



CRESTONE PEAK
RESOURCES

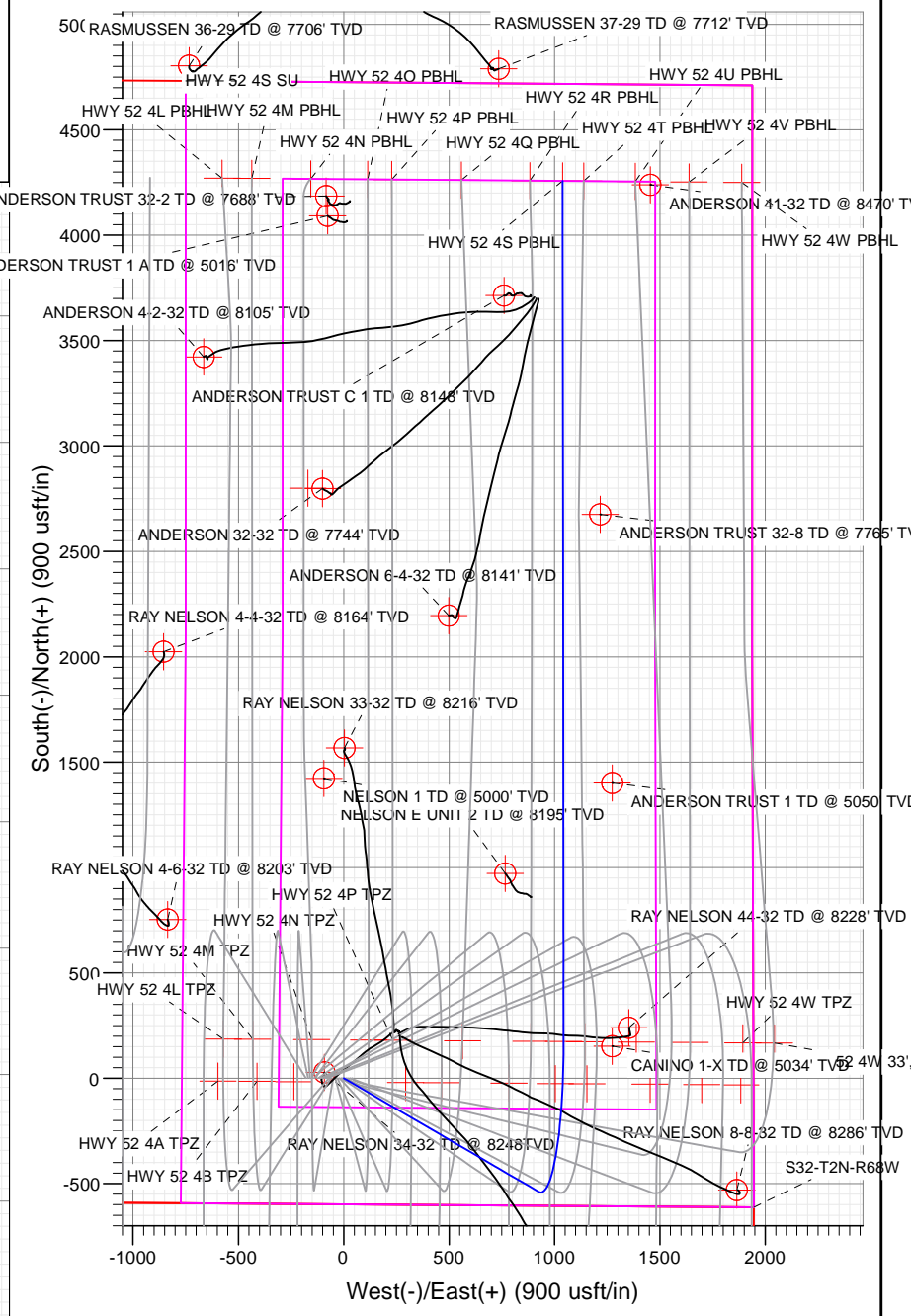
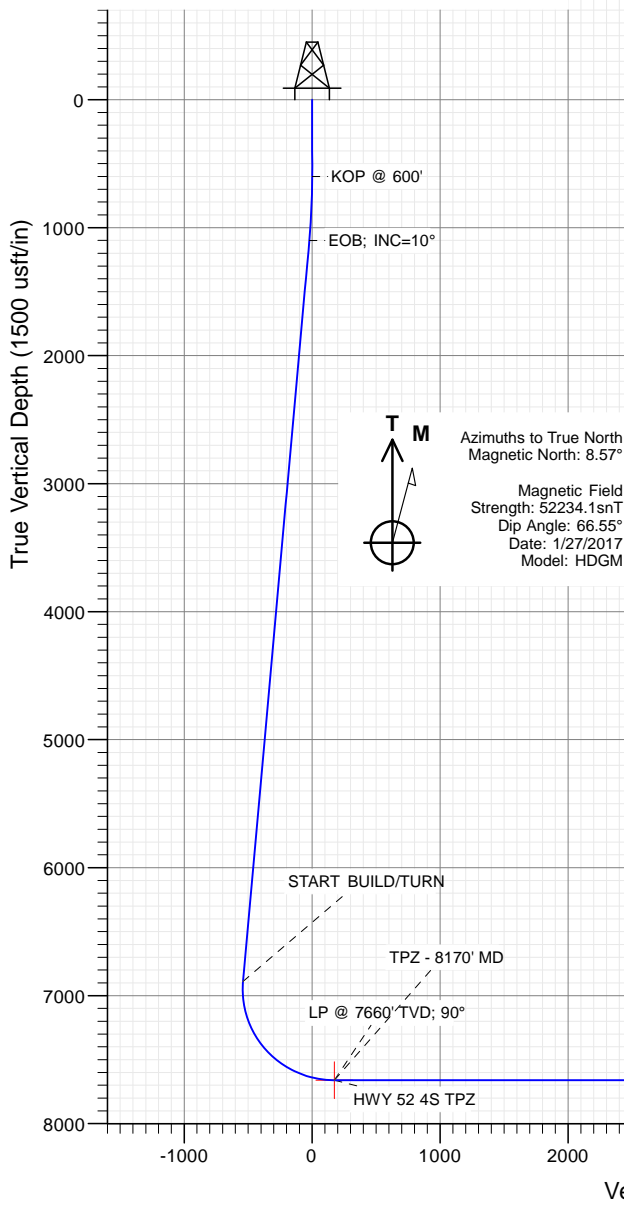
SECTION DETAILS

| Sec | MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | VSec | Target |
|-----|----------|-------|--------|---------|---------|---------|------|---------|---------|----------------|
| 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2 | 600.00 | 0.00 | 0.00 | 600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 3 | 1103.09 | 10.06 | 120.20 | 1100.51 | -22.17 | 38.08 | 2.00 | 120.20 | -22.21 | |
| 4 | 6982.73 | 10.06 | 120.20 | 6889.71 | -538.95 | 925.86 | 0.00 | 0.00 | -540.08 | |
| 5 | 8170.89 | 90.00 | 359.93 | 7660.00 | 174.60 | 1043.04 | 8.00 | -119.89 | 173.33 | HWY 52 4S TPZ |
| 6 | 12253.72 | 90.00 | 359.93 | 7660.00 | 4257.43 | 1038.11 | 0.00 | 0.00 | 4256.16 | HWY 52 4S PBHL |

PLAN #2
HWY52 4S-32H-O268
17X0X LR
23 KB @ 5015.00ust
Ground Level @ 4992.00
North American Datum 1983
Well HWY52 4S-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 4S PBHL | | 7660.00 | 4257.43 | 1038.11 | 40.101041 | -105.020931 |
| HWY 52 4S TPZ | | 7660.00 | 174.60 | 1043.04 | 40.089853 | -105.020914 |

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



WELL DETAILS: HWY52 4S-32H-O268

| | | | | | | |
|-------|-------|------------|---------------|------------|-----------|-------------|
| +N/-S | +E/-W | Northing | Ground Level: | 4992.00 | Latitude | Longitude |
| 0.00 | 0.00 | 1275752.70 | Easting | 3132998.13 | 40.089354 | -105.024642 |

CATHEDRAL



Cathedral Energy Services

Planning Report

| | |
|--|--|
| Database: USA EDM 5000 Multi Users DB | Local Co-ordinate Reference: Well HWY52 4S-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 4S-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 4S-32H-O268 | | | | | | |
| Well Position | +N/-S | 0.00 usft | Northing: | 1,275,752.70 usft | Latitude: | 40.089354 |
| | +E/-W | 0.00 usft | Easting: | 3,132,998.13 usft | Longitude: | -105.024642 |
| 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 | 359.93 |

| 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 | |
| 600.00 | 0.00 | 0.00 | 600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,103.09 | 10.06 | 120.20 | 1,100.51 | -22.17 | 38.08 | 2.00 | 2.00 | 0.00 | 120.20 | |
| 6,982.73 | 10.06 | 120.20 | 6,889.71 | -538.95 | 925.86 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 8,170.89 | 90.00 | 359.93 | 7,660.00 | 174.60 | 1,043.04 | 8.00 | 6.73 | -10.12 | -119.89 | HWY 52 4S TPZ |
| 12,253.72 | 90.00 | 359.93 | 7,660.00 | 4,257.43 | 1,038.11 | 0.00 | 0.00 | 0.00 | 0.00 | HWY 52 4S PBHL |

Cathedral Energy Services

Planning Report

| | | | |
|------------------|-----------------------------|-------------------------------------|------------------------|
| Database: | USA EDM 5000 Multi Users DB | Local Co-ordinate Reference: | Well HWY52 4S-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 4S-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 | |
| 500.00 | 0.00 | 0.00 | 500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 600.00 | 0.00 | 0.00 | 600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | KOP @ 600' |
| 700.00 | 2.00 | 120.20 | 699.98 | -0.88 | 1.51 | -0.88 | 2.00 | 2.00 | |
| 800.00 | 4.00 | 120.20 | 799.84 | -3.51 | 6.03 | -3.52 | 2.00 | 2.00 | |
| 900.00 | 6.00 | 120.20 | 899.45 | -7.90 | 13.56 | -7.91 | 2.00 | 2.00 | |
| 1,000.00 | 8.00 | 120.20 | 998.70 | -14.03 | 24.09 | -14.06 | 2.00 | 2.00 | |
| 1,100.00 | 10.00 | 120.20 | 1,097.47 | -21.90 | 37.61 | -21.94 | 2.00 | 2.00 | |
| 1,103.09 | 10.06 | 120.20 | 1,100.51 | -22.17 | 38.08 | -22.21 | 2.00 | 2.00 | EOB; INC=10° |
| 1,200.00 | 10.06 | 120.20 | 1,195.93 | -30.68 | 52.71 | -30.75 | 0.00 | 0.00 | |
| 1,300.00 | 10.06 | 120.20 | 1,294.39 | -39.47 | 67.81 | -39.56 | 0.00 | 0.00 | |
| 1,400.00 | 10.06 | 120.20 | 1,392.85 | -48.26 | 82.91 | -48.36 | 0.00 | 0.00 | |
| 1,500.00 | 10.06 | 120.20 | 1,491.31 | -57.05 | 98.01 | -57.17 | 0.00 | 0.00 | |
| 1,600.00 | 10.06 | 120.20 | 1,589.78 | -65.84 | 113.11 | -65.98 | 0.00 | 0.00 | |
| 1,700.00 | 10.06 | 120.20 | 1,688.24 | -74.63 | 128.21 | -74.79 | 0.00 | 0.00 | |
| 1,800.00 | 10.06 | 120.20 | 1,786.70 | -83.42 | 143.31 | -83.60 | 0.00 | 0.00 | |
| 1,900.00 | 10.06 | 120.20 | 1,885.16 | -92.21 | 158.41 | -92.40 | 0.00 | 0.00 | |
| 2,000.00 | 10.06 | 120.20 | 1,983.62 | -101.00 | 173.51 | -101.21 | 0.00 | 0.00 | |
| 2,100.00 | 10.06 | 120.20 | 2,082.09 | -109.79 | 188.60 | -110.02 | 0.00 | 0.00 | |
| 2,200.00 | 10.06 | 120.20 | 2,180.55 | -118.58 | 203.70 | -118.83 | 0.00 | 0.00 | |
| 2,300.00 | 10.06 | 120.20 | 2,279.01 | -127.37 | 218.80 | -127.64 | 0.00 | 0.00 | |
| 2,400.00 | 10.06 | 120.20 | 2,377.47 | -136.16 | 233.90 | -136.44 | 0.00 | 0.00 | |
| 2,500.00 | 10.06 | 120.20 | 2,475.93 | -144.95 | 249.00 | -145.25 | 0.00 | 0.00 | |
| 2,600.00 | 10.06 | 120.20 | 2,574.40 | -153.74 | 264.10 | -154.06 | 0.00 | 0.00 | |
| 2,700.00 | 10.06 | 120.20 | 2,672.86 | -162.53 | 279.20 | -162.87 | 0.00 | 0.00 | |
| 2,800.00 | 10.06 | 120.20 | 2,771.32 | -171.31 | 294.30 | -171.67 | 0.00 | 0.00 | |
| 2,900.00 | 10.06 | 120.20 | 2,869.78 | -180.10 | 309.40 | -180.48 | 0.00 | 0.00 | |
| 3,000.00 | 10.06 | 120.20 | 2,968.24 | -188.89 | 324.50 | -189.29 | 0.00 | 0.00 | |
| 3,100.00 | 10.06 | 120.20 | 3,066.71 | -197.68 | 339.60 | -198.10 | 0.00 | 0.00 | |
| 3,200.00 | 10.06 | 120.20 | 3,165.17 | -206.47 | 354.70 | -206.91 | 0.00 | 0.00 | |
| 3,300.00 | 10.06 | 120.20 | 3,263.63 | -215.26 | 369.79 | -215.71 | 0.00 | 0.00 | |
| 3,400.00 | 10.06 | 120.20 | 3,362.09 | -224.05 | 384.89 | -224.52 | 0.00 | 0.00 | |
| 3,500.00 | 10.06 | 120.20 | 3,460.55 | -232.84 | 399.99 | -233.33 | 0.00 | 0.00 | |
| 3,600.00 | 10.06 | 120.20 | 3,559.01 | -241.63 | 415.09 | -242.14 | 0.00 | 0.00 | |
| 3,700.00 | 10.06 | 120.20 | 3,657.48 | -250.42 | 430.19 | -250.95 | 0.00 | 0.00 | |
| 3,800.00 | 10.06 | 120.20 | 3,755.94 | -259.21 | 445.29 | -259.75 | 0.00 | 0.00 | |
| 3,900.00 | 10.06 | 120.20 | 3,854.40 | -268.00 | 460.39 | -268.56 | 0.00 | 0.00 | |
| 4,000.00 | 10.06 | 120.20 | 3,952.86 | -276.79 | 475.49 | -277.37 | 0.00 | 0.00 | |
| 4,100.00 | 10.06 | 120.20 | 4,051.32 | -285.58 | 490.59 | -286.18 | 0.00 | 0.00 | |
| 4,200.00 | 10.06 | 120.20 | 4,149.79 | -294.37 | 505.69 | -294.98 | 0.00 | 0.00 | |
| 4,300.00 | 10.06 | 120.20 | 4,248.25 | -303.16 | 520.79 | -303.79 | 0.00 | 0.00 | |
| 4,400.00 | 10.06 | 120.20 | 4,346.71 | -311.95 | 535.89 | -312.60 | 0.00 | 0.00 | |
| 4,500.00 | 10.06 | 120.20 | 4,445.17 | -320.74 | 550.99 | -321.41 | 0.00 | 0.00 | |
| 4,600.00 | 10.06 | 120.20 | 4,543.63 | -329.52 | 566.08 | -330.22 | 0.00 | 0.00 | |
| 4,700.00 | 10.06 | 120.20 | 4,642.10 | -338.31 | 581.18 | -339.02 | 0.00 | 0.00 | |
| 4,800.00 | 10.06 | 120.20 | 4,740.56 | -347.10 | 596.28 | -347.83 | 0.00 | 0.00 | |
| 4,900.00 | 10.06 | 120.20 | 4,839.02 | -355.89 | 611.38 | -356.64 | 0.00 | 0.00 | |
| 5,000.00 | 10.06 | 120.20 | 4,937.48 | -364.68 | 626.48 | -365.45 | 0.00 | 0.00 | |

Cathedral Energy Services

Planning Report

| | | | |
|------------------|-----------------------------|-------------------------------------|------------------------|
| Database: | USA EDM 5000 Multi Users DB | Local Co-ordinate Reference: | Well HWY52 4S-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 4S-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 |
| 5,100.00 | 10.06 | 120.20 | 5,035.94 | -373.47 | 641.58 | -374.26 | 0.00 | 0.00 | |
| 5,200.00 | 10.06 | 120.20 | 5,134.41 | -382.26 | 656.68 | -383.06 | 0.00 | 0.00 | |
| 5,300.00 | 10.06 | 120.20 | 5,232.87 | -391.05 | 671.78 | -391.87 | 0.00 | 0.00 | |
| 5,400.00 | 10.06 | 120.20 | 5,331.33 | -399.84 | 686.88 | -400.68 | 0.00 | 0.00 | |
| 5,500.00 | 10.06 | 120.20 | 5,429.79 | -408.63 | 701.98 | -409.49 | 0.00 | 0.00 | |
| 5,600.00 | 10.06 | 120.20 | 5,528.25 | -417.42 | 717.08 | -418.29 | 0.00 | 0.00 | |
| 5,700.00 | 10.06 | 120.20 | 5,626.72 | -426.21 | 732.18 | -427.10 | 0.00 | 0.00 | |
| 5,800.00 | 10.06 | 120.20 | 5,725.18 | -435.00 | 747.27 | -435.91 | 0.00 | 0.00 | |
| 5,900.00 | 10.06 | 120.20 | 5,823.64 | -443.79 | 762.37 | -444.72 | 0.00 | 0.00 | |
| 6,000.00 | 10.06 | 120.20 | 5,922.10 | -452.58 | 777.47 | -453.53 | 0.00 | 0.00 | |
| 6,100.00 | 10.06 | 120.20 | 6,020.56 | -461.37 | 792.57 | -462.33 | 0.00 | 0.00 | |
| 6,200.00 | 10.06 | 120.20 | 6,119.03 | -470.16 | 807.67 | -471.14 | 0.00 | 0.00 | |
| 6,300.00 | 10.06 | 120.20 | 6,217.49 | -478.95 | 822.77 | -479.95 | 0.00 | 0.00 | |
| 6,400.00 | 10.06 | 120.20 | 6,315.95 | -487.73 | 837.87 | -488.76 | 0.00 | 0.00 | |
| 6,500.00 | 10.06 | 120.20 | 6,414.41 | -496.52 | 852.97 | -497.57 | 0.00 | 0.00 | |
| 6,600.00 | 10.06 | 120.20 | 6,512.87 | -505.31 | 868.07 | -506.37 | 0.00 | 0.00 | |
| 6,700.00 | 10.06 | 120.20 | 6,611.34 | -514.10 | 883.17 | -515.18 | 0.00 | 0.00 | |
| 6,800.00 | 10.06 | 120.20 | 6,709.80 | -522.89 | 898.27 | -523.99 | 0.00 | 0.00 | |
| 6,900.00 | 10.06 | 120.20 | 6,808.26 | -531.68 | 913.37 | -532.80 | 0.00 | 0.00 | |
| 6,982.73 | 10.06 | 120.20 | 6,889.71 | -538.95 | 925.86 | -540.08 | 0.00 | 0.00 | START BUILD/TURN |
| 7,000.00 | 9.45 | 112.89 | 6,906.74 | -540.26 | 928.47 | -541.40 | 8.00 | -3.55 | |
| 7,100.00 | 9.72 | 63.38 | 7,005.50 | -539.67 | 943.60 | -540.82 | 8.00 | 0.27 | |
| 7,200.00 | 15.06 | 34.65 | 7,103.23 | -525.18 | 958.56 | -526.35 | 8.00 | 5.34 | |
| 7,300.00 | 22.04 | 22.17 | 7,198.01 | -497.07 | 973.05 | -498.26 | 8.00 | 6.99 | |
| 7,400.00 | 29.53 | 15.63 | 7,288.00 | -455.89 | 986.79 | -457.09 | 8.00 | 7.49 | |
| 7,500.00 | 37.22 | 11.57 | 7,371.46 | -402.44 | 999.52 | -403.66 | 8.00 | 7.69 | |
| 7,600.00 | 45.00 | 8.75 | 7,446.75 | -337.76 | 1,010.98 | -339.00 | 8.00 | 7.78 | |
| 7,700.00 | 52.84 | 6.60 | 7,512.42 | -263.11 | 1,020.95 | -264.36 | 8.00 | 7.84 | |
| 7,800.00 | 60.70 | 4.86 | 7,567.18 | -179.95 | 1,029.24 | -181.20 | 8.00 | 7.87 | |
| 7,900.00 | 68.59 | 3.38 | 7,609.96 | -89.88 | 1,035.69 | -91.15 | 8.00 | 7.89 | |
| 8,000.00 | 76.49 | 2.04 | 7,639.94 | 5.33 | 1,040.17 | 4.06 | 8.00 | 7.90 | |
| 8,100.00 | 84.39 | 0.79 | 7,656.54 | 103.83 | 1,042.59 | 102.56 | 8.00 | 7.90 | |
| 8,170.89 | 90.00 | 359.93 | 7,660.00 | 174.60 | 1,043.04 | 173.33 | 8.00 | 7.91 | LP @ 7660' TVD; 90° - TPZ - 8170' MD |
| 8,200.00 | 90.00 | 359.93 | 7,660.00 | 203.71 | 1,043.00 | 202.44 | 0.00 | 0.00 | |
| 8,300.00 | 90.00 | 359.93 | 7,660.00 | 303.71 | 1,042.88 | 302.44 | 0.00 | 0.00 | |
| 8,400.00 | 90.00 | 359.93 | 7,660.00 | 403.71 | 1,042.76 | 402.44 | 0.00 | 0.00 | |
| 8,500.00 | 90.00 | 359.93 | 7,660.00 | 503.71 | 1,042.64 | 502.44 | 0.00 | 0.00 | |
| 8,600.00 | 90.00 | 359.93 | 7,660.00 | 603.71 | 1,042.52 | 602.44 | 0.00 | 0.00 | |
| 8,700.00 | 90.00 | 359.93 | 7,660.00 | 703.71 | 1,042.40 | 702.44 | 0.00 | 0.00 | |
| 8,800.00 | 90.00 | 359.93 | 7,660.00 | 803.71 | 1,042.28 | 802.44 | 0.00 | 0.00 | |
| 8,900.00 | 90.00 | 359.93 | 7,660.00 | 903.71 | 1,042.16 | 902.44 | 0.00 | 0.00 | |
| 9,000.00 | 90.00 | 359.93 | 7,660.00 | 1,003.71 | 1,042.04 | 1,002.44 | 0.00 | 0.00 | |
| 9,100.00 | 90.00 | 359.93 | 7,660.00 | 1,103.71 | 1,041.92 | 1,102.44 | 0.00 | 0.00 | |
| 9,200.00 | 90.00 | 359.93 | 7,660.00 | 1,203.71 | 1,041.79 | 1,202.44 | 0.00 | 0.00 | |
| 9,300.00 | 90.00 | 359.93 | 7,660.00 | 1,303.71 | 1,041.67 | 1,302.44 | 0.00 | 0.00 | |
| 9,400.00 | 90.00 | 359.93 | 7,660.00 | 1,403.71 | 1,041.55 | 1,402.44 | 0.00 | 0.00 | |
| 9,500.00 | 90.00 | 359.93 | 7,660.00 | 1,503.71 | 1,041.43 | 1,502.44 | 0.00 | 0.00 | |
| 9,600.00 | 90.00 | 359.93 | 7,660.00 | 1,603.71 | 1,041.31 | 1,602.44 | 0.00 | 0.00 | |
| 9,700.00 | 90.00 | 359.93 | 7,660.00 | 1,703.71 | 1,041.19 | 1,702.44 | 0.00 | 0.00 | |
| 9,800.00 | 90.00 | 359.93 | 7,660.00 | 1,803.71 | 1,041.07 | 1,802.44 | 0.00 | 0.00 | |
| 9,900.00 | 90.00 | 359.93 | 7,660.00 | 1,903.71 | 1,040.95 | 1,902.44 | 0.00 | 0.00 | |
| 10,000.00 | 90.00 | 359.93 | 7,660.00 | 2,003.71 | 1,040.83 | 2,002.44 | 0.00 | 0.00 | |

Cathedral Energy Services

Planning Report

| | | | |
|------------------|-----------------------------|-------------------------------------|------------------------|
| Database: | USA EDM 5000 Multi Users DB | Local Co-ordinate Reference: | Well HWY52 4S-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 4S-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 |
| 10,100.00 | 90.00 | 359.93 | 7,660.00 | 2,103.71 | 1,040.71 | 2,102.44 | 0.00 | 0.00 | |
| 10,200.00 | 90.00 | 359.93 | 7,660.00 | 2,203.71 | 1,040.59 | 2,202.44 | 0.00 | 0.00 | |
| 10,300.00 | 90.00 | 359.93 | 7,660.00 | 2,303.71 | 1,040.47 | 2,302.44 | 0.00 | 0.00 | |
| 10,400.00 | 90.00 | 359.93 | 7,660.00 | 2,403.71 | 1,040.35 | 2,402.44 | 0.00 | 0.00 | |
| 10,500.00 | 90.00 | 359.93 | 7,660.00 | 2,503.71 | 1,040.23 | 2,502.44 | 0.00 | 0.00 | |
| 10,600.00 | 90.00 | 359.93 | 7,660.00 | 2,603.71 | 1,040.11 | 2,602.44 | 0.00 | 0.00 | |
| 10,700.00 | 90.00 | 359.93 | 7,660.00 | 2,703.71 | 1,039.98 | 2,702.44 | 0.00 | 0.00 | |
| 10,800.00 | 90.00 | 359.93 | 7,660.00 | 2,803.71 | 1,039.86 | 2,802.44 | 0.00 | 0.00 | |
| 10,900.00 | 90.00 | 359.93 | 7,660.00 | 2,903.71 | 1,039.74 | 2,902.44 | 0.00 | 0.00 | |
| 11,000.00 | 90.00 | 359.93 | 7,660.00 | 3,003.71 | 1,039.62 | 3,002.44 | 0.00 | 0.00 | |
| 11,100.00 | 90.00 | 359.93 | 7,660.00 | 3,103.71 | 1,039.50 | 3,102.44 | 0.00 | 0.00 | |
| 11,200.00 | 90.00 | 359.93 | 7,660.00 | 3,203.71 | 1,039.38 | 3,202.44 | 0.00 | 0.00 | |
| 11,300.00 | 90.00 | 359.93 | 7,660.00 | 3,303.71 | 1,039.26 | 3,302.44 | 0.00 | 0.00 | |
| 11,400.00 | 90.00 | 359.93 | 7,660.00 | 3,403.71 | 1,039.14 | 3,402.44 | 0.00 | 0.00 | |
| 11,500.00 | 90.00 | 359.93 | 7,660.00 | 3,503.71 | 1,039.02 | 3,502.44 | 0.00 | 0.00 | |
| 11,600.00 | 90.00 | 359.93 | 7,660.00 | 3,603.71 | 1,038.90 | 3,602.44 | 0.00 | 0.00 | |
| 11,700.00 | 90.00 | 359.93 | 7,660.00 | 3,703.71 | 1,038.78 | 3,702.44 | 0.00 | 0.00 | |
| 11,800.00 | 90.00 | 359.93 | 7,660.00 | 3,803.71 | 1,038.66 | 3,802.44 | 0.00 | 0.00 | |
| 11,900.00 | 90.00 | 359.93 | 7,660.00 | 3,903.71 | 1,038.54 | 3,902.44 | 0.00 | 0.00 | |
| 12,000.00 | 90.00 | 359.93 | 7,660.00 | 4,003.71 | 1,038.42 | 4,002.44 | 0.00 | 0.00 | |
| 12,100.00 | 90.00 | 359.93 | 7,660.00 | 4,103.71 | 1,038.30 | 4,102.44 | 0.00 | 0.00 | |
| 12,200.00 | 90.00 | 359.93 | 7,660.00 | 4,203.71 | 1,038.17 | 4,202.44 | 0.00 | 0.00 | |
| 12,253.72 | 90.00 | 359.93 | 7,660.00 | 4,257.43 | 1,038.11 | 4,256.16 | 0.00 | 0.00 | TD at 12253.72 |

| Targets | | | | | | | | | |
|--|---------------|--------------|------------|--------------|--------------|-----------------|----------------|-----------|-------------|
| Target Name | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude | Longitude |
| HWY 52 4S TPZ - hit/miss target - Shape - Point | 0.00 | 0.00 | 7,660.00 | 174.60 | 1,043.04 | 1,275,932.89 | 3,134,040.21 | 40.089833 | -105.020914 |
| HWY 52 4S PBHL - plan hits target center - Point | 0.00 | 0.00 | 7,660.00 | 4,257.43 | 1,038.11 | 1,280,015.63 | 3,134,013.40 | 40.101041 | -105.020931 |

| Plan Annotations | | | | |
|-----------------------|-----------------------|-------------------|--------------|---------------------|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates | | Comment |
| | | +N/-S (usft) | +E/-W (usft) | |
| 600.00 | 600.00 | 0.00 | 0.00 | KOP @ 600' |
| 1,103.09 | 1,100.51 | -22.17 | 38.08 | EOB; INC=10° |
| 6,982.73 | 6,889.71 | -538.95 | 925.86 | START BUILD/TURN |
| 8,170.89 | 7,660.00 | 174.60 | 1,043.04 | LP @ 7660' TVD; 90° |
| 8,170.89 | 7,660.00 | 174.60 | 1,043.04 | TPZ - 8170' MD |
| 12,253.72 | 7,660.00 | 4,257.43 | 1,038.11 | TD at 12253.72 |

Crestone Peak Resources

DJ BASIN

S32-T2N-R68W

HWY52 4S-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 4S-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 4S-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 | 12,253.72 | PLAN #2 (OH) | MWD+HDGM | OWSG MWD + HDGM | |

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well HWY52 4S-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 4S-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 | 10,792.09 | 7,782.70 | 1,136.53 | 1,059.87 | 14.825 | CC, ES, SF |
| Anderson 41-32 - CPR - NO SURVEYS | 12,234.65 | 7,540.00 | 416.23 | 326.41 | 4.634 | CC |
| Anderson 41-32 - CPR - NO SURVEYS | 12,253.72 | 7,540.00 | 416.67 | 326.32 | 4.612 | ES, SF |
| Anderson 4-2-32 - CPR WELL - SURVEYS | | | | | | Out of range |
| Anderson 6-4-32 - CPR WELL - SURVEYS | 10,193.96 | 7,838.31 | 534.51 | 457.17 | 6.911 | CC, ES, SF |
| 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 | 12,182.30 | 7,583.24 | 1,121.22 | 1,037.00 | 13.312 | CC, ES |
| Anderson Trust 32-2 - CPR WELL - GYRO | 12,253.72 | 7,583.75 | 1,123.49 | 1,038.86 | 13.275 | SF |
| Anderson Trust 32-8 - CPR - NO SURVEYS | 10,671.82 | 7,618.00 | 176.36 | 108.60 | 2.603 | CC, ES, SF |
| Anderson Trust C 1 - CPR WELL - GYRO | 11,714.21 | 7,587.15 | 264.56 | 187.64 | 3.439 | 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 | 6,808.95 | 7,025.15 | 1,214.52 | 1,145.29 | 17.542 | CC, ES |
| Brown 31-5 - CPR WELL - SURVEYS | 7,050.00 | 7,226.40 | 1,220.93 | 1,150.33 | 17.294 | SF |
| Brown 41-5 - CPR WELL - SURVEYS | 1,474.12 | 1,439.85 | 240.46 | 230.67 | 24.553 | CC |
| Brown 41-5 - CPR WELL - SURVEYS | 1,500.00 | 1,463.89 | 240.60 | 230.59 | 24.041 | ES |
| Brown 41-5 - CPR WELL - SURVEYS | 7,200.00 | 7,315.76 | 762.80 | 720.27 | 17.935 | 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 | 5,194.59 | 5,034.00 | 817.77 | 787.26 | 26.811 | CC |
| Canino 1-X - HUGHES CW - NO SURVEYS | 5,200.00 | 5,034.00 | 817.78 | 787.26 | 26.795 | 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 | 179.90 | 178.91 | 181.179 | CC, ES |
| HWY52 4A-32H-O268 - OH - PLAN #2 | 1,103.09 | 1,076.60 | 284.42 | 276.96 | 38.114 | SF |
| HWY52 4B-32H-O268 - OH - PLAN #2 | 300.00 | 300.00 | 170.11 | 168.40 | 99.486 | CC |
| HWY52 4B-32H-O268 - OH - PLAN #2 | 400.00 | 398.77 | 170.47 | 168.05 | 70.353 | ES |
| HWY52 4B-32H-O268 - OH - PLAN #2 | 8,500.00 | 7,638.67 | 1,381.83 | 1,323.97 | 23.882 | SF |
| HWY52 4C-32H-O268 - OH - PLAN #2 | 400.00 | 400.00 | 160.04 | 157.61 | 65.945 | CC |
| HWY52 4C-32H-O268 - OH - PLAN #2 | 600.00 | 598.78 | 160.75 | 156.90 | 41.684 | ES |
| HWY52 4C-32H-O268 - OH - PLAN #2 | 7,550.00 | 8,362.82 | 1,234.58 | 1,176.74 | 21.345 | SF |
| HWY52 4D-32H-O268 - OH - PLAN #2 | 500.00 | 500.00 | 149.97 | 146.82 | 47.703 | CC |
| HWY52 4D-32H-O268 - OH - PLAN #2 | 600.00 | 599.93 | 149.99 | 146.13 | 38.858 | ES |
| HWY52 4D-32H-O268 - OH - PLAN #2 | 7,850.00 | 8,256.70 | 716.16 | 658.20 | 12.357 | SF |
| HWY52 4E-32H-O268 - OH - PLAN #2 | 500.00 | 500.00 | 140.18 | 137.03 | 44.588 | CC |
| HWY52 4E-32H-O268 - OH - PLAN #2 | 700.00 | 703.04 | 140.60 | 136.03 | 30.715 | ES |
| HWY52 4E-32H-O268 - OH - PLAN #2 | 7,509.04 | 8,299.50 | 547.96 | 490.03 | 9.458 | SF |
| HWY52 4F-32H-O268 - OH - PLAN #2 | 808.01 | 819.45 | 112.93 | 107.45 | 20.620 | CC, ES |
| HWY52 4F-32H-O268 - OH - PLAN #2 | 7,719.71 | 8,287.58 | 241.97 | 183.49 | 4.138 | SF |
| HWY52 4G-32H-O268 - OH - PLAN #2 | 8,122.37 | 8,068.37 | 69.31 | 10.29 | 1.174 | Level 2, CC, ES, SF |
| HWY52 4H-32H-O268 - OH - PLAN #2 | 804.04 | 811.07 | 109.73 | 104.40 | 20.582 | 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 4S-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 4S-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 Measured Depth (usft) | Offset Measured Depth (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Separation Factor | Warning |
|--|--|---------------------------------------|--|---|----------------------|--------------|
| S32-T2N-R68W | | | | | | |
| HWY52 4H-32H-O268 - OH - PLAN #2 | 900.00 | 909.90 | 110.04 | 104.01 | 18.253 | ES |
| HWY52 4H-32H-O268 - OH - PLAN #2 | 7,650.00 | 8,295.08 | 167.96 | 109.14 | 2.856 | SF |
| HWY52 4I-32H-O268 - OH - PLAN #2 | 942.17 | 953.71 | 90.11 | 83.74 | 14.147 | CC, ES |
| HWY52 4I-32H-O268 - OH - PLAN #2 | 8,000.00 | 8,161.47 | 456.13 | 396.25 | 7.617 | SF |
| HWY52 4J-32H-O268 - OH - PLAN #2 | 955.83 | 966.83 | 66.39 | 59.87 | 10.194 | CC, ES |
| HWY52 4J-32H-O268 - OH - PLAN #2 | 1,103.09 | 1,113.46 | 72.57 | 64.93 | 9.500 | SF |
| HWY52 4K-32H-O268 - OH - PLAN #2 | 890.24 | 898.66 | 45.94 | 39.87 | 7.575 | CC |
| HWY52 4K-32H-O268 - OH - PLAN #2 | 900.00 | 908.35 | 45.97 | 39.84 | 7.494 | ES |
| HWY52 4K-32H-O268 - OH - PLAN #2 | 1,000.00 | 1,007.19 | 50.88 | 43.97 | 7.359 | SF |
| HWY52 4L-32H-O268 - OH - PLAN #2 | 200.00 | 200.00 | 69.95 | 68.95 | 70.443 | CC, ES |
| HWY52 4L-32H-O268 - OH - PLAN #2 | 800.00 | 792.05 | 111.54 | 106.23 | 21.011 | SF |
| HWY52 4M-32H-O268 - OH - PLAN #2 | 200.00 | 200.00 | 60.16 | 59.16 | 60.581 | CC, ES |
| HWY52 4M-32H-O268 - OH - PLAN #2 | 12,253.72 | 12,045.41 | 1,480.33 | 1,327.35 | 9.676 | SF |
| HWY52 4N-32H-O268 - OH - PLAN #2 | 300.00 | 300.00 | 50.08 | 48.37 | 29.289 | CC |
| HWY52 4N-32H-O268 - OH - PLAN #2 | 400.00 | 399.67 | 50.40 | 47.99 | 20.907 | ES |
| HWY52 4N-32H-O268 - OH - PLAN #2 | 12,253.72 | 11,960.10 | 1,216.08 | 1,064.92 | 8.045 | SF |
| HWY52 4O-32H-O268 - OH - PLAN #2 | 443.78 | 444.08 | 38.64 | 35.92 | 14.232 | CC |
| HWY52 4O-32H-O268 - OH - PLAN #2 | 500.00 | 500.10 | 38.92 | 35.80 | 12.468 | ES |
| HWY52 4O-32H-O268 - OH - PLAN #2 | 12,253.72 | 12,167.17 | 925.09 | 771.02 | 6.004 | SF |
| HWY52 4P-32H-O268 - OH - PLAN #2 | 600.00 | 600.00 | 29.94 | 26.08 | 7.754 | CC, ES |
| HWY52 4P-32H-O268 - OH - PLAN #2 | 12,253.72 | 12,049.82 | 819.70 | 668.48 | 5.421 | SF |
| HWY52 4Q-32H-O268 - OH - PLAN #2 | 600.00 | 600.00 | 20.14 | 16.28 | 5.218 | CC, ES |
| HWY52 4Q-32H-O268 - OH - PLAN #2 | 12,253.72 | 11,956.15 | 529.70 | 391.79 | 3.841 | SF |
| HWY52 4R-32H-O268 - OH - PLAN #2 | 600.00 | 600.00 | 10.07 | 6.21 | 2.609 | CC, ES |
| HWY52 4R-32H-O268 - OH - PLAN #2 | 12,253.72 | 12,106.24 | 199.05 | 76.67 | 1.626 | SF |
| HWY52 4T-32H-O268 - OH - PLAN #2 | 500.00 | 500.00 | 10.07 | 6.93 | 3.204 | CC, ES |
| HWY52 4T-32H-O268 - OH - PLAN #2 | 7,000.00 | 6,995.17 | 131.14 | 76.16 | 2.385 | SF |
| HWY52 4U-32H-O268 - OH - PLAN #2 | 400.00 | 400.00 | 19.87 | 17.44 | 8.186 | CC, ES |
| HWY52 4U-32H-O268 - OH - PLAN #2 | 12,253.72 | 12,030.43 | 366.88 | 216.22 | 2.435 | SF |
| HWY52 4V-32H-O268 - OH - PLAN #2 | 300.00 | 300.00 | 29.94 | 28.23 | 17.509 | CC, ES |
| HWY52 4V-32H-O268 - OH - PLAN #2 | 12,253.72 | 12,135.65 | 640.86 | 490.21 | 4.254 | SF |
| HWY52 4W-32H-O268 - OH - PLAN #2 | 115.99 | 117.99 | 40.01 | 39.61 | 100.578 | CC |
| HWY52 4W-32H-O268 - OH - PLAN #2 | 200.00 | 201.99 | 40.01 | 39.01 | 40.018 | ES |
| HWY52 4W-32H-O268 - OH - PLAN #2 | 12,253.72 | 12,243.21 | 850.16 | 696.56 | 5.535 | SF |
| Nelson 1 - TEXAS TEA - NO SURVEYS | 600.00 | 554.00 | 1,426.08 | 1,423.16 | 488.058 | CC, ES |
| Nelson 1 - TEXAS TEA - NO SURVEYS | 1,500.00 | 1,445.31 | 1,492.47 | 1,484.63 | 190.427 | SF |
| Nelson E Unit 1 - CPR WELL - GYRO | | | | | | Out of range |
| Nelson E Unit 2 - CPR WELL - GYRO | 8,953.80 | 7,598.60 | 265.39 | 222.38 | 6.170 | CC, ES, SF |
| 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 | | | | | | Out of range |
| Paquette 14-5 - KERR-MCGEE - GYRO | | | | | | Out of range |
| Rasmussen 10-29 - KMG WELL - SURVEYS | | | | | | Out of range |
| Rasmussen 16-29 - KMG WELL - SURVEYS | 12,253.72 | 7,776.90 | 1,244.68 | 1,180.13 | 19.282 | 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 |

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 4S-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 4S-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 | Offset | Distance | | Separation Factor | Warning |
|--|-----------------------|-----------------------|------------------------|-------------------------|-------------------|--------------|
| | Measured Depth (usft) | Measured Depth (usft) | Between Centres (usft) | Between Ellipses (usft) | | |
| Offset Well - Wellbore - Design | | | | | | |
| S32-T2N-R68W | | | | | | |
| Rasmussen 36-29 - KMG WELL - SURVEYS | | | | | | Out of range |
| Rasmussen 37-29 - KMG WELL - SURVEYS | 12,253.72 | 7,735.72 | 612.48 | 532.98 | 7.704 | CC, ES, SF |
| Rasmussen 39-29 - KMG WELL - SURVEYS | | | | | | Out of range |
| 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 | 1,116.88 | 1,085.79 | 313.51 | 307.86 | 55.442 | CC, ES |
| Ray Nelson 33-32 - CPR WELL - SURVEYS | 9,700.00 | 7,826.00 | 1,044.67 | 976.23 | 15.265 | SF |
| Ray Nelson 34-32 - CPR WELL - SURVEYS | 1,470.88 | 1,442.34 | 322.34 | 314.62 | 41.767 | CC |
| Ray Nelson 34-32 - CPR WELL - SURVEYS | 1,500.00 | 1,471.16 | 322.38 | 314.49 | 40.859 | ES |
| Ray Nelson 34-32 - CPR WELL - SURVEYS | 3,300.00 | 3,262.80 | 434.68 | 416.57 | 23.999 | SF |
| Ray Nelson 44-32 - CPR WELL - SURVEYS | 8,226.10 | 7,771.02 | 312.07 | 268.97 | 7.240 | CC, ES, 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 | 76.10 | 337.46 | 337.21 | 1,329.555 | CC, ES |
| Ray Nelson 8-8-32 - CPR WELL - SURVEYS | 7,300.00 | 7,477.78 | 906.34 | 861.25 | 20.104 | 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 4S-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 4S-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 4S-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 4S-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 32-32 - 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 | |
| 9,900.00 | 7,660.00 | 7,767.84 | 7,562.68 | 44.70 | 27.74 | -87.71 | 2,794.18 | -95.85 | 1,444.75 | 1,375.31 | 69.44 | 20.806 | | |
| 10,000.00 | 7,660.00 | 7,769.52 | 7,564.35 | 45.92 | 27.74 | -87.80 | 2,794.21 | -95.89 | 1,385.25 | 1,314.50 | 70.75 | 19.580 | | |
| 10,100.00 | 7,660.00 | 7,771.19 | 7,566.02 | 47.16 | 27.75 | -87.88 | 2,794.24 | -95.94 | 1,330.62 | 1,258.56 | 72.06 | 18.466 | | |
| 10,200.00 | 7,660.00 | 7,772.86 | 7,567.69 | 48.42 | 27.75 | -87.97 | 2,794.27 | -95.98 | 1,281.47 | 1,208.15 | 73.32 | 17.478 | | |
| 10,300.00 | 7,660.00 | 7,774.52 | 7,569.36 | 49.70 | 27.75 | -88.05 | 2,794.29 | -96.02 | 1,238.46 | 1,163.98 | 74.48 | 16.628 | | |
| 10,400.00 | 7,660.00 | 7,776.19 | 7,571.02 | 50.99 | 27.75 | -88.14 | 2,794.32 | -96.07 | 1,202.24 | 1,126.77 | 75.47 | 15.929 | | |
| 10,500.00 | 7,660.00 | 7,777.85 | 7,572.68 | 52.30 | 27.75 | -88.22 | 2,794.35 | -96.11 | 1,173.45 | 1,097.21 | 76.24 | 15.392 | | |
| 10,600.00 | 7,660.00 | 7,779.51 | 7,574.34 | 53.62 | 27.75 | -88.30 | 2,794.38 | -96.16 | 1,152.64 | 1,075.93 | 76.71 | 15.025 | | |
| 10,700.00 | 7,660.00 | 7,781.17 | 7,576.00 | 54.96 | 27.75 | -88.39 | 2,794.40 | -96.20 | 1,140.25 | 1,063.40 | 76.85 | 14.837 | | |
| 10,792.09 | 7,660.00 | 7,782.70 | 7,577.53 | 56.20 | 27.76 | -88.46 | 2,794.43 | -96.24 | 1,136.53 | 1,059.87 | 76.66 | 14.825 | CC, ES, SF | |
| 10,800.00 | 7,660.00 | 7,782.83 | 7,577.66 | 56.31 | 27.76 | -88.47 | 2,794.43 | -96.25 | 1,136.56 | 1,059.93 | 76.63 | 14.832 | | |
| 10,900.00 | 7,660.00 | 7,784.49 | 7,579.31 | 57.67 | 27.76 | -88.55 | 2,794.46 | -96.29 | 1,141.64 | 1,065.58 | 76.06 | 15.009 | | |
| 11,000.00 | 7,660.00 | 7,786.13 | 7,580.96 | 59.05 | 27.76 | -88.64 | 2,794.49 | -96.34 | 1,155.38 | 1,080.19 | 75.19 | 15.367 | | |
| 11,100.00 | 7,660.00 | 7,787.79 | 7,582.61 | 60.43 | 27.76 | -88.72 | 2,794.51 | -96.38 | 1,177.49 | 1,103.41 | 74.08 | 15.896 | | |
| 11,200.00 | 7,660.00 | 7,789.46 | 7,584.28 | 61.82 | 27.76 | -88.80 | 2,794.54 | -96.43 | 1,207.49 | 1,134.69 | 72.80 | 16.586 | | |
| 11,300.00 | 7,660.00 | 7,791.13 | 7,585.95 | 63.23 | 27.76 | -88.89 | 2,794.57 | -96.47 | 1,244.83 | 1,173.37 | 71.46 | 17.421 | | |
| 11,400.00 | 7,660.00 | 7,792.81 | 7,587.63 | 64.64 | 27.77 | -88.97 | 2,794.60 | -96.52 | 1,288.86 | 1,218.75 | 70.11 | 18.384 | | |
| 11,500.00 | 7,660.00 | 7,794.50 | 7,589.32 | 66.06 | 27.77 | -89.06 | 2,794.62 | -96.56 | 1,338.92 | 1,270.10 | 68.81 | 19.457 | | |
| 11,600.00 | 7,660.00 | 7,796.20 | 7,591.02 | 67.48 | 27.77 | -89.14 | 2,794.65 | -96.61 | 1,394.36 | 1,326.75 | 67.61 | 20.623 | | |
| 11,700.00 | 7,660.00 | 7,797.91 | 7,592.73 | 68.91 | 27.77 | -89.23 | 2,794.68 | -96.65 | 1,454.57 | 1,388.05 | 66.52 | 21.865 | | |

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 4S-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 4S-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: 8470-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 | | |
| 10,800.00 | 7,660.00 | 7,540.00 | 7,540.00 | 56.31 | 13.51 | 90.00 | 4,238.86 | 1,454.36 | 1,493.81 | 1,449.22 | 44.59 | 33.498 | | |
| 10,900.00 | 7,660.00 | 7,540.00 | 7,540.00 | 57.67 | 13.51 | 90.00 | 4,238.86 | 1,454.36 | 1,398.05 | 1,353.13 | 44.91 | 31.129 | | |
| 11,000.00 | 7,660.00 | 7,540.00 | 7,540.00 | 59.05 | 13.51 | 90.00 | 4,238.86 | 1,454.36 | 1,302.92 | 1,257.58 | 45.35 | 28.733 | | |
| 11,100.00 | 7,660.00 | 7,540.00 | 7,540.00 | 60.43 | 13.51 | 90.00 | 4,238.86 | 1,454.36 | 1,208.58 | 1,162.65 | 45.94 | 26.310 | | |
| 11,200.00 | 7,660.00 | 7,540.00 | 7,540.00 | 61.82 | 13.51 | 90.00 | 4,238.86 | 1,454.36 | 1,115.23 | 1,068.49 | 46.74 | 23.861 | | |
| 11,300.00 | 7,660.00 | 7,540.00 | 7,540.00 | 63.23 | 13.51 | 90.00 | 4,238.86 | 1,454.36 | 1,023.14 | 975.31 | 47.83 | 21.392 | | |
| 11,400.00 | 7,660.00 | 7,540.00 | 7,540.00 | 64.64 | 13.51 | 90.00 | 4,238.86 | 1,454.36 | 932.68 | 883.37 | 49.31 | 18.916 | | |
| 11,500.00 | 7,660.00 | 7,540.00 | 7,540.00 | 66.06 | 13.51 | 90.00 | 4,238.86 | 1,454.36 | 844.37 | 793.05 | 51.31 | 16.455 | | |
| 11,600.00 | 7,660.00 | 7,540.00 | 7,540.00 | 67.48 | 13.51 | 90.00 | 4,238.86 | 1,454.36 | 758.96 | 704.94 | 54.02 | 14.049 | | |
| 11,700.00 | 7,660.00 | 7,540.00 | 7,540.00 | 68.91 | 13.51 | 90.00 | 4,238.86 | 1,454.36 | 677.57 | 619.92 | 57.65 | 11.753 | | |
| 11,800.00 | 7,660.00 | 7,540.00 | 7,540.00 | 70.35 | 13.51 | 90.00 | 4,238.86 | 1,454.36 | 601.80 | 539.39 | 62.41 | 9.642 | | |
| 11,900.00 | 7,660.00 | 7,540.00 | 7,540.00 | 71.80 | 13.51 | 90.00 | 4,238.86 | 1,454.36 | 534.08 | 465.64 | 68.44 | 7.804 | | |
| 12,000.00 | 7,660.00 | 7,540.00 | 7,540.00 | 73.25 | 13.51 | 90.00 | 4,238.86 | 1,454.36 | 477.81 | 402.30 | 75.52 | 6.327 | | |
| 12,100.00 | 7,660.00 | 7,540.00 | 7,540.00 | 74.71 | 13.51 | 90.00 | 4,238.86 | 1,454.36 | 437.47 | 354.69 | 82.77 | 5.285 | | |
| 12,200.00 | 7,660.00 | 7,540.00 | 7,540.00 | 76.17 | 13.51 | 90.00 | 4,238.86 | 1,454.36 | 417.67 | 329.15 | 88.52 | 4.719 | | |
| 12,234.65 | 7,660.00 | 7,540.00 | 7,540.00 | 76.68 | 13.51 | 90.00 | 4,238.86 | 1,454.36 | 416.23 | 326.41 | 89.82 | 4.634 CC | | |
| 12,253.72 | 7,660.00 | 7,540.00 | 7,540.00 | 76.96 | 13.51 | 90.00 | 4,238.86 | 1,454.36 | 416.67 | 326.32 | 90.35 | 4.612 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 4S-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 4S-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 | |
| 8,800.00 | 7,660.00 | 7,843.80 | 7,600.59 | 33.33 | 30.53 | -89.21 | 2,197.01 | 506.11 | 1,492.92 | 1,439.90 | 53.02 | 28.158 | | |
| 8,900.00 | 7,660.00 | 7,843.40 | 7,600.19 | 34.16 | 30.53 | -89.16 | 2,197.01 | 506.12 | 1,400.01 | 1,346.21 | 53.80 | 26.024 | | |
| 9,000.00 | 7,660.00 | 7,843.00 | 7,599.79 | 35.04 | 30.53 | -89.12 | 2,197.01 | 506.13 | 1,308.14 | 1,253.44 | 54.70 | 23.914 | | |
| 9,100.00 | 7,660.00 | 7,842.60 | 7,599.39 | 35.97 | 30.53 | -89.08 | 2,197.01 | 506.14 | 1,217.55 | 1,161.79 | 55.76 | 21.835 | | |
| 9,200.00 | 7,660.00 | 7,842.21 | 7,598.99 | 36.94 | 30.53 | -89.04 | 2,197.02 | 506.15 | 1,128.56 | 1,071.55 | 57.01 | 19.796 | | |
| 9,300.00 | 7,660.00 | 7,841.81 | 7,598.59 | 37.96 | 30.53 | -88.99 | 2,197.02 | 506.16 | 1,041.57 | 983.08 | 58.48 | 17.810 | | |
| 9,400.00 | 7,660.00 | 7,841.41 | 7,598.20 | 39.00 | 30.53 | -88.95 | 2,197.02 | 506.17 | 957.11 | 896.89 | 60.22 | 15.893 | | |
| 9,500.00 | 7,660.00 | 7,841.02 | 7,597.80 | 40.09 | 30.53 | -88.91 | 2,197.02 | 506.18 | 875.94 | 813.67 | 62.28 | 14.065 | | |
| 9,600.00 | 7,660.00 | 7,840.63 | 7,597.41 | 41.20 | 30.52 | -88.87 | 2,197.02 | 506.19 | 799.05 | 734.38 | 64.67 | 12.355 | | |
| 9,700.00 | 7,660.00 | 7,840.23 | 7,597.02 | 42.34 | 30.52 | -88.82 | 2,197.02 | 506.20 | 727.80 | 660.39 | 67.41 | 10.797 | | |
| 9,800.00 | 7,660.00 | 7,839.84 | 7,596.63 | 43.51 | 30.52 | -88.78 | 2,197.02 | 506.20 | 664.01 | 593.62 | 70.39 | 9.433 | | |
| 9,900.00 | 7,660.00 | 7,839.45 | 7,596.24 | 44.70 | 30.52 | -88.74 | 2,197.03 | 506.21 | 610.01 | 536.63 | 73.38 | 8.313 | | |
| 10,000.00 | 7,660.00 | 7,839.06 | 7,595.85 | 45.92 | 30.52 | -88.70 | 2,197.03 | 506.22 | 568.61 | 492.68 | 75.93 | 7.489 | | |
| 10,100.00 | 7,660.00 | 7,838.68 | 7,595.46 | 47.16 | 30.52 | -88.66 | 2,197.03 | 506.23 | 542.71 | 465.29 | 77.41 | 7.010 | | |
| 10,193.96 | 7,660.00 | 7,838.31 | 7,595.10 | 48.34 | 30.52 | -88.62 | 2,197.03 | 506.24 | 534.51 | 457.17 | 77.34 | 6.911 | CC, ES, SF | |
| 10,200.00 | 7,660.00 | 7,838.29 | 7,595.07 | 48.42 | 30.52 | -88.62 | 2,197.03 | 506.24 | 534.54 | 457.27 | 77.28 | 6.917 | | |
| 10,300.00 | 7,660.00 | 7,837.90 | 7,594.69 | 49.70 | 30.52 | -88.57 | 2,197.03 | 506.25 | 544.93 | 469.55 | 75.38 | 7.229 | | |
| 10,400.00 | 7,660.00 | 7,837.52 | 7,594.31 | 50.99 | 30.52 | -88.53 | 2,197.03 | 506.26 | 572.84 | 500.72 | 72.13 | 7.942 | | |
| 10,500.00 | 7,660.00 | 7,837.14 | 7,593.92 | 52.30 | 30.52 | -88.49 | 2,197.04 | 506.27 | 615.92 | 547.69 | 68.23 | 9.027 | | |
| 10,600.00 | 7,660.00 | 7,836.76 | 7,593.54 | 53.62 | 30.52 | -88.45 | 2,197.04 | 506.28 | 671.24 | 606.92 | 64.32 | 10.436 | | |
| 10,700.00 | 7,660.00 | 7,836.37 | 7,593.16 | 54.96 | 30.52 | -88.41 | 2,197.04 | 506.29 | 736.05 | 675.27 | 60.78 | 12.110 | | |
| 10,800.00 | 7,660.00 | 7,835.99 | 7,592.78 | 56.31 | 30.52 | -88.37 | 2,197.04 | 506.30 | 808.07 | 750.30 | 57.77 | 13.988 | | |
| 10,900.00 | 7,660.00 | 7,835.62 | 7,592.40 | 57.67 | 30.52 | -88.33 | 2,197.04 | 506.31 | 885.54 | 830.25 | 55.29 | 16.016 | | |
| 11,000.00 | 7,660.00 | 7,835.24 | 7,592.02 | 59.05 | 30.52 | -88.29 | 2,197.04 | 506.32 | 967.15 | 913.86 | 53.29 | 18.147 | | |
| 11,100.00 | 7,660.00 | 7,834.86 | 7,591.65 | 60.43 | 30.52 | -88.25 | 2,197.04 | 506.32 | 1,051.95 | 1,000.24 | 51.71 | 20.345 | | |
| 11,200.00 | 7,660.00 | 7,834.49 | 7,591.27 | 61.82 | 30.52 | -88.21 | 2,197.05 | 506.33 | 1,139.21 | 1,088.76 | 50.45 | 22.583 | | |
| 11,300.00 | 7,660.00 | 7,834.11 | 7,590.90 | 63.23 | 30.52 | -88.17 | 2,197.05 | 506.34 | 1,228.41 | 1,178.97 | 49.45 | 24.843 | | |
| 11,400.00 | 7,660.00 | 7,833.74 | 7,590.52 | 64.64 | 30.52 | -88.13 | 2,197.05 | 506.35 | 1,319.17 | 1,270.51 | 48.66 | 27.112 | | |
| 11,500.00 | 7,660.00 | 7,833.36 | 7,590.15 | 66.06 | 30.52 | -88.09 | 2,197.05 | 506.36 | 1,411.17 | 1,363.14 | 48.03 | 29.382 | | |

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 4S-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 4S-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 | | | 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 | | | |
| 11,200.00 | 7,660.00 | 7,576.32 | 7,574.36 | 61.82 | 8.80 | -89.41 | 4,184.61 | -82.99 | 1,490.64 | 1,428.39 | 62.25 | 23.945 | | | |
| 11,300.00 | 7,660.00 | 7,577.03 | 7,575.07 | 63.23 | 8.80 | -89.44 | 4,184.62 | -82.99 | 1,426.73 | 1,362.00 | 64.73 | 22.042 | | | |
| 11,400.00 | 7,660.00 | 7,577.73 | 7,575.77 | 64.64 | 8.80 | -89.48 | 4,184.62 | -82.99 | 1,367.15 | 1,299.83 | 67.32 | 20.309 | | | |
| 11,500.00 | 7,660.00 | 7,578.43 | 7,576.47 | 66.06 | 8.80 | -89.51 | 4,184.63 | -83.00 | 1,312.50 | 1,242.51 | 69.99 | 18.753 | | | |
| 11,600.00 | 7,660.00 | 7,579.14 | 7,577.18 | 67.48 | 8.81 | -89.55 | 4,184.63 | -83.00 | 1,263.41 | 1,190.73 | 72.68 | 17.383 | | | |
| 11,700.00 | 7,660.00 | 7,579.84 | 7,577.88 | 68.91 | 8.81 | -89.59 | 4,184.63 | -83.00 | 1,220.55 | 1,145.23 | 75.32 | 16.205 | | | |
| 11,800.00 | 7,660.00 | 7,580.55 | 7,578.59 | 70.35 | 8.81 | -89.62 | 4,184.64 | -83.01 | 1,184.60 | 1,106.79 | 77.82 | 15.223 | | | |
| 11,900.00 | 7,660.00 | 7,581.25 | 7,579.29 | 71.80 | 8.81 | -89.66 | 4,184.64 | -83.01 | 1,156.21 | 1,076.15 | 80.06 | 14.441 | | | |
| 12,000.00 | 7,660.00 | 7,581.96 | 7,580.00 | 73.25 | 8.81 | -89.69 | 4,184.65 | -83.01 | 1,135.95 | 1,053.98 | 81.96 | 13.860 | | | |
| 12,100.00 | 7,660.00 | 7,582.66 | 7,580.70 | 74.71 | 8.81 | -89.73 | 4,184.65 | -83.01 | 1,124.24 | 1,040.83 | 83.41 | 13.478 | | | |
| 12,182.30 | 7,660.00 | 7,583.24 | 7,581.28 | 75.91 | 8.81 | -89.76 | 4,184.66 | -83.02 | 1,121.22 | 1,037.00 | 84.23 | 13.312 CC, ES | | | |
| 12,200.00 | 7,660.00 | 7,583.37 | 7,581.41 | 76.17 | 8.81 | -89.77 | 4,184.66 | -83.02 | 1,121.36 | 1,037.01 | 84.35 | 13.294 | | | |
| 12,253.72 | 7,660.00 | 7,583.75 | 7,581.79 | 76.96 | 8.81 | -89.79 | 4,184.66 | -83.02 | 1,123.49 | 1,038.86 | 84.63 | 13.275 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 4S-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 4S-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 Trust 32-8 - CPR - NO SURVEYS | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Survey Program: 7765-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 | |
| 9,200.00 | 7,660.00 | 7,618.00 | 7,618.00 | 36.94 | 13.63 | 90.00 | 2,675.75 | 1,216.38 | 1,482.35 | 1,438.10 | 44.25 | 33.497 | | |
| 9,300.00 | 7,660.00 | 7,618.00 | 7,618.00 | 37.96 | 13.63 | 90.00 | 2,675.75 | 1,216.38 | 1,383.11 | 1,338.90 | 44.21 | 31.285 | | |
| 9,400.00 | 7,660.00 | 7,618.00 | 7,618.00 | 39.00 | 13.63 | 90.00 | 2,675.75 | 1,216.38 | 1,283.99 | 1,239.83 | 44.17 | 29.072 | | |
| 9,500.00 | 7,660.00 | 7,618.00 | 7,618.00 | 40.09 | 13.63 | 90.00 | 2,675.75 | 1,216.38 | 1,185.02 | 1,140.90 | 44.12 | 26.858 | | |
| 9,600.00 | 7,660.00 | 7,618.00 | 7,618.00 | 41.20 | 13.63 | 90.00 | 2,675.75 | 1,216.38 | 1,086.24 | 1,042.16 | 44.08 | 24.643 | | |
| 9,700.00 | 7,660.00 | 7,618.00 | 7,618.00 | 42.34 | 13.63 | 90.00 | 2,675.75 | 1,216.38 | 987.70 | 943.65 | 44.04 | 22.427 | | |
| 9,800.00 | 7,660.00 | 7,618.00 | 7,618.00 | 43.51 | 13.63 | 90.00 | 2,675.75 | 1,216.38 | 889.48 | 845.46 | 44.02 | 20.207 | | |
| 9,900.00 | 7,660.00 | 7,618.00 | 7,618.00 | 44.70 | 13.63 | 90.00 | 2,675.75 | 1,216.38 | 791.72 | 747.69 | 44.03 | 17.983 | | |
| 10,000.00 | 7,660.00 | 7,618.00 | 7,618.00 | 45.92 | 13.63 | 90.00 | 2,675.75 | 1,216.38 | 694.59 | 650.49 | 44.09 | 15.752 | | |
| 10,100.00 | 7,660.00 | 7,618.00 | 7,618.00 | 47.16 | 13.63 | 90.00 | 2,675.75 | 1,216.38 | 598.40 | 554.11 | 44.29 | 13.512 | | |
| 10,200.00 | 7,660.00 | 7,618.00 | 7,618.00 | 48.42 | 13.63 | 90.00 | 2,675.75 | 1,216.38 | 503.71 | 458.97 | 44.74 | 11.258 | | |
| 10,300.00 | 7,660.00 | 7,618.00 | 7,618.00 | 49.70 | 13.63 | 90.00 | 2,675.75 | 1,216.38 | 411.53 | 365.76 | 45.76 | 8.992 | | |
| 10,400.00 | 7,660.00 | 7,618.00 | 7,618.00 | 50.99 | 13.63 | 90.00 | 2,675.75 | 1,216.38 | 324.02 | 275.95 | 48.07 | 6.740 | | |
| 10,500.00 | 7,660.00 | 7,618.00 | 7,618.00 | 52.30 | 13.63 | 90.00 | 2,675.75 | 1,216.38 | 246.22 | 193.09 | 53.14 | 4.634 | | |
| 10,600.00 | 7,660.00 | 7,618.00 | 7,618.00 | 53.62 | 13.63 | 90.00 | 2,675.75 | 1,216.38 | 190.43 | 128.32 | 62.10 | 3.066 | | |
| 10,671.82 | 7,660.00 | 7,618.00 | 7,618.00 | 54.58 | 13.63 | 90.00 | 2,675.75 | 1,216.38 | 176.36 | 108.60 | 67.76 | 2.603 | CC, ES, SF | |
| 10,700.00 | 7,660.00 | 7,618.00 | 7,618.00 | 54.96 | 13.63 | 90.00 | 2,675.75 | 1,216.38 | 178.60 | 110.00 | 68.60 | 2.604 | | |
| 10,800.00 | 7,660.00 | 7,618.00 | 7,618.00 | 56.31 | 13.63 | 90.00 | 2,675.75 | 1,216.38 | 218.02 | 152.46 | 65.56 | 3.325 | | |
| 10,900.00 | 7,660.00 | 7,618.00 | 7,618.00 | 57.67 | 13.63 | 90.00 | 2,675.75 | 1,216.38 | 288.39 | 228.13 | 60.26 | 4.786 | | |
| 11,000.00 | 7,660.00 | 7,618.00 | 7,618.00 | 59.05 | 13.63 | 90.00 | 2,675.75 | 1,216.38 | 372.56 | 316.13 | 56.43 | 6.602 | | |
| 11,100.00 | 7,660.00 | 7,618.00 | 7,618.00 | 60.43 | 13.63 | 90.00 | 2,675.75 | 1,216.38 | 463.08 | 409.12 | 53.96 | 8.582 | | |
| 11,200.00 | 7,660.00 | 7,618.00 | 7,618.00 | 61.82 | 13.63 | 90.00 | 2,675.75 | 1,216.38 | 556.84 | 504.52 | 52.33 | 10.642 | | |
| 11,300.00 | 7,660.00 | 7,618.00 | 7,618.00 | 63.23 | 13.63 | 90.00 | 2,675.75 | 1,216.38 | 652.47 | 601.26 | 51.20 | 12.742 | | |
| 11,400.00 | 7,660.00 | 7,618.00 | 7,618.00 | 64.64 | 13.63 | 90.00 | 2,675.75 | 1,216.38 | 749.23 | 698.83 | 50.40 | 14.864 | | |
| 11,500.00 | 7,660.00 | 7,618.00 | 7,618.00 | 66.06 | 13.63 | 90.00 | 2,675.75 | 1,216.38 | 846.75 | 796.93 | 49.81 | 16.998 | | |
| 11,600.00 | 7,660.00 | 7,618.00 | 7,618.00 | 67.48 | 13.63 | 90.00 | 2,675.75 | 1,216.38 | 944.78 | 895.42 | 49.37 | 19.138 | | |
| 11,700.00 | 7,660.00 | 7,618.00 | 7,618.00 | 68.91 | 13.63 | 90.00 | 2,675.75 | 1,216.38 | 1,043.19 | 994.17 | 49.02 | 21.282 | | |
| 11,800.00 | 7,660.00 | 7,618.00 | 7,618.00 | 70.35 | 13.63 | 90.00 | 2,675.75 | 1,216.38 | 1,141.88 | 1,093.13 | 48.74 | 23.426 | | |
| 11,900.00 | 7,660.00 | 7,618.00 | 7,618.00 | 71.80 | 13.63 | 90.00 | 2,675.75 | 1,216.38 | 1,240.78 | 1,192.25 | 48.53 | 25.569 | | |
| 12,000.00 | 7,660.00 | 7,618.00 | 7,618.00 | 73.25 | 13.63 | 90.00 | 2,675.75 | 1,216.38 | 1,339.84 | 1,291.49 | 48.35 | 27.712 | | |
| 12,100.00 | 7,660.00 | 7,618.00 | 7,618.00 | 74.71 | 13.63 | 90.00 | 2,675.75 | 1,216.38 | 1,439.03 | 1,390.82 | 48.20 | 29.852 | | |

