.87	-3.97	140.18	130.58	9.61	14.590		
1,500.00	1,483.34	1,501.22	1,497.53	5.70	5.14	170.02	-48.08	4.50	154.02	143.66	10.36	14.869		
1,600.00	1,580.58	1,600.14	1,595.65	6.19	5.52	168.43	-57.30	12.98	168.00	156.88	11.12	15.111		
1,700.00	1,677.82	1,699.06	1,693.78	6.69	5.90	167.09	-66.51	21.45	182.08	170.19	11.88	15.320		
1,800.00	1,775.07	1,797.98	1,791.90	7.19	6.28	165.94	-75.72	29.92	196.25	183.59	12.66	15.503		
1,900.00	1,872.31	1,896.90	1,890.03	7.69	6.66	164.95	-84.93	38.39	210.48	197.04	13.44	15.663		
2,000.00	1,969.55	1,995.82	1,988.16	8.19	7.05	164.08	-94.14	46.86	224.77	210.55	14.22	15.805		
2,100.00	2,066.79	2,094.74	2,086.28	8.69	7.44	163.31	-103.35	55.33	239.10	224.09	15.01	15.930		
2,200.00	2,164.04	2,193.66	2,184.41	9.20	7.83	162.64	-112.56	63.81	253.47	237.67	15.80	16.042		
2,300.00	2,261.28	2,292.58	2,282.53	9.71	8.22	162.03	-121.77	72.28	267.87	251.28	16.59	16.142		
2,400.00	2,358.52	2,391.50	2,380.66	10.22	8.62	161.49	-130.99	80.75	282.30	264.91	17.39	16.232		
2,500.00	2,455.77	2,490.42	2,478.78	10.73	9.01	161.00	-140.20	89.22	296.75	278.56	18.19	16.314		
2,600.00	2,553.01	2,589.34	2,576.91	11.24	9.40	160.55	-149.41	97.69	311.22	292.23	18.99	16.388		
2,700.00	2,650.25	2,688.26	2,675.03	11.75	9.80	160.15	-158.62	106.17	325.70	305.91	19.79	16.455		
2,800.00	2,747.50	2,787.18	2,773.16	12.26	10.19	159.78	-167.83	114.64	340.20	319.61	20.60	16.517		
2,900.00	2,844.74	2,886.10	2,871.28	12.78	10.59	159.43	-177.04	123.11	354.72	333.31	21.40	16.574		
3,000.00	2,941.98	2,985.02	2,969.41	13.29	10.99	159.12	-186.25	131.58	369.24	347.03	22.21	16.626		
3,100.00	3,039.22	3,083.94	3,067.53	13.80	11.38	158.83	-195.46	140.05	383.78	360.76	23.02	16.674		
3,200.00	3,136.47	3,182.86	3,165.66	14.32	11.78	158.56	-204.67	148.52	398.32	374.49	23.83	16.718		
3,300.00	3,233.71	3,281.78	3,263.78	14.83	12.18	158.31	-213.89	157.00	412.87	388.24	24.64	16.759		
3,400.00	3,330.95	3,380.70	3,361.91	15.35	12.58	158.08	-223.10	165.47	427.43	401.98	25.45	16.798		
3,500.00	3,428.20	3,479.62	3,460.03	15.86	12.98	157.86	-232.31	173.94	442.00	415.74	26.26	16.833		
3,600.00	3,525.44	3,578.54	3,558.16	16.38	13.38	157.66	-241.52	182.41	456.57	429.50	27.07	16.867		
3,700.00	3,622.68	3,677.46	3,656.28	16.89	13.77	157.47	-250.73	190.88	471.14	443.26	27.88	16.898		
3,800.00	3,719.93	3,776.38	3,754.41	17.41	14.17	157.29	-259.94	199.36	485.72	457.03	28.69	16.927		
3,900.00	3,817.17	3,875.30	3,852.54	17.93	14.57	157.12	-269.15	207.83	500.31	470.80	29.51	16.955		
4,000.00	3,914.41	3,974.22	3,950.66	18.44	14.97	156.96	-278.36	216.30	514.90	484.58	30.32	16.981		
4,100.00	4,011.65	4,073.14	4,048.79	18.96	15.37	156.81	-287.58	224.77	529.49	498.36	31.14	17.005		
4,200.00	4,108.90	4,172.06	4,146.91	19.48	15.77	156.66	-296.79	233.24	544.09	512.14	31.95	17.029		
4,300.00	4,206.14	4,270.98	4,245.04	19.99	16.17	156.53	-306.00	241.71	558.69	525.92	32.77	17.050		
4,400.00	4,303.38	4,369.90	4,343.16	20.51	16.57	156.40	-315.21	250.19	573.29	539.71	33.58	17.071		
4,500.00	4,400.63	4,468.82	4,441.29	21.03	16.97	156.28	-324.42	258.66	587.90	553.50	34.40	17.091		
4,600.00	4,497.87	4,567.74	4,539.41	21.54	17.37	156.16	-333.63	267.13	602.51	567.29	35.21	17.110		
4,700.00	4,595.11	4,666.66	4,637.54	22.06	17.78	156.05	-342.84	275.60	617.12	581.09	36.03	17.127		
4,800.00	4,692.36	4,765.58	4,735.66	22.58	18.18	155.95	-352.05	284.07	631.73	594.88	36.85	17.144		
4,900.00	4,789.60	4,864.50	4,833.79	23.10	18.58	155.84	-361.26	292.55	646.34	608.68	37.67	17.160		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W - HWY52 4Q-32H-O268 - OH - PLAN #2													Offset Site Error:	0.00 usft
Survey Program: O-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
5,000.00	4,886.84	4,963.42	4,931.91	23.62	18.98	155.75	-370.48	301.02	660.96	622.48	38.48	17.176		
5,100.00	4,984.08	5,062.34	5,030.04	24.13	19.38	155.66	-379.69	309.49	675.58	636.28	39.30	17.190		
5,200.00	5,081.33	5,161.26	5,128.16	24.65	19.78	155.57	-388.90	317.96	690.20	650.08	40.12	17.204		
5,300.00	5,178.57	5,260.18	5,226.29	25.17	20.18	155.48	-398.11	326.43	704.82	663.88	40.94	17.218		
5,400.00	5,275.81	5,359.10	5,324.41	25.69	20.58	155.40	-407.32	334.90	719.44	677.69	41.75	17.231		
5,500.00	5,373.06	5,458.02	5,422.54	26.21	20.98	155.32	-416.53	343.38	734.06	691.49	42.57	17.243		
5,600.00	5,470.30	5,556.94	5,520.66	26.72	21.39	155.25	-425.74	351.85	748.69	705.30	43.39	17.255		
5,700.00	5,567.54	5,655.86	5,618.79	27.24	21.79	155.18	-434.95	360.32	763.32	719.11	44.21	17.266		
5,800.00	5,664.79	5,754.78	5,716.92	27.76	22.19	155.11	-444.17	368.79	777.94	732.92	45.03	17.277		
5,900.00	5,762.03	5,853.70	5,815.04	28.28	22.59	155.04	-453.38	377.26	792.57	746.73	45.85	17.287		
6,000.00	5,859.27	5,952.62	5,913.17	28.80	22.99	154.98	-462.59	385.74	807.20	760.54	46.67	17.297		
6,100.00	5,956.51	6,051.54	6,011.29	29.31	23.39	154.92	-471.80	394.21	821.83	774.35	47.49	17.307		
6,200.00	6,053.76	6,150.46	6,109.42	29.83	23.79	154.86	-481.01	402.68	836.46	788.16	48.30	17.317		
6,300.00	6,151.00	6,249.38	6,207.54	30.35	24.20	154.80	-490.22	411.15	851.10	801.97	49.12	17.326		
6,400.00	6,248.24	6,348.30	6,305.67	30.87	24.60	154.74	-499.43	419.62	865.73	815.79	49.94	17.334		
6,500.00	6,345.49	6,447.22	6,403.79	31.39	25.00	154.69	-508.64	428.09	880.36	829.60	50.76	17.343		
6,600.00	6,442.73	6,546.14	6,501.92	31.91	25.40	154.64	-517.86	436.57	895.00	843.42	51.58	17.351		
6,700.00	6,539.97	6,645.06	6,600.04	32.43	25.80	154.59	-527.07	445.04	909.63	857.23	52.40	17.359		
6,800.00	6,637.21	6,761.28	6,715.48	32.94	26.26	154.67	-535.50	455.08	923.88	870.58	53.31	17.331		
6,900.00	6,734.46	6,898.77	6,851.69	33.46	26.70	156.06	-523.94	467.65	934.64	880.63	54.00	17.307		
6,958.42	6,791.27	6,974.30	6,924.80	33.77	26.89	157.46	-506.51	474.77	939.39	885.15	54.24	17.318		
7,000.00	6,831.76	7,025.55	6,973.17	33.98	27.00	172.84	-490.32	479.63	942.48	888.10	54.37	17.333		
7,050.00	6,880.45	7,085.21	7,027.84	34.22	27.12	-168.53	-467.16	485.28	946.16	891.65	54.50	17.360		
7,100.00	6,928.94	7,142.83	7,078.63	34.44	27.22	-152.28	-440.53	490.71	949.81	895.20	54.62	17.390		
7,150.00	6,976.98	7,198.54	7,125.54	34.64	27.30	-139.42	-410.96	495.88	953.46	898.73	54.72	17.423		
7,200.00	7,024.34	7,252.46	7,168.63	34.82	27.37	-129.57	-378.93	500.80	957.09	902.26	54.83	17.455		
7,250.00	7,070.78	7,304.74	7,207.98	34.99	27.43	-121.95	-344.85	505.45	960.71	905.76	54.95	17.485		
7,300.00	7,116.09	7,355.48	7,243.71	35.14	27.48	-115.92	-309.09	509.82	964.29	909.23	55.06	17.513		
7,350.00	7,160.03	7,404.82	7,275.93	35.28	27.51	-111.02	-271.97	513.94	967.83	912.64	55.18	17.539		
7,400.00	7,202.41	7,452.87	7,304.78	35.40	27.55	-106.95	-233.76	517.78	971.29	915.98	55.30	17.562		
7,450.00	7,243.00	7,499.72	7,330.40	35.51	27.57	-103.49	-194.71	521.36	974.64	919.22	55.43	17.585		
7,500.00	7,281.62	7,545.47	7,352.90	35.60	27.60	-100.51	-155.02	524.69	977.87	922.32	55.54	17.605		
7,550.00	7,318.07	7,590.22	7,372.41	35.68	27.62	-97.91	-114.87	527.76	980.92	925.27	55.66	17.624		
7,600.00	7,352.17	7,634.05	7,389.06	35.75	27.65	-95.62	-74.44	530.59	983.78	928.02	55.77	17.641		
7,650.00	7,383.77	7,677.02	7,402.96	35.81	27.68	-93.59	-33.86	533.18	986.41	930.54	55.87	17.655		
7,700.00	7,412.70	7,719.22	7,414.23	35.85	27.73	-91.79	6.73	535.53	988.78	932.81	55.97	17.666		
7,750.00	7,438.83	7,760.70	7,422.96	35.89	27.79	-90.18	47.22	537.65	990.84	934.78	56.06	17.673		
7,800.00	7,462.03	7,800.00	7,429.06	35.91	27.86	-88.79	86.00	539.48	992.58	936.43	56.15	17.676		
7,850.00	7,482.18	7,841.75	7,433.21	35.93	27.95	-87.50	127.50	541.23	993.95	937.70	56.26	17.669		
7,900.00	7,499.19	7,881.42	7,434.92	35.94	28.06	-86.40	167.10	542.69	994.94	938.58	56.36	17.654		
7,950.00	7,512.97	7,927.12	7,435.00	35.94	28.21	-85.38	212.77	544.21	995.40	938.89	56.51	17.615		
8,000.00	7,523.46	7,975.98	7,435.00	35.94	28.40	-84.62	261.60	545.82	994.94	938.22	56.72	17.542		
8,050.00	7,530.60	8,025.41	7,435.00	35.94	28.62	-84.18	311.01	547.46	993.46	936.46	57.01	17.428		
8,100.00	7,534.37	8,075.17	7,435.00	35.94	28.86	-84.08	360.74	549.11	990.89	933.52	57.37	17.271		
8,130.43	7,535.00	8,105.51	7,435.00	35.94	29.02	-84.18	391.06	550.11	988.78	931.15	57.63	17.156		
8,200.00	7,535.00	8,174.88	7,435.00	35.94	29.42	-84.15	460.39	552.40	983.48	925.16	58.32	16.865		
8,300.00	7,535.00	8,274.58	7,435.00	35.97	30.05	-84.10	560.04	555.70	975.85	916.43	59.42	16.423		
8,400.00	7,535.00	8,374.29	7,435.00	36.05	30.75	-84.05	659.70	559.00	968.23	907.56	60.67	15.960		
8,500.00	7,535.00	8,473.99	7,435.00	36.17	31.52	-84.01	759.35	562.30	960.60	898.56	62.05	15.482		
8,600.00	7,535.00	8,573.70	7,435.00	36.37	32.34	-83.96	859.00	565.60	952.98	889.42	63.56	14.994		
8,700.00	7,535.00	8,673.41	7,435.00	36.65	33.21	-83.91	958.65	568.90	945.36	880.18	65.18	14.503		
8,800.00	7,535.00	8,773.11	7,435.00	37.05	34.13	-83.86	1,058.30	572.19	937.74	870.82	66.92	14.013		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft	
Survey Program: 0-MWD+HDGM													Offset Well Error:		0.00 usft
Reference				Offset			Semi Major Axis			Distance			Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
8,900.00	7,535.00	8,872.82	7,435.00	37.58	35.09	-83.81	1,157.95	575.49	930.12	861.36	68.76	13.528			
9,000.00	7,535.00	8,972.52	7,435.00	38.23	36.10	-83.76	1,257.60	578.79	922.50	851.81	70.69	13.051			
9,100.00	7,535.00	9,072.23	7,435.00	38.99	37.14	-83.71	1,357.25	582.09	914.88	842.18	72.70	12.584			
9,200.00	7,535.00	9,171.94	7,435.00	39.85	38.22	-83.65	1,456.91	585.39	907.26	832.47	74.79	12.130			
9,300.00	7,535.00	9,271.64	7,435.00	40.78	39.33	-83.60	1,556.56	588.69	899.64	822.69	76.96	11.690			
9,400.00	7,535.00	9,371.35	7,435.00	41.78	40.47	-83.54	1,656.21	591.98	892.03	812.84	79.19	11.265			
9,500.00	7,535.00	9,471.05	7,435.00	42.83	41.63	-83.49	1,755.86	595.28	884.41	802.93	81.48	10.854			
9,600.00	7,535.00	9,570.76	7,435.00	43.93	42.82	-83.43	1,855.51	598.58	876.80	792.97	83.83	10.460			
9,700.00	7,535.00	9,670.46	7,435.00	45.07	44.03	-83.37	1,955.16	601.88	869.18	782.96	86.22	10.081			
9,800.00	7,535.00	9,770.17	7,435.00	46.24	45.27	-83.32	2,054.81	605.18	861.57	772.90	88.67	9.717			
9,900.00	7,535.00	9,869.88	7,435.00	47.44	46.52	-83.26	2,154.46	608.48	853.96	762.80	91.15	9.368			
10,000.00	7,535.00	9,957.37	7,435.00	48.67	47.64	-83.20	2,241.92	611.07	846.73	753.34	93.39	9.066			
10,100.00	7,535.00	10,034.64	7,435.00	49.93	48.64	-83.17	2,319.19	611.46	841.90	746.50	95.40	8.825			
10,200.00	7,535.00	10,112.06	7,435.00	51.20	49.66	-83.16	2,396.58	609.76	839.74	742.35	97.39	8.622			
10,300.00	7,535.00	10,209.62	7,435.00	52.50	50.97	-83.16	2,494.08	606.03	839.20	739.21	99.99	8.393			
10,400.00	7,535.00	10,309.62	7,435.00	53.82	52.33	-83.15	2,594.00	602.20	838.68	735.98	102.70	8.167			
10,500.00	7,535.00	10,409.62	7,435.00	55.15	53.70	-83.15	2,693.93	598.37	838.16	732.73	105.43	7.950			
10,600.00	7,535.00	10,509.62	7,435.00	56.50	55.08	-83.14	2,793.85	594.53	837.63	729.44	108.19	7.742			
10,700.00	7,535.00	10,609.62	7,435.00	57.87	56.48	-83.14	2,893.78	590.70	837.11	726.13	110.97	7.543			
10,800.00	7,535.00	10,709.62	7,435.00	59.24	57.89	-83.13	2,993.70	586.86	836.58	722.80	113.78	7.353			
10,900.00	7,535.00	10,809.62	7,435.00	60.63	59.31	-83.13	3,093.63	583.03	836.06	719.45	116.61	7.170			
11,000.00	7,535.00	10,909.61	7,435.00	62.04	60.74	-83.13	3,193.55	579.19	835.54	716.07	119.46	6.994			
11,100.00	7,535.00	11,009.61	7,435.00	63.45	62.18	-83.12	3,293.48	575.36	835.01	712.68	122.33	6.826			
11,200.00	7,535.00	11,109.61	7,435.00	64.87	63.62	-83.12	3,393.40	571.52	834.49	709.27	125.22	6.664			
11,300.00	7,535.00	11,209.61	7,435.00	66.30	65.08	-83.11	3,493.33	567.69	833.96	705.85	128.12	6.509			
11,400.00	7,535.00	11,309.61	7,435.00	67.74	66.54	-83.11	3,593.25	563.85	833.44	702.40	131.04	6.360			
11,500.00	7,535.00	11,409.61	7,435.00	69.19	68.01	-83.10	3,693.18	560.02	832.92	698.95	133.97	6.217			
11,600.00	7,535.00	11,509.61	7,435.00	70.65	69.49	-83.10	3,793.10	556.18	832.39	695.48	136.91	6.080			
11,700.00	7,535.00	11,609.60	7,435.00	72.11	70.97	-83.10	3,893.03	552.35	831.87	692.00	139.87	5.947			
11,800.00	7,535.00	11,709.60	7,435.00	73.58	72.46	-83.09	3,992.95	548.52	831.34	688.51	142.84	5.820			
11,900.00	7,535.00	11,809.60	7,435.00	75.06	73.95	-83.09	4,092.88	544.68	830.82	685.00	145.82	5.698			
12,000.00	7,535.00	11,909.60	7,435.00	76.55	75.42	-83.08	4,192.80	540.85	830.30	681.52	148.78	5.581			
12,030.43	7,535.00	11,940.03	7,435.00	77.00	75.79	-83.08	4,223.21	539.68	830.14	680.54	149.59	5.549 SF			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W - HWY52 4R-32H-O268 - OH - PLAN #2													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
0.00	0.00	0.00	0.00	0.00	0.00	-89.43	0.30	-29.94	29.94					
100.00	100.00	100.00	100.00	0.14	0.14	-89.43	0.30	-29.94	29.94	29.66	0.28	108.464		
200.00	200.00	200.00	200.00	0.50	0.50	-89.43	0.30	-29.94	29.94	28.95	0.99	30.151		
300.00	300.00	300.00	300.00	0.85	0.85	-89.43	0.30	-29.94	29.94	28.23	1.71	17.509		
400.00	400.00	400.00	400.00	1.21	1.21	-89.43	0.30	-29.94	29.94	27.51	2.43	12.336 CC, ES		
500.00	499.98	499.98	499.98	1.56	1.57	132.99	0.30	-29.94	31.10	27.97	3.13	9.939		
600.00	599.84	599.84	599.84	1.90	1.93	139.24	0.30	-29.94	34.88	31.05	3.83	9.113		
650.00	649.68	649.68	649.68	2.08	2.11	143.07	0.30	-29.94	37.94	33.76	4.18	9.073		
700.00	699.47	699.47	699.47	2.25	2.29	154.63	0.30	-29.94	41.92	37.39	4.54	9.239		
800.00	798.84	800.59	800.57	2.62	2.64	169.53	-0.69	-28.48	50.91	45.66	5.25	9.700		
900.00	897.85	902.10	901.94	3.00	2.98	177.00	-3.71	-24.04	59.75	53.78	5.97	10.009		
1,000.00	996.37	1,003.92	1,003.35	3.41	3.33	-179.90	-8.75	-16.61	68.37	61.66	6.70	10.197		
1,100.00	1,094.29	1,105.95	1,104.59	3.83	3.70	-179.55	-15.83	-6.18	76.93	69.48	7.45	10.325		
1,144.53	1,137.66	1,151.43	1,149.57	4.03	3.87	179.98	-19.64	-0.57	80.79	73.00	7.79	10.374		
1,200.00	1,191.61	1,207.02	1,204.42	4.28	4.08	177.88	-24.68	6.85	85.46	77.27	8.19	10.432		
1,300.00	1,288.85	1,306.52	1,302.61	4.75	4.47	174.64	-33.73	20.18	94.06	85.14	8.93	10.538		
1,400.00	1,386.09	1,406.02	1,400.80	5.22	4.86	171.95	-42.79	33.52	102.92	93.24	9.68	10.636		
1,500.00	1,483.34	1,505.52	1,498.98	5.70	5.26	169.69	-51.84	46.85	111.96	101.52	10.44	10.725		
1,600.00	1,580.58	1,605.02	1,597.17	6.19	5.67	167.77	-60.89	60.19	121.15	109.94	11.21	10.804		
1,700.00	1,677.82	1,704.52	1,695.36	6.69	6.08	166.12	-69.95	73.52	130.46	118.46	12.00	10.873		
1,800.00	1,775.07	1,804.02	1,793.54	7.19	6.49	164.69	-79.00	86.86	139.86	127.07	12.79	10.933		
1,900.00	1,872.31	1,903.52	1,891.73	7.69	6.91	163.44	-88.06	100.19	149.33	135.74	13.59	10.986		
2,000.00	1,969.55	2,003.02	1,989.92	8.19	7.33	162.34	-97.11	113.53	158.87	144.47	14.40	11.033		
2,100.00	2,066.79	2,102.52	2,088.10	8.69	7.75	161.37	-106.17	126.87	168.46	153.25	15.21	11.075		
2,200.00	2,164.04	2,202.03	2,186.29	9.20	8.17	160.50	-115.22	140.20	178.09	162.06	16.03	11.111		
2,300.00	2,261.28	2,301.53	2,284.48	9.71	8.59	159.72	-124.27	153.54	187.76	170.91	16.85	11.144		
2,400.00	2,358.52	2,401.03	2,382.66	10.22	9.01	159.02	-133.33	166.87	197.46	179.79	17.67	11.173		
2,500.00	2,455.77	2,500.53	2,480.85	10.73	9.44	158.38	-142.38	180.21	207.18	188.69	18.50	11.200		
2,600.00	2,553.01	2,600.03	2,579.03	11.24	9.86	157.80	-151.44	193.54	216.93	197.60	19.33	11.223		
2,700.00	2,650.25	2,699.53	2,677.22	11.75	10.29	157.27	-160.49	206.88	226.70	206.54	20.16	11.245		
2,800.00	2,747.50	2,799.03	2,775.41	12.26	10.72	156.78	-169.54	220.21	236.49	215.50	20.99	11.264		
2,900.00	2,844.74	2,898.53	2,873.59	12.78	11.15	156.33	-178.60	233.55	246.29	224.46	21.83	11.282		
3,000.00	2,941.98	2,998.03	2,971.78	13.29	11.57	155.92	-187.65	246.88	256.11	233.44	22.67	11.298		
3,100.00	3,039.22	3,097.53	3,069.97	13.80	12.00	155.54	-196.71	260.22	265.94	242.43	23.51	11.313		
3,200.00	3,136.47	3,197.03	3,168.15	14.32	12.43	155.18	-205.76	273.55	275.78	251.43	24.35	11.327		
3,300.00	3,233.71	3,296.53	3,266.34	14.83	12.86	154.85	-214.82	286.89	285.63	260.44	25.19	11.339		
3,400.00	3,330.95	3,396.03	3,364.53	15.35	13.29	154.54	-223.87	300.22	295.49	269.45	26.03	11.351		
3,500.00	3,428.20	3,495.53	3,462.71	15.86	13.72	154.25	-232.92	313.56	305.35	278.48	26.88	11.362		
3,600.00	3,525.44	3,595.03	3,560.90	16.38	14.15	153.98	-241.98	326.90	315.23	287.50	27.72	11.372		
3,700.00	3,622.68	3,694.54	3,659.09	16.89	14.58	153.73	-251.03	340.23	325.11	296.54	28.57	11.381		
3,800.00	3,719.93	3,794.04	3,757.27	17.41	15.01	153.49	-260.09	353.57	334.99	305.58	29.41	11.390		
3,900.00	3,817.17	3,893.54	3,855.46	17.93	15.44	153.26	-269.14	366.90	344.88	314.62	30.26	11.398		
4,000.00	3,914.41	3,993.04	3,953.64	18.44	15.88	153.05	-278.19	380.24	354.78	323.67	31.11	11.405		
4,100.00	4,011.65	4,092.54	4,051.83	18.96	16.31	152.84	-287.25	393.57	364.68	332.73	31.95	11.413		
4,200.00	4,108.90	4,192.04	4,150.02	19.48	16.74	152.65	-296.30	406.91	374.59	341.78	32.80	11.419		
4,300.00	4,206.14	4,291.54	4,248.20	19.99	17.17	152.47	-305.36	420.24	384.50	350.84	33.65	11.426		
4,400.00	4,303.38	4,391.04	4,346.39	20.51	17.60	152.30	-314.41	433.58	394.41	359.91	34.50	11.432		
4,500.00	4,400.63	4,490.54	4,444.58	21.03	18.03	152.14	-323.47	446.91	404.32	368.97	35.35	11.437		
4,600.00	4,497.87	4,590.04	4,542.76	21.54	18.47	151.98	-332.52	460.25	414.24	378.04	36.20	11.443		
4,700.00	4,595.11	4,689.54	4,640.95	22.06	18.90	151.83	-341.57	473.58	424.17	387.11	37.05	11.448		
4,800.00	4,692.36	4,789.04	4,739.14	22.58	19.33	151.69	-350.63	486.92	434.09	396.19	37.90	11.452		
4,900.00	4,789.60	4,888.54	4,837.32	23.10	19.76	151.56	-359.68	500.25	444.02	405.26	38.76	11.457		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft	
Survey Program: O-MWD+HDGM													Offset Well Error:		0.00 usft
Reference				Offset				Semi Major Axis			Distance		Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
5,000.00	4,886.84	4,988.04	4,935.51	23.62	20.20	151.43	-368.74	513.59	453.95	414.34	39.61	11.461			
5,100.00	4,984.08	5,087.54	5,033.69	24.13	20.63	151.30	-377.79	526.93	463.88	423.42	40.46	11.465			
5,200.00	5,081.33	5,187.05	5,131.88	24.65	21.06	151.18	-386.84	540.26	473.81	432.50	41.31	11.469			
5,300.00	5,178.57	5,286.55	5,230.07	25.17	21.50	151.07	-395.90	553.60	483.75	441.59	42.16	11.473			
5,400.00	5,275.81	5,386.05	5,328.25	25.69	21.93	150.96	-404.95	566.93	493.69	450.67	43.02	11.477			
5,500.00	5,373.06	5,485.55	5,426.44	26.21	22.36	150.86	-414.01	580.27	503.63	459.76	43.87	11.480			
5,600.00	5,470.30	5,585.05	5,524.63	26.72	22.79	150.75	-423.06	593.60	513.57	468.85	44.72	11.483			
5,700.00	5,567.54	5,684.55	5,622.81	27.24	23.23	150.66	-432.12	606.94	523.51	477.93	45.58	11.486			
5,800.00	5,664.79	5,784.05	5,721.00	27.76	23.66	150.56	-441.17	620.27	533.45	487.02	46.43	11.489			
5,900.00	5,762.03	5,883.55	5,819.19	28.28	24.09	150.47	-450.22	633.61	543.40	496.12	47.28	11.492			
6,000.00	5,859.27	5,983.05	5,917.37	28.80	24.53	150.39	-459.28	646.94	553.35	505.21	48.14	11.495			
6,100.00	5,956.51	6,082.55	6,015.56	29.31	24.96	150.30	-468.33	660.28	563.29	514.30	48.99	11.498			
6,200.00	6,053.76	6,182.05	6,113.75	29.83	25.39	150.22	-477.39	673.61	573.24	523.40	49.85	11.500			
6,300.00	6,151.00	6,281.55	6,211.93	30.35	25.83	150.14	-486.44	686.95	583.19	532.49	50.70	11.503			
6,400.00	6,248.24	6,381.05	6,310.12	30.87	26.26	150.07	-495.49	700.28	593.15	541.59	51.56	11.505			
6,500.00	6,345.49	6,480.55	6,408.30	31.39	26.69	150.00	-504.55	713.62	603.10	550.69	52.41	11.507			
6,600.00	6,442.73	6,580.05	6,506.49	31.91	27.13	149.93	-513.60	726.95	613.05	559.79	53.26	11.509			
6,700.00	6,539.97	6,679.55	6,604.68	32.43	27.56	149.86	-522.66	740.29	623.00	568.88	54.12	11.512			
6,800.00	6,637.21	6,779.06	6,702.86	32.94	28.00	149.79	-531.71	753.63	632.96	577.98	54.97	11.514			
6,900.00	6,734.46	6,892.41	6,814.85	33.46	28.48	149.90	-539.96	768.84	642.48	586.60	55.87	11.499			
6,958.42	6,791.27	6,969.61	6,891.25	33.77	28.76	150.70	-536.96	779.24	646.19	589.95	56.24	11.489			
7,000.00	6,831.76	7,023.50	6,944.19	33.98	28.93	165.71	-529.95	786.45	648.16	591.76	56.40	11.493			
7,050.00	6,880.45	7,087.25	7,005.91	34.22	29.11	-176.04	-516.51	794.87	650.27	593.77	56.50	11.509			
7,100.00	6,928.94	7,149.76	7,065.05	34.44	29.26	-160.11	-498.01	802.95	652.14	595.60	56.54	11.533			
7,150.00	6,976.98	7,211.00	7,121.22	34.64	29.38	-147.50	-474.90	810.63	653.81	597.26	56.55	11.561			
7,200.00	7,024.34	7,270.92	7,174.09	34.82	29.49	-137.83	-447.68	817.87	655.31	598.76	56.55	11.589			
7,250.00	7,070.78	7,329.54	7,223.45	34.99	29.57	-130.36	-416.83	824.65	656.67	600.12	56.55	11.613			
7,300.00	7,116.09	7,386.85	7,269.14	35.14	29.64	-124.42	-382.83	830.93	657.91	601.35	56.56	11.631			
7,350.00	7,160.03	7,442.89	7,311.06	35.28	29.68	-119.57	-346.12	836.70	659.07	602.46	56.61	11.643			
7,400.00	7,202.41	7,497.67	7,349.18	35.40	29.72	-115.50	-307.14	841.96	660.16	603.48	56.68	11.647			
7,450.00	7,243.00	7,551.26	7,383.51	35.51	29.74	-112.01	-266.28	846.71	661.18	604.40	56.78	11.645			
7,500.00	7,281.62	7,603.70	7,414.07	35.60	29.74	-108.96	-223.90	850.95	662.16	605.26	56.91	11.636			
7,550.00	7,318.07	7,655.04	7,440.94	35.68	29.74	-106.25	-180.33	854.68	663.10	606.04	57.05	11.623			
7,600.00	7,352.17	7,705.33	7,464.19	35.75	29.73	-103.83	-135.87	857.93	663.98	606.77	57.21	11.605			
7,650.00	7,383.77	7,754.63	7,483.93	35.81	29.71	-101.64	-90.78	860.71	664.82	607.44	57.38	11.586			
7,700.00	7,412.70	7,803.00	7,500.27	35.85	29.68	-99.65	-45.32	863.02	665.60	608.04	57.56	11.564			
7,750.00	7,438.83	7,850.00	7,513.20	35.89	29.65	-97.84	-0.18	864.86	666.31	608.58	57.73	11.542			
7,800.00	7,462.03	7,897.18	7,523.20	35.91	29.62	-96.17	45.89	866.31	666.94	609.05	57.90	11.519			
7,850.00	7,482.18	7,943.09	7,530.02	35.93	29.58	-94.65	91.27	867.33	667.48	609.42	58.06	11.496			
7,900.00	7,499.19	7,988.28	7,533.91	35.94	29.54	-93.27	136.28	867.95	667.90	609.68	58.22	11.472			
7,950.00	7,512.97	8,033.26	7,535.00	35.94	29.50	-92.00	181.25	868.18	668.19	609.81	58.38	11.446			
8,000.00	7,523.46	8,082.14	7,535.00	35.94	29.46	-90.93	230.12	868.28	668.11	609.54	58.57	11.406			
8,050.00	7,530.60	8,131.61	7,535.00	35.94	29.41	-90.25	279.59	868.37	667.41	608.57	58.85	11.342			
8,100.00	7,534.37	8,181.44	7,535.00	35.94	29.43	-89.97	329.42	868.47	665.99	606.80	59.19	11.251			
8,130.43	7,535.00	8,211.83	7,535.00	35.94	29.55	-90.00	359.82	868.53	664.75	605.30	59.45	11.182			
8,200.00	7,535.00	8,281.33	7,535.00	35.94	29.92	-90.00	429.32	868.67	661.58	601.47	60.11	11.005			
8,300.00	7,535.00	8,381.23	7,535.00	35.97	30.57	-90.00	529.21	868.86	657.03	595.83	61.20	10.736			
8,400.00	7,535.00	8,481.13	7,535.00	36.05	31.27	-90.00	629.11	869.05	652.47	590.04	62.43	10.451			
8,500.00	7,535.00	8,581.02	7,535.00	36.17	32.03	-90.00	729.00	869.25	647.91	584.12	63.80	10.156			
8,600.00	7,535.00	8,680.92	7,535.00	36.37	32.84	-90.00	828.90	869.44	643.36	578.06	65.29	9.853			
8,700.00	7,535.00	8,780.81	7,535.00	36.65	33.70	-90.00	928.80	869.64	638.80	571.89	66.91	9.547			
8,800.00	7,535.00	8,880.71	7,535.00	37.05	34.61	-90.00	1,028.69	869.83	634.24	565.60	68.64	9.240			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft			
Survey Program: 0-MWD+HDGM													Offset Well Error:		0.00 usft		
Reference													Semi Major Axis		Distance		Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor					
8,900.00	7,535.00	8,980.61	7,535.00	37.58	35.56	-90.00	1,128.59	870.03	629.69	559.21	70.47	8.935					
9,000.00	7,535.00	9,080.50	7,535.00	38.23	36.56	-90.00	1,228.48	870.22	625.13	552.73	72.40	8.634					
9,100.00	7,535.00	9,180.40	7,535.00	38.99	37.60	-90.00	1,328.38	870.42	620.57	546.15	74.42	8.339					
9,200.00	7,535.00	9,280.29	7,535.00	39.85	38.67	-90.00	1,428.28	870.61	616.02	539.50	76.52	8.050					
9,300.00	7,535.00	9,380.19	7,535.00	40.78	39.77	-90.00	1,528.17	870.81	611.46	532.77	78.69	7.770					
9,400.00	7,535.00	9,480.09	7,535.00	41.78	40.90	-90.00	1,628.07	871.00	606.90	525.97	80.94	7.499					
9,500.00	7,535.00	9,579.98	7,535.00	42.83	42.06	-90.00	1,727.96	871.20	602.35	519.11	83.24	7.236					
9,600.00	7,535.00	9,679.88	7,535.00	43.93	43.25	-90.00	1,827.86	871.39	597.79	512.18	85.61	6.983					
9,700.00	7,535.00	9,779.78	7,535.00	45.07	44.46	-90.00	1,927.76	871.58	593.23	505.21	88.02	6.739					
9,800.00	7,535.00	9,879.67	7,535.00	46.24	45.69	-90.00	2,027.65	871.78	588.68	498.19	90.49	6.505					
9,900.00	7,535.00	9,979.57	7,535.00	47.44	46.95	-90.00	2,127.55	871.97	584.12	491.12	93.00	6.281					
10,000.00	7,535.00	10,079.46	7,535.00	48.67	48.22	-90.00	2,227.44	872.17	579.56	484.01	95.56	6.065					
10,100.00	7,535.00	10,179.36	7,535.00	49.93	49.51	-90.00	2,327.34	872.36	575.01	476.86	98.15	5.859					
10,200.00	7,535.00	10,279.26	7,535.00	51.20	50.82	-90.00	2,427.23	872.56	570.45	469.67	100.78	5.661					
10,300.00	7,535.00	10,379.15	7,535.00	52.50	52.14	-90.00	2,527.13	872.75	565.89	462.46	103.44	5.471					
10,400.00	7,535.00	10,479.05	7,535.00	53.82	53.47	-90.00	2,627.03	872.95	561.34	455.21	106.13	5.289					
10,500.00	7,535.00	10,578.94	7,535.00	55.15	54.82	-90.00	2,726.92	873.14	556.78	447.93	108.85	5.115					
10,600.00	7,535.00	10,678.84	7,535.00	56.50	56.18	-90.00	2,826.82	873.34	552.23	440.63	111.59	4.949					
10,700.00	7,535.00	10,778.74	7,535.00	57.87	57.55	-90.00	2,926.71	873.53	547.67	433.31	114.36	4.789					
10,800.00	7,535.00	10,878.63	7,535.00	59.24	58.94	-90.00	3,026.61	873.73	543.11	425.96	117.15	4.636					
10,900.00	7,535.00	10,978.53	7,535.00	60.63	60.33	-90.00	3,126.51	873.92	538.56	418.59	119.97	4.489					
11,000.00	7,535.00	11,078.43	7,535.00	62.04	61.73	-90.00	3,226.40	874.11	534.00	411.20	122.80	4.349					
11,100.00	7,535.00	11,178.32	7,535.00	63.45	63.14	-90.00	3,326.30	874.31	529.44	403.79	125.65	4.214					
11,200.00	7,535.00	11,278.22	7,535.00	64.87	64.56	-90.00	3,426.19	874.50	524.89	396.37	128.51	4.084					
11,300.00	7,535.00	11,378.11	7,535.00	66.30	65.98	-90.00	3,526.09	874.70	520.33	388.93	131.40	3.960					
11,400.00	7,535.00	11,478.01	7,535.00	67.74	67.41	-90.00	3,625.99	874.89	515.77	381.48	134.29	3.841					
11,500.00	7,535.00	11,577.90	7,535.00	69.19	68.83	-90.00	3,724.28	875.07	511.23	374.09	137.14	3.728					
11,600.00	7,535.00	11,677.80	7,535.00	70.65	70.12	-90.00	3,822.90	873.70	508.38	368.79	139.58	3.642					
11,700.00	7,535.00	11,777.70	7,535.00	72.11	71.58	-90.00	3,922.85	871.37	506.35	363.81	142.54	3.552					
11,800.00	7,535.00	11,877.60	7,535.00	73.58	73.06	-90.00	4,022.81	869.03	504.33	358.82	145.51	3.466					
11,900.00	7,535.00	11,977.50	7,535.00	75.06	74.53	-90.00	4,122.76	866.69	502.30	353.82	148.48	3.383					
12,000.00	7,535.00	12,077.40	7,535.00	76.55	76.01	-90.00	4,222.71	864.35	500.28	348.81	151.47	3.303					
12,030.43	7,535.00	12,095.28	7,535.00	77.00	76.47	-90.00	4,243.12	863.64	499.66	347.28	152.38	3.279 SF					

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft	
Survey Program: O-MWD+HDGM													Offset Well Error:	0.00 usft	
Reference: S32-T2N-R68W - HWY52 4S-32H-O268 - OH - PLAN #2															
Reference				Offset				Semi Major Axis		Distance			Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
0.00	0.00	0.00	0.00	0.00	0.00	-89.19	0.28	-19.86	19.87	19.59	0.28	71.975			
100.00	100.00	100.00	100.00	0.14	0.14	-89.19	0.28	-19.86	19.87	18.87	0.99	20.008			
200.00	200.00	200.00	200.00	0.50	0.50	-89.19	0.28	-19.86	19.87	18.16	1.71	11.619			
300.00	300.00	300.00	300.00	0.85	0.85	-89.19	0.28	-19.86	19.87	17.44	2.43	8.186	CC, ES		
400.00	400.00	400.00	400.00	1.21	1.21	-89.19	0.28	-19.86	19.87	17.92	3.13	6.726			
500.00	499.98	499.98	499.98	1.56	1.57	134.39	0.28	-19.86	21.05	17.92	3.13	6.726			
600.00	599.84	599.84	599.84	1.90	1.93	142.94	0.28	-19.86	24.99	21.16	3.83	6.529			
650.00	649.68	650.16	650.16	2.08	2.10	147.56	0.06	-19.49	27.80	23.62	4.18	6.652			
700.00	699.47	700.55	700.53	2.25	2.28	159.28	-0.61	-18.34	30.67	26.13	4.54	6.760			
800.00	798.84	801.55	801.38	2.62	2.62	173.72	-3.28	-13.74	36.33	31.07	5.26	6.911			
900.00	897.85	902.77	902.21	3.00	2.98	-179.62	-7.76	-6.05	41.63	35.63	5.99	6.944			
1,000.00	996.37	1,004.17	1,002.83	3.41	3.35	-177.70	-14.04	4.73	46.58	39.83	6.74	6.909			
1,100.00	1,094.29	1,105.63	1,103.01	3.83	3.73	-178.91	-22.11	18.60	51.43	43.93	7.49	6.862			
1,144.53	1,137.66	1,150.03	1,146.73	4.03	3.91	179.97	-26.01	25.30	54.02	46.21	7.81	6.915			
1,200.00	1,191.61	1,205.32	1,201.16	4.28	4.13	177.27	-30.87	33.65	57.79	49.57	8.22	7.030			
1,300.00	1,288.85	1,304.97	1,299.29	4.75	4.54	173.20	-39.63	48.70	64.85	55.88	8.97	7.233			
1,400.00	1,386.09	1,404.63	1,397.41	5.22	4.95	169.95	-48.39	63.74	72.16	62.44	9.73	7.418			
1,500.00	1,483.34	1,504.29	1,495.53	5.70	5.37	167.30	-57.15	78.79	79.67	69.16	10.51	7.583			
1,600.00	1,580.58	1,603.94	1,593.66	6.19	5.79	165.11	-65.91	93.84	87.32	76.02	11.30	7.729			
1,700.00	1,677.82	1,703.60	1,691.78	6.69	6.22	163.27	-74.67	108.89	95.07	82.97	12.10	7.857			
1,800.00	1,775.07	1,803.25	1,789.90	7.19	6.65	161.71	-83.43	123.93	102.91	90.00	12.91	7.970			
1,900.00	1,872.31	1,902.91	1,888.03	7.69	7.08	160.38	-92.19	138.98	110.81	97.08	13.73	8.071			
2,000.00	1,969.55	2,002.57	1,986.15	8.19	7.51	159.22	-100.94	154.03	118.76	104.21	14.55	8.160			
2,100.00	2,066.79	2,102.22	2,084.28	8.69	7.95	158.21	-109.70	169.08	126.76	111.37	15.38	8.239			
2,200.00	2,164.04	2,201.88	2,182.40	9.20	8.38	157.31	-118.46	184.12	134.79	118.57	16.22	8.310			
2,300.00	2,261.28	2,301.54	2,280.52	9.71	8.82	156.52	-127.22	199.17	142.85	125.79	17.06	8.374			
2,400.00	2,358.52	2,401.19	2,378.65	10.22	9.26	155.82	-135.98	214.22	150.93	133.03	17.90	8.432			
2,500.00	2,455.77	2,500.85	2,476.77	10.73	9.70	155.18	-144.74	229.26	159.04	140.29	18.74	8.485			
2,600.00	2,553.01	2,600.51	2,574.89	11.24	10.14	154.61	-153.50	244.31	167.16	147.57	19.59	8.532			
2,700.00	2,650.25	2,700.16	2,673.02	11.75	10.58	154.09	-162.26	259.36	175.29	154.85	20.44	8.576			
2,800.00	2,747.50	2,799.82	2,771.14	12.26	11.02	153.61	-171.02	274.41	183.44	162.15	21.29	8.616			
2,900.00	2,844.74	2,899.48	2,869.26	12.78	11.46	153.18	-179.78	289.45	191.60	169.46	22.14	8.653			
3,000.00	2,941.98	2,999.13	2,967.39	13.29	11.90	152.78	-188.54	304.50	199.78	176.78	23.00	8.687			
3,100.00	3,039.22	3,098.79	3,065.51	13.80	12.35	152.41	-197.30	319.55	207.95	184.10	23.85	8.718			
3,200.00	3,136.47	3,198.44	3,163.64	14.32	12.79	152.07	-206.06	334.60	216.14	191.43	24.71	8.747			
3,300.00	3,233.71	3,298.10	3,261.76	14.83	13.23	151.76	-214.82	349.64	224.34	198.77	25.57	8.774			
3,400.00	3,330.95	3,397.76	3,359.88	15.35	13.68	151.47	-223.57	364.69	232.54	206.11	26.43	8.799			
3,500.00	3,428.20	3,497.41	3,458.01	15.86	14.12	151.19	-232.33	379.74	240.74	213.46	27.29	8.823			
3,600.00	3,525.44	3,597.07	3,556.13	16.38	14.56	150.94	-241.09	394.79	248.96	220.81	28.15	8.845			
3,700.00	3,622.68	3,696.73	3,654.25	16.89	15.01	150.70	-249.85	409.83	257.17	228.16	29.01	8.866			
3,800.00	3,719.93	3,796.38	3,752.38	17.41	15.45	150.48	-258.61	424.88	265.39	235.52	29.87	8.885			
3,900.00	3,817.17	3,896.04	3,850.50	17.93	15.90	150.27	-267.37	439.93	273.62	242.88	30.73	8.903			
4,000.00	3,914.41	3,995.70	3,948.62	18.44	16.34	150.07	-276.13	454.97	281.84	250.25	31.59	8.921			
4,100.00	4,011.65	4,095.35	4,046.75	18.96	16.79	149.88	-284.89	470.02	290.07	257.62	32.46	8.937			
4,200.00	4,108.90	4,195.01	4,144.87	19.48	17.23	149.71	-293.65	485.07	298.31	264.99	33.32	8.952			
4,300.00	4,206.14	4,294.66	4,243.00	19.99	17.68	149.54	-302.41	500.12	306.54	272.36	34.19	8.967			
4,400.00	4,303.38	4,394.32	4,341.12	20.51	18.12	149.38	-311.17	515.16	314.78	279.73	35.05	8.981			
4,500.00	4,400.63	4,493.98	4,439.24	21.03	18.57	149.23	-319.93	530.21	323.02	287.11	35.92	8.994			
4,600.00	4,497.87	4,593.63	4,537.37	21.54	19.02	149.09	-328.69	545.26	331.27	294.48	36.78	9.006			
4,700.00	4,595.11	4,693.29	4,635.49	22.06	19.46	148.96	-337.44	560.31	339.51	301.86	37.65	9.018			
4,800.00	4,692.36	4,792.95	4,733.61	22.58	19.91	148.83	-346.20	575.35	347.76	309.24	38.51	9.030			
4,900.00	4,789.60	4,892.60	4,831.74	23.10	20.35	148.70	-354.96	590.40	356.01	316.63	39.38	9.040			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design												S32-T2N-R68W - HWY52 4S-32H-O268 - OH - PLAN #2		Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
5,000.00	4,886.84	4,992.26	4,929.86	23.62	20.80	148.59	-363.72	605.45	364.26	324.01	40.25	9.051			
5,100.00	4,984.08	5,091.92	5,027.98	24.13	21.25	148.47	-372.48	620.49	372.51	331.39	41.11	9.061			
5,200.00	5,081.33	5,191.57	5,126.11	24.65	21.69	148.37	-381.24	635.54	380.76	338.78	41.98	9.070			
5,300.00	5,178.57	5,291.23	5,224.23	25.17	22.14	148.26	-390.00	650.59	389.01	346.17	42.85	9.079			
5,400.00	5,275.81	5,390.88	5,322.36	25.69	22.58	148.16	-398.76	665.64	397.27	353.55	43.71	9.088			
5,500.00	5,373.06	5,490.54	5,420.48	26.21	23.03	148.07	-407.52	680.68	405.52	360.94	44.58	9.096			
5,600.00	5,470.30	5,590.20	5,518.60	26.72	23.48	147.98	-416.28	695.73	413.78	368.33	45.45	9.104			
5,700.00	5,567.54	5,689.85	5,616.73	27.24	23.92	147.89	-425.04	710.78	422.04	375.72	46.32	9.112			
5,800.00	5,664.79	5,789.51	5,714.85	27.76	24.37	147.81	-433.80	725.83	430.30	383.11	47.19	9.119			
5,900.00	5,762.03	5,889.17	5,812.97	28.28	24.82	147.73	-442.56	740.87	438.56	390.51	48.05	9.126			
6,000.00	5,859.27	5,988.82	5,911.10	28.80	25.26	147.65	-451.31	755.92	446.82	397.90	48.92	9.133			
6,100.00	5,956.51	6,088.48	6,009.22	29.31	25.71	147.57	-460.07	770.97	455.08	405.29	49.79	9.140			
6,200.00	6,053.76	6,188.14	6,107.34	29.83	26.16	147.50	-468.83	786.02	463.34	412.68	50.66	9.146			
6,300.00	6,151.00	6,287.79	6,205.47	30.35	26.60	147.43	-477.59	801.06	471.61	420.08	51.53	9.152			
6,400.00	6,248.24	6,387.45	6,303.59	30.87	27.05	147.36	-486.35	816.11	479.87	427.47	52.40	9.158			
6,500.00	6,345.49	6,487.11	6,401.72	31.39	27.50	147.30	-495.11	831.16	488.14	434.87	53.27	9.164			
6,600.00	6,442.73	6,586.76	6,499.84	31.91	27.94	147.24	-503.87	846.20	496.40	442.27	54.14	9.170			
6,700.00	6,539.97	6,686.42	6,597.96	32.43	28.39	147.17	-512.63	861.25	504.67	449.66	55.00	9.175			
6,800.00	6,637.21	6,786.07	6,696.09	32.94	28.84	147.12	-521.39	876.30	512.93	457.06	55.87	9.180			
6,900.00	6,734.46	6,885.73	6,794.21	33.46	29.28	147.06	-530.15	891.35	521.20	464.46	56.74	9.185			
6,958.42	6,791.27	6,943.95	6,851.54	33.77	29.55	147.03	-535.27	900.14	526.03	468.78	57.25	9.188			
7,000.00	6,831.76	6,986.17	6,893.11	33.98	29.73	161.19	-538.97	906.51	529.82	472.18	57.63	9.193			
7,050.00	6,880.45	7,052.21	6,958.32	34.22	30.01	178.23	-541.42	916.51	534.47	476.34	58.13	9.195			
7,100.00	6,928.94	7,118.75	7,023.96	34.44	30.26	-166.98	-537.73	926.56	538.61	480.15	58.46	9.214			
7,150.00	6,976.98	7,185.61	7,089.30	34.64	30.47	-155.45	-527.83	936.56	542.18	483.55	58.63	9.247			
7,200.00	7,024.34	7,252.62	7,153.59	34.82	30.66	-146.79	-511.78	946.40	545.18	486.51	58.67	9.293			
7,250.00	7,070.78	7,319.59	7,216.07	34.99	30.81	-140.22	-489.73	955.95	547.58	489.00	58.58	9.347			
7,300.00	7,116.09	7,386.34	7,276.05	35.14	30.95	-135.10	-461.98	965.10	549.40	490.98	58.42	9.405			
7,350.00	7,160.03	7,452.68	7,332.89	35.28	31.05	-130.99	-428.92	973.77	550.63	492.43	58.20	9.461			
7,400.00	7,202.41	7,518.45	7,386.01	35.40	31.13	-127.56	-391.04	981.87	551.30	493.34	57.96	9.511			
7,450.00	7,243.00	7,583.50	7,434.96	35.51	31.19	-124.62	-348.88	989.32	551.44	493.69	57.75	9.549			
7,500.00	7,281.62	7,647.69	7,479.36	35.60	31.23	-122.03	-303.04	996.07	551.08	493.50	57.58	9.571			
7,550.00	7,318.07	7,710.93	7,518.95	35.68	31.25	-119.70	-254.13	1,002.08	550.28	492.79	57.49	9.572			
7,600.00	7,352.17	7,773.10	7,553.59	35.75	31.25	-117.56	-202.78	1,007.32	549.07	491.58	57.49	9.551			
7,650.00	7,383.77	7,834.17	7,583.19	35.81	31.24	-115.58	-149.59	1,011.79	547.51	489.92	57.58	9.508			
7,700.00	7,412.70	7,894.06	7,607.77	35.85	31.22	-113.73	-95.11	1,015.49	545.64	487.87	57.78	9.444			
7,750.00	7,438.83	7,952.77	7,627.42	35.89	31.19	-111.97	-39.88	1,018.44	543.53	485.47	58.06	9.362			
7,800.00	7,462.03	8,010.29	7,642.28	35.91	31.15	-110.30	15.62	1,020.65	541.21	482.80	58.41	9.265			
7,850.00	7,482.18	8,066.62	7,652.51	35.93	31.10	-108.71	70.98	1,022.15	538.74	479.91	58.82	9.158			
7,900.00	7,499.19	8,121.78	7,658.34	35.94	31.05	-107.18	125.81	1,022.98	536.15	476.88	59.27	9.045			
7,950.00	7,512.97	8,175.33	7,660.00	35.94	31.00	-105.74	179.33	1,023.17	533.50	473.76	59.74	8.930			
8,000.00	7,523.46	8,224.21	7,660.00	35.94	30.96	-104.66	228.20	1,023.11	531.03	470.84	60.20	8.822			
8,050.00	7,530.60	8,273.68	7,660.00	35.94	30.93	-103.98	277.68	1,023.05	528.80	468.16	60.64	8.720			
8,100.00	7,534.37	8,323.51	7,660.00	35.94	30.90	-103.72	327.51	1,022.99	526.68	465.58	61.10	8.620			
8,130.43	7,535.00	8,353.91	7,660.00	35.94	30.90	-103.77	357.91	1,022.95	525.42	464.03	61.38	8.560			
8,200.00	7,535.00	8,423.42	7,660.00	35.94	30.94	-103.85	427.42	1,022.87	522.55	460.47	62.08	8.418			
8,300.00	7,535.00	8,523.33	7,660.00	35.97	31.35	-103.96	527.32	1,022.75	518.43	455.24	63.19	8.204			
8,400.00	7,535.00	8,623.24	7,660.00	36.05	31.99	-104.08	627.23	1,022.63	514.32	449.87	64.45	7.981			
8,500.00	7,535.00	8,723.15	7,660.00	36.17	32.73	-104.19	727.14	1,022.51	510.20	444.38	65.82	7.751			
8,600.00	7,535.00	8,823.06	7,660.00	36.37	33.52	-104.31	827.05	1,022.39	506.09	438.77	67.32	7.518			
8,700.00	7,535.00	8,922.97	7,660.00	36.65	34.36	-104.43	926.96	1,022.27	501.98	433.06	68.92	7.283			
8,800.00	7,535.00	9,022.88	7,660.00	37.05	35.25	-104.55	1,026.87	1,022.14	497.88	427.25	70.63	7.049			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft						
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft						
Reference													Semi Major Axis		Distance				Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning							
8,900.00	7,535.00	9,122.79	7,660.00	37.58	36.19	-104.68	1,126.78	1,022.02	493.77	421.34	72.43	6.817								
9,000.00	7,535.00	9,222.70	7,660.00	38.23	37.17	-104.80	1,226.69	1,021.90	489.67	415.35	74.32	6.588								
9,100.00	7,535.00	9,322.61	7,660.00	38.99	38.19	-104.93	1,326.60	1,021.78	485.57	409.28	76.29	6.365								
9,200.00	7,535.00	9,422.52	7,660.00	39.85	39.25	-105.06	1,426.51	1,021.66	481.47	403.14	78.33	6.146								
9,300.00	7,535.00	9,522.43	7,660.00	40.78	40.33	-105.19	1,526.42	1,021.54	477.38	396.94	80.44	5.934								
9,400.00	7,535.00	9,622.34	7,660.00	41.78	41.45	-105.33	1,626.33	1,021.42	473.29	390.67	82.62	5.729								
9,500.00	7,535.00	9,722.25	7,660.00	42.83	42.60	-105.46	1,726.24	1,021.30	469.20	384.35	84.85	5.530								
9,600.00	7,535.00	9,822.16	7,660.00	43.93	43.78	-105.60	1,826.15	1,021.18	465.11	377.98	87.13	5.338								
9,700.00	7,535.00	9,922.07	7,660.00	45.07	44.97	-105.75	1,926.06	1,021.06	461.03	371.57	89.46	5.154								
9,800.00	7,535.00	10,021.98	7,660.00	46.24	46.19	-105.89	2,025.97	1,020.94	456.95	365.12	91.83	4.976								
9,900.00	7,535.00	10,121.89	7,660.00	47.44	47.44	-106.04	2,125.88	1,020.82	452.87	358.63	94.24	4.806								
10,000.00	7,535.00	10,221.80	7,660.00	48.67	48.70	-106.19	2,225.79	1,020.70	448.79	352.11	96.69	4.642								
10,100.00	7,535.00	10,321.71	7,660.00	49.93	49.98	-106.34	2,325.70	1,020.58	444.72	345.55	99.17	4.485								
10,200.00	7,535.00	10,421.62	7,660.00	51.20	51.27	-106.49	2,425.61	1,020.46	440.65	338.97	101.68	4.334								
10,300.00	7,535.00	10,521.53	7,660.00	52.50	52.58	-106.65	2,525.52	1,020.34	436.59	332.37	104.22	4.189								
10,400.00	7,535.00	10,621.44	7,660.00	53.82	53.91	-106.81	2,625.43	1,020.22	432.52	325.74	106.78	4.051								
10,500.00	7,535.00	10,721.35	7,660.00	55.15	55.25	-106.98	2,725.34	1,020.10	428.47	319.10	109.37	3.918								
10,600.00	7,535.00	10,821.26	7,660.00	56.50	56.60	-107.14	2,825.25	1,019.98	424.41	312.44	111.97	3.790								
10,700.00	7,535.00	10,921.17	7,660.00	57.87	57.96	-107.31	2,925.16	1,019.86	420.36	305.76	114.60	3.668								
10,800.00	7,535.00	11,021.08	7,660.00	59.24	59.34	-107.49	3,025.07	1,019.73	416.31	299.07	117.24	3.551								
10,900.00	7,535.00	11,120.99	7,660.00	60.63	60.72	-107.66	3,124.98	1,019.61	412.27	292.38	119.89	3.439								
11,000.00	7,535.00	11,220.90	7,660.00	62.04	62.12	-107.85	3,224.89	1,019.49	408.23	285.67	122.56	3.331								
11,100.00	7,535.00	11,320.81	7,660.00	63.45	63.52	-108.03	3,324.80	1,019.37	404.19	278.95	125.24	3.227								
11,200.00	7,535.00	11,420.72	7,660.00	64.87	64.93	-108.22	3,424.71	1,019.25	400.16	272.23	127.93	3.128								
11,300.00	7,535.00	11,520.63	7,660.00	66.30	66.35	-108.41	3,524.62	1,019.13	396.13	265.51	130.63	3.033								
11,400.00	7,535.00	11,620.54	7,660.00	67.74	67.78	-108.61	3,624.53	1,019.01	392.11	258.78	133.33	2.941								
11,500.00	7,535.00	11,720.45	7,660.00	69.19	69.21	-108.80	3,724.44	1,018.89	388.09	252.05	136.05	2.853								
11,600.00	7,535.00	11,820.36	7,660.00	70.65	70.65	-109.01	3,824.35	1,018.77	384.08	245.32	138.76	2.768								
11,700.00	7,535.00	11,920.27	7,660.00	72.11	72.09	-109.22	3,924.26	1,018.65	380.07	238.59	141.48	2.686								
11,800.00	7,535.00	12,020.18	7,660.00	73.58	73.54	-109.43	4,024.17	1,018.53	376.07	231.86	144.21	2.608								
11,900.00	7,535.00	12,120.09	7,660.00	75.06	75.00	-109.65	4,124.08	1,018.41	372.07	225.14	146.93	2.532								
12,000.00	7,535.00	12,220.00	7,660.00	76.55	76.46	-109.87	4,223.99	1,018.29	368.08	218.42	149.66	2.460								
12,030.43	7,535.00	12,250.40	7,660.00	77.00	76.91	-109.94	4,254.39	1,018.25	366.87	216.38	150.48	2.438 SF								