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 4S-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 4S-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 Trust C 1 - 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 | |
| 10,300.00 | 7,660.00 | 7,611.98 | 7,610.27 | 49.70 | 8.37 | -94.16 | 3,717.17 | 773.74 | 1,438.53 | 1,399.75 | 38.78 | 37.096 | | |
| 10,400.00 | 7,660.00 | 7,610.19 | 7,608.48 | 50.99 | 8.37 | -93.78 | 3,717.20 | 773.78 | 1,340.38 | 1,301.20 | 39.18 | 34.215 | | |
| 10,500.00 | 7,660.00 | 7,608.40 | 7,606.69 | 52.30 | 8.37 | -93.39 | 3,717.23 | 773.81 | 1,242.52 | 1,202.87 | 39.65 | 31.336 | | |
| 10,600.00 | 7,660.00 | 7,606.61 | 7,604.90 | 53.62 | 8.36 | -93.01 | 3,717.26 | 773.85 | 1,145.02 | 1,104.79 | 40.23 | 28.461 | | |
| 10,700.00 | 7,660.00 | 7,604.83 | 7,603.12 | 54.96 | 8.36 | -92.62 | 3,717.29 | 773.89 | 1,048.00 | 1,007.05 | 40.95 | 25.595 | | |
| 10,800.00 | 7,660.00 | 7,603.04 | 7,601.34 | 56.31 | 8.36 | -92.24 | 3,717.33 | 773.93 | 951.59 | 909.74 | 41.84 | 22.741 | | |
| 10,900.00 | 7,660.00 | 7,601.26 | 7,599.56 | 57.67 | 8.36 | -91.85 | 3,717.36 | 773.96 | 856.00 | 813.00 | 43.00 | 19.909 | | |
| 11,000.00 | 7,660.00 | 7,600.00 | 7,598.30 | 59.05 | 8.36 | -91.58 | 3,717.38 | 773.99 | 761.53 | 717.03 | 44.51 | 17.111 | | |
| 11,100.00 | 7,660.00 | 7,597.83 | 7,596.13 | 60.43 | 8.35 | -91.11 | 3,717.42 | 774.04 | 668.68 | 622.16 | 46.52 | 14.374 | | |
| 11,200.00 | 7,660.00 | 7,596.13 | 7,594.43 | 61.82 | 8.35 | -90.74 | 3,717.45 | 774.07 | 578.21 | 528.93 | 49.28 | 11.734 | | |
| 11,300.00 | 7,660.00 | 7,594.42 | 7,592.72 | 63.23 | 8.35 | -90.37 | 3,717.48 | 774.11 | 491.44 | 438.33 | 53.11 | 9.253 | | |
| 11,400.00 | 7,660.00 | 7,592.69 | 7,590.99 | 64.64 | 8.35 | -90.00 | 3,717.51 | 774.15 | 410.72 | 352.28 | 58.44 | 7.028 | | |
| 11,500.00 | 7,660.00 | 7,590.94 | 7,589.24 | 66.06 | 8.34 | -89.62 | 3,717.54 | 774.18 | 340.39 | 274.92 | 65.47 | 5.199 | | |
| 11,600.00 | 7,660.00 | 7,589.18 | 7,587.48 | 67.48 | 8.34 | -89.24 | 3,717.57 | 774.22 | 288.15 | 215.10 | 73.06 | 3.944 | | |
| 11,700.00 | 7,660.00 | 7,587.41 | 7,585.71 | 68.91 | 8.34 | -88.86 | 3,717.60 | 774.26 | 264.94 | 187.97 | 76.97 | 3.442 | | |
| 11,714.21 | 7,660.00 | 7,587.15 | 7,585.45 | 69.12 | 8.34 | -88.80 | 3,717.61 | 774.26 | 264.56 | 187.64 | 76.92 | 3.439 | CC, ES, SF | |
| 11,800.00 | 7,660.00 | 7,585.61 | 7,583.91 | 70.35 | 8.34 | -88.47 | 3,717.64 | 774.29 | 278.11 | 204.89 | 73.23 | 3.798 | | |
| 11,900.00 | 7,660.00 | 7,583.80 | 7,582.11 | 71.80 | 8.34 | -88.08 | 3,717.67 | 774.33 | 323.26 | 258.38 | 64.87 | 4.983 | | |
| 12,000.00 | 7,660.00 | 7,581.98 | 7,580.28 | 73.25 | 8.33 | -87.68 | 3,717.70 | 774.37 | 389.41 | 332.51 | 56.89 | 6.845 | | |
| 12,100.00 | 7,660.00 | 7,580.13 | 7,578.44 | 74.71 | 8.33 | -87.28 | 3,717.74 | 774.41 | 467.73 | 416.78 | 50.95 | 9.180 | | |
| 12,200.00 | 7,660.00 | 7,578.27 | 7,576.58 | 76.17 | 8.33 | -86.88 | 3,717.77 | 774.45 | 553.08 | 506.23 | 46.85 | 11.806 | | |
| 12,253.72 | 7,660.00 | 7,577.27 | 7,575.57 | 76.96 | 8.33 | -86.66 | 3,717.79 | 774.47 | 600.80 | 555.58 | 45.21 | 13.288 | | |

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 4S-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 4S-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: 722-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) | | | | | |
| 2,900.00 | 2,869.78 | 3,271.16 | 3,213.28 | 11.46 | 19.20 | 110.62 | -1,137.82 | -810.27 | 1,495.72 | 1,467.56 | 28.16 | 53.114 | | | |
| 3,000.00 | 2,968.24 | 3,368.04 | 3,306.99 | 11.91 | 20.06 | 110.53 | -1,141.19 | -785.92 | 1,484.51 | 1,455.19 | 29.32 | 50.628 | | | |
| 3,100.00 | 3,066.71 | 3,480.04 | 3,415.13 | 12.35 | 21.09 | 110.40 | -1,145.27 | -757.04 | 1,472.89 | 1,442.29 | 30.60 | 48.128 | | | |
| 3,200.00 | 3,165.17 | 3,577.58 | 3,509.11 | 12.80 | 22.01 | 110.25 | -1,149.35 | -731.25 | 1,461.10 | 1,429.28 | 31.82 | 45.915 | | | |
| 3,300.00 | 3,263.63 | 3,691.53 | 3,618.85 | 13.24 | 23.09 | 110.09 | -1,153.33 | -700.86 | 1,448.71 | 1,415.58 | 33.13 | 43.722 | | | |
| 3,400.00 | 3,362.09 | 3,784.31 | 3,708.22 | 13.69 | 23.95 | 109.97 | -1,155.89 | -676.05 | 1,435.83 | 1,401.52 | 34.30 | 41.856 | | | |
| 3,500.00 | 3,460.55 | 3,864.83 | 3,786.05 | 14.13 | 24.68 | 109.89 | -1,158.41 | -655.61 | 1,424.20 | 1,388.81 | 35.39 | 40.248 | | | |
| 3,600.00 | 3,559.01 | 3,955.26 | 3,873.71 | 14.58 | 25.47 | 109.83 | -1,161.23 | -633.55 | 1,413.36 | 1,376.86 | 36.50 | 38.717 | | | |
| 3,700.00 | 3,657.48 | 4,037.66 | 3,953.75 | 15.02 | 26.17 | 109.78 | -1,164.16 | -614.22 | 1,403.55 | 1,365.98 | 37.57 | 37.359 | | | |
| 3,800.00 | 3,755.94 | 4,131.77 | 4,045.31 | 15.47 | 26.96 | 109.72 | -1,167.92 | -592.76 | 1,394.51 | 1,355.81 | 38.70 | 36.032 | | | |
| 3,900.00 | 3,854.40 | 4,230.99 | 4,141.75 | 15.92 | 27.81 | 109.64 | -1,172.52 | -569.90 | 1,385.71 | 1,345.82 | 39.89 | 34.739 | | | |
| 4,000.00 | 3,952.86 | 4,333.57 | 4,241.22 | 16.36 | 28.72 | 109.50 | -1,177.82 | -545.39 | 1,376.59 | 1,335.46 | 41.13 | 33.467 | | | |
| 4,100.00 | 4,051.32 | 4,417.97 | 4,323.31 | 16.81 | 29.43 | 109.43 | -1,181.98 | -526.22 | 1,368.22 | 1,325.99 | 42.23 | 32.400 | | | |
| 4,200.00 | 4,149.79 | 4,512.77 | 4,415.75 | 17.26 | 30.21 | 109.38 | -1,186.47 | -505.70 | 1,360.57 | 1,317.20 | 43.36 | 31.375 | | | |
| 4,300.00 | 4,248.25 | 4,625.88 | 4,526.06 | 17.70 | 31.13 | 109.33 | -1,191.51 | -481.20 | 1,352.75 | 1,308.15 | 44.61 | 30.326 | | | |
| 4,400.00 | 4,346.71 | 4,730.99 | 4,628.46 | 18.15 | 32.00 | 109.30 | -1,195.05 | -457.80 | 1,343.73 | 1,297.94 | 45.79 | 29.347 | | | |
| 4,500.00 | 4,445.17 | 4,813.78 | 4,709.39 | 18.60 | 32.65 | 109.32 | -1,197.52 | -440.50 | 1,335.50 | 1,288.70 | 46.80 | 28.534 | | | |
| 4,600.00 | 4,543.63 | 4,899.36 | 4,793.38 | 19.04 | 33.28 | 109.41 | -1,199.44 | -424.19 | 1,328.23 | 1,280.45 | 47.78 | 27.799 | | | |
| 4,700.00 | 4,642.10 | 4,990.74 | 4,883.29 | 19.49 | 33.92 | 109.54 | -1,201.44 | -408.04 | 1,321.99 | 1,273.23 | 48.76 | 27.113 | | | |
| 4,800.00 | 4,740.56 | 5,105.63 | 4,996.14 | 19.94 | 34.77 | 109.65 | -1,204.74 | -386.72 | 1,315.52 | 1,265.62 | 49.90 | 26.364 | | | |
| 4,900.00 | 4,839.02 | 5,207.93 | 5,096.13 | 20.39 | 35.57 | 109.65 | -1,208.79 | -365.48 | 1,308.04 | 1,257.00 | 51.04 | 25.630 | | | |
| 5,000.00 | 4,937.48 | 5,296.18 | 5,182.56 | 20.83 | 36.24 | 109.68 | -1,212.08 | -347.98 | 1,301.13 | 1,249.07 | 52.07 | 24.988 | | | |
| 5,100.00 | 5,035.94 | 5,398.27 | 5,282.84 | 21.28 | 36.99 | 109.78 | -1,215.07 | -329.08 | 1,294.74 | 1,241.60 | 53.14 | 24.366 | | | |
| 5,200.00 | 5,134.41 | 5,489.32 | 5,372.30 | 21.73 | 37.64 | 109.88 | -1,217.63 | -312.33 | 1,288.37 | 1,234.23 | 54.14 | 23.799 | | | |
| 5,300.00 | 5,232.87 | 5,591.98 | 5,473.22 | 22.18 | 38.38 | 109.99 | -1,220.77 | -293.78 | 1,282.41 | 1,227.22 | 55.19 | 23.234 | | | |
| 5,400.00 | 5,331.33 | 5,695.89 | 5,575.28 | 22.63 | 39.14 | 110.09 | -1,223.96 | -274.49 | 1,276.07 | 1,219.80 | 56.27 | 22.677 | | | |
| 5,500.00 | 5,429.79 | 5,793.88 | 5,671.54 | 23.07 | 39.85 | 110.20 | -1,226.75 | -256.37 | 1,269.65 | 1,212.34 | 57.31 | 22.155 | | | |
| 5,600.00 | 5,528.25 | 5,892.80 | 5,768.82 | 23.52 | 40.56 | 110.33 | -1,229.17 | -238.59 | 1,263.38 | 1,205.05 | 58.32 | 21.662 | | | |
| 5,700.00 | 5,626.72 | 5,991.44 | 5,865.83 | 23.97 | 41.25 | 110.48 | -1,231.27 | -220.93 | 1,256.97 | 1,197.65 | 59.32 | 21.189 | | | |
| 5,800.00 | 5,725.18 | 6,070.58 | 5,943.95 | 24.42 | 41.77 | 110.67 | -1,232.38 | -208.27 | 1,251.61 | 1,191.43 | 60.18 | 20.799 | | | |
| 5,900.00 | 5,823.64 | 6,157.51 | 6,029.90 | 24.87 | 42.31 | 110.88 | -1,234.50 | -195.47 | 1,247.86 | 1,186.81 | 61.04 | 20.442 | | | |
| 6,000.00 | 5,922.10 | 6,256.31 | 6,127.63 | 25.31 | 42.93 | 111.12 | -1,236.78 | -181.10 | 1,244.24 | 1,182.27 | 61.97 | 20.079 | | | |
| 6,100.00 | 6,020.56 | 6,366.85 | 6,236.90 | 25.76 | 43.64 | 111.37 | -1,239.88 | -164.71 | 1,240.75 | 1,177.77 | 62.98 | 19.702 | | | |
| 6,200.00 | 6,119.03 | 6,477.99 | 6,346.38 | 26.21 | 44.40 | 111.53 | -1,243.64 | -145.91 | 1,235.95 | 1,171.91 | 64.04 | 19.299 | | | |
| 6,300.00 | 6,217.49 | 6,574.52 | 6,441.51 | 26.66 | 45.05 | 111.70 | -1,246.19 | -129.80 | 1,230.90 | 1,165.89 | 65.01 | 18.934 | | | |
| 6,400.00 | 6,315.95 | 6,668.92 | 6,534.69 | 27.11 | 45.67 | 111.91 | -1,248.35 | -114.83 | 1,226.29 | 1,160.36 | 65.93 | 18.599 | | | |
| 6,500.00 | 6,414.41 | 6,764.74 | 6,629.37 | 27.55 | 46.29 | 112.14 | -1,250.43 | -100.19 | 1,222.10 | 1,155.25 | 66.84 | 18.283 | | | |
| 6,600.00 | 6,512.87 | 6,858.53 | 6,722.13 | 28.00 | 46.87 | 112.39 | -1,252.24 | -86.48 | 1,218.30 | 1,150.58 | 67.72 | 17.990 | | | |
| 6,700.00 | 6,611.34 | 6,939.00 | 6,801.86 | 28.45 | 47.35 | 112.64 | -1,253.74 | -75.73 | 1,215.51 | 1,147.02 | 68.50 | 17.745 | | | |
| 6,800.00 | 6,709.80 | 7,017.98 | 6,880.38 | 28.90 | 47.76 | 112.96 | -1,254.78 | -67.28 | 1,214.53 | 1,145.35 | 69.18 | 17.556 | | | |
| 6,808.95 | 6,718.61 | 7,025.15 | 6,887.52 | 28.94 | 47.79 | 113.00 | -1,254.84 | -66.61 | 1,214.52 | 1,145.29 | 69.23 | 17.542 CC, ES | | | |
| 6,900.00 | 6,808.26 | 7,097.00 | 6,959.13 | 29.35 | 48.13 | 113.37 | -1,255.24 | -60.81 | 1,215.23 | 1,145.45 | 69.78 | 17.415 | | | |
| 6,982.73 | 6,889.71 | 7,166.96 | 7,028.96 | 29.72 | 48.40 | 113.77 | -1,255.30 | -56.52 | 1,216.98 | 1,146.74 | 70.24 | 17.327 | | | |
| 7,000.00 | 6,906.74 | 7,181.36 | 7,043.34 | 29.80 | 48.46 | 121.11 | -1,255.27 | -55.77 | 1,217.59 | 1,147.26 | 70.33 | 17.313 | | | |
| 7,050.00 | 6,956.13 | 7,226.40 | 7,088.33 | 30.01 | 48.61 | 146.33 | -1,255.08 | -53.73 | 1,220.93 | 1,150.33 | 70.60 | 17.294 SF | | | |
| 7,100.00 | 7,005.50 | 7,272.64 | 7,134.54 | 30.19 | 48.75 | 170.86 | -1,254.63 | -51.98 | 1,226.46 | 1,155.58 | 70.88 | 17.304 | | | |
| 7,150.00 | 7,054.61 | 7,318.02 | 7,179.90 | 30.36 | 48.86 | -171.48 | -1,253.93 | -50.61 | 1,234.13 | 1,163.01 | 71.13 | 17.351 | | | |
| 7,200.00 | 7,103.23 | 7,362.70 | 7,224.55 | 30.52 | 48.94 | -159.99 | -1,253.00 | -49.62 | 1,243.94 | 1,172.57 | 71.37 | 17.430 | | | |
| 7,250.00 | 7,151.10 | 7,405.29 | 7,267.12 | 30.65 | 48.99 | -152.32 | -1,251.93 | -49.00 | 1,255.87 | 1,184.27 | 71.60 | 17.540 | | | |
| 7,300.00 | 7,198.01 | 7,445.87 | 7,307.69 | 30.77 | 49.03 | -146.86 | -1,250.98 | -48.63 | 1,269.95 | 1,198.12 | 71.83 | 17.679 | | | |
| 7,350.00 | 7,243.72 | 7,486.59 | 7,348.40 | 30.88 | 49.06 | -142.73 | -1,250.11 | -48.45 | 1,286.15 | 1,214.06 | 72.09 | 17.842 | | | |
| 7,400.00 | 7,288.00 | 7,529.38 | 7,391.18 | 30.97 | 49.09 | -139.46 | -1,249.25 | -48.36 | 1,304.33 | 1,231.96 | 72.37 | 18.023 | | | |

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 4S-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 4S-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: 722-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 | | | |
| 7,450.00 | 7,330.65 | 7,570.00 | 7,431.79 | 31.05 | 49.11 | -136.70 | -1,248.46 | -48.33 | 1,324.41 | 1,251.74 | 72.66 | 18.226 | | | |
| 7,500.00 | 7,371.46 | 7,610.94 | 7,472.73 | 31.12 | 49.14 | -134.29 | -1,247.69 | -48.34 | 1,346.36 | 1,273.37 | 72.98 | 18.447 | | | |
| 7,550.00 | 7,410.22 | 7,649.28 | 7,511.06 | 31.17 | 49.17 | -132.04 | -1,246.99 | -48.36 | 1,370.14 | 1,296.83 | 73.31 | 18.689 | | | |
| 7,600.00 | 7,446.75 | 7,686.51 | 7,548.28 | 31.21 | 49.20 | -129.90 | -1,246.34 | -48.38 | 1,395.71 | 1,322.06 | 73.65 | 18.951 | | | |
| 7,650.00 | 7,480.87 | 7,722.16 | 7,583.93 | 31.24 | 49.22 | -127.76 | -1,245.69 | -48.40 | 1,422.99 | 1,349.00 | 73.99 | 19.233 | | | |
| 7,700.00 | 7,512.42 | 7,755.27 | 7,617.03 | 31.25 | 49.25 | -125.55 | -1,245.07 | -48.41 | 1,451.94 | 1,377.61 | 74.32 | 19.536 | | | |
| 7,750.00 | 7,541.23 | 7,787.30 | 7,649.05 | 31.26 | 49.27 | -123.25 | -1,244.43 | -48.41 | 1,482.47 | 1,407.81 | 74.66 | 19.857 | | | |

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 4S-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 4S-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 | 52.45 | 202.61 | 263.56 | 333.10 | | | | | | |
| 100.00 | 100.00 | 76.69 | 76.69 | 0.14 | 0.11 | 52.51 | 202.56 | 264.04 | 332.80 | 332.55 | 0.25 | 1,321.325 | | | |
| 200.00 | 200.00 | 176.17 | 176.16 | 0.50 | 0.28 | 52.61 | 202.54 | 265.05 | 333.59 | 332.81 | 0.78 | 427.203 | | | |
| 300.00 | 300.00 | 277.29 | 277.28 | 0.85 | 0.46 | 52.77 | 202.29 | 266.18 | 334.33 | 333.02 | 1.31 | 254.349 | | | |
| 400.00 | 400.00 | 386.42 | 386.38 | 1.21 | 0.65 | 53.06 | 200.43 | 266.56 | 333.59 | 331.72 | 1.87 | 178.102 | | | |
| 500.00 | 500.00 | 494.60 | 494.39 | 1.57 | 0.86 | 53.87 | 194.38 | 266.29 | 330.04 | 327.59 | 2.45 | 134.721 | | | |
| 600.00 | 600.00 | 602.68 | 601.85 | 1.93 | 1.12 | 55.54 | 183.00 | 266.66 | 324.22 | 321.16 | 3.06 | 105.926 | | | |
| 700.00 | 699.98 | 707.94 | 705.78 | 2.28 | 1.43 | -62.53 | 166.43 | 267.56 | 315.43 | 311.73 | 3.70 | 85.216 | | | |
| 800.00 | 799.84 | 802.79 | 799.08 | 2.62 | 1.74 | -60.65 | 149.48 | 269.37 | 305.23 | 300.91 | 4.32 | 70.671 | | | |
| 900.00 | 899.45 | 899.68 | 894.23 | 2.97 | 2.08 | -58.87 | 131.50 | 273.01 | 294.95 | 289.96 | 5.00 | 59.042 | | | |
| 1,000.00 | 998.70 | 1,000.15 | 992.55 | 3.33 | 2.47 | -57.14 | 111.43 | 277.63 | 283.27 | 277.52 | 5.75 | 49.290 | | | |
| 1,103.09 | 1,100.51 | 1,101.76 | 1,090.92 | 3.72 | 2.94 | -54.89 | 86.81 | 283.88 | 269.12 | 262.51 | 6.61 | 40.736 | | | |
| 1,200.00 | 1,195.93 | 1,191.00 | 1,176.61 | 4.11 | 3.38 | -52.12 | 63.09 | 291.57 | 256.62 | 249.18 | 7.43 | 34.533 | | | |
| 1,300.00 | 1,294.39 | 1,279.00 | 1,260.70 | 4.51 | 3.85 | -48.85 | 39.25 | 301.76 | 247.17 | 238.87 | 8.30 | 29.788 | | | |
| 1,400.00 | 1,392.85 | 1,372.72 | 1,349.94 | 4.93 | 4.34 | -45.01 | 14.09 | 315.40 | 241.70 | 232.53 | 9.18 | 26.340 | | | |
| 1,474.12 | 1,465.84 | 1,439.85 | 1,413.72 | 5.24 | 4.70 | -42.22 | -3.36 | 326.93 | 240.46 | 230.67 | 9.79 | 24.553 CC | | | |
| 1,500.00 | 1,491.31 | 1,463.89 | 1,436.51 | 5.35 | 4.84 | -41.20 | -9.55 | 331.44 | 240.60 | 230.59 | 10.01 | 24.041 ES | | | |
| 1,600.00 | 1,589.78 | 1,559.29 | 1,526.62 | 5.77 | 5.39 | -37.04 | -34.71 | 350.12 | 242.74 | 231.92 | 10.82 | 22.437 | | | |
| 1,700.00 | 1,688.24 | 1,653.23 | 1,615.22 | 6.20 | 5.93 | -33.16 | -58.88 | 369.86 | 247.69 | 236.15 | 11.55 | 21.453 | | | |
| 1,800.00 | 1,786.70 | 1,746.09 | 1,702.27 | 6.63 | 6.51 | -29.38 | -83.16 | 391.21 | 255.89 | 243.67 | 12.21 | 20.953 | | | |
| 1,900.00 | 1,885.16 | 1,842.98 | 1,792.15 | 7.06 | 7.15 | -25.25 | -110.58 | 414.78 | 266.93 | 254.07 | 12.85 | 20.765 | | | |
| 2,000.00 | 1,983.62 | 1,940.71 | 1,882.55 | 7.50 | 7.81 | -21.03 | -139.93 | 437.56 | 278.66 | 265.25 | 13.41 | 20.780 | | | |
| 2,100.00 | 2,082.09 | 2,039.31 | 1,974.25 | 7.94 | 8.43 | -17.66 | -167.08 | 461.54 | 292.08 | 278.17 | 13.92 | 20.989 | | | |
| 2,200.00 | 2,180.55 | 2,135.19 | 2,063.80 | 8.37 | 9.06 | -14.90 | -192.21 | 484.81 | 305.96 | 291.56 | 14.39 | 21.256 | | | |
| 2,300.00 | 2,279.01 | 2,232.65 | 2,154.47 | 8.81 | 9.69 | -12.23 | -218.50 | 509.00 | 321.31 | 306.48 | 14.83 | 21.665 | | | |
| 2,400.00 | 2,377.47 | 2,332.38 | 2,247.67 | 9.25 | 10.32 | -10.05 | -243.65 | 534.05 | 336.87 | 321.59 | 15.29 | 22.037 | | | |
| 2,500.00 | 2,475.93 | 2,431.11 | 2,339.88 | 9.69 | 10.96 | -8.01 | -269.01 | 558.59 | 352.80 | 337.07 | 15.73 | 22.428 | | | |
| 2,600.00 | 2,574.40 | 2,541.34 | 2,443.45 | 10.14 | 11.63 | -5.74 | -297.48 | 583.32 | 366.94 | 350.70 | 16.25 | 22.586 | | | |
| 2,700.00 | 2,672.86 | 2,639.81 | 2,536.45 | 10.58 | 12.24 | -3.72 | -322.95 | 603.30 | 379.60 | 362.95 | 16.64 | 22.810 | | | |
| 2,800.00 | 2,771.32 | 2,726.07 | 2,617.42 | 11.02 | 12.81 | -2.01 | -346.19 | 621.84 | 394.36 | 377.42 | 16.95 | 23.273 | | | |
| 2,900.00 | 2,869.78 | 2,812.54 | 2,697.25 | 11.46 | 13.44 | -0.09 | -372.81 | 641.70 | 412.94 | 395.74 | 17.20 | 24.004 | | | |
| 3,000.00 | 2,968.24 | 2,904.96 | 2,781.98 | 11.91 | 14.11 | 1.83 | -402.19 | 664.04 | 433.70 | 416.20 | 17.50 | 24.778 | | | |
| 3,100.00 | 3,066.71 | 3,010.03 | 2,878.47 | 12.35 | 14.86 | 3.71 | -434.88 | 689.74 | 454.79 | 436.85 | 17.94 | 25.351 | | | |
| 3,200.00 | 3,165.17 | 3,117.78 | 2,978.38 | 12.80 | 15.59 | 5.52 | -467.32 | 713.75 | 473.76 | 455.36 | 18.40 | 25.751 | | | |
| 3,300.00 | 3,263.63 | 3,212.37 | 3,066.34 | 13.24 | 16.23 | 7.01 | -495.56 | 734.07 | 492.27 | 473.53 | 18.75 | 26.258 | | | |
| 3,400.00 | 3,362.09 | 3,299.18 | 3,146.46 | 13.69 | 16.86 | 8.44 | -523.22 | 752.78 | 512.57 | 493.53 | 19.03 | 26.928 | | | |
| 3,500.00 | 3,460.55 | 3,394.72 | 3,233.91 | 14.13 | 17.56 | 10.06 | -555.67 | 773.42 | 534.75 | 515.36 | 19.39 | 27.584 | | | |
| 3,600.00 | 3,559.01 | 3,514.32 | 3,344.79 | 14.58 | 18.35 | 11.74 | -593.01 | 798.20 | 554.59 | 534.64 | 19.95 | 27.801 | | | |
| 3,700.00 | 3,657.48 | 3,646.87 | 3,469.86 | 15.02 | 19.12 | 13.18 | -628.74 | 823.54 | 570.62 | 550.02 | 20.60 | 27.702 | | | |
| 3,800.00 | 3,755.94 | 3,812.99 | 3,630.94 | 15.47 | 19.80 | 14.92 | -663.36 | 844.09 | 577.23 | 555.94 | 21.29 | 27.109 | | | |
| 3,900.00 | 3,854.40 | 3,908.55 | 3,724.73 | 15.92 | 20.16 | 15.86 | -679.40 | 852.84 | 578.86 | 557.13 | 21.73 | 26.635 | | | |
| 4,000.00 | 3,952.86 | 4,013.72 | 3,828.02 | 16.36 | 20.54 | 16.70 | -695.89 | 863.78 | 580.69 | 558.48 | 22.21 | 26.151 | | | |
| 4,100.00 | 4,051.32 | 4,120.05 | 3,932.81 | 16.81 | 20.89 | 17.28 | -709.40 | 875.71 | 580.90 | 558.20 | 22.70 | 25.588 | | | |
| 4,200.00 | 4,149.79 | 4,208.25 | 4,019.65 | 17.26 | 21.21 | 17.71 | -720.63 | 886.23 | 581.74 | 558.57 | 23.17 | 25.103 | | | |
| 4,300.00 | 4,248.25 | 4,293.46 | 4,103.11 | 17.70 | 21.56 | 18.21 | -733.73 | 897.28 | 585.28 | 561.65 | 23.63 | 24.771 | | | |
| 4,400.00 | 4,346.71 | 4,376.94 | 4,184.47 | 18.15 | 21.94 | 18.72 | -748.16 | 909.15 | 591.23 | 567.16 | 24.07 | 24.565 | | | |
| 4,500.00 | 4,445.17 | 4,471.42 | 4,275.95 | 18.60 | 22.38 | 19.35 | -766.82 | 923.66 | 599.87 | 575.32 | 24.55 | 24.435 | | | |
| 4,600.00 | 4,543.63 | 4,585.54 | 4,386.85 | 19.04 | 22.88 | 19.92 | -786.93 | 941.52 | 607.13 | 582.00 | 25.13 | 24.156 | | | |
| 4,700.00 | 4,642.10 | 4,665.27 | 4,464.32 | 19.49 | 23.27 | 20.37 | -801.48 | 953.47 | 614.57 | 589.00 | 25.57 | 24.034 | | | |
| 4,800.00 | 4,740.56 | 4,745.61 | 4,541.66 | 19.94 | 23.70 | 20.90 | -818.86 | 966.58 | 625.55 | 599.56 | 25.99 | 24.067 | | | |
| 4,900.00 | 4,839.02 | 4,822.47 | 4,614.98 | 20.39 | 24.16 | 21.35 | -836.97 | 980.80 | 639.63 | 613.26 | 26.38 | 24.250 | | | |
| 5,000.00 | 4,937.48 | 4,903.77 | 4,691.64 | 20.83 | 24.67 | 21.84 | -858.46 | 997.22 | 657.13 | 630.35 | 26.78 | 24.535 | | | |

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 4S-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 4S-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 | | |
| 5,100.00 | 5,035.94 | 5,011.09 | 4,792.47 | 21.28 | 25.33 | 22.69 | -889.28 | 1,017.25 | 675.78 | 648.37 | 27.41 | 24.654 | | |
| 5,200.00 | 5,134.41 | 5,113.61 | 4,889.42 | 21.73 | 25.94 | 23.61 | -918.19 | 1,033.83 | 692.55 | 664.54 | 28.01 | 24.726 | | |
| 5,300.00 | 5,232.87 | 5,224.66 | 4,994.80 | 22.18 | 26.57 | 24.61 | -948.93 | 1,050.62 | 708.42 | 679.74 | 28.68 | 24.698 | | |
| 5,400.00 | 5,331.33 | 5,317.13 | 5,082.77 | 22.63 | 27.11 | 25.28 | -973.25 | 1,065.46 | 723.81 | 694.58 | 29.23 | 24.764 | | |
| 5,500.00 | 5,429.79 | 5,414.06 | 5,174.46 | 23.07 | 27.68 | 25.90 | -999.64 | 1,082.56 | 740.98 | 711.16 | 29.81 | 24.855 | | |
| 5,600.00 | 5,528.25 | 5,543.32 | 5,298.14 | 23.52 | 28.36 | 26.67 | -1,031.05 | 1,103.13 | 754.52 | 723.90 | 30.62 | 24.641 | | |
| 5,700.00 | 5,626.72 | 5,677.42 | 5,427.72 | 23.97 | 28.97 | 27.49 | -1,060.14 | 1,121.59 | 764.98 | 733.56 | 31.42 | 24.347 | | |
| 5,800.00 | 5,725.18 | 5,792.84 | 5,540.40 | 24.42 | 29.44 | 28.23 | -1,081.67 | 1,134.26 | 771.21 | 739.09 | 32.12 | 24.013 | | |
| 5,900.00 | 5,823.64 | 5,899.91 | 5,645.09 | 24.87 | 29.86 | 29.05 | -1,101.88 | 1,143.99 | 776.88 | 744.08 | 32.80 | 23.689 | | |
| 6,000.00 | 5,922.10 | 6,009.53 | 5,752.52 | 25.31 | 30.25 | 30.15 | -1,122.84 | 1,149.77 | 780.98 | 747.46 | 33.52 | 23.301 | | |
| 6,100.00 | 6,020.56 | 6,097.56 | 5,838.53 | 25.76 | 30.59 | 31.14 | -1,141.24 | 1,153.41 | 786.36 | 752.16 | 34.19 | 22.998 | | |
| 6,200.00 | 6,119.03 | 6,232.31 | 5,971.03 | 26.21 | 31.02 | 32.46 | -1,164.87 | 1,159.38 | 788.96 | 753.91 | 35.05 | 22.511 | | |
| 6,300.00 | 6,217.49 | 6,377.30 | 6,114.74 | 26.66 | 31.38 | 33.44 | -1,181.61 | 1,168.34 | 787.29 | 751.49 | 35.80 | 21.991 | | |
| 6,400.00 | 6,315.95 | 6,478.21 | 6,215.14 | 27.11 | 31.61 | 34.12 | -1,190.41 | 1,173.17 | 782.65 | 746.14 | 36.52 | 21.432 | | |
| 6,500.00 | 6,414.41 | 6,566.76 | 6,303.14 | 27.55 | 31.83 | 34.59 | -1,198.09 | 1,179.36 | 779.02 | 741.79 | 37.23 | 20.927 | | |
| 6,600.00 | 6,512.87 | 6,692.84 | 6,428.37 | 28.00 | 32.12 | 35.12 | -1,207.99 | 1,190.03 | 775.53 | 737.62 | 37.90 | 20.460 | | |
| 6,700.00 | 6,611.34 | 6,794.67 | 6,529.73 | 28.45 | 32.33 | 35.47 | -1,212.97 | 1,198.49 | 769.11 | 730.52 | 38.58 | 19.933 | | |
| 6,800.00 | 6,709.80 | 6,888.48 | 6,623.12 | 28.90 | 32.52 | 35.89 | -1,218.55 | 1,205.29 | 763.22 | 723.93 | 39.29 | 19.423 | | |
| 6,900.00 | 6,808.26 | 6,996.45 | 6,730.68 | 29.35 | 32.73 | 36.51 | -1,225.48 | 1,211.61 | 757.30 | 717.28 | 40.02 | 18.924 | | |
| 6,982.73 | 6,889.71 | 7,088.97 | 6,822.97 | 29.72 | 32.89 | 37.09 | -1,230.36 | 1,215.94 | 751.18 | 710.56 | 40.62 | 18.491 | | |
| 7,000.00 | 6,906.74 | 7,107.68 | 6,841.64 | 29.80 | 32.92 | 44.47 | -1,231.23 | 1,216.76 | 749.99 | 709.24 | 40.75 | 18.403 | | |
| 7,048.80 | 6,954.94 | 7,159.65 | 6,893.52 | 30.00 | 33.00 | 69.13 | -1,233.48 | 1,218.96 | 748.54 | 707.40 | 41.14 | 18.193 | | |
| 7,050.00 | 6,956.13 | 7,160.92 | 6,894.78 | 30.01 | 33.00 | 69.77 | -1,233.53 | 1,219.01 | 748.54 | 707.39 | 41.15 | 18.189 | | |
| 7,100.00 | 7,005.50 | 7,213.49 | 6,947.27 | 30.19 | 33.08 | 94.33 | -1,235.61 | 1,221.11 | 750.16 | 708.57 | 41.59 | 18.039 | | |
| 7,150.00 | 7,054.61 | 7,265.02 | 6,998.73 | 30.36 | 33.15 | 111.99 | -1,237.50 | 1,223.06 | 754.89 | 712.85 | 42.05 | 17.954 | | |
| 7,200.00 | 7,103.23 | 7,315.76 | 7,049.41 | 30.52 | 33.22 | 123.42 | -1,239.22 | 1,224.89 | 762.80 | 720.27 | 42.53 | 17.935 SF | | |
| 7,250.00 | 7,151.10 | 7,365.25 | 7,098.85 | 30.65 | 33.29 | 130.96 | -1,240.81 | 1,226.56 | 773.90 | 730.86 | 43.04 | 17.982 | | |
| 7,300.00 | 7,198.01 | 7,414.23 | 7,147.78 | 30.77 | 33.36 | 136.20 | -1,242.29 | 1,228.09 | 788.20 | 744.64 | 43.56 | 18.094 | | |
| 7,350.00 | 7,243.72 | 7,462.46 | 7,195.97 | 30.88 | 33.42 | 140.03 | -1,243.61 | 1,229.47 | 805.60 | 761.51 | 44.09 | 18.271 | | |
| 7,400.00 | 7,288.00 | 7,508.24 | 7,241.72 | 30.97 | 33.47 | 142.89 | -1,244.75 | 1,230.69 | 826.09 | 781.46 | 44.63 | 18.511 | | |
| 7,450.00 | 7,330.65 | 7,551.89 | 7,285.34 | 31.05 | 33.52 | 145.08 | -1,245.76 | 1,231.80 | 849.65 | 804.49 | 45.16 | 18.814 | | |
| 7,500.00 | 7,371.46 | 7,592.93 | 7,326.36 | 31.12 | 33.57 | 146.75 | -1,246.67 | 1,232.80 | 876.20 | 830.52 | 45.68 | 19.180 | | |
| 7,550.00 | 7,410.22 | 7,631.53 | 7,364.94 | 31.17 | 33.62 | 147.99 | -1,247.53 | 1,233.64 | 905.66 | 859.47 | 46.19 | 19.606 | | |
| 7,600.00 | 7,446.75 | 7,669.30 | 7,402.70 | 31.21 | 33.66 | 148.92 | -1,248.36 | 1,234.38 | 937.89 | 891.21 | 46.68 | 20.093 | | |
| 7,650.00 | 7,480.87 | 7,706.33 | 7,439.71 | 31.24 | 33.70 | 149.57 | -1,249.06 | 1,235.08 | 972.63 | 925.50 | 47.13 | 20.635 | | |
| 7,700.00 | 7,512.42 | 7,740.63 | 7,474.00 | 31.25 | 33.73 | 149.88 | -1,249.58 | 1,235.71 | 1,009.73 | 962.16 | 47.56 | 21.230 | | |
| 7,750.00 | 7,541.23 | 7,770.15 | 7,503.52 | 31.26 | 33.76 | 149.76 | -1,249.97 | 1,236.23 | 1,049.03 | 1,001.07 | 47.96 | 21.874 | | |
| 7,800.00 | 7,567.18 | 7,796.72 | 7,530.08 | 31.25 | 33.78 | 149.21 | -1,250.30 | 1,236.68 | 1,090.39 | 1,042.06 | 48.32 | 22.564 | | |
| 7,850.00 | 7,590.12 | 7,820.22 | 7,553.57 | 31.24 | 33.80 | 148.13 | -1,250.57 | 1,237.06 | 1,133.58 | 1,084.92 | 48.65 | 23.298 | | |
| 7,900.00 | 7,609.96 | 7,840.50 | 7,573.85 | 31.22 | 33.82 | 146.32 | -1,250.78 | 1,237.38 | 1,178.39 | 1,129.43 | 48.95 | 24.072 | | |
| 7,950.00 | 7,626.60 | 7,857.47 | 7,590.82 | 31.19 | 33.84 | 143.44 | -1,250.95 | 1,237.64 | 1,224.59 | 1,175.37 | 49.22 | 24.881 | | |
| 8,000.00 | 7,639.94 | 7,871.02 | 7,604.37 | 31.15 | 33.85 | 138.88 | -1,251.08 | 1,237.84 | 1,271.95 | 1,222.49 | 49.45 | 25.720 | | |
| 8,050.00 | 7,649.94 | 7,881.08 | 7,614.43 | 31.11 | 33.86 | 131.44 | -1,251.17 | 1,237.98 | 1,320.22 | 1,270.56 | 49.66 | 26.586 | | |
| 8,100.00 | 7,656.54 | 7,887.58 | 7,620.92 | 31.07 | 33.87 | 118.76 | -1,251.23 | 1,238.08 | 1,369.17 | 1,319.33 | 49.84 | 27.473 | | |
| 8,150.00 | 7,659.70 | 7,890.47 | 7,623.81 | 31.03 | 33.87 | 97.31 | -1,251.26 | 1,238.12 | 1,418.53 | 1,368.54 | 49.99 | 28.376 | | |
| 8,170.89 | 7,660.00 | 7,890.59 | 7,623.94 | 31.01 | 33.87 | 85.55 | -1,251.26 | 1,238.12 | 1,439.22 | 1,389.17 | 50.05 | 28.757 | | |
| 8,200.00 | 7,660.00 | 7,890.33 | 7,623.67 | 30.98 | 33.87 | 85.47 | -1,251.25 | 1,238.12 | 1,468.07 | 1,417.95 | 50.12 | 29.290 | | |

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 4S-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 4S-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 | | | |
| 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 | 83.19 | 152.02 | 1,273.58 | 1,283.52 | | | | | | |
| 100.00 | 100.00 | 52.00 | 52.00 | 0.14 | 0.09 | 83.19 | 152.02 | 1,273.58 | 1,282.62 | 1,282.39 | 0.23 | 5,542.582 | | | |
| 200.00 | 200.00 | 152.00 | 152.00 | 0.50 | 0.27 | 83.19 | 152.02 | 1,273.58 | 1,282.62 | 1,281.85 | 0.77 | 1,667.658 | | | |
| 300.00 | 300.00 | 252.00 | 252.00 | 0.85 | 0.45 | 83.19 | 152.02 | 1,273.58 | 1,282.62 | 1,281.31 | 1.31 | 981.484 | | | |
| 400.00 | 400.00 | 352.00 | 352.00 | 1.21 | 0.63 | 83.19 | 152.02 | 1,273.58 | 1,282.62 | 1,280.78 | 1.84 | 695.368 | | | |
| 500.00 | 500.00 | 452.00 | 452.00 | 1.57 | 0.81 | 83.19 | 152.02 | 1,273.58 | 1,282.62 | 1,280.24 | 2.38 | 538.413 | | | |
| 600.00 | 600.00 | 552.00 | 552.00 | 1.93 | 0.99 | 83.19 | 152.02 | 1,273.58 | 1,282.62 | 1,279.70 | 2.92 | 439.265 | | | |
| 700.00 | 699.98 | 651.98 | 651.98 | 2.28 | 1.17 | -37.07 | 152.02 | 1,273.58 | 1,281.23 | 1,277.78 | 3.44 | 371.911 | | | |
| 800.00 | 799.84 | 751.84 | 751.84 | 2.62 | 1.35 | -37.27 | 152.02 | 1,273.58 | 1,277.06 | 1,273.09 | 3.96 | 322.138 | | | |
| 900.00 | 899.45 | 851.45 | 851.45 | 2.97 | 1.53 | -37.59 | 152.02 | 1,273.58 | 1,270.12 | 1,265.63 | 4.49 | 282.825 | | | |
| 1,000.00 | 998.70 | 950.70 | 950.70 | 3.33 | 1.70 | -38.05 | 152.02 | 1,273.58 | 1,260.47 | 1,255.45 | 5.02 | 250.854 | | | |
| 1,103.09 | 1,100.51 | 1,052.51 | 1,052.51 | 3.72 | 1.89 | -38.66 | 152.02 | 1,273.58 | 1,247.72 | 1,242.14 | 5.58 | 223.444 | | | |
| 1,200.00 | 1,195.93 | 1,147.93 | 1,147.93 | 4.11 | 2.06 | -39.15 | 152.02 | 1,273.58 | 1,234.46 | 1,228.35 | 6.12 | 201.831 | | | |
| 1,300.00 | 1,294.39 | 1,246.39 | 1,246.39 | 4.51 | 2.23 | -39.66 | 152.02 | 1,273.58 | 1,220.88 | 1,214.21 | 6.67 | 183.031 | | | |
| 1,400.00 | 1,392.85 | 1,344.85 | 1,344.85 | 4.93 | 2.41 | -40.19 | 152.02 | 1,273.58 | 1,207.40 | 1,200.17 | 7.23 | 166.983 | | | |
| 1,500.00 | 1,491.31 | 1,443.31 | 1,443.31 | 5.35 | 2.59 | -40.73 | 152.02 | 1,273.58 | 1,194.02 | 1,186.22 | 7.80 | 153.154 | | | |
| 1,600.00 | 1,589.78 | 1,541.78 | 1,541.78 | 5.77 | 2.76 | -41.28 | 152.02 | 1,273.58 | 1,180.75 | 1,172.38 | 8.37 | 141.132 | | | |
| 1,700.00 | 1,688.24 | 1,640.24 | 1,640.24 | 6.20 | 2.94 | -41.84 | 152.02 | 1,273.58 | 1,167.58 | 1,158.64 | 8.94 | 130.599 | | | |
| 1,800.00 | 1,786.70 | 1,738.70 | 1,738.70 | 6.63 | 3.12 | -42.41 | 152.02 | 1,273.58 | 1,154.53 | 1,145.02 | 9.52 | 121.302 | | | |
| 1,900.00 | 1,885.16 | 1,837.16 | 1,837.16 | 7.06 | 3.29 | -43.00 | 152.02 | 1,273.58 | 1,141.61 | 1,131.51 | 10.10 | 113.045 | | | |
| 2,000.00 | 1,983.62 | 1,935.62 | 1,935.62 | 7.50 | 3.47 | -43.60 | 152.02 | 1,273.58 | 1,128.80 | 1,118.12 | 10.68 | 105.667 | | | |
| 2,100.00 | 2,082.09 | 2,034.09 | 2,034.09 | 7.94 | 3.65 | -44.21 | 152.02 | 1,273.58 | 1,116.12 | 1,104.85 | 11.27 | 99.040 | | | |
| 2,200.00 | 2,180.55 | 2,132.55 | 2,132.55 | 8.37 | 3.82 | -44.84 | 152.02 | 1,273.58 | 1,103.57 | 1,091.71 | 11.86 | 93.058 | | | |
| 2,300.00 | 2,279.01 | 2,231.01 | 2,231.01 | 8.81 | 4.00 | -45.48 | 152.02 | 1,273.58 | 1,091.15 | 1,078.70 | 12.45 | 87.634 | | | |
| 2,400.00 | 2,377.47 | 2,329.47 | 2,329.47 | 9.25 | 4.18 | -46.14 | 152.02 | 1,273.58 | 1,078.88 | 1,065.83 | 13.05 | 82.698 | | | |
| 2,500.00 | 2,475.93 | 2,427.93 | 2,427.93 | 9.69 | 4.35 | -46.81 | 152.02 | 1,273.58 | 1,066.75 | 1,053.10 | 13.64 | 78.188 | | | |
| 2,600.00 | 2,574.40 | 2,526.40 | 2,526.40 | 10.14 | 4.53 | -47.50 | 152.02 | 1,273.58 | 1,054.77 | 1,040.53 | 14.24 | 74.054 | | | |
| 2,700.00 | 2,672.86 | 2,624.86 | 2,624.86 | 10.58 | 4.70 | -48.20 | 152.02 | 1,273.58 | 1,042.94 | 1,028.10 | 14.85 | 70.253 | | | |
| 2,800.00 | 2,771.32 | 2,723.32 | 2,723.32 | 11.02 | 4.88 | -48.92 | 152.02 | 1,273.58 | 1,031.28 | 1,015.83 | 15.45 | 66.748 | | | |
| 2,900.00 | 2,869.78 | 2,821.78 | 2,821.78 | 11.46 | 5.06 | -49.65 | 152.02 | 1,273.58 | 1,019.78 | 1,003.72 | 16.06 | 63.508 | | | |
| 3,000.00 | 2,968.24 | 2,920.24 | 2,920.24 | 11.91 | 5.23 | -50.40 | 152.02 | 1,273.58 | 1,008.45 | 991.79 | 16.67 | 60.505 | | | |
| 3,100.00 | 3,066.71 | 3,018.71 | 3,018.71 | 12.35 | 5.41 | -51.17 | 152.02 | 1,273.58 | 997.31 | 980.03 | 17.28 | 57.716 | | | |
| 3,200.00 | 3,165.17 | 3,117.17 | 3,117.17 | 12.80 | 5.59 | -51.95 | 152.02 | 1,273.58 | 986.34 | 968.45 | 17.89 | 55.121 | | | |
| 3,300.00 | 3,263.63 | 3,215.63 | 3,215.63 | 13.24 | 5.76 | -52.75 | 152.02 | 1,273.58 | 975.56 | 957.05 | 18.51 | 52.702 | | | |
| 3,400.00 | 3,362.09 | 3,314.09 | 3,314.09 | 13.69 | 5.94 | -53.57 | 152.02 | 1,273.58 | 964.98 | 945.85 | 19.13 | 50.443 | | | |
| 3,500.00 | 3,460.55 | 3,412.55 | 3,412.55 | 14.13 | 6.12 | -54.40 | 152.02 | 1,273.58 | 954.61 | 934.85 | 19.75 | 48.329 | | | |
| 3,600.00 | 3,559.01 | 3,511.01 | 3,511.01 | 14.58 | 6.29 | -55.25 | 152.02 | 1,273.58 | 944.44 | 924.06 | 20.38 | 46.350 | | | |
| 3,700.00 | 3,657.48 | 3,609.48 | 3,609.48 | 15.02 | 6.47 | -56.13 | 152.02 | 1,273.58 | 934.49 | 913.48 | 21.00 | 44.494 | | | |
| 3,800.00 | 3,755.94 | 3,707.94 | 3,707.94 | 15.47 | 6.65 | -57.01 | 152.02 | 1,273.58 | 924.76 | 903.12 | 21.63 | 42.751 | | | |
| 3,900.00 | 3,854.40 | 3,806.40 | 3,806.40 | 15.92 | 6.82 | -57.92 | 152.02 | 1,273.58 | 915.26 | 892.99 | 22.26 | 41.113 | | | |
| 4,000.00 | 3,952.86 | 3,904.86 | 3,904.86 | 16.36 | 7.00 | -58.85 | 152.02 | 1,273.58 | 905.99 | 883.10 | 22.90 | 39.572 | | | |
| 4,100.00 | 4,051.32 | 4,003.32 | 4,003.32 | 16.81 | 7.18 | -59.79 | 152.02 | 1,273.58 | 896.98 | 873.45 | 23.53 | 38.120 | | | |
| 4,200.00 | 4,149.79 | 4,101.79 | 4,101.79 | 17.26 | 7.35 | -60.75 | 152.02 | 1,273.58 | 888.21 | 864.04 | 24.17 | 36.753 | | | |
| 4,300.00 | 4,248.25 | 4,200.25 | 4,200.25 | 17.70 | 7.53 | -61.74 | 152.02 | 1,273.58 | 879.71 | 854.90 | 24.81 | 35.463 | | | |
| 4,400.00 | 4,346.71 | 4,298.71 | 4,298.71 | 18.15 | 7.70 | -62.73 | 152.02 | 1,273.58 | 871.47 | 846.02 | 25.45 | 34.246 | | | |
| 4,500.00 | 4,445.17 | 4,397.17 | 4,397.17 | 18.60 | 7.88 | -63.75 | 152.02 | 1,273.58 | 863.51 | 837.42 | 26.09 | 33.098 | | | |
| 4,600.00 | 4,543.63 | 4,495.63 | 4,495.63 | 19.04 | 8.06 | -64.79 | 152.02 | 1,273.58 | 855.82 | 829.09 | 26.73 | 32.013 | | | |
| 4,700.00 | 4,642.10 | 4,594.10 | 4,594.10 | 19.49 | 8.23 | -65.84 | 152.02 | 1,273.58 | 848.43 | 821.06 | 27.38 | 30.988 | | | |
| 4,800.00 | 4,740.56 | 4,692.56 | 4,692.56 | 19.94 | 8.41 | -66.91 | 152.02 | 1,273.58 | 841.34 | 813.32 | 28.03 | 30.020 | | | |
| 4,900.00 | 4,839.02 | 4,791.02 | 4,791.02 | 20.39 | 8.59 | -68.00 | 152.02 | 1,273.58 | 834.56 | 805.88 | 28.67 | 29.106 | | | |
| 5,000.00 | 4,937.48 | 4,889.48 | 4,889.48 | 20.83 | 8.76 | -69.11 | 152.02 | 1,273.58 | 828.08 | 798.76 | 29.32 | 28.241 | | | |
| 5,100.00 | 5,035.94 | 4,987.94 | 4,987.94 | 21.28 | 8.94 | -70.23 | 152.02 | 1,273.58 | 821.93 | 791.96 | 29.97 | 27.424 | | | |

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 4S-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 4S-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 - Canino 1-X - HUGHES CW - NO SURVEYS | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|-------------------|--------------------|-----------|
| Survey Program: 5034-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 | | |
| 5,194.59 | 5,129.08 | 5,034.00 | 5,034.00 | 21.71 | 9.02 | -70.76 | 152.02 | 1,273.58 | 817.77 | 787.26 | 30.50 | 26.811 CC | | |
| 5,200.00 | 5,134.41 | 5,034.00 | 5,034.00 | 21.73 | 9.02 | -70.76 | 152.02 | 1,273.58 | 817.78 | 787.26 | 30.52 | 26.795 ES, SF | | |
| 5,300.00 | 5,232.87 | 5,034.00 | 5,034.00 | 22.18 | 9.02 | -70.76 | 152.02 | 1,273.58 | 824.53 | 793.89 | 30.65 | 26.906 | | |
| 5,400.00 | 5,331.33 | 5,034.00 | 5,034.00 | 22.63 | 9.02 | -70.76 | 152.02 | 1,273.58 | 843.17 | 812.82 | 30.35 | 27.782 | | |
| 5,500.00 | 5,429.79 | 5,034.00 | 5,034.00 | 23.07 | 9.02 | -70.76 | 152.02 | 1,273.58 | 872.94 | 843.24 | 29.70 | 29.392 | | |
| 5,600.00 | 5,528.25 | 5,034.00 | 5,034.00 | 23.52 | 9.02 | -70.76 | 152.02 | 1,273.58 | 912.74 | 883.96 | 28.79 | 31.706 | | |
| 5,700.00 | 5,626.72 | 5,034.00 | 5,034.00 | 23.97 | 9.02 | -70.76 | 152.02 | 1,273.58 | 961.34 | 933.63 | 27.71 | 34.692 | | |
| 5,800.00 | 5,725.18 | 5,034.00 | 5,034.00 | 24.42 | 9.02 | -70.76 | 152.02 | 1,273.58 | 1,017.48 | 990.93 | 26.55 | 38.317 | | |
| 5,900.00 | 5,823.64 | 5,034.00 | 5,034.00 | 24.87 | 9.02 | -70.76 | 152.02 | 1,273.58 | 1,079.98 | 1,054.59 | 25.38 | 42.547 | | |
| 6,000.00 | 5,922.10 | 5,034.00 | 5,034.00 | 25.31 | 9.02 | -70.76 | 152.02 | 1,273.58 | 1,147.79 | 1,123.55 | 24.24 | 47.349 | | |
| 6,100.00 | 6,020.56 | 5,034.00 | 5,034.00 | 25.76 | 9.02 | -70.76 | 152.02 | 1,273.58 | 1,220.05 | 1,196.89 | 23.16 | 52.688 | | |
| 6,200.00 | 6,119.03 | 5,034.00 | 5,034.00 | 26.21 | 9.02 | -70.76 | 152.02 | 1,273.58 | 1,295.99 | 1,273.85 | 22.14 | 58.529 | | |
| 6,300.00 | 6,217.49 | 5,034.00 | 5,034.00 | 26.66 | 9.02 | -70.76 | 152.02 | 1,273.58 | 1,375.02 | 1,353.81 | 21.21 | 64.837 | | |
| 6,400.00 | 6,315.95 | 5,034.00 | 5,034.00 | 27.11 | 9.02 | -70.76 | 152.02 | 1,273.58 | 1,456.63 | 1,436.28 | 20.35 | 71.574 | | |

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 4S-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 4S-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 | -89.74 | 0.82 | -179.90 | 179.90 | 179.63 | 0.28 | 651.773 | | | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | -89.74 | 0.82 | -179.90 | 179.90 | 178.91 | 0.99 | 181.179 CC, ES | | | | | | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | -89.74 | 0.82 | -179.90 | 179.90 | 179.09 | 1.71 | 105.792 | | | | | | | |
| 300.00 | 300.00 | 296.75 | 296.73 | 0.85 | 0.84 | -89.30 | 2.21 | -180.76 | 180.80 | 179.09 | 1.71 | 105.792 | | | | | | | |
| 400.00 | 400.00 | 393.28 | 393.13 | 1.21 | 1.20 | -88.01 | 6.36 | -183.32 | 183.56 | 181.13 | 2.44 | 75.364 | | | | | | | |
| 500.00 | 500.00 | 489.37 | 488.88 | 1.57 | 1.55 | -85.96 | 13.24 | -187.57 | 188.37 | 185.20 | 3.17 | 59.409 | | | | | | | |
| 600.00 | 600.00 | 585.35 | 584.19 | 1.93 | 1.91 | -83.27 | 22.81 | -193.48 | 195.46 | 191.55 | 3.91 | 49.989 | | | | | | | |
| 700.00 | 699.98 | 684.28 | 682.29 | 2.28 | 2.29 | 159.46 | 33.72 | -200.21 | 205.42 | 200.80 | 4.62 | 44.457 | | | | | | | |
| 800.00 | 799.84 | 782.70 | 779.88 | 2.62 | 2.67 | 162.37 | 44.58 | -206.90 | 219.21 | 213.88 | 5.33 | 41.162 | | | | | | | |
| 900.00 | 899.45 | 880.48 | 876.84 | 2.97 | 3.06 | 165.13 | 55.36 | -213.55 | 236.84 | 230.81 | 6.03 | 39.261 | | | | | | | |
| 1,000.00 | 998.70 | 977.50 | 973.04 | 3.33 | 3.44 | 167.66 | 66.06 | -220.16 | 258.32 | 251.58 | 6.74 | 38.338 | | | | | | | |
| 1,103.09 | 1,100.51 | 1,076.60 | 1,071.30 | 3.72 | 3.83 | 169.98 | 76.98 | -226.90 | 284.42 | 276.96 | 7.46 | 38.114 SF | | | | | | | |
| 1,200.00 | 1,195.93 | 1,169.28 | 1,163.20 | 4.11 | 4.20 | 171.93 | 87.20 | -233.20 | 310.99 | 302.85 | 8.14 | 38.218 | | | | | | | |
| 1,300.00 | 1,294.39 | 1,264.92 | 1,258.03 | 4.51 | 4.58 | 173.63 | 97.75 | -239.71 | 338.70 | 329.87 | 8.83 | 38.357 | | | | | | | |
| 1,400.00 | 1,392.85 | 1,360.55 | 1,352.86 | 4.93 | 4.97 | 175.06 | 108.29 | -246.22 | 366.65 | 357.12 | 9.53 | 38.489 | | | | | | | |
| 1,500.00 | 1,491.31 | 1,456.19 | 1,447.69 | 5.35 | 5.35 | 176.30 | 118.84 | -252.72 | 394.78 | 384.56 | 10.22 | 38.612 | | | | | | | |
| 1,600.00 | 1,589.78 | 1,551.82 | 1,542.52 | 5.77 | 5.73 | 177.37 | 129.38 | -259.23 | 423.06 | 412.14 | 10.92 | 38.725 | | | | | | | |
| 1,700.00 | 1,688.24 | 1,647.46 | 1,637.35 | 6.20 | 6.11 | 178.31 | 139.93 | -265.73 | 451.46 | 439.83 | 11.63 | 38.828 | | | | | | | |
| 1,800.00 | 1,786.70 | 1,743.09 | 1,732.18 | 6.63 | 6.50 | 179.14 | 150.47 | -272.24 | 479.96 | 467.63 | 12.33 | 38.922 | | | | | | | |
| 1,900.00 | 1,885.16 | 1,838.73 | 1,827.01 | 7.06 | 6.88 | 179.87 | 161.02 | -278.75 | 508.54 | 495.50 | 13.04 | 39.007 | | | | | | | |
| 2,000.00 | 1,983.62 | 1,934.36 | 1,921.84 | 7.50 | 7.26 | -179.47 | 171.56 | -285.25 | 537.19 | 523.44 | 13.74 | 39.085 | | | | | | | |
| 2,100.00 | 2,082.09 | 2,030.00 | 2,016.67 | 7.94 | 7.64 | -178.88 | 182.11 | -291.76 | 565.89 | 551.44 | 14.45 | 39.157 | | | | | | | |
| 2,200.00 | 2,180.55 | 2,125.64 | 2,111.50 | 8.37 | 8.03 | -178.35 | 192.66 | -298.27 | 594.65 | 579.49 | 15.16 | 39.222 | | | | | | | |
| 2,300.00 | 2,279.01 | 2,221.27 | 2,206.33 | 8.81 | 8.41 | -177.86 | 203.20 | -304.77 | 623.45 | 607.58 | 15.87 | 39.282 | | | | | | | |
| 2,400.00 | 2,377.47 | 2,316.91 | 2,301.15 | 9.25 | 8.79 | -177.42 | 213.75 | -311.28 | 652.29 | 635.71 | 16.58 | 39.337 | | | | | | | |
| 2,500.00 | 2,475.93 | 2,412.54 | 2,395.98 | 9.69 | 9.18 | -177.01 | 224.29 | -317.79 | 681.16 | 663.87 | 17.29 | 39.388 | | | | | | | |
| 2,600.00 | 2,574.40 | 2,508.18 | 2,490.81 | 10.14 | 9.56 | -176.64 | 234.84 | -324.29 | 710.06 | 692.05 | 18.01 | 39.435 | | | | | | | |
| 2,700.00 | 2,672.86 | 2,603.81 | 2,585.64 | 10.58 | 9.95 | -176.30 | 245.38 | -330.80 | 738.98 | 720.26 | 18.72 | 39.478 | | | | | | | |
| 2,800.00 | 2,771.32 | 2,699.45 | 2,680.47 | 11.02 | 10.33 | -175.98 | 255.93 | -337.31 | 767.93 | 748.50 | 19.43 | 39.518 | | | | | | | |
| 2,900.00 | 2,869.78 | 2,795.09 | 2,775.30 | 11.46 | 10.71 | -175.69 | 266.47 | -343.81 | 796.89 | 776.75 | 20.15 | 39.556 | | | | | | | |
| 3,000.00 | 2,968.24 | 2,890.72 | 2,870.13 | 11.91 | 11.10 | -175.42 | 277.02 | -350.32 | 825.88 | 805.02 | 20.86 | 39.591 | | | | | | | |
| 3,100.00 | 3,066.71 | 2,986.36 | 2,964.96 | 12.35 | 11.48 | -175.16 | 287.56 | -356.83 | 854.88 | 833.30 | 21.58 | 39.623 | | | | | | | |
| 3,200.00 | 3,165.17 | 3,081.99 | 3,059.79 | 12.80 | 11.86 | -174.92 | 298.11 | -363.33 | 883.89 | 861.60 | 22.29 | 39.654 | | | | | | | |
| 3,300.00 | 3,263.63 | 3,177.63 | 3,154.62 | 13.24 | 12.25 | -174.70 | 308.65 | -369.84 | 912.92 | 889.92 | 23.01 | 39.682 | | | | | | | |
| 3,400.00 | 3,362.09 | 3,273.26 | 3,249.45 | 13.69 | 12.63 | -174.49 | 319.20 | -376.34 | 941.96 | 918.24 | 23.72 | 39.709 | | | | | | | |
| 3,500.00 | 3,460.55 | 3,368.90 | 3,344.28 | 14.13 | 13.02 | -174.29 | 329.74 | -382.85 | 971.01 | 946.58 | 24.44 | 39.734 | | | | | | | |
| 3,600.00 | 3,559.01 | 3,464.53 | 3,439.11 | 14.58 | 13.40 | -174.11 | 340.29 | -389.36 | 1,000.07 | 974.92 | 25.15 | 39.758 | | | | | | | |
| 3,700.00 | 3,657.48 | 3,560.17 | 3,533.94 | 15.02 | 13.78 | -173.93 | 350.84 | -395.86 | 1,029.14 | 1,003.27 | 25.87 | 39.780 | | | | | | | |
| 3,800.00 | 3,755.94 | 3,655.81 | 3,628.77 | 15.47 | 14.17 | -173.77 | 361.38 | -402.37 | 1,058.22 | 1,031.63 | 26.59 | 39.801 | | | | | | | |
| 3,900.00 | 3,854.40 | 3,751.44 | 3,723.60 | 15.92 | 14.55 | -173.61 | 371.93 | -408.88 | 1,087.31 | 1,060.00 | 27.31 | 39.821 | | | | | | | |
| 4,000.00 | 3,952.86 | 3,847.08 | 3,818.43 | 16.36 | 14.94 | -173.46 | 382.47 | -415.38 | 1,116.40 | 1,088.38 | 28.02 | 39.840 | | | | | | | |
| 4,100.00 | 4,051.32 | 3,942.71 | 3,913.26 | 16.81 | 15.32 | -173.32 | 393.02 | -421.89 | 1,145.50 | 1,116.76 | 28.74 | 39.857 | | | | | | | |
| 4,200.00 | 4,149.79 | 4,038.35 | 4,008.09 | 17.26 | 15.70 | -173.19 | 403.56 | -428.40 | 1,174.60 | 1,145.15 | 29.46 | 39.874 | | | | | | | |
| 4,300.00 | 4,248.25 | 4,133.98 | 4,102.92 | 17.70 | 16.09 | -173.06 | 414.11 | -434.90 | 1,203.72 | 1,173.54 | 30.18 | 39.890 | | | | | | | |
| 4,400.00 | 4,346.71 | 4,229.62 | 4,197.74 | 18.15 | 16.47 | -172.94 | 424.65 | -441.41 | 1,232.83 | 1,201.94 | 30.89 | 39.905 | | | | | | | |
| 4,500.00 | 4,445.17 | 4,325.26 | 4,292.57 | 18.60 | 16.86 | -172.83 | 435.20 | -447.92 | 1,261.95 | 1,230.34 | 31.61 | 39.920 | | | | | | | |
| 4,600.00 | 4,543.63 | 4,420.89 | 4,387.40 | 19.04 | 17.24 | -172.72 | 445.74 | -454.42 | 1,291.08 | 1,258.75 | 32.33 | 39.934 | | | | | | | |
| 4,700.00 | 4,642.10 | 4,516.53 | 4,482.23 | 19.49 | 17.62 | -172.61 | 456.29 | -460.93 | 1,320.21 | 1,287.16 | 33.05 | 39.947 | | | | | | | |
| 4,800.00 | 4,740.56 | 4,612.16 | 4,577.06 | 19.94 | 18.01 | -172.51 | 466.83 | -467.44 | 1,349.34 | 1,315.57 | 33.77 | 39.959 | | | | | | | |
| 4,900.00 | 4,839.02 | 4,707.80 | 4,671.89 | 20.39 | 18.39 | -172.41 | 477.38 | -473.94 | 1,378.48 | 1,343.99 | 34.49 | 39.971 | | | | | | | |
| 5,000.00 | 4,937.48 | 4,803.43 | 4,766.72 | 20.83 | 18.78 | -172.32 | 487.92 | -480.45 | 1,407.62 | 1,372.41 | 35.21 | 39.983 | | | | | | | |
| 5,100.00 | 5,035.94 | 4,899.07 | 4,861.55 | 21.28 | 19.16 | -172.23 | 498.47 | -486.95 | 1,436.76 | 1,400.84 | 35.92 | 39.994 | | | | | | | |

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 4S-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 4S-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 | | |
| 5,200.00 | 5,134.41 | 4,994.70 | 4,956.38 | 21.73 | 19.55 | -172.14 | 509.01 | -493.46 | 1,465.91 | 1,429.27 | 36.64 | 40.004 | | |
| 5,300.00 | 5,232.87 | 5,090.34 | 5,051.21 | 22.18 | 19.93 | -172.06 | 519.56 | -499.97 | 1,495.06 | 1,457.70 | 37.36 | 40.014 | | |

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well HWY52 4S-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 4S-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 | -89.73 | 0.80 | -170.11 | 170.11 | | | | | | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | -89.73 | 0.80 | -170.11 | 170.11 | 169.84 | | 0.28 | 616.296 | | | | | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | -89.73 | 0.80 | -170.11 | 170.11 | 169.12 | | 0.99 | 171.317 | | | | | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.85 | 0.85 | -89.73 | 0.80 | -170.11 | 170.11 | 168.40 | | 1.71 | 99.486 CC | | | | | | |
| 400.00 | 400.00 | 398.77 | 398.75 | 1.21 | 1.21 | -89.17 | 2.47 | -170.45 | 170.47 | 168.05 | | 2.42 | 70.353 ES | | | | | | |
| 500.00 | 500.00 | 497.30 | 497.14 | 1.57 | 1.57 | -87.51 | 7.46 | -171.46 | 171.65 | 168.51 | | 3.14 | 54.691 | | | | | | |
| 600.00 | 600.00 | 595.37 | 594.84 | 1.93 | 1.93 | -84.82 | 15.71 | -173.14 | 173.93 | 170.07 | | 3.86 | 45.058 | | | | | | |
| 700.00 | 699.98 | 694.28 | 693.17 | 2.28 | 2.29 | 158.49 | 26.27 | -175.28 | 178.99 | 174.42 | | 4.58 | 39.113 | | | | | | |
| 800.00 | 799.84 | 793.16 | 791.45 | 2.62 | 2.66 | 162.12 | 36.89 | -177.44 | 188.05 | 182.76 | | 5.29 | 35.556 | | | | | | |
| 900.00 | 899.45 | 891.53 | 889.23 | 2.97 | 3.03 | 165.63 | 47.45 | -179.58 | 201.18 | 195.17 | | 6.01 | 33.502 | | | | | | |
| 1,000.00 | 998.70 | 989.30 | 986.41 | 3.33 | 3.40 | 168.88 | 57.95 | -181.71 | 218.38 | 211.66 | | 6.72 | 32.488 | | | | | | |
| 1,103.09 | 1,100.51 | 1,089.32 | 1,085.82 | 3.72 | 3.79 | 171.85 | 68.69 | -183.90 | 240.30 | 232.84 | | 7.46 | 32.218 | | | | | | |
| 1,200.00 | 1,195.93 | 1,182.92 | 1,178.87 | 4.11 | 4.15 | 174.28 | 78.74 | -185.94 | 263.09 | 254.95 | | 8.15 | 32.298 | | | | | | |
| 1,300.00 | 1,294.39 | 1,279.52 | 1,274.88 | 4.51 | 4.52 | 176.38 | 89.12 | -188.04 | 287.02 | 278.16 | | 8.85 | 32.426 | | | | | | |
| 1,400.00 | 1,392.85 | 1,376.12 | 1,370.90 | 4.93 | 4.89 | 178.16 | 99.49 | -190.15 | 311.25 | 301.69 | | 9.56 | 32.560 | | | | | | |
| 1,500.00 | 1,491.31 | 1,472.71 | 1,466.91 | 5.35 | 5.26 | 179.69 | 109.86 | -192.26 | 335.72 | 325.46 | | 10.27 | 32.693 | | | | | | |
| 1,600.00 | 1,589.78 | 1,569.31 | 1,562.93 | 5.77 | 5.63 | -178.99 | 120.24 | -194.36 | 360.40 | 349.42 | | 10.98 | 32.821 | | | | | | |
| 1,700.00 | 1,688.24 | 1,665.90 | 1,658.94 | 6.20 | 6.01 | -177.84 | 130.61 | -196.47 | 385.22 | 373.53 | | 11.69 | 32.942 | | | | | | |
| 1,800.00 | 1,786.70 | 1,762.50 | 1,754.95 | 6.63 | 6.38 | -176.83 | 140.98 | -198.58 | 410.18 | 397.77 | | 12.41 | 33.056 | | | | | | |
| 1,900.00 | 1,885.16 | 1,859.09 | 1,850.97 | 7.06 | 6.75 | -175.94 | 151.36 | -200.68 | 435.25 | 422.12 | | 13.12 | 33.162 | | | | | | |
| 2,000.00 | 1,983.62 | 1,955.69 | 1,946.98 | 7.50 | 7.13 | -175.14 | 161.73 | -202.79 | 460.40 | 446.56 | | 13.84 | 33.260 | | | | | | |
| 2,100.00 | 2,082.09 | 2,052.29 | 2,043.00 | 7.94 | 7.50 | -174.42 | 172.11 | -204.89 | 485.63 | 471.07 | | 14.56 | 33.352 | | | | | | |
| 2,200.00 | 2,180.55 | 2,148.88 | 2,139.01 | 8.37 | 7.87 | -173.78 | 182.48 | -207.00 | 510.92 | 495.64 | | 15.28 | 33.437 | | | | | | |
| 2,300.00 | 2,279.01 | 2,245.48 | 2,235.02 | 8.81 | 8.25 | -173.19 | 192.85 | -209.11 | 536.27 | 520.27 | | 16.00 | 33.516 | | | | | | |
| 2,400.00 | 2,377.47 | 2,342.07 | 2,331.04 | 9.25 | 8.62 | -172.66 | 203.23 | -211.21 | 561.66 | 544.94 | | 16.72 | 33.590 | | | | | | |
| 2,500.00 | 2,475.93 | 2,438.67 | 2,427.05 | 9.69 | 8.99 | -172.18 | 213.60 | -213.32 | 587.10 | 569.66 | | 17.44 | 33.658 | | | | | | |
| 2,600.00 | 2,574.40 | 2,535.27 | 2,523.07 | 10.14 | 9.37 | -171.73 | 223.97 | -215.43 | 612.57 | 594.41 | | 18.17 | 33.722 | | | | | | |
| 2,700.00 | 2,672.86 | 2,631.86 | 2,619.08 | 10.58 | 9.74 | -171.32 | 234.35 | -217.53 | 638.08 | 619.19 | | 18.89 | 33.781 | | | | | | |
| 2,800.00 | 2,771.32 | 2,728.46 | 2,715.10 | 11.02 | 10.12 | -170.94 | 244.72 | -219.64 | 663.61 | 644.00 | | 19.61 | 33.837 | | | | | | |
| 2,900.00 | 2,869.78 | 2,825.05 | 2,811.11 | 11.46 | 10.49 | -170.59 | 255.09 | -221.75 | 689.17 | 668.83 | | 20.34 | 33.889 | | | | | | |
| 3,000.00 | 2,968.24 | 2,921.65 | 2,907.12 | 11.91 | 10.86 | -170.27 | 265.47 | -223.85 | 714.75 | 693.69 | | 21.06 | 33.937 | | | | | | |
| 3,100.00 | 3,066.71 | 3,018.25 | 3,003.14 | 12.35 | 11.24 | -169.96 | 275.84 | -225.96 | 740.35 | 718.56 | | 21.79 | 33.983 | | | | | | |
| 3,200.00 | 3,165.17 | 3,114.84 | 3,099.15 | 12.80 | 11.61 | -169.68 | 286.21 | -228.07 | 765.97 | 743.46 | | 22.51 | 34.026 | | | | | | |
| 3,300.00 | 3,263.63 | 3,211.44 | 3,195.17 | 13.24 | 11.99 | -169.42 | 296.59 | -230.17 | 791.60 | 768.37 | | 23.24 | 34.067 | | | | | | |
| 3,400.00 | 3,362.09 | 3,308.03 | 3,291.18 | 13.69 | 12.36 | -169.17 | 306.96 | -232.28 | 817.25 | 793.29 | | 23.96 | 34.105 | | | | | | |
| 3,500.00 | 3,460.55 | 3,404.63 | 3,387.19 | 14.13 | 12.73 | -168.94 | 317.33 | -234.38 | 842.92 | 818.23 | | 24.69 | 34.141 | | | | | | |
| 3,600.00 | 3,559.01 | 3,501.22 | 3,483.21 | 14.58 | 13.11 | -168.72 | 327.71 | -236.49 | 868.59 | 843.18 | | 25.42 | 34.175 | | | | | | |
| 3,700.00 | 3,657.48 | 3,597.82 | 3,579.22 | 15.02 | 13.48 | -168.51 | 338.08 | -238.60 | 894.28 | 868.14 | | 26.14 | 34.208 | | | | | | |
| 3,800.00 | 3,755.94 | 3,694.42 | 3,675.24 | 15.47 | 13.86 | -168.32 | 348.45 | -240.70 | 919.98 | 893.11 | | 26.87 | 34.239 | | | | | | |
| 3,900.00 | 3,854.40 | 3,791.01 | 3,771.25 | 15.92 | 14.23 | -168.13 | 358.83 | -242.81 | 945.68 | 918.09 | | 27.60 | 34.268 | | | | | | |
| 4,000.00 | 3,952.86 | 3,887.61 | 3,867.27 | 16.36 | 14.61 | -167.96 | 369.20 | -244.92 | 971.40 | 943.07 | | 28.32 | 34.295 | | | | | | |
| 4,100.00 | 4,051.32 | 3,984.20 | 3,963.28 | 16.81 | 14.98 | -167.79 | 379.57 | -247.02 | 997.12 | 968.07 | | 29.05 | 34.322 | | | | | | |
| 4,200.00 | 4,149.79 | 4,080.80 | 4,059.29 | 17.26 | 15.35 | -167.63 | 389.95 | -249.13 | 1,022.85 | 993.07 | | 29.78 | 34.347 | | | | | | |
| 4,300.00 | 4,248.25 | 4,177.40 | 4,155.31 | 17.70 | 15.73 | -167.48 | 400.32 | -251.24 | 1,048.59 | 1,018.08 | | 30.51 | 34.371 | | | | | | |
| 4,400.00 | 4,346.71 | 4,273.99 | 4,251.32 | 18.15 | 16.10 | -167.34 | 410.69 | -253.34 | 1,074.33 | 1,043.10 | | 31.24 | 34.393 | | | | | | |
| 4,500.00 | 4,445.17 | 4,370.59 | 4,347.34 | 18.60 | 16.48 | -167.21 | 421.07 | -255.45 | 1,100.08 | 1,068.12 | | 31.96 | 34.415 | | | | | | |
| 4,600.00 | 4,543.63 | 4,467.18 | 4,443.35 | 19.04 | 16.85 | -167.08 | 431.44 | -257.55 | 1,125.84 | 1,093.14 | | 32.69 | 34.436 | | | | | | |
| 4,700.00 | 4,642.10 | 4,563.78 | 4,539.36 | 19.49 | 17.23 | -166.95 | 441.81 | -259.66 | 1,151.60 | 1,118.17 | | 33.42 | 34.456 | | | | | | |
| 4,800.00 | 4,740.56 | 4,660.37 | 4,635.38 | 19.94 | 17.60 | -166.83 | 452.19 | -261.77 | 1,177.36 | 1,143.21 | | 34.15 | 34.475 | | | | | | |
| 4,900.00 | 4,839.02 | 4,756.97 | 4,731.39 | 20.39 | 17.98 | -166.72 | 462.56 | -263.87 | 1,203.13 | 1,168.25 | | 34.88 | 34.493 | | | | | | |
| 5,000.00 | 4,937.48 | 4,853.57 | 4,827.41 | 20.83 | 18.35 | -166.61 | 472.93 | -265.98 | 1,228.90 | 1,193.30 | | 35.61 | 34.511 | | | | | | |
| 5,100.00 | 5,035.94 | 4,950.16 | 4,923.42 | 21.28 | 18.72 | -166.51 | 483.31 | -268.09 | 1,254.68 | 1,218.34 | | 36.34 | 34.528 | | | | | | |

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 4S-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 4S-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) | | | | | | | | | |
| 5,200.00 | 5,134.41 | 5,046.76 | 5,019.43 | 21.73 | 19.10 | -166.41 | 493.68 | -270.19 | 1,280.46 | 1,243.40 | 37.07 | 34.544 | | | | | | | |
| 5,300.00 | 5,232.87 | 5,143.35 | 5,115.45 | 22.18 | 19.47 | -166.31 | 504.06 | -272.30 | 1,306.25 | 1,268.45 | 37.80 | 34.559 | | | | | | | |
| 5,400.00 | 5,331.33 | 5,239.95 | 5,211.46 | 22.63 | 19.85 | -166.22 | 514.43 | -274.41 | 1,332.04 | 1,293.51 | 38.53 | 34.574 | | | | | | | |
| 5,500.00 | 5,429.79 | 5,336.55 | 5,307.48 | 23.07 | 20.22 | -166.13 | 524.80 | -276.51 | 1,357.83 | 1,318.57 | 39.26 | 34.588 | | | | | | | |
| 5,600.00 | 5,528.25 | 5,433.14 | 5,403.49 | 23.52 | 20.60 | -166.05 | 535.18 | -278.62 | 1,383.62 | 1,343.64 | 39.99 | 34.602 | | | | | | | |
| 5,700.00 | 5,626.72 | 5,529.74 | 5,499.51 | 23.97 | 20.97 | -165.96 | 545.55 | -280.73 | 1,409.42 | 1,368.70 | 40.72 | 34.615 | | | | | | | |
| 5,800.00 | 5,725.18 | 5,626.33 | 5,595.52 | 24.42 | 21.35 | -165.88 | 555.92 | -282.83 | 1,435.22 | 1,393.77 | 41.45 | 34.628 | | | | | | | |
| 5,900.00 | 5,823.64 | 5,722.93 | 5,691.53 | 24.87 | 21.72 | -165.81 | 566.30 | -284.94 | 1,461.02 | 1,418.84 | 42.18 | 34.641 | | | | | | | |
| 6,000.00 | 5,922.10 | 5,819.53 | 5,787.55 | 25.31 | 22.09 | -165.73 | 576.67 | -287.04 | 1,486.83 | 1,443.92 | 42.91 | 34.652 | | | | | | | |
| 7,000.00 | 6,906.74 | 6,835.23 | 7,685.00 | 29.80 | 30.95 | 159.84 | -517.92 | -351.36 | 1,498.05 | 1,446.87 | 51.18 | 29.269 | | | | | | | |
| 7,050.00 | 6,956.13 | 6,836.54 | 7,685.00 | 30.01 | 30.96 | -176.98 | -519.23 | -351.39 | 1,479.60 | 1,427.46 | 52.14 | 28.379 | | | | | | | |
| 7,100.00 | 7,005.50 | 6,834.37 | 7,685.00 | 30.19 | 30.95 | -154.27 | -517.06 | -351.35 | 1,462.58 | 1,409.55 | 53.03 | 27.580 | | | | | | | |
| 7,150.00 | 7,054.61 | 6,828.72 | 7,685.00 | 30.36 | 30.91 | -138.17 | -511.41 | -351.25 | 1,447.09 | 1,393.24 | 53.85 | 26.871 | | | | | | | |
| 7,200.00 | 7,103.23 | 6,819.62 | 7,685.00 | 30.52 | 30.85 | -128.01 | -502.31 | -351.09 | 1,433.24 | 1,378.64 | 54.60 | 26.251 | | | | | | | |
| 7,250.00 | 7,151.10 | 6,807.11 | 7,685.00 | 30.65 | 30.77 | -121.44 | -489.81 | -350.87 | 1,421.06 | 1,365.80 | 55.26 | 25.716 | | | | | | | |
| 7,300.00 | 7,198.01 | 6,791.26 | 7,685.00 | 30.77 | 30.67 | -116.88 | -473.96 | -350.60 | 1,410.58 | 1,354.74 | 55.84 | 25.261 | | | | | | | |
| 7,350.00 | 7,243.72 | 6,772.14 | 7,685.00 | 30.88 | 30.55 | -113.47 | -454.84 | -350.26 | 1,401.77 | 1,345.43 | 56.34 | 24.882 | | | | | | | |
| 7,400.00 | 7,288.00 | 6,754.85 | 7,685.00 | 30.97 | 30.42 | -110.72 | -432.55 | -349.87 | 1,394.57 | 1,337.83 | 56.74 | 24.576 | | | | | | | |
| 7,450.00 | 7,330.65 | 6,734.49 | 7,685.00 | 31.05 | 30.26 | -108.37 | -407.19 | -349.43 | 1,388.90 | 1,331.83 | 57.06 | 24.339 | | | | | | | |
| 7,500.00 | 7,371.46 | 6,711.18 | 7,685.00 | 31.12 | 30.10 | -106.26 | -378.89 | -348.94 | 1,384.63 | 1,327.32 | 57.30 | 24.164 | | | | | | | |
| 7,550.00 | 7,410.22 | 6,685.08 | 7,685.00 | 31.17 | 29.93 | -104.31 | -347.79 | -348.39 | 1,381.62 | 1,324.14 | 57.48 | 24.037 | | | | | | | |
| 7,600.00 | 7,446.75 | 6,658.32 | 7,685.00 | 31.21 | 29.75 | -102.48 | -314.03 | -347.80 | 1,379.71 | 1,322.13 | 57.58 | 23.960 | | | | | | | |
| 7,650.00 | 7,480.87 | 6,629.07 | 7,685.00 | 31.24 | 29.57 | -100.74 | -277.79 | -347.17 | 1,378.74 | 1,321.11 | 57.63 | 23.924 | | | | | | | |
| 7,693.27 | 7,508.33 | 6,611.82 | 7,685.00 | 31.25 | 29.42 | -99.32 | -244.55 | -346.59 | 1,378.50 | 1,320.85 | 57.65 | 23.912 | | | | | | | |
| 7,700.00 | 7,512.42 | 6,605.50 | 7,685.00 | 31.25 | 29.39 | -99.11 | -239.23 | -346.50 | 1,378.50 | 1,320.85 | 57.65 | 23.913 | | | | | | | |
| 7,750.00 | 7,541.23 | 6,591.82 | 7,685.00 | 31.26 | 29.21 | -97.57 | -198.55 | -345.79 | 1,378.83 | 1,321.21 | 57.62 | 23.929 | | | | | | | |
| 7,800.00 | 7,567.18 | 6,573.21 | 7,685.00 | 31.25 | 29.04 | -96.16 | -155.95 | -345.04 | 1,379.53 | 1,321.95 | 57.58 | 23.957 | | | | | | | |
| 7,850.00 | 7,590.12 | 6,552.88 | 7,685.00 | 31.24 | 28.87 | -94.89 | -111.63 | -344.27 | 1,380.45 | 1,322.91 | 57.53 | 23.994 | | | | | | | |
| 7,900.00 | 7,609.96 | 6,533.04 | 7,685.00 | 31.22 | 28.71 | -93.77 | -65.80 | -343.47 | 1,381.41 | 1,323.93 | 57.48 | 24.032 | | | | | | | |
| 7,950.00 | 7,626.60 | 6,513.93 | 7,685.00 | 31.19 | 28.57 | -92.82 | -18.69 | -342.65 | 1,382.27 | 1,324.83 | 57.45 | 24.062 | | | | | | | |
| 8,000.00 | 7,639.94 | 6,492.35 | 7,683.22 | 31.15 | 28.43 | -91.93 | 34.84 | -341.67 | 1,382.83 | 1,325.43 | 57.40 | 24.089 | | | | | | | |
| 8,050.00 | 7,649.94 | 6,472.65 | 7,677.58 | 31.11 | 28.31 | -91.14 | 87.21 | -340.62 | 1,382.93 | 1,325.55 | 57.38 | 24.100 | | | | | | | |
| 8,100.00 | 7,656.54 | 6,452.22 | 7,668.38 | 31.07 | 28.20 | -90.43 | 137.78 | -339.52 | 1,382.58 | 1,325.20 | 57.38 | 24.094 | | | | | | | |
| 8,150.00 | 7,659.70 | 6,432.81 | 7,655.91 | 31.03 | 28.10 | -89.81 | 186.40 | -338.37 | 1,381.78 | 1,324.38 | 57.40 | 24.073 | | | | | | | |
| 8,170.89 | 7,660.00 | 6,413.37 | 7,649.81 | 31.01 | 28.07 | -89.58 | 206.11 | -337.88 | 1,381.32 | 1,323.91 | 57.41 | 24.060 | | | | | | | |
| 8,200.00 | 7,660.00 | 6,393.13 | 7,640.54 | 30.98 | 28.02 | -89.19 | 232.78 | -337.20 | 1,380.64 | 1,323.21 | 57.43 | 24.039 | | | | | | | |
| 8,300.00 | 7,660.00 | 6,372.45 | 7,603.80 | 30.92 | 27.90 | -87.66 | 315.58 | -334.88 | 1,378.95 | 1,321.40 | 57.55 | 23.961 | | | | | | | |
| 8,348.86 | 7,660.00 | 6,352.97 | 7,584.08 | 30.90 | 27.85 | -86.84 | 350.91 | -333.79 | 1,378.70 | 1,321.08 | 57.63 | 23.924 | | | | | | | |
| 8,400.00 | 7,660.00 | 6,333.33 | 7,562.86 | 30.91 | 27.81 | -85.96 | 384.37 | -332.70 | 1,379.02 | 1,321.32 | 57.70 | 23.901 | | | | | | | |
| 8,500.00 | 7,660.00 | 6,313.67 | 7,521.21 | 31.22 | 27.74 | -84.23 | 440.14 | -330.73 | 1,381.83 | 1,323.97 | 57.86 | 23.882 SF | | | | | | | |
| 8,600.00 | 7,660.00 | 6,293.63 | 7,481.12 | 31.83 | 27.69 | -82.57 | 484.76 | -329.00 | 1,388.24 | 1,330.21 | 58.03 | 23.921 | | | | | | | |
| 8,700.00 | 7,660.00 | 6,272.04 | 7,443.77 | 32.55 | 27.64 | -81.03 | 520.31 | -327.49 | 1,398.92 | 1,340.71 | 58.21 | 24.031 | | | | | | | |
| 8,800.00 | 7,660.00 | 6,250.66 | 7,409.67 | 33.33 | 27.59 | -79.64 | 548.67 | -326.18 | 1,414.35 | 1,355.95 | 58.40 | 24.219 | | | | | | | |
| 8,900.00 | 7,660.00 | 6,229.00 | 7,383.49 | 34.16 | 27.56 | -78.57 | 568.17 | -325.22 | 1,434.84 | 1,376.20 | 58.64 | 24.467 | | | | | | | |
| 9,000.00 | 7,660.00 | 6,207.15 | 7,351.22 | 35.04 | 27.51 | -77.27 | 589.77 | -324.07 | 1,460.46 | 1,401.67 | 58.79 | 24.843 | | | | | | | |
| 9,100.00 | 7,660.00 | 6,185.19 | 7,326.43 | 35.97 | 27.48 | -76.27 | 604.72 | -323.22 | 1,491.26 | 1,432.28 | 58.98 | 25.283 | | | | | | | |

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 4S-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 4S-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 | 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 | -89.72 | 0.78 | -160.04 | 160.04 | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | -89.72 | 0.78 | -160.04 | 160.04 | 159.76 | 0.28 | 579.805 | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | -89.72 | 0.78 | -160.04 | 160.04 | 159.05 | 0.99 | 161.173 | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.85 | 0.85 | -89.72 | 0.78 | -160.04 | 160.04 | 158.33 | 1.71 | 93.595 | | |
| 400.00 | 400.00 | 400.00 | 400.00 | 1.21 | 1.21 | -89.72 | 0.78 | -160.04 | 160.04 | 157.61 | 2.43 | 65.945 CC | | |
| 500.00 | 500.00 | 499.51 | 499.49 | 1.57 | 1.57 | -89.10 | 2.51 | -160.17 | 160.19 | 157.05 | 3.14 | 50.991 | | |
| 600.00 | 600.00 | 598.78 | 598.62 | 1.93 | 1.93 | -87.27 | 7.66 | -160.56 | 160.75 | 156.90 | 3.86 | 41.684 ES | | |
| 700.00 | 699.98 | 697.45 | 696.91 | 2.28 | 2.29 | 155.75 | 16.17 | -161.22 | 163.64 | 159.08 | 4.56 | 35.864 | | |
| 800.00 | 799.84 | 796.11 | 794.97 | 2.62 | 2.65 | 160.02 | 27.06 | -162.05 | 170.91 | 165.63 | 5.27 | 32.422 | | |
| 900.00 | 899.45 | 894.55 | 892.80 | 2.97 | 3.02 | 164.24 | 38.01 | -162.89 | 182.45 | 176.46 | 5.99 | 30.470 | | |
| 1,000.00 | 998.70 | 992.41 | 990.05 | 3.33 | 3.39 | 168.13 | 48.90 | -163.72 | 198.27 | 191.56 | 6.71 | 29.564 | | |
| 1,103.09 | 1,100.51 | 1,092.56 | 1,089.57 | 3.72 | 3.77 | 171.68 | 60.04 | -164.57 | 218.97 | 211.52 | 7.45 | 29.405 | | |
| 1,200.00 | 1,195.93 | 1,186.31 | 1,182.73 | 4.11 | 4.12 | 174.54 | 70.48 | -165.37 | 240.77 | 232.63 | 8.14 | 29.588 | | |
| 1,300.00 | 1,294.39 | 1,283.05 | 1,278.87 | 4.51 | 4.49 | 177.01 | 81.24 | -166.20 | 263.77 | 254.92 | 8.85 | 29.815 | | |
| 1,400.00 | 1,392.85 | 1,379.79 | 1,375.00 | 4.93 | 4.86 | 179.07 | 92.01 | -167.02 | 287.16 | 277.60 | 9.56 | 30.043 | | |
| 1,500.00 | 1,491.31 | 1,476.53 | 1,471.14 | 5.35 | 5.24 | -179.17 | 102.77 | -167.84 | 310.85 | 300.58 | 10.27 | 30.262 | | |
| 1,600.00 | 1,589.78 | 1,573.27 | 1,567.27 | 5.77 | 5.61 | -177.66 | 113.54 | -168.67 | 334.79 | 323.80 | 10.99 | 30.470 | | |
| 1,700.00 | 1,688.24 | 1,670.01 | 1,663.41 | 6.20 | 5.98 | -176.35 | 124.30 | -169.49 | 358.91 | 347.21 | 11.70 | 30.664 | | |
| 1,800.00 | 1,786.70 | 1,766.75 | 1,759.55 | 6.63 | 6.35 | -175.21 | 135.07 | -170.32 | 383.19 | 370.77 | 12.42 | 30.844 | | |
| 1,900.00 | 1,885.16 | 1,863.49 | 1,855.68 | 7.06 | 6.73 | -174.20 | 145.83 | -171.14 | 407.60 | 394.45 | 13.14 | 31.011 | | |
| 2,000.00 | 1,983.62 | 1,960.23 | 1,951.82 | 7.50 | 7.10 | -173.31 | 156.60 | -171.96 | 432.11 | 418.24 | 13.86 | 31.166 | | |
| 2,100.00 | 2,082.09 | 2,056.97 | 2,047.95 | 7.94 | 7.48 | -172.51 | 167.36 | -172.79 | 456.71 | 442.12 | 14.59 | 31.308 | | |
| 2,200.00 | 2,180.55 | 2,153.71 | 2,144.09 | 8.37 | 7.85 | -171.79 | 178.13 | -173.61 | 481.38 | 466.07 | 15.31 | 31.440 | | |
| 2,300.00 | 2,279.01 | 2,250.45 | 2,240.22 | 8.81 | 8.22 | -171.14 | 188.89 | -174.44 | 506.13 | 490.09 | 16.04 | 31.562 | | |
| 2,400.00 | 2,377.47 | 2,347.19 | 2,336.36 | 9.25 | 8.60 | -170.56 | 199.66 | -175.26 | 530.92 | 514.16 | 16.76 | 31.675 | | |
| 2,500.00 | 2,475.93 | 2,443.93 | 2,432.50 | 9.69 | 8.97 | -170.02 | 210.42 | -176.08 | 555.76 | 538.28 | 17.49 | 31.780 | | |
| 2,600.00 | 2,574.40 | 2,540.67 | 2,528.63 | 10.14 | 9.35 | -169.53 | 221.19 | -176.91 | 580.65 | 562.43 | 18.21 | 31.878 | | |
| 2,700.00 | 2,672.86 | 2,637.41 | 2,624.77 | 10.58 | 9.72 | -169.08 | 231.95 | -177.73 | 605.57 | 586.63 | 18.94 | 31.969 | | |
| 2,800.00 | 2,771.32 | 2,734.15 | 2,720.90 | 11.02 | 10.10 | -168.67 | 242.72 | -178.56 | 630.52 | 610.85 | 19.67 | 32.054 | | |
| 2,900.00 | 2,869.78 | 2,830.89 | 2,817.04 | 11.46 | 10.47 | -168.29 | 253.49 | -179.38 | 655.50 | 635.11 | 20.40 | 32.134 | | |
| 3,000.00 | 2,968.24 | 2,927.63 | 2,913.17 | 11.91 | 10.85 | -167.94 | 264.25 | -180.20 | 680.51 | 659.38 | 21.13 | 32.208 | | |
| 3,100.00 | 3,066.71 | 3,024.37 | 3,009.31 | 12.35 | 11.22 | -167.61 | 275.02 | -181.03 | 705.54 | 683.68 | 21.86 | 32.278 | | |
| 3,200.00 | 3,165.17 | 3,121.11 | 3,105.45 | 12.80 | 11.60 | -167.30 | 285.78 | -181.85 | 730.59 | 708.00 | 22.59 | 32.344 | | |
| 3,300.00 | 3,263.63 | 3,217.85 | 3,201.58 | 13.24 | 11.97 | -167.01 | 296.55 | -182.68 | 755.66 | 732.34 | 23.32 | 32.406 | | |
| 3,400.00 | 3,362.09 | 3,314.59 | 3,297.72 | 13.69 | 12.35 | -166.75 | 307.31 | -183.50 | 780.74 | 756.70 | 24.05 | 32.464 | | |
| 3,500.00 | 3,460.55 | 3,411.33 | 3,393.85 | 14.13 | 12.72 | -166.49 | 318.08 | -184.32 | 805.84 | 781.06 | 24.78 | 32.519 | | |
| 3,600.00 | 3,559.01 | 3,508.07 | 3,489.99 | 14.58 | 13.10 | -166.26 | 328.84 | -185.15 | 830.96 | 805.45 | 25.51 | 32.571 | | |
| 3,700.00 | 3,657.48 | 3,604.81 | 3,586.12 | 15.02 | 13.47 | -166.04 | 339.61 | -185.97 | 856.08 | 829.84 | 26.24 | 32.620 | | |
| 3,800.00 | 3,755.94 | 3,701.55 | 3,682.26 | 15.47 | 13.85 | -165.83 | 350.37 | -186.80 | 881.22 | 854.25 | 26.98 | 32.667 | | |
| 3,900.00 | 3,854.40 | 3,798.29 | 3,778.40 | 15.92 | 14.23 | -165.63 | 361.14 | -187.62 | 906.37 | 878.66 | 27.71 | 32.711 | | |
| 4,000.00 | 3,952.86 | 3,895.03 | 3,874.53 | 16.36 | 14.60 | -165.44 | 371.90 | -188.44 | 931.53 | 903.09 | 28.44 | 32.754 | | |
| 4,100.00 | 4,051.32 | 3,991.77 | 3,970.67 | 16.81 | 14.98 | -165.27 | 382.67 | -189.27 | 956.69 | 927.52 | 29.17 | 32.794 | | |
| 4,200.00 | 4,149.79 | 4,088.51 | 4,066.80 | 17.26 | 15.35 | -165.10 | 393.43 | -190.09 | 981.87 | 951.96 | 29.91 | 32.832 | | |
| 4,300.00 | 4,248.25 | 4,185.25 | 4,162.94 | 17.70 | 15.73 | -164.94 | 404.20 | -190.92 | 1,007.05 | 976.41 | 30.64 | 32.868 | | |
| 4,400.00 | 4,346.71 | 4,281.99 | 4,259.08 | 18.15 | 16.10 | -164.78 | 414.96 | -191.74 | 1,032.24 | 1,000.87 | 31.37 | 32.903 | | |
| 4,500.00 | 4,445.17 | 4,378.73 | 4,355.21 | 18.60 | 16.48 | -164.64 | 425.73 | -192.56 | 1,057.43 | 1,025.33 | 32.11 | 32.936 | | |
| 4,600.00 | 4,543.63 | 4,475.47 | 4,451.35 | 19.04 | 16.85 | -164.50 | 436.49 | -193.39 | 1,082.64 | 1,049.80 | 32.84 | 32.968 | | |
| 4,700.00 | 4,642.10 | 4,572.21 | 4,547.48 | 19.49 | 17.23 | -164.37 | 447.26 | -194.21 | 1,107.84 | 1,074.27 | 33.57 | 32.998 | | |
| 4,800.00 | 4,740.56 | 4,668.95 | 4,643.62 | 19.94 | 17.61 | -164.24 | 458.02 | -195.04 | 1,133.06 | 1,098.75 | 34.31 | 33.027 | | |
| 4,900.00 | 4,839.02 | 4,765.69 | 4,739.75 | 20.39 | 17.98 | -164.12 | 468.79 | -195.86 | 1,158.27 | 1,123.23 | 35.04 | 33.055 | | |
| 5,000.00 | 4,937.48 | 4,862.43 | 4,835.89 | 20.83 | 18.36 | -164.01 | 479.56 | -196.68 | 1,183.49 | 1,147.72 | 35.78 | 33.081 | | |
| 5,100.00 | 5,035.94 | 4,959.17 | 4,932.03 | 21.28 | 18.73 | -163.90 | 490.32 | -197.51 | 1,208.72 | 1,172.21 | 36.51 | 33.107 | | |

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 4S-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 4S-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) | | | | |
| 5,200.00 | 5,134.41 | 5,055.91 | 5,028.16 | 21.73 | 19.11 | -163.79 | 501.09 | -198.33 | 1,233.95 | 1,196.71 | 37.24 | 33.132 | | |
| 5,300.00 | 5,232.87 | 5,152.65 | 5,124.30 | 22.18 | 19.48 | -163.69 | 511.85 | -199.16 | 1,259.19 | 1,221.21 | 37.98 | 33.155 | | |
| 5,400.00 | 5,331.33 | 5,249.39 | 5,220.43 | 22.63 | 19.86 | -163.59 | 522.62 | -199.98 | 1,284.42 | 1,245.71 | 38.71 | 33.178 | | |
| 5,500.00 | 5,429.79 | 5,346.13 | 5,316.57 | 23.07 | 20.24 | -163.50 | 533.38 | -200.80 | 1,309.66 | 1,270.22 | 39.45 | 33.200 | | |
| 5,600.00 | 5,528.25 | 5,442.88 | 5,412.70 | 23.52 | 20.61 | -163.41 | 544.15 | -201.63 | 1,334.91 | 1,294.73 | 40.18 | 33.221 | | |
| 5,700.00 | 5,626.72 | 5,539.62 | 5,508.84 | 23.97 | 20.99 | -163.32 | 554.91 | -202.45 | 1,360.15 | 1,319.24 | 40.92 | 33.241 | | |
| 5,800.00 | 5,725.18 | 5,636.36 | 5,604.98 | 24.42 | 21.36 | -163.24 | 565.68 | -203.28 | 1,385.40 | 1,343.75 | 41.65 | 33.261 | | |
| 5,900.00 | 5,823.64 | 5,733.10 | 5,701.11 | 24.87 | 21.74 | -163.16 | 576.44 | -204.10 | 1,410.66 | 1,368.27 | 42.39 | 33.280 | | |
| 6,000.00 | 5,922.10 | 5,829.84 | 5,797.25 | 25.31 | 22.11 | -163.08 | 587.21 | -204.92 | 1,435.91 | 1,392.79 | 43.12 | 33.298 | | |
| 6,100.00 | 6,020.56 | 5,926.58 | 5,893.38 | 25.76 | 22.49 | -163.00 | 597.97 | -205.75 | 1,461.17 | 1,417.31 | 43.86 | 33.316 | | |
| 6,200.00 | 6,119.03 | 6,023.32 | 5,989.52 | 26.21 | 22.87 | -162.93 | 608.74 | -206.57 | 1,486.43 | 1,441.84 | 44.59 | 33.333 | | |
| 6,700.00 | 6,611.34 | 8,505.49 | 7,560.00 | 28.45 | 30.59 | 153.32 | -514.10 | -220.04 | 1,455.00 | 1,409.48 | 45.52 | 31.965 | | |
| 6,800.00 | 6,709.80 | 8,514.28 | 7,560.00 | 28.90 | 30.66 | 152.92 | -522.88 | -220.04 | 1,404.80 | 1,357.06 | 47.74 | 29.427 | | |
| 6,900.00 | 6,808.26 | 8,523.07 | 7,560.00 | 29.35 | 30.72 | 152.51 | -531.67 | -220.04 | 1,360.05 | 1,310.10 | 49.95 | 27.231 | | |
| 6,982.73 | 6,889.71 | 8,530.34 | 7,560.00 | 29.72 | 30.77 | 152.17 | -538.95 | -220.04 | 1,327.54 | 1,275.81 | 51.73 | 25.664 | | |
| 7,000.00 | 6,906.74 | 8,531.65 | 7,560.00 | 29.80 | 30.78 | 158.79 | -540.26 | -220.04 | 1,321.30 | 1,269.21 | 52.09 | 25.366 | | |
| 7,050.00 | 6,956.13 | 8,533.10 | 7,560.00 | 30.01 | 30.79 | -177.90 | -541.70 | -220.04 | 1,304.29 | 1,251.20 | 53.09 | 24.567 | | |
| 7,100.00 | 7,005.50 | 8,531.06 | 7,560.00 | 30.19 | 30.77 | -155.01 | -539.66 | -220.04 | 1,289.00 | 1,234.99 | 54.01 | 23.864 | | |
| 7,150.00 | 7,054.61 | 8,525.54 | 7,560.00 | 30.36 | 30.74 | -138.71 | -534.14 | -220.04 | 1,275.55 | 1,220.70 | 54.85 | 23.256 | | |
| 7,200.00 | 7,103.23 | 8,516.57 | 7,560.00 | 30.52 | 30.67 | -128.31 | -525.17 | -220.04 | 1,264.02 | 1,208.43 | 55.58 | 22.741 | | |
| 7,250.00 | 7,151.10 | 8,504.19 | 7,560.00 | 30.65 | 30.59 | -121.46 | -512.79 | -220.04 | 1,254.44 | 1,198.22 | 56.22 | 22.315 | | |
| 7,300.00 | 7,198.01 | 8,488.46 | 7,560.00 | 30.77 | 30.48 | -116.59 | -497.06 | -220.04 | 1,246.80 | 1,190.05 | 56.74 | 21.972 | | |
| 7,350.00 | 7,243.72 | 8,469.46 | 7,560.00 | 30.88 | 30.36 | -112.84 | -478.06 | -220.04 | 1,241.05 | 1,183.89 | 57.17 | 21.710 | | |
| 7,400.00 | 7,288.00 | 8,447.28 | 7,560.00 | 30.97 | 30.22 | -109.73 | -455.88 | -220.04 | 1,237.10 | 1,179.63 | 57.48 | 21.523 | | |
| 7,450.00 | 7,330.65 | 8,422.03 | 7,560.00 | 31.05 | 30.06 | -107.00 | -430.63 | -220.04 | 1,234.82 | 1,177.14 | 57.69 | 21.406 | | |
| 7,500.00 | 7,371.46 | 8,393.83 | 7,560.00 | 31.12 | 29.88 | -104.49 | -402.43 | -220.04 | 1,234.04 | 1,176.25 | 57.80 | 21.351 | | |
| 7,503.39 | 7,374.16 | 8,391.81 | 7,560.00 | 31.12 | 29.87 | -104.33 | -400.41 | -220.04 | 1,234.04 | 1,176.24 | 57.80 | 21.349 | | |
| 7,550.00 | 7,410.22 | 8,362.82 | 7,560.00 | 31.17 | 29.71 | -102.14 | -371.42 | -220.04 | 1,234.58 | 1,176.74 | 57.84 | 21.345 SF | | |
| 7,600.00 | 7,446.75 | 8,329.15 | 7,560.00 | 31.21 | 29.52 | -99.90 | -337.75 | -220.04 | 1,236.21 | 1,178.42 | 57.80 | 21.388 | | |
| 7,650.00 | 7,480.87 | 8,292.98 | 7,560.00 | 31.24 | 29.32 | -97.77 | -301.59 | -220.04 | 1,238.73 | 1,181.03 | 57.70 | 21.469 | | |
| 7,700.00 | 7,512.42 | 8,254.50 | 7,560.00 | 31.25 | 29.13 | -95.75 | -263.10 | -220.04 | 1,241.90 | 1,184.33 | 57.57 | 21.572 | | |
| 7,750.00 | 7,541.23 | 8,213.88 | 7,560.00 | 31.26 | 28.93 | -93.85 | -222.49 | -220.04 | 1,245.50 | 1,188.10 | 57.40 | 21.699 | | |
| 7,800.00 | 7,567.18 | 8,171.33 | 7,560.00 | 31.25 | 28.75 | -92.10 | -179.94 | -220.04 | 1,249.30 | 1,192.07 | 57.23 | 21.831 | | |
| 7,850.00 | 7,590.12 | 8,127.06 | 7,560.00 | 31.24 | 28.57 | -90.51 | -135.66 | -220.04 | 1,253.10 | 1,196.06 | 57.05 | 21.966 | | |
| 7,900.00 | 7,609.96 | 8,081.27 | 7,560.00 | 31.22 | 28.40 | -89.11 | -89.87 | -220.04 | 1,256.72 | 1,199.84 | 56.88 | 22.093 | | |
| 7,950.00 | 7,626.60 | 8,034.19 | 7,560.00 | 31.19 | 28.24 | -87.91 | -42.80 | -220.04 | 1,259.98 | 1,203.23 | 56.75 | 22.204 | | |
| 8,000.00 | 7,639.94 | 7,987.97 | 7,559.73 | 31.15 | 28.10 | -86.95 | 3.43 | -220.04 | 1,262.75 | 1,206.11 | 56.64 | 22.293 | | |
| 8,050.00 | 7,649.94 | 7,944.29 | 7,557.20 | 31.11 | 27.98 | -86.14 | 47.03 | -220.01 | 1,265.08 | 1,208.50 | 56.58 | 22.360 | | |
| 8,100.00 | 7,656.54 | 7,900.00 | 7,551.92 | 31.07 | 27.87 | -85.42 | 90.99 | -219.97 | 1,266.95 | 1,210.43 | 56.52 | 22.414 | | |
| 8,150.00 | 7,659.70 | 7,858.62 | 7,544.55 | 31.03 | 27.78 | -84.83 | 131.70 | -219.90 | 1,268.35 | 1,211.84 | 56.51 | 22.446 | | |
| 8,170.89 | 7,660.00 | 7,840.99 | 7,540.69 | 31.01 | 27.74 | -84.60 | 148.90 | -219.87 | 1,268.79 | 1,212.29 | 56.50 | 22.455 | | |
| 8,200.00 | 7,660.00 | 7,816.69 | 7,534.69 | 30.98 | 27.69 | -84.33 | 172.45 | -219.82 | 1,269.41 | 1,212.91 | 56.50 | 22.466 | | |
| 8,300.00 | 7,660.00 | 7,736.80 | 7,509.39 | 30.92 | 27.54 | -83.20 | 248.18 | -219.60 | 1,272.65 | 1,216.13 | 56.52 | 22.517 | | |
| 8,400.00 | 7,660.00 | 7,663.39 | 7,478.84 | 30.91 | 27.43 | -81.83 | 314.89 | -219.34 | 1,278.13 | 1,221.57 | 56.55 | 22.600 | | |
| 8,500.00 | 7,660.00 | 7,600.00 | 7,447.08 | 31.22 | 27.35 | -80.42 | 369.74 | -219.07 | 1,286.54 | 1,229.92 | 56.62 | 22.722 | | |
| 8,600.00 | 7,660.00 | 7,537.79 | 7,411.32 | 31.83 | 27.28 | -78.85 | 420.61 | -218.76 | 1,298.53 | 1,241.88 | 56.65 | 22.920 | | |
| 8,700.00 | 7,660.00 | 7,485.21 | 7,377.75 | 32.55 | 27.22 | -77.38 | 461.06 | -218.47 | 1,314.66 | 1,257.95 | 56.72 | 23.180 | | |
| 8,800.00 | 7,660.00 | 7,438.72 | 7,345.66 | 33.33 | 27.17 | -76.00 | 494.69 | -218.20 | 1,335.33 | 1,278.54 | 56.79 | 23.515 | | |
| 8,900.00 | 7,660.00 | 7,400.00 | 7,317.32 | 34.16 | 27.13 | -74.79 | 521.07 | -217.95 | 1,360.78 | 1,303.89 | 56.89 | 23.918 | | |
| 9,000.00 | 7,660.00 | 7,361.34 | 7,287.64 | 35.04 | 27.09 | -73.54 | 545.83 | -217.70 | 1,391.13 | 1,334.16 | 56.97 | 24.420 | | |
| 9,100.00 | 7,660.00 | 7,329.16 | 7,261.94 | 35.97 | 27.06 | -72.47 | 565.20 | -217.48 | 1,426.37 | 1,369.29 | 57.07 | 24.992 | | |
| 9,200.00 | 7,660.00 | 7,300.00 | 7,237.93 | 36.94 | 27.02 | -71.48 | 581.74 | -217.27 | 1,466.37 | 1,409.19 | 57.19 | 25.642 | | |

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 4S-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 4S-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 |

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well HWY52 4S-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 4S-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 | -89.71 | 0.77 | -149.97 | 149.97 | | | | | | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | -89.71 | 0.77 | -149.97 | 149.97 | 149.69 | | 0.28 | 543.315 | | | | | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | -89.71 | 0.77 | -149.97 | 149.97 | 148.97 | | 0.99 | 151.030 | | | | | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.85 | 0.85 | -89.71 | 0.77 | -149.97 | 149.97 | 148.26 | | 1.71 | 87.705 | | | | | | |
| 400.00 | 400.00 | 400.00 | 400.00 | 1.21 | 1.21 | -89.71 | 0.77 | -149.97 | 149.97 | 147.54 | | 2.43 | 61.795 | | | | | | |
| 500.00 | 500.00 | 500.00 | 500.00 | 1.57 | 1.57 | -89.71 | 0.77 | -149.97 | 149.97 | 146.82 | | 3.14 | 47.703 CC | | | | | | |
| 500.44 | 500.44 | 500.44 | 500.44 | 1.57 | 1.57 | -89.71 | 0.77 | -149.97 | 149.97 | 146.82 | | 3.15 | 47.655 | | | | | | |
| 600.00 | 600.00 | 599.93 | 599.91 | 1.93 | 1.93 | -89.04 | 2.51 | -149.97 | 149.99 | 146.13 | | 3.86 | 38.858 ES | | | | | | |
| 700.00 | 699.98 | 701.68 | 701.52 | 2.28 | 2.30 | 153.04 | 7.70 | -149.61 | 151.37 | 146.80 | | 4.57 | 33.118 | | | | | | |
| 800.00 | 799.84 | 805.02 | 804.52 | 2.62 | 2.67 | 156.89 | 15.50 | -146.76 | 154.04 | 148.75 | | 5.29 | 29.132 | | | | | | |
| 900.00 | 899.45 | 907.61 | 906.45 | 2.97 | 3.04 | 162.01 | 25.61 | -141.12 | 158.42 | 152.41 | | 6.01 | 26.348 | | | | | | |
| 1,000.00 | 998.70 | 1,006.14 | 1,004.14 | 3.33 | 3.41 | 167.42 | 36.49 | -134.29 | 166.34 | 159.61 | | 6.73 | 24.723 | | | | | | |
| 1,103.09 | 1,100.51 | 1,107.15 | 1,104.29 | 3.72 | 3.79 | 172.60 | 47.64 | -127.30 | 179.55 | 172.07 | | 7.48 | 24.015 | | | | | | |
| 1,200.00 | 1,195.93 | 1,201.82 | 1,198.15 | 4.11 | 4.16 | 176.86 | 58.10 | -120.74 | 194.87 | 186.68 | | 8.18 | 23.812 | | | | | | |
| 1,300.00 | 1,294.39 | 1,299.52 | 1,295.02 | 4.51 | 4.54 | -179.40 | 68.89 | -113.97 | 211.63 | 202.72 | | 8.92 | 23.739 | | | | | | |
| 1,400.00 | 1,392.85 | 1,397.22 | 1,391.88 | 4.93 | 4.91 | -176.20 | 79.68 | -107.21 | 229.16 | 219.51 | | 9.65 | 23.744 | | | | | | |
| 1,500.00 | 1,491.31 | 1,494.91 | 1,488.74 | 5.35 | 5.30 | -173.47 | 90.47 | -100.44 | 247.29 | 236.90 | | 10.39 | 23.797 | | | | | | |
| 1,600.00 | 1,589.78 | 1,592.61 | 1,585.61 | 5.77 | 5.68 | -171.10 | 101.26 | -93.67 | 265.89 | 254.76 | | 11.14 | 23.878 | | | | | | |
| 1,700.00 | 1,688.24 | 1,690.31 | 1,682.47 | 6.20 | 6.06 | -169.05 | 112.05 | -86.91 | 284.88 | 273.00 | | 11.88 | 23.975 | | | | | | |
| 1,800.00 | 1,786.70 | 1,788.00 | 1,779.33 | 6.63 | 6.45 | -167.25 | 122.84 | -80.14 | 304.18 | 291.55 | | 12.63 | 24.080 | | | | | | |
| 1,900.00 | 1,885.16 | 1,885.70 | 1,876.20 | 7.06 | 6.83 | -165.67 | 133.63 | -73.37 | 323.74 | 310.35 | | 13.38 | 24.188 | | | | | | |
| 2,000.00 | 1,983.62 | 1,983.40 | 1,973.06 | 7.50 | 7.22 | -164.26 | 144.42 | -66.61 | 343.50 | 329.37 | | 14.14 | 24.295 | | | | | | |
| 2,100.00 | 2,082.09 | 2,081.10 | 2,069.92 | 7.94 | 7.61 | -163.01 | 155.21 | -59.84 | 363.45 | 348.55 | | 14.89 | 24.401 | | | | | | |
| 2,200.00 | 2,180.55 | 2,178.79 | 2,166.79 | 8.37 | 7.99 | -161.89 | 166.00 | -53.07 | 383.55 | 367.89 | | 15.65 | 24.503 | | | | | | |
| 2,300.00 | 2,279.01 | 2,276.49 | 2,263.65 | 8.81 | 8.38 | -160.88 | 176.79 | -46.31 | 403.77 | 387.36 | | 16.41 | 24.601 | | | | | | |
| 2,400.00 | 2,377.47 | 2,374.19 | 2,360.51 | 9.25 | 8.77 | -159.97 | 187.58 | -39.54 | 424.10 | 406.93 | | 17.17 | 24.694 | | | | | | |
| 2,500.00 | 2,475.93 | 2,471.88 | 2,457.38 | 9.69 | 9.16 | -159.14 | 198.37 | -32.77 | 444.53 | 426.59 | | 17.94 | 24.784 | | | | | | |
| 2,600.00 | 2,574.40 | 2,569.58 | 2,554.24 | 10.14 | 9.55 | -158.38 | 209.16 | -26.01 | 465.04 | 446.34 | | 18.70 | 24.868 | | | | | | |
| 2,700.00 | 2,672.86 | 2,667.28 | 2,651.10 | 10.58 | 9.93 | -157.69 | 219.95 | -19.24 | 485.62 | 466.15 | | 19.46 | 24.949 | | | | | | |
| 2,800.00 | 2,771.32 | 2,764.97 | 2,747.96 | 11.02 | 10.32 | -157.05 | 230.74 | -12.47 | 506.26 | 486.03 | | 20.23 | 25.025 | | | | | | |
| 2,900.00 | 2,869.78 | 2,862.67 | 2,844.83 | 11.46 | 10.71 | -156.46 | 241.53 | -5.71 | 526.96 | 505.96 | | 21.00 | 25.098 | | | | | | |
| 3,000.00 | 2,968.24 | 2,960.37 | 2,941.69 | 11.91 | 11.10 | -155.92 | 252.32 | 1.06 | 547.71 | 525.94 | | 21.76 | 25.166 | | | | | | |
| 3,100.00 | 3,066.71 | 3,058.06 | 3,038.55 | 12.35 | 11.49 | -155.42 | 263.11 | 7.83 | 568.50 | 545.97 | | 22.53 | 25.232 | | | | | | |
| 3,200.00 | 3,165.17 | 3,155.76 | 3,135.42 | 12.80 | 11.88 | -154.95 | 273.90 | 14.59 | 589.33 | 566.03 | | 23.30 | 25.294 | | | | | | |
| 3,300.00 | 3,263.63 | 3,253.46 | 3,232.28 | 13.24 | 12.27 | -154.51 | 284.68 | 21.36 | 610.19 | 586.12 | | 24.07 | 25.352 | | | | | | |
| 3,400.00 | 3,362.09 | 3,351.15 | 3,329.14 | 13.69 | 12.66 | -154.11 | 295.47 | 28.13 | 631.09 | 606.25 | | 24.84 | 25.408 | | | | | | |
| 3,500.00 | 3,460.55 | 3,448.85 | 3,426.01 | 14.13 | 13.05 | -153.72 | 306.26 | 34.89 | 652.02 | 626.41 | | 25.61 | 25.461 | | | | | | |
| 3,600.00 | 3,559.01 | 3,546.55 | 3,522.87 | 14.58 | 13.44 | -153.37 | 317.05 | 41.66 | 672.97 | 646.59 | | 26.38 | 25.512 | | | | | | |
| 3,700.00 | 3,657.48 | 3,644.24 | 3,619.73 | 15.02 | 13.83 | -153.03 | 327.84 | 48.43 | 693.94 | 666.79 | | 27.15 | 25.560 | | | | | | |
| 3,800.00 | 3,755.94 | 3,741.94 | 3,716.60 | 15.47 | 14.22 | -152.72 | 338.63 | 55.19 | 714.94 | 687.02 | | 27.92 | 25.606 | | | | | | |
| 3,900.00 | 3,854.40 | 3,839.64 | 3,813.46 | 15.92 | 14.61 | -152.42 | 349.42 | 61.96 | 735.96 | 707.26 | | 28.69 | 25.650 | | | | | | |
| 4,000.00 | 3,952.86 | 3,937.34 | 3,910.32 | 16.36 | 15.00 | -152.14 | 360.21 | 68.73 | 756.99 | 727.53 | | 29.46 | 25.692 | | | | | | |
| 4,100.00 | 4,051.32 | 4,035.03 | 4,007.19 | 16.81 | 15.39 | -151.87 | 371.00 | 75.49 | 778.04 | 747.81 | | 30.24 | 25.732 | | | | | | |
| 4,200.00 | 4,149.79 | 4,132.73 | 4,104.05 | 17.26 | 15.78 | -151.62 | 381.79 | 82.26 | 799.11 | 768.10 | | 31.01 | 25.771 | | | | | | |
| 4,300.00 | 4,248.25 | 4,230.43 | 4,200.91 | 17.70 | 16.17 | -151.38 | 392.58 | 89.03 | 820.19 | 788.41 | | 31.78 | 25.807 | | | | | | |
| 4,400.00 | 4,346.71 | 4,328.12 | 4,297.77 | 18.15 | 16.56 | -151.15 | 403.37 | 95.79 | 841.28 | 808.73 | | 32.55 | 25.843 | | | | | | |
| 4,500.00 | 4,445.17 | 4,425.82 | 4,394.64 | 18.60 | 16.95 | -150.93 | 414.16 | 102.56 | 862.39 | 829.06 | | 33.33 | 25.876 | | | | | | |
| 4,600.00 | 4,543.63 | 4,523.52 | 4,491.50 | 19.04 | 17.34 | -150.73 | 424.95 | 109.33 | 883.50 | 849.40 | | 34.10 | 25.909 | | | | | | |
| 4,700.00 | 4,642.10 | 4,621.21 | 4,588.36 | 19.49 | 17.73 | -150.53 | 435.74 | 116.09 | 904.63 | 869.76 | | 34.87 | 25.940 | | | | | | |
| 4,800.00 | 4,740.56 | 4,718.91 | 4,685.23 | 19.94 | 18.12 | -150.34 | 446.53 | 122.86 | 925.77 | 890.12 | | 35.65 | 25.970 | | | | | | |
| 4,900.00 | 4,839.02 | 4,816.61 | 4,782.09 | 20.39 | 18.52 | -150.16 | 457.32 | 129.63 | 946.91 | 910.49 | | 36.42 | 25.998 | | | | | | |
| 5,000.00 | 4,937.48 | 4,914.30 | 4,878.95 | 20.83 | 18.91 | -149.99 | 468.11 | 136.39 | 968.07 | 930.87 | | 37.20 | 26.026 | | | | | | |

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 4S-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 4S-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: 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) | | | | |
| 5,100.00 | 5,035.94 | 5,012.00 | 4,975.82 | 21.28 | 19.30 | -149.83 | 478.90 | 143.16 | 989.23 | 951.26 | 37.97 | 26.052 | | |
| 5,200.00 | 5,134.41 | 5,109.70 | 5,072.68 | 21.73 | 19.69 | -149.67 | 489.69 | 149.93 | 1,010.40 | 971.65 | 38.75 | 26.078 | | |
| 5,300.00 | 5,232.87 | 5,207.39 | 5,169.54 | 22.18 | 20.08 | -149.52 | 500.48 | 156.70 | 1,031.58 | 992.06 | 39.52 | 26.103 | | |
| 5,400.00 | 5,331.33 | 5,305.09 | 5,266.41 | 22.63 | 20.47 | -149.38 | 511.27 | 163.46 | 1,052.76 | 1,012.46 | 40.29 | 26.127 | | |
| 5,500.00 | 5,429.79 | 5,402.79 | 5,363.27 | 23.07 | 20.86 | -149.24 | 522.06 | 170.23 | 1,073.95 | 1,032.88 | 41.07 | 26.150 | | |
| 5,600.00 | 5,528.25 | 5,500.48 | 5,460.13 | 23.52 | 21.25 | -149.10 | 532.85 | 177.00 | 1,095.14 | 1,053.30 | 41.84 | 26.172 | | |
| 5,700.00 | 5,626.72 | 5,598.18 | 5,556.99 | 23.97 | 21.64 | -148.98 | 543.64 | 183.76 | 1,116.34 | 1,073.72 | 42.62 | 26.193 | | |
| 5,800.00 | 5,725.18 | 5,695.88 | 5,653.86 | 24.42 | 22.03 | -148.85 | 554.43 | 190.53 | 1,137.55 | 1,094.15 | 43.40 | 26.214 | | |
| 5,900.00 | 5,823.64 | 5,793.57 | 5,750.72 | 24.87 | 22.42 | -148.73 | 565.22 | 197.30 | 1,158.76 | 1,114.59 | 44.17 | 26.234 | | |
| 6,000.00 | 5,922.10 | 5,891.27 | 5,847.58 | 25.31 | 22.81 | -148.62 | 576.01 | 204.06 | 1,179.97 | 1,135.03 | 44.95 | 26.253 | | |
| 6,100.00 | 6,020.56 | 5,988.97 | 5,944.45 | 25.76 | 23.21 | -148.51 | 586.80 | 210.83 | 1,201.19 | 1,155.47 | 45.72 | 26.272 | | |
| 6,200.00 | 6,119.03 | 6,086.67 | 6,041.31 | 26.21 | 23.60 | -148.40 | 597.59 | 217.60 | 1,222.42 | 1,175.92 | 46.50 | 26.290 | | |
| 6,300.00 | 6,217.49 | 6,184.36 | 6,138.17 | 26.66 | 23.99 | -148.30 | 608.38 | 224.36 | 1,243.64 | 1,196.37 | 47.27 | 26.308 | | |
| 6,400.00 | 6,315.95 | 6,282.06 | 6,235.04 | 27.11 | 24.38 | -148.20 | 619.17 | 231.13 | 1,264.88 | 1,216.83 | 48.05 | 26.325 | | |
| 6,500.00 | 6,414.41 | 6,379.76 | 6,331.90 | 27.55 | 24.77 | -148.10 | 629.96 | 237.90 | 1,286.11 | 1,237.29 | 48.83 | 26.341 | | |
| 6,600.00 | 6,512.87 | 6,478.04 | 6,430.00 | 28.00 | 30.94 | 158.10 | -499.56 | 319.01 | 1,294.37 | 1,262.66 | 31.70 | 40.829 | | |
| 6,700.00 | 6,611.34 | 6,575.00 | 6,530.00 | 28.45 | 31.00 | 157.43 | -508.19 | 318.92 | 1,212.92 | 1,179.03 | 33.88 | 35.797 | | |
| 6,800.00 | 6,709.80 | 6,645.31 | 6,605.00 | 28.90 | 31.06 | 156.76 | -516.82 | 318.82 | 1,134.38 | 1,098.06 | 36.32 | 31.235 | | |
| 6,900.00 | 6,808.26 | 6,735.00 | 6,695.00 | 29.35 | 31.11 | 156.08 | -525.45 | 318.73 | 1,059.39 | 1,020.36 | 39.02 | 27.149 | | |
| 6,982.73 | 6,889.71 | 6,810.00 | 6,770.00 | 29.72 | 31.16 | 155.52 | -532.59 | 318.66 | 1,000.60 | 959.14 | 41.46 | 24.132 | | |
| 7,000.00 | 6,906.74 | 6,830.00 | 6,790.00 | 29.80 | 31.17 | 161.33 | -533.87 | 318.65 | 988.74 | 946.75 | 41.99 | 23.545 | | |
| 7,050.00 | 6,956.13 | 6,880.00 | 6,840.00 | 30.01 | 31.18 | -177.57 | -535.24 | 318.63 | 955.24 | 911.69 | 43.55 | 21.933 | | |
| 7,100.00 | 7,005.50 | 6,930.00 | 6,890.00 | 30.19 | 31.16 | -156.66 | -533.12 | 318.65 | 923.21 | 878.08 | 45.13 | 20.457 | | |
| 7,150.00 | 7,054.61 | 6,980.00 | 6,940.00 | 30.36 | 31.13 | -142.09 | -527.53 | 318.71 | 892.96 | 846.25 | 46.71 | 19.117 | | |
| 7,200.00 | 7,103.23 | 7,030.00 | 7,000.00 | 30.52 | 31.07 | -133.16 | -518.48 | 318.81 | 864.75 | 816.48 | 48.27 | 17.916 | | |
| 7,250.00 | 7,151.10 | 7,080.00 | 7,050.00 | 30.65 | 30.98 | -127.55 | -506.02 | 318.94 | 838.83 | 789.04 | 49.78 | 16.850 | | |
| 7,300.00 | 7,198.01 | 7,130.00 | 7,100.00 | 30.77 | 30.88 | -123.70 | -490.22 | 319.10 | 815.39 | 764.16 | 51.22 | 15.918 | | |
| 7,350.00 | 7,243.72 | 7,180.00 | 7,150.00 | 30.88 | 30.75 | -120.75 | -471.15 | 319.30 | 794.57 | 742.01 | 52.56 | 15.117 | | |
| 7,400.00 | 7,288.00 | 7,230.00 | 7,200.00 | 30.97 | 30.62 | -118.24 | -448.90 | 319.54 | 776.46 | 722.67 | 53.78 | 14.436 | | |
| 7,450.00 | 7,330.65 | 7,270.00 | 7,240.00 | 31.05 | 30.46 | -115.93 | -423.58 | 319.80 | 761.06 | 706.20 | 54.86 | 13.873 | | |
| 7,500.00 | 7,371.46 | 7,310.00 | 7,280.00 | 31.12 | 30.29 | -113.69 | -395.32 | 320.10 | 748.31 | 692.55 | 55.76 | 13.419 | | |
| 7,550.00 | 7,410.22 | 7,350.00 | 7,320.00 | 31.17 | 30.11 | -111.44 | -364.25 | 320.42 | 738.09 | 681.59 | 56.50 | 13.064 | | |
| 7,600.00 | 7,446.75 | 7,390.00 | 7,360.00 | 31.21 | 29.93 | -109.18 | -330.53 | 320.78 | 730.20 | 673.12 | 57.07 | 12.794 | | |
| 7,650.00 | 7,480.87 | 7,430.00 | 7,400.00 | 31.24 | 29.74 | -106.90 | -294.31 | 321.16 | 724.40 | 666.92 | 57.48 | 12.602 | | |
| 7,700.00 | 7,512.42 | 7,470.00 | 7,440.00 | 31.25 | 29.55 | -104.64 | -255.78 | 321.56 | 720.40 | 662.65 | 57.75 | 12.475 | | |
| 7,750.00 | 7,541.23 | 7,500.00 | 7,470.00 | 31.26 | 29.36 | -102.43 | -215.13 | 321.99 | 717.91 | 660.01 | 57.90 | 12.398 | | |
| 7,800.00 | 7,567.18 | 7,530.00 | 7,500.00 | 31.25 | 29.17 | -100.33 | -172.54 | 322.43 | 716.60 | 658.65 | 57.95 | 12.365 | | |
| 7,850.00 | 7,590.12 | 7,560.00 | 7,530.00 | 31.24 | 29.01 | -98.37 | -128.23 | 322.90 | 716.16 | 658.20 | 57.95 | 12.358 | SF | |
| 7,859.77 | 7,594.25 | 7,570.00 | 7,540.00 | 31.23 | 28.98 | -98.01 | -119.39 | 322.99 | 716.15 | 658.20 | 57.95 | 12.358 | | |
| 7,900.00 | 7,609.96 | 7,590.00 | 7,560.00 | 31.22 | 28.85 | -96.61 | -82.42 | 323.38 | 716.29 | 658.39 | 57.90 | 12.371 | | |
| 7,950.00 | 7,626.60 | 7,610.00 | 7,580.00 | 31.19 | 28.71 | -95.09 | -35.32 | 323.87 | 716.73 | 658.89 | 57.84 | 12.391 | | |
| 8,000.00 | 7,639.94 | 7,630.00 | 7,600.00 | 31.15 | 28.59 | -93.78 | 12.61 | 324.32 | 717.25 | 659.47 | 57.79 | 12.412 | | |
| 8,050.00 | 7,649.94 | 7,640.00 | 7,610.00 | 31.11 | 28.49 | -92.57 | 59.72 | 324.56 | 717.75 | 660.02 | 57.74 | 12.431 | | |
| 8,100.00 | 7,656.54 | 7,650.00 | 7,620.00 | 31.07 | 28.42 | -91.44 | 105.67 | 324.59 | 718.22 | 660.53 | 57.69 | 12.449 | | |
| 8,150.00 | 7,659.70 | 7,650.00 | 7,620.00 | 31.03 | 28.37 | -90.39 | 150.35 | 324.41 | 718.63 | 660.98 | 57.65 | 12.465 | | |
| 8,170.89 | 7,660.00 | 7,650.00 | 7,620.00 | 31.01 | 28.35 | -89.98 | 168.62 | 324.27 | 718.79 | 661.15 | 57.64 | 12.471 | | |
| 8,200.00 | 7,660.00 | 7,650.00 | 7,620.00 | 30.98 | 28.33 | -89.40 | 193.52 | 324.04 | 719.08 | 661.46 | 57.62 | 12.480 | | |
| 8,300.00 | 7,660.00 | 7,650.00 | 7,620.00 | 30.92 | 28.30 | -87.12 | 269.92 | 322.87 | 721.71 | 664.21 | 57.51 | 12.550 | | |
| 8,400.00 | 7,660.00 | 7,650.00 | 7,620.00 | 30.91 | 28.28 | -84.29 | 340.55 | 321.14 | 727.97 | 670.72 | 57.25 | 12.716 | | |
| 8,500.00 | 7,660.00 | 7,650.00 | 7,620.00 | 31.22 | 28.27 | -81.31 | 399.79 | 319.12 | 739.27 | 682.42 | 56.85 | 13.004 | | |
| 8,600.00 | 7,660.00 | 7,642.70 | 7,614.10 | 31.83 | 28.26 | -78.63 | 444.84 | 317.16 | 756.75 | 700.34 | 56.41 | 13.415 | | |
| 8,700.00 | 7,660.00 | 7,590.25 | 7,478.71 | 32.55 | 28.25 | -76.01 | 483.49 | 315.14 | 781.20 | 725.29 | 55.91 | 13.973 | | |

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 4S-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 4S-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 | 7,660.00 | 7,550.00 | 7,449.70 | 33.33 | 28.23 | -73.91 | 511.33 | 313.43 | 812.98 | 757.44 | 55.53 | 14.640 | | |
| 8,900.00 | 7,660.00 | 7,500.00 | 7,411.56 | 34.16 | 28.20 | -71.24 | 543.57 | 311.15 | 851.94 | 797.00 | 54.94 | 15.507 | | |
| 9,000.00 | 7,660.00 | 7,469.16 | 7,386.95 | 35.04 | 28.18 | -69.57 | 562.09 | 309.66 | 897.75 | 843.03 | 54.72 | 16.405 | | |
| 9,100.00 | 7,660.00 | 7,438.24 | 7,361.50 | 35.97 | 28.15 | -67.88 | 579.59 | 308.09 | 949.90 | 895.37 | 54.53 | 17.420 | | |
| 9,200.00 | 7,660.00 | 7,400.00 | 7,329.03 | 36.94 | 28.11 | -65.80 | 599.67 | 306.07 | 1,007.82 | 953.61 | 54.21 | 18.590 | | |
| 9,300.00 | 7,660.00 | 7,386.66 | 7,317.46 | 37.96 | 28.10 | -65.08 | 606.27 | 305.35 | 1,070.49 | 1,016.08 | 54.41 | 19.674 | | |
| 9,400.00 | 7,660.00 | 7,365.03 | 7,298.44 | 39.00 | 28.07 | -63.91 | 616.49 | 304.15 | 1,137.63 | 1,083.18 | 54.45 | 20.892 | | |
| 9,500.00 | 7,660.00 | 7,350.00 | 7,285.05 | 40.09 | 28.05 | -63.10 | 623.26 | 303.30 | 1,208.56 | 1,153.95 | 54.61 | 22.131 | | |
| 9,600.00 | 7,660.00 | 7,328.25 | 7,265.42 | 41.20 | 28.02 | -61.95 | 632.55 | 302.05 | 1,282.72 | 1,228.07 | 54.65 | 23.472 | | |
| 9,700.00 | 7,660.00 | 7,300.00 | 7,239.53 | 42.34 | 27.98 | -60.46 | 643.72 | 300.39 | 1,359.84 | 1,305.25 | 54.59 | 24.909 | | |
| 9,800.00 | 7,660.00 | 7,300.00 | 7,239.53 | 43.51 | 27.98 | -60.46 | 643.72 | 300.39 | 1,439.09 | 1,384.15 | 54.94 | 26.193 | | |