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft					
Survey Program: 0-MWD+HDGM													Offset Well Error:		0.00 usft				
Reference													Semi Major Axis		Distance		Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)									
0.00	0.00	0.00	0.00	0.00	0.00	-88.46	0.26	-9.79	9.80	9.52	0.28	35.490							
100.00	100.00	100.00	100.00	0.14	0.14	-88.46	0.26	-9.79	9.80	8.80	0.99	9.865							
200.00	200.00	200.00	200.00	0.50	0.50	-88.46	0.26	-9.79	9.80	8.09	1.71	5.729							
300.00	300.00	300.00	300.00	0.85	0.85	-88.46	0.26	-9.79	9.80	7.37	2.43	4.037	CC, ES						
400.00	400.00	400.00	400.00	1.21	1.21	-88.46	0.26	-9.79	9.80	7.90	3.13	3.525							
500.00	499.98	499.98	499.98	1.56	1.57	138.33	0.26	-9.79	11.03	7.90	3.13	3.525							
600.00	599.84	600.33	600.31	1.90	1.92	150.58	-0.57	-8.25	13.61	9.78	3.83	3.552							
650.00	649.68	650.54	650.47	2.08	2.09	156.87	-1.61	-6.31	14.95	10.76	4.19	3.567							
700.00	699.47	700.77	700.61	2.25	2.26	170.01	-3.07	-3.60	16.33	11.78	4.55	3.588							
800.00	798.84	801.35	800.79	2.62	2.62	-174.82	-7.24	4.15	18.78	13.49	5.29	3.550							
900.00	897.85	902.02	900.70	3.00	2.99	-169.54	-13.08	15.01	20.50	14.46	6.04	3.395							
1,000.00	996.37	1,002.72	1,000.15	3.41	3.38	-171.13	-20.58	28.95	21.64	14.85	6.79	3.186							
1,100.00	1,094.29	1,102.97	1,098.63	3.83	3.79	-177.87	-29.44	45.41	23.30	15.78	7.53	3.096							
1,144.53	1,137.66	1,147.41	1,142.27	4.03	3.97	178.52	-33.43	52.84	25.18	17.33	7.85	3.207							
1,200.00	1,191.61	1,202.75	1,196.60	4.28	4.20	173.32	-38.41	62.08	28.15	19.88	8.27	3.404							
1,300.00	1,288.85	1,302.51	1,294.55	4.75	4.63	166.36	-47.38	78.76	33.95	24.90	9.05	3.752							
1,400.00	1,386.09	1,402.27	1,392.50	5.22	5.07	161.47	-56.35	95.43	40.10	30.25	9.85	4.070							
1,500.00	1,483.34	1,502.03	1,490.45	5.70	5.50	157.90	-65.32	112.10	46.46	35.78	10.68	4.351							
1,600.00	1,580.58	1,601.79	1,588.39	6.19	5.95	155.20	-74.29	128.77	52.96	41.44	11.52	4.598							
1,700.00	1,677.82	1,701.56	1,686.34	6.69	6.39	153.09	-83.26	145.45	59.55	47.18	12.37	4.814							
1,800.00	1,775.07	1,801.32	1,784.29	7.19	6.84	151.41	-92.24	162.12	66.20	52.97	13.23	5.004							
1,900.00	1,872.31	1,901.08	1,882.24	7.69	7.29	150.03	-101.21	178.79	72.90	58.81	14.10	5.172							
2,000.00	1,969.55	2,000.84	1,980.19	8.19	7.74	148.88	-110.18	195.46	79.64	64.67	14.97	5.321							
2,100.00	2,066.79	2,100.60	2,078.14	8.69	8.20	147.92	-119.15	212.13	86.40	70.56	15.84	5.454							
2,200.00	2,164.04	2,200.36	2,176.08	9.20	8.65	147.09	-128.12	228.81	93.18	76.46	16.72	5.573							
2,300.00	2,261.28	2,300.12	2,274.03	9.71	9.11	146.38	-137.09	245.48	99.98	82.38	17.60	5.680							
2,400.00	2,358.52	2,399.88	2,371.98	10.22	9.56	145.76	-146.06	262.15	106.79	88.31	18.49	5.776							
2,500.00	2,455.77	2,499.65	2,469.93	10.73	10.02	145.21	-155.03	278.82	113.62	94.24	19.38	5.864							
2,600.00	2,553.01	2,599.41	2,567.88	11.24	10.48	144.72	-164.00	295.50	120.45	100.19	20.26	5.944							
2,700.00	2,650.25	2,699.17	2,665.83	11.75	10.94	144.29	-172.97	312.17	127.29	106.14	21.15	6.017							
2,800.00	2,747.50	2,798.93	2,763.77	12.26	11.40	143.90	-181.94	328.84	134.14	112.09	22.05	6.085							
2,900.00	2,844.74	2,898.69	2,861.72	12.78	11.85	143.55	-190.91	345.51	140.99	118.05	22.94	6.147							
3,000.00	2,941.98	2,998.45	2,959.67	13.29	12.31	143.23	-199.89	362.18	147.85	124.02	23.83	6.204							
3,100.00	3,039.22	3,098.21	3,057.62	13.80	12.77	142.94	-208.86	378.86	154.71	129.98	24.73	6.257							
3,200.00	3,136.47	3,197.98	3,155.57	14.32	13.23	142.67	-217.83	395.53	161.58	135.95	25.62	6.306							
3,300.00	3,233.71	3,297.74	3,253.52	14.83	13.69	142.43	-226.80	412.20	168.45	141.93	26.52	6.352							
3,400.00	3,330.95	3,397.50	3,351.47	15.35	14.16	142.20	-235.77	428.87	175.32	147.90	27.42	6.395							
3,500.00	3,428.20	3,497.26	3,449.41	15.86	14.62	141.99	-244.74	445.55	182.19	153.88	28.31	6.435							
3,600.00	3,525.44	3,597.02	3,547.36	16.38	15.08	141.80	-253.71	462.22	189.07	159.86	29.21	6.473							
3,700.00	3,622.68	3,696.78	3,645.31	16.89	15.54	141.62	-262.68	478.89	195.95	165.84	30.11	6.508							
3,800.00	3,719.93	3,796.54	3,743.26	17.41	16.00	141.45	-271.65	495.56	202.83	171.82	31.01	6.541							
3,900.00	3,817.17	3,896.31	3,841.21	17.93	16.46	141.30	-280.62	512.23	209.71	177.80	31.91	6.572							
4,000.00	3,914.41	3,996.07	3,939.16	18.44	16.92	141.15	-289.59	528.91	216.59	183.78	32.81	6.602							
4,100.00	4,011.65	4,095.83	4,037.10	18.96	17.39	141.01	-298.56	545.58	223.47	189.77	33.71	6.630							
4,200.00	4,108.90	4,195.59	4,135.05	19.48	17.85	140.89	-307.53	562.25	230.36	195.75	34.61	6.656							
4,300.00	4,206.14	4,295.35	4,233.00	19.99	18.31	140.76	-316.51	578.92	237.25	201.74	35.51	6.681							
4,400.00	4,303.38	4,395.11	4,330.95	20.51	18.77	140.65	-325.48	595.60	244.13	207.72	36.41	6.705							
4,500.00	4,400.63	4,494.87	4,428.90	21.03	19.24	140.54	-334.45	612.27	251.02	213.71	37.31	6.728							
4,600.00	4,497.87	4,594.63	4,526.85	21.54	19.70	140.44	-343.42	628.94	257.91	219.70	38.21	6.749							
4,700.00	4,595.11	4,694.40	4,624.79	22.06	20.16	140.34	-352.39	645.61	264.80	225.69	39.11	6.770							
4,800.00	4,692.36	4,794.16	4,722.74	22.58	20.62	140.25	-361.36	662.28	271.69	231.68	40.02	6.790							
4,900.00	4,789.60	4,893.92	4,820.69	23.10	21.09	140.16	-370.33	678.96	278.58	237.67	40.92	6.808							

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft		
Survey Program: 0-MWD+HDGM													Offset Well Error:		0.00 usft	
Reference													Distance		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning			
		Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)								
5,000.00	4,886.84	4,993.68	4,918.64	23.62	21.55	140.08	-379.30	695.63	285.48	243.66	41.82	6.826				
5,100.00	4,984.08	5,093.44	5,016.59	24.13	22.01	140.00	-388.27	712.30	292.37	249.65	42.72	6.843				
5,200.00	5,081.33	5,193.20	5,114.54	24.65	22.47	139.92	-397.24	728.97	299.26	255.64	43.63	6.860				
5,300.00	5,178.57	5,292.96	5,212.48	25.17	22.94	139.85	-406.21	745.65	306.16	261.63	44.53	6.876				
5,400.00	5,275.81	5,392.73	5,310.43	25.69	23.40	139.78	-415.18	762.32	313.05	267.62	45.43	6.891				
5,500.00	5,373.06	5,492.49	5,408.38	26.21	23.86	139.71	-424.15	778.99	319.95	273.61	46.33	6.905				
5,600.00	5,470.30	5,592.25	5,506.33	26.72	24.33	139.65	-433.13	795.66	326.84	279.60	47.24	6.919				
5,700.00	5,567.54	5,692.01	5,604.28	27.24	24.79	139.59	-442.10	812.33	333.74	285.60	48.14	6.933				
5,800.00	5,664.79	5,791.77	5,702.23	27.76	25.25	139.53	-451.07	829.01	340.63	291.59	49.04	6.945				
5,900.00	5,762.03	5,891.53	5,800.18	28.28	25.72	139.47	-460.04	845.68	347.53	297.58	49.95	6.958				
6,000.00	5,859.27	5,991.29	5,898.12	28.80	26.18	139.42	-469.01	862.35	354.43	303.57	50.85	6.970				
6,100.00	5,956.51	6,091.05	5,996.07	29.31	26.64	139.37	-477.98	879.02	361.32	309.57	51.75	6.981				
6,200.00	6,053.76	6,190.82	6,094.02	29.83	27.11	139.32	-486.95	895.70	368.22	315.56	52.66	6.993				
6,300.00	6,151.00	6,290.58	6,191.97	30.35	27.57	139.27	-495.92	912.37	375.12	321.55	53.56	7.003				
6,400.00	6,248.24	6,390.34	6,289.92	30.87	28.03	139.22	-504.89	929.04	382.01	327.55	54.47	7.014				
6,500.00	6,345.49	6,490.10	6,387.87	31.39	28.50	139.18	-513.86	945.71	388.91	333.54	55.37	7.024				
6,600.00	6,442.73	6,589.86	6,485.81	31.91	28.96	139.13	-522.83	962.39	395.81	339.54	56.27	7.034				
6,700.00	6,539.97	6,689.62	6,583.76	32.43	29.42	139.09	-531.80	979.06	402.71	345.53	57.18	7.043				
6,800.00	6,637.21	6,795.28	6,687.52	32.94	29.91	139.09	-540.95	996.72	409.49	351.38	58.11	7.047				
6,900.00	6,734.46	6,928.81	6,818.89	33.46	30.44	141.10	-536.32	1,019.06	410.84	352.34	58.49	7.024				
6,958.42	6,791.27	7,003.31	6,891.13	33.77	30.67	143.58	-522.99	1,031.33	408.33	350.05	58.28	7.006				
7,000.00	6,831.76	7,054.28	6,939.58	33.98	30.81	159.50	-509.52	1,039.56	405.91	347.88	58.03	6.994				
7,050.00	6,880.45	7,113.88	6,994.86	34.22	30.95	178.86	-489.39	1,048.94	403.14	345.43	57.71	6.986				
7,100.00	6,928.94	7,171.69	7,046.74	34.44	31.07	-164.08	-465.46	1,057.74	400.61	343.21	57.40	6.980				
7,150.00	6,976.98	7,227.81	7,095.11	34.64	31.16	-150.35	-438.26	1,065.94	398.42	341.28	57.14	6.973				
7,200.00	7,024.34	7,282.31	7,139.95	34.82	31.24	-139.56	-408.24	1,073.53	396.63	339.67	56.96	6.964				
7,250.00	7,070.78	7,335.30	7,181.26	34.99	31.30	-130.96	-375.83	1,080.52	395.30	338.45	56.85	6.954				
7,300.00	7,116.09	7,386.86	7,219.09	35.14	31.34	-123.91	-341.39	1,086.92	394.47	337.66	56.81	6.944				
7,350.00	7,160.03	7,437.11	7,253.51	35.28	31.37	-117.96	-305.26	1,092.73	394.15	337.33	56.82	6.937				
7,355.66	7,164.92	7,442.72	7,257.19	35.29	31.37	-117.34	-301.08	1,093.35	394.14	337.32	56.82	6.936				
7,400.00	7,202.41	7,486.12	7,284.60	35.40	31.39	-112.81	-267.75	1,097.97	394.35	337.49	56.86	6.935				
7,450.00	7,243.00	7,534.00	7,312.46	35.51	31.39	-108.25	-229.10	1,102.67	395.05	338.15	56.90	6.943				
7,500.00	7,281.62	7,580.82	7,337.18	35.60	31.39	-104.17	-189.57	1,106.83	396.24	339.32	56.92	6.961				
7,550.00	7,318.07	7,626.68	7,358.88	35.68	31.38	-100.47	-149.34	1,110.47	397.87	340.97	56.90	6.992				
7,600.00	7,352.17	7,671.64	7,377.64	35.75	31.37	-97.08	-108.62	1,113.62	399.90	343.07	56.83	7.037				
7,650.00	7,383.77	7,715.77	7,393.58	35.81	31.34	-93.97	-67.55	1,116.28	402.27	345.59	56.69	7.096				
7,700.00	7,412.70	7,759.16	7,406.78	35.85	31.32	-91.10	-26.30	1,118.48	404.93	348.44	56.49	7.168				
7,750.00	7,438.83	7,800.00	7,416.94	35.89	31.29	-88.53	13.22	1,120.17	407.82	351.59	56.22	7.253				
7,800.00	7,462.03	7,843.89	7,425.37	35.91	31.25	-86.02	56.27	1,121.55	410.85	354.92	55.93	7.346				
7,850.00	7,482.18	7,885.36	7,430.93	35.93	31.22	-83.78	97.34	1,122.45	413.98	358.39	55.59	7.447				
7,900.00	7,499.19	7,926.29	7,434.11	35.94	31.19	-81.73	138.14	1,122.94	417.14	361.90	55.24	7.551				
7,950.00	7,512.97	7,967.63	7,435.00	35.94	31.15	-79.82	179.47	1,123.05	420.25	365.36	54.89	7.656				
8,000.00	7,523.46	8,016.51	7,435.00	35.94	31.12	-78.09	228.35	1,122.99	422.65	368.02	54.63	7.736				
8,050.00	7,530.60	8,065.98	7,435.00	35.94	31.09	-76.93	277.82	1,122.94	423.76	369.20	54.56	7.767				
8,100.00	7,534.37	8,115.81	7,435.00	35.94	31.07	-76.36	327.66	1,122.88	423.41	368.72	54.68	7.743				
8,130.43	7,535.00	8,146.21	7,435.00	35.94	31.07	-76.30	358.05	1,122.85	422.44	367.57	54.87	7.699				
8,200.00	7,535.00	8,215.72	7,435.00	35.94	31.08	-76.20	427.56	1,122.77	419.57	364.15	55.42	7.571				
8,300.00	7,535.00	8,315.63	7,435.00	35.97	31.26	-76.06	527.47	1,122.65	415.45	359.10	56.35	7.372				
8,400.00	7,535.00	8,415.54	7,435.00	36.05	31.73	-75.92	627.38	1,122.54	411.33	353.90	57.43	7.162				
8,500.00	7,535.00	8,515.45	7,435.00	36.17	32.40	-75.77	727.29	1,122.42	407.21	348.55	58.65	6.943				
8,600.00	7,535.00	8,615.36	7,435.00	36.37	33.17	-75.62	827.20	1,122.31	403.09	343.08	60.01	6.717				
8,700.00	7,535.00	8,715.27	7,435.00	36.65	34.00	-75.47	927.11	1,122.20	398.98	337.49	61.49	6.489				

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
8,800.00	7,535.00	8,815.18	7,435.00	37.05	34.90	-75.32	1,027.02	1,122.08	394.87	331.79	63.08	6.260		
8,900.00	7,535.00	8,915.09	7,435.00	37.58	35.84	-75.16	1,126.93	1,121.97	390.76	325.98	64.78	6.032		
9,000.00	7,535.00	9,015.00	7,435.00	38.23	36.83	-75.00	1,226.84	1,121.85	386.65	320.08	66.57	5.808		
9,100.00	7,535.00	9,114.91	7,435.00	38.99	37.85	-74.83	1,326.75	1,121.74	382.55	314.10	68.45	5.589		
9,200.00	7,535.00	9,214.82	7,435.00	39.85	38.91	-74.67	1,426.66	1,121.63	378.45	308.04	70.41	5.375		
9,300.00	7,535.00	9,314.73	7,435.00	40.78	40.01	-74.49	1,526.57	1,121.51	374.36	301.91	72.44	5.168		
9,400.00	7,535.00	9,414.64	7,435.00	41.78	41.14	-74.32	1,626.48	1,121.40	370.27	295.72	74.54	4.967		
9,500.00	7,535.00	9,514.55	7,435.00	42.83	42.29	-74.14	1,726.39	1,121.28	366.18	289.48	76.70	4.774		
9,600.00	7,535.00	9,614.46	7,435.00	43.93	43.47	-73.95	1,826.30	1,121.17	362.09	283.18	78.91	4.589		
9,700.00	7,535.00	9,714.37	7,435.00	45.07	44.68	-73.77	1,926.21	1,121.06	358.01	276.84	81.17	4.411		
9,800.00	7,535.00	9,814.28	7,435.00	46.24	45.91	-73.57	2,026.12	1,120.94	353.94	270.46	83.48	4.240		
9,900.00	7,535.00	9,914.19	7,435.00	47.44	47.16	-73.38	2,126.03	1,120.83	349.86	264.05	85.82	4.077		
10,000.00	7,535.00	10,014.10	7,435.00	48.67	48.42	-73.18	2,225.94	1,120.71	345.79	257.60	88.20	3.921		
10,100.00	7,535.00	10,114.01	7,435.00	49.93	49.71	-72.97	2,325.85	1,120.60	341.73	251.13	90.60	3.772		
10,200.00	7,535.00	10,213.92	7,435.00	51.20	51.01	-72.76	2,425.76	1,120.48	337.67	244.63	93.04	3.629		
10,300.00	7,535.00	10,313.83	7,435.00	52.50	52.33	-72.54	2,525.66	1,120.37	333.62	238.12	95.50	3.493		
10,400.00	7,535.00	10,413.74	7,435.00	53.82	53.66	-72.32	2,625.57	1,120.26	329.57	231.59	97.98	3.364		
10,500.00	7,535.00	10,513.64	7,435.00	55.15	55.00	-72.09	2,725.48	1,120.14	325.52	225.04	100.48	3.240		
10,600.00	7,535.00	10,613.55	7,435.00	56.50	56.36	-71.86	2,825.39	1,120.03	321.48	218.49	102.99	3.121		
10,700.00	7,535.00	10,713.46	7,435.00	57.87	57.73	-71.62	2,925.30	1,119.91	317.45	211.92	105.52	3.008		
10,800.00	7,535.00	10,813.37	7,435.00	59.24	59.11	-71.38	3,025.21	1,119.80	313.42	205.35	108.06	2.900		
10,900.00	7,535.00	10,913.28	7,435.00	60.63	60.50	-71.13	3,125.12	1,119.69	309.39	198.78	110.61	2.797		
11,000.00	7,535.00	11,013.19	7,435.00	62.04	61.90	-70.87	3,225.03	1,119.57	305.38	192.21	113.17	2.698		
11,100.00	7,535.00	11,113.10	7,435.00	63.45	63.30	-70.60	3,324.94	1,119.46	301.37	185.64	115.73	2.604		
11,200.00	7,535.00	11,213.01	7,435.00	64.87	64.72	-70.33	3,424.85	1,119.34	297.36	179.07	118.29	2.514		
11,300.00	7,535.00	11,312.92	7,435.00	66.30	66.14	-70.05	3,524.76	1,119.23	293.37	172.51	120.85	2.427		
11,400.00	7,535.00	11,412.83	7,435.00	67.74	67.57	-69.77	3,624.67	1,119.12	289.38	165.96	123.42	2.345		
11,500.00	7,535.00	11,512.74	7,435.00	69.19	69.01	-69.47	3,724.58	1,119.00	285.39	159.42	125.98	2.265		
11,600.00	7,535.00	11,612.65	7,435.00	70.65	70.45	-69.17	3,824.49	1,118.89	281.42	152.89	128.53	2.189		
11,700.00	7,535.00	11,712.56	7,435.00	72.11	71.90	-68.86	3,924.40	1,118.77	277.45	146.37	131.08	2.117		
11,800.00	7,535.00	11,812.47	7,435.00	73.58	73.35	-68.54	4,024.31	1,118.66	273.49	139.87	133.62	2.047		
11,900.00	7,535.00	11,912.38	7,435.00	75.06	74.81	-68.21	4,124.22	1,118.55	269.55	133.39	136.15	1.980		
12,000.00	7,535.00	12,012.29	7,435.00	76.55	76.28	-67.87	4,224.13	1,118.43	265.61	126.93	138.67	1.915		
12,030.43	7,535.00	12,042.69	7,435.00	77.00	76.73	-67.76	4,254.53	1,118.40	264.41	124.97	139.44	1.896 SF		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W - HWY52 4V-32H-O268 - OH - PLAN #2													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	90.10	-0.02	10.07	10.07					
100.00	100.00	100.00	100.00	0.14	0.14	90.10	-0.02	10.07	10.07	9.80	0.28	36.491		
200.00	200.00	200.00	200.00	0.50	0.50	90.10	-0.02	10.07	10.07	9.08	0.99	10.144		
300.00	300.00	300.00	300.00	0.85	0.85	90.10	-0.02	10.07	10.07	8.36	1.71	5.891	CC, ES	
400.00	400.00	399.63	399.61	1.21	1.20	93.09	-0.63	11.69	11.72	9.27	2.44	4.798		
500.00	499.98	499.11	498.95	1.56	1.55	-45.73	-2.47	16.54	15.49	12.32	3.18	4.875		
600.00	599.84	598.40	597.87	1.90	1.91	-49.28	-5.52	24.59	20.20	16.29	3.91	5.162		
650.00	649.68	647.97	647.12	2.08	2.09	-51.82	-7.49	29.81	22.96	18.68	4.29	5.359		
700.00	699.47	697.50	696.22	2.25	2.28	-45.70	-9.77	35.82	25.85	21.19	4.66	5.550		
800.00	798.84	796.45	793.97	2.62	2.67	-35.43	-15.22	50.20	31.39	25.98	5.42	5.794		
900.00	897.85	895.25	890.97	3.00	3.09	-26.86	-21.85	67.69	36.57	30.38	6.19	5.907		
1,000.00	996.37	993.87	987.10	3.41	3.53	-19.08	-29.64	88.27	41.47	34.50	6.97	5.951		
1,100.00	1,094.29	1,093.47	1,083.64	3.83	4.01	-11.96	-38.32	111.19	45.24	37.54	7.70	5.873		
1,144.53	1,137.66	1,137.97	1,126.76	4.03	4.23	-9.07	-42.22	121.47	45.90	37.87	8.03	5.719		
1,200.00	1,191.61	1,193.41	1,180.49	4.28	4.51	-6.93	-47.06	134.27	46.34	37.92	8.43	5.499		
1,300.00	1,288.85	1,293.36	1,277.34	4.75	5.01	-3.17	-55.80	157.34	47.31	38.16	9.15	5.169		
1,400.00	1,386.09	1,393.31	1,374.20	5.22	5.52	0.41	-64.55	180.41	48.48	38.59	9.88	4.906		
1,500.00	1,483.34	1,493.26	1,471.05	5.70	6.04	3.82	-73.29	203.49	49.82	39.20	10.62	4.692		
1,600.00	1,580.58	1,593.20	1,567.91	6.19	6.56	7.04	-82.03	226.56	51.33	39.96	11.37	4.516		
1,700.00	1,677.82	1,693.15	1,664.76	6.69	7.08	10.06	-90.77	249.63	52.99	40.86	12.13	4.369		
1,800.00	1,775.07	1,793.10	1,761.62	7.19	7.60	12.90	-99.51	272.71	54.79	41.89	12.91	4.245		
1,900.00	1,872.31	1,893.05	1,858.47	7.69	8.13	15.55	-108.25	295.78	56.72	43.02	13.70	4.139		
2,000.00	1,969.55	1,993.00	1,955.33	8.19	8.66	18.01	-116.99	318.86	58.76	44.24	14.52	4.047		
2,100.00	2,066.79	2,092.95	2,052.18	8.69	9.19	20.31	-125.73	341.93	60.90	45.55	15.35	3.968		
2,200.00	2,164.04	2,192.89	2,149.04	9.20	9.72	22.45	-134.47	365.00	63.14	46.94	16.20	3.897		
2,300.00	2,261.28	2,292.84	2,245.89	9.71	10.25	24.45	-143.21	388.08	65.45	48.39	17.07	3.835		
2,400.00	2,358.52	2,392.79	2,342.75	10.22	10.78	26.30	-151.95	411.15	67.84	49.89	17.95	3.780		
2,500.00	2,455.77	2,492.74	2,439.60	10.73	11.31	28.02	-160.69	434.22	70.29	51.45	18.84	3.731		
2,600.00	2,553.01	2,592.69	2,536.46	11.24	11.84	29.63	-169.43	457.30	72.81	53.06	19.75	3.687		
2,700.00	2,650.25	2,692.63	2,633.31	11.75	12.38	31.13	-178.17	480.37	75.38	54.71	20.66	3.648		
2,800.00	2,747.50	2,792.58	2,730.17	12.26	12.91	32.53	-186.92	503.44	77.99	56.40	21.59	3.612		
2,900.00	2,844.74	2,892.53	2,827.02	12.78	13.45	33.84	-195.66	526.52	80.65	58.13	22.52	3.581		
3,000.00	2,941.98	2,992.48	2,923.88	13.29	13.98	35.06	-204.40	549.59	83.35	59.88	23.47	3.552		
3,100.00	3,039.22	3,092.43	3,020.73	13.80	14.52	36.21	-213.14	572.67	86.08	61.67	24.42	3.525		
3,200.00	3,136.47	3,192.38	3,117.59	14.32	15.05	37.29	-221.88	595.74	88.85	63.48	25.37	3.502		
3,300.00	3,233.71	3,292.32	3,214.44	14.83	15.59	38.30	-230.62	618.81	91.65	65.31	26.34	3.480		
3,400.00	3,330.95	3,392.27	3,311.30	15.35	16.12	39.25	-239.36	641.89	94.47	67.17	27.30	3.460		
3,500.00	3,428.20	3,492.22	3,408.15	15.86	16.66	40.14	-248.10	664.96	97.32	69.04	28.27	3.442		
3,600.00	3,525.44	3,592.17	3,505.00	16.38	17.19	40.99	-256.84	688.03	100.19	70.94	29.25	3.426		
3,700.00	3,622.68	3,692.12	3,601.86	16.89	17.73	41.78	-265.58	711.11	103.08	72.85	30.22	3.411		
3,800.00	3,719.93	3,792.07	3,698.71	17.41	18.27	42.54	-274.32	734.18	105.99	74.78	31.20	3.397		
3,900.00	3,817.17	3,892.01	3,795.57	17.93	18.80	43.25	-283.06	757.25	108.91	76.73	32.19	3.384		
4,000.00	3,914.41	3,991.96	3,892.42	18.44	19.34	43.93	-291.80	780.33	111.85	78.68	33.17	3.372		
4,100.00	4,011.65	4,091.91	3,989.28	18.96	19.88	44.57	-300.54	803.40	114.81	80.65	34.16	3.361		
4,200.00	4,108.90	4,191.86	4,086.13	19.48	20.41	45.18	-309.29	826.48	117.78	82.63	35.15	3.351		
4,300.00	4,206.14	4,291.81	4,182.99	19.99	20.95	45.75	-318.03	849.55	120.77	84.63	36.14	3.342		
4,400.00	4,303.38	4,391.75	4,279.84	20.51	21.49	46.30	-326.77	872.62	123.76	86.63	37.13	3.333		
4,500.00	4,400.63	4,491.70	4,376.70	21.03	22.02	46.83	-335.51	895.70	126.77	88.64	38.12	3.325		
4,600.00	4,497.87	4,591.65	4,473.55	21.54	22.56	47.33	-344.25	918.77	129.78	90.67	39.12	3.318		
4,700.00	4,595.11	4,691.60	4,570.41	22.06	23.10	47.81	-352.99	941.84	132.81	92.70	40.11	3.311		
4,800.00	4,692.36	4,791.55	4,667.26	22.58	23.63	48.26	-361.73	964.92	135.84	94.73	41.11	3.304		
4,900.00	4,789.60	4,891.50	4,764.12	23.10	24.17	48.70	-370.47	987.99	138.89	96.78	42.11	3.298		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft	
Survey Program: O-MWD+HDGM													Offset Well Error:		0.00 usft
Reference				Offset				Semi Major Axis			Distance		Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
5,000.00	4,886.84	4,991.44	4,860.97	23.62	24.71	49.12	-379.21	1,011.06	141.94	98.83	43.11	3.293			
5,100.00	4,984.08	5,091.39	4,957.83	24.13	25.25	49.52	-387.95	1,034.14	144.99	100.89	44.10	3.288			
5,200.00	5,081.33	5,191.34	5,054.68	24.65	25.78	49.90	-396.69	1,057.21	148.06	102.95	45.10	3.283			
5,300.00	5,178.57	5,291.29	5,151.54	25.17	26.32	50.27	-405.43	1,080.29	151.13	105.02	46.10	3.278			
5,400.00	5,275.81	5,391.24	5,248.39	25.69	26.86	50.62	-414.17	1,103.36	154.20	107.10	47.10	3.274			
5,500.00	5,373.06	5,491.19	5,345.25	26.21	27.40	50.96	-422.91	1,126.43	157.29	109.18	48.10	3.270			
5,600.00	5,470.30	5,591.13	5,442.10	26.72	27.93	51.29	-431.66	1,149.51	160.37	111.27	49.11	3.266			
5,700.00	5,567.54	5,691.08	5,538.96	27.24	28.47	51.60	-440.40	1,172.58	163.47	113.36	50.11	3.262			
5,800.00	5,664.79	5,791.03	5,635.81	27.76	29.01	51.90	-449.14	1,195.65	166.56	115.45	51.11	3.259			
5,900.00	5,762.03	5,890.98	5,732.67	28.28	29.55	52.19	-457.88	1,218.73	169.67	117.55	52.11	3.256			
6,000.00	5,859.27	5,990.93	5,829.52	28.80	30.09	52.48	-466.62	1,241.80	172.77	119.66	53.12	3.253			
6,100.00	5,956.51	6,090.87	5,926.38	29.31	30.62	52.75	-475.36	1,264.87	175.88	121.76	54.12	3.250			
6,200.00	6,053.76	6,190.82	6,023.23	29.83	31.16	53.01	-484.10	1,287.95	179.00	123.87	55.12	3.247			
6,300.00	6,151.00	6,290.77	6,120.09	30.35	31.70	53.26	-492.84	1,311.02	182.11	125.99	56.12	3.245			
6,400.00	6,248.24	6,390.72	6,216.94	30.87	32.24	53.50	-501.58	1,334.10	185.23	128.10	57.13	3.242			
6,500.00	6,345.49	6,490.67	6,313.79	31.39	32.78	53.74	-510.32	1,357.17	188.36	130.23	58.13	3.240			
6,600.00	6,442.73	6,590.62	6,410.65	31.91	33.31	53.97	-519.06	1,380.24	191.48	132.35	59.14	3.238			
6,700.00	6,539.97	6,690.56	6,507.50	32.43	33.85	54.19	-527.80	1,403.32	194.61	134.47	60.14	3.236			
6,800.00	6,637.21	6,790.51	6,604.36	32.94	34.39	54.40	-536.54	1,426.39	197.75	136.60	61.14	3.234			
6,900.00	6,734.46	6,890.46	6,709.71	33.46	34.97	54.54	-545.26	1,451.49	200.34	138.16	62.18	3.222			
6,958.42	6,791.27	6,977.61	6,785.97	33.77	35.35	53.84	-544.16	1,469.64	196.68	134.45	62.22	3.161			
7,000.00	6,831.76	7,032.55	6,839.10	33.98	35.58	67.05	-538.29	1,482.29	191.66	129.89	61.77	3.103			
7,050.00	6,880.45	7,097.63	6,901.24	34.22	35.83	82.86	-525.94	1,497.07	184.81	124.04	60.77	3.041			
7,100.00	6,928.94	7,161.53	6,960.95	34.44	36.04	96.02	-508.23	1,511.26	177.20	117.84	59.35	2.985			
7,150.00	6,976.98	7,224.16	7,017.76	34.64	36.22	105.50	-485.63	1,524.77	168.93	111.33	57.60	2.933			
7,200.00	7,024.34	7,285.49	7,071.32	34.82	36.37	111.64	-458.64	1,537.49	160.16	104.53	55.63	2.879			
7,250.00	7,070.78	7,345.49	7,121.35	34.99	36.49	115.16	-427.77	1,549.36	151.06	97.46	53.59	2.819			
7,300.00	7,116.09	7,404.14	7,167.68	35.14	36.59	116.64	-393.54	1,560.35	141.79	90.11	51.68	2.743			
7,350.00	7,160.03	7,461.46	7,210.17	35.28	36.66	116.47	-356.43	1,570.42	132.58	82.44	50.14	2.644			
7,400.00	7,202.41	7,517.48	7,248.78	35.40	36.72	114.86	-316.91	1,579.57	123.66	74.43	49.22	2.512			
7,450.00	7,243.00	7,572.24	7,283.50	35.51	36.76	111.95	-275.39	1,587.78	115.30	66.11	49.19	2.344			
7,500.00	7,281.62	7,625.78	7,314.38	35.60	36.78	107.81	-232.28	1,595.08	107.84	57.66	50.18	2.149			
7,550.00	7,318.07	7,678.16	7,341.47	35.68	36.79	102.52	-187.92	1,601.48	101.60	49.49	52.10	1.950			
7,600.00	7,352.17	7,729.43	7,364.86	35.75	36.80	96.22	-142.65	1,606.99	96.94	42.33	54.60	1.775			
7,650.00	7,383.77	7,779.65	7,384.67	35.81	36.79	89.15	-96.74	1,611.65	94.16	37.06	57.09	1.649			
7,691.69	7,408.08	7,820.77	7,398.52	35.84	36.78	82.90	-58.17	1,614.91	93.42	34.72	58.70	1.592			
7,700.00	7,412.70	7,828.89	7,401.00	35.85	36.78	81.64	-50.46	1,615.49	93.45	34.51	58.94	1.585 SF			
7,750.00	7,438.83	7,877.21	7,413.99	35.89	36.76	74.09	-4.03	1,618.52	94.84	35.11	59.73	1.588			
7,800.00	7,462.03	7,924.65	7,423.75	35.91	36.74	66.85	42.34	1,620.79	98.20	38.81	59.39	1.653			
7,850.00	7,482.18	7,971.30	7,430.41	35.93	36.71	60.19	88.47	1,622.32	103.25	45.10	58.15	1.776			
7,900.00	7,499.19	8,017.18	7,434.10	35.94	36.69	54.23	134.19	1,623.14	109.65	53.27	56.38	1.945			
7,950.00	7,512.97	8,063.06	7,435.00	35.94	36.66	48.97	180.05	1,623.30	117.04	62.58	54.47	2.149			
8,000.00	7,523.46	8,111.93	7,435.00	35.94	36.64	44.97	228.93	1,623.24	124.04	70.95	53.09	2.336			
8,050.00	7,530.60	8,161.41	7,435.00	35.94	36.62	42.65	278.40	1,623.18	129.54	77.07	52.46	2.469			
8,100.00	7,534.37	8,211.24	7,435.00	35.94	36.60	41.78	328.23	1,623.12	133.17	80.59	52.58	2.533			
8,130.43	7,535.00	8,241.64	7,435.00	35.94	36.60	41.90	358.63	1,623.08	134.40	81.40	53.00	2.536			
8,200.00	7,535.00	8,311.15	7,435.00	35.94	36.60	42.82	428.14	1,622.99	136.39	82.12	54.26	2.513			
8,300.00	7,535.00	8,411.06	7,435.00	35.97	36.63	44.10	528.05	1,622.87	139.31	83.20	56.11	2.483			
8,400.00	7,535.00	8,510.97	7,435.00	36.05	36.70	45.32	627.96	1,622.75	142.29	84.30	57.99	2.454			
8,500.00	7,535.00	8,610.88	7,435.00	36.17	36.84	46.50	727.87	1,622.62	145.34	85.42	59.92	2.426			
8,600.00	7,535.00	8,710.79	7,435.00	36.37	37.05	47.62	827.78	1,622.50	148.44	86.55	61.89	2.399			
8,700.00	7,535.00	8,810.70	7,435.00	36.65	37.37	48.70	927.69	1,622.38	151.60	87.70	63.90	2.372			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft				
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft				
Reference													Semi Major Axis		Distance			Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor						
8,800.00	7,535.00	8,910.61	7,435.00	37.05	37.82	49.74	1,027.60	1,622.26	154.81	88.85	65.96	2.347						
8,900.00	7,535.00	9,010.52	7,435.00	37.58	38.40	50.73	1,127.51	1,622.13	158.07	90.00	68.07	2.322						
9,000.00	7,535.00	9,110.43	7,435.00	38.23	39.11	51.68	1,227.42	1,622.01	161.38	91.16	70.22	2.298						
9,100.00	7,535.00	9,210.34	7,435.00	38.99	39.93	52.60	1,327.33	1,621.89	164.72	92.31	72.42	2.275						
9,200.00	7,535.00	9,310.25	7,435.00	39.85	40.82	53.47	1,427.24	1,621.76	168.11	93.45	74.66	2.252						
9,300.00	7,535.00	9,410.16	7,435.00	40.78	41.79	54.32	1,527.15	1,621.64	171.54	94.59	76.95	2.229						
9,400.00	7,535.00	9,510.07	7,435.00	41.78	42.81	55.13	1,627.06	1,621.52	175.00	95.73	79.27	2.208						
9,500.00	7,535.00	9,609.98	7,435.00	42.83	43.88	55.90	1,726.97	1,621.40	178.50	96.85	81.64	2.186						
9,600.00	7,535.00	9,709.89	7,435.00	43.93	44.98	56.65	1,826.88	1,621.27	182.02	97.97	84.05	2.166						
9,700.00	7,535.00	9,809.80	7,435.00	45.07	46.12	57.37	1,926.79	1,621.15	185.58	99.08	86.50	2.145						
9,800.00	7,535.00	9,909.71	7,435.00	46.24	47.29	58.06	2,026.70	1,621.03	189.16	100.18	88.98	2.126						
9,900.00	7,535.00	10,009.62	7,435.00	47.44	48.48	58.73	2,126.61	1,620.90	192.78	101.27	91.50	2.107						
10,000.00	7,535.00	10,109.53	7,435.00	48.67	49.70	59.37	2,226.52	1,620.78	196.41	102.36	94.06	2.088						
10,100.00	7,535.00	10,209.44	7,435.00	49.93	50.95	59.99	2,326.43	1,620.66	200.07	103.43	96.64	2.070						
10,200.00	7,535.00	10,309.35	7,435.00	51.20	52.21	60.59	2,426.34	1,620.53	203.75	104.50	99.25	2.053						
10,300.00	7,535.00	10,409.26	7,435.00	52.50	53.49	61.16	2,526.25	1,620.41	207.46	105.56	101.89	2.036						
10,400.00	7,535.00	10,509.17	7,435.00	53.82	54.78	61.72	2,626.16	1,620.29	211.18	106.62	104.56	2.020						
10,500.00	7,535.00	10,609.08	7,435.00	55.15	56.09	62.25	2,726.07	1,620.17	214.92	107.67	107.26	2.004						
10,600.00	7,535.00	10,708.99	7,435.00	56.50	57.42	62.77	2,825.98	1,620.04	218.69	108.71	109.98	1.988						
10,700.00	7,535.00	10,808.90	7,435.00	57.87	58.76	63.27	2,925.89	1,619.92	222.46	109.75	112.72	1.974						
10,800.00	7,535.00	10,908.81	7,435.00	59.24	60.11	63.75	3,025.80	1,619.80	226.26	110.78	115.48	1.959						
10,900.00	7,535.00	11,008.72	7,435.00	60.63	61.47	64.22	3,125.71	1,619.67	230.07	111.80	118.27	1.945						
11,000.00	7,535.00	11,108.63	7,435.00	62.04	62.85	64.67	3,225.62	1,619.55	233.89	112.83	121.07	1.932						
11,100.00	7,535.00	11,208.54	7,435.00	63.45	64.23	65.11	3,325.53	1,619.43	237.73	113.84	123.89	1.919						
11,200.00	7,535.00	11,308.45	7,435.00	64.87	65.62	65.53	3,425.44	1,619.31	241.59	114.85	126.73	1.906						
11,300.00	7,535.00	11,408.36	7,435.00	66.30	67.02	65.94	3,525.35	1,619.18	245.45	115.86	129.59	1.894						
11,400.00	7,535.00	11,508.27	7,435.00	67.74	68.43	66.34	3,625.26	1,619.06	249.33	116.87	132.46	1.882						
11,500.00	7,535.00	11,608.18	7,435.00	69.19	69.85	66.72	3,725.17	1,618.94	253.22	117.87	135.34	1.871						
11,600.00	7,535.00	11,708.09	7,435.00	70.65	71.27	67.09	3,825.08	1,618.81	257.12	118.87	138.24	1.860						
11,700.00	7,535.00	11,808.00	7,435.00	72.11	72.70	67.46	3,924.99	1,618.69	261.03	119.87	141.16	1.849						
11,800.00	7,535.00	11,907.91	7,435.00	73.58	74.14	67.81	4,024.90	1,618.57	264.95	120.86	144.08	1.839						
11,900.00	7,535.00	12,007.82	7,435.00	75.06	75.58	68.15	4,124.81	1,618.44	268.88	121.85	147.02	1.829						
12,000.00	7,535.00	12,107.73	7,435.00	76.55	77.03	68.48	4,224.72	1,618.32	272.82	122.84	149.97	1.819						
12,030.43	7,535.00	12,135.65	7,435.00	77.00	77.43	68.57	4,252.64	1,618.29	274.03	123.03	150.99	1.815						