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well HWY52 4S-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 4S-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 | 0.75 | -140.17 | 140.18 | | | | | | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | -89.69 | 0.75 | -140.17 | 140.18 | 139.90 | 0.28 | 507.838 | | | | | | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | -89.69 | 0.75 | -140.17 | 140.18 | 139.18 | 0.99 | 141.168 | | | | | | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.85 | 0.85 | -89.69 | 0.75 | -140.17 | 140.18 | 138.47 | 1.71 | 81.978 | | | | | | | |
| 400.00 | 400.00 | 400.00 | 400.00 | 1.21 | 1.21 | -89.69 | 0.75 | -140.17 | 140.18 | 137.75 | 2.43 | 57.760 | | | | | | | |
| 500.00 | 500.00 | 500.00 | 500.00 | 1.57 | 1.57 | -89.69 | 0.75 | -140.17 | 140.18 | 137.03 | 3.14 | 44.588 CC | | | | | | | |
| 600.00 | 600.00 | 600.00 | 600.00 | 1.93 | 1.93 | -89.69 | 0.75 | -140.17 | 140.18 | 136.31 | 3.86 | 36.308 | | | | | | | |
| 700.00 | 699.98 | 703.04 | 703.02 | 2.28 | 2.30 | 151.06 | 2.21 | -139.03 | 140.60 | 136.03 | 4.58 | 30.715 ES | | | | | | | |
| 800.00 | 799.84 | 805.74 | 805.56 | 2.62 | 2.67 | 153.88 | 6.56 | -135.61 | 142.12 | 136.83 | 5.29 | 26.872 | | | | | | | |
| 900.00 | 899.45 | 907.77 | 907.18 | 2.97 | 3.04 | 158.38 | 13.74 | -129.97 | 145.36 | 139.36 | 6.00 | 24.208 | | | | | | | |
| 1,000.00 | 998.70 | 1,008.81 | 1,007.43 | 3.33 | 3.41 | 164.22 | 23.65 | -122.19 | 151.31 | 144.58 | 6.73 | 22.498 | | | | | | | |
| 1,103.09 | 1,100.51 | 1,110.21 | 1,107.71 | 3.72 | 3.79 | 170.61 | 35.45 | -112.92 | 161.78 | 154.31 | 7.47 | 21.660 | | | | | | | |
| 1,200.00 | 1,195.93 | 1,204.92 | 1,201.37 | 4.11 | 4.15 | 175.95 | 46.51 | -104.23 | 174.99 | 166.81 | 8.18 | 21.402 | | | | | | | |
| 1,300.00 | 1,294.39 | 1,302.65 | 1,298.01 | 4.51 | 4.53 | -179.35 | 57.92 | -95.27 | 189.98 | 181.07 | 8.91 | 21.318 | | | | | | | |
| 1,400.00 | 1,392.85 | 1,400.38 | 1,394.66 | 4.93 | 4.92 | -175.34 | 69.33 | -86.31 | 206.07 | 196.42 | 9.66 | 21.342 | | | | | | | |
| 1,500.00 | 1,491.31 | 1,498.11 | 1,491.31 | 5.35 | 5.31 | -171.92 | 80.74 | -77.34 | 223.02 | 212.61 | 10.41 | 21.433 | | | | | | | |
| 1,600.00 | 1,589.78 | 1,595.84 | 1,587.95 | 5.77 | 5.70 | -168.98 | 92.16 | -68.38 | 240.63 | 229.47 | 11.16 | 21.561 | | | | | | | |
| 1,700.00 | 1,688.24 | 1,693.57 | 1,684.60 | 6.20 | 6.09 | -166.45 | 103.57 | -59.41 | 258.79 | 246.87 | 11.92 | 21.710 | | | | | | | |
| 1,800.00 | 1,786.70 | 1,791.29 | 1,781.24 | 6.63 | 6.48 | -164.24 | 114.98 | -50.45 | 277.37 | 264.69 | 12.68 | 21.869 | | | | | | | |
| 1,900.00 | 1,885.16 | 1,889.02 | 1,877.89 | 7.06 | 6.88 | -162.31 | 126.39 | -41.49 | 296.31 | 282.86 | 13.45 | 22.030 | | | | | | | |
| 2,000.00 | 1,983.62 | 1,986.75 | 1,974.53 | 7.50 | 7.27 | -160.62 | 137.81 | -32.52 | 315.53 | 301.31 | 14.22 | 22.190 | | | | | | | |
| 2,100.00 | 2,082.09 | 2,084.48 | 2,071.18 | 7.94 | 7.67 | -159.12 | 149.22 | -23.56 | 334.99 | 320.00 | 14.99 | 22.345 | | | | | | | |
| 2,200.00 | 2,180.55 | 2,182.21 | 2,167.82 | 8.37 | 8.07 | -157.78 | 160.63 | -14.59 | 354.65 | 338.88 | 15.77 | 22.494 | | | | | | | |
| 2,300.00 | 2,279.01 | 2,279.94 | 2,264.47 | 8.81 | 8.47 | -156.58 | 172.04 | -5.63 | 374.47 | 357.93 | 16.54 | 22.637 | | | | | | | |
| 2,400.00 | 2,377.47 | 2,377.67 | 2,361.11 | 9.25 | 8.87 | -155.50 | 183.46 | 3.33 | 394.44 | 377.12 | 17.32 | 22.774 | | | | | | | |
| 2,500.00 | 2,475.93 | 2,475.40 | 2,457.76 | 9.69 | 9.27 | -154.53 | 194.87 | 12.30 | 414.53 | 396.43 | 18.10 | 22.903 | | | | | | | |
| 2,600.00 | 2,574.40 | 2,573.13 | 2,554.41 | 10.14 | 9.66 | -153.65 | 206.28 | 21.26 | 434.72 | 415.84 | 18.88 | 23.025 | | | | | | | |
| 2,700.00 | 2,672.86 | 2,670.85 | 2,651.05 | 10.58 | 10.07 | -152.84 | 217.69 | 30.22 | 455.01 | 435.34 | 19.66 | 23.141 | | | | | | | |
| 2,800.00 | 2,771.32 | 2,768.58 | 2,747.70 | 11.02 | 10.47 | -152.11 | 229.11 | 39.19 | 475.37 | 454.93 | 20.44 | 23.251 | | | | | | | |
| 2,900.00 | 2,869.78 | 2,866.31 | 2,844.34 | 11.46 | 10.87 | -151.43 | 240.52 | 48.15 | 495.80 | 474.57 | 21.23 | 23.355 | | | | | | | |
| 3,000.00 | 2,968.24 | 2,964.04 | 2,940.99 | 11.91 | 11.27 | -150.81 | 251.93 | 57.12 | 516.30 | 494.28 | 22.01 | 23.454 | | | | | | | |
| 3,100.00 | 3,066.71 | 3,061.77 | 3,037.63 | 12.35 | 11.67 | -150.23 | 263.34 | 66.08 | 536.85 | 514.05 | 22.80 | 23.547 | | | | | | | |
| 3,200.00 | 3,165.17 | 3,159.50 | 3,134.28 | 12.80 | 12.07 | -149.70 | 274.76 | 75.04 | 557.44 | 533.86 | 23.59 | 23.635 | | | | | | | |
| 3,300.00 | 3,263.63 | 3,257.23 | 3,230.92 | 13.24 | 12.47 | -149.20 | 286.17 | 84.01 | 578.08 | 553.71 | 24.37 | 23.719 | | | | | | | |
| 3,400.00 | 3,362.09 | 3,354.96 | 3,327.57 | 13.69 | 12.87 | -148.74 | 297.58 | 92.97 | 598.76 | 573.60 | 25.16 | 23.799 | | | | | | | |
| 3,500.00 | 3,460.55 | 3,452.69 | 3,424.21 | 14.13 | 13.28 | -148.31 | 308.99 | 101.94 | 619.47 | 593.52 | 25.95 | 23.875 | | | | | | | |
| 3,600.00 | 3,559.01 | 3,550.41 | 3,520.86 | 14.58 | 13.68 | -147.91 | 320.41 | 110.90 | 640.22 | 613.48 | 26.74 | 23.947 | | | | | | | |
| 3,700.00 | 3,657.48 | 3,648.14 | 3,617.51 | 15.02 | 14.08 | -147.53 | 331.82 | 119.86 | 660.99 | 633.46 | 27.52 | 24.015 | | | | | | | |
| 3,800.00 | 3,755.94 | 3,745.87 | 3,714.15 | 15.47 | 14.48 | -147.18 | 343.23 | 128.83 | 681.79 | 653.47 | 28.31 | 24.080 | | | | | | | |
| 3,900.00 | 3,854.40 | 3,843.60 | 3,810.80 | 15.92 | 14.89 | -146.85 | 354.65 | 137.79 | 702.61 | 673.50 | 29.10 | 24.142 | | | | | | | |
| 4,000.00 | 3,952.86 | 3,941.33 | 3,907.44 | 16.36 | 15.29 | -146.53 | 366.06 | 146.76 | 723.45 | 693.56 | 29.89 | 24.202 | | | | | | | |
| 4,100.00 | 4,051.32 | 4,039.06 | 4,004.09 | 16.81 | 15.69 | -146.24 | 377.47 | 155.72 | 744.31 | 713.63 | 30.68 | 24.258 | | | | | | | |
| 4,200.00 | 4,149.79 | 4,136.79 | 4,100.73 | 17.26 | 16.09 | -145.96 | 388.88 | 164.68 | 765.19 | 733.72 | 31.47 | 24.313 | | | | | | | |
| 4,300.00 | 4,248.25 | 4,234.52 | 4,197.38 | 17.70 | 16.50 | -145.69 | 400.30 | 173.65 | 786.09 | 753.83 | 32.26 | 24.364 | | | | | | | |
| 4,400.00 | 4,346.71 | 4,332.25 | 4,294.02 | 18.15 | 16.90 | -145.44 | 411.71 | 182.61 | 807.00 | 773.95 | 33.05 | 24.414 | | | | | | | |
| 4,500.00 | 4,445.17 | 4,429.97 | 4,390.67 | 18.60 | 17.30 | -145.20 | 423.12 | 191.58 | 827.93 | 794.08 | 33.85 | 24.462 | | | | | | | |
| 4,600.00 | 4,543.63 | 4,527.70 | 4,487.31 | 19.04 | 17.71 | -144.97 | 434.53 | 200.54 | 848.87 | 814.23 | 34.64 | 24.507 | | | | | | | |
| 4,700.00 | 4,642.10 | 4,625.43 | 4,583.96 | 19.49 | 18.11 | -144.76 | 445.95 | 209.50 | 869.82 | 834.39 | 35.43 | 24.551 | | | | | | | |
| 4,800.00 | 4,740.56 | 4,723.16 | 4,680.61 | 19.94 | 18.51 | -144.55 | 457.36 | 218.47 | 890.78 | 854.56 | 36.22 | 24.593 | | | | | | | |
| 4,900.00 | 4,839.02 | 4,820.89 | 4,777.25 | 20.39 | 18.92 | -144.35 | 468.77 | 227.43 | 911.76 | 874.75 | 37.01 | 24.633 | | | | | | | |
| 5,000.00 | 4,937.48 | 4,918.62 | 4,873.90 | 20.83 | 19.32 | -144.16 | 480.18 | 236.39 | 932.74 | 894.94 | 37.81 | 24.672 | | | | | | | |
| 5,100.00 | 5,035.94 | 5,016.35 | 4,970.54 | 21.28 | 19.72 | -143.99 | 491.60 | 245.36 | 953.74 | 915.14 | 38.60 | 24.710 | | | | | | | |

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 4S-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 4S-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) | Between Centres Ellipses Axis | | | | | |
| 5,200.00 | 5,134.41 | 5,114.08 | 5,067.19 | 21.73 | 20.13 | -143.81 | 503.01 | 254.32 | 974.74 | 935.35 | 39.39 | 24.746 | | | | |
| 5,300.00 | 5,232.87 | 5,211.81 | 5,163.83 | 22.18 | 20.53 | -143.65 | 514.42 | 263.29 | 995.75 | 955.56 | 40.18 | 24.780 | | | | |
| 5,400.00 | 5,331.33 | 5,309.54 | 5,260.48 | 22.63 | 20.93 | -143.49 | 525.83 | 272.25 | 1,016.76 | 975.79 | 40.98 | 24.814 | | | | |
| 5,500.00 | 5,429.79 | 5,407.26 | 5,357.12 | 23.07 | 21.34 | -143.34 | 537.25 | 281.21 | 1,037.79 | 996.02 | 41.77 | 24.846 | | | | |
| 5,600.00 | 5,528.25 | 5,504.99 | 5,453.77 | 23.52 | 21.74 | -143.19 | 548.66 | 290.18 | 1,058.82 | 1,016.26 | 42.56 | 24.877 | | | | |
| 5,700.00 | 5,626.72 | 5,602.72 | 5,550.41 | 23.97 | 22.15 | -143.05 | 560.07 | 299.14 | 1,079.85 | 1,036.50 | 43.35 | 24.907 | | | | |
| 5,800.00 | 5,725.18 | 5,700.45 | 5,647.06 | 24.42 | 22.55 | -142.92 | 571.48 | 308.11 | 1,100.90 | 1,056.75 | 44.15 | 24.936 | | | | |
| 5,900.00 | 5,823.64 | 5,798.18 | 5,743.70 | 24.87 | 22.95 | -142.79 | 582.90 | 317.07 | 1,121.95 | 1,077.00 | 44.94 | 24.965 | | | | |
| 6,000.00 | 5,922.10 | 5,895.91 | 5,840.35 | 25.31 | 23.36 | -142.67 | 594.31 | 326.03 | 1,143.00 | 1,097.27 | 45.74 | 24.992 | | | | |
| 6,100.00 | 6,020.56 | 5,993.64 | 5,937.00 | 25.76 | 23.76 | -142.55 | 605.72 | 335.00 | 1,164.06 | 1,117.53 | 46.53 | 25.018 | | | | |
| 6,200.00 | 6,119.03 | 6,091.37 | 6,033.64 | 26.21 | 24.16 | -142.43 | 617.13 | 343.96 | 1,185.12 | 1,137.80 | 47.32 | 25.043 | | | | |
| 6,300.00 | 6,217.49 | 6,189.10 | 6,130.29 | 26.66 | 24.57 | -142.32 | 628.55 | 352.93 | 1,206.19 | 1,158.07 | 48.12 | 25.068 | | | | |
| 6,400.00 | 6,315.95 | 6,302.64 | 6,245.00 | 27.11 | 24.97 | -142.21 | 639.97 | 361.89 | 1,227.26 | 1,178.94 | 48.91 | 25.093 | | | | |
| 6,500.00 | 6,414.41 | 6,401.20 | 6,345.00 | 27.55 | 25.37 | -142.10 | 651.41 | 370.85 | 1,248.34 | 1,199.81 | 49.70 | 25.118 | | | | |
| 6,600.00 | 6,512.87 | 6,499.76 | 6,445.00 | 28.00 | 25.77 | -141.99 | 662.85 | 379.81 | 1,269.42 | 1,220.68 | 50.49 | 25.143 | | | | |
| 6,700.00 | 6,611.34 | 6,598.32 | 6,545.00 | 28.45 | 26.17 | -141.88 | 674.29 | 388.77 | 1,290.50 | 1,241.55 | 51.28 | 25.168 | | | | |
| 6,800.00 | 6,709.80 | 6,696.88 | 6,645.00 | 28.90 | 26.57 | -141.77 | 685.73 | 397.73 | 1,311.58 | 1,262.42 | 52.07 | 25.193 | | | | |
| 6,900.00 | 6,808.26 | 6,795.44 | 6,745.00 | 29.35 | 26.97 | -141.66 | 697.17 | 406.69 | 1,332.66 | 1,283.29 | 52.86 | 25.218 | | | | |
| 6,982.73 | 6,889.71 | 6,872.52 | 6,820.00 | 29.72 | 27.37 | -141.55 | 708.61 | 415.65 | 1,353.74 | 1,304.16 | 53.65 | 25.243 | | | | |
| 7,000.00 | 6,906.74 | 6,893.80 | 6,845.00 | 29.80 | 27.47 | -141.50 | 715.05 | 419.62 | 1,364.82 | 1,315.04 | 54.04 | 25.268 | | | | |
| 7,050.00 | 6,956.13 | 6,943.13 | 6,895.00 | 30.01 | 27.57 | -141.45 | 721.49 | 423.59 | 1,375.90 | 1,325.91 | 54.43 | 25.293 | | | | |
| 7,100.00 | 7,005.50 | 6,992.50 | 6,945.00 | 30.19 | 27.67 | -141.40 | 727.93 | 427.56 | 1,386.98 | 1,336.78 | 54.82 | 25.318 | | | | |
| 7,150.00 | 7,054.91 | 7,041.91 | 6,995.00 | 30.36 | 27.77 | -141.35 | 734.37 | 431.53 | 1,398.06 | 1,347.65 | 55.21 | 25.343 | | | | |
| 7,200.00 | 7,103.33 | 7,091.33 | 7,045.00 | 30.52 | 27.87 | -141.30 | 740.81 | 435.50 | 1,409.14 | 1,358.52 | 55.60 | 25.368 | | | | |
| 7,250.00 | 7,151.10 | 7,139.10 | 7,095.00 | 30.65 | 27.97 | -141.25 | 747.25 | 439.47 | 1,420.22 | 1,369.39 | 56.00 | 25.393 | | | | |
| 7,300.00 | 7,198.01 | 7,186.01 | 7,145.00 | 30.77 | 28.07 | -141.20 | 753.69 | 443.44 | 1,431.30 | 1,380.26 | 56.39 | 25.418 | | | | |
| 7,350.00 | 7,243.72 | 7,231.72 | 7,195.00 | 30.88 | 28.17 | -141.15 | 760.13 | 447.41 | 1,442.38 | 1,391.13 | 56.78 | 25.443 | | | | |
| 7,400.00 | 7,288.00 | 7,276.00 | 7,245.00 | 30.97 | 28.27 | -141.10 | 766.57 | 451.38 | 1,453.46 | 1,402.00 | 57.17 | 25.468 | | | | |
| 7,450.00 | 7,330.65 | 7,318.65 | 7,295.00 | 31.05 | 28.37 | -141.05 | 773.01 | 455.35 | 1,464.54 | 1,412.87 | 57.56 | 25.493 | | | | |
| 7,500.00 | 7,371.46 | 7,359.46 | 7,345.00 | 31.12 | 28.47 | -141.00 | 779.45 | 459.32 | 1,475.62 | 1,423.74 | 57.95 | 25.518 | | | | |
| 7,509.04 | 7,378.62 | 7,366.62 | 7,352.00 | 31.12 | 28.47 | -141.00 | 780.84 | 459.32 | 1,476.01 | 1,423.74 | 57.94 | 25.518 SF | | | | |
| 7,550.00 | 7,410.22 | 7,398.22 | 7,405.00 | 31.17 | 28.57 | -140.95 | 787.28 | 463.29 | 1,487.10 | 1,434.61 | 58.34 | 25.543 | | | | |
| 7,600.00 | 7,446.75 | 7,434.75 | 7,455.00 | 31.21 | 28.67 | -140.90 | 793.72 | 467.26 | 1,498.18 | 1,445.50 | 58.73 | 25.568 | | | | |
| 7,650.00 | 7,480.87 | 7,468.87 | 7,505.00 | 31.24 | 28.77 | -140.85 | 800.16 | 471.23 | 1,509.26 | 1,456.39 | 59.12 | 25.593 | | | | |
| 7,700.00 | 7,512.42 | 7,500.42 | 7,555.00 | 31.25 | 28.87 | -140.80 | 806.60 | 475.20 | 1,520.34 | 1,467.28 | 59.51 | 25.618 | | | | |
| 7,750.00 | 7,541.23 | 7,529.23 | 7,605.00 | 31.26 | 28.97 | -140.75 | 813.04 | 479.17 | 1,531.42 | 1,478.17 | 59.90 | 25.643 | | | | |
| 7,800.00 | 7,567.18 | 7,555.18 | 7,655.00 | 31.25 | 29.07 | -140.70 | 819.48 | 483.14 | 1,542.50 | 1,489.06 | 60.29 | 25.668 | | | | |
| 7,850.00 | 7,590.12 | 7,578.12 | 7,705.00 | 31.24 | 29.17 | -140.65 | 825.92 | 487.11 | 1,553.58 | 1,500.00 | 60.68 | 25.693 | | | | |
| 7,900.00 | 7,609.96 | 7,597.96 | 7,755.00 | 31.22 | 29.27 | -140.60 | 832.36 | 491.08 | 1,564.66 | 1,510.89 | 61.07 | 25.718 | | | | |
| 7,950.00 | 7,626.60 | 7,614.60 | 7,805.00 | 31.19 | 29.37 | -140.55 | 838.80 | 495.05 | 1,575.74 | 1,521.78 | 61.46 | 25.743 | | | | |
| 8,000.00 | 7,639.94 | 7,628.94 | 7,855.00 | 31.15 | 29.47 | -140.50 | 845.24 | 499.02 | 1,586.82 | 1,532.67 | 61.85 | 25.768 | | | | |
| 8,050.00 | 7,649.94 | 7,638.94 | 7,905.00 | 31.11 | 29.57 | -140.45 | 851.68 | 502.99 | 1,597.90 | 1,543.56 | 62.24 | 25.793 | | | | |
| 8,100.00 | 7,656.54 | 7,645.54 | 7,955.00 | 31.07 | 29.67 | -140.40 | 858.12 | 506.96 | 1,608.98 | 1,554.45 | 62.63 | 25.818 | | | | |
| 8,150.00 | 7,659.70 | 7,652.70 | 7,960.00 | 31.03 | 29.77 | -140.35 | 864.56 | 510.93 | 1,620.06 | 1,565.34 | 63.02 | 25.843 | | | | |
| 8,170.89 | 7,660.00 | 7,653.00 | 7,965.00 | 31.01 | 29.77 | -140.35 | 864.56 | 510.93 | 1,620.06 | 1,565.34 | 63.02 | 25.843 | | | | |
| 8,200.00 | 7,660.00 | 7,653.00 | 7,965.00 | 30.98 | 29.77 | -140.35 | 864.56 | 510.93 | 1,620.06 | 1,565.34 | 63.02 | 25.843 | | | | |
| 8,300.00 | 7,660.00 | 7,700.00 | 7,417.90 | 30.92 | 27.89 | -67.32 | 206.60 | 463.68 | 635.23 | 584.90 | 50.33 | 12.622 | | | | |
| 8,400.00 | 7,660.00 | 7,631.43 | 7,393.10 | 30.91 | 27.92 | -65.31 | 270.49 | 462.39 | 652.55 | 602.89 | 49.65 | 13.142 | | | | |
| 8,500.00 | 7,660.00 | 7,572.35 | 7,366.94 | 31.22 | 27.94 | -63.27 | 323.42 | 460.81 | 675.96 | 626.90 | 49.06 | 13.778 | | | | |
| 8,600.00 | 7,660.00 | 7,518.16 | 7,339.20 | 31.83 | 27.96 | -61.21 | 369.92 | 458.99 | 705.75 | 657.19 | 48.56 | 14.534 | | | | |
| 8,700.00 | 7,660.00 | 7,468.82 | 7,310.96 | 32.55 | 27.98 | -59.21 | 410.33 | 457.03 | 742.00 | 693.80 | 48.20 | 15.393 | | | | |
| 8,800.00 | 7,660.00 | 7,424.10 | 7,283.03 | 33.33 | 27.98 | -57.32 | 445.18 | 455.01 | 784.56 | 736.52 | 48.04 | 16.333 | | | | |

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 4S-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 4S-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 | | |
| 8,900.00 | 7,660.00 | 7,383.70 | 7,255.98 | 34.16 | 27.98 | -55.58 | 475.12 | 453.01 | 833.08 | 785.03 | 48.05 | 17.337 | | |
| 9,000.00 | 7,660.00 | 7,350.00 | 7,232.17 | 35.04 | 27.98 | -54.12 | 498.89 | 451.20 | 887.12 | 838.81 | 48.31 | 18.363 | | |
| 9,100.00 | 7,660.00 | 7,314.32 | 7,205.77 | 35.97 | 27.97 | -52.57 | 522.80 | 449.16 | 946.12 | 897.59 | 48.54 | 19.493 | | |
| 9,200.00 | 7,660.00 | 7,284.59 | 7,182.89 | 36.94 | 27.96 | -51.29 | 541.70 | 447.36 | 1,009.58 | 960.65 | 48.93 | 20.634 | | |
| 9,300.00 | 7,660.00 | 7,250.00 | 7,155.32 | 37.96 | 27.94 | -49.81 | 562.46 | 445.17 | 1,077.02 | 1,027.84 | 49.18 | 21.898 | | |
| 9,400.00 | 7,660.00 | 7,233.29 | 7,141.65 | 39.00 | 27.93 | -49.10 | 572.01 | 444.07 | 1,147.79 | 1,097.94 | 49.84 | 23.029 | | |
| 9,500.00 | 7,660.00 | 7,200.00 | 7,113.77 | 40.09 | 27.90 | -47.72 | 590.06 | 441.81 | 1,221.75 | 1,171.67 | 50.08 | 24.396 | | |
| 9,600.00 | 7,660.00 | 7,200.00 | 7,113.77 | 41.20 | 27.90 | -47.72 | 590.06 | 441.81 | 1,298.18 | 1,247.22 | 50.95 | 25.477 | | |
| 9,700.00 | 7,660.00 | 7,172.45 | 7,090.10 | 42.34 | 27.87 | -46.60 | 604.00 | 439.86 | 1,376.86 | 1,325.64 | 51.22 | 26.880 | | |
| 9,800.00 | 7,660.00 | 7,150.00 | 7,070.42 | 43.51 | 27.85 | -45.70 | 614.69 | 438.24 | 1,457.67 | 1,406.12 | 51.55 | 28.275 | | |

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well HWY52 4S-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 4S-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 | -89.68 | 0.73 | -130.10 | 130.10 | 129.83 | 0.28 | 471.347 | | | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | -89.68 | 0.73 | -130.10 | 130.10 | 129.11 | 0.99 | 131.024 | | | | | | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | -89.68 | 0.73 | -130.10 | 130.10 | 129.11 | 0.99 | 131.006 | | | | | | | |
| 200.02 | 200.02 | 200.02 | 200.02 | 0.50 | 0.50 | -89.68 | 0.73 | -130.10 | 130.10 | 129.11 | 0.99 | 131.006 | | | | | | | |
| 300.00 | 300.00 | 299.93 | 299.91 | 0.85 | 0.86 | -88.91 | 2.48 | -130.10 | 130.12 | 128.42 | 1.71 | 76.130 | | | | | | | |
| 400.00 | 400.00 | 401.87 | 401.71 | 1.21 | 1.23 | -86.66 | 7.56 | -129.67 | 129.90 | 127.46 | 2.44 | 53.272 | | | | | | | |
| 500.00 | 500.00 | 505.71 | 505.26 | 1.57 | 1.60 | -83.46 | 14.46 | -126.21 | 127.15 | 123.95 | 3.20 | 39.748 | | | | | | | |
| 600.00 | 600.00 | 608.99 | 607.97 | 1.93 | 1.98 | -79.19 | 22.78 | -119.34 | 121.76 | 117.80 | 3.96 | 30.723 | | | | | | | |
| 700.00 | 699.98 | 711.51 | 709.52 | 2.28 | 2.38 | 166.59 | 32.46 | -109.15 | 115.97 | 111.26 | 4.71 | 24.635 | | | | | | | |
| 800.00 | 799.84 | 811.54 | 808.19 | 2.62 | 2.77 | 174.22 | 43.03 | -96.54 | 112.95 | 107.53 | 5.42 | 20.843 | | | | | | | |
| 808.01 | 807.83 | 819.45 | 815.99 | 2.65 | 2.81 | 174.85 | 43.87 | -95.53 | 112.93 | 107.45 | 5.48 | 20.620 | CC, ES | | | | | | |
| 900.00 | 899.45 | 910.25 | 905.51 | 2.97 | 3.18 | -177.96 | 53.56 | -83.84 | 115.33 | 109.19 | 6.15 | 18.767 | | | | | | | |
| 1,000.00 | 998.70 | 1,008.81 | 1,002.68 | 3.33 | 3.58 | -170.81 | 64.07 | -71.16 | 123.24 | 116.35 | 6.90 | 17.864 | | | | | | | |
| 1,103.09 | 1,100.51 | 1,110.12 | 1,102.56 | 3.72 | 4.01 | -164.77 | 74.88 | -58.13 | 136.67 | 128.98 | 7.69 | 17.771 | | | | | | | |
| 1,200.00 | 1,195.93 | 1,205.16 | 1,196.27 | 4.11 | 4.41 | -160.37 | 85.03 | -45.90 | 152.03 | 143.59 | 8.44 | 18.012 | | | | | | | |
| 1,300.00 | 1,294.39 | 1,303.25 | 1,292.98 | 4.51 | 4.82 | -156.68 | 95.49 | -33.28 | 168.63 | 159.41 | 9.22 | 18.295 | | | | | | | |
| 1,400.00 | 1,392.85 | 1,401.33 | 1,389.68 | 4.93 | 5.23 | -153.66 | 105.96 | -20.66 | 185.79 | 175.79 | 10.00 | 18.579 | | | | | | | |
| 1,500.00 | 1,491.31 | 1,499.41 | 1,486.38 | 5.35 | 5.65 | -151.15 | 116.42 | -8.04 | 203.38 | 192.59 | 10.79 | 18.852 | | | | | | | |
| 1,600.00 | 1,589.78 | 1,597.49 | 1,583.08 | 5.77 | 6.07 | -149.04 | 126.89 | 4.58 | 221.28 | 209.70 | 11.58 | 19.108 | | | | | | | |
| 1,700.00 | 1,688.24 | 1,695.57 | 1,679.78 | 6.20 | 6.49 | -147.25 | 137.35 | 17.20 | 239.44 | 227.06 | 12.38 | 19.346 | | | | | | | |
| 1,800.00 | 1,786.70 | 1,793.65 | 1,776.49 | 6.63 | 6.90 | -145.71 | 147.82 | 29.82 | 257.79 | 244.61 | 13.18 | 19.565 | | | | | | | |
| 1,900.00 | 1,885.16 | 1,891.74 | 1,873.19 | 7.06 | 7.32 | -144.37 | 158.28 | 42.44 | 276.29 | 262.31 | 13.98 | 19.766 | | | | | | | |
| 2,000.00 | 1,983.62 | 1,989.82 | 1,969.89 | 7.50 | 7.74 | -143.20 | 168.75 | 55.06 | 294.92 | 280.14 | 14.78 | 19.951 | | | | | | | |
| 2,100.00 | 2,082.09 | 2,087.90 | 2,066.59 | 7.94 | 8.16 | -142.17 | 179.21 | 67.68 | 313.66 | 298.07 | 15.59 | 20.121 | | | | | | | |
| 2,200.00 | 2,180.55 | 2,185.98 | 2,163.29 | 8.37 | 8.58 | -141.26 | 189.68 | 80.30 | 332.49 | 316.09 | 16.40 | 20.277 | | | | | | | |
| 2,300.00 | 2,279.01 | 2,284.06 | 2,259.99 | 8.81 | 9.00 | -140.45 | 200.14 | 92.92 | 351.38 | 334.18 | 17.21 | 20.421 | | | | | | | |
| 2,400.00 | 2,377.47 | 2,382.14 | 2,356.70 | 9.25 | 9.42 | -139.71 | 210.61 | 105.54 | 370.34 | 352.32 | 18.02 | 20.554 | | | | | | | |
| 2,500.00 | 2,475.93 | 2,480.23 | 2,453.40 | 9.69 | 9.85 | -139.05 | 221.07 | 118.16 | 389.35 | 370.52 | 18.83 | 20.677 | | | | | | | |
| 2,600.00 | 2,574.40 | 2,578.31 | 2,550.10 | 10.14 | 10.27 | -138.45 | 231.54 | 130.78 | 408.41 | 388.77 | 19.64 | 20.791 | | | | | | | |
| 2,700.00 | 2,672.86 | 2,676.39 | 2,646.80 | 10.58 | 10.69 | -137.91 | 242.00 | 143.40 | 427.51 | 407.05 | 20.46 | 20.897 | | | | | | | |
| 2,800.00 | 2,771.32 | 2,774.47 | 2,743.50 | 11.02 | 11.11 | -137.41 | 252.47 | 156.02 | 446.64 | 425.36 | 21.27 | 20.996 | | | | | | | |
| 2,900.00 | 2,869.78 | 2,872.55 | 2,840.20 | 11.46 | 11.53 | -136.95 | 262.93 | 168.64 | 465.80 | 443.71 | 22.09 | 21.088 | | | | | | | |
| 3,000.00 | 2,968.24 | 2,970.63 | 2,936.91 | 11.91 | 11.95 | -136.53 | 273.40 | 181.26 | 484.99 | 462.08 | 22.90 | 21.174 | | | | | | | |
| 3,100.00 | 3,066.71 | 3,068.72 | 3,033.61 | 12.35 | 12.37 | -136.14 | 283.86 | 193.88 | 504.20 | 480.47 | 23.72 | 21.254 | | | | | | | |
| 3,200.00 | 3,165.17 | 3,166.80 | 3,130.31 | 12.80 | 12.80 | -135.77 | 294.33 | 206.50 | 523.43 | 498.89 | 24.54 | 21.330 | | | | | | | |
| 3,300.00 | 3,263.63 | 3,264.88 | 3,227.01 | 13.24 | 13.22 | -135.44 | 304.79 | 219.12 | 542.68 | 517.32 | 25.36 | 21.401 | | | | | | | |
| 3,400.00 | 3,362.09 | 3,362.96 | 3,323.71 | 13.69 | 13.64 | -135.13 | 315.26 | 231.74 | 561.94 | 535.77 | 26.18 | 21.468 | | | | | | | |
| 3,500.00 | 3,460.55 | 3,461.04 | 3,420.42 | 14.13 | 14.06 | -134.83 | 325.72 | 244.36 | 581.23 | 554.23 | 27.00 | 21.531 | | | | | | | |
| 3,600.00 | 3,559.01 | 3,559.13 | 3,517.12 | 14.58 | 14.48 | -134.56 | 336.19 | 256.98 | 600.52 | 572.71 | 27.81 | 21.590 | | | | | | | |
| 3,700.00 | 3,657.48 | 3,657.21 | 3,613.82 | 15.02 | 14.90 | -134.30 | 346.65 | 269.60 | 619.83 | 591.20 | 28.63 | 21.646 | | | | | | | |
| 3,800.00 | 3,755.94 | 3,755.29 | 3,710.52 | 15.47 | 15.33 | -134.06 | 357.12 | 282.22 | 639.15 | 609.70 | 29.45 | 21.699 | | | | | | | |
| 3,900.00 | 3,854.40 | 3,853.37 | 3,807.22 | 15.92 | 15.75 | -133.84 | 367.58 | 294.84 | 658.48 | 628.20 | 30.28 | 21.750 | | | | | | | |
| 4,000.00 | 3,952.86 | 3,951.45 | 3,903.92 | 16.36 | 16.17 | -133.62 | 378.05 | 307.46 | 677.82 | 646.72 | 31.10 | 21.798 | | | | | | | |
| 4,100.00 | 4,051.32 | 4,049.53 | 4,000.63 | 16.81 | 16.59 | -133.42 | 388.51 | 320.08 | 697.17 | 665.25 | 31.92 | 21.843 | | | | | | | |
| 4,200.00 | 4,149.79 | 4,147.62 | 4,097.33 | 17.26 | 17.02 | -133.23 | 398.98 | 332.70 | 716.52 | 683.78 | 32.74 | 21.887 | | | | | | | |
| 4,300.00 | 4,248.25 | 4,245.70 | 4,194.03 | 17.70 | 17.44 | -133.05 | 409.44 | 345.32 | 735.88 | 702.32 | 33.56 | 21.928 | | | | | | | |
| 4,400.00 | 4,346.71 | 4,343.78 | 4,290.73 | 18.15 | 17.86 | -132.88 | 419.91 | 357.94 | 755.25 | 720.87 | 34.38 | 21.967 | | | | | | | |
| 4,500.00 | 4,445.17 | 4,441.86 | 4,387.43 | 18.60 | 18.28 | -132.71 | 430.37 | 370.56 | 774.63 | 739.43 | 35.20 | 22.005 | | | | | | | |
| 4,600.00 | 4,543.63 | 4,539.94 | 4,484.14 | 19.04 | 18.70 | -132.56 | 440.84 | 383.18 | 794.01 | 757.99 | 36.02 | 22.041 | | | | | | | |
| 4,700.00 | 4,642.10 | 4,638.02 | 4,580.84 | 19.49 | 19.13 | -132.41 | 451.30 | 395.80 | 813.40 | 776.55 | 36.85 | 22.075 | | | | | | | |
| 4,800.00 | 4,740.56 | 4,736.11 | 4,677.54 | 19.94 | 19.55 | -132.27 | 461.77 | 408.42 | 832.79 | 795.12 | 37.67 | 22.108 | | | | | | | |
| 4,900.00 | 4,839.02 | 4,834.19 | 4,774.24 | 20.39 | 19.97 | -132.14 | 472.23 | 421.04 | 852.18 | 813.69 | 38.49 | 22.140 | | | | | | | |

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 4S-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 4S-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: 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 | 4,937.48 | 4,932.27 | 4,870.94 | 20.83 | 20.39 | -132.01 | 482.70 | 433.66 | 871.59 | 832.27 | 39.31 | 22.170 | | | |
| 5,100.00 | 5,035.94 | 5,030.35 | 4,967.64 | 21.28 | 20.82 | -131.88 | 493.16 | 446.28 | 890.99 | 850.85 | 40.14 | 22.199 | | | |
| 5,200.00 | 5,134.41 | 5,128.43 | 5,064.35 | 21.73 | 21.24 | -131.77 | 503.63 | 458.90 | 910.40 | 869.44 | 40.96 | 22.227 | | | |
| 5,300.00 | 5,232.87 | 5,226.51 | 5,161.05 | 22.18 | 21.66 | -131.65 | 514.09 | 471.53 | 929.81 | 888.03 | 41.78 | 22.254 | | | |
| 5,400.00 | 5,331.33 | 5,324.60 | 5,257.75 | 22.63 | 22.08 | -131.55 | 524.56 | 484.15 | 949.23 | 906.62 | 42.61 | 22.279 | | | |
| 5,500.00 | 5,429.79 | 5,422.68 | 5,354.45 | 23.07 | 22.51 | -131.44 | 535.02 | 496.77 | 968.64 | 925.22 | 43.43 | 22.304 | | | |
| 5,600.00 | 5,528.25 | 5,520.76 | 5,451.15 | 23.52 | 22.93 | -131.34 | 545.49 | 509.39 | 988.07 | 943.81 | 44.25 | 22.328 | | | |
| 5,700.00 | 5,626.72 | 5,618.84 | 5,547.85 | 23.97 | 23.35 | -131.25 | 555.95 | 522.01 | 1,007.49 | 962.41 | 45.08 | 22.351 | | | |
| 5,800.00 | 5,725.18 | 5,716.92 | 5,644.56 | 24.42 | 23.77 | -131.15 | 566.42 | 534.63 | 1,026.92 | 981.02 | 45.90 | 22.373 | | | |
| 5,900.00 | 5,823.64 | 5,815.00 | 5,741.26 | 24.87 | 24.20 | -131.06 | 576.88 | 547.25 | 1,046.35 | 999.62 | 46.72 | 22.395 | | | |
| 6,000.00 | 5,922.10 | 5,913.09 | 5,837.96 | 25.31 | 24.62 | -130.98 | 587.35 | 559.87 | 1,065.78 | 1,018.23 | 47.55 | 22.416 | | | |
| 6,100.00 | 6,020.56 | 6,011.17 | 5,934.66 | 25.76 | 25.04 | -130.90 | 597.82 | 572.49 | 1,085.21 | 1,036.84 | 48.37 | 22.436 | | | |
| 6,200.00 | 6,119.03 | 6,109.25 | 6,031.36 | 26.21 | 25.47 | -130.82 | 608.28 | 585.11 | 1,104.65 | 1,055.45 | 49.19 | 22.455 | | | |
| 6,300.00 | 6,217.49 | 6,207.33 | 6,128.07 | 26.66 | 25.89 | -130.74 | 618.75 | 597.73 | 1,124.08 | 1,074.07 | 50.02 | 22.474 | | | |
| 6,400.00 | 6,315.95 | 6,305.41 | 6,224.77 | 27.11 | 26.31 | -130.67 | 629.21 | 610.35 | 1,143.52 | 1,092.68 | 50.84 | 22.492 | | | |
| 6,500.00 | 6,414.41 | 6,403.95 | 6,321.23 | 27.55 | 26.72 | -130.60 | 639.68 | 622.92 | 1,162.95 | 1,111.29 | 51.66 | 22.509 | | | |
| 6,600.00 | 6,512.87 | 6,502.48 | 6,417.69 | 28.00 | 27.13 | -130.52 | 649.15 | 636.63 | 1,182.38 | 1,129.90 | 52.47 | 22.526 | | | |
| 6,700.00 | 6,611.34 | 6,600.95 | 6,513.10 | 28.45 | 27.54 | -130.45 | 658.62 | 649.34 | 1,201.81 | 1,148.51 | 53.28 | 22.543 | | | |
| 6,800.00 | 6,709.80 | 6,700.41 | 6,608.56 | 28.90 | 27.95 | -130.37 | 668.09 | 662.05 | 1,221.24 | 1,167.04 | 54.09 | 22.560 | | | |
| 6,900.00 | 6,808.26 | 6,800.87 | 6,704.01 | 29.35 | 28.36 | -130.30 | 677.56 | 674.76 | 1,240.67 | 1,185.57 | 54.90 | 22.577 | | | |
| 6,982.73 | 6,889.71 | 6,883.32 | 6,780.46 | 29.72 | 28.71 | -130.22 | 687.03 | 687.47 | 1,260.10 | 1,204.10 | 55.71 | 22.594 | | | |
| 7,000.00 | 6,906.74 | 6,900.35 | 6,797.49 | 29.80 | 28.80 | -130.20 | 690.00 | 690.00 | 1,265.00 | 1,208.00 | 55.80 | 22.600 | | | |
| 7,050.00 | 6,956.13 | 6,950.74 | 6,847.10 | 30.01 | 29.01 | -130.15 | 695.00 | 695.00 | 1,275.00 | 1,218.00 | 56.00 | 22.612 | | | |
| 7,100.00 | 7,005.50 | 7,000.11 | 6,896.71 | 30.19 | 29.19 | -130.10 | 700.00 | 700.00 | 1,285.00 | 1,228.00 | 56.20 | 22.624 | | | |
| 7,150.00 | 7,054.61 | 7,049.22 | 6,946.32 | 30.36 | 29.36 | -130.05 | 705.00 | 705.00 | 1,295.00 | 1,238.00 | 56.40 | 22.636 | | | |
| 7,200.00 | 7,103.23 | 7,100.84 | 6,995.93 | 30.52 | 29.52 | -130.00 | 710.00 | 710.00 | 1,305.00 | 1,248.00 | 56.60 | 22.648 | | | |
| 7,250.00 | 7,151.10 | 7,148.71 | 7,045.54 | 30.65 | 29.65 | -129.95 | 715.00 | 715.00 | 1,315.00 | 1,258.00 | 56.80 | 22.660 | | | |
| 7,300.00 | 7,198.01 | 7,195.62 | 7,095.15 | 30.77 | 29.77 | -129.90 | 720.00 | 720.00 | 1,325.00 | 1,268.00 | 57.00 | 22.672 | | | |
| 7,350.00 | 7,243.72 | 7,241.33 | 7,144.76 | 30.88 | 29.88 | -129.85 | 725.00 | 725.00 | 1,335.00 | 1,278.00 | 57.20 | 22.684 | | | |
| 7,400.00 | 7,288.00 | 7,285.61 | 7,194.37 | 30.97 | 29.97 | -129.80 | 730.00 | 730.00 | 1,345.00 | 1,288.00 | 57.40 | 22.696 | | | |
| 7,450.00 | 7,330.65 | 7,328.26 | 7,243.98 | 31.05 | 30.05 | -129.75 | 735.00 | 735.00 | 1,355.00 | 1,298.00 | 57.60 | 22.708 | | | |
| 7,500.00 | 7,371.46 | 7,369.07 | 7,293.59 | 31.12 | 30.12 | -129.70 | 740.00 | 740.00 | 1,365.00 | 1,308.00 | 57.80 | 22.720 | | | |
| 7,550.00 | 7,410.22 | 7,407.83 | 7,343.20 | 31.17 | 30.17 | -129.65 | 745.00 | 745.00 | 1,375.00 | 1,318.00 | 58.00 | 22.732 | | | |
| 7,600.00 | 7,446.75 | 7,444.36 | 7,392.81 | 31.21 | 30.21 | -129.60 | 750.00 | 750.00 | 1,385.00 | 1,328.00 | 58.20 | 22.744 | | | |
| 7,650.00 | 7,480.87 | 7,478.48 | 7,442.42 | 31.24 | 30.24 | -129.55 | 755.00 | 755.00 | 1,395.00 | 1,338.00 | 58.40 | 22.756 | | | |
| 7,700.00 | 7,512.42 | 7,510.03 | 7,492.03 | 31.25 | 30.25 | -129.50 | 760.00 | 760.00 | 1,405.00 | 1,348.00 | 58.60 | 22.768 | | | |
| 7,719.71 | 7,524.11 | 7,521.72 | 7,504.72 | 31.25 | 30.25 | -129.50 | 760.00 | 760.00 | 1,405.00 | 1,348.00 | 58.60 | 22.768 | | | |
| 7,750.00 | 7,541.23 | 7,538.84 | 7,521.84 | 31.26 | 30.26 | -129.48 | 765.00 | 765.00 | 1,415.00 | 1,358.00 | 58.80 | 22.780 | | | |
| 7,800.00 | 7,567.18 | 7,564.79 | 7,548.79 | 31.25 | 29.75 | -129.48 | 770.00 | 770.00 | 1,425.00 | 1,368.00 | 59.00 | 22.792 | | | |
| 7,850.00 | 7,590.12 | 7,587.23 | 7,571.23 | 31.24 | 29.63 | -129.48 | 775.00 | 775.00 | 1,435.00 | 1,378.00 | 59.20 | 22.804 | | | |
| 7,900.00 | 7,609.96 | 7,607.00 | 7,591.00 | 31.22 | 29.58 | -129.48 | 780.00 | 780.00 | 1,445.00 | 1,388.00 | 59.40 | 22.816 | | | |
| 7,950.00 | 7,626.60 | 7,623.64 | 7,607.64 | 31.19 | 29.58 | -129.48 | 785.00 | 785.00 | 1,455.00 | 1,398.00 | 59.60 | 22.828 | | | |
| 8,000.00 | 7,639.94 | 7,636.98 | 7,620.98 | 31.15 | 29.59 | -129.48 | 790.00 | 790.00 | 1,465.00 | 1,408.00 | 59.80 | 22.840 | | | |
| 8,050.00 | 7,649.94 | 7,646.98 | 7,631.98 | 31.11 | 29.62 | -129.48 | 795.00 | 795.00 | 1,475.00 | 1,418.00 | 60.00 | 22.852 | | | |
| 8,100.00 | 7,656.54 | 7,653.58 | 7,638.58 | 31.07 | 29.66 | -129.48 | 800.00 | 800.00 | 1,485.00 | 1,428.00 | 60.20 | 22.864 | | | |
| 8,150.00 | 7,659.70 | 7,656.74 | 7,641.74 | 31.03 | 29.70 | -129.48 | 805.00 | 805.00 | 1,495.00 | 1,438.00 | 60.40 | 22.876 | | | |
| 8,170.89 | 7,660.00 | 7,657.04 | 7,642.04 | 31.01 | 29.72 | -129.48 | 810.00 | 810.00 | 1,505.00 | 1,448.00 | 60.60 | 22.888 | | | |
| 8,200.00 | 7,660.00 | 7,657.04 | 7,642.04 | 30.98 | 29.74 | -129.48 | 815.00 | 815.00 | 1,515.00 | 1,458.00 | 60.80 | 22.900 | | | |
| 8,300.00 | 7,660.00 | 7,657.04 | 7,642.04 | 30.92 | 29.82 | -129.48 | 820.00 | 820.00 | 1,525.00 | 1,468.00 | 61.00 | 22.912 | | | |
| 8,400.00 | 7,660.00 | 7,657.04 | 7,642.04 | 30.91 | 29.88 | -129.48 | 825.00 | 825.00 | 1,535.00 | 1,478.00 | 61.20 | 22.924 | | | |
| 8,500.00 | 7,660.00 | 7,657.04 | 7,642.04 | 31.22 | 29.93 | -129.48 | 830.00 | 830.00 | 1,545.00 | 1,488.00 | 61.40 | 22.936 | | | |
| 8,600.00 | 7,660.00 | 7,657.04 | 7,642.04 | 31.83 | 29.96 | -129.48 | 835.00 | 835.00 | 1,555.00 | 1,498.00 | 61.60 | 22.948 | | | |

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 4S-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 4S-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 | 7,660.00 | 7,550.00 | 7,384.77 | 32.55 | 29.98 | -45.63 | 447.51 | 761.38 | 469.43 | 425.50 | 43.93 | 10.687 | | |
| 8,800.00 | 7,660.00 | 7,510.59 | 7,358.27 | 33.33 | 29.98 | -43.34 | 476.48 | 757.96 | 528.17 | 483.08 | 45.10 | 11.712 | | |
| 8,900.00 | 7,660.00 | 7,469.77 | 7,329.20 | 34.16 | 29.98 | -41.09 | 504.88 | 754.20 | 592.81 | 546.72 | 46.08 | 12.864 | | |
| 9,000.00 | 7,660.00 | 7,433.47 | 7,302.03 | 35.04 | 29.96 | -39.20 | 528.70 | 750.68 | 662.32 | 615.15 | 47.17 | 14.042 | | |
| 9,100.00 | 7,660.00 | 7,400.00 | 7,275.96 | 35.97 | 29.95 | -37.56 | 549.40 | 747.31 | 735.90 | 687.70 | 48.20 | 15.268 | | |
| 9,200.00 | 7,660.00 | 7,372.25 | 7,253.63 | 36.94 | 29.93 | -36.27 | 565.62 | 744.42 | 812.85 | 763.59 | 49.27 | 16.499 | | |
| 9,300.00 | 7,660.00 | 7,350.00 | 7,235.29 | 37.96 | 29.91 | -35.28 | 577.99 | 742.04 | 892.66 | 842.33 | 50.32 | 17.739 | | |
| 9,400.00 | 7,660.00 | 7,323.15 | 7,212.66 | 39.00 | 29.89 | -34.15 | 592.14 | 739.10 | 974.80 | 923.76 | 51.04 | 19.098 | | |
| 9,500.00 | 7,660.00 | 7,300.00 | 7,192.74 | 40.09 | 29.86 | -33.22 | 603.65 | 736.52 | 1,058.97 | 1,007.23 | 51.74 | 20.468 | | |
| 9,600.00 | 7,660.00 | 7,283.23 | 7,178.09 | 41.20 | 29.84 | -32.57 | 611.57 | 734.62 | 1,144.83 | 1,092.36 | 52.47 | 21.821 | | |
| 9,700.00 | 7,660.00 | 7,266.02 | 7,162.87 | 42.34 | 29.82 | -31.93 | 619.35 | 732.64 | 1,232.15 | 1,179.09 | 53.06 | 23.221 | | |
| 9,800.00 | 7,660.00 | 7,250.00 | 7,148.53 | 43.51 | 29.80 | -31.36 | 626.25 | 730.78 | 1,320.72 | 1,267.14 | 53.58 | 24.648 | | |
| 9,900.00 | 7,660.00 | 7,250.00 | 7,148.53 | 44.70 | 29.80 | -31.36 | 626.25 | 730.78 | 1,410.57 | 1,356.28 | 54.30 | 25.979 | | |

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 4S-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 4S-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 | -89.79 | 0.45 | -120.03 | 120.03 | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | -89.79 | 0.45 | -120.03 | 120.03 | 119.75 | 0.28 | 434.852 | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | -89.79 | 0.45 | -120.03 | 120.03 | 119.04 | 0.99 | 120.879 | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.85 | 0.85 | -89.79 | 0.45 | -120.03 | 120.03 | 118.32 | 1.71 | 70.196 | | |
| 400.00 | 400.00 | 400.00 | 400.00 | 1.21 | 1.21 | -89.79 | 0.45 | -120.03 | 120.03 | 117.60 | 2.43 | 49.459 | | |
| 500.00 | 500.00 | 500.00 | 500.00 | 1.57 | 1.57 | -89.79 | 0.45 | -120.03 | 120.03 | 116.89 | 3.14 | 38.180 | | |
| 600.00 | 600.00 | 600.00 | 600.00 | 1.93 | 1.93 | -89.79 | 0.45 | -120.03 | 120.03 | 116.17 | 3.86 | 31.090 | | |
| 700.00 | 699.98 | 699.98 | 699.98 | 2.28 | 2.29 | 150.41 | 0.45 | -120.03 | 121.54 | 116.98 | 4.57 | 26.625 | | |
| 800.00 | 799.84 | 803.42 | 803.40 | 2.62 | 2.66 | 152.11 | 1.53 | -118.51 | 124.69 | 119.41 | 5.28 | 23.631 | | |
| 900.00 | 899.45 | 906.62 | 906.44 | 2.97 | 3.02 | 155.48 | 4.06 | -113.95 | 128.33 | 122.33 | 6.00 | 21.401 | | |
| 1,000.00 | 998.70 | 1,009.33 | 1,008.73 | 3.33 | 3.39 | 160.29 | 10.10 | -106.42 | 133.10 | 126.38 | 6.72 | 19.803 | | |
| 1,103.09 | 1,100.51 | 1,114.48 | 1,113.04 | 3.72 | 3.78 | 166.43 | 17.76 | -95.61 | 140.08 | 132.61 | 7.47 | 18.747 | | |
| 1,200.00 | 1,195.93 | 1,212.62 | 1,209.89 | 4.11 | 4.15 | 172.84 | 26.90 | -82.71 | 147.82 | 139.63 | 8.18 | 18.064 | | |
| 1,300.00 | 1,294.39 | 1,312.08 | 1,307.51 | 4.51 | 4.55 | 179.62 | 37.92 | -67.16 | 156.14 | 147.21 | 8.92 | 17.497 | | |
| 1,400.00 | 1,392.85 | 1,410.04 | 1,403.55 | 4.93 | 4.95 | -174.26 | 49.06 | -51.44 | 166.24 | 156.56 | 9.68 | 17.175 | | |
| 1,500.00 | 1,491.31 | 1,508.01 | 1,499.60 | 5.35 | 5.35 | -168.88 | 60.21 | -35.71 | 178.04 | 167.59 | 10.45 | 17.032 | | |
| 1,600.00 | 1,589.78 | 1,605.97 | 1,595.65 | 5.77 | 5.77 | -164.19 | 71.35 | -19.99 | 191.23 | 179.99 | 11.24 | 17.008 | | |
| 1,700.00 | 1,688.24 | 1,703.93 | 1,691.69 | 6.20 | 6.19 | -160.11 | 82.50 | -4.26 | 205.55 | 193.50 | 12.05 | 17.063 | | |
| 1,800.00 | 1,786.70 | 1,801.89 | 1,787.74 | 6.63 | 6.61 | -156.57 | 93.64 | 11.46 | 220.76 | 207.90 | 12.86 | 17.169 | | |
| 1,900.00 | 1,885.16 | 1,899.85 | 1,883.79 | 7.06 | 7.04 | -153.49 | 104.79 | 27.19 | 236.70 | 223.02 | 13.68 | 17.307 | | |
| 2,000.00 | 1,983.62 | 1,997.81 | 1,979.83 | 7.50 | 7.47 | -150.80 | 115.93 | 42.91 | 253.23 | 238.73 | 14.50 | 17.463 | | |
| 2,100.00 | 2,082.09 | 2,095.77 | 2,075.88 | 7.94 | 7.90 | -148.44 | 127.08 | 58.64 | 270.25 | 254.92 | 15.33 | 17.629 | | |
| 2,200.00 | 2,180.55 | 2,193.73 | 2,171.93 | 8.37 | 8.34 | -146.36 | 138.22 | 74.36 | 287.66 | 271.50 | 16.16 | 17.799 | | |
| 2,300.00 | 2,279.01 | 2,291.70 | 2,267.97 | 8.81 | 8.77 | -144.52 | 149.36 | 90.09 | 305.40 | 288.41 | 17.00 | 17.969 | | |
| 2,400.00 | 2,377.47 | 2,389.66 | 2,364.02 | 9.25 | 9.21 | -142.88 | 160.51 | 105.81 | 323.42 | 305.58 | 17.83 | 18.136 | | |
| 2,500.00 | 2,475.93 | 2,487.62 | 2,460.06 | 9.69 | 9.65 | -141.41 | 171.65 | 121.54 | 341.66 | 322.99 | 18.67 | 18.298 | | |
| 2,600.00 | 2,574.40 | 2,585.58 | 2,556.11 | 10.14 | 10.09 | -140.09 | 182.80 | 137.26 | 360.11 | 340.60 | 19.51 | 18.456 | | |
| 2,700.00 | 2,672.86 | 2,683.54 | 2,652.16 | 10.58 | 10.53 | -138.90 | 193.94 | 152.99 | 378.72 | 358.37 | 20.35 | 18.607 | | |
| 2,800.00 | 2,771.32 | 2,781.50 | 2,748.20 | 11.02 | 10.97 | -137.82 | 205.09 | 168.71 | 397.47 | 376.28 | 21.20 | 18.753 | | |
| 2,900.00 | 2,869.78 | 2,879.46 | 2,844.25 | 11.46 | 11.41 | -136.84 | 216.23 | 184.44 | 416.35 | 394.31 | 22.04 | 18.892 | | |
| 3,000.00 | 2,968.24 | 2,977.42 | 2,940.30 | 11.91 | 11.86 | -135.94 | 227.38 | 200.16 | 435.34 | 412.46 | 22.88 | 19.025 | | |
| 3,100.00 | 3,066.71 | 3,075.39 | 3,036.34 | 12.35 | 12.30 | -135.12 | 238.52 | 215.89 | 454.42 | 430.70 | 23.73 | 19.152 | | |
| 3,200.00 | 3,165.17 | 3,173.35 | 3,132.39 | 12.80 | 12.74 | -134.36 | 249.67 | 231.61 | 473.59 | 449.02 | 24.57 | 19.273 | | |
| 3,300.00 | 3,263.63 | 3,271.31 | 3,228.44 | 13.24 | 13.19 | -133.66 | 260.81 | 247.34 | 492.83 | 467.41 | 25.42 | 19.388 | | |
| 3,400.00 | 3,362.09 | 3,369.27 | 3,324.48 | 13.69 | 13.63 | -133.02 | 271.96 | 263.06 | 512.13 | 485.87 | 26.26 | 19.499 | | |
| 3,500.00 | 3,460.55 | 3,467.23 | 3,420.53 | 14.13 | 14.08 | -132.42 | 283.10 | 278.79 | 531.50 | 504.39 | 27.11 | 19.604 | | |
| 3,600.00 | 3,559.01 | 3,565.19 | 3,516.58 | 14.58 | 14.52 | -131.86 | 294.25 | 294.51 | 550.91 | 522.95 | 27.96 | 19.704 | | |
| 3,700.00 | 3,657.48 | 3,663.15 | 3,612.62 | 15.02 | 14.97 | -131.34 | 305.39 | 310.24 | 570.37 | 541.57 | 28.81 | 19.800 | | |
| 3,800.00 | 3,755.94 | 3,761.11 | 3,708.67 | 15.47 | 15.42 | -130.86 | 316.54 | 325.96 | 589.88 | 560.22 | 29.65 | 19.892 | | |
| 3,900.00 | 3,854.40 | 3,859.08 | 3,804.71 | 15.92 | 15.86 | -130.41 | 327.68 | 341.69 | 609.42 | 578.92 | 30.50 | 19.980 | | |
| 4,000.00 | 3,952.86 | 3,957.04 | 3,900.76 | 16.36 | 16.31 | -129.98 | 338.83 | 357.41 | 629.00 | 597.65 | 31.35 | 20.064 | | |
| 4,100.00 | 4,051.32 | 4,055.00 | 3,996.81 | 16.81 | 16.76 | -129.58 | 349.97 | 373.14 | 648.61 | 616.41 | 32.20 | 20.144 | | |
| 4,200.00 | 4,149.79 | 4,152.96 | 4,092.85 | 17.26 | 17.20 | -129.20 | 361.12 | 388.86 | 668.24 | 635.19 | 33.05 | 20.221 | | |
| 4,300.00 | 4,248.25 | 4,250.92 | 4,188.90 | 17.70 | 17.65 | -128.85 | 372.26 | 404.59 | 687.90 | 654.01 | 33.90 | 20.294 | | |
| 4,400.00 | 4,346.71 | 4,348.88 | 4,284.95 | 18.15 | 18.10 | -128.51 | 383.41 | 420.31 | 707.59 | 672.85 | 34.75 | 20.365 | | |
| 4,500.00 | 4,445.17 | 4,446.84 | 4,380.99 | 18.60 | 18.55 | -128.20 | 394.55 | 436.04 | 727.30 | 691.71 | 35.59 | 20.433 | | |
| 4,600.00 | 4,543.63 | 4,544.80 | 4,477.04 | 19.04 | 18.99 | -127.90 | 405.70 | 451.76 | 747.03 | 710.59 | 36.44 | 20.498 | | |
| 4,700.00 | 4,642.10 | 4,642.76 | 4,573.09 | 19.49 | 19.44 | -127.61 | 416.84 | 467.49 | 766.78 | 729.48 | 37.29 | 20.561 | | |
| 4,800.00 | 4,740.56 | 4,740.73 | 4,669.13 | 19.94 | 19.89 | -127.34 | 427.98 | 483.21 | 786.54 | 748.40 | 38.14 | 20.621 | | |
| 4,900.00 | 4,839.02 | 4,838.69 | 4,765.18 | 20.39 | 20.34 | -127.08 | 439.13 | 498.94 | 806.32 | 767.33 | 38.99 | 20.679 | | |
| 5,000.00 | 4,937.48 | 4,936.65 | 4,861.23 | 20.83 | 20.79 | -126.84 | 450.27 | 514.66 | 826.12 | 786.28 | 39.84 | 20.734 | | |
| 5,100.00 | 5,035.94 | 5,034.61 | 4,957.27 | 21.28 | 21.24 | -126.61 | 461.42 | 530.39 | 845.93 | 805.24 | 40.69 | 20.788 | | |

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 4S-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 4S-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) | | | | |
| 5,200.00 | 5,134.41 | 5,132.57 | 5,053.32 | 21.73 | 21.68 | -126.38 | 472.56 | 546.11 | 865.75 | 824.21 | 41.54 | 20.840 | | |
| 5,300.00 | 5,232.87 | 5,230.53 | 5,149.36 | 22.18 | 22.13 | -126.17 | 483.71 | 561.84 | 885.59 | 843.19 | 42.39 | 20.890 | | |
| 5,400.00 | 5,331.33 | 5,328.49 | 5,245.41 | 22.63 | 22.58 | -125.97 | 494.85 | 577.56 | 905.43 | 862.19 | 43.24 | 20.938 | | |
| 5,500.00 | 5,429.79 | 5,426.45 | 5,341.46 | 23.07 | 23.03 | -125.77 | 506.00 | 593.29 | 925.29 | 881.20 | 44.09 | 20.984 | | |
| 5,600.00 | 5,528.25 | 5,524.42 | 5,437.50 | 23.52 | 23.48 | -125.59 | 517.14 | 609.01 | 945.16 | 900.21 | 44.94 | 21.029 | | |
| 5,700.00 | 5,626.72 | 5,622.38 | 5,533.55 | 23.97 | 23.93 | -125.41 | 528.29 | 624.74 | 965.03 | 919.24 | 45.80 | 21.073 | | |
| 5,800.00 | 5,725.18 | 5,720.34 | 5,629.60 | 24.42 | 24.38 | -125.23 | 539.43 | 640.46 | 984.92 | 938.27 | 46.65 | 21.115 | | |
| 5,900.00 | 5,823.64 | 5,818.30 | 5,725.64 | 24.87 | 24.83 | -125.07 | 550.58 | 656.19 | 1,004.81 | 957.31 | 47.50 | 21.155 | | |
| 6,000.00 | 5,922.10 | 5,916.26 | 5,821.69 | 25.31 | 25.28 | -124.91 | 561.72 | 671.91 | 1,024.71 | 976.36 | 48.35 | 21.194 | | |
| 6,100.00 | 6,020.56 | 6,014.22 | 5,917.74 | 25.76 | 25.73 | -124.76 | 572.87 | 687.64 | 1,044.62 | 995.42 | 49.20 | 21.233 | | |
| 6,200.00 | 6,119.03 | 6,112.18 | 6,013.78 | 26.21 | 26.18 | -124.61 | 584.01 | 703.36 | 1,064.53 | 1,014.48 | 50.05 | 21.269 | | |
| 6,300.00 | 6,217.49 | 6,210.14 | 6,109.83 | 26.66 | 26.63 | -124.47 | 595.16 | 719.09 | 1,084.45 | 1,033.55 | 50.90 | 21.305 | | |
| 6,400.00 | 6,315.95 | 6,308.11 | 6,205.88 | 27.11 | 27.07 | -124.33 | 606.30 | 734.81 | 1,104.38 | 1,052.63 | 51.75 | 21.340 | | |
| 6,500.00 | 6,414.41 | 6,406.07 | 6,301.92 | 27.55 | 27.52 | -124.20 | 617.45 | 750.54 | 1,124.31 | 1,071.71 | 52.60 | 21.373 | | |
| 6,600.00 | 6,512.87 | 6,504.03 | 6,397.97 | 28.00 | 27.97 | -124.08 | 628.59 | 766.26 | 1,144.25 | 1,090.79 | 53.45 | 21.406 | | |
| 6,700.00 | 6,611.34 | 6,602.63 | 6,494.03 | 28.45 | 28.42 | -123.96 | 639.74 | 782.00 | 1,164.19 | 1,110.71 | 54.30 | 21.439 | | |
| 6,800.00 | 6,709.80 | 6,700.42 | 6,590.58 | 28.90 | 28.87 | -123.84 | 650.89 | 797.74 | 1,184.13 | 1,130.63 | 55.15 | 21.472 | | |
| 6,900.00 | 6,808.26 | 6,800.21 | 6,687.16 | 29.35 | 29.32 | -123.72 | 662.04 | 812.74 | 1,204.07 | 1,150.55 | 56.00 | 21.505 | | |
| 6,982.73 | 6,889.71 | 6,882.16 | 6,768.00 | 29.72 | 29.69 | -123.61 | 673.19 | 827.74 | 1,224.01 | 1,170.47 | 56.85 | 21.538 | | |
| 7,000.00 | 6,906.74 | 6,900.00 | 6,850.00 | 29.80 | 29.77 | -123.50 | 684.34 | 842.74 | 1,243.95 | 1,190.39 | 57.70 | 21.571 | | |
| 7,050.00 | 6,956.13 | 6,950.00 | 6,885.00 | 30.01 | 29.98 | -123.40 | 695.49 | 857.74 | 1,263.89 | 1,210.31 | 58.55 | 21.604 | | |
| 7,100.00 | 7,005.50 | 7,000.00 | 6,920.00 | 30.19 | 30.16 | -123.30 | 706.64 | 872.74 | 1,283.83 | 1,230.23 | 59.40 | 21.637 | | |
| 7,150.00 | 7,054.91 | 7,050.00 | 6,955.00 | 30.36 | 30.33 | -123.20 | 717.79 | 887.74 | 1,303.77 | 1,250.15 | 60.25 | 21.670 | | |
| 7,200.00 | 7,103.33 | 7,100.00 | 6,990.00 | 30.52 | 30.49 | -123.10 | 728.94 | 902.74 | 1,323.71 | 1,270.07 | 61.10 | 21.703 | | |
| 7,250.00 | 7,151.10 | 7,150.00 | 7,025.00 | 30.65 | 30.62 | -123.00 | 740.09 | 917.74 | 1,343.65 | 1,290.00 | 61.95 | 21.736 | | |
| 7,300.00 | 7,198.01 | 7,198.00 | 7,060.00 | 30.77 | 30.74 | -122.90 | 751.24 | 932.74 | 1,363.59 | 1,310.00 | 62.80 | 21.769 | | |
| 7,350.00 | 7,243.72 | 7,243.00 | 7,095.00 | 30.88 | 30.85 | -122.80 | 762.39 | 947.74 | 1,383.53 | 1,330.00 | 63.65 | 21.802 | | |
| 7,400.00 | 7,288.00 | 7,288.00 | 7,130.00 | 30.97 | 30.94 | -122.70 | 773.54 | 962.74 | 1,403.47 | 1,350.00 | 64.50 | 21.835 | | |
| 7,450.00 | 7,330.65 | 7,330.00 | 7,165.00 | 31.05 | 31.02 | -122.60 | 784.69 | 977.74 | 1,423.41 | 1,370.00 | 65.35 | 21.868 | | |
| 7,500.00 | 7,371.46 | 7,371.00 | 7,200.00 | 31.12 | 31.09 | -122.50 | 795.84 | 992.74 | 1,443.35 | 1,390.00 | 66.20 | 21.901 | | |
| 7,550.00 | 7,410.22 | 7,410.00 | 7,235.00 | 31.17 | 31.14 | -122.40 | 806.99 | 1,007.74 | 1,463.29 | 1,410.00 | 67.05 | 21.934 | | |
| 7,600.00 | 7,446.75 | 7,446.00 | 7,270.00 | 31.21 | 31.18 | -122.30 | 818.14 | 1,022.74 | 1,483.23 | 1,430.00 | 67.90 | 21.967 | | |
| 7,650.00 | 7,480.87 | 7,480.00 | 7,305.00 | 31.24 | 31.21 | -122.20 | 829.29 | 1,037.74 | 1,503.17 | 1,450.00 | 68.75 | 21.999 | | |
| 7,700.00 | 7,512.42 | 7,512.00 | 7,340.00 | 31.25 | 31.22 | -122.10 | 840.44 | 1,052.74 | 1,523.11 | 1,470.00 | 69.60 | 22.032 | | |
| 7,750.00 | 7,541.23 | 7,541.00 | 7,375.00 | 31.26 | 31.23 | -122.00 | 851.59 | 1,067.74 | 1,543.05 | 1,490.00 | 70.45 | 22.065 | | |
| 7,800.00 | 7,567.18 | 7,567.00 | 7,410.00 | 31.25 | 31.22 | -121.90 | 862.74 | 1,082.74 | 1,562.99 | 1,510.00 | 71.30 | 22.098 | | |
| 7,850.00 | 7,590.12 | 7,590.00 | 7,445.00 | 31.24 | 31.21 | -121.80 | 873.89 | 1,097.74 | 1,582.93 | 1,530.00 | 72.15 | 22.131 | | |
| 7,900.00 | 7,609.96 | 7,609.00 | 7,480.00 | 31.22 | 31.19 | -121.70 | 885.04 | 1,112.74 | 1,602.87 | 1,550.00 | 73.00 | 22.164 | | |
| 7,950.00 | 7,626.60 | 7,626.00 | 7,515.00 | 31.19 | 31.16 | -121.60 | 896.19 | 1,127.74 | 1,622.81 | 1,570.00 | 73.85 | 22.197 | | |
| 8,000.00 | 7,639.94 | 7,639.00 | 7,550.00 | 31.15 | 31.12 | -121.50 | 907.34 | 1,142.74 | 1,642.75 | 1,590.00 | 74.70 | 22.230 | | |
| 8,050.00 | 7,649.94 | 7,649.00 | 7,585.00 | 31.11 | 31.08 | -121.40 | 918.49 | 1,157.74 | 1,662.69 | 1,610.00 | 75.55 | 22.263 | | |
| 8,100.00 | 7,656.54 | 7,656.00 | 7,620.00 | 31.07 | 31.04 | -121.30 | 929.64 | 1,172.74 | 1,682.63 | 1,630.00 | 76.40 | 22.296 | | |
| 8,122.37 | 7,658.38 | 7,658.00 | 7,655.00 | 31.05 | 31.02 | -121.20 | 940.79 | 1,187.74 | 1,702.57 | 1,650.00 | 77.25 | 22.329 | | |
| 8,150.00 | 7,659.70 | 7,659.00 | 7,690.00 | 31.03 | 31.00 | -121.10 | 951.94 | 1,202.74 | 1,722.51 | 1,670.00 | 78.10 | 22.362 | | |
| 8,170.89 | 7,660.00 | 7,660.00 | 7,725.00 | 31.01 | 30.98 | -121.00 | 963.09 | 1,217.74 | 1,742.45 | 1,690.00 | 78.95 | 22.395 | | |
| 8,200.00 | 7,660.00 | 7,660.00 | 7,760.00 | 30.98 | 30.95 | -120.90 | 974.24 | 1,232.74 | 1,762.39 | 1,710.00 | 79.80 | 22.428 | | |
| 8,300.00 | 7,660.00 | 7,660.00 | 7,795.00 | 30.92 | 30.89 | -120.80 | 985.39 | 1,247.74 | 1,782.33 | 1,730.00 | 80.65 | 22.461 | | |
| 8,400.00 | 7,660.00 | 7,660.00 | 7,830.00 | 30.91 | 30.88 | -120.70 | 996.54 | 1,262.74 | 1,802.27 | 1,750.00 | 81.50 | 22.494 | | |
| 8,500.00 | 7,660.00 | 7,660.00 | 7,865.00 | 31.22 | 31.19 | -120.60 | 1,007.69 | 1,277.74 | 1,822.21 | 1,770.00 | 82.35 | 22.527 | | |
| 8,600.00 | 7,660.00 | 7,660.00 | 7,900.00 | 31.83 | 31.80 | -120.50 | 1,018.84 | 1,292.74 | 1,842.15 | 1,790.00 | 83.20 | 22.560 | | |
| 8,700.00 | 7,660.00 | 7,660.00 | 7,935.00 | 32.55 | 32.52 | -120.40 | 1,030.00 | 1,307.74 | 1,862.09 | 1,810.00 | 84.05 | 22.593 | | |
| 8,800.00 | 7,660.00 | 7,660.00 | 7,970.00 | 33.33 | 33.30 | -120.30 | 1,041.15 | 1,322.74 | 1,882.03 | 1,830.00 | 84.90 | 22.626 | | |