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft	
Survey Program: O-MWD+HDGM													Offset Well Error:		0.00 usft
Reference: S32-T2N-R68W - HWY52 4W-32H-O268 - OH - PLAN #2															
Reference		Offset		Semi Major Axis			Distance				Total	Separation	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis	Factor			
0.00	0.00	2.00	2.00	0.00	0.00	90.11	-0.04	20.14	20.14						
100.00	100.00	102.00	102.00	0.14	0.15	90.11	-0.04	20.14	20.14	19.86	0.28	71.134			
115.99	115.99	117.99	117.99	0.20	0.20	90.11	-0.04	20.14	20.14	19.75	0.40	50.639	CC		
200.00	200.00	201.99	201.99	0.50	0.50	90.11	-0.04	20.14	20.15	19.15	1.00	20.148	ES		
300.00	300.00	301.60	301.58	0.85	0.85	94.34	-1.60	21.05	21.11	19.39	1.72	12.300			
400.00	400.00	400.84	400.69	1.21	1.20	103.54	-5.75	23.89	24.61	22.14	2.47	9.955			
500.00	499.98	500.00	499.55	1.56	1.55	-32.58	-10.34	29.95	30.30	27.09	3.21	9.441			
600.00	599.84	598.43	597.42	1.90	1.92	-34.34	-14.99	39.36	36.45	32.47	3.98	9.154			
650.00	649.68	647.67	646.23	2.08	2.12	-36.49	-17.34	45.32	39.73	35.37	4.36	9.115			
700.00	699.47	696.82	694.86	2.25	2.31	-30.65	-19.71	52.11	43.14	38.41	4.74	9.110			
800.00	798.84	794.96	791.55	2.62	2.71	-22.70	-24.49	68.16	50.12	44.62	5.50	9.115			
900.00	897.85	892.86	887.40	3.00	3.14	-17.80	-29.33	87.47	57.20	50.93	6.26	9.131			
1,000.00	996.37	990.53	982.31	3.41	3.60	-14.52	-34.23	109.98	64.28	57.25	7.03	9.143			
1,100.00	1,094.29	1,087.97	1,076.17	3.83	4.09	-12.10	-39.16	135.66	71.34	63.54	7.80	9.147			
1,144.53	1,137.66	1,132.26	1,118.60	4.03	4.33	-11.19	-41.42	148.13	74.22	66.09	8.12	9.137			
1,200.00	1,191.61	1,187.64	1,171.66	4.28	4.63	-11.48	-44.25	163.74	77.38	68.85	8.53	9.070			
1,300.00	1,288.85	1,287.47	1,267.32	4.75	5.18	-11.94	-49.34	191.88	83.08	73.80	9.28	8.953			
1,400.00	1,386.09	1,387.31	1,362.97	5.22	5.74	-12.34	-54.43	220.01	88.79	78.75	10.04	8.842			
1,500.00	1,483.34	1,487.14	1,458.62	5.70	6.31	-12.69	-59.52	248.15	94.50	83.68	10.81	8.738			
1,600.00	1,580.58	1,586.98	1,554.28	6.19	6.88	-13.00	-64.61	276.29	100.21	88.62	11.60	8.642			
1,700.00	1,677.82	1,686.81	1,649.93	6.69	7.46	-13.28	-69.70	304.42	105.93	93.55	12.38	8.554			
1,800.00	1,775.07	1,786.65	1,745.58	7.19	8.04	-13.53	-74.79	332.56	111.65	98.47	13.18	8.472			
1,900.00	1,872.31	1,886.48	1,841.24	7.69	8.63	-13.76	-79.89	360.69	117.37	103.39	13.98	8.397			
2,000.00	1,969.55	1,986.32	1,936.89	8.19	9.21	-13.96	-84.98	388.83	123.09	108.31	14.78	8.328			
2,100.00	2,066.79	2,086.15	2,032.54	8.69	9.80	-14.15	-90.07	416.97	128.82	113.23	15.59	8.264			
2,200.00	2,164.04	2,185.99	2,128.19	9.20	10.39	-14.32	-95.16	445.10	134.54	118.15	16.40	8.205			
2,300.00	2,261.28	2,285.82	2,223.85	9.71	10.98	-14.47	-100.25	473.24	140.27	123.06	17.21	8.150			
2,400.00	2,358.52	2,385.66	2,319.50	10.22	11.58	-14.62	-105.34	501.37	146.00	127.97	18.03	8.099			
2,500.00	2,455.77	2,485.49	2,415.15	10.73	12.17	-14.75	-110.43	529.51	151.73	132.88	18.84	8.052			
2,600.00	2,553.01	2,585.33	2,510.81	11.24	12.76	-14.88	-115.52	557.65	157.46	137.79	19.66	8.008			
2,700.00	2,650.25	2,685.16	2,606.46	11.75	13.36	-14.99	-120.62	585.78	163.19	142.70	20.48	7.967			
2,800.00	2,747.50	2,785.00	2,702.11	12.26	13.95	-15.10	-125.71	613.92	168.92	147.61	21.30	7.929			
2,900.00	2,844.74	2,884.83	2,797.77	12.78	14.55	-15.20	-130.80	642.06	174.65	152.52	22.13	7.893			
3,000.00	2,941.98	2,984.67	2,893.42	13.29	15.14	-15.29	-135.89	670.19	180.38	157.43	22.95	7.859			
3,100.00	3,039.22	3,084.50	2,989.07	13.80	15.74	-15.38	-140.98	698.33	186.11	162.33	23.78	7.827			
3,200.00	3,136.47	3,184.34	3,084.73	14.32	16.34	-15.46	-146.07	726.46	191.84	167.24	24.60	7.797			
3,300.00	3,233.71	3,284.18	3,180.38	14.83	16.93	-15.54	-151.16	754.60	197.58	172.15	25.43	7.769			
3,400.00	3,330.95	3,384.01	3,276.03	15.35	17.53	-15.61	-156.25	782.74	203.31	177.05	26.26	7.742			
3,500.00	3,428.20	3,483.85	3,371.68	15.86	18.13	-15.68	-161.34	810.87	209.04	181.96	27.09	7.717			
3,600.00	3,525.44	3,583.68	3,467.34	16.38	18.72	-15.75	-166.44	839.01	214.78	186.86	27.92	7.693			
3,700.00	3,622.68	3,683.52	3,562.99	16.89	19.32	-15.81	-171.53	867.14	220.51	191.76	28.75	7.671			
3,800.00	3,719.93	3,783.35	3,658.64	17.41	19.92	-15.87	-176.62	895.28	226.25	196.67	29.58	7.649			
3,900.00	3,817.17	3,883.19	3,754.30	17.93	20.52	-15.93	-181.71	923.42	231.98	201.57	30.41	7.629			
4,000.00	3,914.41	3,983.02	3,849.95	18.44	21.12	-15.98	-186.80	951.55	237.72	206.48	31.24	7.609			
4,100.00	4,011.65	4,082.86	3,945.60	18.96	21.71	-16.03	-191.89	979.69	243.45	211.38	32.07	7.591			
4,200.00	4,108.90	4,182.69	4,041.26	19.48	22.31	-16.08	-196.98	1,007.82	249.19	216.28	32.90	7.573			
4,300.00	4,206.14	4,282.53	4,136.91	19.99	22.91	-16.13	-202.07	1,035.96	254.92	221.18	33.74	7.556			
4,400.00	4,303.38	4,382.36	4,232.56	20.51	23.51	-16.17	-207.17	1,064.10	260.66	226.09	34.57	7.540			
4,500.00	4,400.63	4,482.20	4,328.22	21.03	24.11	-16.21	-212.26	1,092.23	266.39	230.99	35.40	7.525			
4,600.00	4,497.87	4,582.03	4,423.87	21.54	24.71	-16.25	-217.35	1,120.37	272.13	235.89	36.24	7.510			
4,700.00	4,595.11	4,681.87	4,519.52	22.06	25.31	-16.29	-222.44	1,148.50	277.87	240.79	37.07	7.496			
4,800.00	4,692.36	4,781.70	4,615.17	22.58	25.91	-16.33	-227.53	1,176.64	283.60	245.70	37.90	7.482			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft					
Survey Program: O-MWD+HDGM													Offset Well Error:	0.00 usft					
Reference													Semi Major Axis		Distance		Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)									
4,900.00	4,789.60	4,881.54	4,710.83	23.10	26.51	-16.37	-232.62	1,204.78	289.34	250.60	38.74	7.469							
5,000.00	4,886.84	4,981.37	4,806.48	23.62	27.11	-16.40	-237.71	1,232.91	295.07	255.50	39.57	7.456							
5,100.00	4,984.08	5,081.21	4,902.13	24.13	27.70	-16.43	-242.80	1,261.05	300.81	260.40	40.41	7.444							
5,200.00	5,081.33	5,181.04	4,997.79	24.65	28.30	-16.47	-247.90	1,289.18	306.55	265.30	41.24	7.433							
5,300.00	5,178.57	5,280.88	5,093.44	25.17	28.90	-16.50	-252.99	1,317.32	312.28	270.20	42.08	7.421							
5,400.00	5,275.81	5,380.71	5,189.09	25.69	29.50	-16.53	-258.08	1,345.46	318.02	275.11	42.91	7.411							
5,500.00	5,373.06	5,480.55	5,284.75	26.21	30.10	-16.56	-263.17	1,373.59	323.76	280.01	43.75	7.400							
5,600.00	5,470.30	5,580.38	5,380.40	26.72	30.70	-16.58	-268.26	1,401.73	329.49	284.91	44.59	7.390							
5,700.00	5,567.54	5,680.22	5,476.05	27.24	31.30	-16.61	-273.35	1,429.86	335.23	289.81	45.42	7.380							
5,800.00	5,664.79	5,780.05	5,571.70	27.76	31.90	-16.64	-278.44	1,458.00	340.97	294.71	46.26	7.371							
5,900.00	5,762.03	5,879.89	5,667.36	28.28	32.50	-16.66	-283.53	1,486.14	346.70	299.61	47.09	7.362							
6,000.00	5,859.27	5,979.73	5,763.01	28.80	33.10	-16.69	-288.62	1,514.27	352.44	304.51	47.93	7.353							
6,100.00	5,956.51	6,079.56	5,858.66	29.31	33.70	-16.71	-293.72	1,542.41	358.18	309.41	48.77	7.345							
6,200.00	6,053.76	6,179.40	5,954.32	29.83	34.30	-16.73	-298.81	1,570.54	363.92	314.31	49.60	7.337							
6,300.00	6,151.00	6,279.23	6,049.97	30.35	34.90	-16.75	-303.90	1,598.68	369.65	319.21	50.44	7.329							
6,400.00	6,248.24	6,379.07	6,145.62	30.87	35.50	-16.78	-308.99	1,626.82	375.39	324.11	51.28	7.321							
6,500.00	6,345.49	6,478.90	6,241.28	31.39	36.10	-16.80	-314.08	1,654.95	381.13	329.02	52.11	7.313							
6,600.00	6,442.73	6,578.74	6,336.93	31.91	36.70	-16.82	-319.17	1,683.09	386.87	333.92	52.95	7.306							
6,700.00	6,539.97	6,678.57	6,432.58	32.43	37.30	-16.84	-324.26	1,711.23	392.60	338.82	53.79	7.299							
6,800.00	6,637.21	6,778.41	6,528.24	32.94	37.90	-16.85	-329.35	1,739.36	398.34	343.72	54.62	7.292							
6,900.00	6,734.46	6,878.24	6,623.89	33.46	38.50	-16.87	-334.45	1,767.50	404.08	348.62	55.46	7.286							
6,958.42	6,791.27	6,936.57	6,679.77	33.77	38.85	-16.88	-337.42	1,783.94	407.43	351.48	55.95	7.282							
7,000.00	6,831.76	6,978.06	6,719.52	33.98	39.10	-2.89	-339.54	1,795.63	409.80	353.54	56.26	7.284							
7,050.00	6,880.45	7,027.76	6,767.14	34.22	39.40	14.53	-342.07	1,809.63	412.61	356.08	56.53	7.299							
7,100.00	6,928.94	7,077.02	6,814.34	34.44	39.70	30.04	-344.58	1,823.52	415.49	358.80	56.69	7.329							
7,150.00	6,976.98	7,125.61	6,860.90	34.64	39.99	42.59	-347.06	1,837.21	418.62	361.84	56.78	7.373							
7,200.00	7,024.34	7,173.29	6,906.58	34.82	40.27	52.53	-349.49	1,850.65	422.25	365.43	56.82	7.432							
7,250.00	7,070.78	7,222.86	6,954.11	34.99	40.57	60.59	-351.21	1,864.57	426.58	369.69	56.89	7.499							
7,300.00	7,116.09	7,274.91	7,004.11	35.14	40.86	67.15	-349.51	1,878.92	431.42	374.37	57.05	7.562							
7,350.00	7,160.03	7,328.50	7,055.40	35.28	41.14	72.59	-343.83	1,893.33	436.69	379.40	57.29	7.622							
7,400.00	7,202.41	7,383.74	7,107.77	35.40	41.40	77.21	-333.84	1,907.71	442.32	384.75	57.57	7.683							
7,450.00	7,243.00	7,440.73	7,160.96	35.51	41.64	81.21	-319.19	1,921.95	448.22	390.35	57.87	7.746							
7,500.00	7,281.62	7,499.57	7,214.61	35.60	41.87	84.73	-299.54	1,935.92	454.28	396.15	58.13	7.815							
7,550.00	7,318.07	7,560.35	7,268.31	35.68	42.07	87.85	-274.55	1,949.47	460.38	402.07	58.31	7.895							
7,600.00	7,352.17	7,623.14	7,321.55	35.75	42.25	90.64	-243.92	1,962.44	466.42	408.04	58.37	7.990							
7,650.00	7,383.77	7,687.99	7,373.70	35.81	42.41	93.14	-207.39	1,974.62	472.25	413.96	58.29	8.102							
7,700.00	7,412.70	7,754.90	7,424.06	35.85	42.55	95.37	-164.81	1,985.79	477.73	419.69	58.04	8.231							
7,750.00	7,438.83	7,823.83	7,471.81	35.89	42.66	97.35	-116.13	1,995.71	482.73	425.10	57.63	8.376							
7,800.00	7,462.03	7,894.70	7,516.07	35.91	42.75	99.08	-61.48	2,004.15	487.12	430.02	57.10	8.532							
7,850.00	7,482.18	7,967.34	7,555.92	35.93	42.82	100.58	-1.14	2,010.84	490.75	434.26	56.48	8.689							
7,900.00	7,499.19	8,041.54	7,590.41	35.94	42.86	101.84	64.34	2,015.57	493.51	437.64	55.87	8.833							
7,950.00	7,512.97	8,117.01	7,618.70	35.94	42.88	102.85	134.23	2,018.15	495.29	439.94	55.36	8.947							
8,000.00	7,523.46	8,193.41	7,640.02	35.94	42.89	103.61	207.55	2,018.43	496.02	440.98	55.04	9.012							
8,050.00	7,530.60	8,270.35	7,653.82	35.94	42.87	104.12	283.18	2,016.34	495.65	440.64	55.01	9.010							
8,100.00	7,534.37	8,347.41	7,659.76	35.94	42.85	104.38	359.84	2,011.90	494.14	438.81	55.33	8.931							
8,130.43	7,535.00	8,384.48	7,660.00	35.94	42.84	104.46	396.80	2,008.99	492.85	437.27	55.57	8.869							
8,200.00	7,535.00	8,454.01	7,660.00	35.94	42.82	104.54	466.10	2,003.42	490.38	434.37	56.00	8.756							
8,300.00	7,535.00	8,553.94	7,660.00	35.97	42.80	104.64	565.71	1,995.40	486.83	430.08	56.75	8.578							
8,400.00	7,535.00	8,653.87	7,660.00	36.05	42.80	104.75	665.32	1,987.39	483.29	425.62	57.66	8.381							
8,500.00	7,535.00	8,753.81	7,660.00	36.17	42.82	104.87	764.93	1,979.37	479.74	421.01	58.73	8.168							
8,600.00	7,535.00	8,853.74	7,660.00	36.37	42.85	104.98	864.54	1,971.36	476.20	416.25	59.95	7.943							
8,700.00	7,535.00	8,953.67	7,660.00	36.65	42.92	105.09	964.15	1,963.35	472.66	411.36	61.30	7.710							