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 4S-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 4S-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 | | |
| 8,900.00 | 7,660.00 | 7,550.00 | 7,397.25 | 34.16 | 31.69 | -23.22 | 551.79 | 929.87 | 453.32 | 405.13 | 48.18 | 9.408 | | |
| 9,000.00 | 7,660.00 | 7,524.39 | 7,376.63 | 35.04 | 31.66 | -22.27 | 566.61 | 926.49 | 533.58 | 483.08 | 50.51 | 10.565 | | |
| 9,100.00 | 7,660.00 | 7,500.00 | 7,356.52 | 35.97 | 31.64 | -21.47 | 580.01 | 923.20 | 616.81 | 564.66 | 52.16 | 11.826 | | |
| 9,200.00 | 7,660.00 | 7,467.25 | 7,328.84 | 36.94 | 31.60 | -20.51 | 596.90 | 918.67 | 702.18 | 649.20 | 52.97 | 13.255 | | |
| 9,300.00 | 7,660.00 | 7,450.00 | 7,313.96 | 37.96 | 31.58 | -20.05 | 605.27 | 916.23 | 789.49 | 735.34 | 54.15 | 14.580 | | |
| 9,400.00 | 7,660.00 | 7,422.57 | 7,289.89 | 39.00 | 31.54 | -19.38 | 617.84 | 912.29 | 878.23 | 823.51 | 54.71 | 16.051 | | |
| 9,500.00 | 7,660.00 | 7,400.00 | 7,269.75 | 40.09 | 31.51 | -18.88 | 627.47 | 909.00 | 968.31 | 913.03 | 55.29 | 17.514 | | |
| 9,600.00 | 7,660.00 | 7,400.00 | 7,269.75 | 41.20 | 31.51 | -18.88 | 627.47 | 909.00 | 1,059.64 | 1,003.37 | 56.28 | 18.829 | | |
| 9,700.00 | 7,660.00 | 7,371.72 | 7,244.11 | 42.34 | 31.45 | -18.32 | 638.63 | 904.80 | 1,151.51 | 1,095.05 | 56.47 | 20.393 | | |
| 9,800.00 | 7,660.00 | 7,350.00 | 7,224.13 | 43.51 | 31.41 | -17.92 | 646.49 | 901.53 | 1,244.44 | 1,187.69 | 56.75 | 21.929 | | |
| 9,900.00 | 7,660.00 | 7,350.00 | 7,224.13 | 44.70 | 31.41 | -17.92 | 646.49 | 901.53 | 1,337.92 | 1,280.57 | 57.35 | 23.328 | | |
| 10,000.00 | 7,660.00 | 7,350.00 | 7,224.13 | 45.92 | 31.41 | -17.92 | 646.49 | 901.53 | 1,432.29 | 1,374.43 | 57.85 | 24.758 | | |

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 4S-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 4S-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 | -89.78 | 0.43 | -109.96 | 109.96 | 109.68 | 0.28 | 398.361 | | | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | -89.78 | 0.43 | -109.96 | 109.96 | 108.96 | 0.99 | 110.736 | | | | | | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | -89.78 | 0.43 | -109.96 | 109.96 | 108.25 | 1.71 | 64.306 | | | | | | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.85 | 0.85 | -89.78 | 0.43 | -109.96 | 109.96 | 107.53 | 2.43 | 45.308 | | | | | | | |
| 400.00 | 400.00 | 400.00 | 400.00 | 1.21 | 1.21 | -89.78 | 0.43 | -109.96 | 109.96 | 106.81 | 3.14 | 34.976 | | | | | | | |
| 500.00 | 500.00 | 500.00 | 500.00 | 1.57 | 1.57 | -89.78 | 0.43 | -109.96 | 109.96 | 106.10 | 3.86 | 28.481 | | | | | | | |
| 600.00 | 600.00 | 600.00 | 600.00 | 1.93 | 1.93 | -89.78 | 0.43 | -109.96 | 109.96 | 105.28 | 4.58 | 23.977 | | | | | | | |
| 700.00 | 699.98 | 703.54 | 703.51 | 2.28 | 2.30 | 150.92 | 1.25 | -108.27 | 109.86 | 104.43 | 5.30 | 20.697 | | | | | | | |
| 800.00 | 799.84 | 806.89 | 806.71 | 2.62 | 2.66 | 153.63 | 3.71 | -103.24 | 109.73 | 104.04 | 5.33 | 20.582 CC | | | | | | | |
| 804.04 | 803.87 | 811.07 | 810.88 | 2.63 | 2.68 | 153.78 | 3.84 | -102.97 | 109.73 | 104.01 | 6.03 | 18.253 ES | | | | | | | |
| 900.00 | 899.45 | 909.90 | 909.29 | 2.97 | 3.03 | 158.11 | 7.77 | -94.91 | 110.04 | 104.01 | 6.76 | 16.508 | | | | | | | |
| 1,000.00 | 998.70 | 1,012.37 | 1,010.95 | 3.33 | 3.41 | 164.22 | 13.42 | -83.33 | 111.55 | 104.79 | 7.51 | 15.360 | | | | | | | |
| 1,103.09 | 1,100.51 | 1,117.30 | 1,114.49 | 3.72 | 3.82 | 171.90 | 20.85 | -68.09 | 115.40 | 107.89 | 8.24 | 14.631 | | | | | | | |
| 1,200.00 | 1,195.93 | 1,215.21 | 1,210.49 | 4.11 | 4.21 | 179.88 | 29.28 | -50.81 | 120.52 | 112.28 | 9.01 | 14.048 | | | | | | | |
| 1,300.00 | 1,294.39 | 1,314.71 | 1,307.37 | 4.51 | 4.64 | -171.54 | 39.21 | -30.45 | 126.55 | 117.54 | 9.81 | 13.753 | | | | | | | |
| 1,400.00 | 1,392.85 | 1,412.70 | 1,402.63 | 4.93 | 5.07 | -163.71 | 49.28 | -9.80 | 134.93 | 125.12 | 10.63 | 13.708 | | | | | | | |
| 1,500.00 | 1,491.31 | 1,509.12 | 1,496.38 | 5.35 | 5.51 | -156.99 | 59.32 | 10.41 | 145.74 | 135.11 | 11.48 | 13.912 | | | | | | | |
| 1,600.00 | 1,589.78 | 1,606.27 | 1,590.91 | 5.77 | 5.96 | -151.28 | 70.40 | 29.91 | 159.65 | 148.17 | 12.33 | 14.183 | | | | | | | |
| 1,700.00 | 1,688.24 | 1,704.10 | 1,686.09 | 6.20 | 6.41 | -146.46 | 81.59 | 49.52 | 174.93 | 162.60 | 13.20 | 14.491 | | | | | | | |
| 1,800.00 | 1,786.70 | 1,801.93 | 1,781.28 | 6.63 | 6.87 | -142.43 | 92.77 | 69.12 | 191.25 | 178.05 | 14.07 | 14.813 | | | | | | | |
| 1,900.00 | 1,885.16 | 1,899.75 | 1,876.47 | 7.06 | 7.34 | -139.04 | 103.96 | 88.73 | 208.35 | 194.29 | 14.94 | 15.136 | | | | | | | |
| 2,000.00 | 1,983.62 | 1,997.58 | 1,971.65 | 7.50 | 7.80 | -136.17 | 115.14 | 108.34 | 226.07 | 211.13 | 15.81 | 15.453 | | | | | | | |
| 2,100.00 | 2,082.09 | 2,095.41 | 2,066.84 | 7.94 | 8.27 | -133.71 | 126.32 | 127.95 | 244.25 | 228.45 | 16.68 | 15.758 | | | | | | | |
| 2,200.00 | 2,180.55 | 2,193.23 | 2,162.02 | 8.37 | 8.75 | -131.60 | 137.51 | 147.56 | 262.82 | 246.14 | 17.55 | 16.050 | | | | | | | |
| 2,300.00 | 2,279.01 | 2,291.06 | 2,257.21 | 8.81 | 9.22 | -129.76 | 148.69 | 167.17 | 281.69 | 264.14 | 18.42 | 16.327 | | | | | | | |
| 2,400.00 | 2,377.47 | 2,388.89 | 2,352.40 | 9.25 | 9.70 | -128.15 | 159.88 | 186.78 | 300.81 | 282.38 | 19.30 | 16.588 | | | | | | | |
| 2,500.00 | 2,475.93 | 2,486.71 | 2,447.58 | 9.69 | 10.17 | -126.74 | 171.06 | 206.39 | 320.12 | 300.83 | 20.17 | 16.836 | | | | | | | |
| 2,600.00 | 2,574.40 | 2,584.54 | 2,542.77 | 10.14 | 10.65 | -125.48 | 182.24 | 226.00 | 339.61 | 319.44 | 21.05 | 17.069 | | | | | | | |
| 2,700.00 | 2,672.86 | 2,682.36 | 2,637.95 | 10.58 | 11.13 | -124.37 | 193.43 | 245.61 | 359.23 | 338.19 | 21.92 | 17.288 | | | | | | | |
| 2,800.00 | 2,771.32 | 2,780.19 | 2,733.14 | 11.02 | 11.61 | -123.36 | 204.61 | 265.21 | 378.98 | 357.06 | 22.80 | 17.495 | | | | | | | |
| 2,900.00 | 2,869.78 | 2,878.02 | 2,828.33 | 11.46 | 12.09 | -122.46 | 215.80 | 284.82 | 398.82 | 376.03 | 23.67 | 17.690 | | | | | | | |
| 3,000.00 | 2,968.24 | 2,975.84 | 2,923.51 | 11.91 | 12.57 | -121.64 | 226.98 | 304.43 | 418.75 | 395.08 | 24.55 | 17.874 | | | | | | | |
| 3,100.00 | 3,066.71 | 3,073.67 | 3,018.70 | 12.35 | 13.06 | -120.90 | 238.16 | 324.04 | 438.76 | 414.21 | 25.42 | 18.047 | | | | | | | |
| 3,200.00 | 3,165.17 | 3,171.50 | 3,113.89 | 12.80 | 13.54 | -120.22 | 249.35 | 343.65 | 458.83 | 433.40 | 26.30 | 18.211 | | | | | | | |
| 3,300.00 | 3,263.63 | 3,269.32 | 3,209.07 | 13.24 | 14.02 | -119.60 | 260.53 | 363.26 | 478.96 | 452.66 | 27.18 | 18.367 | | | | | | | |
| 3,400.00 | 3,362.09 | 3,367.15 | 3,304.26 | 13.69 | 14.51 | -119.03 | 271.71 | 382.87 | 499.13 | 471.96 | 28.05 | 18.513 | | | | | | | |
| 3,500.00 | 3,460.55 | 3,464.98 | 3,399.44 | 14.13 | 14.99 | -118.50 | 282.90 | 402.48 | 519.35 | 491.30 | 28.93 | 18.653 | | | | | | | |
| 3,600.00 | 3,559.01 | 3,562.80 | 3,494.63 | 14.58 | 15.47 | -118.01 | 294.08 | 422.09 | 539.61 | 510.68 | 29.81 | 18.785 | | | | | | | |
| 3,700.00 | 3,657.48 | 3,660.63 | 3,589.82 | 15.02 | 15.96 | -117.56 | 305.27 | 441.70 | 559.91 | 530.10 | 30.68 | 18.910 | | | | | | | |
| 3,800.00 | 3,755.94 | 3,758.45 | 3,685.00 | 15.47 | 16.44 | -117.14 | 316.45 | 461.31 | 580.24 | 549.55 | 31.56 | 19.029 | | | | | | | |
| 3,900.00 | 3,854.40 | 3,856.28 | 3,780.19 | 15.92 | 16.93 | -116.75 | 327.63 | 480.91 | 600.59 | 569.03 | 32.44 | 19.143 | | | | | | | |
| 4,000.00 | 3,952.86 | 3,954.11 | 3,875.37 | 16.36 | 17.42 | -116.38 | 338.82 | 500.52 | 620.97 | 588.53 | 33.32 | 19.251 | | | | | | | |
| 4,100.00 | 4,051.32 | 4,051.93 | 3,970.56 | 16.81 | 17.90 | -116.03 | 350.00 | 520.13 | 641.37 | 608.06 | 34.19 | 19.354 | | | | | | | |
| 4,200.00 | 4,149.79 | 4,149.76 | 4,065.75 | 17.26 | 18.39 | -115.71 | 361.19 | 539.74 | 661.80 | 627.60 | 35.07 | 19.452 | | | | | | | |
| 4,300.00 | 4,248.25 | 4,247.59 | 4,160.93 | 17.70 | 18.87 | -115.41 | 372.37 | 559.35 | 682.24 | 647.16 | 35.95 | 19.546 | | | | | | | |
| 4,400.00 | 4,346.71 | 4,345.41 | 4,256.12 | 18.15 | 19.36 | -115.12 | 383.55 | 578.96 | 702.70 | 666.75 | 36.83 | 19.636 | | | | | | | |
| 4,500.00 | 4,445.17 | 4,443.24 | 4,351.30 | 18.60 | 19.85 | -114.85 | 394.74 | 598.57 | 723.17 | 686.34 | 37.71 | 19.722 | | | | | | | |
| 4,600.00 | 4,543.63 | 4,541.07 | 4,446.49 | 19.04 | 20.33 | -114.60 | 405.92 | 618.18 | 743.66 | 705.95 | 38.59 | 19.804 | | | | | | | |
| 4,700.00 | 4,642.10 | 4,638.89 | 4,541.68 | 19.49 | 20.82 | -114.36 | 417.11 | 637.79 | 764.17 | 725.58 | 39.47 | 19.883 | | | | | | | |
| 4,800.00 | 4,740.56 | 4,736.72 | 4,636.86 | 19.94 | 21.31 | -114.13 | 428.29 | 657.40 | 784.68 | 745.22 | 40.34 | 19.958 | | | | | | | |
| 4,900.00 | 4,839.02 | 4,834.54 | 4,732.05 | 20.39 | 21.80 | -113.91 | 439.47 | 677.01 | 805.21 | 764.86 | 41.22 | 20.031 | | | | | | | |
| 5,000.00 | 4,937.48 | 4,932.37 | 4,827.24 | 20.83 | 22.28 | -113.71 | 450.66 | 696.61 | 825.74 | 784.52 | | | | | | | | | |

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 4S-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 4S-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 4H-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 | | | |
| 5,100.00 | 5,035.94 | 5,030.20 | 4,922.42 | 21.28 | 22.77 | -113.51 | 461.84 | 716.22 | 846.29 | 804.19 | 42.10 | 20.101 | | | | |
| 5,200.00 | 5,134.41 | 5,128.02 | 5,017.61 | 21.73 | 23.26 | -113.33 | 473.03 | 735.83 | 866.85 | 823.87 | 42.98 | 20.168 | | | | |
| 5,300.00 | 5,232.87 | 5,225.85 | 5,112.79 | 22.18 | 23.75 | -113.15 | 484.21 | 755.44 | 887.41 | 843.55 | 43.86 | 20.233 | | | | |
| 5,400.00 | 5,331.33 | 5,323.68 | 5,207.98 | 22.63 | 24.23 | -112.98 | 495.39 | 775.05 | 907.98 | 863.24 | 44.74 | 20.295 | | | | |
| 5,500.00 | 5,429.79 | 5,421.50 | 5,303.17 | 23.07 | 24.72 | -112.82 | 506.58 | 794.66 | 928.56 | 882.94 | 45.62 | 20.355 | | | | |
| 5,600.00 | 5,528.25 | 5,519.33 | 5,398.35 | 23.52 | 25.21 | -112.66 | 517.76 | 814.27 | 949.15 | 902.65 | 46.50 | 20.412 | | | | |
| 5,700.00 | 5,626.72 | 5,617.15 | 5,493.54 | 23.97 | 25.70 | -112.51 | 528.95 | 833.88 | 969.74 | 922.36 | 47.38 | 20.468 | | | | |
| 5,800.00 | 5,725.18 | 5,714.98 | 5,588.72 | 24.42 | 26.19 | -112.37 | 540.13 | 853.49 | 990.34 | 942.08 | 48.26 | 20.522 | | | | |
| 5,900.00 | 5,823.64 | 5,812.81 | 5,683.91 | 24.87 | 26.68 | -112.23 | 551.31 | 873.10 | 1,010.95 | 961.81 | 49.14 | 20.574 | | | | |
| 6,000.00 | 5,922.10 | 5,910.63 | 5,779.10 | 25.31 | 27.16 | -112.10 | 562.50 | 892.71 | 1,031.56 | 981.54 | 50.02 | 20.624 | | | | |
| 6,100.00 | 6,020.56 | 6,008.46 | 5,874.28 | 25.76 | 27.65 | -111.97 | 573.68 | 912.31 | 1,052.17 | 1,001.27 | 50.90 | 20.672 | | | | |
| 6,200.00 | 6,119.03 | 6,106.29 | 5,969.47 | 26.21 | 28.14 | -111.85 | 584.87 | 931.92 | 1,072.79 | 1,021.01 | 51.78 | 20.719 | | | | |
| 6,300.00 | 6,217.49 | 6,204.11 | 6,064.65 | 26.66 | 28.63 | -111.74 | 596.05 | 951.53 | 1,093.41 | 1,040.76 | 52.66 | 20.765 | | | | |
| 6,400.00 | 6,315.95 | 6,301.94 | 6,159.84 | 27.11 | 29.12 | -111.62 | 607.23 | 971.14 | 1,114.04 | 1,060.50 | 53.54 | 20.809 | | | | |
| 6,500.00 | 6,414.41 | 6,498.28 | 7,455.00 | 27.55 | 33.39 | -56.26 | -513.21 | 1,171.25 | 1,088.30 | 1,072.74 | 15.56 | 69.934 | | | | |
| 6,600.00 | 6,512.87 | 8,506.27 | 7,455.00 | 28.00 | 33.42 | -53.95 | -521.18 | 1,170.84 | 989.71 | 973.63 | 16.07 | 61.572 | | | | |
| 6,700.00 | 6,611.34 | 8,514.25 | 7,455.00 | 28.45 | 33.45 | -51.53 | -529.16 | 1,170.42 | 891.35 | 874.65 | 16.70 | 53.373 | | | | |
| 6,800.00 | 6,709.80 | 8,522.24 | 7,455.00 | 28.90 | 33.47 | -49.01 | -537.13 | 1,170.00 | 793.33 | 775.84 | 17.49 | 45.355 | | | | |
| 6,900.00 | 6,808.26 | 8,530.23 | 7,455.00 | 29.35 | 33.50 | -46.40 | -545.11 | 1,169.58 | 695.77 | 677.24 | 18.53 | 37.548 | | | | |
| 6,982.73 | 6,889.71 | 8,536.83 | 7,455.00 | 29.72 | 33.53 | -44.18 | -551.71 | 1,169.24 | 615.58 | 595.91 | 19.67 | 31.288 | | | | |
| 7,000.00 | 6,906.74 | 8,538.01 | 7,455.00 | 29.80 | 33.53 | -31.54 | -552.88 | 1,169.17 | 598.91 | 578.95 | 19.96 | 30.009 | | | | |
| 7,050.00 | 6,956.13 | 8,539.06 | 7,455.00 | 30.01 | 33.53 | 7.87 | -553.93 | 1,169.12 | 550.77 | 529.89 | 20.88 | 26.382 | | | | |
| 7,100.00 | 7,005.50 | 8,536.62 | 7,455.00 | 30.19 | 33.52 | 43.50 | -551.50 | 1,169.25 | 503.09 | 481.11 | 21.98 | 22.884 | | | | |
| 7,150.00 | 7,054.61 | 8,530.72 | 7,455.00 | 30.36 | 33.50 | 68.79 | -545.60 | 1,169.56 | 456.24 | 432.89 | 23.35 | 19.540 | | | | |
| 7,200.00 | 7,103.23 | 8,521.37 | 7,455.00 | 30.52 | 33.47 | 84.95 | -536.26 | 1,170.04 | 410.60 | 385.54 | 25.06 | 16.386 | | | | |
| 7,250.00 | 7,151.10 | 8,508.62 | 7,455.00 | 30.65 | 33.43 | 94.95 | -523.53 | 1,170.71 | 366.64 | 339.42 | 27.22 | 13.468 | | | | |
| 7,300.00 | 7,198.01 | 8,492.54 | 7,455.00 | 30.77 | 33.37 | 100.84 | -507.47 | 1,171.55 | 324.89 | 294.91 | 29.98 | 10.837 | | | | |
| 7,350.00 | 7,243.72 | 8,473.20 | 7,455.00 | 30.88 | 33.31 | 103.77 | -488.16 | 1,172.57 | 286.03 | 252.56 | 33.47 | 8.547 | | | | |
| 7,400.00 | 7,288.00 | 8,450.70 | 7,455.00 | 30.97 | 33.25 | 104.34 | -465.69 | 1,173.74 | 250.87 | 213.09 | 37.77 | 6.641 | | | | |
| 7,450.00 | 7,330.65 | 8,425.14 | 7,455.00 | 31.05 | 33.19 | 102.88 | -440.17 | 1,175.08 | 220.45 | 177.58 | 42.87 | 5.143 | | | | |
| 7,500.00 | 7,371.46 | 8,396.65 | 7,455.00 | 31.12 | 33.12 | 99.55 | -411.72 | 1,176.57 | 195.99 | 147.60 | 48.40 | 4.050 | | | | |
| 7,550.00 | 7,410.22 | 8,365.38 | 7,455.00 | 31.17 | 33.06 | 94.48 | -380.49 | 1,178.21 | 178.73 | 125.13 | 53.59 | 3.335 | | | | |
| 7,600.00 | 7,446.75 | 8,331.46 | 7,455.00 | 31.21 | 33.01 | 87.91 | -346.62 | 1,179.98 | 169.44 | 112.12 | 57.32 | 2.956 | | | | |
| 7,634.86 | 7,470.80 | 8,306.35 | 7,455.00 | 31.23 | 32.97 | 82.68 | -321.54 | 1,181.30 | 167.64 | 109.03 | 58.61 | 2.860 | | | | |
| 7,650.00 | 7,480.87 | 8,295.08 | 7,455.00 | 31.24 | 32.96 | 80.30 | -310.28 | 1,181.89 | 167.96 | 109.14 | 58.82 | 2.856 SF | | | | |
| 7,700.00 | 7,512.42 | 8,256.39 | 7,455.00 | 31.25 | 32.92 | 72.31 | -271.65 | 1,183.91 | 172.99 | 114.78 | 58.21 | 2.972 | | | | |
| 7,750.00 | 7,541.23 | 8,215.61 | 7,455.00 | 31.26 | 32.90 | 64.62 | -230.92 | 1,186.05 | 182.60 | 126.33 | 56.26 | 3.245 | | | | |
| 7,800.00 | 7,567.18 | 8,172.91 | 7,455.00 | 31.25 | 32.88 | 57.77 | -188.28 | 1,188.28 | 194.80 | 140.97 | 53.83 | 3.619 | | | | |
| 7,850.00 | 7,590.12 | 8,128.51 | 7,455.00 | 31.24 | 32.88 | 52.03 | -143.95 | 1,190.61 | 207.99 | 156.54 | 51.45 | 4.043 | | | | |
| 7,900.00 | 7,609.96 | 8,082.63 | 7,455.00 | 31.22 | 32.89 | 47.44 | -98.13 | 1,193.01 | 220.98 | 171.59 | 49.38 | 4.475 | | | | |
| 7,950.00 | 7,626.60 | 8,035.73 | 7,455.00 | 31.19 | 32.92 | 43.95 | -51.29 | 1,195.46 | 232.93 | 185.18 | 47.75 | 4.878 | | | | |
| 8,000.00 | 7,639.94 | 8,000.00 | 7,454.13 | 31.15 | 32.94 | 41.67 | -15.62 | 1,197.16 | 244.16 | 197.68 | 46.47 | 5.254 | | | | |
| 8,050.00 | 7,649.94 | 7,956.46 | 7,450.70 | 31.11 | 32.97 | 39.30 | 27.76 | 1,198.75 | 255.11 | 209.72 | 45.39 | 5.620 | | | | |
| 8,100.00 | 7,656.54 | 7,917.57 | 7,445.46 | 31.07 | 33.01 | 37.34 | 66.27 | 1,199.72 | 265.80 | 221.14 | 44.66 | 5.952 | | | | |
| 8,150.00 | 7,659.70 | 7,879.06 | 7,438.26 | 31.03 | 33.04 | 35.59 | 104.09 | 1,200.26 | 276.08 | 231.85 | 44.24 | 6.241 | | | | |
| 8,170.89 | 7,660.00 | 7,863.08 | 7,434.69 | 31.01 | 33.06 | 34.91 | 119.67 | 1,200.37 | 280.24 | 236.09 | 44.15 | 6.347 | | | | |
| 8,200.00 | 7,660.00 | 7,841.01 | 7,429.20 | 30.98 | 33.08 | 34.28 | 141.05 | 1,200.39 | 286.30 | 242.23 | 44.07 | 6.496 | | | | |
| 8,300.00 | 7,660.00 | 7,768.10 | 7,406.53 | 30.92 | 33.14 | 31.69 | 210.30 | 1,199.49 | 312.25 | 268.32 | 43.93 | 7.108 | | | | |
| 8,400.00 | 7,660.00 | 7,700.00 | 7,379.24 | 30.91 | 33.20 | 28.80 | 272.63 | 1,197.30 | 346.26 | 302.10 | 44.16 | 7.841 | | | | |
| 8,500.00 | 7,660.00 | 7,638.47 | 7,349.70 | 31.22 | 33.23 | 26.00 | 326.49 | 1,194.22 | 388.16 | 343.18 | 44.98 | 8.629 | | | | |
| 8,600.00 | 7,660.00 | 7,582.39 | 7,318.94 | 31.83 | 33.26 | 23.42 | 373.22 | 1,190.52 | 437.45 | 391.24 | 46.21 | 9.467 | | | | |
| 8,700.00 | 7,660.00 | 7,531.97 | 7,288.31 | 32.55 | 33.27 | 21.14 | 413.05 | 1,186.49 | 493.36 | 445.67 | 47.68 | 10.347 | | | | |

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 4S-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 4S-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 | 7,660.00 | 7,486.82 | 7,258.62 | 33.33 | 33.27 | 19.18 | 446.81 | 1,182.32 | 555.07 | 505.82 | 49.24 | 11.272 | | |
| 8,900.00 | 7,660.00 | 7,450.00 | 7,232.92 | 34.16 | 33.26 | 17.65 | 472.90 | 1,178.56 | 621.77 | 570.79 | 50.98 | 12.196 | | |
| 9,000.00 | 7,660.00 | 7,400.00 | 7,196.01 | 35.04 | 33.24 | 15.68 | 506.13 | 1,172.92 | 692.83 | 641.19 | 51.64 | 13.416 | | |
| 9,100.00 | 7,660.00 | 7,378.10 | 7,179.14 | 35.97 | 33.23 | 14.87 | 519.85 | 1,170.27 | 767.20 | 713.73 | 53.47 | 14.348 | | |
| 9,200.00 | 7,660.00 | 7,350.00 | 7,156.93 | 36.94 | 33.21 | 13.86 | 536.68 | 1,166.71 | 844.76 | 790.12 | 54.65 | 15.459 | | |
| 9,300.00 | 7,660.00 | 7,323.14 | 7,135.11 | 37.96 | 33.18 | 12.94 | 551.93 | 1,163.15 | 924.90 | 869.29 | 55.62 | 16.630 | | |
| 9,400.00 | 7,660.00 | 7,300.00 | 7,115.88 | 39.00 | 33.16 | 12.17 | 564.40 | 1,159.96 | 1,007.24 | 950.73 | 56.51 | 17.825 | | |
| 9,500.00 | 7,660.00 | 7,278.49 | 7,097.66 | 40.09 | 33.13 | 11.49 | 575.42 | 1,156.90 | 1,091.46 | 1,034.19 | 57.27 | 19.059 | | |
| 9,600.00 | 7,660.00 | 7,250.00 | 7,073.06 | 41.20 | 33.09 | 10.63 | 589.16 | 1,152.70 | 1,177.38 | 1,119.67 | 57.71 | 20.402 | | |
| 9,700.00 | 7,660.00 | 7,250.00 | 7,073.06 | 42.34 | 33.09 | 10.63 | 589.16 | 1,152.70 | 1,264.58 | 1,205.86 | 58.72 | 21.536 | | |
| 9,800.00 | 7,660.00 | 7,225.78 | 7,051.74 | 43.51 | 33.05 | 9.93 | 600.05 | 1,149.01 | 1,352.93 | 1,293.88 | 59.05 | 22.910 | | |
| 9,900.00 | 7,660.00 | 7,200.00 | 7,028.68 | 44.70 | 33.00 | 9.22 | 610.83 | 1,144.97 | 1,442.54 | 1,383.24 | 59.30 | 24.324 | | |

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well HWY52 4S-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 4S-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 4I-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 | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -89.76 | 0.41 | -100.16 | 100.16 | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | -89.76 | 0.41 | -100.16 | 100.16 | 99.89 | 0.28 | 362.884 | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | -89.76 | 0.41 | -100.16 | 100.16 | 99.17 | 0.99 | 100.874 | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.85 | 0.85 | -89.76 | 0.41 | -100.16 | 100.16 | 98.45 | 1.71 | 58.579 | | |
| 400.00 | 400.00 | 400.00 | 400.00 | 1.21 | 1.21 | -89.76 | 0.41 | -100.16 | 100.16 | 97.74 | 2.43 | 41.273 | | |
| 500.00 | 500.00 | 500.00 | 500.00 | 1.57 | 1.57 | -89.76 | 0.41 | -100.16 | 100.16 | 97.02 | 3.14 | 31.861 | | |
| 600.00 | 600.00 | 603.20 | 603.17 | 1.93 | 1.94 | -89.29 | 1.23 | -98.49 | 98.55 | 94.67 | 3.88 | 25.396 | | |
| 700.00 | 699.98 | 706.18 | 706.00 | 2.28 | 2.30 | 152.57 | 3.65 | -93.49 | 95.30 | 90.68 | 4.61 | 20.660 | | |
| 800.00 | 799.84 | 808.79 | 808.19 | 2.62 | 2.67 | 156.87 | 7.67 | -85.20 | 92.29 | 86.96 | 5.34 | 17.292 | | |
| 900.00 | 899.45 | 910.87 | 909.46 | 2.97 | 3.05 | 163.52 | 13.24 | -73.70 | 90.34 | 84.28 | 6.06 | 14.903 | | |
| 942.17 | 941.36 | 953.71 | 951.82 | 3.12 | 3.22 | 166.99 | 16.05 | -67.90 | 90.11 | 83.74 | 6.37 | 14.147 | CC, ES | |
| 1,000.00 | 998.70 | 1,012.24 | 1,009.52 | 3.33 | 3.45 | 172.30 | 20.33 | -59.06 | 90.62 | 83.83 | 6.79 | 13.349 | | |
| 1,103.09 | 1,100.51 | 1,115.86 | 1,111.13 | 3.72 | 3.87 | -177.17 | 29.17 | -40.82 | 94.73 | 87.18 | 7.55 | 12.540 | | |
| 1,200.00 | 1,195.93 | 1,212.36 | 1,205.04 | 4.11 | 4.29 | -166.84 | 38.84 | -20.87 | 101.64 | 93.33 | 8.31 | 12.232 | | |
| 1,300.00 | 1,294.39 | 1,310.43 | 1,299.87 | 4.51 | 4.74 | -156.64 | 49.75 | 1.64 | 111.22 | 102.09 | 9.13 | 12.177 | | |
| 1,400.00 | 1,392.85 | 1,408.10 | 1,394.27 | 4.93 | 5.21 | -148.19 | 60.68 | 24.20 | 123.77 | 113.77 | 9.99 | 12.387 | | |
| 1,500.00 | 1,491.31 | 1,505.77 | 1,488.66 | 5.35 | 5.68 | -141.37 | 71.62 | 46.76 | 138.53 | 127.66 | 10.87 | 12.748 | | |
| 1,600.00 | 1,589.78 | 1,603.43 | 1,583.05 | 5.77 | 6.17 | -135.89 | 82.55 | 69.33 | 154.86 | 143.12 | 11.75 | 13.181 | | |
| 1,700.00 | 1,688.24 | 1,701.10 | 1,677.44 | 6.20 | 6.66 | -131.48 | 93.49 | 91.89 | 172.33 | 159.70 | 12.63 | 13.641 | | |
| 1,800.00 | 1,786.70 | 1,798.77 | 1,771.84 | 6.63 | 7.15 | -127.88 | 104.42 | 114.45 | 190.63 | 177.11 | 13.52 | 14.100 | | |
| 1,900.00 | 1,885.16 | 1,896.43 | 1,866.23 | 7.06 | 7.65 | -124.92 | 115.36 | 137.02 | 209.52 | 195.12 | 14.40 | 14.545 | | |
| 2,000.00 | 1,983.62 | 1,994.10 | 1,960.62 | 7.50 | 8.15 | -122.44 | 126.29 | 159.58 | 228.87 | 213.58 | 15.29 | 14.968 | | |
| 2,100.00 | 2,082.09 | 2,091.76 | 2,055.02 | 7.94 | 8.66 | -120.36 | 137.22 | 182.14 | 248.58 | 232.40 | 16.18 | 15.366 | | |
| 2,200.00 | 2,180.55 | 2,189.43 | 2,149.41 | 8.37 | 9.16 | -118.58 | 148.16 | 204.71 | 268.55 | 251.49 | 17.06 | 15.738 | | |
| 2,300.00 | 2,279.01 | 2,287.10 | 2,243.80 | 8.81 | 9.67 | -117.04 | 159.09 | 227.27 | 288.74 | 270.79 | 17.95 | 16.085 | | |
| 2,400.00 | 2,377.47 | 2,384.76 | 2,338.19 | 9.25 | 10.18 | -115.71 | 170.03 | 249.83 | 309.11 | 290.27 | 18.84 | 16.408 | | |
| 2,500.00 | 2,475.93 | 2,482.43 | 2,432.59 | 9.69 | 10.70 | -114.54 | 180.96 | 272.40 | 329.61 | 309.88 | 19.73 | 16.709 | | |
| 2,600.00 | 2,574.40 | 2,580.10 | 2,526.98 | 10.14 | 11.21 | -113.50 | 191.90 | 294.96 | 350.23 | 329.62 | 20.62 | 16.989 | | |
| 2,700.00 | 2,672.86 | 2,677.76 | 2,621.37 | 10.58 | 11.72 | -112.59 | 202.83 | 317.52 | 370.95 | 349.45 | 21.50 | 17.250 | | |
| 2,800.00 | 2,771.32 | 2,775.43 | 2,715.77 | 11.02 | 12.24 | -111.77 | 213.77 | 340.09 | 391.75 | 369.36 | 22.39 | 17.494 | | |
| 2,900.00 | 2,869.78 | 2,873.09 | 2,810.16 | 11.46 | 12.75 | -111.03 | 224.70 | 362.65 | 412.62 | 389.34 | 23.28 | 17.722 | | |
| 3,000.00 | 2,968.24 | 2,970.76 | 2,904.55 | 11.91 | 13.27 | -110.36 | 235.64 | 385.21 | 433.55 | 409.38 | 24.17 | 17.935 | | |
| 3,100.00 | 3,066.71 | 3,068.43 | 2,998.94 | 12.35 | 13.79 | -109.75 | 246.57 | 407.78 | 454.53 | 429.47 | 25.07 | 18.134 | | |
| 3,200.00 | 3,165.17 | 3,166.09 | 3,093.34 | 12.80 | 14.30 | -109.20 | 257.51 | 430.34 | 475.56 | 449.60 | 25.96 | 18.321 | | |
| 3,300.00 | 3,263.63 | 3,263.76 | 3,187.73 | 13.24 | 14.82 | -108.70 | 268.44 | 452.90 | 496.62 | 469.78 | 26.85 | 18.497 | | |
| 3,400.00 | 3,362.09 | 3,361.42 | 3,282.12 | 13.69 | 15.34 | -108.23 | 279.37 | 475.47 | 517.72 | 489.98 | 27.74 | 18.663 | | |
| 3,500.00 | 3,460.55 | 3,459.09 | 3,376.52 | 14.13 | 15.86 | -107.80 | 290.31 | 498.03 | 538.85 | 510.22 | 28.63 | 18.819 | | |
| 3,600.00 | 3,559.01 | 3,556.76 | 3,470.91 | 14.58 | 16.38 | -107.41 | 301.24 | 520.59 | 560.00 | 530.48 | 29.53 | 18.967 | | |
| 3,700.00 | 3,657.48 | 3,654.42 | 3,565.30 | 15.02 | 16.90 | -107.04 | 312.18 | 543.16 | 581.18 | 550.76 | 30.42 | 19.106 | | |
| 3,800.00 | 3,755.94 | 3,752.09 | 3,659.69 | 15.47 | 17.42 | -106.70 | 323.11 | 565.72 | 602.38 | 571.07 | 31.31 | 19.238 | | |
| 3,900.00 | 3,854.40 | 3,849.76 | 3,754.09 | 15.92 | 17.94 | -106.38 | 334.05 | 588.28 | 623.60 | 591.40 | 32.21 | 19.363 | | |
| 4,000.00 | 3,952.86 | 3,947.42 | 3,848.48 | 16.36 | 18.46 | -106.08 | 344.98 | 610.85 | 644.84 | 611.74 | 33.10 | 19.482 | | |
| 4,100.00 | 4,051.32 | 4,045.09 | 3,942.87 | 16.81 | 18.98 | -105.81 | 355.92 | 633.41 | 666.09 | 632.10 | 33.99 | 19.595 | | |
| 4,200.00 | 4,149.79 | 4,142.75 | 4,037.27 | 17.26 | 19.50 | -105.54 | 366.85 | 655.98 | 687.35 | 652.47 | 34.89 | 19.702 | | |
| 4,300.00 | 4,248.25 | 4,240.42 | 4,131.66 | 17.70 | 20.02 | -105.30 | 377.79 | 678.54 | 708.63 | 672.85 | 35.78 | 19.804 | | |
| 4,400.00 | 4,346.71 | 4,338.09 | 4,226.05 | 18.15 | 20.54 | -105.07 | 388.72 | 701.10 | 729.92 | 693.25 | 36.68 | 19.901 | | |
| 4,500.00 | 4,445.17 | 4,435.75 | 4,320.45 | 18.60 | 21.06 | -104.85 | 399.65 | 723.67 | 751.22 | 713.65 | 37.57 | 19.994 | | |
| 4,600.00 | 4,543.63 | 4,533.42 | 4,414.84 | 19.04 | 21.59 | -104.64 | 410.59 | 746.23 | 772.53 | 734.07 | 38.47 | 20.083 | | |
| 4,700.00 | 4,642.10 | 4,631.09 | 4,509.23 | 19.49 | 22.11 | -104.45 | 421.52 | 768.79 | 793.85 | 754.49 | 39.36 | 20.168 | | |
| 4,800.00 | 4,740.56 | 4,728.75 | 4,603.62 | 19.94 | 22.63 | -104.26 | 432.46 | 791.36 | 815.18 | 774.92 | 40.26 | 20.249 | | |
| 4,900.00 | 4,839.02 | 4,826.42 | 4,698.02 | 20.39 | 23.15 | -104.09 | 443.39 | 813.92 | 836.52 | 795.36 | 41.15 | 20.327 | | |
| 5,000.00 | 4,937.48 | 4,924.08 | 4,792.41 | 20.83 | 23.67 | -103.92 | 454.33 | 836.48 | 857.86 | 815.81 | 42.05 | 20.402 | | |

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 4S-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 4S-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 | | |
| 5,100.00 | 5,035.94 | 5,021.75 | 4,886.80 | 21.28 | 24.20 | -103.76 | 465.26 | 859.05 | 879.21 | 836.26 | 42.94 | 20.473 | | | |
| 5,200.00 | 5,134.41 | 5,119.42 | 4,981.20 | 21.73 | 24.72 | -103.61 | 476.20 | 881.61 | 900.56 | 856.72 | 43.84 | 20.542 | | | |
| 5,300.00 | 5,232.87 | 5,217.08 | 5,075.59 | 22.18 | 25.24 | -103.47 | 487.13 | 904.17 | 921.93 | 877.19 | 44.74 | 20.608 | | | |
| 5,400.00 | 5,331.33 | 5,314.75 | 5,169.98 | 22.63 | 25.76 | -103.33 | 498.07 | 926.74 | 943.29 | 897.66 | 45.63 | 20.671 | | | |
| 5,500.00 | 5,429.79 | 5,412.42 | 5,264.37 | 23.07 | 26.29 | -103.20 | 509.00 | 949.30 | 964.66 | 918.13 | 46.53 | 20.733 | | | |
| 5,600.00 | 5,528.25 | 5,510.08 | 5,358.77 | 23.52 | 26.81 | -103.07 | 519.93 | 971.86 | 986.04 | 938.61 | 47.43 | 20.791 | | | |
| 5,700.00 | 5,626.72 | 5,607.75 | 5,453.16 | 23.97 | 27.33 | -102.95 | 530.87 | 994.43 | 1,007.42 | 959.10 | 48.32 | 20.848 | | | |
| 5,800.00 | 5,725.18 | 5,705.41 | 5,547.55 | 24.42 | 27.85 | -102.84 | 541.80 | 1,016.99 | 1,028.80 | 979.59 | 49.22 | 20.903 | | | |
| 5,900.00 | 5,823.64 | 5,803.08 | 5,641.95 | 24.87 | 28.38 | -102.73 | 552.74 | 1,039.55 | 1,050.19 | 1,000.08 | 50.12 | 20.955 | | | |
| 6,000.00 | 5,922.10 | 5,900.75 | 5,736.34 | 25.31 | 28.90 | -102.62 | 563.67 | 1,062.12 | 1,071.58 | 1,020.57 | 51.01 | 21.006 | | | |
| 6,100.00 | 6,020.56 | 5,998.41 | 5,830.73 | 25.76 | 29.42 | -102.52 | 574.61 | 1,084.68 | 1,092.98 | 1,041.07 | 51.91 | 21.056 | | | |
| 6,200.00 | 6,119.03 | 6,096.08 | 5,925.12 | 26.21 | 29.95 | -102.42 | 585.54 | 1,107.24 | 1,114.38 | 1,061.57 | 52.81 | 21.103 | | | |
| 6,300.00 | 6,217.49 | 6,193.75 | 6,019.52 | 26.66 | 30.47 | -102.33 | 596.48 | 1,129.81 | 1,135.78 | 1,082.08 | 53.70 | 21.149 | | | |
| 6,400.00 | 6,315.95 | 6,291.41 | 6,113.91 | 27.11 | 30.99 | -102.24 | 607.41 | 1,152.37 | 1,157.18 | 1,102.58 | 54.60 | 21.194 | | | |
| 6,500.00 | 6,414.41 | 6,389.08 | 6,208.30 | 27.55 | 31.51 | -102.15 | 618.35 | 1,174.93 | 1,178.59 | 1,123.09 | 55.50 | 21.237 | | | |
| 6,600.00 | 6,512.87 | 6,486.74 | 6,302.70 | 28.00 | 32.04 | -102.06 | 629.28 | 1,197.50 | 1,200.00 | 1,143.61 | 56.40 | 21.278 | | | |
| 6,700.00 | 6,611.34 | 6,683.72 | 7,560.00 | 28.45 | 37.03 | -40.36 | -520.91 | 1,483.33 | 1,122.59 | 1,097.76 | 24.83 | 45.218 | | | |
| 6,800.00 | 6,709.80 | 6,692.34 | 7,560.00 | 28.90 | 37.05 | -39.30 | -529.53 | 1,483.23 | 1,032.02 | 1,005.34 | 26.68 | 38.681 | | | |
| 6,900.00 | 6,808.26 | 8,700.96 | 7,560.00 | 29.35 | 37.08 | -38.23 | -538.15 | 1,483.14 | 943.29 | 914.39 | 28.90 | 32.638 | | | |
| 6,982.73 | 6,889.71 | 8,708.08 | 7,560.00 | 29.72 | 37.10 | -37.35 | -545.28 | 1,483.06 | 871.66 | 840.58 | 31.08 | 28.042 | | | |
| 7,000.00 | 6,906.74 | 8,709.37 | 7,560.00 | 29.80 | 37.11 | -27.74 | -546.56 | 1,483.04 | 856.94 | 825.35 | 31.58 | 27.133 | | | |
| 7,050.00 | 6,956.13 | 8,710.73 | 7,560.00 | 30.01 | 37.11 | 3.52 | -547.92 | 1,483.03 | 814.80 | 781.69 | 33.11 | 24.612 | | | |
| 7,100.00 | 7,005.50 | 8,708.60 | 7,560.00 | 30.19 | 37.10 | 33.11 | -545.79 | 1,483.05 | 773.63 | 738.89 | 34.75 | 22.265 | | | |
| 7,150.00 | 7,054.61 | 8,703.00 | 7,560.00 | 30.36 | 37.09 | 54.79 | -540.19 | 1,483.11 | 733.80 | 697.29 | 36.51 | 20.098 | | | |
| 7,200.00 | 7,103.23 | 8,693.94 | 7,560.00 | 30.52 | 37.06 | 69.26 | -531.13 | 1,483.22 | 695.66 | 657.26 | 38.40 | 18.115 | | | |
| 7,250.00 | 7,151.10 | 8,681.48 | 7,560.00 | 30.65 | 37.02 | 78.93 | -518.67 | 1,483.36 | 659.56 | 619.15 | 40.41 | 16.322 | | | |
| 7,300.00 | 7,198.01 | 8,665.67 | 7,560.00 | 30.77 | 36.98 | 85.46 | -502.86 | 1,483.54 | 625.83 | 583.32 | 42.51 | 14.721 | | | |
| 7,350.00 | 7,243.72 | 8,646.59 | 7,560.00 | 30.88 | 36.93 | 89.84 | -483.79 | 1,483.75 | 594.81 | 550.13 | 44.68 | 13.312 | | | |
| 7,400.00 | 7,288.00 | 8,624.33 | 7,560.00 | 30.97 | 36.87 | 92.66 | -461.53 | 1,484.01 | 566.78 | 519.91 | 46.87 | 12.093 | | | |
| 7,450.00 | 7,330.65 | 8,599.01 | 7,560.00 | 31.05 | 36.81 | 94.26 | -436.21 | 1,484.29 | 541.95 | 492.93 | 49.02 | 11.055 | | | |
| 7,500.00 | 7,371.46 | 8,570.74 | 7,560.00 | 31.12 | 36.75 | 94.90 | -407.95 | 1,484.61 | 520.48 | 469.38 | 51.10 | 10.186 | | | |
| 7,550.00 | 7,410.22 | 8,539.67 | 7,560.00 | 31.17 | 36.69 | 94.77 | -376.87 | 1,484.97 | 502.42 | 449.41 | 53.01 | 9.478 | | | |
| 7,600.00 | 7,446.75 | 8,505.94 | 7,560.00 | 31.21 | 36.64 | 94.00 | -343.14 | 1,485.35 | 487.73 | 433.03 | 54.70 | 8.916 | | | |
| 7,650.00 | 7,480.87 | 8,469.72 | 7,560.00 | 31.24 | 36.59 | 92.73 | -306.93 | 1,485.76 | 476.25 | 420.09 | 56.16 | 8.480 | | | |
| 7,700.00 | 7,512.42 | 8,431.18 | 7,560.00 | 31.25 | 36.54 | 91.09 | -268.39 | 1,486.20 | 467.71 | 410.37 | 57.33 | 8.157 | | | |
| 7,750.00 | 7,541.23 | 8,390.52 | 7,560.00 | 31.26 | 36.50 | 89.19 | -227.73 | 1,486.66 | 461.76 | 403.52 | 58.23 | 7.929 | | | |
| 7,800.00 | 7,567.18 | 8,347.93 | 7,560.00 | 31.25 | 36.47 | 87.15 | -185.14 | 1,487.14 | 457.99 | 399.09 | 58.90 | 7.776 | | | |
| 7,850.00 | 7,590.12 | 8,303.61 | 7,560.00 | 31.24 | 36.45 | 85.10 | -140.83 | 1,487.65 | 455.97 | 396.63 | 59.33 | 7.685 | | | |
| 7,900.00 | 7,609.96 | 8,257.80 | 7,560.00 | 31.22 | 36.44 | 83.14 | -95.02 | 1,488.17 | 455.26 | 395.63 | 59.63 | 7.635 | | | |
| 7,911.58 | 7,614.10 | 8,246.99 | 7,560.00 | 31.21 | 36.44 | 82.71 | -84.22 | 1,488.29 | 455.23 | 395.56 | 59.68 | 7.628 | | | |
| 7,950.00 | 7,626.60 | 8,210.70 | 7,560.00 | 31.19 | 36.44 | 81.37 | -47.92 | 1,488.70 | 455.44 | 395.66 | 59.79 | 7.618 | | | |
| 8,000.00 | 7,639.94 | 8,161.47 | 7,559.39 | 31.15 | 36.45 | 79.76 | 1.29 | 1,489.12 | 456.13 | 396.25 | 59.89 | 7.617 SF | | | |
| 8,050.00 | 7,649.94 | 8,112.10 | 7,555.74 | 31.11 | 36.47 | 78.12 | 50.52 | 1,488.81 | 456.99 | 397.05 | 59.95 | 7.623 | | | |
| 8,100.00 | 7,656.54 | 8,063.65 | 7,548.96 | 31.07 | 36.49 | 76.47 | 98.47 | 1,487.74 | 457.99 | 398.01 | 59.98 | 7.636 | | | |
| 8,150.00 | 7,659.70 | 8,016.07 | 7,539.24 | 31.03 | 36.51 | 74.82 | 145.01 | 1,485.95 | 459.11 | 399.12 | 59.99 | 7.653 | | | |
| 8,170.89 | 7,660.00 | 7,996.43 | 7,534.36 | 31.01 | 36.52 | 74.13 | 164.00 | 1,485.01 | 459.61 | 399.62 | 59.99 | 7.662 | | | |
| 8,200.00 | 7,660.00 | 7,969.46 | 7,526.83 | 30.98 | 36.53 | 73.18 | 189.86 | 1,483.51 | 460.41 | 400.42 | 59.99 | 7.675 | | | |
| 8,300.00 | 7,660.00 | 7,881.86 | 7,495.95 | 30.92 | 36.57 | 69.30 | 271.53 | 1,477.10 | 465.29 | 405.36 | 59.93 | 7.764 | | | |
| 8,400.00 | 7,660.00 | 7,800.00 | 7,458.54 | 30.91 | 36.59 | 64.70 | 343.84 | 1,469.03 | 475.26 | 415.55 | 59.71 | 7.959 | | | |
| 8,500.00 | 7,660.00 | 7,733.38 | 7,422.34 | 31.22 | 36.58 | 60.40 | 399.17 | 1,461.05 | 492.42 | 432.76 | 59.66 | 8.254 | | | |
| 8,600.00 | 7,660.00 | 7,672.44 | 7,384.98 | 31.83 | 36.57 | 56.15 | 446.55 | 1,452.71 | 518.26 | 458.57 | 59.68 | 8.683 | | | |
| 8,700.00 | 7,660.00 | 7,619.43 | 7,349.40 | 32.55 | 36.54 | 52.31 | 485.01 | 1,444.69 | 553.30 | 493.36 | 59.94 | 9.231 | | | |

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 4S-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 4S-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: 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 | 7,660.00 | 7,573.37 | 7,316.32 | 33.33 | 36.50 | 48.94 | 516.15 | 1,437.17 | 597.29 | 536.86 | 60.42 | 9.885 | | |
| 8,900.00 | 7,660.00 | 7,533.29 | 7,286.00 | 34.16 | 36.46 | 46.03 | 541.43 | 1,430.25 | 649.42 | 588.35 | 61.07 | 10.634 | | |
| 9,000.00 | 7,660.00 | 7,500.00 | 7,259.81 | 35.04 | 36.42 | 43.64 | 561.07 | 1,424.25 | 708.64 | 646.77 | 61.87 | 11.454 | | |
| 9,100.00 | 7,660.00 | 7,467.63 | 7,233.52 | 35.97 | 36.37 | 41.37 | 578.96 | 1,418.20 | 773.85 | 711.33 | 62.52 | 12.377 | | |
| 9,200.00 | 7,660.00 | 7,450.00 | 7,218.88 | 36.94 | 36.34 | 40.16 | 588.18 | 1,414.83 | 844.17 | 780.63 | 63.54 | 13.286 | | |
| 9,300.00 | 7,660.00 | 7,416.73 | 7,190.67 | 37.96 | 36.28 | 37.93 | 604.57 | 1,408.31 | 918.42 | 854.57 | 63.85 | 14.385 | | |
| 9,400.00 | 7,660.00 | 7,400.00 | 7,176.22 | 39.00 | 36.25 | 36.84 | 612.30 | 1,404.96 | 996.22 | 931.68 | 64.54 | 15.436 | | |
| 9,500.00 | 7,660.00 | 7,376.48 | 7,155.61 | 40.09 | 36.19 | 35.34 | 622.57 | 1,400.18 | 1,076.81 | 1,011.91 | 64.90 | 16.592 | | |
| 9,600.00 | 7,660.00 | 7,350.00 | 7,132.03 | 41.20 | 36.14 | 33.71 | 633.30 | 1,394.69 | 1,159.88 | 1,094.78 | 65.11 | 17.816 | | |
| 9,700.00 | 7,660.00 | 7,350.00 | 7,132.03 | 42.34 | 36.14 | 33.71 | 633.30 | 1,394.69 | 1,244.79 | 1,178.96 | 65.83 | 18.909 | | |
| 9,800.00 | 7,660.00 | 7,330.13 | 7,114.09 | 43.51 | 36.08 | 32.52 | 640.76 | 1,390.51 | 1,331.39 | 1,265.36 | 66.02 | 20.165 | | |
| 9,900.00 | 7,660.00 | 7,317.46 | 7,102.56 | 44.70 | 36.05 | 31.78 | 645.24 | 1,387.82 | 1,419.44 | 1,353.13 | 66.30 | 21.408 | | |

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 4S-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 4S-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 4J-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 | -89.75 | 0.40 | -90.09 | 90.09 | | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | -89.75 | 0.40 | -90.09 | 90.09 | 89.82 | 0.28 | 326.393 | | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | -89.75 | 0.40 | -90.09 | 90.09 | 89.10 | 0.99 | 90.730 | | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.85 | 0.85 | -89.75 | 0.40 | -90.09 | 90.09 | 88.38 | 1.71 | 52.688 | | | |
| 400.00 | 400.00 | 400.00 | 400.00 | 1.21 | 1.21 | -89.75 | 0.40 | -90.09 | 90.09 | 87.67 | 2.43 | 37.123 | | | |
| 500.00 | 500.00 | 502.95 | 502.93 | 1.57 | 1.58 | -89.29 | 1.09 | -88.38 | 88.43 | 85.26 | 3.17 | 27.913 | | | |
| 600.00 | 600.00 | 605.64 | 605.47 | 1.93 | 1.94 | -87.83 | 3.16 | -83.25 | 83.49 | 79.57 | 3.92 | 21.277 | | | |
| 700.00 | 699.98 | 707.90 | 707.31 | 2.28 | 2.31 | 155.45 | 6.59 | -74.76 | 76.99 | 72.32 | 4.67 | 16.500 | | | |
| 800.00 | 799.84 | 809.64 | 808.25 | 2.62 | 2.69 | 162.05 | 11.35 | -62.98 | 71.09 | 65.70 | 5.39 | 13.192 | | | |
| 900.00 | 899.45 | 910.73 | 908.03 | 2.97 | 3.09 | 172.20 | 17.40 | -47.99 | 67.10 | 60.99 | 6.11 | 10.986 | | | |
| 955.83 | 954.91 | 966.83 | 963.14 | 3.17 | 3.32 | 179.30 | 21.33 | -38.26 | 66.39 | 59.87 | 6.51 | 10.194 | CC, ES | | |
| 1,000.00 | 998.70 | 1,011.03 | 1,006.40 | 3.33 | 3.51 | -174.58 | 24.71 | -29.90 | 66.90 | 60.06 | 6.84 | 9.786 | | | |
| 1,103.09 | 1,100.51 | 1,113.46 | 1,106.11 | 3.72 | 3.96 | -159.89 | 33.50 | -8.14 | 72.57 | 64.93 | 7.64 | 9.500 | SF | | |
| 1,200.00 | 1,195.93 | 1,208.76 | 1,198.06 | 4.11 | 4.41 | -147.05 | 42.87 | 15.06 | 82.65 | 74.20 | 8.46 | 9.774 | | | |
| 1,300.00 | 1,294.39 | 1,306.22 | 1,291.45 | 4.51 | 4.91 | -135.71 | 53.31 | 40.91 | 96.65 | 87.30 | 9.35 | 10.339 | | | |
| 1,400.00 | 1,392.85 | 1,403.61 | 1,384.74 | 4.93 | 5.42 | -127.36 | 63.78 | 66.84 | 113.48 | 103.23 | 10.25 | 11.074 | | | |
| 1,500.00 | 1,491.31 | 1,501.00 | 1,478.03 | 5.35 | 5.94 | -121.22 | 74.25 | 92.78 | 132.08 | 120.94 | 11.14 | 11.854 | | | |
| 1,600.00 | 1,589.78 | 1,598.39 | 1,571.31 | 5.77 | 6.47 | -116.61 | 84.73 | 118.71 | 151.80 | 139.77 | 12.03 | 12.614 | | | |
| 1,700.00 | 1,688.24 | 1,695.78 | 1,664.60 | 6.20 | 7.00 | -113.06 | 95.20 | 144.64 | 172.26 | 159.33 | 12.92 | 13.328 | | | |
| 1,800.00 | 1,786.70 | 1,793.17 | 1,757.89 | 6.63 | 7.55 | -110.27 | 105.68 | 170.58 | 193.21 | 179.40 | 13.81 | 13.987 | | | |
| 1,900.00 | 1,885.16 | 1,890.56 | 1,851.18 | 7.06 | 8.09 | -108.03 | 116.15 | 196.51 | 214.52 | 199.82 | 14.70 | 14.590 | | | |
| 2,000.00 | 1,983.62 | 1,987.95 | 1,944.46 | 7.50 | 8.64 | -106.19 | 126.62 | 222.44 | 236.09 | 220.50 | 15.59 | 15.140 | | | |
| 2,100.00 | 2,082.09 | 2,085.34 | 2,037.75 | 7.94 | 9.19 | -104.66 | 137.10 | 248.38 | 257.86 | 241.37 | 16.49 | 15.642 | | | |
| 2,200.00 | 2,180.55 | 2,182.73 | 2,131.04 | 8.37 | 9.74 | -103.37 | 147.57 | 274.31 | 279.77 | 262.39 | 17.38 | 16.099 | | | |
| 2,300.00 | 2,279.01 | 2,280.12 | 2,224.33 | 8.81 | 10.30 | -102.26 | 158.04 | 300.24 | 301.80 | 283.53 | 18.27 | 16.517 | | | |
| 2,400.00 | 2,377.47 | 2,377.51 | 2,317.61 | 9.25 | 10.85 | -101.31 | 168.52 | 326.17 | 323.92 | 304.75 | 19.17 | 16.899 | | | |
| 2,500.00 | 2,475.93 | 2,474.90 | 2,410.90 | 9.69 | 11.41 | -100.48 | 178.99 | 352.11 | 346.12 | 326.05 | 20.06 | 17.250 | | | |
| 2,600.00 | 2,574.40 | 2,572.29 | 2,504.19 | 10.14 | 11.97 | -99.74 | 189.47 | 378.04 | 368.37 | 347.41 | 20.96 | 17.573 | | | |
| 2,700.00 | 2,672.86 | 2,669.68 | 2,597.48 | 10.58 | 12.53 | -99.10 | 199.94 | 403.97 | 390.68 | 368.82 | 21.86 | 17.871 | | | |
| 2,800.00 | 2,771.32 | 2,767.07 | 2,690.76 | 11.02 | 13.09 | -98.52 | 210.41 | 429.91 | 413.03 | 390.27 | 22.76 | 18.147 | | | |
| 2,900.00 | 2,869.78 | 2,864.46 | 2,784.05 | 11.46 | 13.65 | -98.00 | 220.89 | 455.84 | 435.42 | 411.76 | 23.66 | 18.402 | | | |
| 3,000.00 | 2,968.24 | 2,961.85 | 2,877.34 | 11.91 | 14.21 | -97.53 | 231.36 | 481.77 | 457.84 | 433.27 | 24.56 | 18.640 | | | |
| 3,100.00 | 3,066.71 | 3,059.24 | 2,970.63 | 12.35 | 14.78 | -97.10 | 241.84 | 507.71 | 480.28 | 454.82 | 25.46 | 18.860 | | | |
| 3,200.00 | 3,165.17 | 3,156.63 | 3,063.91 | 12.80 | 15.34 | -96.72 | 252.31 | 533.64 | 502.75 | 476.38 | 26.37 | 19.067 | | | |
| 3,300.00 | 3,263.63 | 3,254.02 | 3,157.20 | 13.24 | 15.90 | -96.36 | 262.78 | 559.57 | 525.23 | 497.96 | 27.27 | 19.260 | | | |
| 3,400.00 | 3,362.09 | 3,351.41 | 3,250.49 | 13.69 | 16.47 | -96.04 | 273.26 | 585.51 | 547.74 | 519.56 | 28.18 | 19.440 | | | |
| 3,500.00 | 3,460.55 | 3,448.80 | 3,343.78 | 14.13 | 17.03 | -95.74 | 283.73 | 611.44 | 570.26 | 541.18 | 29.08 | 19.610 | | | |
| 3,600.00 | 3,559.01 | 3,546.19 | 3,437.06 | 14.58 | 17.60 | -95.46 | 294.20 | 637.37 | 592.79 | 562.80 | 29.99 | 19.770 | | | |
| 3,700.00 | 3,657.48 | 3,643.58 | 3,530.35 | 15.02 | 18.16 | -95.21 | 304.68 | 663.30 | 615.33 | 584.44 | 30.89 | 19.920 | | | |
| 3,800.00 | 3,755.94 | 3,740.97 | 3,623.64 | 15.47 | 18.73 | -94.97 | 315.15 | 689.24 | 637.89 | 606.09 | 31.80 | 20.062 | | | |
| 3,900.00 | 3,854.40 | 3,838.36 | 3,716.93 | 15.92 | 19.29 | -94.75 | 325.63 | 715.17 | 660.46 | 627.75 | 32.70 | 20.196 | | | |
| 4,000.00 | 3,952.86 | 3,935.75 | 3,810.21 | 16.36 | 19.86 | -94.54 | 336.10 | 741.10 | 683.03 | 649.42 | 33.61 | 20.322 | | | |
| 4,100.00 | 4,051.32 | 4,033.14 | 3,903.50 | 16.81 | 20.42 | -94.34 | 346.57 | 767.04 | 705.61 | 671.10 | 34.52 | 20.443 | | | |
| 4,200.00 | 4,149.79 | 4,130.53 | 3,996.79 | 17.26 | 20.99 | -94.16 | 357.05 | 792.97 | 728.20 | 692.78 | 35.42 | 20.557 | | | |
| 4,300.00 | 4,248.25 | 4,227.92 | 4,090.08 | 17.70 | 21.56 | -93.99 | 367.52 | 818.90 | 750.80 | 714.47 | 36.33 | 20.665 | | | |
| 4,400.00 | 4,346.71 | 4,325.31 | 4,183.36 | 18.15 | 22.12 | -93.83 | 377.99 | 844.84 | 773.40 | 736.16 | 37.24 | 20.768 | | | |
| 4,500.00 | 4,445.17 | 4,422.70 | 4,276.65 | 18.60 | 22.69 | -93.68 | 388.47 | 870.77 | 796.01 | 757.86 | 38.15 | 20.866 | | | |
| 4,600.00 | 4,543.63 | 4,520.09 | 4,369.94 | 19.04 | 23.26 | -93.53 | 398.94 | 896.70 | 818.62 | 779.57 | 39.06 | 20.960 | | | |
| 4,700.00 | 4,642.10 | 4,617.48 | 4,463.23 | 19.49 | 23.82 | -93.40 | 409.42 | 922.64 | 841.24 | 801.27 | 39.97 | 21.049 | | | |
| 4,800.00 | 4,740.56 | 4,714.87 | 4,556.51 | 19.94 | 24.39 | -93.27 | 419.89 | 948.57 | 863.86 | 822.99 | 40.87 | 21.135 | | | |
| 4,900.00 | 4,839.02 | 4,812.26 | 4,649.80 | 20.39 | 24.96 | -93.15 | 430.36 | 974.50 | 886.49 | 844.70 | 41.78 | 21.216 | | | |
| 5,000.00 | 4,937.48 | 4,909.65 | 4,743.09 | 20.83 | 25.53 | -93.03 | 440.84 | 1,000.43 | 909.12 | 866.42 | 42.69 | 21.295 | | | |