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft	
Survey Program: 0-MWD+HDGM													Offset Well Error:		0.00 usft
Reference				Offset				Semi Major Axis			Distance		Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
8,800.00	7,535.00	9,053.60	7,660.00	37.05	43.02	105.21	1,063.76	1,955.33	469.13	406.34	62.78	7.472			
8,900.00	7,535.00	9,153.54	7,660.00	37.58	43.16	105.33	1,163.37	1,947.32	465.59	401.20	64.39	7.231			
9,000.00	7,535.00	9,253.47	7,660.00	38.23	43.36	105.45	1,262.99	1,939.30	462.06	395.96	66.10	6.991			
9,100.00	7,535.00	9,353.40	7,660.00	38.99	43.64	105.57	1,362.60	1,931.29	458.53	390.62	67.91	6.752			
9,200.00	7,535.00	9,453.34	7,660.00	39.85	44.01	105.69	1,462.21	1,923.27	455.00	385.18	69.81	6.517			
9,300.00	7,535.00	9,553.27	7,660.00	40.78	44.50	105.82	1,561.82	1,915.26	451.47	379.67	71.80	6.288			
9,400.00	7,535.00	9,653.20	7,660.00	41.78	45.12	105.95	1,661.43	1,907.24	447.95	374.08	73.87	6.064			
9,500.00	7,535.00	9,753.13	7,660.00	42.83	45.87	106.08	1,761.04	1,899.23	444.42	368.42	76.00	5.847			
9,600.00	7,535.00	9,853.07	7,660.00	43.93	46.73	106.21	1,860.65	1,891.21	440.90	362.70	78.20	5.638			
9,700.00	7,535.00	9,941.92	7,660.00	45.07	47.59	106.29	1,949.29	1,885.08	438.48	357.77	80.71	5.433			
9,733.84	7,535.00	9,971.43	7,660.00	45.46	47.89	106.30	1,978.76	1,883.64	438.31	356.71	81.60	5.371			
9,800.00	7,535.00	10,029.11	7,660.00	46.24	48.50	106.28	2,036.40	1,881.71	438.95	355.58	83.37	5.265			
9,900.00	7,535.00	10,121.59	7,660.00	47.44	49.52	106.17	2,128.88	1,880.72	442.09	356.07	86.02	5.139			
10,000.00	7,535.00	10,221.52	7,660.00	48.67	50.66	106.03	2,228.81	1,880.14	445.72	357.15	88.57	5.033			
10,100.00	7,535.00	10,321.44	7,660.00	49.93	51.84	105.90	2,328.73	1,879.56	449.36	358.20	91.16	4.929			
10,200.00	7,535.00	10,421.37	7,660.00	51.20	53.05	105.77	2,428.66	1,878.98	452.99	359.21	93.78	4.830			
10,300.00	7,535.00	10,521.30	7,660.00	52.50	54.28	105.64	2,528.59	1,878.39	456.63	360.19	96.44	4.735			
10,400.00	7,535.00	10,621.23	7,660.00	53.82	55.54	105.51	2,628.51	1,877.81	460.28	361.14	99.14	4.643			
10,500.00	7,535.00	10,721.16	7,660.00	55.15	56.81	105.39	2,728.44	1,877.23	463.92	362.06	101.86	4.555			
10,600.00	7,535.00	10,821.09	7,660.00	56.50	58.11	105.26	2,828.37	1,876.65	467.57	362.96	104.61	4.470			
10,700.00	7,535.00	10,921.02	7,660.00	57.87	59.42	105.14	2,928.29	1,876.07	471.21	363.83	107.38	4.388			
10,800.00	7,535.00	11,020.94	7,660.00	59.24	60.74	105.02	3,028.22	1,875.49	474.86	364.69	110.18	4.310			
10,900.00	7,535.00	11,120.87	7,660.00	60.63	62.08	104.90	3,128.15	1,874.91	478.52	365.52	113.00	4.235			
11,000.00	7,535.00	11,220.80	7,660.00	62.04	63.43	104.79	3,228.07	1,874.32	482.17	366.33	115.84	4.162			
11,100.00	7,535.00	11,320.73	7,660.00	63.45	64.79	104.68	3,328.00	1,873.74	485.83	367.13	118.70	4.093			
11,200.00	7,535.00	11,420.66	7,660.00	64.87	66.16	104.56	3,427.93	1,873.16	489.49	367.91	121.57	4.026			
11,300.00	7,535.00	11,520.59	7,660.00	66.30	67.55	104.45	3,527.86	1,872.58	493.15	368.68	124.46	3.962			
11,400.00	7,535.00	11,620.51	7,660.00	67.74	68.94	104.34	3,627.78	1,872.00	496.81	369.44	127.37	3.901			
11,500.00	7,535.00	11,720.44	7,660.00	69.19	70.34	104.24	3,727.71	1,871.42	500.47	370.18	130.29	3.841			
11,600.00	7,535.00	11,820.37	7,660.00	70.65	71.75	104.13	3,827.64	1,870.83	504.14	370.91	133.23	3.784			
11,700.00	7,535.00	11,920.30	7,660.00	72.11	73.16	104.03	3,927.56	1,870.25	507.80	371.63	136.17	3.729			
11,800.00	7,535.00	12,020.23	7,660.00	73.58	74.59	103.92	4,027.49	1,869.67	511.47	372.34	139.13	3.676			
11,900.00	7,535.00	12,120.16	7,660.00	75.06	76.02	103.82	4,127.42	1,869.09	515.14	373.04	142.10	3.625			
12,000.00	7,535.00	12,220.09	7,660.00	76.55	77.45	103.72	4,227.34	1,868.51	518.82	373.73	145.09	3.576			
12,030.43	7,535.00	12,243.21	7,660.00	77.00	77.78	103.70	4,250.47	1,868.37	519.98	373.84	146.14	3.558 SF			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 5000-MWD+HDGM													Offset Well Error:	0.00 usft
Reference				Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-4.60	1,423.22	-114.43	1,428.56					
100.00	100.00	54.00	54.00	0.14	0.10	-4.60	1,423.22	-114.43	1,427.81	1,427.58	0.23	6,084.517		
200.00	200.00	154.00	154.00	0.50	0.28	-4.60	1,423.22	-114.43	1,427.81	1,427.04	0.77	1,849.213		
300.00	300.00	254.00	254.00	0.85	0.45	-4.60	1,423.22	-114.43	1,427.81	1,426.50	1.31	1,090.287		
400.00	400.00	354.00	354.00	1.21	0.63	-4.60	1,423.22	-114.43	1,427.81	1,425.97	1.85	773.031	CC, ES	
500.00	499.98	453.98	453.98	1.56	0.81	-144.62	1,423.22	-114.43	1,429.24	1,426.87	2.37	602.852		
600.00	599.84	553.84	553.84	1.90	0.99	-144.69	1,423.22	-114.43	1,433.51	1,430.62	2.89	495.823		
650.00	649.68	603.68	603.68	2.08	1.08	-144.75	1,423.22	-114.43	1,436.71	1,433.56	3.16	455.210		
700.00	699.47	653.47	653.47	2.25	1.17	-136.67	1,423.22	-114.43	1,440.29	1,436.87	3.42	421.006		
800.00	798.84	752.84	752.84	2.62	1.35	-125.56	1,423.22	-114.43	1,447.55	1,443.59	3.96	365.828		
900.00	897.85	851.85	851.85	3.00	1.52	-118.77	1,423.22	-114.43	1,454.98	1,450.48	4.51	322.959		
1,000.00	996.37	950.37	950.37	3.41	1.70	-114.46	1,423.22	-114.43	1,462.67	1,457.60	5.07	288.572		
1,100.00	1,094.29	1,048.29	1,048.29	3.83	1.88	-111.66	1,423.22	-114.43	1,470.71	1,465.05	5.65	260.230		
1,144.53	1,137.66	1,091.66	1,091.66	4.03	1.95	-110.76	1,423.22	-114.43	1,474.43	1,468.51	5.92	249.113		
1,200.00	1,191.61	1,145.61	1,145.61	4.28	2.05	-111.22	1,423.22	-114.43	1,479.17	1,472.92	6.26	236.422		
1,300.00	1,288.85	1,242.85	1,242.85	4.75	2.22	-112.03	1,423.22	-114.43	1,487.98	1,481.10	6.87	216.482		
1,400.00	1,386.09	1,340.09	1,340.09	5.22	2.40	-112.84	1,423.22	-114.43	1,497.09	1,489.59	7.50	199.671	SF	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft	
Survey Program: 100- GyroFlex													Offset Well Error:		0.00 usft
Reference				Offset				Semi Major Axis			Distance		Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
0.00	0.00	0.00	0.00	0.00	0.00	45.31	859.33	868.71	1,223.35						
100.00	100.00	41.20	41.20	0.14	0.03	45.31	859.32	868.71	1,221.92	1,221.77	0.15	7,907.048			
200.00	200.00	141.14	141.14	0.50	0.09	45.32	859.24	868.75	1,221.89	1,221.33	0.57	2,152.603			
217.49	217.49	158.48	158.48	0.56	0.10	45.31	859.25	868.74	1,221.89	1,221.25	0.64	1,903.326			
300.00	300.00	240.06	240.06	0.85	0.15	45.30	859.42	868.61	1,221.92	1,220.93	0.99	1,233.541			
400.00	400.00	338.91	338.91	1.21	0.24	45.29	859.71	868.51	1,222.05	1,220.63	1.42	859.577			
500.00	499.98	437.92	437.92	1.56	0.36	-94.79	860.01	868.49	1,222.40	1,220.54	1.86	656.531			
600.00	599.84	539.28	539.28	1.90	0.48	-95.03	860.26	868.61	1,223.11	1,220.81	2.30	531.199			
650.00	649.68	592.16	592.16	2.08	0.54	-95.22	860.33	868.55	1,223.46	1,220.94	2.52	485.907			
700.00	699.47	641.52	641.51	2.25	0.59	-87.32	860.41	868.38	1,223.48	1,220.76	2.72	449.091			
800.00	798.84	739.53	739.52	2.62	0.72	-76.59	860.89	867.87	1,221.77	1,218.62	3.14	388.504			
900.00	897.85	839.23	839.23	3.00	0.86	-70.19	861.36	867.40	1,217.65	1,214.05	3.60	338.591			
1,000.00	996.37	938.70	938.69	3.41	1.01	-66.32	861.97	866.61	1,211.08	1,207.01	4.06	298.050			
1,100.00	1,094.29	1,036.27	1,036.25	3.83	1.15	-64.01	862.70	865.67	1,202.28	1,197.73	4.55	264.223			
1,144.53	1,137.66	1,079.71	1,079.69	4.03	1.21	-63.34	863.06	865.21	1,197.68	1,192.91	4.78	250.740			
1,200.00	1,191.61	1,135.05	1,135.03	4.28	1.29	-63.93	863.52	864.57	1,191.74	1,186.68	5.06	235.437			
1,300.00	1,288.85	1,234.33	1,234.28	4.75	1.44	-65.02	864.29	863.12	1,181.12	1,175.53	5.58	211.538			
1,400.00	1,386.09	1,330.22	1,330.16	5.22	1.58	-66.11	865.19	861.53	1,170.92	1,164.80	6.12	191.480			
1,500.00	1,483.34	1,426.35	1,426.27	5.70	1.73	-67.22	866.25	859.83	1,161.25	1,154.59	6.66	174.379			
1,600.00	1,580.58	1,522.70	1,522.60	6.19	1.87	-68.36	867.44	857.99	1,152.07	1,144.86	7.21	159.704			
1,700.00	1,677.82	1,617.64	1,617.51	6.69	2.02	-69.51	868.78	856.14	1,143.50	1,135.73	7.78	147.035			
1,800.00	1,775.07	1,713.99	1,713.83	7.19	2.17	-70.69	870.24	854.30	1,135.55	1,127.20	8.35	135.992			
1,900.00	1,872.31	1,813.62	1,813.43	7.69	2.32	-71.92	871.57	852.40	1,127.96	1,119.03	8.93	126.313			
2,000.00	1,969.55	1,911.03	1,910.82	8.19	2.47	-73.12	872.60	850.71	1,120.76	1,111.25	9.51	117.829			
2,100.00	2,066.79	2,008.36	2,008.14	8.69	2.62	-74.33	873.44	849.22	1,114.02	1,103.92	10.10	110.324			
2,200.00	2,164.04	2,103.97	2,103.73	9.20	2.76	-75.52	874.24	847.88	1,107.84	1,097.15	10.69	103.644			
2,300.00	2,261.28	2,200.00	2,199.75	9.71	2.91	-76.72	875.09	846.64	1,102.28	1,090.99	11.29	97.647			
2,400.00	2,358.52	2,303.29	2,303.03	10.22	3.07	-78.03	875.76	845.22	1,097.00	1,085.12	11.89	92.282			
2,500.00	2,455.77	2,402.60	2,402.33	10.73	3.20	-79.30	876.02	843.71	1,091.87	1,079.39	12.48	87.523			
2,600.00	2,553.01	2,500.24	2,499.95	11.24	3.33	-80.54	876.08	842.34	1,087.13	1,074.07	13.06	83.249			
2,700.00	2,650.25	2,599.01	2,598.72	11.75	3.46	-81.81	875.99	840.96	1,082.82	1,069.18	13.64	79.379			
2,800.00	2,747.50	2,692.00	2,691.69	12.26	3.59	-83.01	876.03	839.62	1,079.14	1,064.91	14.23	75.843			
2,900.00	2,844.74	2,795.17	2,794.86	12.78	3.72	-84.36	876.02	838.07	1,075.96	1,061.14	14.82	72.609			
3,000.00	2,941.98	2,890.93	2,890.60	13.29	3.85	-85.62	875.77	836.47	1,073.04	1,057.64	15.40	69.671			
3,100.00	3,039.22	2,983.35	2,983.01	13.80	3.98	-86.85	875.80	834.84	1,070.96	1,054.96	15.99	66.970			
3,200.00	3,136.47	3,078.54	3,078.18	14.32	4.12	-88.13	876.19	833.06	1,069.76	1,053.17	16.59	64.480			
3,300.00	3,233.71	3,175.14	3,174.76	14.83	4.26	-89.44	876.68	831.12	1,069.22	1,052.03	17.19	62.188			
3,345.37	3,277.83	3,219.42	3,219.03	15.07	4.33	-90.05	876.92	830.17	1,069.17	1,051.71	17.47	61.211			
3,400.00	3,330.95	3,273.33	3,272.92	15.35	4.41	-90.78	877.17	828.99	1,069.24	1,051.44	17.80	60.082			
3,500.00	3,428.20	3,369.73	3,369.30	15.86	4.56	-92.10	877.57	826.82	1,069.76	1,051.37	18.40	58.148			
3,600.00	3,525.44	3,465.59	3,465.13	16.38	4.70	-93.41	878.04	824.71	1,070.98	1,051.98	19.00	56.371			
3,700.00	3,622.68	3,560.90	3,560.42	16.89	4.85	-94.70	878.56	822.77	1,072.88	1,053.28	19.60	54.733			
3,800.00	3,719.93	3,657.57	3,657.07	17.41	5.00	-96.01	879.21	820.75	1,075.49	1,055.28	20.21	53.222			
3,900.00	3,817.17	3,756.63	3,756.10	17.93	5.15	-97.36	879.81	818.23	1,078.58	1,057.77	20.81	51.826			
4,000.00	3,914.41	3,853.70	3,853.12	18.44	5.29	-98.70	880.23	815.34	1,082.08	1,060.67	21.41	50.545			
4,100.00	4,011.65	3,947.44	3,946.81	18.96	5.44	-99.99	880.77	812.48	1,086.33	1,064.33	22.00	49.375			
4,200.00	4,108.90	4,040.43	4,039.77	19.48	5.58	-101.25	881.59	809.80	1,091.50	1,068.91	22.60	48.300			
4,300.00	4,206.14	4,134.49	4,133.78	19.99	5.73	-102.51	882.68	807.29	1,097.55	1,074.35	23.20	47.303			
4,400.00	4,303.38	4,229.01	4,228.27	20.51	5.87	-103.73	883.93	805.15	1,104.34	1,080.52	23.81	46.375			
4,500.00	4,400.63	4,322.22	4,321.45	21.03	6.02	-104.93	885.43	803.01	1,111.96	1,087.53	24.43	45.524			
4,600.00	4,497.87	4,417.70	4,416.89	21.54	6.16	-106.13	887.17	801.18	1,120.30	1,095.26	25.05	44.726			
4,700.00	4,595.11	4,513.19	4,512.35	22.06	6.30	-107.30	888.97	799.34	1,129.24	1,103.57	25.67	43.987			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 usft	
Survey Program: 100- GyroFlex												Offset Well Error: 0.00 usft		
Reference				Offset			Semi Major Axis			Distance		Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
4,800.00	4,692.36	4,606.02	4,605.14	22.58	6.44	-108.42	890.98	797.66	1,138.94	1,112.65	26.29	43.322		
4,900.00	4,789.60	4,704.27	4,703.35	23.10	6.58	-109.59	893.17	795.78	1,149.19	1,122.27	26.92	42.689		
5,000.00	4,886.84	4,796.80	4,795.84	23.62	6.71	-110.68	895.34	794.06	1,160.03	1,132.50	27.53	42.133		
5,100.00	4,984.08	4,891.94	4,890.93	24.13	6.85	-111.76	897.85	792.53	1,171.57	1,143.42	28.15	41.612		
5,200.00	5,081.33	4,996.34	4,995.29	24.65	7.00	-112.92	900.34	790.80	1,183.33	1,154.53	28.80	41.091		
5,300.00	5,178.57	5,092.06	5,090.98	25.17	7.14	-113.97	902.31	789.19	1,195.20	1,165.79	29.41	40.640		
5,400.00	5,275.81	5,188.16	5,187.03	25.69	7.28	-115.01	904.37	787.60	1,207.56	1,177.54	30.02	40.226		
5,500.00	5,373.06	5,285.25	5,284.10	26.21	7.42	-116.03	906.47	786.05	1,220.34	1,189.71	30.63	39.841		
5,600.00	5,470.30	5,382.22	5,381.03	26.72	7.56	-117.02	908.61	784.77	1,233.48	1,202.24	31.24	39.485		
5,700.00	5,567.54	5,480.19	5,478.97	27.24	7.69	-117.99	910.76	783.63	1,246.94	1,215.09	31.85	39.151		
5,800.00	5,664.79	5,579.67	5,578.42	27.76	7.84	-118.96	912.75	782.31	1,260.61	1,228.15	32.46	38.838		
5,900.00	5,762.03	5,677.86	5,676.59	28.28	7.98	-119.90	914.54	781.05	1,274.45	1,241.39	33.06	38.553		
6,000.00	5,859.27	5,775.77	5,774.47	28.80	8.13	-120.83	916.22	779.74	1,288.55	1,254.90	33.65	38.293		
6,100.00	5,956.51	5,870.96	5,869.64	29.31	8.27	-121.71	917.83	778.45	1,302.97	1,268.74	34.23	38.065		
6,200.00	6,053.76	5,966.04	5,964.70	29.83	8.40	-122.55	919.70	777.39	1,317.86	1,283.05	34.81	37.860		
6,300.00	6,151.00	6,061.70	6,060.33	30.35	8.53	-123.38	921.76	776.53	1,333.15	1,297.77	35.39	37.672		
6,400.00	6,248.24	6,158.66	6,157.27	30.87	8.67	-124.19	923.91	775.65	1,348.78	1,312.81	35.97	37.499		
6,500.00	6,345.49	6,257.46	6,256.04	31.39	8.81	-125.01	925.96	774.64	1,364.61	1,328.06	36.55	37.334		
6,600.00	6,442.73	6,355.21	6,353.76	31.91	8.94	-125.80	927.92	773.80	1,380.56	1,343.43	37.13	37.185		
6,700.00	6,539.97	6,451.46	6,449.99	32.43	9.07	-126.54	929.98	773.25	1,396.78	1,359.08	37.69	37.057		
6,800.00	6,637.21	6,549.94	6,544.45	32.94	9.19	-127.25	932.09	772.72	1,413.32	1,375.07	38.25	36.952		
6,900.00	6,734.46	6,640.71	6,639.18	33.46	9.32	-127.96	934.33	771.91	1,430.31	1,391.51	38.80	36.864		
6,958.42	6,791.27	6,697.77	6,696.23	33.77	9.39	-128.38	935.69	771.41	1,440.36	1,401.23	39.13	36.812		
7,000.00	6,831.76	6,739.12	6,737.57	33.98	9.45	-114.49	936.66	771.08	1,446.43	1,407.07	39.36	36.746		
7,050.00	6,880.45	6,789.01	6,787.44	34.22	9.52	-97.76	937.82	770.73	1,450.83	1,411.18	39.65	36.594		
7,100.00	6,928.94	6,836.46	6,834.88	34.44	9.58	-83.52	938.90	770.40	1,452.10	1,412.18	39.92	36.379		
7,150.00	6,976.98	6,882.83	6,881.23	34.64	9.65	-72.78	939.94	769.92	1,450.33	1,410.15	40.18	36.100		
7,200.00	7,024.34	6,928.28	6,926.67	34.82	9.72	-65.16	940.96	769.31	1,445.57	1,405.15	40.42	35.760		
7,250.00	7,070.78	6,972.73	6,971.10	34.99	9.78	-59.90	941.97	768.60	1,437.90	1,397.24	40.66	35.363		
7,300.00	7,116.09	7,018.25	7,016.60	35.14	9.85	-56.38	943.01	767.78	1,427.40	1,386.50	40.90	34.903		
7,350.00	7,160.03	7,065.90	7,064.23	35.28	9.92	-54.19	944.01	766.93	1,414.02	1,372.89	41.13	34.376		
7,400.00	7,202.41	7,110.09	7,108.41	35.40	9.99	-52.95	944.85	766.16	1,397.88	1,356.53	41.35	33.805		
7,450.00	7,243.00	7,147.76	7,146.06	35.51	10.05	-52.39	945.60	765.49	1,379.24	1,337.71	41.53	33.209		
7,500.00	7,281.62	7,183.77	7,182.06	35.60	10.11	-52.48	946.40	764.82	1,358.31	1,316.61	41.70	32.572		
7,550.00	7,318.07	7,219.11	7,217.38	35.68	10.16	-53.16	947.25	764.13	1,335.23	1,293.37	41.86	31.896		
7,600.00	7,352.17	7,253.32	7,251.57	35.75	10.21	-54.39	948.09	763.46	1,310.12	1,268.11	42.01	31.184		
7,650.00	7,383.77	7,285.16	7,283.40	35.81	10.26	-56.10	948.89	762.83	1,283.18	1,241.04	42.15	30.444		
7,700.00	7,412.70	7,314.14	7,312.36	35.85	10.31	-58.25	949.64	762.25	1,254.62	1,212.35	42.27	29.682		
7,750.00	7,438.83	7,340.20	7,338.41	35.89	10.35	-60.79	950.33	761.73	1,224.66	1,182.29	42.37	28.902		
7,800.00	7,462.03	7,363.59	7,361.78	35.91	10.38	-63.72	950.98	761.26	1,193.54	1,151.07	42.46	28.108		
7,850.00	7,482.18	7,384.18	7,382.37	35.93	10.41	-66.97	951.57	760.84	1,161.48	1,118.94	42.54	27.305		
7,900.00	7,499.19	7,402.03	7,400.20	35.94	10.44	-70.49	952.09	760.48	1,128.75	1,086.15	42.60	26.496		
7,950.00	7,512.97	7,417.87	7,416.03	35.94	10.46	-74.25	952.56	760.16	1,095.58	1,052.92	42.66	25.682		
8,000.00	7,523.46	7,430.27	7,428.42	35.94	10.48	-78.08	952.92	759.92	1,062.24	1,019.54	42.70	24.875		
8,050.00	7,530.60	7,439.18	7,437.32	35.94	10.50	-81.85	953.17	759.74	1,029.01	986.27	42.73	24.080		
8,100.00	7,534.37	7,444.57	7,442.72	35.94	10.51	-85.48	953.32	759.64	996.14	953.39	42.75	23.301		
8,130.43	7,535.00	7,446.13	7,444.28	35.94	10.51	-87.57	953.37	759.61	976.43	933.67	42.76	22.837		
8,200.00	7,535.00	7,448.21	7,446.35	35.94	10.51	-87.73	953.42	759.57	933.20	890.45	42.76	21.826		
8,300.00	7,535.00	7,451.17	7,449.31	35.97	10.52	-87.95	953.51	759.51	877.02	834.27	42.74	20.519		
8,400.00	7,535.00	7,454.11	7,452.25	36.05	10.52	-88.18	953.59	759.45	829.11	786.41	42.70	19.417		
8,500.00	7,535.00	7,457.03	7,455.17	36.17	10.52	-88.40	953.67	759.40	791.00	748.38	42.62	18.559		
8,600.00	7,535.00	7,459.92	7,458.06	36.37	10.53	-88.63	953.75	759.34	764.15	721.66	42.49	17.985		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
S32-T2N-R68W - Nelson E Unit 2 - CPR WELL - GYRO													Offset Well Error:	0.00 usft
Survey Program: 100- GyroFlex														
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning	
8,700.00	7,535.00	7,462.80	7,460.93	36.65	10.53	-88.85	953.83	759.29	749.76	707.47	42.29	17.729	SF	
8,758.98	7,535.00	7,464.48	7,462.61	36.87	10.54	-88.97	953.87	759.25	747.44	705.29	42.15	17.733	CC, ES	
8,800.00	7,535.00	7,465.65	7,463.78	37.05	10.54	-89.06	953.91	759.23	748.57	706.54	42.03	17.812		
8,900.00	7,535.00	7,468.48	7,466.61	37.58	10.54	-89.28	953.98	759.18	760.62	718.91	41.71	18.237		
9,000.00	7,535.00	7,471.29	7,469.42	38.23	10.55	-89.50	954.06	759.12	785.31	743.95	41.36	18.985		
9,100.00	7,535.00	7,474.08	7,472.20	38.99	10.55	-89.71	954.13	759.07	821.51	780.47	41.04	20.018		
9,200.00	7,535.00	7,476.84	7,474.97	39.85	10.55	-89.92	954.21	759.02	867.77	827.00	40.76	21.288		
9,300.00	7,535.00	7,479.59	7,477.72	40.78	10.56	-90.13	954.28	758.97	922.58	882.01	40.56	22.745		
9,400.00	7,535.00	7,482.32	7,480.44	41.78	10.56	-90.34	954.36	758.92	984.51	944.07	40.44	24.345		
9,500.00	7,535.00	7,485.02	7,483.15	42.83	10.57	-90.55	954.43	758.86	1,052.31	1,011.92	40.39	26.055		
9,600.00	7,535.00	7,487.71	7,485.83	43.93	10.57	-90.75	954.50	758.81	1,124.92	1,084.53	40.39	27.851		
9,700.00	7,535.00	7,490.38	7,488.50	45.07	10.57	-90.96	954.57	758.76	1,201.46	1,161.03	40.43	29.717		
9,800.00	7,535.00	7,493.02	7,491.14	46.24	10.58	-91.16	954.64	758.72	1,281.24	1,240.74	40.49	31.640		
9,900.00	7,535.00	7,495.65	7,493.77	47.44	10.58	-91.36	954.71	758.67	1,363.67	1,323.10	40.57	33.610		
10,000.00	7,535.00	7,498.26	7,496.38	48.67	10.59	-91.56	954.78	758.62	1,448.32	1,407.66	40.66	35.622		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft			
Survey Program: 100- GyroFlex													Offset Well Error:		0.00 usft		
Reference													Semi Major Axis		Distance		Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor					
7,300.00	7,116.09	7,079.48	7,077.56	35.14	8.65	43.72	321.71	2,821.14	1,491.97	1,454.11	37.86	39.407					
7,350.00	7,160.03	7,125.02	7,123.09	35.28	8.68	49.25	322.17	2,821.16	1,474.74	1,436.87	37.88	38.933					
7,400.00	7,202.41	7,169.37	7,167.45	35.40	8.72	54.21	322.60	2,821.14	1,456.87	1,419.00	37.88	38.465					
7,450.00	7,243.00	7,211.76	7,209.84	35.51	8.76	58.76	322.99	2,821.07	1,438.57	1,400.71	37.86	38.002					
7,500.00	7,281.62	7,251.88	7,249.95	35.60	8.80	63.01	323.36	2,820.97	1,420.08	1,382.25	37.83	37.541					
7,550.00	7,318.07	7,289.77	7,287.84	35.68	8.84	66.99	323.70	2,820.83	1,401.67	1,363.89	37.79	37.094					
7,600.00	7,352.17	7,326.01	7,324.08	35.75	8.89	70.77	324.06	2,820.66	1,383.61	1,345.87	37.74	36.660					
7,650.00	7,383.77	7,360.04	7,358.11	35.81	8.93	74.30	324.46	2,820.42	1,366.18	1,328.48	37.70	36.241					
7,700.00	7,412.70	7,391.41	7,389.48	35.85	8.97	77.58	324.90	2,820.13	1,349.66	1,312.00	37.66	35.841					
7,750.00	7,438.83	7,415.99	7,414.05	35.89	9.00	80.41	325.28	2,819.88	1,334.39	1,296.75	37.64	35.452					
7,800.00	7,462.03	7,436.48	7,434.53	35.91	9.02	82.87	325.62	2,819.72	1,320.73	1,283.08	37.65	35.082					
7,850.00	7,482.18	7,454.46	7,452.52	35.93	9.04	84.99	325.94	2,819.62	1,308.94	1,271.26	37.68	34.735					
7,900.00	7,499.19	7,469.84	7,467.89	35.94	9.05	86.76	326.22	2,819.57	1,299.25	1,261.50	37.76	34.411					
7,950.00	7,512.97	7,482.52	7,480.56	35.94	9.06	88.15	326.46	2,819.54	1,291.88	1,254.00	37.87	34.112					
8,000.00	7,523.46	7,492.41	7,490.45	35.94	9.07	89.17	326.66	2,819.54	1,286.98	1,248.94	38.03	33.838					
8,050.00	7,530.60	7,500.00	7,498.04	35.94	9.08	89.81	326.81	2,819.54	1,284.69	1,246.45	38.24	33.594					
8,067.61	7,532.32	7,500.00	7,498.04	35.94	9.08	89.85	326.81	2,819.54	1,284.52	1,246.18	38.34	33.506 CC, ES					
8,100.00	7,534.37	7,503.92	7,501.96	35.94	9.09	90.02	326.89	2,819.55	1,285.08	1,246.58	38.50	33.379					
8,130.43	7,535.00	7,505.09	7,503.13	35.94	9.09	89.96	326.91	2,819.55	1,286.65	1,247.97	38.68	33.264					
8,200.00	7,535.00	7,506.41	7,504.45	35.94	9.09	90.02	326.94	2,819.55	1,293.26	1,254.10	39.16	33.025					
8,300.00	7,535.00	7,508.30	7,506.34	35.97	9.09	90.10	326.98	2,819.55	1,309.18	1,269.18	40.01	32.725					
8,400.00	7,535.00	7,510.19	7,508.23	36.05	9.09	90.19	327.01	2,819.55	1,332.44	1,291.46	40.98	32.512					
8,500.00	7,535.00	7,512.06	7,510.10	36.17	9.09	90.27	327.05	2,819.56	1,362.65	1,320.62	42.03	32.417 SF					
8,600.00	7,535.00	7,513.94	7,511.98	36.37	9.09	90.36	327.09	2,819.56	1,399.37	1,356.26	43.11	32.460					
8,700.00	7,535.00	7,515.81	7,513.84	36.65	9.09	90.44	327.13	2,819.56	1,442.10	1,397.93	44.17	32.650					
8,800.00	7,535.00	7,517.67	7,515.71	37.05	9.09	90.52	327.16	2,819.57	1,490.32	1,445.14	45.18	32.988					

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft	
Survey Program: 153-MWD+HDGM													Offset Well Error:		0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor			
11,800.00	7,535.00	7,671.43	7,536.12	73.58	33.39	-124.18	5,490.62	1,211.76	1,476.36	1,404.89	71.47	20.658			
11,900.00	7,535.00	7,664.00	7,528.70	75.06	33.37	-121.07	5,490.95	1,211.69	1,376.70	1,305.05	71.65	19.214			
12,000.00	7,535.00	7,663.02	7,527.72	76.55	33.37	-120.65	5,490.99	1,211.68	1,277.07	1,205.18	71.89	17.764			
12,030.43	7,535.00	7,661.65	7,526.35	77.00	33.36	-120.04	5,491.05	1,211.67	1,246.76	1,174.80	71.97	17.324	CC, ES, SF		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft	
Survey Program: 15-MWD+HDGM													Offset Well Error:		0.00 usft
Reference				Offset			Semi Major Axis			Distance			Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor			
11,300.00	7,535.00	7,611.28	7,472.21	66.30	31.03	-90.20	4,787.89	710.96	1,436.20	1,359.84	76.35	18.810			
11,400.00	7,535.00	7,612.33	7,473.26	67.74	31.03	-90.30	4,787.90	710.98	1,346.98	1,269.09	77.90	17.292			
11,500.00	7,535.00	7,613.36	7,474.29	69.19	31.04	-90.39	4,787.92	711.01	1,259.39	1,179.71	79.68	15.805			
11,600.00	7,535.00	7,614.39	7,475.32	70.65	31.04	-90.49	4,787.93	711.03	1,173.79	1,092.04	81.75	14.358			
11,700.00	7,535.00	7,615.41	7,476.34	72.11	31.04	-90.58	4,787.94	711.06	1,090.63	1,006.49	84.15	12.961			
11,800.00	7,535.00	7,616.42	7,477.35	73.58	31.05	-90.67	4,787.95	711.08	1,010.53	923.62	86.91	11.627			
11,900.00	7,535.00	7,617.42	7,478.35	75.06	31.05	-90.76	4,787.96	711.10	934.28	844.19	90.09	10.371			
12,000.00	7,535.00	7,618.42	7,479.35	76.55	31.05	-90.85	4,787.97	711.13	862.89	769.20	93.68	9.211			
12,030.43	7,535.00	7,618.72	7,479.65	77.00	31.05	-90.88	4,787.98	711.14	842.32	747.46	94.86	8.880	CC, ES, SF		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft					
Survey Program: 926-Geolink MWD													Offset Well Error:		0.00 usft				
Reference													Semi Major Axis		Distance		Total	Separation	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis	Factor							
0.00	0.00	0.00	0.00	0.00	0.00	45.51	225.11	229.14	321.84										
100.00	100.00	80.62	80.62	0.14	0.14	45.51	225.06	229.08	321.14	320.86	0.28	1,159.444							
200.00	200.00	181.41	181.41	0.50	0.32	45.51	224.84	228.84	320.82	320.01	0.81	396.700							
300.00	300.00	282.20	282.20	0.85	0.50	45.50	224.46	228.41	320.25	318.91	1.34	238.905							
400.00	400.00	382.99	382.98	1.21	0.67	45.49	223.92	227.80	319.44	317.56	1.87	170.618							
500.00	499.98	483.75	483.74	1.56	0.85	-94.85	223.21	227.00	318.52	316.13	2.39	133.301							
600.00	599.84	584.38	584.36	1.90	1.03	-95.83	222.34	226.01	317.70	314.80	2.90	109.465							
650.00	649.68	634.61	634.59	2.08	1.12	-96.55	221.84	225.45	317.38	314.21	3.16	100.327							
700.00	699.47	684.78	684.74	2.25	1.21	-89.29	221.30	224.84	316.78	313.36	3.43	92.405							
800.00	798.84	784.85	784.81	2.62	1.38	-80.09	220.11	223.49	313.81	309.85	3.97	79.067							
900.00	897.85	884.48	884.42	3.00	1.56	-75.63	218.76	221.97	308.71	304.18	4.52	68.223							
1,000.00	996.37	979.84	979.74	3.41	1.73	-74.11	217.87	220.10	302.21	297.11	5.09	59.322							
1,100.00	1,094.29	1,067.24	1,067.09	3.83	1.87	-74.68	219.79	217.69	297.00	291.33	5.68	52.311							
1,144.53	1,137.66	1,100.00	1,099.80	4.03	1.93	-75.12	221.33	217.13	295.93	290.00	5.94	49.858							
1,162.25	1,154.90	1,120.07	1,119.84	4.11	1.96	-76.15	222.51	216.87	295.70	289.64	6.06	48.827							
1,170.59	1,163.01	1,127.17	1,126.92	4.15	1.97	-76.51	222.98	216.78	295.68	289.57	6.11	48.412 CC, ES							
1,200.00	1,191.61	1,152.16	1,151.84	4.28	2.01	-77.81	224.80	216.51	295.94	289.66	6.29	47.071							
1,300.00	1,288.85	1,238.75	1,238.03	4.75	2.17	-82.34	233.10	216.02	300.67	293.77	6.90	43.576							
1,400.00	1,386.09	1,326.96	1,325.58	5.22	2.34	-86.75	243.79	216.43	310.41	302.90	7.52	41.303							
1,500.00	1,483.34	1,412.97	1,410.62	5.70	2.53	-90.98	256.64	216.32	324.92	316.81	8.11	40.070							
1,600.00	1,580.58	1,500.84	1,497.10	6.19	2.76	-95.00	272.27	216.26	344.23	335.54	8.69	39.612							
1,700.00	1,677.82	1,586.12	1,580.73	6.69	3.01	-98.63	288.93	215.60	367.04	357.80	9.24	39.715							
1,800.00	1,775.07	1,668.65	1,661.11	7.19	3.29	-101.91	307.55	214.06	394.34	384.58	9.76	40.401							
1,900.00	1,872.31	1,754.71	1,744.47	7.69	3.61	-105.01	328.80	211.87	425.15	414.86	10.29	41.330							
2,000.00	1,969.55	1,839.16	1,826.04	8.19	3.96	-107.71	350.53	209.27	458.22	447.42	10.80	42.442							
2,100.00	2,066.79	1,922.04	1,905.59	8.69	4.32	-110.06	373.59	206.35	494.25	482.95	11.29	43.766							
2,200.00	2,164.04	2,007.30	1,987.21	9.20	4.72	-112.22	398.01	202.88	531.97	520.17	11.81	45.053							
2,300.00	2,261.28	2,085.57	2,061.79	9.71	5.12	-114.12	421.24	198.00	571.83	559.56	12.27	46.611							
2,400.00	2,358.52	2,161.68	2,133.73	10.22	5.53	-115.83	445.37	192.09	614.48	601.77	12.71	48.343							
2,500.00	2,455.77	2,257.95	2,224.68	10.73	6.05	-117.64	476.21	185.49	657.76	644.43	13.33	49.349							
2,600.00	2,553.01	2,347.97	2,309.82	11.24	6.55	-118.94	505.17	181.46	700.85	686.94	13.91	50.378							
2,700.00	2,650.25	2,435.52	2,392.64	11.75	7.03	-120.13	533.15	176.71	744.31	729.83	14.48	51.411							
2,800.00	2,747.50	2,523.52	2,475.89	12.26	7.53	-121.24	561.18	171.44	788.10	773.05	15.05	52.352							
2,900.00	2,844.74	2,608.05	2,555.78	12.78	8.01	-122.21	588.30	166.21	832.39	816.79	15.61	53.329							
3,000.00	2,941.98	2,689.39	2,632.46	13.29	8.49	-123.05	614.90	160.95	877.52	861.37	16.14	54.353							
3,100.00	3,039.22	2,772.21	2,710.30	13.80	8.98	-123.80	642.74	155.78	923.49	906.79	16.70	55.294							
3,200.00	3,136.47	2,866.04	2,798.55	14.32	9.54	-124.59	674.00	149.55	969.50	952.15	17.35	55.876							
3,300.00	3,233.71	2,960.63	2,887.69	14.83	10.09	-125.34	704.96	143.19	1,015.17	997.16	18.01	56.367							
3,400.00	3,330.95	3,058.16	2,979.94	15.35	10.65	-126.08	735.86	136.37	1,060.15	1,041.46	18.69	56.717							
3,500.00	3,428.20	3,150.79	3,067.73	15.86	11.18	-126.72	764.76	130.06	1,104.77	1,085.43	19.34	57.123							
3,600.00	3,525.44	3,249.31	3,161.22	16.38	11.73	-127.35	795.17	123.64	1,149.10	1,129.06	20.04	57.351							
3,700.00	3,622.68	3,379.55	3,285.70	16.89	12.41	-128.16	832.52	115.28	1,191.70	1,170.74	20.96	56.860							
3,800.00	3,719.93	3,492.79	3,394.81	17.41	12.95	-128.83	862.18	109.16	1,231.81	1,210.06	21.75	56.634							
3,900.00	3,817.17	3,603.53	3,502.04	17.93	13.46	-129.45	889.29	103.69	1,270.36	1,247.84	22.52	56.411							
4,000.00	3,914.41	3,704.97	3,600.47	18.44	13.92	-129.95	913.48	99.76	1,307.99	1,284.76	23.23	56.297							
4,100.00	4,011.65	3,793.89	3,686.74	18.96	14.33	-130.32	934.91	97.15	1,345.47	1,321.60	23.87	56.361							
4,200.00	4,108.90	3,878.03	3,768.20	19.48	14.73	-130.63	955.87	95.17	1,383.43	1,358.95	24.49	56.499							
4,300.00	4,206.14	3,962.01	3,849.31	19.99	15.14	-130.88	977.55	93.54	1,421.98	1,396.88	25.10	56.648							
4,400.00	4,303.38	4,033.05	3,917.76	20.51	15.50	-131.08	996.51	92.04	1,461.39	1,435.76	25.62	57.031							
9,300.00	7,535.00	7,701.01	7,517.40	40.78	27.21	-90.09	1,562.18	-13.95	1,496.64	1,430.49	66.14	22.627							
9,400.00	7,535.00	7,702.00	7,518.39	41.78	27.21	-90.13	1,562.19	-13.95	1,493.26	1,426.14	67.12	22.248							
9,400.45	7,535.00	7,702.00	7,518.39	41.78	27.21	-90.13	1,562.19	-13.95	1,493.26	1,426.14	67.12	22.247							