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 4S-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 4S-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) | | | | | |
| 5,100.00 | 5,035.94 | 5,007.04 | 4,836.38 | 21.28 | 26.09 | -92.92 | 451.31 | 1,026.37 | 931.75 | 888.15 | 43.60 | 21.369 | | | |
| 5,200.00 | 5,134.41 | 5,104.43 | 4,929.66 | 21.73 | 26.66 | -92.82 | 461.79 | 1,052.30 | 954.38 | 909.87 | 44.51 | 21.441 | | | |
| 5,300.00 | 5,232.87 | 5,201.82 | 5,022.95 | 22.18 | 27.23 | -92.72 | 472.26 | 1,078.23 | 977.02 | 931.60 | 45.42 | 21.510 | | | |
| 5,400.00 | 5,331.33 | 5,299.21 | 5,116.24 | 22.63 | 27.80 | -92.62 | 482.73 | 1,104.17 | 999.66 | 953.33 | 46.33 | 21.576 | | | |
| 5,500.00 | 5,429.79 | 5,396.60 | 5,209.53 | 23.07 | 28.37 | -92.53 | 493.21 | 1,130.10 | 1,022.31 | 975.07 | 47.24 | 21.640 | | | |
| 5,600.00 | 5,528.25 | 5,493.99 | 5,302.81 | 23.52 | 28.93 | -92.44 | 503.68 | 1,156.03 | 1,044.95 | 996.80 | 48.15 | 21.701 | | | |
| 5,700.00 | 5,626.72 | 5,591.38 | 5,396.10 | 23.97 | 29.50 | -92.36 | 514.15 | 1,181.97 | 1,067.60 | 1,018.54 | 49.06 | 21.760 | | | |
| 5,800.00 | 5,725.18 | 5,688.77 | 5,489.39 | 24.42 | 30.07 | -92.28 | 524.63 | 1,207.90 | 1,090.25 | 1,040.28 | 49.97 | 21.817 | | | |
| 5,900.00 | 5,823.64 | 5,786.16 | 5,582.68 | 24.87 | 30.64 | -92.20 | 535.10 | 1,233.83 | 1,112.91 | 1,062.02 | 50.88 | 21.872 | | | |
| 6,000.00 | 5,922.10 | 5,883.55 | 5,675.96 | 25.31 | 31.21 | -92.13 | 545.58 | 1,259.76 | 1,135.56 | 1,083.77 | 51.79 | 21.924 | | | |
| 6,100.00 | 6,020.56 | 5,980.94 | 5,769.25 | 25.76 | 31.77 | -92.05 | 556.05 | 1,285.70 | 1,158.22 | 1,105.51 | 52.71 | 21.975 | | | |
| 6,200.00 | 6,119.03 | 6,078.33 | 5,862.54 | 26.21 | 32.34 | -91.99 | 566.52 | 1,311.63 | 1,180.87 | 1,127.26 | 53.62 | 22.024 | | | |
| 6,300.00 | 6,217.49 | 6,175.72 | 5,955.83 | 26.66 | 32.91 | -91.92 | 577.00 | 1,337.56 | 1,203.53 | 1,149.01 | 54.53 | 22.072 | | | |
| 6,400.00 | 6,315.95 | 6,273.11 | 6,049.11 | 27.11 | 33.48 | -91.86 | 587.47 | 1,363.50 | 1,226.19 | 1,170.76 | 55.44 | 22.118 | | | |
| 6,500.00 | 6,414.41 | 6,370.50 | 6,142.40 | 27.55 | 34.05 | -91.80 | 597.94 | 1,389.43 | 1,248.86 | 1,192.51 | 56.35 | 22.162 | | | |
| 6,600.00 | 6,512.87 | 6,467.88 | 6,235.69 | 28.00 | 34.62 | -91.74 | 608.42 | 1,415.36 | 1,271.52 | 1,214.26 | 57.26 | 22.205 | | | |
| 6,700.00 | 6,611.34 | 6,565.27 | 6,328.98 | 28.45 | 35.18 | -91.68 | 618.89 | 1,441.30 | 1,294.18 | 1,236.01 | 58.17 | 22.247 | | | |
| 6,800.00 | 6,709.80 | 6,662.66 | 6,422.26 | 28.90 | 35.75 | -91.63 | 629.37 | 1,467.23 | 1,316.85 | 1,257.76 | 59.09 | 22.287 | | | |
| 6,900.00 | 6,808.26 | 6,760.04 | 6,515.54 | 29.35 | 36.32 | -91.58 | 639.84 | 1,493.16 | 1,339.51 | 1,279.41 | 59.99 | 22.327 | | | |
| 6,982.73 | 6,889.71 | 6,847.52 | 6,608.82 | 29.79 | 36.89 | -91.53 | 650.31 | 1,519.09 | 1,362.16 | 1,301.06 | 60.88 | 22.367 | | | |
| 7,000.00 | 6,906.74 | 6,864.55 | 6,625.75 | 29.80 | 36.90 | -91.54 | 650.35 | 1,519.03 | 1,362.14 | 1,301.04 | 60.88 | 22.367 | | | |
| 7,050.00 | 6,956.13 | 6,914.96 | 6,685.00 | 30.01 | 37.00 | -91.55 | 650.40 | 1,519.08 | 1,362.19 | 1,301.09 | 60.89 | 22.368 | | | |
| 7,100.00 | 7,005.50 | 6,964.33 | 6,745.25 | 30.22 | 37.10 | -91.56 | 650.45 | 1,519.13 | 1,362.24 | 1,301.14 | 60.90 | 22.369 | | | |
| 7,150.00 | 7,054.87 | 6,913.70 | 6,805.60 | 30.43 | 37.20 | -91.57 | 650.50 | 1,519.18 | 1,362.29 | 1,301.19 | 60.91 | 22.370 | | | |
| 7,200.00 | 7,103.23 | 6,863.07 | 6,866.00 | 30.64 | 37.30 | -91.58 | 650.55 | 1,519.23 | 1,362.34 | 1,301.24 | 60.92 | 22.371 | | | |
| 7,250.00 | 7,151.10 | 6,812.44 | 6,926.35 | 30.85 | 37.40 | -91.59 | 650.60 | 1,519.28 | 1,362.39 | 1,301.29 | 60.93 | 22.372 | | | |
| 7,300.00 | 7,198.01 | 6,761.81 | 6,986.70 | 31.06 | 37.50 | -91.60 | 650.65 | 1,519.33 | 1,362.44 | 1,301.34 | 60.94 | 22.373 | | | |
| 7,350.00 | 7,243.72 | 6,711.18 | 7,047.05 | 31.27 | 37.60 | -91.61 | 650.70 | 1,519.38 | 1,362.49 | 1,301.39 | 60.95 | 22.374 | | | |
| 7,400.00 | 7,288.00 | 6,660.55 | 7,107.40 | 31.48 | 37.70 | -91.62 | 650.75 | 1,519.43 | 1,362.54 | 1,301.44 | 60.96 | 22.375 | | | |
| 7,450.00 | 7,330.65 | 6,610.92 | 7,167.75 | 31.69 | 37.80 | -91.63 | 650.80 | 1,519.48 | 1,362.59 | 1,301.49 | 60.97 | 22.376 | | | |
| 7,500.00 | 7,371.46 | 6,561.29 | 7,228.10 | 31.90 | 37.90 | -91.64 | 650.85 | 1,519.53 | 1,362.64 | 1,301.54 | 60.98 | 22.377 | | | |
| 7,550.00 | 7,410.22 | 6,511.66 | 7,288.45 | 32.11 | 38.00 | -91.65 | 650.90 | 1,519.58 | 1,362.69 | 1,301.59 | 60.99 | 22.378 | | | |
| 7,600.00 | 7,446.75 | 6,462.03 | 7,348.80 | 32.32 | 38.10 | -91.66 | 650.95 | 1,519.63 | 1,362.74 | 1,301.64 | 61.00 | 22.379 | | | |
| 7,650.00 | 7,480.87 | 6,412.40 | 7,409.15 | 32.53 | 38.20 | -91.67 | 651.00 | 1,519.68 | 1,362.79 | 1,301.69 | 61.01 | 22.380 | | | |
| 7,700.00 | 7,512.42 | 6,362.77 | 7,469.50 | 32.74 | 38.30 | -91.68 | 651.05 | 1,519.73 | 1,362.84 | 1,301.74 | 61.02 | 22.381 | | | |
| 7,750.00 | 7,541.23 | 6,313.14 | 7,529.85 | 32.95 | 38.40 | -91.69 | 651.10 | 1,519.78 | 1,362.89 | 1,301.79 | 61.03 | 22.382 | | | |
| 7,800.00 | 7,567.18 | 6,263.51 | 7,590.20 | 33.16 | 38.50 | -91.70 | 651.15 | 1,519.83 | 1,362.94 | 1,301.84 | 61.04 | 22.383 | | | |
| 7,850.00 | 7,590.12 | 6,213.88 | 7,650.55 | 33.37 | 38.60 | -91.71 | 651.20 | 1,519.88 | 1,362.99 | 1,301.89 | 61.05 | 22.384 | | | |
| 7,900.00 | 7,609.96 | 6,164.25 | 7,710.90 | 33.58 | 38.70 | -91.72 | 651.25 | 1,519.93 | 1,363.04 | 1,301.94 | 61.06 | 22.385 | | | |
| 7,950.00 | 7,626.60 | 6,114.62 | 7,771.25 | 33.79 | 38.80 | -91.73 | 651.30 | 1,519.98 | 1,363.09 | 1,301.99 | 61.07 | 22.386 | | | |
| 8,000.00 | 7,639.94 | 6,065.00 | 7,831.60 | 34.00 | 38.90 | -91.74 | 651.35 | 1,520.03 | 1,363.14 | 1,302.04 | 61.08 | 22.387 | | | |
| 8,050.00 | 7,649.94 | 6,015.37 | 7,892.00 | 34.21 | 39.00 | -91.75 | 651.40 | 1,520.08 | 1,363.19 | 1,302.09 | 61.09 | 22.388 | | | |
| 8,100.00 | 7,656.54 | 5,965.74 | 7,952.35 | 34.42 | 39.10 | -91.76 | 651.45 | 1,520.13 | 1,363.24 | 1,302.14 | 61.10 | 22.389 | | | |
| 8,150.00 | 7,659.70 | 5,916.11 | 8,012.70 | 34.63 | 39.20 | -91.77 | 651.50 | 1,520.18 | 1,363.29 | 1,302.19 | 61.11 | 22.390 | | | |
| 8,170.89 | 7,660.00 | 5,866.48 | 8,073.10 | 34.84 | 39.30 | -91.78 | 651.55 | 1,520.23 | 1,363.34 | 1,302.24 | 61.12 | 22.391 | | | |
| 8,200.00 | 7,660.00 | 5,816.85 | 8,133.50 | 35.05 | 39.40 | -91.79 | 651.60 | 1,520.28 | 1,363.39 | 1,302.29 | 61.13 | 22.392 | | | |
| 8,300.00 | 7,660.00 | 5,767.22 | 8,193.90 | 35.26 | 39.50 | -91.80 | 651.65 | 1,520.33 | 1,363.44 | 1,302.34 | 61.14 | 22.393 | | | |
| 8,400.00 | 7,660.00 | 5,717.59 | 8,254.30 | 35.47 | 39.60 | -91.81 | 651.70 | 1,520.38 | 1,363.49 | 1,302.39 | 61.15 | 22.394 | | | |
| 8,472.33 | 7,660.00 | 5,667.96 | 8,314.70 | 35.68 | 39.70 | -91.82 | 651.75 | 1,520.43 | 1,363.54 | 1,302.44 | 61.16 | 22.395 | | | |
| 8,500.00 | 7,660.00 | 5,618.33 | 8,375.10 | 35.89 | 39.80 | -91.83 | 651.80 | 1,520.48 | 1,363.59 | 1,302.49 | 61.17 | 22.396 | | | |
| 8,600.00 | 7,660.00 | 5,568.70 | 8,435.50 | 36.10 | 39.90 | -91.84 | 651.85 | 1,520.53 | 1,363.64 | 1,302.54 | 61.18 | 22.397 | | | |
| 8,700.00 | 7,660.00 | 5,519.07 | 8,495.90 | 36.31 | 40.00 | -91.85 | 651.90 | 1,520.58 | 1,363.69 | 1,302.59 | 61.19 | 22.398 | | | |

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 4S-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 4S-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 | | |
| 8,800.00 | 7,660.00 | 7,650.00 | 7,352.44 | 33.33 | 40.64 | 65.65 | 582.92 | 1,722.28 | 778.30 | 712.42 | 65.88 | 11.814 | | |
| 8,900.00 | 7,660.00 | 7,608.25 | 7,317.43 | 34.16 | 40.55 | 62.94 | 603.72 | 1,713.13 | 810.89 | 743.89 | 67.01 | 12.102 | | |
| 9,000.00 | 7,660.00 | 7,578.16 | 7,291.51 | 35.04 | 40.47 | 60.96 | 617.40 | 1,706.31 | 852.22 | 783.96 | 68.26 | 12.485 | | |
| 9,100.00 | 7,660.00 | 7,550.00 | 7,266.78 | 35.97 | 40.40 | 59.11 | 629.16 | 1,699.77 | 901.44 | 832.07 | 69.37 | 12.995 | | |
| 9,200.00 | 7,660.00 | 7,530.45 | 7,249.35 | 36.94 | 40.34 | 57.82 | 636.74 | 1,695.15 | 957.58 | 887.11 | 70.47 | 13.588 | | |
| 9,300.00 | 7,660.00 | 7,500.00 | 7,221.85 | 37.96 | 40.24 | 55.83 | 647.55 | 1,687.83 | 1,019.83 | 948.71 | 71.12 | 14.340 | | |
| 9,400.00 | 7,660.00 | 7,500.00 | 7,221.85 | 39.00 | 40.24 | 55.83 | 647.55 | 1,687.83 | 1,086.94 | 1,014.69 | 72.25 | 15.043 | | |
| 9,500.00 | 7,660.00 | 7,479.78 | 7,203.35 | 40.09 | 40.17 | 54.51 | 654.05 | 1,682.89 | 1,158.41 | 1,085.65 | 72.76 | 15.920 | | |
| 9,600.00 | 7,660.00 | 7,466.67 | 7,191.27 | 41.20 | 40.13 | 53.66 | 657.98 | 1,679.66 | 1,233.53 | 1,160.25 | 73.28 | 16.833 | | |
| 9,700.00 | 7,660.00 | 7,450.00 | 7,175.81 | 42.34 | 40.07 | 52.59 | 662.64 | 1,675.51 | 1,311.73 | 1,238.11 | 73.62 | 17.818 | | |
| 9,800.00 | 7,660.00 | 7,450.00 | 7,175.81 | 43.51 | 40.07 | 52.59 | 662.64 | 1,675.51 | 1,392.48 | 1,318.33 | 74.14 | 18.781 | | |
| 9,900.00 | 7,660.00 | 7,450.00 | 7,175.81 | 44.70 | 40.07 | 52.59 | 662.64 | 1,675.51 | 1,475.59 | 1,401.02 | 74.56 | 19.790 | | |

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 4S-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 4S-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 | | | | | | | | |
| 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 | -89.73 | 0.38 | -80.02 | 80.02 | | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | -89.73 | 0.38 | -80.02 | 80.02 | 79.74 | 0.28 | 289.902 | | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | -89.73 | 0.38 | -80.02 | 80.02 | 79.03 | 0.99 | 80.587 | | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.85 | 0.85 | -89.73 | 0.38 | -80.02 | 80.02 | 78.31 | 1.71 | 46.798 | | | |
| 400.00 | 400.00 | 402.63 | 402.61 | 1.21 | 1.22 | -89.24 | 1.04 | -78.30 | 78.35 | 75.89 | 2.46 | 31.879 | | | |
| 500.00 | 500.00 | 505.00 | 504.82 | 1.57 | 1.59 | -87.66 | 3.00 | -73.17 | 73.39 | 70.16 | 3.22 | 22.757 | | | |
| 600.00 | 600.00 | 606.84 | 606.26 | 1.93 | 1.96 | -84.49 | 6.24 | -64.68 | 65.28 | 61.29 | 3.99 | 16.355 | | | |
| 700.00 | 699.98 | 708.06 | 706.68 | 2.28 | 2.34 | 161.90 | 10.73 | -52.91 | 56.05 | 51.32 | 4.73 | 11.856 | | | |
| 800.00 | 799.84 | 808.60 | 805.93 | 2.62 | 2.74 | 174.23 | 16.44 | -37.95 | 48.68 | 43.25 | 5.43 | 8.965 | | | |
| 890.24 | 889.74 | 898.66 | 894.31 | 2.93 | 3.11 | -169.24 | 22.61 | -21.79 | 45.94 | 39.87 | 6.06 | 7.575 CC | | | |
| 900.00 | 899.45 | 908.35 | 903.79 | 2.97 | 3.15 | -167.24 | 23.33 | -19.90 | 45.97 | 39.84 | 6.13 | 7.494 ES | | | |
| 1,000.00 | 998.70 | 1,007.19 | 1,000.03 | 3.33 | 3.60 | -146.92 | 31.35 | 1.12 | 50.88 | 43.97 | 6.91 | 7.359 SF | | | |
| 1,103.09 | 1,100.51 | 1,108.02 | 1,097.35 | 3.72 | 4.09 | -130.49 | 40.75 | 25.74 | 64.19 | 56.40 | 7.80 | 8.232 | | | |
| 1,200.00 | 1,195.93 | 1,201.79 | 1,186.98 | 4.11 | 4.58 | -119.72 | 50.58 | 51.48 | 81.76 | 73.11 | 8.66 | 9.446 | | | |
| 1,300.00 | 1,294.39 | 1,298.88 | 1,279.41 | 4.51 | 5.11 | -112.02 | 61.18 | 79.25 | 102.40 | 92.87 | 9.54 | 10.739 | | | |
| 1,400.00 | 1,392.85 | 1,395.98 | 1,371.84 | 4.93 | 5.66 | -106.93 | 71.78 | 107.02 | 124.23 | 113.82 | 10.41 | 11.937 | | | |
| 1,500.00 | 1,491.31 | 1,493.07 | 1,464.26 | 5.35 | 6.22 | -103.37 | 82.38 | 134.80 | 146.72 | 135.44 | 11.28 | 13.009 | | | |
| 1,600.00 | 1,589.78 | 1,590.16 | 1,556.69 | 5.77 | 6.78 | -100.76 | 92.98 | 162.57 | 169.61 | 157.46 | 12.15 | 13.957 | | | |
| 1,700.00 | 1,688.24 | 1,687.25 | 1,649.12 | 6.20 | 7.35 | -98.77 | 103.59 | 190.35 | 192.75 | 179.72 | 13.03 | 14.795 | | | |
| 1,800.00 | 1,786.70 | 1,784.35 | 1,741.55 | 6.63 | 7.93 | -97.20 | 114.19 | 218.12 | 216.07 | 202.16 | 13.91 | 15.535 | | | |
| 1,900.00 | 1,885.16 | 1,881.44 | 1,833.98 | 7.06 | 8.51 | -95.94 | 124.79 | 245.90 | 239.51 | 224.72 | 14.79 | 16.192 | | | |
| 2,000.00 | 1,983.62 | 1,978.53 | 1,926.41 | 7.50 | 9.09 | -94.91 | 135.39 | 273.67 | 263.04 | 247.36 | 15.68 | 16.777 | | | |
| 2,100.00 | 2,082.09 | 2,075.62 | 2,018.84 | 7.94 | 9.67 | -94.04 | 146.00 | 301.45 | 286.63 | 270.07 | 16.57 | 17.301 | | | |
| 2,200.00 | 2,180.55 | 2,172.71 | 2,111.27 | 8.37 | 10.25 | -93.31 | 156.60 | 329.22 | 310.28 | 292.82 | 17.46 | 17.772 | | | |
| 2,300.00 | 2,279.01 | 2,269.81 | 2,203.69 | 8.81 | 10.84 | -92.68 | 167.20 | 356.99 | 333.97 | 315.62 | 18.35 | 18.196 | | | |
| 2,400.00 | 2,377.47 | 2,366.90 | 2,296.12 | 9.25 | 11.43 | -92.13 | 177.80 | 384.77 | 357.70 | 338.45 | 19.25 | 18.581 | | | |
| 2,500.00 | 2,475.93 | 2,463.99 | 2,388.55 | 9.69 | 12.02 | -91.65 | 188.40 | 412.54 | 381.45 | 361.30 | 20.15 | 18.932 | | | |
| 2,600.00 | 2,574.40 | 2,561.08 | 2,480.98 | 10.14 | 12.61 | -91.23 | 199.01 | 440.32 | 405.22 | 384.17 | 21.05 | 19.252 | | | |
| 2,700.00 | 2,672.86 | 2,658.18 | 2,573.41 | 10.58 | 13.20 | -90.86 | 209.61 | 468.09 | 429.01 | 407.06 | 21.95 | 19.545 | | | |
| 2,800.00 | 2,771.32 | 2,755.27 | 2,665.84 | 11.02 | 13.79 | -90.52 | 220.21 | 495.87 | 452.82 | 429.97 | 22.85 | 19.815 | | | |
| 2,900.00 | 2,869.78 | 2,852.36 | 2,758.27 | 11.46 | 14.38 | -90.22 | 230.81 | 523.64 | 476.64 | 452.89 | 23.76 | 20.064 | | | |
| 3,000.00 | 2,968.24 | 2,949.45 | 2,850.70 | 11.91 | 14.97 | -89.94 | 241.42 | 551.41 | 500.47 | 475.81 | 24.66 | 20.294 | | | |
| 3,100.00 | 3,066.71 | 3,046.54 | 2,943.13 | 12.35 | 15.56 | -89.69 | 252.02 | 579.19 | 524.32 | 498.75 | 25.57 | 20.507 | | | |
| 3,200.00 | 3,165.17 | 3,143.64 | 3,035.55 | 12.80 | 16.16 | -89.47 | 262.62 | 606.96 | 548.17 | 521.69 | 26.47 | 20.706 | | | |
| 3,300.00 | 3,263.63 | 3,240.73 | 3,127.98 | 13.24 | 16.75 | -89.26 | 273.22 | 634.74 | 572.02 | 544.64 | 27.38 | 20.891 | | | |
| 3,400.00 | 3,362.09 | 3,337.82 | 3,220.41 | 13.69 | 17.35 | -89.07 | 283.82 | 662.51 | 595.89 | 567.60 | 28.29 | 21.064 | | | |
| 3,500.00 | 3,460.55 | 3,434.91 | 3,312.84 | 14.13 | 17.94 | -88.89 | 294.43 | 690.29 | 619.76 | 590.56 | 29.20 | 21.226 | | | |
| 3,600.00 | 3,559.01 | 3,532.01 | 3,405.27 | 14.58 | 18.54 | -88.73 | 305.03 | 718.06 | 643.63 | 613.52 | 30.11 | 21.378 | | | |
| 3,700.00 | 3,657.48 | 3,629.10 | 3,497.70 | 15.02 | 19.13 | -88.57 | 315.63 | 745.84 | 667.51 | 636.49 | 31.02 | 21.520 | | | |
| 3,800.00 | 3,755.94 | 3,726.19 | 3,590.13 | 15.47 | 19.73 | -88.43 | 326.23 | 773.61 | 691.40 | 659.47 | 31.93 | 21.655 | | | |
| 3,900.00 | 3,854.40 | 3,823.28 | 3,682.56 | 15.92 | 20.32 | -88.30 | 336.83 | 801.38 | 715.28 | 682.44 | 32.84 | 21.781 | | | |
| 4,000.00 | 3,952.86 | 3,920.37 | 3,774.98 | 16.36 | 20.92 | -88.18 | 347.44 | 829.16 | 739.17 | 705.42 | 33.75 | 21.901 | | | |
| 4,100.00 | 4,051.32 | 4,017.47 | 3,867.41 | 16.81 | 21.51 | -88.06 | 358.04 | 856.93 | 763.07 | 728.41 | 34.66 | 22.014 | | | |
| 4,200.00 | 4,149.79 | 4,114.56 | 3,959.84 | 17.26 | 22.11 | -87.95 | 368.64 | 884.71 | 786.97 | 751.39 | 35.57 | 22.122 | | | |
| 4,300.00 | 4,248.25 | 4,211.65 | 4,052.27 | 17.70 | 22.71 | -87.85 | 379.24 | 912.48 | 810.86 | 774.38 | 36.49 | 22.224 | | | |
| 4,400.00 | 4,346.71 | 4,308.74 | 4,144.70 | 18.15 | 23.30 | -87.75 | 389.85 | 940.26 | 834.77 | 797.37 | 37.40 | 22.320 | | | |
| 4,500.00 | 4,445.17 | 4,405.84 | 4,237.13 | 18.60 | 23.90 | -87.66 | 400.45 | 968.03 | 858.67 | 820.36 | 38.31 | 22.412 | | | |
| 4,600.00 | 4,543.63 | 4,502.93 | 4,329.56 | 19.04 | 24.50 | -87.58 | 411.05 | 995.80 | 882.58 | 843.35 | 39.23 | 22.500 | | | |
| 4,700.00 | 4,642.10 | 4,600.02 | 4,421.99 | 19.49 | 25.09 | -87.50 | 421.65 | 1,023.58 | 906.48 | 866.34 | 40.14 | 22.583 | | | |
| 4,800.00 | 4,740.56 | 4,697.11 | 4,514.42 | 19.94 | 25.69 | -87.42 | 432.25 | 1,051.35 | 930.39 | 889.34 | 41.05 | 22.663 | | | |
| 4,900.00 | 4,839.02 | 4,794.21 | 4,606.84 | 20.39 | 26.29 | -87.34 | 442.86 | 1,079.13 | 954.30 | 912.33 | 41.97 | 22.739 | | | |
| 5,000.00 | 4,937.48 | 4,891.30 | 4,699.27 | 20.83 | 26.88 | -87.27 | 453.46 | 1,106.90 | 978.21 | 935.33 | 42.88 | 22.812 | | | |

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 4S-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 4S-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) | | | | | |
| 5,100.00 | 5,035.94 | 4,988.39 | 4,791.70 | 21.28 | 27.48 | -87.21 | 464.06 | 1,134.68 | 1,002.13 | 958.33 | 43.80 | 22.882 | | | |
| 5,200.00 | 5,134.41 | 5,085.48 | 4,884.13 | 21.73 | 28.08 | -87.14 | 474.66 | 1,162.45 | 1,026.04 | 981.33 | 44.71 | 22.948 | | | |
| 5,300.00 | 5,232.87 | 5,182.57 | 4,976.56 | 22.18 | 28.67 | -87.08 | 485.27 | 1,190.23 | 1,049.96 | 1,004.33 | 45.63 | 23.012 | | | |
| 5,400.00 | 5,331.33 | 5,279.67 | 5,068.99 | 22.63 | 29.27 | -87.03 | 495.87 | 1,218.00 | 1,073.87 | 1,027.33 | 46.54 | 23.074 | | | |
| 5,500.00 | 5,429.79 | 5,376.76 | 5,161.42 | 23.07 | 29.87 | -86.97 | 506.47 | 1,245.77 | 1,097.79 | 1,050.34 | 47.46 | 23.133 | | | |
| 5,600.00 | 5,528.25 | 5,473.85 | 5,253.85 | 23.52 | 30.47 | -86.92 | 517.07 | 1,273.55 | 1,121.71 | 1,073.34 | 48.37 | 23.189 | | | |
| 5,700.00 | 5,626.72 | 5,570.94 | 5,346.27 | 23.97 | 31.06 | -86.87 | 527.67 | 1,301.32 | 1,145.63 | 1,096.34 | 49.29 | 23.244 | | | |
| 5,800.00 | 5,725.18 | 5,668.04 | 5,438.70 | 24.42 | 31.66 | -86.82 | 538.28 | 1,329.10 | 1,169.55 | 1,119.35 | 50.20 | 23.297 | | | |
| 5,900.00 | 5,823.64 | 5,765.13 | 5,531.13 | 24.87 | 32.26 | -86.77 | 548.88 | 1,356.87 | 1,193.47 | 1,142.35 | 51.12 | 23.347 | | | |
| 6,000.00 | 5,922.10 | 5,862.22 | 5,623.56 | 25.31 | 32.86 | -86.73 | 559.48 | 1,384.65 | 1,217.39 | 1,165.36 | 52.03 | 23.396 | | | |
| 6,100.00 | 6,020.56 | 5,959.31 | 5,715.99 | 25.76 | 33.46 | -86.68 | 570.08 | 1,412.42 | 1,241.32 | 1,188.36 | 52.95 | 23.443 | | | |
| 6,200.00 | 6,119.03 | 6,056.40 | 5,808.42 | 26.21 | 34.05 | -86.64 | 580.68 | 1,440.19 | 1,265.24 | 1,211.37 | 53.87 | 23.488 | | | |
| 6,300.00 | 6,217.49 | 6,153.50 | 5,900.85 | 26.66 | 34.65 | -86.60 | 591.29 | 1,467.97 | 1,289.16 | 1,234.38 | 54.78 | 23.532 | | | |
| 6,400.00 | 6,315.95 | 6,250.59 | 5,993.28 | 27.11 | 35.25 | -86.56 | 601.89 | 1,495.74 | 1,313.09 | 1,257.39 | 55.70 | 23.574 | | | |
| 6,500.00 | 6,414.41 | 6,347.68 | 6,085.70 | 27.55 | 35.85 | -86.53 | 612.49 | 1,523.52 | 1,337.01 | 1,280.39 | 56.62 | 23.615 | | | |
| 6,600.00 | 6,512.87 | 6,444.77 | 6,178.13 | 28.00 | 36.44 | -86.49 | 623.09 | 1,551.29 | 1,360.94 | 1,303.40 | 57.53 | 23.655 | | | |
| 6,700.00 | 6,611.34 | 6,543.24 | 6,270.56 | 28.45 | 37.04 | -86.46 | 633.69 | 1,579.06 | 1,384.86 | 1,327.31 | 58.44 | 23.696 | | | |
| 6,800.00 | 6,709.80 | 6,641.70 | 6,363.00 | 28.90 | 37.64 | -86.43 | 644.29 | 1,606.84 | 1,408.78 | 1,351.22 | 59.35 | 23.737 | | | |
| 6,900.00 | 6,808.26 | 6,740.16 | 6,455.44 | 29.35 | 38.24 | -86.40 | 654.89 | 1,634.62 | 1,432.70 | 1,375.14 | 60.26 | 23.778 | | | |
| 6,982.73 | 6,889.71 | 6,819.61 | 6,547.88 | 29.72 | 38.84 | -86.37 | 665.49 | 1,662.40 | 1,456.62 | 1,399.06 | 61.17 | 23.819 | | | |
| 7,000.00 | 6,906.74 | 6,837.54 | 6,575.81 | 29.80 | 39.00 | -86.37 | 668.00 | 1,668.00 | 1,461.00 | 1,403.00 | 61.33 | 23.824 | | | |
| 7,050.00 | 6,956.13 | 6,887.93 | 6,626.20 | 30.01 | 39.27 | -86.36 | 673.60 | 1,678.00 | 1,469.00 | 1,411.00 | 61.50 | 23.830 | | | |
| 7,100.00 | 7,005.52 | 6,938.32 | 6,676.69 | 30.19 | 39.54 | -86.35 | 679.20 | 1,688.00 | 1,477.00 | 1,419.00 | 61.67 | 23.836 | | | |
| 7,150.00 | 7,054.91 | 6,988.71 | 6,727.18 | 30.36 | 39.81 | -86.34 | 684.80 | 1,698.00 | 1,485.00 | 1,427.00 | 61.84 | 23.842 | | | |
| 7,200.00 | 7,103.30 | 7,039.10 | 6,777.67 | 30.52 | 40.08 | -86.33 | 690.40 | 1,708.00 | 1,493.00 | 1,435.00 | 62.01 | 23.848 | | | |
| 7,250.00 | 7,151.69 | 7,089.49 | 6,828.16 | 30.65 | 40.35 | -86.32 | 696.00 | 1,718.00 | 1,501.00 | 1,443.00 | 62.18 | 23.854 | | | |
| 7,300.00 | 7,198.08 | 7,139.88 | 6,878.65 | 30.77 | 40.62 | -86.31 | 701.60 | 1,728.00 | 1,509.00 | 1,451.00 | 62.35 | 23.860 | | | |
| 7,350.00 | 7,243.47 | 7,189.27 | 6,929.14 | 30.88 | 40.89 | -86.30 | 707.20 | 1,738.00 | 1,517.00 | 1,459.00 | 62.52 | 23.866 | | | |
| 7,400.00 | 7,288.86 | 7,239.66 | 6,979.63 | 30.97 | 41.16 | -86.29 | 712.80 | 1,748.00 | 1,525.00 | 1,467.00 | 62.69 | 23.872 | | | |
| 7,450.00 | 7,330.65 | 7,281.45 | 7,020.12 | 31.05 | 41.43 | -86.28 | 718.40 | 1,758.00 | 1,533.00 | 1,475.00 | 62.86 | 23.878 | | | |
| 7,500.00 | 7,371.44 | 7,322.24 | 7,060.61 | 31.12 | 41.70 | -86.27 | 724.00 | 1,768.00 | 1,541.00 | 1,483.00 | 63.03 | 23.884 | | | |
| 7,550.00 | 7,412.23 | 7,363.03 | 7,101.10 | 31.17 | 41.97 | -86.26 | 729.60 | 1,778.00 | 1,549.00 | 1,491.00 | 63.20 | 23.890 | | | |
| 7,600.00 | 7,453.02 | 7,403.82 | 7,141.59 | 31.21 | 42.24 | -86.25 | 735.20 | 1,788.00 | 1,557.00 | 1,499.00 | 63.37 | 23.896 | | | |
| 7,650.00 | 7,493.81 | 7,444.61 | 7,182.08 | 31.24 | 42.51 | -86.24 | 740.80 | 1,798.00 | 1,565.00 | 1,507.00 | 63.54 | 23.902 | | | |
| 7,700.00 | 7,534.60 | 7,485.40 | 7,222.57 | 31.25 | 42.78 | -86.23 | 746.40 | 1,808.00 | 1,573.00 | 1,515.00 | 63.71 | 23.908 | | | |
| 7,750.00 | 7,575.39 | 7,526.19 | 7,263.06 | 31.26 | 43.05 | -86.22 | 752.00 | 1,818.00 | 1,581.00 | 1,523.00 | 63.88 | 23.914 | | | |
| 7,800.00 | 7,616.18 | 7,566.98 | 7,303.55 | 31.25 | 43.32 | -86.21 | 757.60 | 1,828.00 | 1,589.00 | 1,531.00 | 64.05 | 23.920 | | | |
| 7,850.00 | 7,656.97 | 7,607.77 | 7,344.04 | 31.24 | 43.59 | -86.20 | 763.20 | 1,838.00 | 1,597.00 | 1,539.00 | 64.22 | 23.926 | | | |
| 7,851.90 | 7,659.94 | 7,610.74 | 7,347.01 | 31.24 | 43.61 | -86.20 | 763.60 | 1,838.40 | 1,597.40 | 1,539.40 | 64.23 | 23.926 | | | |
| 7,900.00 | 7,699.76 | 7,650.56 | 7,387.50 | 31.22 | 43.88 | -86.19 | 769.20 | 1,848.00 | 1,605.00 | 1,547.00 | 64.40 | 23.932 | | | |
| 7,950.00 | 7,739.57 | 7,691.37 | 7,428.00 | 31.19 | 44.15 | -86.18 | 774.80 | 1,858.00 | 1,613.00 | 1,555.00 | 64.57 | 23.938 | | | |
| 8,000.00 | 7,779.38 | 7,732.18 | 7,468.49 | 31.15 | 44.42 | -86.17 | 780.40 | 1,868.00 | 1,621.00 | 1,563.00 | 64.74 | 23.944 | | | |
| 8,050.00 | 7,819.19 | 7,772.99 | 7,508.98 | 31.11 | 44.69 | -86.16 | 786.00 | 1,878.00 | 1,629.00 | 1,571.00 | 64.91 | 23.950 | | | |
| 8,100.00 | 7,859.00 | 7,813.80 | 7,549.47 | 31.07 | 44.96 | -86.15 | 791.60 | 1,888.00 | 1,637.00 | 1,579.00 | 65.08 | 23.956 | | | |
| 8,150.00 | 7,898.81 | 7,854.61 | 7,590.00 | 31.03 | 45.23 | -86.14 | 797.20 | 1,898.00 | 1,645.00 | 1,587.00 | 65.25 | 23.962 | | | |
| 8,170.89 | 7,900.00 | 7,856.81 | 7,592.19 | 31.01 | 45.27 | -86.14 | 798.00 | 1,899.00 | 1,646.00 | 1,588.00 | 65.27 | 23.962 | | | |
| 8,200.00 | 7,940.00 | 7,897.81 | 7,632.68 | 30.98 | 45.54 | -86.13 | 803.60 | 1,908.00 | 1,654.00 | 1,596.00 | 65.44 | 23.968 | | | |
| 8,247.74 | 7,960.00 | 7,917.81 | 7,652.68 | 30.94 | 45.61 | -86.13 | 806.40 | 1,912.00 | 1,658.00 | 1,599.00 | 65.50 | 23.970 | | | |
| 8,300.00 | 7,999.81 | 7,957.62 | 7,693.17 | 30.92 | 45.75 | -86.12 | 812.00 | 1,922.00 | 1,666.00 | 1,607.00 | 65.67 | 23.976 | | | |
| 8,400.00 | 8,039.62 | 7,997.43 | 7,733.66 | 30.91 | 45.89 | -86.11 | 817.60 | 1,932.00 | 1,674.00 | 1,615.00 | 65.84 | 23.982 | | | |
| 8,500.00 | 8,079.43 | 8,037.24 | 7,774.15 | 31.22 | 46.03 | -86.10 | 823.20 | 1,942.00 | 1,682.00 | 1,623.00 | 66.01 | 23.988 | | | |
| 8,600.00 | 8,119.24 | 8,077.05 | 7,814.64 | 31.83 | 46.17 | -86.09 | 828.80 | 1,952.00 | 1,690.00 | 1,631.00 | 66.18 | 23.994 | | | |

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 4S-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 4S-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 | 7,660.00 | 7,587.73 | 7,226.27 | 32.55 | 42.11 | 62.23 | 504.29 | 1,866.25 | 952.17 | 888.56 | 63.61 | 14.969 | | |
| 8,800.00 | 7,660.00 | 7,550.00 | 7,198.71 | 33.33 | 42.05 | 60.50 | 528.69 | 1,857.97 | 976.62 | 911.85 | 64.77 | 15.079 | | |
| 8,900.00 | 7,660.00 | 7,500.00 | 7,160.36 | 34.16 | 41.95 | 58.14 | 558.62 | 1,846.45 | 1,007.77 | 942.14 | 65.64 | 15.354 | | |
| 9,000.00 | 7,660.00 | 7,470.13 | 7,136.53 | 35.04 | 41.88 | 56.69 | 575.14 | 1,839.29 | 1,045.61 | 978.70 | 66.91 | 15.627 | | |
| 9,100.00 | 7,660.00 | 7,450.00 | 7,120.11 | 35.97 | 41.83 | 55.71 | 585.68 | 1,834.35 | 1,089.86 | 1,021.53 | 68.33 | 15.950 | | |
| 9,200.00 | 7,660.00 | 7,415.11 | 7,091.00 | 36.94 | 41.73 | 54.00 | 602.80 | 1,825.60 | 1,139.83 | 1,070.57 | 69.26 | 16.457 | | |
| 9,300.00 | 7,660.00 | 7,400.00 | 7,078.15 | 37.96 | 41.69 | 53.25 | 609.75 | 1,821.74 | 1,195.26 | 1,124.75 | 70.51 | 16.952 | | |
| 9,400.00 | 7,660.00 | 7,372.40 | 7,054.33 | 39.00 | 41.61 | 51.89 | 621.71 | 1,814.58 | 1,255.37 | 1,184.05 | 71.31 | 17.604 | | |
| 9,500.00 | 7,660.00 | 7,350.00 | 7,034.68 | 40.09 | 41.54 | 50.78 | 630.71 | 1,808.68 | 1,319.79 | 1,247.69 | 72.09 | 18.306 | | |
| 9,600.00 | 7,660.00 | 7,350.00 | 7,034.68 | 41.20 | 41.54 | 50.78 | 630.71 | 1,808.68 | 1,388.03 | 1,314.84 | 73.19 | 18.965 | | |
| 9,700.00 | 7,660.00 | 7,324.11 | 7,011.66 | 42.34 | 41.44 | 49.51 | 640.29 | 1,801.76 | 1,459.34 | 1,385.71 | 73.63 | 19.819 | | |

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 4S-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 4S-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: 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 | -89.70 | 0.36 | -69.95 | 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 | CC, ES | | |
| 300.00 | 300.00 | 298.40 | 298.38 | 0.85 | 0.84 | -90.74 | -0.91 | -71.05 | 71.08 | 69.37 | 1.71 | 41.550 | | | |
| 400.00 | 400.00 | 396.57 | 396.41 | 1.21 | 1.18 | -93.64 | -4.74 | -74.35 | 74.59 | 72.14 | 2.45 | 30.486 | | | |
| 500.00 | 500.00 | 494.27 | 493.76 | 1.57 | 1.53 | -97.89 | -11.06 | -79.82 | 80.82 | 77.62 | 3.20 | 25.229 | | | |
| 600.00 | 600.00 | 593.48 | 592.40 | 1.93 | 1.91 | -102.38 | -19.02 | -86.70 | 89.09 | 85.17 | 3.92 | 22.744 | | | |
| 700.00 | 699.98 | 692.86 | 691.22 | 2.28 | 2.29 | 134.29 | -27.02 | -93.61 | 99.03 | 94.42 | 4.62 | 21.459 | | | |
| 800.00 | 799.84 | 792.05 | 789.85 | 2.62 | 2.67 | 133.00 | -34.99 | -100.50 | 111.54 | 106.23 | 5.31 | 21.011 | SF | | |
| 900.00 | 899.45 | 890.93 | 888.16 | 2.97 | 3.05 | 133.08 | -42.94 | -107.37 | 126.42 | 120.41 | 6.01 | 21.028 | | | |
| 1,000.00 | 998.70 | 989.37 | 986.06 | 3.33 | 3.44 | 134.09 | -50.86 | -114.22 | 143.69 | 136.96 | 6.73 | 21.365 | | | |
| 1,103.09 | 1,100.51 | 1,090.29 | 1,086.40 | 3.72 | 3.83 | 135.73 | -58.98 | -121.23 | 164.12 | 156.64 | 7.47 | 21.962 | | | |
| 1,200.00 | 1,195.93 | 1,184.83 | 1,180.41 | 4.11 | 4.20 | 137.53 | -66.58 | -127.80 | 184.70 | 176.52 | 8.18 | 22.575 | | | |
| 1,300.00 | 1,294.39 | 1,282.40 | 1,277.42 | 4.51 | 4.58 | 139.01 | -74.42 | -134.58 | 206.09 | 197.17 | 8.92 | 23.113 | | | |
| 1,400.00 | 1,392.85 | 1,379.96 | 1,374.43 | 4.93 | 4.96 | 140.21 | -82.27 | -141.36 | 227.58 | 217.93 | 9.66 | 23.566 | | | |
| 1,500.00 | 1,491.31 | 1,477.52 | 1,471.43 | 5.35 | 5.35 | 141.21 | -90.12 | -148.14 | 249.16 | 238.76 | 10.40 | 23.953 | | | |
| 1,600.00 | 1,589.78 | 1,575.08 | 1,568.44 | 5.77 | 5.73 | 142.04 | -97.96 | -154.92 | 270.79 | 259.64 | 11.15 | 24.287 | | | |
| 1,700.00 | 1,688.24 | 1,672.64 | 1,665.45 | 6.20 | 6.11 | 142.75 | -105.81 | -161.70 | 292.47 | 280.57 | 11.90 | 24.577 | | | |
| 1,800.00 | 1,786.70 | 1,770.20 | 1,762.46 | 6.63 | 6.50 | 143.37 | -113.65 | -168.48 | 314.19 | 301.54 | 12.65 | 24.832 | | | |
| 1,900.00 | 1,885.16 | 1,867.77 | 1,859.47 | 7.06 | 6.88 | 143.90 | -121.50 | -175.27 | 335.94 | 322.53 | 13.41 | 25.057 | | | |
| 2,000.00 | 1,983.62 | 1,965.33 | 1,956.48 | 7.50 | 7.26 | 144.37 | -129.35 | -182.05 | 357.71 | 343.55 | 14.16 | 25.258 | | | |
| 2,100.00 | 2,082.09 | 2,062.89 | 2,053.49 | 7.94 | 7.65 | 144.79 | -137.19 | -188.83 | 379.50 | 364.58 | 14.92 | 25.438 | | | |
| 2,200.00 | 2,180.55 | 2,160.45 | 2,150.50 | 8.37 | 8.03 | 145.16 | -145.04 | -195.61 | 401.31 | 385.64 | 15.68 | 25.600 | | | |
| 2,300.00 | 2,279.01 | 2,258.01 | 2,247.51 | 8.81 | 8.41 | 145.49 | -152.88 | -202.39 | 423.14 | 406.70 | 16.43 | 25.747 | | | |
| 2,400.00 | 2,377.47 | 2,355.57 | 2,344.52 | 9.25 | 8.80 | 145.79 | -160.73 | -209.17 | 444.97 | 427.78 | 17.19 | 25.881 | | | |
| 2,500.00 | 2,475.93 | 2,453.14 | 2,441.52 | 9.69 | 9.18 | 146.06 | -168.57 | -215.95 | 466.82 | 448.87 | 17.95 | 26.003 | | | |
| 2,600.00 | 2,574.40 | 2,550.70 | 2,538.53 | 10.14 | 9.57 | 146.31 | -176.42 | -222.73 | 488.68 | 469.96 | 18.71 | 26.115 | | | |
| 2,700.00 | 2,672.86 | 2,648.26 | 2,635.54 | 10.58 | 9.95 | 146.54 | -184.27 | -229.51 | 510.54 | 491.07 | 19.47 | 26.218 | | | |
| 2,800.00 | 2,771.32 | 2,745.82 | 2,732.55 | 11.02 | 10.33 | 146.74 | -192.11 | -236.29 | 532.41 | 512.18 | 20.23 | 26.313 | | | |
| 2,900.00 | 2,869.78 | 2,843.38 | 2,829.56 | 11.46 | 10.72 | 146.93 | -199.96 | -243.07 | 554.29 | 533.29 | 21.00 | 26.401 | | | |
| 3,000.00 | 2,968.24 | 2,940.94 | 2,926.57 | 11.91 | 11.10 | 147.11 | -207.80 | -249.85 | 576.17 | 554.41 | 21.76 | 26.482 | | | |
| 3,100.00 | 3,066.71 | 3,038.51 | 3,023.58 | 12.35 | 11.49 | 147.27 | -215.65 | -256.63 | 598.06 | 575.54 | 22.52 | 26.558 | | | |
| 3,200.00 | 3,165.17 | 3,136.07 | 3,120.59 | 12.80 | 11.87 | 147.43 | -223.49 | -263.41 | 619.95 | 596.67 | 23.28 | 26.629 | | | |
| 3,300.00 | 3,263.63 | 3,233.63 | 3,217.60 | 13.24 | 12.25 | 147.57 | -231.34 | -270.19 | 641.84 | 617.80 | 24.04 | 26.696 | | | |
| 3,400.00 | 3,362.09 | 3,331.19 | 3,314.61 | 13.69 | 12.64 | 147.70 | -239.19 | -276.97 | 663.74 | 638.94 | 24.81 | 26.758 | | | |
| 3,500.00 | 3,460.55 | 3,428.75 | 3,411.61 | 14.13 | 13.02 | 147.82 | -247.03 | -283.75 | 685.64 | 660.08 | 25.57 | 26.817 | | | |
| 3,600.00 | 3,559.01 | 3,526.31 | 3,508.62 | 14.58 | 13.41 | 147.94 | -254.88 | -290.53 | 707.55 | 681.22 | 26.33 | 26.872 | | | |
| 3,700.00 | 3,657.48 | 3,623.88 | 3,605.63 | 15.02 | 13.79 | 148.05 | -262.72 | -297.31 | 729.46 | 702.36 | 27.09 | 26.924 | | | |
| 3,800.00 | 3,755.94 | 3,721.44 | 3,702.64 | 15.47 | 14.18 | 148.15 | -270.57 | -304.10 | 751.37 | 723.51 | 27.86 | 26.973 | | | |
| 3,900.00 | 3,854.40 | 3,819.00 | 3,799.65 | 15.92 | 14.56 | 148.25 | -278.41 | -310.88 | 773.28 | 744.66 | 28.62 | 27.019 | | | |
| 4,000.00 | 3,952.86 | 3,916.56 | 3,896.66 | 16.36 | 14.94 | 148.34 | -286.26 | -317.66 | 795.19 | 765.81 | 29.38 | 27.063 | | | |
| 4,100.00 | 4,051.32 | 4,014.12 | 3,993.67 | 16.81 | 15.33 | 148.43 | -294.11 | -324.44 | 817.11 | 786.96 | 30.15 | 27.104 | | | |
| 4,200.00 | 4,149.79 | 4,111.68 | 4,090.68 | 17.26 | 15.71 | 148.51 | -301.95 | -331.22 | 839.02 | 808.11 | 30.91 | 27.144 | | | |
| 4,300.00 | 4,248.25 | 4,209.25 | 4,187.69 | 17.70 | 16.10 | 148.59 | -309.80 | -338.00 | 860.94 | 829.27 | 31.67 | 27.181 | | | |
| 4,400.00 | 4,346.71 | 4,306.81 | 4,284.70 | 18.15 | 16.48 | 148.66 | -317.64 | -344.78 | 882.86 | 850.43 | 32.44 | 27.217 | | | |
| 4,500.00 | 4,445.17 | 4,404.37 | 4,381.70 | 18.60 | 16.87 | 148.73 | -325.49 | -351.56 | 904.79 | 871.58 | 33.20 | 27.251 | | | |
| 4,600.00 | 4,543.63 | 4,501.93 | 4,478.71 | 19.04 | 17.25 | 148.80 | -333.33 | -358.34 | 926.71 | 892.74 | 33.97 | 27.284 | | | |
| 4,700.00 | 4,642.10 | 4,599.49 | 4,575.72 | 19.49 | 17.63 | 148.87 | -341.18 | -365.12 | 948.63 | 913.90 | 34.73 | 27.315 | | | |
| 4,800.00 | 4,740.56 | 4,697.05 | 4,672.73 | 19.94 | 18.02 | 148.93 | -349.03 | -371.90 | 970.56 | 935.06 | 35.49 | 27.345 | | | |
| 4,900.00 | 4,839.02 | 4,794.62 | 4,769.74 | 20.39 | 18.40 | 148.99 | -356.87 | -378.68 | 992.48 | 956.23 | 36.26 | 27.373 | | | |
| 5,000.00 | 4,937.48 | 4,892.18 | 4,866.75 | 20.83 | 18.79 | 149.04 | -364.72 | -385.46 | 1,014.41 | 977.39 | 37.02 | 27.400 | | | |
| 5,100.00 | 5,035.94 | 4,989.74 | 4,963.76 | 21.28 | 19.17 | 149.10 | -372.56 | -392.24 | 1,036.34 | 998.55 | 37.79 | 27.426 | | | |

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 4S-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 4S-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 | | | | | | | |
| 5,200.00 | 5,134.41 | 5,087.30 | 5,060.77 | 21.73 | 19.56 | 149.15 | -380.41 | -399.02 | 1,058.27 | 1,019.72 | 38.55 | 27.451 | | | | | | | | |
| 5,300.00 | 5,232.87 | 5,184.86 | 5,157.78 | 22.18 | 19.94 | 149.20 | -388.25 | -405.80 | 1,080.20 | 1,040.88 | 39.32 | 27.475 | | | | | | | | |
| 5,400.00 | 5,331.33 | 5,282.42 | 5,254.79 | 22.63 | 20.32 | 149.24 | -396.10 | -412.58 | 1,102.13 | 1,062.05 | 40.08 | 27.499 | | | | | | | | |
| 5,500.00 | 5,429.79 | 5,379.99 | 5,351.79 | 23.07 | 20.71 | 149.29 | -403.95 | -419.36 | 1,124.06 | 1,083.22 | 40.84 | 27.521 | | | | | | | | |
| 5,600.00 | 5,528.25 | 5,477.55 | 5,448.80 | 23.52 | 21.09 | 149.33 | -411.79 | -426.15 | 1,145.99 | 1,104.38 | 41.61 | 27.542 | | | | | | | | |
| 5,700.00 | 5,626.72 | 5,575.11 | 5,545.81 | 23.97 | 21.48 | 149.38 | -419.64 | -432.93 | 1,167.93 | 1,125.55 | 42.37 | 27.563 | | | | | | | | |
| 5,800.00 | 5,725.18 | 5,672.67 | 5,642.82 | 24.42 | 21.86 | 149.42 | -427.48 | -439.71 | 1,189.86 | 1,146.72 | 43.14 | 27.583 | | | | | | | | |
| 5,900.00 | 5,823.64 | 5,770.23 | 5,739.83 | 24.87 | 22.25 | 149.46 | -435.33 | -446.49 | 1,211.79 | 1,167.89 | 43.90 | 27.602 | | | | | | | | |
| 6,000.00 | 5,922.10 | 5,867.79 | 5,836.84 | 25.31 | 22.63 | 149.49 | -443.17 | -453.27 | 1,233.73 | 1,189.06 | 44.67 | 27.620 | | | | | | | | |
| 6,100.00 | 6,020.56 | 5,965.36 | 5,933.85 | 25.76 | 23.02 | 149.53 | -451.02 | -460.05 | 1,255.66 | 1,210.23 | 45.43 | 27.638 | | | | | | | | |
| 6,200.00 | 6,119.03 | 6,062.92 | 6,030.86 | 26.21 | 23.40 | 149.56 | -458.87 | -466.83 | 1,277.60 | 1,231.40 | 46.20 | 27.655 | | | | | | | | |
| 6,300.00 | 6,217.49 | 6,160.48 | 6,127.87 | 26.66 | 23.78 | 149.60 | -466.71 | -473.61 | 1,299.53 | 1,252.57 | 46.96 | 27.672 | | | | | | | | |
| 6,400.00 | 6,315.95 | 6,258.04 | 6,224.87 | 27.11 | 24.17 | 149.63 | -474.56 | -480.39 | 1,321.47 | 1,273.74 | 47.73 | 27.688 | | | | | | | | |
| 6,500.00 | 6,414.41 | 6,355.60 | 6,321.88 | 27.55 | 24.55 | 149.66 | -482.40 | -487.17 | 1,343.40 | 1,294.91 | 48.49 | 27.703 | | | | | | | | |
| 6,600.00 | 6,512.87 | 6,453.16 | 6,418.89 | 28.00 | 24.94 | 149.69 | -490.25 | -493.95 | 1,365.34 | 1,316.08 | 49.26 | 27.718 | | | | | | | | |
| 6,700.00 | 6,611.34 | 6,550.73 | 6,515.90 | 28.45 | 25.32 | 149.72 | -498.09 | -500.73 | 1,387.28 | 1,337.25 | 50.02 | 27.733 | | | | | | | | |
| 6,800.00 | 6,709.80 | 6,648.29 | 6,612.91 | 28.90 | 25.71 | 149.75 | -505.94 | -507.51 | 1,409.22 | 1,358.43 | 50.79 | 27.747 | | | | | | | | |
| 6,900.00 | 6,808.26 | 6,745.85 | 6,709.92 | 29.35 | 26.09 | 149.78 | -513.79 | -514.29 | 1,431.15 | 1,379.60 | 51.55 | 27.761 | | | | | | | | |
| 6,982.73 | 6,889.71 | 6,826.56 | 6,790.17 | 29.72 | 26.41 | 149.80 | -520.28 | -519.90 | 1,449.30 | 1,397.12 | 52.19 | 27.772 | | | | | | | | |
| 7,000.00 | 6,906.74 | 6,843.41 | 6,806.93 | 29.80 | 26.47 | 157.32 | -521.63 | -521.07 | 1,453.09 | 1,400.77 | 52.32 | 27.774 | | | | | | | | |
| 7,050.00 | 6,956.13 | 6,892.11 | 6,855.36 | 30.01 | 26.67 | -177.06 | -525.55 | -524.46 | 1,464.06 | 1,411.37 | 52.69 | 27.787 | | | | | | | | |
| 7,100.00 | 7,005.50 | 6,940.66 | 6,903.64 | 30.19 | 26.86 | -152.32 | -529.27 | -527.83 | 1,474.99 | 1,421.95 | 53.04 | 27.807 | | | | | | | | |
| 7,150.00 | 7,054.61 | 6,989.66 | 6,952.51 | 30.36 | 27.03 | -134.53 | -530.43 | -531.21 | 1,485.85 | 1,432.48 | 53.37 | 27.839 | | | | | | | | |
| 7,200.00 | 7,103.23 | 7,039.17 | 7,001.83 | 30.52 | 27.19 | -122.98 | -528.19 | -534.59 | 1,496.59 | 1,442.92 | 53.68 | 27.882 | | | | | | | | |

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 4S-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 4S-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 | -89.67 | 0.35 | -60.15 | 60.16 | 59.88 | 0.28 | 217.935 | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | -89.67 | 0.35 | -60.15 | 60.16 | 59.16 | 0.99 | 60.581 CC, ES | | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | -89.67 | 0.35 | -60.15 | 60.16 | 59.37 | 1.71 | 35.815 | | | |
| 300.00 | 300.00 | 298.87 | 298.85 | 0.85 | 0.84 | -91.03 | -1.10 | -61.06 | 61.08 | 59.37 | 1.71 | 35.815 | | | |
| 400.00 | 400.00 | 397.50 | 397.35 | 1.21 | 1.19 | -94.86 | -5.42 | -63.76 | 64.05 | 61.62 | 2.43 | 26.312 | | | |
| 500.00 | 500.00 | 495.97 | 495.45 | 1.57 | 1.54 | -100.42 | -12.55 | -68.23 | 69.52 | 66.34 | 3.18 | 21.868 | | | |
| 600.00 | 600.00 | 595.50 | 594.51 | 1.93 | 1.91 | -105.77 | -20.71 | -73.33 | 76.40 | 72.50 | 3.89 | 19.616 | | | |
| 700.00 | 699.98 | 695.01 | 693.55 | 2.28 | 2.29 | 130.37 | -28.87 | -78.44 | 84.95 | 80.35 | 4.60 | 18.475 | | | |
| 800.00 | 799.84 | 794.38 | 792.46 | 2.62 | 2.66 | 128.98 | -37.01 | -83.53 | 95.91 | 90.61 | 5.30 | 18.112 | | | |
| 900.00 | 899.45 | 893.50 | 891.12 | 2.97 | 3.04 | 129.26 | -45.14 | -88.62 | 109.08 | 103.07 | 6.00 | 18.172 | | | |
| 1,000.00 | 998.70 | 992.25 | 989.40 | 3.33 | 3.42 | 130.65 | -53.23 | -93.68 | 124.48 | 117.76 | 6.72 | 18.523 | | | |
| 1,103.09 | 1,100.51 | 1,093.53 | 1,090.21 | 3.72 | 3.81 | 132.78 | -61.53 | -98.88 | 142.88 | 135.40 | 7.47 | 19.120 | | | |
| 1,200.00 | 1,195.93 | 1,188.45 | 1,184.68 | 4.11 | 4.18 | 134.98 | -69.32 | -103.75 | 161.55 | 153.36 | 8.19 | 19.732 | | | |
| 1,300.00 | 1,294.39 | 1,286.39 | 1,282.17 | 4.51 | 4.56 | 136.78 | -77.34 | -108.77 | 181.01 | 172.08 | 8.93 | 20.275 | | | |
| 1,400.00 | 1,392.85 | 1,384.34 | 1,379.66 | 4.93 | 4.94 | 138.23 | -85.37 | -113.80 | 200.61 | 190.94 | 9.67 | 20.738 | | | |
| 1,500.00 | 1,491.31 | 1,482.29 | 1,477.14 | 5.35 | 5.32 | 139.42 | -93.40 | -118.82 | 220.31 | 209.89 | 10.42 | 21.137 | | | |
| 1,600.00 | 1,589.78 | 1,580.23 | 1,574.63 | 5.77 | 5.70 | 140.41 | -101.43 | -123.85 | 240.09 | 228.92 | 11.18 | 21.483 | | | |
| 1,700.00 | 1,688.24 | 1,678.18 | 1,672.12 | 6.20 | 6.08 | 141.26 | -109.46 | -128.87 | 259.93 | 248.00 | 11.93 | 21.787 | | | |
| 1,800.00 | 1,786.70 | 1,776.13 | 1,769.61 | 6.63 | 6.45 | 141.98 | -117.49 | -133.90 | 279.81 | 267.12 | 12.69 | 22.056 | | | |
| 1,900.00 | 1,885.16 | 1,874.07 | 1,867.09 | 7.06 | 6.83 | 142.61 | -125.52 | -138.92 | 299.73 | 286.29 | 13.44 | 22.295 | | | |
| 2,000.00 | 1,983.62 | 1,972.02 | 1,964.58 | 7.50 | 7.21 | 143.16 | -133.55 | -143.94 | 319.68 | 305.48 | 14.20 | 22.508 | | | |
| 2,100.00 | 2,082.09 | 2,069.97 | 2,062.07 | 7.94 | 7.59 | 143.64 | -141.58 | -148.97 | 339.66 | 324.69 | 14.96 | 22.700 | | | |
| 2,200.00 | 2,180.55 | 2,167.91 | 2,159.56 | 8.37 | 7.97 | 144.07 | -149.61 | -153.99 | 359.65 | 343.93 | 15.72 | 22.874 | | | |
| 2,300.00 | 2,279.01 | 2,265.86 | 2,257.04 | 8.81 | 8.35 | 144.46 | -157.63 | -159.02 | 379.67 | 363.18 | 16.48 | 23.032 | | | |
| 2,400.00 | 2,377.47 | 2,363.81 | 2,354.53 | 9.25 | 8.73 | 144.80 | -165.66 | -164.04 | 399.70 | 382.45 | 17.25 | 23.175 | | | |
| 2,500.00 | 2,475.93 | 2,461.75 | 2,452.02 | 9.69 | 9.11 | 145.12 | -173.69 | -169.07 | 419.74 | 401.73 | 18.01 | 23.307 | | | |
| 2,600.00 | 2,574.40 | 2,559.70 | 2,549.51 | 10.14 | 9.49 | 145.40 | -181.72 | -174.09 | 439.79 | 421.02 | 18.77 | 23.428 | | | |
| 2,700.00 | 2,672.86 | 2,657.64 | 2,646.99 | 10.58 | 9.87 | 145.66 | -189.75 | -179.12 | 459.85 | 440.32 | 19.53 | 23.540 | | | |
| 2,800.00 | 2,771.32 | 2,755.59 | 2,744.48 | 11.02 | 10.25 | 145.90 | -197.78 | -184.14 | 479.92 | 459.62 | 20.30 | 23.643 | | | |
| 2,900.00 | 2,869.78 | 2,853.54 | 2,841.97 | 11.46 | 10.63 | 146.12 | -205.81 | -189.16 | 500.00 | 478.94 | 21.06 | 23.739 | | | |
| 3,000.00 | 2,968.24 | 2,951.48 | 2,939.46 | 11.91 | 11.01 | 146.32 | -213.84 | -194.19 | 520.08 | 498.26 | 21.83 | 23.828 | | | |
| 3,100.00 | 3,066.71 | 3,049.43 | 3,036.94 | 12.35 | 11.39 | 146.51 | -221.87 | -199.21 | 540.17 | 517.58 | 22.59 | 23.912 | | | |
| 3,200.00 | 3,165.17 | 3,147.38 | 3,134.43 | 12.80 | 11.78 | 146.69 | -229.90 | -204.24 | 560.27 | 536.91 | 23.35 | 23.989 | | | |
| 3,300.00 | 3,263.63 | 3,245.32 | 3,231.92 | 13.24 | 12.16 | 146.85 | -237.93 | -209.26 | 580.37 | 556.25 | 24.12 | 24.062 | | | |
| 3,400.00 | 3,362.09 | 3,343.27 | 3,329.41 | 13.69 | 12.54 | 147.00 | -245.95 | -214.29 | 600.47 | 575.59 | 24.88 | 24.130 | | | |
| 3,500.00 | 3,460.55 | 3,441.22 | 3,426.89 | 14.13 | 12.92 | 147.14 | -253.98 | -219.31 | 620.58 | 594.93 | 25.65 | 24.195 | | | |
| 3,600.00 | 3,559.01 | 3,539.16 | 3,524.38 | 14.58 | 13.30 | 147.27 | -262.01 | -224.34 | 640.69 | 614.28 | 26.41 | 24.255 | | | |
| 3,700.00 | 3,657.48 | 3,637.11 | 3,621.87 | 15.02 | 13.68 | 147.40 | -270.04 | -229.36 | 660.80 | 633.62 | 27.18 | 24.312 | | | |
| 3,800.00 | 3,755.94 | 3,735.06 | 3,719.36 | 15.47 | 14.06 | 147.51 | -278.07 | -234.38 | 680.92 | 652.98 | 27.95 | 24.366 | | | |
| 3,900.00 | 3,854.40 | 3,833.00 | 3,816.84 | 15.92 | 14.44 | 147.63 | -286.10 | -239.41 | 701.04 | 672.33 | 28.71 | 24.417 | | | |
| 4,000.00 | 3,952.86 | 3,930.95 | 3,914.33 | 16.36 | 14.82 | 147.73 | -294.13 | -244.43 | 721.16 | 691.69 | 29.48 | 24.466 | | | |
| 4,100.00 | 4,051.32 | 4,028.90 | 4,011.82 | 16.81 | 15.20 | 147.83 | -302.16 | -249.46 | 741.29 | 711.04 | 30.24 | 24.512 | | | |
| 4,200.00 | 4,149.79 | 4,126.84 | 4,109.30 | 17.26 | 15.58 | 147.92 | -310.19 | -254.48 | 761.41 | 730.40 | 31.01 | 24.555 | | | |
| 4,300.00 | 4,248.25 | 4,224.79 | 4,206.79 | 17.70 | 15.96 | 148.01 | -318.22 | -259.51 | 781.54 | 749.77 | 31.77 | 24.597 | | | |
| 4,400.00 | 4,346.71 | 4,322.73 | 4,304.28 | 18.15 | 16.34 | 148.09 | -326.24 | -264.53 | 801.67 | 769.13 | 32.54 | 24.637 | | | |
| 4,500.00 | 4,445.17 | 4,420.68 | 4,401.77 | 18.60 | 16.72 | 148.17 | -334.27 | -269.56 | 821.80 | 788.49 | 33.31 | 24.674 | | | |
| 4,600.00 | 4,543.63 | 4,518.63 | 4,499.25 | 19.04 | 17.10 | 148.25 | -342.30 | -274.58 | 841.93 | 807.86 | 34.07 | 24.710 | | | |
| 4,700.00 | 4,642.10 | 4,616.57 | 4,596.74 | 19.49 | 17.48 | 148.32 | -350.33 | -279.61 | 862.07 | 827.23 | 34.84 | 24.745 | | | |
| 4,800.00 | 4,740.56 | 4,714.52 | 4,694.23 | 19.94 | 17.86 | 148.39 | -358.36 | -284.63 | 882.20 | 846.60 | 35.60 | 24.778 | | | |
| 4,900.00 | 4,839.02 | 4,812.47 | 4,791.72 | 20.39 | 18.24 | 148.46 | -366.39 | -289.65 | 902.34 | 865.97 | 36.37 | 24.810 | | | |
| 5,000.00 | 4,937.48 | 4,910.41 | 4,889.20 | 20.83 | 18.62 | 148.52 | -374.42 | -294.68 | 922.48 | 885.34 | 37.14 | 24.840 | | | |
| 5,100.00 | 5,035.94 | 5,008.36 | 4,986.69 | 21.28 | 19.00 | 148.58 | -382.45 | -299.70 | 942.61 | 904.71 | 37.90 | 24.869 | | | |

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 4S-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 4S-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: 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) | | | | | |
| 5,200.00 | 5,134.41 | 5,106.31 | 5,084.18 | 21.73 | 19.38 | 148.64 | -390.48 | -304.73 | 962.75 | 924.08 | 38.67 | 24.897 | | | |
| 5,300.00 | 5,232.87 | 5,204.25 | 5,181.67 | 22.18 | 19.76 | 148.70 | -398.51 | -309.75 | 982.89 | 943.46 | 39.44 | 24.924 | | | |
| 5,400.00 | 5,331.33 | 5,302.20 | 5,279.15 | 22.63 | 20.14 | 148.75 | -406.53 | -314.78 | 1,003.03 | 962.83 | 40.20 | 24.949 | | | |
| 5,500.00 | 5,429.79 | 5,400.15 | 5,376.64 | 23.07 | 20.52 | 148.80 | -414.56 | -319.80 | 1,023.18 | 982.21 | 40.97 | 24.974 | | | |
| 5,600.00 | 5,528.25 | 5,498.09 | 5,474.13 | 23.52 | 20.90 | 148.85 | -422.59 | -324.83 | 1,043.32 | 1,001.58 | 41.74 | 24.998 | | | |
| 5,700.00 | 5,626.72 | 5,596.04 | 5,571.62 | 23.97 | 21.29 | 148.90 | -430.62 | -329.85 | 1,063.46 | 1,020.96 | 42.50 | 25.021 | | | |
| 5,800.00 | 5,725.18 | 5,693.99 | 5,669.10 | 24.42 | 21.67 | 148.94 | -438.65 | -334.87 | 1,083.61 | 1,040.34 | 43.27 | 25.043 | | | |
| 5,900.00 | 5,823.64 | 5,791.93 | 5,766.59 | 24.87 | 22.05 | 148.99 | -446.68 | -339.90 | 1,103.75 | 1,059.72 | 44.04 | 25.064 | | | |
| 6,000.00 | 5,922.10 | 5,889.88 | 5,864.08 | 25.31 | 22.43 | 149.03 | -454.71 | -344.92 | 1,123.90 | 1,079.09 | 44.80 | 25.085 | | | |
| 6,100.00 | 6,020.56 | 5,987.82 | 5,961.57 | 25.76 | 22.81 | 149.07 | -462.74 | -349.95 | 1,144.04 | 1,098.47 | 45.57 | 25.105 | | | |
| 6,200.00 | 6,119.03 | 6,085.77 | 6,059.05 | 26.21 | 23.19 | 149.11 | -470.77 | -354.97 | 1,164.19 | 1,117.85 | 46.34 | 25.124 | | | |
| 6,300.00 | 6,217.49 | 6,183.72 | 6,156.54 | 26.66 | 23.57 | 149.15 | -478.80 | -360.00 | 1,184.34 | 1,137.23 | 47.10 | 25.143 | | | |
| 6,400.00 | 6,315.95 | 6,281.66 | 6,254.03 | 27.11 | 23.95 | 149.18 | -486.82 | -365.02 | 1,204.48 | 1,156.61 | 47.87 | 25.161 | | | |
| 6,500.00 | 6,414.41 | 6,379.61 | 6,351.52 | 27.55 | 24.33 | 149.22 | -494.85 | -370.05 | 1,224.63 | 1,175.99 | 48.64 | 25.178 | | | |
| 6,600.00 | 6,512.87 | 6,477.56 | 6,449.00 | 28.00 | 24.71 | 149.26 | -502.88 | -375.07 | 1,244.78 | 1,195.38 | 49.41 | 25.195 | | | |
| 6,700.00 | 6,611.34 | 6,575.50 | 6,546.49 | 28.45 | 25.09 | 149.29 | -510.91 | -380.09 | 1,264.93 | 1,214.76 | 50.17 | 25.212 | | | |
| 6,800.00 | 6,709.80 | 6,673.45 | 6,643.98 | 28.90 | 25.47 | 149.32 | -518.94 | -385.12 | 1,285.08 | 1,234.14 | 50.94 | 25.227 | | | |
| 6,900.00 | 6,808.26 | 6,771.40 | 6,741.47 | 29.35 | 25.85 | 149.35 | -526.97 | -390.14 | 1,305.23 | 1,253.52 | 51.71 | 25.243 | | | |
| 6,982.73 | 6,889.71 | 6,851.69 | 6,821.52 | 29.72 | 26.15 | 149.49 | -531.00 | -394.27 | 1,321.91 | 1,269.60 | 52.32 | 25.268 | | | |
| 7,000.00 | 6,906.74 | 6,868.30 | 6,838.10 | 29.80 | 26.20 | 157.05 | -530.77 | -395.13 | 1,325.41 | 1,272.98 | 52.43 | 25.279 | | | |
| 7,050.00 | 6,956.13 | 6,916.18 | 6,885.83 | 30.01 | 26.35 | -177.11 | -527.94 | -397.60 | 1,335.56 | 1,282.81 | 52.74 | 25.321 | | | |
| 7,100.00 | 7,005.50 | 6,963.81 | 6,933.01 | 30.19 | 26.48 | -152.04 | -521.97 | -400.04 | 1,345.71 | 1,292.69 | 53.03 | 25.379 | | | |
| 7,150.00 | 7,054.61 | 7,011.21 | 6,979.47 | 30.36 | 26.60 | -133.89 | -512.93 | -402.45 | 1,355.82 | 1,302.54 | 53.28 | 25.448 | | | |
| 7,200.00 | 7,103.23 | 7,058.41 | 7,025.04 | 30.52 | 26.72 | -121.99 | -500.88 | -404.82 | 1,365.84 | 1,312.33 | 53.51 | 25.525 | | | |
| 7,250.00 | 7,151.10 | 7,105.43 | 7,069.55 | 30.65 | 26.82 | -113.98 | -485.92 | -407.14 | 1,375.70 | 1,321.98 | 53.72 | 25.609 | | | |
| 7,300.00 | 7,198.01 | 7,152.31 | 7,112.85 | 30.77 | 26.92 | -108.29 | -468.13 | -409.39 | 1,385.37 | 1,331.46 | 53.91 | 25.697 | | | |
| 7,350.00 | 7,243.72 | 7,200.00 | 7,155.61 | 30.88 | 27.01 | -104.02 | -447.16 | -411.63 | 1,394.79 | 1,340.69 | 54.09 | 25.785 | | | |
| 7,400.00 | 7,288.00 | 7,245.71 | 7,195.20 | 30.97 | 27.09 | -100.69 | -424.42 | -413.70 | 1,403.92 | 1,349.66 | 54.25 | 25.877 | | | |
| 7,450.00 | 7,330.65 | 7,292.28 | 7,233.96 | 31.05 | 27.16 | -97.99 | -398.71 | -415.73 | 1,412.70 | 1,358.30 | 54.41 | 25.965 | | | |
| 7,500.00 | 7,371.46 | 7,338.79 | 7,270.93 | 31.12 | 27.23 | -95.76 | -370.57 | -417.68 | 1,421.11 | 1,366.55 | 54.56 | 26.048 | | | |
| 7,550.00 | 7,410.22 | 7,385.25 | 7,305.96 | 31.17 | 27.30 | -93.88 | -340.11 | -419.52 | 1,429.09 | 1,374.39 | 54.70 | 26.124 | | | |
| 7,600.00 | 7,446.75 | 7,431.69 | 7,338.93 | 31.21 | 27.36 | -92.28 | -307.46 | -421.26 | 1,436.61 | 1,381.76 | 54.85 | 26.191 | | | |
| 7,650.00 | 7,480.87 | 7,478.12 | 7,369.71 | 31.24 | 27.43 | -90.91 | -272.75 | -422.90 | 1,443.63 | 1,388.63 | 55.00 | 26.247 | | | |
| 7,700.00 | 7,512.42 | 7,524.56 | 7,398.19 | 31.25 | 27.49 | -89.73 | -236.11 | -424.41 | 1,450.12 | 1,394.96 | 55.16 | 26.289 | | | |
| 7,750.00 | 7,541.23 | 7,571.00 | 7,424.23 | 31.26 | 27.56 | -88.71 | -197.69 | -425.80 | 1,456.04 | 1,400.71 | 55.33 | 26.316 | | | |
| 7,800.00 | 7,567.18 | 7,617.47 | 7,447.75 | 31.25 | 27.63 | -87.85 | -157.64 | -427.07 | 1,461.36 | 1,405.85 | 55.51 | 26.326 | | | |
| 7,850.00 | 7,590.12 | 7,663.97 | 7,468.64 | 31.24 | 27.71 | -87.12 | -116.12 | -428.19 | 1,466.07 | 1,410.36 | 55.71 | 26.316 | | | |
| 7,900.00 | 7,609.96 | 7,710.50 | 7,486.80 | 31.22 | 27.81 | -86.51 | -73.30 | -429.18 | 1,470.13 | 1,414.21 | 55.93 | 26.287 | | | |
| 7,950.00 | 7,626.60 | 7,757.08 | 7,502.17 | 31.19 | 27.91 | -86.02 | -29.35 | -430.03 | 1,473.54 | 1,417.37 | 56.16 | 26.236 | | | |
| 8,000.00 | 7,639.94 | 7,803.69 | 7,514.66 | 31.15 | 28.04 | -85.65 | 15.55 | -430.73 | 1,476.26 | 1,419.83 | 56.43 | 26.163 | | | |
| 8,050.00 | 7,649.94 | 7,850.00 | 7,524.15 | 31.11 | 28.17 | -85.38 | 60.86 | -431.28 | 1,478.29 | 1,421.58 | 56.71 | 26.068 | | | |
| 8,100.00 | 7,656.54 | 7,897.07 | 7,530.78 | 31.07 | 28.32 | -85.21 | 107.45 | -431.67 | 1,479.62 | 1,422.60 | 57.02 | 25.949 | | | |
| 8,150.00 | 7,659.70 | 7,943.82 | 7,534.33 | 31.03 | 28.49 | -85.15 | 154.06 | -431.91 | 1,480.25 | 1,422.90 | 57.35 | 25.809 | | | |
| 8,170.89 | 7,660.00 | 7,963.37 | 7,534.91 | 31.01 | 28.56 | -85.15 | 173.60 | -431.97 | 1,480.30 | 1,422.80 | 57.50 | 25.745 | | | |
| 8,183.21 | 7,660.00 | 7,974.92 | 7,535.00 | 31.00 | 28.61 | -85.16 | 185.15 | -431.99 | 1,480.30 | 1,422.71 | 57.59 | 25.705 | | | |
| 8,200.00 | 7,660.00 | 7,991.70 | 7,535.00 | 30.98 | 28.67 | -85.16 | 201.92 | -432.01 | 1,480.30 | 1,422.58 | 57.71 | 25.649 | | | |
| 8,300.00 | 7,660.00 | 8,091.70 | 7,535.00 | 30.92 | 29.13 | -85.16 | 301.92 | -432.13 | 1,480.30 | 1,421.74 | 58.56 | 25.278 | | | |
| 8,400.00 | 7,660.00 | 8,191.70 | 7,535.00 | 30.91 | 29.66 | -85.16 | 401.92 | -432.25 | 1,480.30 | 1,420.74 | 59.56 | 24.852 | | | |
| 8,500.00 | 7,660.00 | 8,291.70 | 7,535.00 | 31.22 | 30.27 | -85.16 | 501.92 | -432.37 | 1,480.30 | 1,419.58 | 60.72 | 24.381 | | | |
| 8,600.00 | 7,660.00 | 8,391.70 | 7,535.00 | 31.83 | 30.96 | -85.16 | 601.92 | -432.49 | 1,480.30 | 1,418.29 | 62.01 | 23.873 | | | |
| 8,700.00 | 7,660.00 | 8,491.70 | 7,535.00 | 32.55 | 31.71 | -85.16 | 701.92 | -432.62 | 1,480.30 | 1,416.87 | 63.43 | 23.337 | | | |
| 8,800.00 | 7,660.00 | 8,591.70 | 7,535.00 | 33.33 | 32.52 | -85.16 | 801.92 | -432.74 | 1,480.30 | 1,415.32 | 64.98 | 22.781 | | | |

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 4S-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 4S-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) | | | | | | | | | |
| 8,900.00 | 7,660.00 | 8,691.70 | 7,535.00 | 34.16 | 33.39 | -85.16 | 901.92 | -432.86 | 1,480.30 | 1,413.66 | 66.64 | 22.213 | | | | | | | |
| 9,000.00 | 7,660.00 | 8,791.70 | 7,535.00 | 35.04 | 34.31 | -85.16 | 1,001.92 | -432.98 | 1,480.30 | 1,411.90 | 68.41 | 21.639 | | | | | | | |
| 9,100.00 | 7,660.00 | 8,891.70 | 7,535.00 | 35.97 | 35.28 | -85.16 | 1,101.92 | -433.10 | 1,480.31 | 1,410.03 | 70.28 | 21.064 | | | | | | | |
| 9,200.00 | 7,660.00 | 8,991.70 | 7,535.00 | 36.94 | 36.29 | -85.16 | 1,201.92 | -433.22 | 1,480.31 | 1,408.07 | 72.23 | 20.493 | | | | | | | |
| 9,300.00 | 7,660.00 | 9,091.70 | 7,535.00 | 37.96 | 37.34 | -85.16 | 1,301.92 | -433.34 | 1,480.31 | 1,406.03 | 74.27 | 19.930 | | | | | | | |
| 9,400.00 | 7,660.00 | 9,191.70 | 7,535.00 | 39.00 | 38.43 | -85.16 | 1,401.92 | -433.47 | 1,480.31 | 1,403.91 | 76.39 | 19.378 | | | | | | | |
| 9,500.00 | 7,660.00 | 9,291.70 | 7,535.00 | 40.09 | 39.55 | -85.16 | 1,501.92 | -433.59 | 1,480.31 | 1,401.73 | 78.58 | 18.838 | | | | | | | |
| 9,600.00 | 7,660.00 | 9,391.70 | 7,535.00 | 41.20 | 40.70 | -85.16 | 1,601.92 | -433.71 | 1,480.31 | 1,399.47 | 80.84 | 18.313 | | | | | | | |
| 9,700.00 | 7,660.00 | 9,491.70 | 7,535.00 | 42.34 | 41.88 | -85.16 | 1,701.92 | -433.83 | 1,480.31 | 1,397.16 | 83.15 | 17.803 | | | | | | | |
| 9,800.00 | 7,660.00 | 9,591.70 | 7,535.00 | 43.51 | 43.09 | -85.16 | 1,801.92 | -433.95 | 1,480.31 | 1,394.79 | 85.52 | 17.310 | | | | | | | |
| 9,900.00 | 7,660.00 | 9,691.70 | 7,535.00 | 44.70 | 44.32 | -85.16 | 1,901.92 | -434.07 | 1,480.31 | 1,392.38 | 87.94 | 16.834 | | | | | | | |
| 10,000.00 | 7,660.00 | 9,791.70 | 7,535.00 | 45.92 | 45.57 | -85.16 | 2,001.92 | -434.20 | 1,480.31 | 1,389.91 | 90.40 | 16.375 | | | | | | | |
| 10,100.00 | 7,660.00 | 9,891.70 | 7,535.00 | 47.16 | 46.85 | -85.16 | 2,101.92 | -434.32 | 1,480.31 | 1,387.41 | 92.91 | 15.933 | | | | | | | |
| 10,200.00 | 7,660.00 | 9,991.70 | 7,535.00 | 48.42 | 48.14 | -85.16 | 2,201.92 | -434.44 | 1,480.31 | 1,384.86 | 95.45 | 15.508 | | | | | | | |
| 10,300.00 | 7,660.00 | 10,091.70 | 7,535.00 | 49.70 | 49.45 | -85.16 | 2,301.92 | -434.56 | 1,480.32 | 1,382.28 | 98.04 | 15.099 | | | | | | | |
| 10,400.00 | 7,660.00 | 10,191.70 | 7,535.00 | 50.99 | 50.77 | -85.16 | 2,401.92 | -434.68 | 1,480.32 | 1,379.66 | 100.65 | 14.707 | | | | | | | |
| 10,500.00 | 7,660.00 | 10,291.70 | 7,535.00 | 52.30 | 52.11 | -85.16 | 2,501.92 | -434.80 | 1,480.32 | 1,377.02 | 103.30 | 14.330 | | | | | | | |
| 10,600.00 | 7,660.00 | 10,391.70 | 7,535.00 | 53.62 | 53.46 | -85.16 | 2,601.92 | -434.92 | 1,480.32 | 1,374.34 | 105.98 | 13.968 | | | | | | | |
| 10,700.00 | 7,660.00 | 10,491.70 | 7,535.00 | 54.96 | 54.83 | -85.16 | 2,701.92 | -435.05 | 1,480.32 | 1,371.64 | 108.68 | 13.621 | | | | | | | |
| 10,800.00 | 7,660.00 | 10,591.70 | 7,535.00 | 56.31 | 56.21 | -85.16 | 2,801.92 | -435.17 | 1,480.32 | 1,368.91 | 111.41 | 13.287 | | | | | | | |
| 10,900.00 | 7,660.00 | 10,691.70 | 7,535.00 | 57.67 | 57.59 | -85.16 | 2,901.92 | -435.29 | 1,480.32 | 1,366.16 | 114.16 | 12.967 | | | | | | | |
| 11,000.00 | 7,660.00 | 10,791.70 | 7,535.00 | 59.05 | 58.99 | -85.16 | 3,001.92 | -435.41 | 1,480.32 | 1,363.39 | 116.93 | 12.660 | | | | | | | |
| 11,100.00 | 7,660.00 | 10,891.70 | 7,535.00 | 60.43 | 60.40 | -85.16 | 3,101.92 | -435.53 | 1,480.32 | 1,360.60 | 119.72 | 12.365 | | | | | | | |
| 11,200.00 | 7,660.00 | 10,991.70 | 7,535.00 | 61.82 | 61.82 | -85.16 | 3,201.92 | -435.65 | 1,480.32 | 1,357.80 | 122.53 | 12.082 | | | | | | | |
| 11,300.00 | 7,660.00 | 11,091.70 | 7,535.00 | 63.23 | 63.24 | -85.16 | 3,301.92 | -435.78 | 1,480.32 | 1,354.97 | 125.35 | 11.809 | | | | | | | |
| 11,400.00 | 7,660.00 | 11,191.70 | 7,535.00 | 64.64 | 64.67 | -85.16 | 3,401.92 | -435.90 | 1,480.32 | 1,352.13 | 128.20 | 11.547 | | | | | | | |
| 11,500.00 | 7,660.00 | 11,291.70 | 7,535.00 | 66.06 | 66.11 | -85.16 | 3,501.92 | -436.02 | 1,480.33 | 1,349.27 | 131.05 | 11.296 | | | | | | | |
| 11,600.00 | 7,660.00 | 11,391.70 | 7,535.00 | 67.48 | 67.56 | -85.16 | 3,601.92 | -436.14 | 1,480.33 | 1,346.40 | 133.93 | 11.053 | | | | | | | |
| 11,700.00 | 7,660.00 | 11,491.70 | 7,535.00 | 68.91 | 69.01 | -85.16 | 3,701.92 | -436.26 | 1,480.33 | 1,343.52 | 136.81 | 10.820 | | | | | | | |
| 11,800.00 | 7,660.00 | 11,591.70 | 7,535.00 | 70.35 | 70.47 | -85.16 | 3,801.92 | -436.38 | 1,480.33 | 1,340.62 | 139.71 | 10.596 | | | | | | | |
| 11,900.00 | 7,660.00 | 11,691.70 | 7,535.00 | 71.80 | 71.93 | -85.16 | 3,901.92 | -436.50 | 1,480.33 | 1,337.71 | 142.61 | 10.380 | | | | | | | |
| 12,000.00 | 7,660.00 | 11,791.70 | 7,535.00 | 73.25 | 73.40 | -85.16 | 4,001.92 | -436.63 | 1,480.33 | 1,334.80 | 145.53 | 10.172 | | | | | | | |
| 12,100.00 | 7,660.00 | 11,891.70 | 7,535.00 | 74.71 | 74.87 | -85.16 | 4,101.92 | -436.75 | 1,480.33 | 1,331.87 | 148.46 | 9.971 | | | | | | | |
| 12,200.00 | 7,660.00 | 11,991.70 | 7,535.00 | 76.17 | 76.35 | -85.16 | 4,201.92 | -436.87 | 1,480.33 | 1,328.93 | 151.40 | 9.778 | | | | | | | |
| 12,253.72 | 7,660.00 | 12,045.41 | 7,535.00 | 76.96 | 77.15 | -85.16 | 4,255.64 | -436.93 | 1,480.33 | 1,327.35 | 152.98 | 9.676 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 4S-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 4S-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 | -89.90 | 0.08 | -50.08 | 50.08 | | | | | | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | -89.90 | 0.08 | -50.08 | 50.08 | 49.81 | 0.28 | 181.441 | | | | | | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | -89.90 | 0.08 | -50.08 | 50.08 | 49.09 | 0.99 | 50.437 | | | | | | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.85 | 0.85 | -89.90 | 0.08 | -50.08 | 50.08 | 48.37 | 1.71 | 29.289 | CC | | | | | | |
| 400.00 | 400.00 | 399.67 | 399.65 | 1.21 | 1.20 | -91.85 | -1.63 | -50.37 | 50.40 | 47.99 | 2.41 | 20.907 | ES | | | | | | |
| 500.00 | 500.00 | 499.10 | 498.94 | 1.57 | 1.54 | -97.49 | -6.73 | -51.24 | 51.70 | 48.58 | 3.11 | 16.606 | | | | | | | |
| 600.00 | 600.00 | 598.48 | 597.98 | 1.93 | 1.89 | -105.68 | -14.77 | -52.62 | 54.69 | 50.85 | 3.83 | 14.266 | | | | | | | |
| 700.00 | 699.98 | 698.14 | 697.27 | 2.28 | 2.25 | 127.80 | -23.22 | -54.06 | 59.95 | 55.41 | 4.54 | 13.199 | | | | | | | |
| 800.00 | 799.84 | 797.78 | 796.55 | 2.62 | 2.62 | 124.98 | -31.68 | -55.50 | 67.75 | 62.51 | 5.24 | 12.918 | | | | | | | |
| 900.00 | 899.45 | 897.29 | 895.69 | 2.97 | 2.99 | 124.85 | -40.11 | -56.94 | 77.61 | 71.65 | 5.96 | 13.030 | | | | | | | |
| 1,000.00 | 998.70 | 996.54 | 994.57 | 3.33 | 3.36 | 126.52 | -48.53 | -58.38 | 89.50 | 82.82 | 6.68 | 13.399 | | | | | | | |
| 1,103.09 | 1,100.51 | 1,098.46 | 1,096.11 | 3.72 | 3.74 | 129.36 | -57.18 | -59.85 | 104.09 | 96.66 | 7.44 | 13.995 | | | | | | | |
| 1,200.00 | 1,195.93 | 1,194.03 | 1,191.33 | 4.11 | 4.11 | 132.17 | -65.28 | -61.23 | 119.17 | 111.01 | 8.16 | 14.605 | | | | | | | |
| 1,300.00 | 1,294.39 | 1,292.66 | 1,289.59 | 4.51 | 4.48 | 134.42 | -73.65 | -62.66 | 134.96 | 126.05 | 8.91 | 15.151 | | | | | | | |
| 1,400.00 | 1,392.85 | 1,391.28 | 1,387.84 | 4.93 | 4.85 | 136.19 | -82.01 | -64.09 | 150.91 | 141.25 | 9.66 | 15.621 | | | | | | | |
| 1,500.00 | 1,491.31 | 1,489.90 | 1,486.10 | 5.35 | 5.23 | 137.62 | -90.38 | -65.52 | 166.97 | 156.55 | 10.42 | 16.029 | | | | | | | |
| 1,600.00 | 1,589.78 | 1,588.53 | 1,584.36 | 5.77 | 5.60 | 138.81 | -98.74 | -66.94 | 183.11 | 171.94 | 11.18 | 16.386 | | | | | | | |
| 1,700.00 | 1,688.24 | 1,687.15 | 1,682.62 | 6.20 | 5.98 | 139.80 | -107.10 | -68.37 | 199.32 | 187.39 | 11.94 | 16.700 | | | | | | | |
| 1,800.00 | 1,786.70 | 1,785.78 | 1,780.88 | 6.63 | 6.35 | 140.64 | -115.47 | -69.80 | 215.58 | 202.88 | 12.70 | 16.978 | | | | | | | |
| 1,900.00 | 1,885.16 | 1,884.40 | 1,879.13 | 7.06 | 6.73 | 141.36 | -123.83 | -71.23 | 231.88 | 218.42 | 13.46 | 17.226 | | | | | | | |
| 2,000.00 | 1,983.62 | 1,983.02 | 1,977.39 | 7.50 | 7.11 | 141.99 | -132.20 | -72.65 | 248.21 | 233.98 | 14.23 | 17.448 | | | | | | | |
| 2,100.00 | 2,082.09 | 2,081.65 | 2,075.65 | 7.94 | 7.48 | 142.54 | -140.56 | -74.08 | 264.56 | 249.57 | 14.99 | 17.648 | | | | | | | |
| 2,200.00 | 2,180.55 | 2,180.27 | 2,173.91 | 8.37 | 7.86 | 143.02 | -148.93 | -75.51 | 280.93 | 265.18 | 15.76 | 17.830 | | | | | | | |
| 2,300.00 | 2,279.01 | 2,278.89 | 2,272.17 | 8.81 | 8.23 | 143.46 | -157.29 | -76.93 | 297.33 | 280.80 | 16.52 | 17.995 | | | | | | | |
| 2,400.00 | 2,377.47 | 2,377.52 | 2,370.42 | 9.25 | 8.61 | 143.84 | -165.66 | -78.36 | 313.73 | 296.44 | 17.29 | 18.145 | | | | | | | |
| 2,500.00 | 2,475.93 | 2,476.14 | 2,468.68 | 9.69 | 8.99 | 144.19 | -174.02 | -79.79 | 330.15 | 312.10 | 18.06 | 18.284 | | | | | | | |
| 2,600.00 | 2,574.40 | 2,574.77 | 2,566.94 | 10.14 | 9.36 | 144.51 | -182.38 | -81.22 | 346.58 | 327.76 | 18.83 | 18.411 | | | | | | | |
| 2,700.00 | 2,672.86 | 2,673.39 | 2,665.20 | 10.58 | 9.74 | 144.80 | -190.75 | -82.64 | 363.02 | 343.43 | 19.59 | 18.528 | | | | | | | |
| 2,800.00 | 2,771.32 | 2,772.01 | 2,763.46 | 11.02 | 10.12 | 145.06 | -199.11 | -84.07 | 379.47 | 359.11 | 20.36 | 18.636 | | | | | | | |
| 2,900.00 | 2,869.78 | 2,870.64 | 2,861.72 | 11.46 | 10.50 | 145.30 | -207.48 | -85.50 | 395.93 | 374.79 | 21.13 | 18.737 | | | | | | | |
| 3,000.00 | 2,968.24 | 2,969.26 | 2,959.97 | 11.91 | 10.87 | 145.52 | -215.84 | -86.92 | 412.39 | 390.49 | 21.90 | 18.831 | | | | | | | |
| 3,100.00 | 3,066.71 | 3,067.88 | 3,058.23 | 12.35 | 11.25 | 145.73 | -224.21 | -88.35 | 428.85 | 406.18 | 22.67 | 18.918 | | | | | | | |
| 3,200.00 | 3,165.17 | 3,166.51 | 3,156.49 | 12.80 | 11.63 | 145.91 | -232.57 | -89.78 | 445.32 | 421.89 | 23.44 | 19.000 | | | | | | | |
| 3,300.00 | 3,263.63 | 3,263.13 | 3,254.75 | 13.24 | 12.00 | 146.09 | -240.94 | -91.21 | 461.80 | 437.59 | 24.21 | 19.076 | | | | | | | |
| 3,400.00 | 3,362.09 | 3,363.76 | 3,353.01 | 13.69 | 12.38 | 146.25 | -249.30 | -92.63 | 478.28 | 453.30 | 24.98 | 19.148 | | | | | | | |
| 3,500.00 | 3,460.55 | 3,462.38 | 3,451.26 | 14.13 | 12.76 | 146.41 | -257.66 | -94.06 | 494.76 | 469.02 | 25.75 | 19.216 | | | | | | | |
| 3,600.00 | 3,559.01 | 3,561.00 | 3,549.52 | 14.58 | 13.14 | 146.55 | -266.03 | -95.49 | 511.25 | 484.73 | 26.52 | 19.279 | | | | | | | |
| 3,700.00 | 3,657.48 | 3,659.63 | 3,647.78 | 15.02 | 13.51 | 146.68 | -274.39 | -96.92 | 527.74 | 500.45 | 27.29 | 19.340 | | | | | | | |
| 3,800.00 | 3,755.94 | 3,758.25 | 3,746.04 | 15.47 | 13.89 | 146.81 | -282.76 | -98.34 | 544.23 | 516.17 | 28.06 | 19.396 | | | | | | | |
| 3,900.00 | 3,854.40 | 3,856.88 | 3,844.30 | 15.92 | 14.27 | 146.93 | -291.12 | -99.77 | 560.73 | 531.90 | 28.83 | 19.450 | | | | | | | |
| 4,000.00 | 3,952.86 | 3,955.50 | 3,942.55 | 16.36 | 14.64 | 147.04 | -299.49 | -101.20 | 577.22 | 547.63 | 29.60 | 19.501 | | | | | | | |
| 4,100.00 | 4,051.32 | 4,054.12 | 4,040.81 | 16.81 | 15.02 | 147.15 | -307.85 | -102.62 | 593.72 | 563.35 | 30.37 | 19.550 | | | | | | | |
| 4,200.00 | 4,149.79 | 4,152.75 | 4,139.07 | 17.26 | 15.40 | 147.25 | -316.22 | -104.05 | 610.22 | 579.08 | 31.14 | 19.596 | | | | | | | |
| 4,300.00 | 4,248.25 | 4,251.37 | 4,237.33 | 17.70 | 15.78 | 147.34 | -324.58 | -105.48 | 626.73 | 594.82 | 31.91 | 19.640 | | | | | | | |
| 4,400.00 | 4,346.71 | 4,349.99 | 4,335.59 | 18.15 | 16.15 | 147.43 | -332.94 | -106.91 | 643.23 | 610.55 | 32.68 | 19.681 | | | | | | | |
| 4,500.00 | 4,445.17 | 4,448.62 | 4,433.84 | 18.60 | 16.53 | 147.51 | -341.31 | -108.33 | 659.74 | 626.28 | 33.45 | 19.721 | | | | | | | |
| 4,600.00 | 4,543.63 | 4,547.24 | 4,532.10 | 19.04 | 16.91 | 147.60 | -349.67 | -109.76 | 676.24 | 642.02 | 34.22 | 19.759 | | | | | | | |
| 4,700.00 | 4,642.10 | 4,645.87 | 4,630.36 | 19.49 | 17.29 | 147.67 | -358.04 | -111.19 | 692.75 | 657.76 | 34.99 | 19.796 | | | | | | | |
| 4,800.00 | 4,740.56 | 4,744.49 | 4,728.62 | 19.94 | 17.66 | 147.75 | -366.40 | -112.61 | 709.26 | 673.49 | 35.77 | 19.831 | | | | | | | |
| 4,900.00 | 4,839.02 | 4,843.11 | 4,826.88 | 20.39 | 18.04 | 147.82 | -374.77 | -114.04 | 725.77 | 689.23 | 36.54 | 19.864 | | | | | | | |
| 5,000.00 | 4,937.48 | 4,941.74 | 4,925.14 | 20.83 | 18.42 | 147.88 | -383.13 | -115.47 | 742.28 | 704.97 | 37.31 | 19.896 | | | | | | | |
| 5,100.00 | 5,035.94 | 5,040.36 | 5,023.39 | 21.28 | 18.80 | 147.95 | -391.50 | -116.90 | 758.79 | 720.71 | 38.08 | 19.927 | | | | | | | |

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 4S-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 4S-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 4N-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) | | | | | |
| 5,200.00 | 5,134.41 | 5,138.98 | 5,121.65 | 21.73 | 19.17 | 148.01 | -399.86 | -118.32 | 775.31 | 736.46 | 38.85 | 19.956 | | | |
| 5,300.00 | 5,232.87 | 5,237.61 | 5,219.91 | 22.18 | 19.55 | 148.07 | -408.22 | -119.75 | 791.82 | 752.20 | 39.62 | 19.984 | | | |
| 5,400.00 | 5,331.33 | 5,336.23 | 5,318.17 | 22.63 | 19.93 | 148.13 | -416.59 | -121.18 | 808.34 | 767.94 | 40.39 | 20.012 | | | |
| 5,500.00 | 5,429.79 | 5,434.86 | 5,416.43 | 23.07 | 20.31 | 148.18 | -424.95 | -122.60 | 824.85 | 783.69 | 41.16 | 20.038 | | | |
| 5,600.00 | 5,528.25 | 5,533.48 | 5,514.68 | 23.52 | 20.68 | 148.23 | -433.32 | -124.03 | 841.37 | 799.43 | 41.94 | 20.063 | | | |
| 5,700.00 | 5,626.72 | 5,632.10 | 5,612.94 | 23.97 | 21.06 | 148.28 | -441.68 | -125.46 | 857.88 | 815.18 | 42.71 | 20.087 | | | |
| 5,800.00 | 5,725.18 | 5,730.73 | 5,711.20 | 24.42 | 21.44 | 148.33 | -450.05 | -126.89 | 874.40 | 830.92 | 43.48 | 20.111 | | | |
| 5,900.00 | 5,823.64 | 5,829.35 | 5,809.46 | 24.87 | 21.82 | 148.38 | -458.41 | -128.31 | 890.92 | 846.67 | 44.25 | 20.133 | | | |
| 6,000.00 | 5,922.10 | 5,927.98 | 5,907.72 | 25.31 | 22.19 | 148.42 | -466.78 | -129.74 | 907.44 | 862.42 | 45.02 | 20.155 | | | |
| 6,100.00 | 6,020.56 | 6,026.60 | 6,005.97 | 25.76 | 22.57 | 148.46 | -475.14 | -131.17 | 923.96 | 878.16 | 45.79 | 20.176 | | | |
| 6,200.00 | 6,119.03 | 6,125.22 | 6,104.23 | 26.21 | 22.95 | 148.51 | -483.50 | -132.60 | 940.48 | 893.91 | 46.57 | 20.197 | | | |
| 6,300.00 | 6,217.49 | 6,223.85 | 6,202.49 | 26.66 | 23.33 | 148.55 | -491.87 | -134.02 | 957.00 | 909.66 | 47.34 | 20.216 | | | |
| 6,400.00 | 6,315.95 | 6,322.47 | 6,300.75 | 27.11 | 23.70 | 148.58 | -500.23 | -135.45 | 973.52 | 925.41 | 48.11 | 20.235 | | | |
| 6,500.00 | 6,414.41 | 6,421.09 | 6,399.01 | 27.55 | 24.08 | 148.62 | -508.60 | -136.88 | 990.04 | 941.16 | 48.88 | 20.254 | | | |
| 6,600.00 | 6,512.87 | 6,519.72 | 6,497.26 | 28.00 | 24.46 | 148.66 | -516.96 | -138.30 | 1,006.56 | 956.91 | 49.65 | 20.272 | | | |
| 6,700.00 | 6,611.34 | 6,618.34 | 6,595.52 | 28.45 | 24.84 | 148.69 | -525.33 | -139.73 | 1,023.08 | 972.66 | 50.42 | 20.289 | | | |
| 6,800.00 | 6,709.80 | 6,717.48 | 6,694.36 | 28.90 | 25.21 | 148.78 | -532.82 | -141.17 | 1,039.60 | 988.41 | 51.19 | 20.309 | | | |
| 6,900.00 | 6,808.26 | 6,815.96 | 6,792.69 | 29.35 | 25.51 | 149.46 | -529.42 | -142.59 | 1,056.08 | 1,004.23 | 51.85 | 20.369 | | | |
| 6,982.73 | 6,889.71 | 6,893.78 | 6,869.50 | 29.72 | 25.72 | 150.49 | -517.22 | -143.71 | 1,069.98 | 1,017.68 | 52.30 | 20.458 | | | |
| 7,000.00 | 6,906.74 | 6,909.51 | 6,884.84 | 29.80 | 25.76 | 158.19 | -513.74 | -143.93 | 1,072.95 | 1,020.57 | 52.38 | 20.482 | | | |
| 7,050.00 | 6,956.13 | 6,954.53 | 6,928.27 | 30.01 | 25.87 | -175.58 | -501.94 | -144.56 | 1,081.69 | 1,029.08 | 52.61 | 20.561 | | | |
| 7,100.00 | 7,005.50 | 7,000.00 | 6,971.30 | 30.19 | 25.97 | -150.11 | -487.27 | -145.19 | 1,090.59 | 1,037.78 | 52.81 | 20.651 | | | |
| 7,150.00 | 7,054.61 | 7,042.47 | 7,010.57 | 30.36 | 26.06 | -131.62 | -471.13 | -145.76 | 1,099.57 | 1,046.60 | 52.97 | 20.758 | | | |
| 7,200.00 | 7,103.23 | 7,085.52 | 7,049.33 | 30.52 | 26.15 | -119.38 | -452.43 | -146.32 | 1,108.59 | 1,055.47 | 53.12 | 20.870 | | | |
| 7,250.00 | 7,151.10 | 7,128.03 | 7,086.44 | 30.65 | 26.24 | -111.04 | -431.70 | -146.86 | 1,117.57 | 1,064.32 | 53.24 | 20.989 | | | |
| 7,300.00 | 7,198.01 | 7,170.05 | 7,121.84 | 30.77 | 26.32 | -105.04 | -409.09 | -147.38 | 1,126.45 | 1,073.10 | 53.35 | 21.112 | | | |
| 7,350.00 | 7,243.72 | 7,211.63 | 7,155.51 | 30.88 | 26.40 | -100.48 | -384.71 | -147.86 | 1,135.19 | 1,081.73 | 53.45 | 21.238 | | | |
| 7,400.00 | 7,288.00 | 7,250.00 | 7,185.28 | 30.97 | 26.47 | -96.90 | -360.51 | -148.30 | 1,143.71 | 1,090.19 | 53.52 | 21.369 | | | |
| 7,450.00 | 7,330.65 | 7,293.63 | 7,217.50 | 31.05 | 26.56 | -93.93 | -331.10 | -148.76 | 1,151.96 | 1,098.35 | 53.61 | 21.486 | | | |
| 7,500.00 | 7,371.46 | 7,334.13 | 7,245.76 | 31.12 | 26.64 | -91.46 | -302.10 | -149.18 | 1,159.90 | 1,106.21 | 53.69 | 21.605 | | | |
| 7,550.00 | 7,410.22 | 7,374.35 | 7,272.15 | 31.17 | 26.72 | -89.36 | -271.76 | -149.56 | 1,167.46 | 1,113.71 | 53.76 | 21.717 | | | |
| 7,600.00 | 7,446.75 | 7,414.31 | 7,296.64 | 31.21 | 26.81 | -87.56 | -240.19 | -149.91 | 1,174.62 | 1,120.78 | 53.83 | 21.820 | | | |
| 7,650.00 | 7,480.87 | 7,450.00 | 7,317.00 | 31.24 | 26.89 | -86.03 | -210.88 | -150.21 | 1,181.32 | 1,127.43 | 53.89 | 21.921 | | | |
| 7,700.00 | 7,512.42 | 7,493.59 | 7,339.85 | 31.25 | 26.99 | -84.66 | -173.77 | -150.54 | 1,187.50 | 1,133.50 | 54.00 | 21.991 | | | |
| 7,750.00 | 7,541.23 | 7,532.96 | 7,358.51 | 31.26 | 27.09 | -83.50 | -139.11 | -150.81 | 1,193.16 | 1,139.05 | 54.10 | 22.053 | | | |
| 7,800.00 | 7,567.18 | 7,572.19 | 7,375.18 | 31.25 | 27.20 | -82.50 | -103.61 | -151.05 | 1,198.24 | 1,144.02 | 54.22 | 22.099 | | | |
| 7,850.00 | 7,590.12 | 7,611.28 | 7,389.83 | 31.24 | 27.31 | -81.65 | -67.37 | -151.27 | 1,202.73 | 1,148.37 | 54.36 | 22.125 | | | |
| 7,900.00 | 7,609.96 | 7,650.00 | 7,402.38 | 31.22 | 27.43 | -80.95 | -30.75 | -151.45 | 1,206.60 | 1,152.08 | 54.52 | 22.132 | | | |
| 7,950.00 | 7,626.60 | 7,689.18 | 7,413.04 | 31.19 | 27.56 | -80.38 | 6.95 | -151.60 | 1,209.82 | 1,155.11 | 54.71 | 22.114 | | | |
| 8,000.00 | 7,639.94 | 7,728.02 | 7,421.56 | 31.15 | 27.69 | -79.94 | 44.84 | -151.73 | 1,212.38 | 1,157.46 | 54.92 | 22.075 | | | |
| 8,050.00 | 7,649.94 | 7,766.82 | 7,428.00 | 31.11 | 27.83 | -79.62 | 83.10 | -151.82 | 1,214.26 | 1,159.10 | 55.16 | 22.012 | | | |
| 8,100.00 | 7,656.54 | 7,800.00 | 7,431.87 | 31.07 | 27.96 | -79.42 | 116.05 | -151.88 | 1,215.48 | 1,160.06 | 55.41 | 21.934 | | | |
| 8,150.00 | 7,659.70 | 7,844.34 | 7,434.64 | 31.03 | 28.14 | -79.33 | 160.29 | -151.92 | 1,215.96 | 1,160.22 | 55.74 | 21.815 | | | |
| 8,170.89 | 7,660.00 | 7,860.53 | 7,434.97 | 31.01 | 28.21 | -79.34 | 176.48 | -151.92 | 1,215.96 | 1,160.09 | 55.87 | 21.763 | | | |
| 8,200.00 | 7,660.00 | 7,887.77 | 7,435.00 | 30.98 | 28.33 | -79.34 | 203.72 | -151.92 | 1,215.92 | 1,159.84 | 56.09 | 21.680 | | | |
| 8,300.00 | 7,660.00 | 7,987.77 | 7,435.00 | 30.92 | 28.82 | -79.34 | 303.72 | -151.92 | 1,215.80 | 1,158.87 | 56.94 | 21.353 | | | |
| 8,400.00 | 7,660.00 | 8,087.77 | 7,435.00 | 30.91 | 29.38 | -79.33 | 403.72 | -151.92 | 1,215.69 | 1,157.74 | 57.95 | 20.980 | | | |
| 8,480.69 | 7,660.00 | 8,167.01 | 7,435.00 | 31.12 | 29.87 | -79.33 | 482.96 | -151.92 | 1,215.59 | 1,156.73 | 58.86 | 20.653 | | | |
| 8,500.00 | 7,660.00 | 8,181.66 | 7,435.00 | 31.22 | 29.97 | -79.33 | 497.61 | -151.96 | 1,215.62 | 1,156.56 | 59.06 | 20.584 | | | |
| 8,600.00 | 7,660.00 | 8,252.21 | 7,435.00 | 31.83 | 30.47 | -79.34 | 568.15 | -153.19 | 1,217.21 | 1,157.09 | 60.13 | 20.244 | | | |
| 8,700.00 | 7,660.00 | 8,345.97 | 7,435.00 | 32.55 | 31.18 | -79.37 | 661.85 | -156.42 | 1,220.47 | 1,158.98 | 61.49 | 19.848 | | | |
| 8,800.00 | 7,660.00 | 8,445.92 | 7,435.00 | 33.33 | 32.01 | -79.40 | 761.73 | -159.91 | 1,223.78 | 1,160.75 | 63.03 | 19.416 | | | |

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 4S-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 4S-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 4N-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 | |
| 8,900.00 | 7,660.00 | 8,545.86 | 7,435.00 | 34.16 | 32.89 | -79.43 | 861.62 | -163.40 | 1,227.09 | 1,162.41 | 64.69 | 18.970 | | |
| 9,000.00 | 7,660.00 | 8,645.80 | 7,435.00 | 35.04 | 33.82 | -79.46 | 961.50 | -166.89 | 1,230.41 | 1,163.96 | 66.45 | 18.516 | | |
| 9,100.00 | 7,660.00 | 8,745.74 | 7,435.00 | 35.97 | 34.81 | -79.49 | 1,061.38 | -170.37 | 1,233.72 | 1,165.40 | 68.32 | 18.058 | | |
| 9,200.00 | 7,660.00 | 8,845.69 | 7,435.00 | 36.94 | 35.84 | -79.51 | 1,161.26 | -173.86 | 1,237.03 | 1,166.75 | 70.28 | 17.602 | | |
| 9,300.00 | 7,660.00 | 8,945.63 | 7,435.00 | 37.96 | 36.91 | -79.54 | 1,261.15 | -177.35 | 1,240.34 | 1,168.02 | 72.33 | 17.150 | | |
| 9,400.00 | 7,660.00 | 9,045.57 | 7,435.00 | 39.00 | 38.02 | -79.57 | 1,361.03 | -180.84 | 1,243.66 | 1,169.21 | 74.45 | 16.705 | | |
| 9,500.00 | 7,660.00 | 9,145.52 | 7,435.00 | 40.09 | 39.17 | -79.60 | 1,460.91 | -184.33 | 1,246.97 | 1,170.32 | 76.65 | 16.269 | | |
| 9,600.00 | 7,660.00 | 9,245.46 | 7,435.00 | 41.20 | 40.35 | -79.63 | 1,560.79 | -187.81 | 1,250.29 | 1,171.38 | 78.91 | 15.845 | | |
| 9,700.00 | 7,660.00 | 9,345.42 | 7,435.00 | 42.34 | 42.07 | -79.65 | 1,703.72 | -190.31 | 1,251.89 | 1,170.02 | 81.87 | 15.291 | | |
| 9,800.00 | 7,660.00 | 9,445.42 | 7,435.00 | 43.51 | 43.29 | -79.65 | 1,803.72 | -190.31 | 1,251.77 | 1,167.53 | 84.24 | 14.860 | | |
| 9,900.00 | 7,660.00 | 9,545.42 | 7,435.00 | 44.70 | 44.53 | -79.64 | 1,903.72 | -190.31 | 1,251.65 | 1,165.00 | 86.65 | 14.444 | | |
| 10,000.00 | 7,660.00 | 9,645.42 | 7,435.00 | 45.92 | 45.80 | -79.64 | 2,003.72 | -190.31 | 1,251.53 | 1,162.42 | 89.11 | 14.044 | | |
| 10,100.00 | 7,660.00 | 9,745.42 | 7,435.00 | 47.16 | 47.09 | -79.64 | 2,103.72 | -190.31 | 1,251.41 | 1,159.80 | 91.62 | 13.659 | | |
| 10,200.00 | 7,660.00 | 9,845.42 | 7,435.00 | 48.42 | 48.39 | -79.64 | 2,203.72 | -190.31 | 1,251.29 | 1,157.14 | 94.16 | 13.290 | | |
| 10,300.00 | 7,660.00 | 9,945.42 | 7,435.00 | 49.70 | 49.71 | -79.64 | 2,303.72 | -190.31 | 1,251.17 | 1,154.44 | 96.73 | 12.935 | | |
| 10,400.00 | 7,660.00 | 10,045.42 | 7,435.00 | 50.99 | 51.05 | -79.64 | 2,403.72 | -190.31 | 1,251.05 | 1,151.72 | 99.34 | 12.594 | | |
| 10,500.00 | 7,660.00 | 10,145.42 | 7,435.00 | 52.30 | 52.40 | -79.64 | 2,503.71 | -190.31 | 1,250.94 | 1,148.96 | 101.97 | 12.267 | | |
| 10,600.00 | 7,660.00 | 10,245.42 | 7,435.00 | 53.62 | 53.76 | -79.64 | 2,603.71 | -190.31 | 1,250.82 | 1,146.18 | 104.64 | 11.954 | | |
| 10,700.00 | 7,660.00 | 10,345.42 | 7,435.00 | 54.96 | 55.13 | -79.64 | 2,703.71 | -190.31 | 1,250.70 | 1,143.37 | 107.33 | 11.653 | | |
| 10,800.00 | 7,660.00 | 10,445.42 | 7,435.00 | 56.31 | 56.52 | -79.64 | 2,803.71 | -190.31 | 1,250.58 | 1,140.54 | 110.04 | 11.365 | | |
| 10,900.00 | 7,660.00 | 10,545.42 | 7,435.00 | 57.67 | 57.92 | -79.63 | 2,903.71 | -190.31 | 1,250.46 | 1,137.68 | 112.78 | 11.088 | | |
| 11,000.00 | 7,660.00 | 10,645.42 | 7,435.00 | 59.05 | 59.32 | -79.63 | 3,003.71 | -190.31 | 1,250.34 | 1,134.81 | 115.53 | 10.822 | | |
| 11,100.00 | 7,660.00 | 10,745.42 | 7,435.00 | 60.43 | 60.74 | -79.63 | 3,103.71 | -190.31 | 1,250.22 | 1,131.91 | 118.31 | 10.568 | | |
| 11,200.00 | 7,660.00 | 10,845.42 | 7,435.00 | 61.82 | 62.16 | -79.63 | 3,203.71 | -190.31 | 1,250.10 | 1,129.00 | 121.10 | 10.323 | | |
| 11,300.00 | 7,660.00 | 10,945.42 | 7,435.00 | 63.23 | 63.59 | -79.63 | 3,303.71 | -190.31 | 1,249.98 | 1,126.08 | 123.91 | 10.088 | | |
| 11,400.00 | 7,660.00 | 11,045.41 | 7,435.00 | 64.64 | 65.03 | -79.63 | 3,403.71 | -190.31 | 1,249.87 | 1,123.13 | 126.73 | 9.862 | | |
| 11,500.00 | 7,660.00 | 11,145.41 | 7,435.00 | 66.06 | 66.47 | -79.63 | 3,503.71 | -190.31 | 1,249.75 | 1,120.18 | 129.57 | 9.645 | | |
| 11,600.00 | 7,660.00 | 11,245.41 | 7,435.00 | 67.48 | 67.92 | -79.63 | 3,603.71 | -190.31 | 1,249.63 | 1,117.20 | 132.42 | 9.437 | | |
| 11,700.00 | 7,660.00 | 11,345.41 | 7,435.00 | 68.91 | 69.38 | -79.63 | 3,703.71 | -190.31 | 1,249.51 | 1,114.22 | 135.29 | 9.236 | | |
| 11,800.00 | 7,660.00 | 11,445.41 | 7,435.00 | 70.35 | 70.84 | -79.63 | 3,803.71 | -190.31 | 1,249.39 | 1,111.23 | 138.16 | 9.043 | | |
| 11,900.00 | 7,660.00 | 11,545.41 | 7,435.00 | 71.80 | 72.31 | -79.62 | 3,903.71 | -190.31 | 1,249.27 | 1,108.22 | 141.05 | 8.857 | | |
| 12,000.00 | 7,660.00 | 11,645.10 | 7,435.00 | 73.25 | 77.44 | -79.34 | 4,266.88 | -156.93 | 1,244.48 | 1,098.69 | 145.80 | 8.536 | | |
| 12,100.00 | 7,660.00 | 11,745.10 | 7,435.00 | 74.71 | 77.44 | -79.34 | 4,266.88 | -156.93 | 1,227.12 | 1,078.61 | 148.51 | 8.263 | | |
| 12,200.00 | 7,660.00 | 11,845.10 | 7,435.00 | 76.17 | 77.44 | -79.34 | 4,266.88 | -156.93 | 1,217.74 | 1,067.28 | 150.46 | 8.094 | | |
| 12,253.72 | 7,660.00 | 11,960.10 | 7,435.00 | 76.96 | 77.44 | -79.34 | 4,266.88 | -156.93 | 1,216.08 | 1,064.92 | 151.16 | 8.045 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 4S-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 4S-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 | -89.90 | 0.07 | -40.01 | 40.01 | 39.73 | 0.28 | 144.950 | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | -89.90 | 0.07 | -40.01 | 40.01 | 39.02 | 0.99 | 40.293 | | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | -89.90 | 0.07 | -40.01 | 40.01 | 37.89 | 1.70 | 23.309 | | | |
| 300.00 | 300.00 | 300.32 | 300.30 | 0.85 | 0.84 | -92.36 | -1.63 | -39.56 | 39.59 | 36.38 | 2.40 | 16.147 | | | |
| 400.00 | 400.00 | 400.40 | 400.24 | 1.21 | 1.19 | -99.95 | -6.70 | -38.20 | 38.79 | 35.92 | 2.71 | 14.232 CC | | | |
| 443.78 | 443.78 | 444.08 | 443.78 | 1.37 | 1.35 | -104.95 | -9.97 | -37.33 | 38.64 | 35.80 | 3.12 | 12.468 ES | | | |
| 500.00 | 500.00 | 500.10 | 499.61 | 1.57 | 1.55 | -111.87 | -14.50 | -36.12 | 40.79 | 36.94 | 3.85 | 10.583 | | | |
| 600.00 | 600.00 | 599.75 | 598.91 | 1.93 | 1.92 | -123.59 | -22.56 | -33.97 | 44.70 | 40.13 | 4.57 | 9.775 | | | |
| 700.00 | 699.98 | 699.48 | 698.29 | 2.28 | 2.29 | 107.96 | -30.62 | -31.81 | 50.16 | 44.88 | 5.28 | 9.496 | | | |
| 800.00 | 799.84 | 799.30 | 797.76 | 2.62 | 2.66 | 105.01 | -38.69 | -29.66 | 56.59 | 50.59 | 6.00 | 9.428 | | | |
| 900.00 | 899.45 | 899.08 | 897.19 | 2.97 | 3.04 | 106.06 | -46.76 | -27.51 | 64.14 | 57.40 | 6.74 | 9.521 | | | |
| 1,000.00 | 998.70 | 998.70 | 996.46 | 3.33 | 3.42 | 109.83 | -54.82 | -25.35 | 73.67 | 66.16 | 7.51 | 9.808 | | | |
| 1,103.09 | 1,100.51 | 1,101.12 | 1,098.52 | 3.72 | 3.81 | 115.44 | -63.10 | -23.14 | 84.03 | 75.78 | 8.25 | 10.187 | | | |
| 1,200.00 | 1,195.93 | 1,197.20 | 1,194.27 | 4.11 | 4.17 | 120.66 | -70.87 | -21.07 | 95.28 | 86.27 | 9.01 | 10.572 | | | |
| 1,300.00 | 1,294.39 | 1,296.36 | 1,293.07 | 4.51 | 4.55 | 124.83 | -78.89 | -18.93 | 106.93 | 97.15 | 9.78 | 10.936 | | | |
| 1,400.00 | 1,392.85 | 1,395.51 | 1,391.88 | 4.93 | 4.92 | 128.11 | -86.90 | -16.79 | 118.85 | 108.31 | 10.54 | 11.272 | | | |
| 1,500.00 | 1,491.31 | 1,494.66 | 1,490.68 | 5.35 | 5.30 | 130.74 | -94.92 | -14.65 | 130.98 | 119.67 | 11.31 | 11.580 | | | |
| 1,600.00 | 1,589.78 | 1,593.82 | 1,589.49 | 5.77 | 5.68 | 132.88 | -102.94 | -12.50 | 143.25 | 131.17 | 12.08 | 11.860 | | | |
| 1,700.00 | 1,688.24 | 1,692.97 | 1,688.29 | 6.20 | 6.05 | 134.67 | -110.96 | -10.36 | 155.65 | 142.80 | 12.85 | 12.116 | | | |
| 1,800.00 | 1,786.70 | 1,792.12 | 1,787.10 | 6.63 | 6.43 | 136.17 | -118.97 | -8.22 | 168.13 | 154.51 | 13.61 | 12.350 | | | |
| 1,900.00 | 1,885.16 | 1,891.28 | 1,885.90 | 7.06 | 6.81 | 137.44 | -126.99 | -6.08 | 180.68 | 166.30 | 14.38 | 12.563 | | | |
| 2,000.00 | 1,983.62 | 1,990.43 | 1,984.71 | 7.50 | 7.19 | 138.55 | -135.01 | -3.94 | 193.29 | 178.14 | 15.15 | 12.758 | | | |
| 2,100.00 | 2,082.09 | 2,089.58 | 2,083.51 | 7.94 | 7.57 | 139.50 | -143.03 | -1.80 | 205.95 | 190.03 | 15.92 | 12.937 | | | |
| 2,200.00 | 2,180.55 | 2,188.74 | 2,182.32 | 8.37 | 7.94 | 140.34 | -151.04 | 0.34 | 218.64 | 201.95 | 16.69 | 13.101 | | | |
| 2,300.00 | 2,279.01 | 2,287.89 | 2,281.12 | 8.81 | 8.32 | 141.09 | -159.06 | 2.48 | 231.37 | 213.91 | 17.46 | 13.253 | | | |
| 2,400.00 | 2,377.47 | 2,387.04 | 2,379.93 | 9.25 | 8.70 | 141.75 | -167.08 | 4.62 | 244.12 | 225.90 | 18.23 | 13.394 | | | |
| 2,500.00 | 2,475.93 | 2,486.20 | 2,478.74 | 9.69 | 9.08 | 142.34 | -175.10 | 6.76 | 256.90 | 237.90 | 19.00 | 13.524 | | | |
| 2,600.00 | 2,574.40 | 2,585.35 | 2,577.54 | 10.14 | 9.45 | 142.88 | -183.12 | 8.90 | 269.70 | 249.93 | 19.77 | 13.645 | | | |
| 2,700.00 | 2,672.86 | 2,684.50 | 2,676.35 | 10.58 | 9.83 | 143.36 | -191.13 | 11.05 | 282.51 | 261.98 | 20.53 | 13.758 | | | |
| 2,800.00 | 2,771.32 | 2,783.65 | 2,775.15 | 11.02 | 10.21 | 143.80 | -199.15 | 13.19 | 295.34 | 274.04 | 21.30 | 13.863 | | | |
| 2,900.00 | 2,869.78 | 2,882.81 | 2,873.96 | 11.46 | 10.59 | 144.20 | -207.17 | 15.33 | 308.19 | 286.11 | 22.07 | 13.961 | | | |
| 3,000.00 | 2,968.24 | 2,981.96 | 2,972.76 | 11.91 | 10.97 | 144.57 | -215.19 | 17.47 | 321.04 | 298.20 | 22.84 | 14.054 | | | |
| 3,100.00 | 3,066.71 | 3,081.11 | 3,071.57 | 12.35 | 11.35 | 144.91 | -223.20 | 19.61 | 333.90 | 310.29 | 23.61 | 14.140 | | | |
| 3,200.00 | 3,165.17 | 3,180.27 | 3,170.37 | 12.80 | 11.72 | 145.22 | -231.22 | 21.75 | 346.78 | 322.39 | 24.38 | 14.222 | | | |
| 3,300.00 | 3,263.63 | 3,279.42 | 3,269.18 | 13.24 | 12.10 | 145.51 | -239.24 | 23.89 | 359.66 | 334.51 | 25.15 | 14.298 | | | |
| 3,400.00 | 3,362.09 | 3,378.57 | 3,367.98 | 13.69 | 12.48 | 145.78 | -247.26 | 26.03 | 372.55 | 346.62 | 25.92 | 14.371 | | | |
| 3,500.00 | 3,460.55 | 3,477.73 | 3,466.79 | 14.13 | 12.86 | 146.03 | -255.27 | 28.17 | 385.44 | 358.75 | 26.69 | 14.439 | | | |
| 3,600.00 | 3,559.01 | 3,576.88 | 3,565.59 | 14.58 | 13.24 | 146.26 | -263.29 | 30.31 | 398.35 | 370.88 | 27.46 | 14.504 | | | |
| 3,700.00 | 3,657.48 | 3,676.03 | 3,664.40 | 15.02 | 13.61 | 146.48 | -271.31 | 32.45 | 411.25 | 383.02 | 28.24 | 14.565 | | | |
| 3,800.00 | 3,755.94 | 3,775.19 | 3,763.21 | 15.47 | 13.99 | 146.68 | -279.33 | 34.60 | 424.16 | 395.16 | 29.01 | 14.624 | | | |
| 3,900.00 | 3,854.40 | 3,874.34 | 3,862.01 | 15.92 | 14.37 | 146.87 | -287.34 | 36.74 | 437.08 | 407.30 | 29.78 | 14.679 | | | |
| 4,000.00 | 3,952.86 | 3,973.49 | 3,960.82 | 16.36 | 14.75 | 147.06 | -295.36 | 38.88 | 450.00 | 419.45 | 30.55 | 14.732 | | | |
| 4,100.00 | 4,051.32 | 4,072.65 | 4,059.62 | 16.81 | 15.13 | 147.23 | -303.38 | 41.02 | 462.92 | 431.61 | 31.32 | 14.782 | | | |
| 4,200.00 | 4,149.79 | 4,171.80 | 4,158.43 | 17.26 | 15.50 | 147.39 | -311.40 | 43.16 | 475.85 | 443.76 | 32.09 | 14.830 | | | |
| 4,300.00 | 4,248.25 | 4,270.95 | 4,257.23 | 17.70 | 15.88 | 147.54 | -319.41 | 45.30 | 488.78 | 455.92 | 32.86 | 14.875 | | | |
| 4,400.00 | 4,346.71 | 4,370.11 | 4,356.04 | 18.15 | 16.26 | 147.68 | -327.43 | 47.44 | 501.71 | 468.08 | 33.63 | 14.919 | | | |
| 4,500.00 | 4,445.17 | 4,469.26 | 4,454.84 | 18.60 | 16.64 | 147.82 | -335.45 | 49.58 | 514.65 | 480.25 | 34.40 | 14.961 | | | |
| 4,600.00 | 4,543.63 | 4,568.41 | 4,553.65 | 19.04 | 17.02 | 147.95 | -343.47 | 51.72 | 527.59 | 492.42 | 35.17 | 15.001 | | | |
| 4,700.00 | 4,642.10 | 4,667.57 | 4,652.45 | 19.49 | 17.40 | 148.07 | -351.49 | 53.86 | 540.53 | 504.59 | 35.94 | 15.039 | | | |
| 4,800.00 | 4,740.56 | 4,766.72 | 4,751.26 | 19.94 | 17.77 | 148.19 | -359.52 | 56.00 | 553.47 | 516.76 | 36.71 | 15.076 | | | |
| 4,900.00 | 4,839.02 | 4,865.87 | 4,850.06 | 20.39 | 18.15 | 148.30 | -367.52 | 58.15 | 566.41 | 528.93 | 37.48 | 15.111 | | | |
| 5,000.00 | 4,937.48 | 4,965.03 | 4,948.87 | 20.83 | 18.53 | 148.41 | -375.54 | 60.29 | | | | | | | |

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 4S-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 4S-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 | 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 | | |
| 5,100.00 | 5,035.94 | 5,064.18 | 5,047.68 | 21.28 | 18.91 | 148.51 | -383.56 | 62.43 | 579.36 | 541.11 | 38.25 | 15.145 | | |
| 5,200.00 | 5,134.41 | 5,163.33 | 5,146.48 | 21.73 | 19.29 | 148.61 | -391.57 | 64.57 | 592.31 | 553.28 | 39.02 | 15.178 | | |
| 5,300.00 | 5,232.87 | 5,262.49 | 5,245.29 | 22.18 | 19.67 | 148.70 | -399.59 | 66.71 | 605.26 | 565.46 | 39.80 | 15.209 | | |
| 5,400.00 | 5,331.33 | 5,361.64 | 5,344.09 | 22.63 | 20.04 | 148.79 | -407.61 | 68.85 | 618.21 | 577.64 | 40.57 | 15.239 | | |
| 5,500.00 | 5,429.79 | 5,460.79 | 5,442.90 | 23.07 | 20.42 | 148.88 | -415.63 | 70.99 | 631.16 | 589.82 | 41.34 | 15.269 | | |
| 5,600.00 | 5,528.25 | 5,559.95 | 5,541.70 | 23.52 | 20.80 | 148.96 | -423.64 | 73.13 | 644.12 | 602.01 | 42.11 | 15.297 | | |
| 5,700.00 | 5,626.72 | 5,659.10 | 5,640.51 | 23.97 | 21.18 | 149.04 | -431.66 | 75.27 | 657.07 | 614.19 | 42.88 | 15.324 | | |
| 5,800.00 | 5,725.18 | 5,758.25 | 5,739.31 | 24.42 | 21.56 | 149.11 | -439.68 | 77.41 | 670.03 | 626.38 | 43.65 | 15.350 | | |
| 5,900.00 | 5,823.64 | 5,857.41 | 5,838.12 | 24.87 | 21.94 | 149.19 | -447.70 | 79.55 | 682.98 | 638.56 | 44.42 | 15.375 | | |
| 6,000.00 | 5,922.10 | 5,956.56 | 5,936.92 | 25.31 | 22.31 | 149.26 | -455.71 | 81.70 | 695.94 | 650.75 | 45.19 | 15.400 | | |
| 6,100.00 | 6,020.56 | 6,055.71 | 6,035.73 | 25.76 | 22.69 | 149.33 | -463.73 | 83.84 | 708.90 | 662.94 | 45.96 | 15.423 | | |
| 6,200.00 | 6,119.03 | 6,154.87 | 6,134.53 | 26.21 | 23.07 | 149.39 | -471.75 | 85.98 | 721.86 | 675.13 | 46.73 | 15.446 | | |
| 6,300.00 | 6,217.49 | 6,254.02 | 6,233.34 | 26.66 | 23.45 | 149.45 | -479.77 | 88.12 | 734.82 | 687.32 | 47.51 | 15.468 | | |
| 6,400.00 | 6,315.95 | 6,353.17 | 6,332.15 | 27.11 | 23.83 | 149.52 | -487.79 | 90.26 | 747.79 | 699.51 | 48.28 | 15.490 | | |
| 6,500.00 | 6,414.41 | 6,452.33 | 6,430.95 | 27.55 | 24.21 | 149.57 | -495.80 | 92.40 | 760.75 | 711.70 | 49.05 | 15.510 | | |
| 6,600.00 | 6,512.87 | 6,551.48 | 6,529.76 | 28.00 | 24.58 | 149.63 | -503.82 | 94.54 | 773.71 | 723.89 | 49.82 | 15.530 | | |
| 6,700.00 | 6,611.34 | 6,650.63 | 6,628.56 | 28.45 | 24.96 | 149.69 | -511.84 | 96.68 | 786.68 | 736.09 | 50.59 | 15.550 | | |
| 6,800.00 | 6,709.80 | 6,749.79 | 6,727.37 | 28.90 | 25.34 | 149.74 | -519.86 | 98.82 | 799.64 | 748.28 | 51.36 | 15.569 | | |
| 6,900.00 | 6,808.26 | 6,848.94 | 6,826.17 | 29.35 | 25.72 | 149.79 | -527.87 | 100.96 | 812.61 | 760.48 | 52.13 | 15.587 | | |
| 6,982.73 | 6,889.71 | 6,930.79 | 6,907.76 | 29.72 | 26.03 | 149.86 | -534.16 | 102.73 | 823.34 | 770.57 | 52.76 | 15.604 | | |
| 7,000.00 | 6,906.74 | 6,947.76 | 6,924.71 | 29.80 | 26.09 | 157.29 | -534.82 | 103.10 | 825.58 | 772.69 | 52.89 | 15.609 | | |
| 7,050.00 | 6,956.13 | 6,996.80 | 6,973.73 | 30.01 | 26.25 | -177.24 | -534.46 | 104.15 | 832.10 | 778.88 | 53.22 | 15.634 | | |
| 7,100.00 | 7,005.50 | 7,045.72 | 7,022.49 | 30.19 | 26.39 | -152.52 | -530.76 | 105.20 | 838.62 | 785.10 | 53.52 | 15.670 | | |
| 7,150.00 | 7,054.61 | 7,094.53 | 7,070.78 | 30.36 | 26.52 | -134.73 | -523.75 | 106.23 | 845.11 | 791.32 | 53.79 | 15.712 | | |
| 7,200.00 | 7,103.23 | 7,143.26 | 7,118.39 | 30.52 | 26.65 | -123.17 | -513.50 | 107.25 | 851.53 | 797.49 | 54.04 | 15.758 | | |
| 7,250.00 | 7,151.10 | 7,191.90 | 7,165.12 | 30.65 | 26.77 | -115.50 | -500.06 | 108.24 | 857.85 | 803.58 | 54.27 | 15.808 | | |
| 7,300.00 | 7,198.01 | 7,240.47 | 7,210.76 | 30.77 | 26.88 | -110.14 | -483.50 | 109.20 | 864.05 | 809.57 | 54.48 | 15.859 | | |
| 7,350.00 | 7,243.72 | 7,288.99 | 7,255.13 | 30.88 | 26.98 | -106.19 | -463.91 | 110.14 | 870.09 | 815.40 | 54.68 | 15.912 | | |
| 7,400.00 | 7,288.00 | 7,337.46 | 7,298.02 | 30.97 | 27.08 | -103.15 | -441.39 | 111.03 | 875.94 | 821.07 | 54.87 | 15.964 | | |
| 7,450.00 | 7,330.65 | 7,385.89 | 7,339.27 | 31.05 | 27.18 | -100.75 | -416.03 | 111.89 | 881.57 | 826.52 | 55.05 | 16.014 | | |
| 7,500.00 | 7,371.46 | 7,434.29 | 7,378.69 | 31.12 | 27.27 | -98.79 | -387.97 | 112.71 | 886.96 | 831.73 | 55.22 | 16.061 | | |
| 7,550.00 | 7,410.22 | 7,482.68 | 7,416.11 | 31.17 | 27.36 | -97.16 | -357.31 | 113.48 | 892.07 | 836.68 | 55.39 | 16.104 | | |
| 7,600.00 | 7,446.75 | 7,531.06 | 7,451.36 | 31.21 | 27.45 | -95.80 | -324.21 | 114.19 | 896.90 | 841.33 | 55.56 | 16.142 | | |
| 7,650.00 | 7,480.87 | 7,579.44 | 7,484.31 | 31.24 | 27.55 | -94.64 | -288.80 | 114.86 | 901.40 | 845.66 | 55.74 | 16.172 | | |
| 7,700.00 | 7,512.42 | 7,627.82 | 7,514.79 | 31.25 | 27.65 | -93.66 | -251.24 | 115.47 | 905.56 | 849.64 | 55.92 | 16.194 | | |
| 7,750.00 | 7,541.23 | 7,676.21 | 7,542.67 | 31.26 | 27.75 | -92.83 | -211.71 | 116.02 | 909.36 | 853.25 | 56.11 | 16.207 | | |
| 7,800.00 | 7,567.18 | 7,724.62 | 7,567.83 | 31.25 | 27.86 | -92.12 | -170.36 | 116.52 | 912.77 | 856.46 | 56.31 | 16.209 | | |
| 7,850.00 | 7,590.12 | 7,773.05 | 7,590.15 | 31.24 | 27.98 | -91.54 | -127.39 | 116.94 | 915.80 | 859.27 | 56.53 | 16.200 | | |
| 7,900.00 | 7,609.96 | 7,821.51 | 7,609.53 | 31.22 | 28.11 | -91.05 | -82.99 | 117.31 | 918.41 | 861.64 | 56.77 | 16.178 | | |
| 7,950.00 | 7,626.60 | 7,869.99 | 7,625.87 | 31.19 | 28.25 | -90.66 | -37.35 | 117.60 | 920.59 | 863.57 | 57.02 | 16.144 | | |
| 8,000.00 | 7,639.94 | 7,918.50 | 7,639.09 | 31.15 | 28.40 | -90.37 | 9.31 | 117.83 | 922.35 | 865.04 | 57.30 | 16.096 | | |
| 8,050.00 | 7,649.94 | 7,967.05 | 7,649.13 | 31.11 | 28.57 | -90.16 | 56.80 | 117.99 | 923.66 | 866.05 | 57.60 | 16.035 | | |
| 8,100.00 | 7,656.54 | 8,015.62 | 7,655.93 | 31.07 | 28.74 | -90.03 | 104.88 | 118.08 | 924.52 | 866.59 | 57.93 | 15.960 | | |
| 8,150.00 | 7,659.70 | 8,064.23 | 7,659.46 | 31.03 | 28.93 | -89.99 | 153.36 | 118.09 | 924.92 | 866.65 | 58.28 | 15.872 | | |
| 8,170.89 | 7,660.00 | 8,084.55 | 7,659.96 | 31.01 | 29.01 | -90.00 | 173.67 | 118.08 | 924.96 | 866.53 | 58.43 | 15.831 | | |
| 8,177.51 | 7,660.00 | 8,090.99 | 7,660.00 | 31.00 | 29.04 | -90.00 | 180.11 | 118.07 | 924.96 | 866.48 | 58.48 | 15.818 | | |
| 8,200.00 | 7,660.00 | 8,113.45 | 7,660.00 | 30.98 | 29.13 | -90.00 | 202.57 | 118.04 | 924.96 | 866.31 | 58.65 | 15.771 | | |
| 8,300.00 | 7,660.00 | 8,213.45 | 7,660.00 | 30.92 | 29.60 | -90.00 | 302.57 | 117.92 | 924.96 | 865.45 | 59.51 | 15.543 | | |
| 8,400.00 | 7,660.00 | 8,313.45 | 7,660.00 | 30.91 | 30.14 | -90.00 | 402.57 | 117.79 | 924.97 | 864.44 | 60.53 | 15.282 | | |
| 8,500.00 | 7,660.00 | 8,413.45 | 7,660.00 | 31.22 | 30.76 | -90.00 | 502.57 | 117.67 | 924.97 | 863.28 | 61.69 | 14.994 | | |
| 8,600.00 | 7,660.00 | 8,513.45 | 7,660.00 | 31.83 | 31.44 | -90.00 | 602.57 | 117.55 | 924.97 | 861.98 | 62.99 | 14.684 | | |
| 8,700.00 | 7,660.00 | 8,613.45 | 7,660.00 | 32.55 | 32.19 | -90.00 | 702.57 | 117.42 | 924.98 | 860.55 | 64.42 | 14.358 | | |

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 4S-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 4S-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 4O-32H-O268 - OH - PLAN #2 | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Survey Program: 0-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 | |
| 8,800.00 | 7,660.00 | 8,713.45 | 7,660.00 | 33.33 | 33.00 | -90.00 | 802.57 | 117.30 | 924.98 | 859.00 | 65.97 | 14.020 | | |
| 8,900.00 | 7,660.00 | 8,813.45 | 7,660.00 | 34.16 | 33.86 | -90.00 | 902.57 | 117.18 | 924.98 | 857.34 | 67.64 | 13.675 | | |
| 9,000.00 | 7,660.00 | 8,913.45 | 7,660.00 | 35.04 | 34.78 | -90.00 | 1,002.57 | 117.05 | 924.98 | 855.57 | 69.41 | 13.326 | | |
| 9,100.00 | 7,660.00 | 9,013.45 | 7,660.00 | 35.97 | 35.74 | -90.00 | 1,102.57 | 116.93 | 924.99 | 853.70 | 71.28 | 12.976 | | |
| 9,200.00 | 7,660.00 | 9,113.45 | 7,660.00 | 36.94 | 36.74 | -90.00 | 1,202.57 | 116.80 | 924.99 | 851.75 | 73.24 | 12.629 | | |
| 9,300.00 | 7,660.00 | 9,213.45 | 7,660.00 | 37.96 | 37.79 | -90.00 | 1,302.57 | 116.68 | 924.99 | 849.71 | 75.29 | 12.286 | | |
| 9,400.00 | 7,660.00 | 9,313.45 | 7,660.00 | 39.00 | 38.87 | -90.00 | 1,402.57 | 116.56 | 925.00 | 847.59 | 77.41 | 11.950 | | |
| 9,500.00 | 7,660.00 | 9,413.45 | 7,660.00 | 40.09 | 39.99 | -90.00 | 1,502.57 | 116.43 | 925.00 | 845.40 | 79.60 | 11.621 | | |
| 9,600.00 | 7,660.00 | 9,513.45 | 7,660.00 | 41.20 | 41.13 | -90.00 | 1,602.57 | 116.31 | 925.00 | 843.15 | 81.85 | 11.301 | | |
| 9,700.00 | 7,660.00 | 9,613.45 | 7,660.00 | 42.34 | 42.31 | -90.00 | 1,702.57 | 116.19 | 925.01 | 840.84 | 84.17 | 10.990 | | |
| 9,800.00 | 7,660.00 | 9,713.45 | 7,660.00 | 43.51 | 43.51 | -90.00 | 1,802.57 | 116.06 | 925.01 | 838.47 | 86.54 | 10.689 | | |
| 9,900.00 | 7,660.00 | 9,813.45 | 7,660.00 | 44.70 | 44.74 | -90.00 | 1,902.57 | 115.94 | 925.01 | 836.06 | 88.95 | 10.399 | | |
| 10,000.00 | 7,660.00 | 9,913.45 | 7,660.00 | 45.92 | 45.98 | -90.00 | 2,002.57 | 115.81 | 925.02 | 833.60 | 91.42 | 10.118 | | |
| 10,100.00 | 7,660.00 | 10,013.45 | 7,660.00 | 47.16 | 47.25 | -90.00 | 2,102.57 | 115.69 | 925.02 | 831.09 | 93.93 | 9.848 | | |
| 10,200.00 | 7,660.00 | 10,113.45 | 7,660.00 | 48.42 | 48.54 | -90.00 | 2,202.57 | 115.57 | 925.02 | 828.54 | 96.48 | 9.588 | | |
| 10,300.00 | 7,660.00 | 10,213.45 | 7,660.00 | 49.70 | 49.84 | -90.00 | 2,302.57 | 115.44 | 925.03 | 825.96 | 99.06 | 9.338 | | |
| 10,400.00 | 7,660.00 | 10,313.45 | 7,660.00 | 50.99 | 51.17 | -90.00 | 2,402.57 | 115.32 | 925.03 | 823.35 | 101.68 | 9.097 | | |
| 10,500.00 | 7,660.00 | 10,413.45 | 7,660.00 | 52.30 | 52.50 | -90.00 | 2,502.57 | 115.20 | 925.03 | 820.70 | 104.33 | 8.867 | | |
| 10,600.00 | 7,660.00 | 10,513.45 | 7,660.00 | 53.62 | 53.85 | -90.00 | 2,602.57 | 115.07 | 925.03 | 818.03 | 107.01 | 8.645 | | |
| 10,700.00 | 7,660.00 | 10,613.45 | 7,660.00 | 54.96 | 55.21 | -90.00 | 2,702.57 | 114.95 | 925.04 | 815.33 | 109.71 | 8.432 | | |
| 10,800.00 | 7,660.00 | 10,713.45 | 7,660.00 | 56.31 | 56.59 | -90.00 | 2,802.57 | 114.82 | 925.04 | 812.60 | 112.44 | 8.227 | | |
| 10,900.00 | 7,660.00 | 10,813.45 | 7,660.00 | 57.67 | 57.97 | -90.00 | 2,902.57 | 114.70 | 925.04 | 809.85 | 115.19 | 8.030 | | |
| 11,000.00 | 7,660.00 | 10,913.45 | 7,660.00 | 59.05 | 59.37 | -90.00 | 3,002.57 | 114.58 | 925.05 | 807.08 | 117.97 | 7.842 | | |
| 11,100.00 | 7,660.00 | 11,013.45 | 7,660.00 | 60.43 | 60.77 | -90.00 | 3,102.57 | 114.45 | 925.05 | 804.29 | 120.76 | 7.660 | | |
| 11,200.00 | 7,660.00 | 11,113.45 | 7,660.00 | 61.82 | 62.18 | -90.00 | 3,202.57 | 114.33 | 925.05 | 801.48 | 123.57 | 7.486 | | |
| 11,300.00 | 7,660.00 | 11,213.45 | 7,660.00 | 63.23 | 63.61 | -90.00 | 3,302.57 | 114.21 | 925.06 | 798.66 | 126.40 | 7.318 | | |
| 11,400.00 | 7,660.00 | 11,313.45 | 7,660.00 | 64.64 | 65.03 | -90.00 | 3,402.57 | 114.08 | 925.06 | 795.81 | 129.25 | 7.157 | | |
| 11,500.00 | 7,660.00 | 11,413.45 | 7,660.00 | 66.06 | 66.47 | -90.00 | 3,502.57 | 113.96 | 925.06 | 792.96 | 132.11 | 7.002 | | |
| 11,600.00 | 7,660.00 | 11,513.45 | 7,660.00 | 67.48 | 67.91 | -90.00 | 3,602.57 | 113.83 | 925.07 | 790.08 | 134.98 | 6.853 | | |
| 11,700.00 | 7,660.00 | 11,613.45 | 7,660.00 | 68.91 | 69.36 | -90.00 | 3,702.57 | 113.71 | 925.07 | 787.20 | 137.87 | 6.710 | | |
| 11,800.00 | 7,660.00 | 11,713.45 | 7,660.00 | 70.35 | 70.82 | -90.00 | 3,802.57 | 113.59 | 925.07 | 784.30 | 140.77 | 6.572 | | |
| 11,900.00 | 7,660.00 | 11,813.45 | 7,660.00 | 71.80 | 72.28 | -90.00 | 3,902.57 | 113.46 | 925.07 | 781.39 | 143.68 | 6.438 | | |
| 12,000.00 | 7,660.00 | 11,913.45 | 7,660.00 | 73.25 | 73.75 | -90.00 | 4,002.57 | 113.34 | 925.08 | 778.47 | 146.61 | 6.310 | | |
| 12,100.00 | 7,660.00 | 12,013.45 | 7,660.00 | 74.71 | 75.22 | -90.00 | 4,102.57 | 113.22 | 925.08 | 775.54 | 149.54 | 6.186 | | |
| 12,200.00 | 7,660.00 | 12,113.45 | 7,660.00 | 76.17 | 76.70 | -90.00 | 4,202.57 | 113.09 | 925.08 | 772.60 | 152.48 | 6.067 | | |
| 12,253.72 | 7,660.00 | 12,167.17 | 7,660.00 | 76.96 | 77.49 | -90.00 | 4,256.28 | 113.02 | 925.09 | 771.02 | 154.07 | 6.004 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 4S-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 4S-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 | -89.90 | 0.05 | -29.94 | 29.94 | | | | | | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | -89.90 | 0.05 | -29.94 | 29.94 | 29.66 | 0.28 | 108.459 | | | | | | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | -89.90 | 0.05 | -29.94 | 29.94 | 28.94 | 0.99 | 30.149 | | | | | | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.85 | 0.85 | -89.90 | 0.05 | -29.94 | 29.94 | 28.23 | 1.71 | 17.508 | | | | | | | |
| 400.00 | 400.00 | 400.00 | 400.00 | 1.21 | 1.21 | -89.90 | 0.05 | -29.94 | 29.94 | 27.51 | 2.43 | 12.336 | | | | | | | |
| 500.00 | 500.00 | 500.00 | 500.00 | 1.57 | 1.57 | -89.90 | 0.05 | -29.94 | 29.94 | 26.79 | 3.14 | 9.523 | | | | | | | |
| 600.00 | 600.00 | 600.00 | 600.00 | 1.93 | 1.93 | -89.90 | 0.05 | -29.94 | 29.94 | 26.08 | 3.86 | 7.754 | CC, ES | | | | | | |
| 700.00 | 699.98 | 699.98 | 699.98 | 2.28 | 2.29 | 151.47 | 0.05 | -29.94 | 31.46 | 26.89 | 4.57 | 6.891 | | | | | | | |
| 800.00 | 799.84 | 799.84 | 799.84 | 2.62 | 2.65 | 155.40 | 0.05 | -29.94 | 36.14 | 30.88 | 5.26 | 6.867 | | | | | | | |
| 900.00 | 899.45 | 899.45 | 899.45 | 2.97 | 3.00 | 160.05 | 0.05 | -29.94 | 44.22 | 38.25 | 5.97 | 7.410 | | | | | | | |
| 1,000.00 | 998.70 | 998.86 | 999.84 | 3.33 | 3.35 | 162.86 | -1.55 | -29.24 | 54.79 | 48.13 | 6.66 | 8.222 | | | | | | | |
| 1,103.09 | 1,100.51 | 1,103.55 | 1,103.38 | 3.72 | 3.69 | 163.14 | -6.58 | -27.05 | 67.03 | 59.65 | 7.38 | 9.086 | | | | | | | |
| 1,200.00 | 1,195.93 | 1,201.10 | 1,200.55 | 4.11 | 4.02 | 161.74 | -14.43 | -23.63 | 78.19 | 70.13 | 8.06 | 9.701 | | | | | | | |
| 1,300.00 | 1,294.39 | 1,300.49 | 1,299.42 | 4.51 | 4.36 | 159.96 | -23.65 | -19.61 | 88.98 | 80.21 | 8.77 | 10.150 | | | | | | | |
| 1,400.00 | 1,392.85 | 1,399.87 | 1,398.29 | 4.93 | 4.71 | 158.57 | -32.88 | -15.59 | 99.84 | 90.35 | 9.49 | 10.526 | | | | | | | |
| 1,500.00 | 1,491.31 | 1,499.25 | 1,497.17 | 5.35 | 5.07 | 157.45 | -42.11 | -11.56 | 110.74 | 100.53 | 10.21 | 10.843 | | | | | | | |
| 1,600.00 | 1,589.78 | 1,598.63 | 1,596.04 | 5.77 | 5.43 | 156.53 | -51.34 | -7.54 | 121.68 | 110.73 | 10.95 | 11.112 | | | | | | | |
| 1,700.00 | 1,688.24 | 1,698.02 | 1,694.91 | 6.20 | 5.80 | 155.76 | -60.57 | -3.52 | 132.64 | 120.95 | 11.69 | 11.344 | | | | | | | |
| 1,800.00 | 1,786.70 | 1,797.40 | 1,793.78 | 6.63 | 6.16 | 155.11 | -69.80 | 0.50 | 143.63 | 131.19 | 12.44 | 11.545 | | | | | | | |
| 1,900.00 | 1,885.16 | 1,896.78 | 1,892.65 | 7.06 | 6.53 | 154.56 | -79.03 | 4.52 | 154.63 | 141.43 | 13.19 | 11.720 | | | | | | | |
| 2,000.00 | 1,983.62 | 1,996.16 | 1,991.52 | 7.50 | 6.91 | 154.07 | -88.26 | 8.55 | 165.64 | 151.69 | 13.95 | 11.873 | | | | | | | |
| 2,100.00 | 2,082.09 | 2,095.55 | 2,090.39 | 7.94 | 7.28 | 153.65 | -97.49 | 12.57 | 176.66 | 161.95 | 14.71 | 12.010 | | | | | | | |
| 2,200.00 | 2,180.55 | 2,194.93 | 2,189.27 | 8.37 | 7.66 | 153.28 | -106.72 | 16.59 | 187.69 | 172.22 | 15.47 | 12.131 | | | | | | | |
| 2,300.00 | 2,279.01 | 2,294.31 | 2,288.14 | 8.81 | 8.03 | 152.94 | -115.95 | 20.61 | 198.73 | 182.49 | 16.24 | 12.239 | | | | | | | |
| 2,400.00 | 2,377.47 | 2,393.70 | 2,387.01 | 9.25 | 8.41 | 152.65 | -125.18 | 24.63 | 209.77 | 192.77 | 17.00 | 12.336 | | | | | | | |
| 2,500.00 | 2,475.93 | 2,493.08 | 2,485.88 | 9.69 | 8.79 | 152.38 | -134.41 | 28.65 | 220.82 | 203.05 | 17.77 | 12.424 | | | | | | | |
| 2,600.00 | 2,574.40 | 2,592.46 | 2,584.75 | 10.14 | 9.17 | 152.14 | -143.64 | 32.68 | 231.88 | 213.33 | 18.54 | 12.504 | | | | | | | |
| 2,700.00 | 2,672.86 | 2,691.84 | 2,683.62 | 10.58 | 9.55 | 151.92 | -152.87 | 36.70 | 242.93 | 223.62 | 19.32 | 12.577 | | | | | | | |
| 2,800.00 | 2,771.32 | 2,791.23 | 2,782.49 | 11.02 | 9.93 | 151.72 | -162.10 | 40.72 | 253.99 | 233.90 | 20.09 | 12.644 | | | | | | | |
| 2,900.00 | 2,869.78 | 2,890.61 | 2,881.37 | 11.46 | 10.31 | 151.53 | -171.33 | 44.74 | 265.06 | 244.19 | 20.86 | 12.705 | | | | | | | |
| 3,000.00 | 2,968.24 | 2,989.99 | 2,980.24 | 11.91 | 10.69 | 151.37 | -180.56 | 48.76 | 276.12 | 254.48 | 21.64 | 12.761 | | | | | | | |
| 3,100.00 | 3,066.71 | 3,089.37 | 3,079.11 | 12.35 | 11.08 | 151.21 | -189.79 | 52.78 | 287.19 | 264.77 | 22.41 | 12.813 | | | | | | | |
| 3,200.00 | 3,165.17 | 3,188.76 | 3,177.98 | 12.80 | 11.46 | 151.06 | -199.01 | 56.81 | 298.26 | 275.07 | 23.19 | 12.861 | | | | | | | |
| 3,300.00 | 3,263.63 | 3,288.14 | 3,276.85 | 13.24 | 11.84 | 150.93 | -208.24 | 60.83 | 309.33 | 285.36 | 23.97 | 12.906 | | | | | | | |
| 3,400.00 | 3,362.09 | 3,387.52 | 3,375.72 | 13.69 | 12.23 | 150.81 | -217.47 | 64.85 | 320.40 | 295.66 | 24.75 | 12.947 | | | | | | | |
| 3,500.00 | 3,460.55 | 3,486.91 | 3,474.59 | 14.13 | 12.61 | 150.69 | -226.70 | 68.87 | 331.48 | 305.95 | 25.52 | 12.986 | | | | | | | |
| 3,600.00 | 3,559.01 | 3,586.29 | 3,573.47 | 14.58 | 12.99 | 150.58 | -235.93 | 72.89 | 342.55 | 316.25 | 26.30 | 13.023 | | | | | | | |
| 3,700.00 | 3,657.48 | 3,685.67 | 3,672.34 | 15.02 | 13.38 | 150.48 | -245.16 | 76.92 | 353.63 | 326.54 | 27.08 | 13.057 | | | | | | | |
| 3,800.00 | 3,755.94 | 3,785.05 | 3,771.21 | 15.47 | 13.76 | 150.38 | -254.39 | 80.94 | 364.71 | 336.84 | 27.86 | 13.089 | | | | | | | |
| 3,900.00 | 3,854.40 | 3,884.44 | 3,870.08 | 15.92 | 14.15 | 150.29 | -263.62 | 84.96 | 375.78 | 347.14 | 28.64 | 13.119 | | | | | | | |
| 4,000.00 | 3,952.86 | 3,983.82 | 3,968.95 | 16.36 | 14.53 | 150.21 | -272.85 | 88.98 | 386.86 | 357.44 | 29.43 | 13.147 | | | | | | | |
| 4,100.00 | 4,051.32 | 4,083.20 | 4,067.82 | 16.81 | 14.92 | 150.13 | -282.08 | 93.00 | 397.94 | 367.74 | 30.21 | 13.174 | | | | | | | |
| 4,200.00 | 4,149.79 | 4,182.59 | 4,166.70 | 17.26 | 15.30 | 150.05 | -291.31 | 97.02 | 409.02 | 378.04 | 30.99 | 13.199 | | | | | | | |
| 4,300.00 | 4,248.25 | 4,281.97 | 4,265.57 | 17.70 | 15.69 | 149.98 | -300.54 | 101.05 | 420.11 | 388.33 | 31.77 | 13.223 | | | | | | | |
| 4,400.00 | 4,346.71 | 4,381.35 | 4,364.44 | 18.15 | 16.07 | 149.91 | -309.77 | 105.07 | 431.19 | 398.63 | 32.55 | 13.246 | | | | | | | |
| 4,500.00 | 4,445.17 | 4,480.73 | 4,463.31 | 18.60 | 16.46 | 149.84 | -319.00 | 109.09 | 442.27 | 408.93 | 33.34 | 13.267 | | | | | | | |
| 4,600.00 | 4,543.63 | 4,580.12 | 4,562.18 | 19.04 | 16.85 | 149.78 | -328.23 | 113.11 | 453.35 | 419.24 | 34.12 | 13.288 | | | | | | | |
| 4,700.00 | 4,642.10 | 4,679.50 | 4,661.05 | 19.49 | 17.23 | 149.72 | -337.46 | 117.13 | 464.44 | 429.54 | 34.90 | 13.307 | | | | | | | |
| 4,800.00 | 4,740.56 | 4,778.88 | 4,759.92 | 19.94 | 17.62 | 149.67 | -346.69 | 121.16 | 475.52 | 439.84 | 35.68 | 13.326 | | | | | | | |
| 4,900.00 | 4,839.02 | 4,878.26 | 4,858.80 | 20.39 | 18.01 | 149.61 | -355.92 | 125.18 | 486.61 | 450.14 | 36.47 | 13.343 | | | | | | | |
| 5,000.00 | 4,937.48 | 4,977.65 | 4,957.67 | 20.83 | 18.39 | 149.56 | -365.15 | 129.20 | 497.69 | 460.44 | 37.25 | 13.360 | | | | | | | |
| 5,100.00 | 5,035.94 | 5,077.03 | 5,056.54 | 21.28 | 18.78 | 149.51 | -374.37 | 133.22 | 508.78 | 470.74 | 38.04 | 13.376 | | | | | | | |

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 4S-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 4S-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) | | | | | |
| 5,200.00 | 5,134.41 | 5,176.41 | 5,155.41 | 21.73 | 19.17 | 149.47 | -383.60 | 137.24 | 519.86 | 481.04 | 38.82 | 13.392 | | | |
| 5,300.00 | 5,232.87 | 5,275.80 | 5,254.28 | 22.18 | 19.55 | 149.42 | -392.83 | 141.26 | 530.95 | 491.35 | 39.60 | 13.407 | | | |
| 5,400.00 | 5,331.33 | 5,375.18 | 5,353.15 | 22.63 | 19.94 | 149.38 | -402.06 | 145.29 | 542.04 | 501.65 | 40.39 | 13.421 | | | |
| 5,500.00 | 5,429.79 | 5,474.56 | 5,452.02 | 23.07 | 20.33 | 149.34 | -411.29 | 149.31 | 553.12 | 511.95 | 41.17 | 13.434 | | | |
| 5,600.00 | 5,528.25 | 5,573.94 | 5,550.90 | 23.52 | 20.71 | 149.30 | -420.52 | 153.33 | 564.21 | 522.25 | 41.96 | 13.447 | | | |
| 5,700.00 | 5,626.72 | 5,673.33 | 5,649.77 | 23.97 | 21.10 | 149.26 | -429.75 | 157.35 | 575.30 | 532.56 | 42.74 | 13.460 | | | |
| 5,800.00 | 5,725.18 | 5,772.71 | 5,748.64 | 24.42 | 21.49 | 149.22 | -438.98 | 161.37 | 586.38 | 542.86 | 43.53 | 13.472 | | | |
| 5,900.00 | 5,823.64 | 5,872.09 | 5,847.51 | 24.87 | 21.87 | 149.19 | -448.21 | 165.40 | 597.47 | 553.16 | 44.31 | 13.483 | | | |
| 6,000.00 | 5,922.10 | 5,971.47 | 5,946.38 | 25.31 | 22.26 | 149.15 | -457.44 | 169.42 | 608.56 | 563.46 | 45.10 | 13.495 | | | |
| 6,100.00 | 6,020.56 | 6,070.86 | 6,045.25 | 25.76 | 22.65 | 149.12 | -466.67 | 173.44 | 619.65 | 573.77 | 45.88 | 13.505 | | | |
| 6,200.00 | 6,119.03 | 6,170.24 | 6,144.13 | 26.21 | 23.04 | 149.09 | -475.90 | 177.46 | 630.74 | 584.07 | 46.67 | 13.516 | | | |
| 6,300.00 | 6,217.49 | 6,269.62 | 6,243.00 | 26.66 | 23.42 | 149.06 | -485.13 | 181.48 | 641.83 | 594.37 | 47.45 | 13.526 | | | |
| 6,400.00 | 6,315.95 | 6,369.01 | 6,341.87 | 27.11 | 23.81 | 149.03 | -494.36 | 185.50 | 652.91 | 604.68 | 48.24 | 13.535 | | | |
| 6,500.00 | 6,414.41 | 6,468.39 | 6,440.74 | 27.55 | 24.20 | 149.00 | -503.59 | 189.53 | 664.00 | 614.98 | 49.02 | 13.545 | | | |
| 6,600.00 | 6,512.87 | 6,567.77 | 6,539.61 | 28.00 | 24.58 | 148.97 | -512.82 | 193.55 | 675.09 | 625.28 | 49.81 | 13.554 | | | |
| 6,700.00 | 6,611.34 | 6,667.15 | 6,638.48 | 28.45 | 24.97 | 148.95 | -522.05 | 197.57 | 686.18 | 635.59 | 50.59 | 13.562 | | | |
| 6,800.00 | 6,709.80 | 6,766.54 | 6,737.35 | 28.90 | 25.36 | 148.92 | -531.28 | 201.59 | 697.27 | 645.89 | 51.38 | 13.571 | | | |
| 6,900.00 | 6,808.26 | 6,866.47 | 6,837.04 | 29.35 | 25.72 | 149.30 | -535.60 | 205.64 | 708.32 | 656.21 | 52.11 | 13.593 | | | |
| 6,982.73 | 6,889.71 | 6,947.11 | 6,917.31 | 29.72 | 25.96 | 150.40 | -529.08 | 208.89 | 717.57 | 664.99 | 52.58 | 13.647 | | | |
| 7,000.00 | 6,906.74 | 6,963.55 | 6,933.55 | 29.80 | 26.01 | 158.06 | -526.64 | 209.54 | 719.55 | 666.89 | 52.67 | 13.662 | | | |
| 7,050.00 | 6,956.13 | 7,010.68 | 6,979.76 | 30.01 | 26.13 | -175.83 | -517.60 | 211.41 | 725.42 | 672.52 | 52.90 | 13.714 | | | |
| 7,100.00 | 7,005.50 | 7,057.19 | 7,024.68 | 30.19 | 26.24 | -150.49 | -505.71 | 213.21 | 731.43 | 678.33 | 53.10 | 13.775 | | | |
| 7,150.00 | 7,054.61 | 7,103.10 | 7,068.17 | 30.36 | 26.35 | -132.09 | -491.14 | 214.96 | 737.54 | 684.27 | 53.27 | 13.844 | | | |
| 7,200.00 | 7,103.23 | 7,150.00 | 7,111.55 | 30.52 | 26.45 | -119.94 | -473.40 | 216.70 | 743.71 | 690.28 | 53.44 | 13.918 | | | |
| 7,250.00 | 7,151.10 | 7,193.32 | 7,150.50 | 30.65 | 26.54 | -111.74 | -454.53 | 218.25 | 749.90 | 696.33 | 53.56 | 14.000 | | | |
| 7,300.00 | 7,198.01 | 7,237.71 | 7,189.16 | 30.77 | 26.62 | -105.85 | -432.78 | 219.79 | 756.05 | 702.36 | 53.68 | 14.084 | | | |
| 7,350.00 | 7,243.72 | 7,281.67 | 7,226.05 | 30.88 | 26.70 | -101.40 | -408.92 | 221.26 | 762.12 | 708.33 | 53.79 | 14.169 | | | |
| 7,400.00 | 7,288.00 | 7,325.24 | 7,261.09 | 30.97 | 26.78 | -97.90 | -383.09 | 222.65 | 768.07 | 714.19 | 53.88 | 14.256 | | | |
| 7,450.00 | 7,330.65 | 7,368.44 | 7,294.23 | 31.05 | 26.85 | -95.05 | -355.41 | 223.96 | 773.86 | 719.90 | 53.96 | 14.341 | | | |
| 7,500.00 | 7,371.46 | 7,411.32 | 7,325.41 | 31.12 | 26.93 | -92.68 | -326.02 | 225.19 | 779.45 | 725.41 | 54.04 | 14.424 | | | |
| 7,550.00 | 7,410.22 | 7,453.90 | 7,354.58 | 31.17 | 27.00 | -90.67 | -295.03 | 226.33 | 784.80 | 730.69 | 54.11 | 14.504 | | | |
| 7,600.00 | 7,446.75 | 7,496.21 | 7,381.70 | 31.21 | 27.07 | -88.96 | -262.57 | 227.39 | 789.87 | 735.68 | 54.18 | 14.578 | | | |
| 7,650.00 | 7,480.87 | 7,538.28 | 7,406.71 | 31.24 | 27.15 | -87.48 | -228.77 | 228.37 | 794.62 | 740.36 | 54.26 | 14.645 | | | |
| 7,700.00 | 7,512.42 | 7,580.14 | 7,429.59 | 31.25 | 27.23 | -86.21 | -193.74 | 229.25 | 799.04 | 744.69 | 54.35 | 14.703 | | | |
| 7,750.00 | 7,541.23 | 7,621.80 | 7,450.29 | 31.26 | 27.31 | -85.11 | -157.59 | 230.04 | 803.08 | 748.64 | 54.44 | 14.750 | | | |
| 7,800.00 | 7,567.18 | 7,663.31 | 7,468.80 | 31.25 | 27.41 | -84.18 | -120.46 | 230.75 | 806.73 | 752.17 | 54.56 | 14.786 | | | |
| 7,850.00 | 7,590.12 | 7,704.67 | 7,485.06 | 31.24 | 27.51 | -83.38 | -82.44 | 231.36 | 809.95 | 755.26 | 54.69 | 14.809 | | | |
| 7,900.00 | 7,609.96 | 7,750.00 | 7,500.34 | 31.22 | 27.62 | -82.71 | -39.77 | 231.93 | 812.75 | 757.88 | 54.87 | 14.813 | | | |
| 7,950.00 | 7,626.60 | 7,787.06 | 7,510.81 | 31.19 | 27.73 | -82.19 | -4.23 | 232.31 | 815.06 | 760.03 | 55.03 | 14.810 | | | |
| 8,000.00 | 7,639.94 | 7,828.13 | 7,520.25 | 31.15 | 27.86 | -81.78 | 35.74 | 232.64 | 816.91 | 761.67 | 55.25 | 14.787 | | | |
| 8,050.00 | 7,649.94 | 7,869.15 | 7,527.37 | 31.11 | 27.99 | -81.48 | 76.13 | 232.88 | 818.29 | 762.80 | 55.49 | 14.747 | | | |
| 8,100.00 | 7,656.54 | 7,910.13 | 7,532.17 | 31.07 | 28.14 | -81.30 | 116.82 | 233.02 | 819.17 | 763.40 | 55.76 | 14.690 | | | |
| 8,150.00 | 7,659.70 | 7,950.00 | 7,534.60 | 31.03 | 28.28 | -81.22 | 156.61 | 233.07 | 819.55 | 763.48 | 56.07 | 14.618 | | | |
| 8,170.89 | 7,660.00 | 7,968.22 | 7,534.98 | 31.01 | 28.35 | -81.23 | 174.83 | 233.07 | 819.56 | 763.36 | 56.21 | 14.581 | | | |
| 8,178.52 | 7,660.00 | 7,974.62 | 7,535.00 | 31.00 | 28.38 | -81.23 | 181.23 | 233.06 | 819.56 | 763.30 | 56.26 | 14.568 | | | |
| 8,200.00 | 7,660.00 | 7,996.10 | 7,535.00 | 30.98 | 28.47 | -81.23 | 202.71 | 233.03 | 819.56 | 763.14 | 56.41 | 14.528 | | | |
| 8,300.00 | 7,660.00 | 8,096.10 | 7,535.00 | 30.92 | 28.92 | -81.23 | 302.71 | 232.91 | 819.56 | 762.32 | 57.24 | 14.318 | | | |
| 8,400.00 | 7,660.00 | 8,196.10 | 7,535.00 | 30.91 | 29.46 | -81.23 | 402.71 | 232.78 | 819.57 | 761.34 | 58.22 | 14.076 | | | |
| 8,500.00 | 7,660.00 | 8,296.10 | 7,535.00 | 31.22 | 30.08 | -81.23 | 502.71 | 232.66 | 819.57 | 760.21 | 59.36 | 13.807 | | | |
| 8,600.00 | 7,660.00 | 8,396.10 | 7,535.00 | 31.83 | 30.76 | -81.23 | 602.71 | 232.54 | 819.57 | 758.94 | 60.63 | 13.517 | | | |
| 8,700.00 | 7,660.00 | 8,496.10 | 7,535.00 | 32.55 | 31.52 | -81.23 | 702.71 | 232.41 | 819.58 | 757.53 | 62.04 | 13.210 | | | |
| 8,800.00 | 7,660.00 | 8,596.10 | 7,535.00 | 33.33 | 32.33 | -81.23 | 802.71 | 232.29 | 819.58 | 756.00 | 63.58 | 12.891 | | | |

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 4S-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 4S-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 4P-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 | |
| 8,900.00 | 7,660.00 | 8,696.10 | 7,535.00 | 34.16 | 33.20 | -81.23 | 902.71 | 232.16 | 819.58 | 754.35 | 65.23 | 12.565 | | |
| 9,000.00 | 7,660.00 | 8,796.10 | 7,535.00 | 35.04 | 34.12 | -81.23 | 1,002.71 | 232.04 | 819.59 | 752.60 | 66.99 | 12.235 | | |
| 9,100.00 | 7,660.00 | 8,896.10 | 7,535.00 | 35.97 | 35.09 | -81.23 | 1,102.71 | 231.91 | 819.59 | 750.75 | 68.84 | 11.905 | | |
| 9,200.00 | 7,660.00 | 8,996.10 | 7,535.00 | 36.94 | 36.10 | -81.23 | 1,202.71 | 231.79 | 819.59 | 748.80 | 70.79 | 11.577 | | |
| 9,300.00 | 7,660.00 | 9,096.10 | 7,535.00 | 37.96 | 37.15 | -81.23 | 1,302.71 | 231.67 | 819.60 | 746.77 | 72.82 | 11.254 | | |
| 9,400.00 | 7,660.00 | 9,196.10 | 7,535.00 | 39.00 | 38.24 | -81.23 | 1,402.71 | 231.54 | 819.60 | 744.67 | 74.93 | 10.938 | | |
| 9,500.00 | 7,660.00 | 9,296.10 | 7,535.00 | 40.09 | 39.36 | -81.23 | 1,502.71 | 231.42 | 819.60 | 742.49 | 77.12 | 10.628 | | |
| 9,600.00 | 7,660.00 | 9,396.10 | 7,535.00 | 41.20 | 40.52 | -81.23 | 1,602.71 | 231.29 | 819.61 | 740.25 | 79.36 | 10.328 | | |
| 9,700.00 | 7,660.00 | 9,496.10 | 7,535.00 | 42.34 | 41.70 | -81.23 | 1,702.71 | 231.17 | 819.61 | 737.95 | 81.67 | 10.036 | | |
| 9,800.00 | 7,660.00 | 9,596.10 | 7,535.00 | 43.51 | 42.91 | -81.23 | 1,802.71 | 231.04 | 819.61 | 735.59 | 84.03 | 9.754 | | |
| 9,900.00 | 7,660.00 | 9,696.10 | 7,535.00 | 44.70 | 44.14 | -81.23 | 1,902.71 | 230.92 | 819.62 | 733.18 | 86.44 | 9.482 | | |
| 10,000.00 | 7,660.00 | 9,796.10 | 7,535.00 | 45.92 | 45.40 | -81.23 | 2,002.71 | 230.80 | 819.62 | 730.73 | 88.89 | 9.220 | | |
| 10,100.00 | 7,660.00 | 9,896.10 | 7,535.00 | 47.16 | 46.67 | -81.23 | 2,102.71 | 230.67 | 819.63 | 728.23 | 91.39 | 8.968 | | |
| 10,200.00 | 7,660.00 | 9,996.10 | 7,535.00 | 48.42 | 47.97 | -81.23 | 2,202.71 | 230.55 | 819.63 | 725.70 | 93.93 | 8.726 | | |
| 10,300.00 | 7,660.00 | 10,096.10 | 7,535.00 | 49.70 | 49.28 | -81.23 | 2,302.71 | 230.42 | 819.63 | 723.13 | 96.50 | 8.493 | | |
| 10,400.00 | 7,660.00 | 10,196.10 | 7,535.00 | 50.99 | 50.60 | -81.23 | 2,402.71 | 230.30 | 819.64 | 720.53 | 99.11 | 8.270 | | |
| 10,500.00 | 7,660.00 | 10,296.10 | 7,535.00 | 52.30 | 51.95 | -81.23 | 2,502.71 | 230.18 | 819.64 | 717.89 | 101.75 | 8.056 | | |
| 10,600.00 | 7,660.00 | 10,396.10 | 7,535.00 | 53.62 | 53.30 | -81.23 | 2,602.71 | 230.05 | 819.64 | 715.23 | 104.41 | 7.850 | | |
| 10,700.00 | 7,660.00 | 10,496.10 | 7,535.00 | 54.96 | 54.67 | -81.23 | 2,702.71 | 229.93 | 819.65 | 712.54 | 107.11 | 7.653 | | |
| 10,800.00 | 7,660.00 | 10,596.10 | 7,535.00 | 56.31 | 56.05 | -81.23 | 2,802.71 | 229.80 | 819.65 | 709.83 | 109.82 | 7.463 | | |
| 10,900.00 | 7,660.00 | 10,696.10 | 7,535.00 | 57.67 | 57.44 | -81.23 | 2,902.71 | 229.68 | 819.65 | 707.09 | 112.56 | 7.282 | | |
| 11,000.00 | 7,660.00 | 10,796.10 | 7,535.00 | 59.05 | 58.84 | -81.23 | 3,002.71 | 229.55 | 819.66 | 704.33 | 115.32 | 7.108 | | |
| 11,100.00 | 7,660.00 | 10,896.10 | 7,535.00 | 60.43 | 60.25 | -81.23 | 3,102.71 | 229.43 | 819.66 | 701.56 | 118.10 | 6.940 | | |
| 11,200.00 | 7,660.00 | 10,996.10 | 7,535.00 | 61.82 | 61.67 | -81.23 | 3,202.71 | 229.31 | 819.66 | 698.76 | 120.90 | 6.780 | | |
| 11,300.00 | 7,660.00 | 11,096.10 | 7,535.00 | 63.23 | 63.09 | -81.23 | 3,302.71 | 229.18 | 819.67 | 695.95 | 123.71 | 6.626 | | |
| 11,400.00 | 7,660.00 | 11,196.10 | 7,535.00 | 64.64 | 64.53 | -81.23 | 3,402.71 | 229.06 | 819.67 | 693.13 | 126.54 | 6.477 | | |
| 11,500.00 | 7,660.00 | 11,296.10 | 7,535.00 | 66.06 | 65.97 | -81.23 | 3,502.71 | 228.93 | 819.67 | 690.29 | 129.39 | 6.335 | | |
| 11,600.00 | 7,660.00 | 11,396.10 | 7,535.00 | 67.48 | 67.41 | -81.23 | 3,602.71 | 228.81 | 819.68 | 687.43 | 132.25 | 6.198 | | |
| 11,700.00 | 7,660.00 | 11,496.10 | 7,535.00 | 68.91 | 68.87 | -81.23 | 3,702.71 | 228.68 | 819.68 | 684.56 | 135.12 | 6.066 | | |
| 11,800.00 | 7,660.00 | 11,596.10 | 7,535.00 | 70.35 | 70.33 | -81.23 | 3,802.71 | 228.56 | 819.69 | 681.68 | 138.00 | 5.940 | | |
| 11,900.00 | 7,660.00 | 11,696.10 | 7,535.00 | 71.80 | 71.79 | -81.23 | 3,902.70 | 228.44 | 819.69 | 678.79 | 140.90 | 5.818 | | |
| 12,000.00 | 7,660.00 | 11,796.10 | 7,535.00 | 73.25 | 73.26 | -81.23 | 4,002.70 | 228.31 | 819.69 | 675.89 | 143.80 | 5.700 | | |
| 12,100.00 | 7,660.00 | 11,896.10 | 7,535.00 | 74.71 | 74.74 | -81.23 | 4,102.70 | 228.19 | 819.70 | 672.98 | 146.72 | 5.587 | | |
| 12,200.00 | 7,660.00 | 11,996.10 | 7,535.00 | 76.17 | 76.22 | -81.23 | 4,202.70 | 228.06 | 819.70 | 670.05 | 149.64 | 5.478 | | |
| 12,253.72 | 7,660.00 | 12,049.82 | 7,535.00 | 76.96 | 77.01 | -81.23 | 4,256.42 | 228.00 | 819.70 | 668.48 | 151.22 | 5.421 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 4S-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 4S-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 | | | 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 | -89.90 | 0.03 | -20.14 | 20.14 | | | | | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | -89.90 | 0.03 | -20.14 | 20.14 | 19.87 | 0.28 | 72.982 | | | | | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | -89.90 | 0.03 | -20.14 | 20.14 | 19.15 | 0.99 | 20.287 | | | | | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.85 | 0.85 | -89.90 | 0.03 | -20.14 | 20.14 | 18.43 | 1.71 | 11.781 | | | | | | |
| 400.00 | 400.00 | 400.00 | 400.00 | 1.21 | 1.21 | -89.90 | 0.03 | -20.14 | 20.14 | 17.72 | 2.43 | 8.301 | | | | | | |
| 500.00 | 500.00 | 500.00 | 500.00 | 1.57 | 1.57 | -89.90 | 0.03 | -20.14 | 20.14 | 17.00 | 3.14 | 6.408 | | | | | | |
| 600.00 | 600.00 | 600.00 | 600.00 | 1.93 | 1.93 | -89.90 | 0.03 | -20.14 | 20.14 | 16.28 | 3.86 | 5.218 | CC, ES | | | | | |
| 700.00 | 699.98 | 699.98 | 699.98 | 2.28 | 2.29 | 152.19 | 0.03 | -20.14 | 21.67 | 17.11 | 4.57 | 4.747 | | | | | | |
| 800.00 | 799.84 | 799.84 | 799.84 | 2.62 | 2.65 | 157.46 | 0.03 | -20.14 | 26.41 | 21.15 | 5.26 | 5.018 | | | | | | |
| 900.00 | 899.45 | 900.42 | 900.40 | 2.97 | 2.99 | 161.29 | -1.26 | -18.95 | 33.20 | 27.24 | 5.96 | 5.572 | | | | | | |
| 1,000.00 | 998.70 | 1,001.20 | 1,001.04 | 3.33 | 3.33 | 162.43 | -5.16 | -15.36 | 40.51 | 33.85 | 6.65 | 6.087 | | | | | | |
| 1,103.09 | 1,100.51 | 1,105.31 | 1,104.74 | 3.72 | 3.69 | 162.04 | -11.93 | -9.14 | 48.50 | 41.11 | 7.39 | 6.565 | | | | | | |
| 1,200.00 | 1,195.93 | 1,202.82 | 1,201.53 | 4.11 | 4.03 | 160.48 | -20.58 | -1.19 | 55.12 | 47.04 | 8.08 | 6.821 | | | | | | |
| 1,300.00 | 1,294.39 | 1,302.60 | 1,300.51 | 4.51 | 4.40 | 158.89 | -29.87 | 7.36 | 61.52 | 52.72 | 8.80 | 6.992 | | | | | | |
| 1,400.00 | 1,392.85 | 1,402.39 | 1,399.49 | 4.93 | 4.77 | 157.59 | -39.16 | 15.90 | 67.95 | 58.42 | 9.53 | 7.132 | | | | | | |
| 1,500.00 | 1,491.31 | 1,502.17 | 1,498.47 | 5.35 | 5.14 | 156.53 | -48.45 | 24.45 | 74.40 | 64.14 | 10.27 | 7.248 | | | | | | |
| 1,600.00 | 1,589.78 | 1,601.95 | 1,597.45 | 5.77 | 5.52 | 155.63 | -57.74 | 33.00 | 80.89 | 69.87 | 11.01 | 7.345 | | | | | | |
| 1,700.00 | 1,688.24 | 1,701.73 | 1,696.43 | 6.20 | 5.91 | 154.87 | -67.04 | 41.54 | 87.38 | 75.62 | 11.77 | 7.427 | | | | | | |
| 1,800.00 | 1,786.70 | 1,801.51 | 1,795.41 | 6.63 | 6.29 | 154.21 | -76.33 | 50.09 | 93.89 | 81.37 | 12.52 | 7.497 | | | | | | |
| 1,900.00 | 1,885.16 | 1,901.30 | 1,894.39 | 7.06 | 6.68 | 153.64 | -85.62 | 58.63 | 100.42 | 87.13 | 13.29 | 7.557 | | | | | | |
| 2,000.00 | 1,983.62 | 2,001.08 | 1,993.37 | 7.50 | 7.07 | 153.13 | -94.91 | 67.18 | 106.95 | 92.89 | 14.05 | 7.609 | | | | | | |
| 2,100.00 | 2,082.09 | 2,100.86 | 2,092.36 | 7.94 | 7.46 | 152.69 | -104.20 | 75.72 | 113.48 | 98.66 | 14.83 | 7.655 | | | | | | |
| 2,200.00 | 2,180.55 | 2,200.64 | 2,191.34 | 8.37 | 7.86 | 152.29 | -113.49 | 84.27 | 120.03 | 104.43 | 15.60 | 7.695 | | | | | | |
| 2,300.00 | 2,279.01 | 2,300.43 | 2,290.32 | 8.81 | 8.25 | 151.94 | -122.79 | 92.82 | 126.58 | 110.20 | 16.37 | 7.730 | | | | | | |
| 2,400.00 | 2,377.47 | 2,400.21 | 2,389.30 | 9.25 | 8.65 | 151.62 | -132.08 | 101.36 | 133.13 | 115.98 | 17.15 | 7.761 | | | | | | |
| 2,500.00 | 2,475.93 | 2,499.99 | 2,488.28 | 9.69 | 9.05 | 151.32 | -141.37 | 109.91 | 139.69 | 121.75 | 17.93 | 7.790 | | | | | | |
| 2,600.00 | 2,574.40 | 2,599.77 | 2,587.26 | 10.14 | 9.44 | 151.06 | -150.66 | 118.45 | 146.25 | 127.53 | 18.71 | 7.815 | | | | | | |
| 2,700.00 | 2,672.86 | 2,699.56 | 2,686.24 | 10.58 | 9.84 | 150.82 | -159.95 | 127.00 | 152.81 | 133.31 | 19.50 | 7.838 | | | | | | |
| 2,800.00 | 2,771.32 | 2,799.34 | 2,785.22 | 11.02 | 10.24 | 150.60 | -169.24 | 135.54 | 159.38 | 139.09 | 20.28 | 7.858 | | | | | | |
| 2,900.00 | 2,869.78 | 2,899.12 | 2,884.20 | 11.46 | 10.64 | 150.39 | -178.53 | 144.09 | 165.94 | 144.88 | 21.07 | 7.877 | | | | | | |
| 3,000.00 | 2,968.24 | 2,998.90 | 2,983.18 | 11.91 | 11.04 | 150.20 | -187.83 | 152.64 | 172.51 | 150.66 | 21.85 | 7.894 | | | | | | |
| 3,100.00 | 3,066.71 | 3,098.69 | 3,082.16 | 12.35 | 11.44 | 150.03 | -197.12 | 161.18 | 179.08 | 156.44 | 22.64 | 7.910 | | | | | | |
| 3,200.00 | 3,165.17 | 3,198.47 | 3,181.14 | 12.80 | 11.84 | 149.87 | -206.41 | 169.73 | 185.66 | 162.23 | 23.43 | 7.925 | | | | | | |
| 3,300.00 | 3,263.63 | 3,298.25 | 3,280.12 | 13.24 | 12.25 | 149.72 | -215.70 | 178.27 | 192.23 | 168.02 | 24.22 | 7.938 | | | | | | |
| 3,400.00 | 3,362.09 | 3,398.03 | 3,379.10 | 13.69 | 12.65 | 149.57 | -224.99 | 186.82 | 198.81 | 173.80 | 25.01 | 7.950 | | | | | | |
| 3,500.00 | 3,460.55 | 3,497.82 | 3,478.08 | 14.13 | 13.05 | 149.44 | -234.28 | 195.36 | 205.38 | 179.59 | 25.80 | 7.962 | | | | | | |
| 3,600.00 | 3,559.01 | 3,597.60 | 3,577.07 | 14.58 | 13.45 | 149.32 | -243.57 | 203.91 | 211.96 | 185.38 | 26.59 | 7.972 | | | | | | |
| 3,700.00 | 3,657.48 | 3,697.38 | 3,676.05 | 15.02 | 13.86 | 149.20 | -252.87 | 212.45 | 218.54 | 191.16 | 27.38 | 7.982 | | | | | | |
| 3,800.00 | 3,755.94 | 3,797.16 | 3,775.03 | 15.47 | 14.26 | 149.09 | -262.16 | 221.00 | 225.12 | 196.95 | 28.17 | 7.992 | | | | | | |
| 3,900.00 | 3,854.40 | 3,896.95 | 3,874.01 | 15.92 | 14.66 | 148.99 | -271.45 | 229.55 | 231.70 | 202.74 | 28.96 | 8.000 | | | | | | |
| 4,000.00 | 3,952.86 | 3,996.73 | 3,972.99 | 16.36 | 15.06 | 148.89 | -280.74 | 238.09 | 238.28 | 208.53 | 29.75 | 8.008 | | | | | | |
| 4,100.00 | 4,051.32 | 4,096.51 | 4,071.97 | 16.81 | 15.47 | 148.80 | -290.03 | 246.64 | 244.86 | 214.32 | 30.55 | 8.016 | | | | | | |
| 4,200.00 | 4,149.79 | 4,196.29 | 4,170.95 | 17.26 | 15.87 | 148.71 | -299.32 | 255.18 | 251.45 | 220.10 | 31.34 | 8.023 | | | | | | |
| 4,300.00 | 4,248.25 | 4,296.07 | 4,269.93 | 17.70 | 16.27 | 148.63 | -308.61 | 263.73 | 258.03 | 225.89 | 32.13 | 8.030 | | | | | | |
| 4,400.00 | 4,346.71 | 4,395.86 | 4,368.91 | 18.15 | 16.68 | 148.55 | -317.91 | 272.27 | 264.61 | 231.68 | 32.93 | 8.036 | | | | | | |
| 4,500.00 | 4,445.17 | 4,495.64 | 4,467.89 | 18.60 | 17.08 | 148.47 | -327.20 | 280.82 | 271.20 | 237.47 | 33.72 | 8.042 | | | | | | |
| 4,600.00 | 4,543.63 | 4,595.42 | 4,566.87 | 19.04 | 17.49 | 148.40 | -336.49 | 289.37 | 277.78 | 243.26 | 34.52 | 8.048 | | | | | | |
| 4,700.00 | 4,642.10 | 4,695.20 | 4,665.85 | 19.49 | 17.89 | 148.33 | -345.78 | 297.91 | 284.36 | 249.05 | 35.31 | 8.053 | | | | | | |
| 4,800.00 | 4,740.56 | 4,794.99 | 4,764.83 | 19.94 | 18.30 | 148.27 | -355.07 | 306.46 | 290.95 | 254.84 | 36.11 | 8.058 | | | | | | |
| 4,900.00 | 4,839.02 | 4,894.77 | 4,863.81 | 20.39 | 18.70 | 148.21 | -364.36 | 315.00 | 297.53 | 260.63 | 36.90 | 8.063 | | | | | | |
| 5,000.00 | 4,937.48 | 4,994.55 | 4,962.79 | 20.83 | 19.10 | 148.15 | -373.66 | 323.55 | 304.12 | 266.42 | 37.70 | 8.068 | | | | | | |
| 5,100.00 | 5,035.94 | 5,094.33 | 5,061.78 | 21.28 | 19.51 | 148.09 | -382.95 | 332.09 | 310.71 | 272.22 | 38.49 | 8.072 | | | | | | |

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 4S-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 4S-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 4Q-32H-O268 - OH - PLAN #2 | | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Survey Program: O-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 | | |
| 5,200.00 | 5,134.41 | 5,194.12 | 5,160.76 | 21.73 | 19.91 | 148.03 | -392.24 | 340.64 | 317.29 | 278.01 | 39.29 | 8.076 | | | |
| 5,300.00 | 5,232.87 | 5,293.90 | 5,259.74 | 22.18 | 20.32 | 147.98 | -401.53 | 349.19 | 323.88 | 283.80 | 40.08 | 8.080 | | | |
| 5,400.00 | 5,331.33 | 5,393.68 | 5,358.72 | 22.63 | 20.72 | 147.93 | -410.82 | 357.73 | 330.47 | 289.59 | 40.88 | 8.084 | | | |
| 5,500.00 | 5,429.79 | 5,493.46 | 5,457.70 | 23.07 | 21.13 | 147.88 | -420.11 | 366.28 | 337.05 | 295.38 | 41.67 | 8.088 | | | |
| 5,600.00 | 5,528.25 | 5,593.25 | 5,556.68 | 23.52 | 21.53 | 147.84 | -429.40 | 374.82 | 343.64 | 301.17 | 42.47 | 8.091 | | | |
| 5,700.00 | 5,626.72 | 5,693.03 | 5,656.66 | 23.97 | 21.94 | 147.79 | -438.70 | 383.37 | 350.23 | 306.96 | 43.27 | 8.095 | | | |
| 5,800.00 | 5,725.18 | 5,792.81 | 5,754.64 | 24.42 | 22.34 | 147.75 | -447.99 | 391.91 | 356.82 | 312.75 | 44.06 | 8.098 | | | |
| 5,900.00 | 5,823.64 | 5,892.59 | 5,853.62 | 24.87 | 22.75 | 147.71 | -457.28 | 400.46 | 363.40 | 318.54 | 44.86 | 8.101 | | | |
| 6,000.00 | 5,922.10 | 5,992.38 | 5,952.60 | 25.31 | 23.15 | 147.67 | -466.57 | 409.01 | 369.99 | 324.34 | 45.66 | 8.104 | | | |
| 6,100.00 | 6,020.56 | 6,092.16 | 6,051.58 | 25.76 | 23.56 | 147.63 | -475.86 | 417.55 | 376.58 | 330.13 | 46.45 | 8.107 | | | |
| 6,200.00 | 6,119.03 | 6,191.94 | 6,150.56 | 26.21 | 23.96 | 147.59 | -485.15 | 426.10 | 383.17 | 335.92 | 47.25 | 8.109 | | | |
| 6,300.00 | 6,217.49 | 6,291.72 | 6,249.54 | 26.66 | 24.37 | 147.55 | -494.44 | 434.64 | 389.76 | 341.71 | 48.05 | 8.112 | | | |
| 6,400.00 | 6,315.95 | 6,391.51 | 6,348.52 | 27.11 | 24.77 | 147.52 | -503.74 | 443.19 | 396.35 | 347.50 | 48.84 | 8.114 | | | |
| 6,500.00 | 6,414.41 | 6,491.29 | 6,447.50 | 27.55 | 25.18 | 147.48 | -513.03 | 451.73 | 402.94 | 353.29 | 49.64 | 8.117 | | | |
| 6,600.00 | 6,512.87 | 6,591.07 | 6,546.49 | 28.00 | 25.58 | 147.45 | -522.32 | 460.28 | 409.53 | 359.09 | 50.44 | 8.119 | | | |
| 6,700.00 | 6,611.34 | 6,690.85 | 6,645.47 | 28.45 | 25.99 | 147.42 | -531.61 | 468.82 | 416.11 | 364.88 | 51.24 | 8.121 | | | |
| 6,800.00 | 6,709.80 | 6,794.25 | 6,748.31 | 28.90 | 26.38 | 148.18 | -535.41 | 477.90 | 422.31 | 370.37 | 51.95 | 8.130 | | | |
| 6,900.00 | 6,808.26 | 6,894.69 | 6,847.69 | 29.35 | 26.68 | 150.78 | -524.94 | 487.13 | 428.11 | 375.72 | 52.39 | 8.172 | | | |
| 6,982.73 | 6,889.71 | 6,972.63 | 6,923.20 | 29.72 | 26.88 | 153.99 | -507.26 | 494.47 | 433.84 | 381.25 | 52.59 | 8.250 | | | |
| 7,000.00 | 6,906.74 | 6,988.25 | 6,938.07 | 29.80 | 26.92 | 162.05 | -502.73 | 495.95 | 435.27 | 382.66 | 52.61 | 8.273 | | | |
| 7,050.00 | 6,956.13 | 7,032.82 | 6,979.93 | 30.01 | 27.02 | -170.71 | -488.03 | 500.18 | 439.79 | 387.13 | 52.67 | 8.351 | | | |
| 7,100.00 | 7,005.50 | 7,076.51 | 7,019.99 | 30.19 | 27.10 | -144.30 | -471.10 | 504.33 | 444.83 | 392.14 | 52.69 | 8.443 | | | |
| 7,150.00 | 7,054.61 | 7,119.40 | 7,058.24 | 30.36 | 27.18 | -124.89 | -452.13 | 508.38 | 450.29 | 397.62 | 52.67 | 8.549 | | | |
| 7,200.00 | 7,103.23 | 7,161.56 | 7,094.66 | 30.52 | 27.25 | -111.80 | -431.27 | 512.32 | 456.09 | 403.47 | 52.62 | 8.668 | | | |
| 7,250.00 | 7,151.10 | 7,200.00 | 7,126.74 | 30.65 | 27.31 | -102.80 | -410.41 | 515.88 | 462.14 | 409.65 | 52.49 | 8.805 | | | |
| 7,300.00 | 7,198.01 | 7,243.96 | 7,161.99 | 30.77 | 27.36 | -95.97 | -384.48 | 519.89 | 468.32 | 415.94 | 52.38 | 8.941 | | | |
| 7,350.00 | 7,243.72 | 7,284.30 | 7,192.89 | 30.88 | 27.41 | -90.75 | -358.80 | 523.51 | 474.58 | 422.38 | 52.20 | 9.092 | | | |
| 7,400.00 | 7,288.00 | 7,324.14 | 7,221.94 | 30.97 | 27.45 | -86.54 | -331.76 | 527.00 | 480.81 | 428.84 | 51.97 | 9.251 | | | |
| 7,450.00 | 7,330.65 | 7,363.52 | 7,249.13 | 31.05 | 27.48 | -83.04 | -303.48 | 530.37 | 486.95 | 435.24 | 51.71 | 9.417 | | | |
| 7,500.00 | 7,371.46 | 7,400.00 | 7,272.89 | 31.12 | 27.51 | -80.13 | -275.98 | 533.41 | 492.92 | 441.55 | 51.37 | 9.595 | | | |
| 7,550.00 | 7,410.22 | 7,441.10 | 7,297.95 | 31.17 | 27.54 | -77.52 | -243.58 | 536.72 | 498.63 | 447.53 | 51.10 | 9.758 | | | |
| 7,600.00 | 7,446.75 | 7,479.36 | 7,319.58 | 31.21 | 27.56 | -75.32 | -212.16 | 539.69 | 504.04 | 453.27 | 50.77 | 9.928 | | | |
| 7,650.00 | 7,480.87 | 7,517.32 | 7,339.35 | 31.24 | 27.58 | -73.40 | -179.89 | 542.53 | 509.09 | 458.66 | 50.43 | 10.095 | | | |
| 7,700.00 | 7,512.42 | 7,550.00 | 7,354.98 | 31.25 | 27.60 | -71.82 | -151.29 | 544.88 | 513.75 | 463.74 | 50.01 | 10.273 | | | |
| 7,750.00 | 7,541.23 | 7,592.46 | 7,373.32 | 31.26 | 27.62 | -70.29 | -113.11 | 547.78 | 517.88 | 468.10 | 49.78 | 10.403 | | | |
| 7,800.00 | 7,567.18 | 7,629.70 | 7,387.52 | 31.25 | 27.65 | -69.04 | -78.78 | 550.19 | 521.54 | 472.04 | 49.50 | 10.537 | | | |
| 7,850.00 | 7,590.12 | 7,666.74 | 7,399.86 | 31.24 | 27.68 | -67.97 | -43.92 | 552.44 | 524.66 | 475.41 | 49.25 | 10.653 | | | |
| 7,900.00 | 7,609.96 | 7,700.00 | 7,409.39 | 31.22 | 27.71 | -67.12 | -12.12 | 554.35 | 527.22 | 478.22 | 49.01 | 10.758 | | | |
| 7,950.00 | 7,626.60 | 7,740.38 | 7,418.97 | 31.19 | 27.76 | -66.34 | 27.04 | 556.50 | 529.15 | 480.24 | 48.91 | 10.819 | | | |
| 8,000.00 | 7,639.94 | 7,777.01 | 7,425.75 | 31.15 | 27.81 | -65.76 | 63.00 | 558.30 | 530.47 | 481.64 | 48.84 | 10.862 | | | |
| 8,050.00 | 7,649.94 | 7,813.56 | 7,430.67 | 31.11 | 27.89 | -65.33 | 99.16 | 559.93 | 531.16 | 482.32 | 48.84 | 10.876 | | | |
| 8,100.00 | 7,656.54 | 7,850.00 | 7,433.75 | 31.07 | 27.97 | -65.04 | 135.44 | 561.41 | 531.20 | 482.28 | 48.92 | 10.858 | | | |
| 8,150.00 | 7,659.70 | 7,886.46 | 7,434.97 | 31.03 | 28.07 | -64.89 | 171.85 | 562.73 | 530.57 | 481.49 | 49.09 | 10.809 | | | |
| 8,170.89 | 7,660.00 | 7,905.10 | 7,435.00 | 31.01 | 28.13 | -64.87 | 190.48 | 563.34 | 530.08 | 480.89 | 49.19 | 10.777 | | | |
| 8,200.00 | 7,660.00 | 7,934.19 | 7,435.00 | 30.98 | 28.24 | -64.82 | 219.56 | 564.31 | 529.17 | 479.82 | 49.35 | 10.722 | | | |
| 8,300.00 | 7,660.00 | 8,034.13 | 7,435.00 | 30.92 | 28.66 | -64.67 | 319.44 | 567.61 | 526.07 | 476.07 | 50.00 | 10.521 | | | |
| 8,400.00 | 7,660.00 | 8,134.07 | 7,435.00 | 30.91 | 29.18 | -64.50 | 419.33 | 570.92 | 522.98 | 472.17 | 50.81 | 10.293 | | | |
| 8,500.00 | 7,660.00 | 8,234.01 | 7,435.00 | 31.22 | 29.79 | -64.34 | 519.22 | 574.22 | 519.88 | 468.12 | 51.76 | 10.044 | | | |
| 8,600.00 | 7,660.00 | 8,333.96 | 7,435.00 | 31.83 | 30.46 | -64.18 | 619.10 | 577.53 | 516.79 | 463.94 | 52.85 | 9.778 | | | |
| 8,700.00 | 7,660.00 | 8,433.90 | 7,435.00 | 32.55 | 31.20 | -64.01 | 718.99 | 580.84 | 513.71 | 459.64 | 54.07 | 9.501 | | | |
| 8,800.00 | 7,660.00 | 8,533.84 | 7,435.00 | 33.33 | 32.00 | -63.84 | 818.88 | 584.14 | 510.63 | 455.22 | 55.41 | 9.216 | | | |
| 8,900.00 | 7,660.00 | 8,633.78 | 7,435.00 | 34.16 | 32.86 | -63.67 | 918.76 | 587.45 | 507.55 | 450.70 | 56.85 | 8.927 | | | |

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 4S-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 4S-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 4Q-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 | |
| 9,000.00 | 7,660.00 | 8,733.72 | 7,435.00 | 35.04 | 33.76 | -63.50 | 1,018.65 | 590.76 | 504.48 | 446.08 | 58.40 | 8.638 | | |
| 9,100.00 | 7,660.00 | 8,833.66 | 7,435.00 | 35.97 | 34.71 | -63.32 | 1,118.54 | 594.06 | 501.42 | 441.38 | 60.04 | 8.352 | | |
| 9,200.00 | 7,660.00 | 8,933.60 | 7,435.00 | 36.94 | 35.70 | -63.15 | 1,218.42 | 597.37 | 498.35 | 436.60 | 61.76 | 8.069 | | |
| 9,300.00 | 7,660.00 | 9,033.54 | 7,435.00 | 37.96 | 36.73 | -62.97 | 1,318.31 | 600.67 | 495.30 | 431.74 | 63.55 | 7.793 | | |
| 9,400.00 | 7,660.00 | 9,133.48 | 7,435.00 | 39.00 | 37.80 | -62.79 | 1,418.20 | 603.98 | 492.25 | 426.83 | 65.42 | 7.525 | | |
| 9,500.00 | 7,660.00 | 9,233.43 | 7,435.00 | 40.09 | 38.90 | -62.60 | 1,518.08 | 607.29 | 489.20 | 421.86 | 67.34 | 7.264 | | |
| 9,600.00 | 7,660.00 | 9,333.37 | 7,435.00 | 41.20 | 40.03 | -62.42 | 1,617.97 | 610.59 | 486.16 | 416.84 | 69.32 | 7.013 | | |
| 9,700.00 | 7,660.00 | 9,433.31 | 7,435.00 | 42.34 | 41.19 | -62.23 | 1,717.86 | 613.90 | 483.12 | 411.77 | 71.35 | 6.771 | | |
| 9,800.00 | 7,660.00 | 9,533.25 | 7,435.00 | 43.51 | 42.37 | -62.04 | 1,817.74 | 617.20 | 480.09 | 406.67 | 73.42 | 6.539 | | |
| 9,900.00 | 7,660.00 | 9,633.19 | 7,435.00 | 44.70 | 43.58 | -61.85 | 1,917.63 | 620.51 | 477.06 | 401.53 | 75.53 | 6.316 | | |
| 10,000.00 | 7,660.00 | 9,733.13 | 7,435.00 | 45.92 | 44.81 | -61.65 | 2,017.52 | 623.82 | 474.04 | 396.36 | 77.68 | 6.102 | | |
| 10,100.00 | 7,660.00 | 9,833.07 | 7,435.00 | 47.16 | 46.05 | -61.45 | 2,117.40 | 627.12 | 471.03 | 391.17 | 79.86 | 5.898 | | |
| 10,200.00 | 7,660.00 | 9,930.85 | 7,435.00 | 48.42 | 47.29 | -61.26 | 2,215.13 | 630.32 | 468.06 | 386.05 | 82.01 | 5.707 | | |
| 10,295.04 | 7,660.00 | 10,013.99 | 7,435.00 | 49.63 | 48.37 | -61.19 | 2,298.26 | 631.42 | 466.85 | 382.95 | 83.90 | 5.565 | | |
| 10,300.00 | 7,660.00 | 10,018.33 | 7,435.00 | 49.70 | 48.43 | -61.19 | 2,302.60 | 631.41 | 466.85 | 382.86 | 84.00 | 5.558 | | |
| 10,400.00 | 7,660.00 | 10,105.81 | 7,435.00 | 50.99 | 49.58 | -61.27 | 2,390.06 | 629.84 | 468.32 | 382.23 | 86.09 | 5.440 | | |
| 10,500.00 | 7,660.00 | 10,203.64 | 7,435.00 | 52.30 | 50.89 | -61.48 | 2,487.82 | 626.13 | 471.55 | 382.91 | 88.64 | 5.320 | | |
| 10,600.00 | 7,660.00 | 10,303.57 | 7,435.00 | 53.62 | 52.24 | -61.70 | 2,587.68 | 622.29 | 474.81 | 383.52 | 91.29 | 5.201 | | |
| 10,700.00 | 7,660.00 | 10,403.51 | 7,435.00 | 54.96 | 53.61 | -61.91 | 2,687.54 | 618.46 | 478.09 | 384.12 | 93.97 | 5.088 | | |
| 10,800.00 | 7,660.00 | 10,503.44 | 7,435.00 | 56.31 | 55.00 | -62.12 | 2,787.39 | 614.63 | 481.37 | 384.69 | 96.68 | 4.979 | | |
| 10,900.00 | 7,660.00 | 10,603.37 | 7,435.00 | 57.67 | 56.39 | -62.32 | 2,887.25 | 610.80 | 484.65 | 385.25 | 99.41 | 4.876 | | |
| 11,000.00 | 7,660.00 | 10,703.30 | 7,435.00 | 59.05 | 57.80 | -62.52 | 2,987.11 | 606.97 | 487.95 | 385.79 | 102.16 | 4.776 | | |
| 11,100.00 | 7,660.00 | 10,803.23 | 7,435.00 | 60.43 | 59.22 | -62.72 | 3,086.97 | 603.13 | 491.25 | 386.32 | 104.93 | 4.682 | | |
| 11,200.00 | 7,660.00 | 10,903.16 | 7,435.00 | 61.82 | 60.64 | -62.92 | 3,186.82 | 599.30 | 494.55 | 386.83 | 107.72 | 4.591 | | |
| 11,300.00 | 7,660.00 | 11,003.09 | 7,435.00 | 63.23 | 62.08 | -63.12 | 3,286.68 | 595.47 | 497.86 | 387.33 | 110.53 | 4.504 | | |
| 11,400.00 | 7,660.00 | 11,103.02 | 7,435.00 | 64.64 | 63.53 | -63.31 | 3,386.54 | 591.64 | 501.18 | 387.82 | 113.36 | 4.421 | | |
| 11,500.00 | 7,660.00 | 11,202.95 | 7,435.00 | 66.06 | 64.98 | -63.50 | 3,486.40 | 587.81 | 504.50 | 388.29 | 116.21 | 4.341 | | |
| 11,600.00 | 7,660.00 | 11,302.88 | 7,435.00 | 67.48 | 66.44 | -63.68 | 3,586.25 | 583.97 | 507.82 | 388.76 | 119.07 | 4.265 | | |
| 11,700.00 | 7,660.00 | 11,402.82 | 7,435.00 | 68.91 | 67.91 | -63.87 | 3,686.11 | 580.14 | 511.16 | 389.22 | 121.94 | 4.192 | | |
| 11,800.00 | 7,660.00 | 11,502.75 | 7,435.00 | 70.35 | 69.39 | -64.05 | 3,785.97 | 576.31 | 514.49 | 389.67 | 124.83 | 4.122 | | |
| 11,900.00 | 7,660.00 | 11,602.68 | 7,435.00 | 71.80 | 70.87 | -64.23 | 3,885.83 | 572.48 | 517.84 | 390.11 | 127.73 | 4.054 | | |
| 12,000.00 | 7,660.00 | 11,702.61 | 7,435.00 | 73.25 | 72.35 | -64.41 | 3,985.68 | 568.65 | 521.19 | 390.54 | 130.64 | 3.989 | | |
| 12,100.00 | 7,660.00 | 11,802.54 | 7,435.00 | 74.71 | 73.85 | -64.58 | 4,085.54 | 564.81 | 524.54 | 390.