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
S32-T2N-R68W - Ray Nelson 33-32 - CPR WELL - SURVEYS													Offset Well Error:	0.00 usft
Survey Program: 926-Geolink MWD														
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning	
9,500.00	7,535.00	7,702.99	7,519.38	42.83	27.21	-90.17	1,562.21	-13.95	1,496.58	1,428.62	67.95	22.023 SF		

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W - Ray Nelson 34-32 - CPR WELL - SURVEYS													Offset Site Error:	0.00 usft
Survey Program: 103-Geolink MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
0.00	0.00	0.00	0.00	0.00	0.00	46.65	224.76	238.10	328.04					
100.00	100.00	78.61	78.61	0.14	0.12	46.67	224.78	238.30	327.59	327.34	0.26	1,271.691		
200.00	200.00	178.10	178.10	0.50	0.29	46.77	224.76	239.07	328.14	327.36	0.78	419.162		
300.00	300.00	279.48	279.48	0.85	0.46	46.93	224.36	240.02	328.55	327.23	1.32	249.281		
400.00	400.00	380.38	380.37	1.21	0.64	47.11	223.60	240.74	328.56	326.70	1.85	177.269		
460.78	460.77	441.13	441.12	1.42	0.75	-92.89	223.11	241.09	328.52	326.35	2.17	151.457		
500.00	499.98	480.27	480.26	1.56	0.82	-93.02	222.83	241.30	328.54	326.16	2.37	138.477		
600.00	599.84	579.65	579.63	1.90	0.99	-93.79	222.29	241.83	328.86	325.98	2.89	113.941		
650.00	649.68	629.78	629.76	2.08	1.08	-94.42	222.08	242.05	329.15	326.00	3.15	104.536		
700.00	699.47	679.65	679.63	2.25	1.16	-87.06	221.88	242.20	329.16	325.75	3.41	96.412		
800.00	798.84	778.94	778.91	2.62	1.34	-77.65	221.69	242.36	327.50	323.55	3.96	82.796		
900.00	897.85	878.15	878.13	3.00	1.51	-72.95	221.63	242.34	323.77	319.26	4.51	71.754		
1,000.00	996.37	977.29	977.26	3.41	1.68	-71.23	221.77	241.93	318.22	313.14	5.09	62.559		
1,100.00	1,094.29	1,075.49	1,075.46	3.83	1.85	-71.50	221.68	241.41	311.18	305.50	5.68	54.765		
1,144.53	1,137.66	1,118.80	1,118.78	4.03	1.93	-72.14	221.69	241.11	307.80	301.84	5.96	51.680		
1,200.00	1,191.61	1,172.84	1,172.81	4.28	2.02	-74.49	221.75	240.60	303.77	297.47	6.30	48.203		
1,300.00	1,288.85	1,268.72	1,268.69	4.75	2.19	-78.85	222.08	239.51	298.02	291.09	6.93	42.981		
1,400.00	1,386.09	1,365.13	1,365.08	5.22	2.36	-83.37	222.72	238.52	294.54	286.96	7.58	38.875		
1,500.00	1,483.34	1,461.88	1,461.82	5.70	2.53	-88.02	223.56	237.33	293.18	284.96	8.22	35.651		
1,516.69	1,499.57	1,478.21	1,478.15	5.79	2.55	-88.82	223.71	237.08	293.16	284.82	8.33	35.183 CC, ES		
1,600.00	1,580.58	1,559.64	1,559.57	6.19	2.70	-92.81	224.36	235.71	293.79	284.92	8.87	33.120		
1,700.00	1,677.82	1,656.32	1,656.23	6.69	2.87	-97.53	224.96	233.85	296.30	286.79	9.51	31.166		
1,800.00	1,775.07	1,751.56	1,751.45	7.19	3.03	-102.01	225.94	232.47	301.32	291.19	10.13	29.750		
1,900.00	1,872.31	1,847.06	1,846.94	7.69	3.20	-106.28	227.27	231.34	308.62	297.88	10.74	28.746		
2,000.00	1,969.55	1,943.92	1,943.77	8.19	3.37	-110.41	229.04	230.08	318.13	306.80	11.33	28.071		
2,100.00	2,066.79	2,043.66	2,043.50	8.69	3.55	-114.37	230.36	229.17	328.71	316.78	11.93	27.561		
2,200.00	2,164.04	2,145.29	2,145.12	9.20	3.72	-118.12	230.61	228.56	339.65	327.13	12.52	27.139		
2,300.00	2,261.28	2,243.27	2,243.10	9.71	3.89	-121.50	230.06	228.34	351.01	337.93	13.08	26.834		
2,400.00	2,358.52	2,339.95	2,339.78	10.22	4.06	-124.64	229.54	227.94	363.62	349.99	13.63	26.675		
2,500.00	2,455.77	2,440.20	2,440.03	10.73	4.24	-127.69	228.53	227.63	376.81	362.62	14.19	26.560 SF		
2,600.00	2,553.01	2,534.79	2,534.58	11.24	4.40	-130.59	226.68	226.13	390.74	376.03	14.71	26.565		
2,700.00	2,650.25	2,629.81	2,629.48	11.75	4.58	-133.67	224.66	221.75	406.98	391.77	15.21	26.751		
2,800.00	2,747.50	2,731.38	2,730.79	12.26	4.76	-136.99	220.40	215.90	423.32	407.58	15.74	26.901		
2,900.00	2,844.74	2,829.87	2,828.92	12.78	4.95	-140.13	214.85	209.65	440.11	423.87	16.24	27.096		
3,000.00	2,941.98	2,922.00	2,920.54	13.29	5.13	-143.10	208.48	202.31	458.16	441.44	16.71	27.413		
3,100.00	3,039.22	3,017.53	3,015.45	13.80	5.33	-146.04	201.77	193.86	477.94	460.74	17.20	27.780		
3,200.00	3,136.47	3,108.31	3,105.24	14.32	5.54	-148.97	193.37	183.47	499.19	481.52	17.67	28.244		
3,300.00	3,233.71	3,203.64	3,199.23	14.83	5.77	-152.02	183.38	171.11	522.10	503.93	18.17	28.734		
3,400.00	3,330.95	3,293.24	3,287.72	15.35	5.98	-154.56	174.75	159.95	546.46	527.82	18.64	29.315		
3,500.00	3,428.20	3,376.00	3,369.45	15.86	6.19	-156.68	167.83	149.00	573.19	554.12	19.07	30.055		
3,600.00	3,525.44	3,462.39	3,454.41	16.38	6.44	-158.89	159.94	135.54	602.24	582.70	19.54	30.820		
3,700.00	3,622.68	3,553.73	3,543.94	16.89	6.70	-161.17	150.57	120.02	632.81	612.76	20.05	31.558		
3,800.00	3,719.93	3,640.24	3,628.53	17.41	6.98	-163.22	141.28	104.49	664.82	644.28	20.54	32.368		
3,900.00	3,817.17	3,746.67	3,732.31	17.93	7.33	-165.69	127.43	85.42	696.67	675.45	21.22	33.833		
4,000.00	3,914.41	3,839.52	3,822.55	18.44	7.66	-167.80	113.47	68.53	728.86	707.07	21.80	33.442		
4,100.00	4,011.65	3,932.44	3,912.73	18.96	8.00	-169.81	98.31	52.05	761.07	738.68	22.39	33.999		
4,200.00	4,108.90	4,012.80	3,990.54	19.48	8.31	-171.44	85.33	36.80	795.17	772.30	22.87	34.775		
4,300.00	4,206.14	4,102.43	4,077.44	19.99	8.65	-173.08	71.75	19.52	830.56	807.12	23.44	35.439		
4,400.00	4,303.38	4,204.57	4,176.67	20.51	9.04	-174.73	56.88	0.44	866.21	842.09	24.13	35.902		
4,500.00	4,400.63	4,304.83	4,274.56	21.03	9.40	-176.13	43.06	-16.26	900.70	875.91	24.79	36.326		
4,600.00	4,497.87	4,419.05	4,386.49	21.54	9.79	-177.48	28.49	-33.74	934.70	909.12	25.58	36.538		
4,700.00	4,595.11	4,512.34	4,478.08	22.06	10.11	-178.50	16.30	-46.60	967.49	941.30	26.19	36.941		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft			
Survey Program: 103-Geolink MWD													Offset Well Error:		0.00 usft		
Reference				Offset				Semi Major Axis					Distance				Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor					
4,800.00	4,692.36	4,601.72	4,565.73	22.58	10.43	-179.44	4.27	-59.28	1,000.80	974.03	26.77	37.382					
4,900.00	4,789.60	4,712.82	4,674.97	23.10	10.79	179.53	-9.85	-73.79	1,033.47	1,005.95	27.51	37.561					
5,000.00	4,886.84	4,830.53	4,791.35	23.62	11.12	178.71	-21.93	-86.58	1,064.88	1,036.60	28.28	37.658					
5,100.00	4,984.08	4,950.91	4,911.07	24.13	11.40	178.18	-30.52	-95.64	1,093.81	1,064.79	29.02	37.692					
5,200.00	5,081.33	5,052.63	5,012.48	24.65	11.62	177.89	-35.72	-101.61	1,121.66	1,092.04	29.62	37.874					
5,300.00	5,178.57	5,161.07	5,120.75	25.17	11.82	177.70	-39.33	-106.43	1,148.51	1,118.28	30.23	37.989					
5,400.00	5,275.81	5,266.28	5,225.89	25.69	11.99	177.65	-40.67	-109.94	1,174.73	1,143.92	30.82	38.122					
5,500.00	5,373.06	5,385.92	5,345.51	26.21	12.15	177.69	-40.65	-111.92	1,199.62	1,168.17	31.46	38.136					
5,600.00	5,470.30	5,476.44	5,436.02	26.72	12.27	177.77	-39.57	-112.54	1,223.81	1,191.87	31.94	38.312					
5,700.00	5,567.54	5,573.06	5,532.61	27.24	12.40	177.90	-37.52	-113.35	1,248.33	1,215.87	32.46	38.463					
5,800.00	5,664.79	5,679.74	5,639.27	27.76	12.53	178.04	-35.36	-113.78	1,272.42	1,239.40	33.02	38.531					
5,900.00	5,762.03	5,778.29	5,737.81	28.28	12.66	178.14	-33.89	-113.69	1,295.95	1,262.40	33.55	38.626					
6,000.00	5,859.27	5,869.20	5,828.71	28.80	12.78	178.23	-32.42	-113.90	1,319.80	1,285.76	34.04	38.770					
6,100.00	5,956.51	5,962.25	5,921.74	29.31	12.92	178.32	-30.93	-114.52	1,344.07	1,309.51	34.55	38.898					
6,200.00	6,053.76	6,056.67	6,016.16	29.83	13.06	178.36	-30.33	-115.54	1,368.53	1,333.46	35.08	39.015					
6,300.00	6,151.00	6,152.06	6,111.54	30.35	13.20	178.39	-30.14	-116.82	1,393.16	1,357.56	35.59	39.139					
6,400.00	6,248.24	6,247.70	6,207.16	30.87	13.33	178.45	-29.02	-117.98	1,417.87	1,381.75	36.11	39.264					
6,500.00	6,345.49	6,345.82	6,305.26	31.39	13.48	178.52	-27.55	-119.12	1,442.58	1,405.94	36.65	39.362					
6,600.00	6,442.73	6,443.55	6,402.98	31.91	13.62	178.57	-26.62	-120.27	1,467.21	1,430.03	37.18	39.458					
6,700.00	6,539.97	6,537.74	6,497.17	32.43	13.76	178.63	-25.55	-121.42	1,491.92	1,454.23	37.69	39.579					

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft				
Survey Program: 134-Geolink MWD													Offset Well Error:		0.00 usft			
Reference													Semi Major Axis		Distance		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning					
0.00	0.00	0.00	0.00	0.00	0.00	48.54	212.36	240.33	321.40									
100.00	100.00	79.67	79.67	0.14	0.13	48.59	212.09	240.45	320.63	320.36	0.26	1,214.613						
165.65	165.65	144.65	144.64	0.37	0.23	48.70	211.51	240.74	320.45	319.85	0.60	531.749						
200.00	200.00	175.68	175.67	0.50	0.28	48.75	211.40	241.05	320.63	319.85	0.78	409.271						
300.00	300.00	265.63	265.59	0.85	0.45	48.82	212.62	243.04	323.19	321.87	1.33	243.452						
400.00	400.00	358.26	358.08	1.21	0.63	48.93	215.43	247.24	328.59	326.72	1.87	176.062						
500.00	499.98	449.33	448.88	1.56	0.83	-90.95	218.92	253.30	336.18	333.78	2.39	140.469						
600.00	599.84	541.39	540.43	1.90	1.05	-91.17	223.30	261.88	346.42	343.50	2.91	119.031						
650.00	649.68	587.73	586.43	2.08	1.18	-91.39	225.68	266.92	352.29	349.12	3.17	111.050						
700.00	699.47	633.93	632.24	2.25	1.31	-83.60	228.20	272.39	358.32	354.88	3.44	104.277						
800.00	798.84	724.68	721.98	2.62	1.59	-73.01	233.48	284.76	369.98	366.00	3.98	92.928						
900.00	897.85	820.09	815.95	3.00	1.91	-66.62	238.73	300.44	380.89	376.34	4.55	83.677						
1,000.00	996.37	925.53	919.67	3.41	2.27	-62.71	242.71	318.92	388.81	383.64	5.17	75.176						
1,100.00	1,094.29	1,025.38	1,017.81	3.83	2.62	-60.19	244.33	337.24	393.27	387.42	5.85	67.230						
1,144.53	1,137.66	1,065.43	1,057.01	4.03	2.79	-59.28	244.48	345.46	394.74	388.57	6.17	63.986						
1,200.00	1,191.61	1,115.50	1,105.76	4.28	3.01	-59.55	244.41	356.87	396.96	390.38	6.58	60.370						
1,300.00	1,288.85	1,206.92	1,194.26	4.75	3.44	-59.83	244.46	379.78	402.72	395.38	7.34	54.886						
1,400.00	1,386.09	1,301.77	1,285.51	5.22	3.91	-59.91	244.70	405.66	410.20	402.07	8.14	50.413						
1,500.00	1,483.34	1,401.73	1,381.41	5.70	4.43	-59.87	244.73	433.86	418.20	409.23	8.98	46.586						
1,600.00	1,580.58	1,506.43	1,481.70	6.19	4.97	-59.66	243.51	463.90	425.69	415.84	9.85	43.217						
1,700.00	1,677.82	1,603.93	1,575.39	6.69	5.47	-59.56	242.21	490.83	432.29	421.60	10.69	40.446						
1,800.00	1,775.07	1,699.57	1,667.27	7.19	5.98	-59.58	242.37	517.44	440.10	428.57	11.53	38.173						
1,900.00	1,872.31	1,796.41	1,760.04	7.69	6.50	-59.53	242.65	545.17	448.60	436.22	12.38	36.229						
2,000.00	1,969.55	1,903.65	1,862.66	8.19	7.08	-59.34	241.81	576.31	456.61	443.31	13.30	34.325						
2,100.00	2,066.79	2,006.98	1,961.72	8.69	7.63	-59.11	239.69	605.64	463.25	449.05	14.19	32.639						
2,200.00	2,164.04	2,107.85	2,058.65	9.20	8.15	-59.00	237.99	633.50	469.60	454.53	15.07	31.156						
2,300.00	2,261.28	2,210.13	2,156.95	9.71	8.69	-58.84	235.68	661.63	475.46	459.49	15.97	29.767						
2,400.00	2,358.52	2,311.93	2,254.74	10.22	9.21	-58.62	232.61	689.77	480.89	464.04	16.85	28.541						
2,500.00	2,455.77	2,412.94	2,352.12	10.73	9.72	-58.56	230.30	716.52	485.99	468.26	17.73	27.407						
2,600.00	2,553.01	2,514.27	2,449.76	11.24	10.23	-58.46	227.49	743.45	490.82	472.20	18.62	26.362						
2,700.00	2,650.25	2,615.99	2,548.02	11.75	10.73	-58.47	225.24	769.64	495.45	475.95	19.50	25.407						
2,800.00	2,747.50	2,719.95	2,648.57	12.26	11.23	-58.48	222.31	795.88	499.27	478.87	20.40	24.478						
2,900.00	2,844.74	2,824.27	2,749.79	12.78	11.70	-58.62	219.70	820.99	502.46	481.18	21.28	23.608						
3,000.00	2,941.98	2,931.92	2,854.71	13.29	12.16	-58.93	217.08	844.93	504.39	482.19	22.20	22.720						
3,100.00	3,039.22	3,024.00	2,944.54	13.80	12.55	-59.22	214.80	865.04	506.03	482.98	23.05	21.954						
3,200.00	3,136.47	3,112.00	3,030.11	14.32	12.97	-59.48	213.79	885.55	509.70	485.81	23.89	21.335						
3,300.00	3,233.71	3,209.90	3,125.00	14.83	13.43	-59.74	213.62	909.64	514.97	490.20	24.77	20.790						
3,400.00	3,330.95	3,310.89	3,222.81	15.35	13.92	-59.96	213.26	934.75	520.30	494.62	25.68	20.263						
3,500.00	3,428.20	3,417.39	3,325.93	15.86	14.43	-60.12	212.14	961.36	525.24	498.63	26.61	19.735						
3,600.00	3,525.44	3,522.73	3,427.97	16.38	14.93	-60.14	208.78	987.26	528.32	500.78	27.53	19.187						
3,700.00	3,622.68	3,625.06	3,527.16	16.89	15.41	-60.17	205.33	1,012.20	531.12	502.68	28.44	18.673						
3,800.00	3,719.93	3,717.33	3,616.69	17.41	15.83	-60.27	202.92	1,034.36	534.24	504.96	29.28	18.243						
3,900.00	3,817.17	3,812.80	3,709.43	17.93	16.28	-60.53	202.35	1,057.04	538.64	508.47	30.17	17.855						
4,000.00	3,914.41	3,915.97	3,809.73	18.44	16.74	-60.90	202.46	1,081.17	543.32	512.23	31.09	17.473						
4,100.00	4,011.65	4,026.15	3,917.02	18.96	17.23	-61.20	200.62	1,106.22	546.21	514.14	32.07	17.032						
4,200.00	4,108.90	4,120.27	4,008.45	19.48	17.67	-61.31	197.89	1,128.32	548.78	515.82	32.96	16.652						
4,300.00	4,206.14	4,211.76	4,096.91	19.99	18.13	-61.32	195.73	1,151.57	553.04	519.22	33.82	16.353						
4,400.00	4,303.38	4,313.13	4,194.64	20.51	18.64	-61.24	193.32	1,178.43	558.07	523.35	34.71	16.077						
4,500.00	4,400.63	4,423.45	4,301.78	21.03	19.12	-61.46	191.71	1,204.60	561.85	526.19	35.66	15.756						
4,600.00	4,497.87	4,526.98	4,403.09	21.54	19.59	-61.99	191.36	1,225.92	564.34	527.74	36.60	15.418						
4,700.00	4,595.11	4,629.84	4,504.00	22.06	19.91	-62.63	191.23	1,245.85	566.22	528.65	37.56	15.075						
4,800.00	4,692.36	4,729.84	4,602.30	22.58	20.27	-63.37	191.67	1,264.20	567.93	529.42	38.51	14.747						

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W - Ray Nelson 44-32 - CPR WELL - SURVEYS													Offset Site Error:	0.00 usft
Survey Program: 134-Geolink MWD													Offset Well Error:	0.00 usft
Reference				Offset				Semi Major Axis		Distance				Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
4,900.00	4,789.60	4,835.27	4,706.25	23.10	20.61	-64.35	193.25	1,281.73	569.45	529.95	39.50	14.415		
5,000.00	4,886.84	4,944.43	4,814.29	23.62	20.92	-65.57	194.83	1,297.24	569.57	529.05	40.52	14.055		
5,100.00	4,984.08	5,051.63	4,920.72	24.13	21.18	-66.98	196.44	1,309.88	568.51	526.97	41.54	13.685		
5,200.00	5,081.33	5,162.75	5,031.43	24.65	21.37	-68.74	198.02	1,319.34	565.77	523.20	42.57	13.291		
5,300.00	5,178.57	5,269.09	5,137.56	25.17	21.52	-70.65	199.26	1,325.69	561.89	518.30	43.59	12.891		
5,400.00	5,275.81	5,372.89	5,241.27	25.69	21.65	-72.69	200.16	1,329.99	557.39	512.78	44.61	12.496		
5,500.00	5,373.06	5,475.29	5,343.63	26.21	21.76	-74.82	200.71	1,332.99	552.68	507.06	45.62	12.116		
5,600.00	5,470.30	5,572.83	5,441.14	26.72	21.86	-76.96	201.23	1,335.13	548.38	501.78	46.61	11.766		
5,700.00	5,567.54	5,670.47	5,538.76	27.24	21.96	-79.16	201.96	1,336.91	544.94	497.36	47.57	11.454		
5,800.00	5,664.79	5,768.66	5,636.93	27.76	22.06	-81.44	202.77	1,338.34	542.28	493.77	48.51	11.179		
5,900.00	5,762.03	5,867.55	5,735.81	28.28	22.14	-83.79	203.58	1,339.38	540.37	490.97	49.40	10.939		
6,000.00	5,859.27	5,966.95	5,835.22	28.80	22.22	-86.24	204.28	1,339.65	539.07	488.82	50.24	10.729		
6,086.43	5,943.32	6,050.42	5,918.68	29.24	22.28	-88.35	204.83	1,339.44	538.59	487.64	50.94	10.573		
6,100.00	5,956.51	6,063.38	5,931.64	29.31	22.30	-88.67	204.93	1,339.41	538.60	487.55	51.05	10.551		
6,200.00	6,053.76	6,158.97	6,027.23	29.83	22.38	-91.06	205.79	1,339.41	539.44	487.65	51.79	10.415		
6,300.00	6,151.00	6,255.15	6,123.40	30.35	22.46	-93.45	206.87	1,339.54	541.54	489.06	52.48	10.318		
6,400.00	6,248.24	6,351.31	6,219.55	30.87	22.54	-95.82	208.14	1,339.59	544.83	491.71	53.11	10.257		
6,500.00	6,345.49	6,447.25	6,315.48	31.39	22.61	-98.18	209.62	1,339.45	549.31	495.63	53.68	10.232		
6,600.00	6,442.73	6,543.31	6,411.52	31.91	22.69	-100.53	211.34	1,339.04	555.01	500.81	54.20	10.240		
6,700.00	6,539.97	6,640.11	6,508.31	32.43	22.78	-102.84	213.16	1,338.72	561.78	507.10	54.67	10.275		
6,800.00	6,637.21	6,737.11	6,605.29	32.94	22.86	-105.09	215.01	1,338.59	569.52	514.41	55.10	10.336		
6,900.00	6,734.46	6,834.22	6,702.38	33.46	22.94	-107.28	216.86	1,338.40	578.14	522.66	55.49	10.419		
6,958.42	6,791.27	6,893.34	6,761.49	33.77	22.99	-108.58	217.92	1,338.23	583.53	527.82	55.71	10.475		
7,000.00	6,831.76	6,937.55	6,805.70	33.98	23.03	-95.52	218.43	1,338.08	586.08	530.22	55.86	10.492		
7,050.00	6,880.45	6,986.29	6,854.44	34.22	23.08	-79.60	218.78	1,337.90	585.94	529.93	56.01	10.462		
7,100.00	6,928.94	7,033.04	6,901.19	34.44	23.12	-66.05	219.23	1,337.73	582.68	526.55	56.13	10.381		
7,150.00	6,976.98	7,081.35	6,949.50	34.64	23.16	-55.99	219.77	1,337.57	576.28	520.04	56.24	10.247		
7,200.00	7,024.34	7,129.26	6,997.40	34.82	23.20	-49.01	220.29	1,337.52	566.67	510.35	56.32	10.061		
7,250.00	7,070.78	7,173.90	7,042.03	34.99	23.25	-44.31	220.84	1,337.51	554.05	497.69	56.36	9.830		
7,300.00	7,116.09	7,217.67	7,085.80	35.14	23.29	-41.35	221.54	1,337.47	538.61	482.24	56.37	9.555		
7,350.00	7,160.03	7,261.43	7,129.55	35.28	23.32	-39.76	222.32	1,337.39	520.40	464.06	56.34	9.237		
7,400.00	7,202.41	7,303.71	7,171.82	35.40	23.36	-39.26	223.09	1,337.22	499.53	443.28	56.25	8.880		
7,450.00	7,243.00	7,344.77	7,212.88	35.51	23.40	-39.75	223.85	1,337.00	476.17	420.06	56.10	8.487		
7,500.00	7,281.62	7,383.87	7,251.97	35.60	23.43	-41.15	224.55	1,336.73	450.52	394.65	55.87	8.064		
7,550.00	7,318.07	7,421.12	7,289.21	35.68	23.46	-43.49	225.20	1,336.46	422.88	367.34	55.54	7.614		
7,600.00	7,352.17	7,456.08	7,324.17	35.75	23.49	-46.80	225.79	1,336.22	393.56	338.49	55.07	7.147		
7,650.00	7,383.77	7,488.52	7,356.60	35.81	23.52	-51.11	226.32	1,336.02	363.02	308.61	54.41	6.672		
7,700.00	7,412.70	7,518.28	7,386.36	35.85	23.55	-56.38	226.79	1,335.85	331.84	278.33	53.51	6.202		
7,750.00	7,438.83	7,545.22	7,413.30	35.89	23.57	-62.48	227.21	1,335.70	300.80	248.53	52.27	5.755		
7,800.00	7,462.03	7,569.22	7,437.29	35.91	23.60	-69.08	227.57	1,335.58	270.98	220.39	50.59	5.356		
7,850.00	7,482.18	7,590.16	7,458.23	35.93	23.62	-75.65	227.88	1,335.49	243.87	195.46	48.41	5.038		
7,900.00	7,499.19	7,607.97	7,476.03	35.94	23.64	-81.63	228.14	1,335.42	221.51	175.67	45.84	4.832		
7,950.00	7,512.97	7,622.54	7,490.60	35.94	23.65	-86.48	228.35	1,335.37	206.39	162.89	43.51	4.744		
8,000.00	7,523.46	7,633.80	7,501.86	35.94	23.66	-89.83	228.52	1,335.34	200.95	158.32	42.63	4.714		
8,000.07	7,523.47	7,633.81	7,501.88	35.94	23.66	-89.83	228.52	1,335.34	200.95	158.32	42.63	4.713 CC, ES		
8,050.00	7,530.60	7,641.71	7,509.77	35.94	23.67	-91.48	228.63	1,335.31	206.52	162.50	44.02	4.691 SF		
8,100.00	7,534.37	7,646.22	7,514.29	35.94	23.67	-91.35	228.70	1,335.30	222.60	175.77	46.83	4.753		
8,130.43	7,535.00	7,647.30	7,515.36	35.94	23.67	-90.39	228.71	1,335.30	236.75	188.09	48.65	4.866		
8,200.00	7,535.00	7,648.32	7,516.38	35.94	23.67	-90.67	228.73	1,335.30	278.80	226.71	52.09	5.352		
8,300.00	7,535.00	7,649.78	7,517.84	35.97	23.68	-91.09	228.75	1,335.29	354.75	299.71	55.05	6.444		
8,400.00	7,535.00	7,651.24	7,519.30	36.05	23.68	-91.50	228.77	1,335.29	440.41	383.86	56.55	7.788		
8,500.00	7,535.00	7,652.70	7,520.76	36.17	23.68	-91.91	228.79	1,335.29	531.11	473.75	57.36	9.259		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft				
Survey Program: 134-Geolink MWD													Offset Well Error:		0.00 usft			
Reference				Offset				Semi Major Axis					Distance				Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor						
8,600.00	7,535.00	7,654.15	7,522.22	36.37	23.68	-92.31	228.81	1,335.28	624.64	566.82	57.82	10.802						
8,700.00	7,535.00	7,655.61	7,523.67	36.65	23.68	-92.72	228.83	1,335.28	719.92	661.81	58.11	12.389						
8,800.00	7,535.00	7,657.06	7,525.12	37.05	23.68	-93.13	228.85	1,335.28	816.32	758.02	58.30	14.002						
8,900.00	7,535.00	7,658.51	7,526.57	37.58	23.68	-93.54	228.88	1,335.27	913.50	855.07	58.43	15.635						
9,000.00	7,535.00	7,659.96	7,528.02	38.23	23.69	-93.94	228.90	1,335.27	1,011.22	952.70	58.52	17.280						
9,100.00	7,535.00	7,661.40	7,529.46	38.99	23.69	-94.35	228.92	1,335.27	1,109.35	1,050.76	58.59	18.934						
9,200.00	7,535.00	7,662.84	7,530.91	39.85	23.69	-94.75	228.94	1,335.26	1,207.78	1,149.14	58.64	20.595						
9,300.00	7,535.00	7,664.29	7,532.35	40.78	23.69	-95.15	228.96	1,335.26	1,306.45	1,247.76	58.69	22.261						
9,400.00	7,535.00	7,665.73	7,533.79	41.78	23.69	-95.56	228.98	1,335.26	1,405.30	1,346.58	58.72	23.931						

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 usft		
Survey Program: 70-Geolink MWD												Offset Well Error:	0.00 usft		
Reference				Offset				Semi Major Axis				Distance			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning		
0.00	0.00	0.00	0.00	0.00	0.00	52.50	195.60	254.88	321.97						
100.00	100.00	76.27	76.27	0.14	0.11	52.52	195.73	255.22	321.64	321.39	0.25	1,266.696	CC, ES		
200.00	200.00	173.85	173.84	0.50	0.28	52.61	195.93	256.37	322.70	321.92	0.78	412.114			
300.00	300.00	272.43	272.36	0.85	0.46	53.09	194.86	259.41	324.52	323.20	1.32	245.798			
400.00	400.00	366.26	365.99	1.21	0.66	54.05	192.12	264.92	327.50	325.63	1.88	174.302			
500.00	499.98	462.36	461.61	1.56	0.89	-84.70	187.97	273.54	332.19	329.74	2.45	135.862			
600.00	599.84	558.37	556.83	1.90	1.16	-83.56	181.88	284.16	337.28	334.24	3.04	111.104			
650.00	649.68	604.91	602.82	2.08	1.31	-83.04	178.45	290.35	340.36	337.02	3.35	101.705			
700.00	699.47	651.73	648.95	2.25	1.47	-74.41	174.54	297.38	343.50	339.82	3.68	93.451			
800.00	798.84	744.55	739.92	2.62	1.83	-61.96	165.65	313.54	348.97	344.61	4.35	80.137			
900.00	897.85	835.87	828.98	3.00	2.21	-53.81	157.06	331.78	353.79	348.73	5.05	69.996			
1,000.00	996.37	931.12	921.47	3.41	2.65	-48.12	148.26	352.76	357.49	351.70	5.79	61.727			
1,100.00	1,094.29	1,025.02	1,011.94	3.83	3.14	-43.67	137.69	375.55	359.22	352.64	6.58	54.612			
1,144.53	1,137.66	1,062.00	1,047.24	4.03	3.34	-41.94	132.91	385.49	359.76	352.84	6.92	51.993			
1,200.00	1,191.61	1,114.35	1,096.86	4.28	3.67	-41.10	125.79	400.54	360.87	353.48	7.38	48.871			
1,300.00	1,288.85	1,203.83	1,180.82	4.75	4.26	-39.40	113.08	428.77	365.41	357.21	8.19	44.595			
1,400.00	1,386.09	1,296.07	1,266.32	5.22	4.91	-37.39	99.10	460.42	372.64	363.63	9.01	41.360			
1,500.00	1,483.34	1,392.90	1,355.06	5.70	5.64	-34.98	82.56	495.43	381.58	371.75	9.83	38.817			
1,600.00	1,580.58	1,491.83	1,445.18	6.19	6.40	-32.36	63.89	531.71	391.23	380.61	10.62	36.835			
1,700.00	1,677.82	1,586.00	1,531.01	6.69	7.12	-30.06	46.80	566.50	402.09	390.77	11.32	35.526			
1,800.00	1,775.07	1,679.83	1,616.70	7.19	7.84	-28.16	31.84	601.68	414.60	402.62	11.98	34.611			
1,900.00	1,872.31	1,775.70	1,704.10	7.69	8.59	-26.34	16.81	638.07	428.12	415.49	12.63	33.897			
2,000.00	1,969.55	1,869.86	1,789.63	8.19	9.34	-24.67	2.27	674.68	443.06	429.82	13.24	33.467			
2,100.00	2,066.79	1,976.45	1,886.51	8.69	10.17	-22.82	-14.86	715.69	457.91	444.00	13.91	32.926			
2,200.00	2,164.04	2,088.01	1,988.86	9.20	10.99	-20.97	-33.61	755.91	470.50	455.94	14.57	32.302			
2,300.00	2,261.28	2,185.47	2,078.88	9.71	11.70	-19.50	-49.70	789.62	481.95	466.82	15.13	31.860			
2,400.00	2,358.52	2,290.50	2,175.77	10.22	12.46	-17.90	-67.83	825.87	493.62	477.91	15.71	31.420			
2,500.00	2,455.77	2,400.43	2,277.98	10.73	13.20	-16.31	-86.88	861.57	503.45	487.17	16.28	30.927			
2,600.00	2,553.01	2,499.34	2,370.78	11.24	13.85	-15.29	-101.05	892.71	512.51	495.71	16.79	30.517			
2,700.00	2,650.25	2,603.32	2,468.54	11.75	14.51	-14.43	-114.23	925.59	521.85	504.50	17.36	30.068			
2,800.00	2,747.50	2,715.90	2,575.03	12.26	15.19	-13.47	-129.15	958.92	529.19	511.24	17.95	29.489			
2,900.00	2,844.74	2,808.00	2,662.13	12.78	15.77	-12.71	-141.43	986.20	536.62	518.19	18.42	29.127			
3,000.00	2,941.98	2,913.50	2,761.71	13.29	16.42	-11.71	-156.79	1,017.44	544.31	525.34	18.97	28.698			
3,100.00	3,039.22	3,015.93	2,858.43	13.80	17.05	-10.51	-174.19	1,046.31	550.85	531.41	19.44	28.336			
3,200.00	3,136.47	3,115.10	2,952.52	14.32	17.64	-9.56	-189.18	1,073.84	556.97	537.07	19.90	27.988			
3,300.00	3,233.71	3,207.40	3,039.96	14.83	18.21	-8.80	-202.18	1,100.37	564.13	543.77	20.36	27.711			
3,400.00	3,330.95	3,301.88	3,128.91	15.35	18.82	-7.85	-217.41	1,128.36	572.59	551.80	20.79	27.545			
3,500.00	3,428.20	3,399.33	3,220.60	15.86	19.44	-7.00	-232.23	1,157.81	581.69	560.47	21.22	27.409			
3,600.00	3,525.44	3,504.26	3,319.68	16.38	20.09	-6.35	-245.64	1,189.65	590.66	568.93	21.73	27.181			
3,700.00	3,622.68	3,609.24	3,419.13	16.89	20.72	-5.68	-259.46	1,220.30	598.55	576.31	22.24	26.910			
3,800.00	3,719.93	3,705.46	3,510.35	17.41	21.30	-5.09	-271.93	1,248.25	606.34	583.64	22.70	26.711			
3,900.00	3,817.17	3,802.47	3,602.07	17.93	21.91	-4.51	-284.64	1,277.18	615.01	591.84	23.17	26.545			
4,000.00	3,914.41	3,896.56	3,691.02	18.44	22.50	-3.90	-297.65	1,304.95	623.60	600.00	23.60	26.421			
4,100.00	4,011.65	3,984.02	3,773.15	18.96	23.08	-3.43	-309.09	1,332.75	634.39	610.38	24.01	26.426			
4,200.00	4,108.90	4,097.11	3,879.32	19.48	23.80	-2.89	-323.49	1,368.92	645.48	620.89	24.58	26.256			
4,300.00	4,206.14	4,205.00	3,981.55	19.99	24.44	-2.23	-338.48	1,399.97	653.44	628.36	25.09	26.047			
4,400.00	4,303.38	4,292.00	4,063.84	20.51	25.00	-1.84	-349.17	1,426.09	662.45	636.95	25.50	25.982			
4,500.00	4,400.63	4,364.32	4,131.39	21.03	25.52	-1.56	-358.23	1,450.26	674.89	649.07	25.82	26.137			
4,600.00	4,497.87	4,467.01	4,226.68	21.54	26.24	-1.10	-372.13	1,485.90	689.09	662.75	26.33	26.170			
4,700.00	4,595.11	4,597.19	4,349.07	22.06	27.04	-0.53	-389.13	1,526.87	699.66	672.66	27.00	25.909			
4,800.00	4,692.36	4,697.00	4,443.49	22.58	27.66	-0.14	-401.34	1,556.79	708.74	681.23	27.50	25.769			
4,900.00	4,789.60	4,794.19	4,535.30	23.10	28.27	0.33	-414.58	1,585.81	718.10	690.12	27.98	25.666			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well HWY52 4U-32H-O268
Project:	DJ BASIN	TVD Reference:	23' KB @ 5015.00usft
Reference Site:	S32-T2N-R68W	MD Reference:	23' KB @ 5015.00usft
Site Error:	0.00usft	North Reference:	True
Reference Well:	HWY52 4U-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft	
Survey Program: 70-Geolink MWD													Offset Well Error:		0.00 usft
Reference				Offset				Semi Major Axis			Distance		Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
5,000.00	4,886.84	4,883.88	4,619.75	23.62	28.85	0.84	-427.95	1,612.89	728.22	699.83	28.40	25.644			
5,100.00	4,984.08	5,023.04	4,751.26	24.13	29.66	1.73	-449.66	1,652.81	737.37	708.32	29.05	25.382			
5,200.00	5,081.33	5,133.43	4,857.25	24.65	30.24	2.46	-465.93	1,679.02	741.03	711.48	29.55	25.074			
5,300.00	5,178.57	5,233.57	4,953.19	25.17	30.78	3.11	-480.95	1,703.49	745.69	715.66	30.02	24.836			
5,400.00	5,275.81	5,331.21	5,046.88	25.69	31.30	3.70	-494.93	1,727.14	750.00	719.51	30.49	24.596			
5,500.00	5,373.06	5,459.78	5,170.87	26.21	31.91	4.36	-511.32	1,756.87	752.82	721.76	31.06	24.234			
5,600.00	5,470.30	5,588.48	5,296.31	26.72	32.43	4.78	-523.32	1,783.00	751.76	720.14	31.62	23.772			
5,700.00	5,567.54	5,728.11	5,433.79	27.24	32.87	5.21	-533.76	1,804.92	745.50	713.36	32.14	23.196			
5,800.00	5,664.79	5,854.12	5,558.60	27.76	33.20	5.52	-540.58	1,820.83	735.92	703.31	32.61	22.564			
5,900.00	5,762.03	5,977.64	5,681.52	28.28	33.44	5.76	-544.76	1,832.20	722.34	689.27	33.07	21.845			
6,000.00	5,859.27	6,093.71	5,797.30	28.80	33.61	5.98	-547.41	1,839.87	705.99	672.47	33.52	21.064			
6,100.00	5,956.51	6,200.55	5,904.01	29.31	33.75	6.16	-548.79	1,845.12	687.74	653.74	34.00	20.227			
6,200.00	6,053.76	6,305.51	6,008.87	29.83	33.87	6.34	-549.68	1,849.34	668.53	634.04	34.49	19.384			
6,300.00	6,151.00	6,409.44	6,112.74	30.35	33.97	6.49	-549.88	1,852.84	648.50	613.52	34.98	18.538			
6,400.00	6,248.24	6,514.59	6,217.87	30.87	34.06	6.66	-549.69	1,855.01	627.14	591.69	35.46	17.688			
6,500.00	6,345.49	6,615.05	6,318.32	31.39	34.13	6.82	-549.19	1,856.62	605.27	569.30	35.96	16.829			
6,600.00	6,442.73	6,716.51	6,419.77	31.91	34.20	6.99	-548.38	1,857.65	582.76	546.30	36.46	15.983			
6,700.00	6,539.97	6,815.09	6,518.34	32.43	34.26	7.18	-547.49	1,858.18	559.79	522.80	36.98	15.136			
6,800.00	6,637.21	6,913.12	6,616.36	32.94	34.31	7.38	-546.55	1,858.58	536.69	499.18	37.51	14.308			
6,900.00	6,734.46	7,011.97	6,715.21	33.46	34.37	7.59	-545.40	1,858.83	513.38	475.35	38.03	13.500			
6,958.42	6,791.27	7,069.66	6,772.89	33.77	34.40	7.71	-544.58	1,858.88	499.62	461.29	38.33	13.034			
7,000.00	6,831.76	7,110.22	6,813.44	33.98	34.42	22.64	-543.96	1,858.88	490.26	451.71	38.55	12.718			
7,050.00	6,880.45	7,158.70	6,861.92	34.22	34.44	41.00	-543.24	1,858.89	480.35	441.55	38.80	12.380			
7,100.00	6,928.94	7,207.02	6,910.24	34.44	34.47	57.27	-542.58	1,858.90	472.07	433.01	39.06	12.085			
7,150.00	6,976.98	7,254.93	6,958.14	34.64	34.50	70.42	-541.97	1,858.92	465.63	426.25	39.38	11.825			
7,200.00	7,024.34	7,302.80	7,006.02	34.82	34.52	80.83	-541.39	1,858.93	461.27	421.48	39.79	11.593			
7,250.00	7,070.78	7,349.82	7,053.02	34.99	34.55	89.19	-540.82	1,858.88	459.28	418.91	40.37	11.376			
7,262.56	7,082.27	7,361.45	7,064.66	35.03	34.55	91.04	-540.68	1,858.86	459.20	418.64	40.55	11.323			
7,300.00	7,116.09	7,395.70	7,098.90	35.14	34.57	96.08	-540.28	1,858.78	460.01	418.82	41.19	11.169			
7,350.00	7,160.03	7,440.17	7,143.37	35.28	34.60	101.88	-539.75	1,858.65	463.79	421.52	42.26	10.974			
7,400.00	7,202.41	7,482.80	7,186.00	35.40	34.62	106.83	-539.27	1,858.49	470.96	427.35	43.61	10.800			
7,450.00	7,243.00	7,523.64	7,226.83	35.51	34.64	111.06	-538.84	1,858.32	481.79	436.62	45.18	10.665			
7,500.00	7,281.62	7,562.49	7,265.68	35.60	34.66	114.66	-538.45	1,858.14	496.46	449.56	46.90	10.585			
7,550.00	7,318.07	7,599.16	7,302.35	35.68	34.68	117.67	-538.10	1,857.96	515.02	466.32	48.70	10.575 SF			
7,600.00	7,352.17	7,633.26	7,336.45	35.75	34.70	120.10	-537.81	1,857.77	537.46	486.95	50.50	10.643			
7,650.00	7,383.77	7,664.76	7,367.94	35.81	34.72	121.95	-537.56	1,857.60	563.66	511.42	52.23	10.791			
7,700.00	7,412.70	7,693.58	7,396.76	35.85	34.73	123.21	-537.36	1,857.44	593.42	539.57	53.85	11.020			
7,750.00	7,438.83	7,719.59	7,422.77	35.89	34.75	123.85	-537.20	1,857.29	626.48	571.15	55.33	11.324			
7,800.00	7,462.03	7,742.66	7,445.84	35.91	34.76	123.80	-537.07	1,857.17	662.53	605.89	56.65	11.696			
7,850.00	7,482.18	7,762.70	7,465.88	35.93	34.77	122.97	-536.97	1,857.05	701.26	643.45	57.81	12.130			
7,900.00	7,499.19	7,779.60	7,482.79	35.94	34.78	121.18	-536.90	1,856.96	742.31	683.48	58.82	12.619			
7,950.00	7,512.97	7,793.82	7,497.00	35.94	34.79	118.26	-536.84	1,856.88	785.34	725.64	59.70	13.155			
8,000.00	7,523.46	7,804.80	7,507.98	35.94	34.79	113.82	-536.79	1,856.81	830.01	769.56	60.45	13.730			
8,050.00	7,530.60	7,812.38	7,515.56	35.94	34.80	107.35	-536.75	1,856.77	876.00	814.90	61.10	14.338			
8,100.00	7,534.37	7,816.52	7,519.70	35.94	34.80	98.28	-536.73	1,856.74	922.97	861.33	61.64	14.973			
8,130.43	7,535.00	7,817.33	7,520.51	35.94	34.80	91.31	-536.72	1,856.74	951.91	889.97	61.93	15.370			
8,200.00	7,535.00	7,817.71	7,520.89	35.94	34.80	91.39	-536.72	1,856.73	1,018.52	956.00	62.52	16.291			
8,300.00	7,535.00	7,818.26	7,521.44	35.97	34.80	91.50	-536.72	1,856.73	1,114.90	1,051.67	63.23	17.634			
8,400.00	7,535.00	7,818.81	7,521.99	36.05	34.80	91.61	-536.72	1,856.73	1,211.86	1,148.05	63.81	18.992			
8,500.00	7,535.00	7,819.36	7,522.55	36.17	34.80	91.73	-536.71	1,856.72	1,309.28	1,244.99	64.30	20.363			
8,600.00	7,535.00	7,819.92	7,523.10	36.37	34.80	91.84	-536.71	1,856.72	1,407.07	1,342.36	64.71	21.744			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

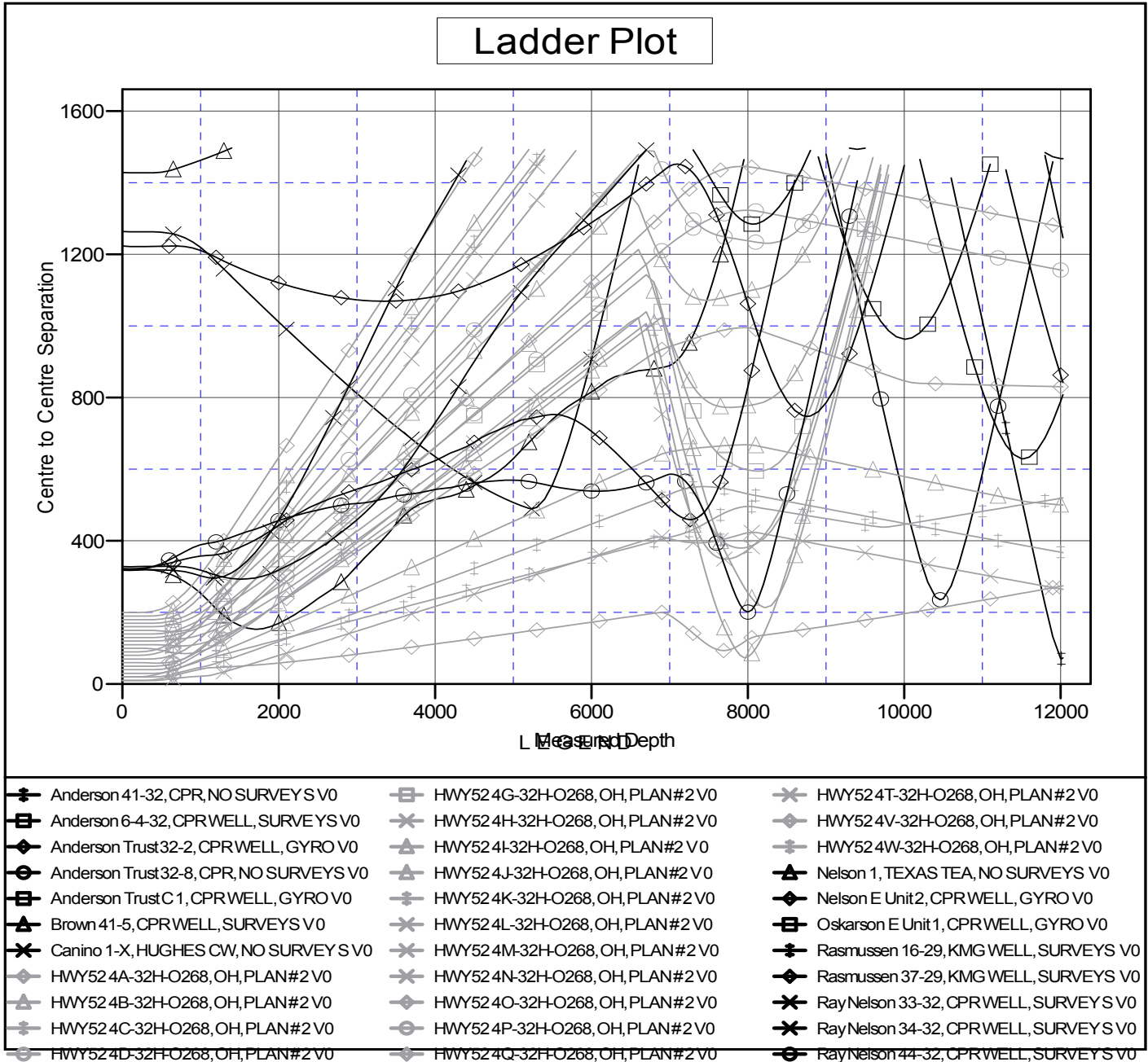
Cathedral Energy Services

Anticollision Report

Company: Crestone Peak Resources	Local Co-ordinate Reference: Well HWY52 4U-32H-O268	
Project: DJ BASIN	TVD Reference: 23' KB @ 5015.00usft	
Reference Site: S32-T2N-R68W	MD Reference: 23' KB @ 5015.00usft	
Site Error: 0.00usft	North Reference: True	
Reference Well: HWY52 4U-32H-O268	Survey Calculation Method: Minimum Curvature	
Well Error: 0.00usft	Output errors are at 2.00 sigma	
Reference Wellbore OH	Database: USA EDM 5000 Multi Users DB	
Reference Design: PLAN #2	Offset TVD Reference: Offset Datum	

Reference Depths are relative to 23' KB @ 5015.00usft
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000 °

Coordinates are relative to: HWY52 4U-32H-O268
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.31°



CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation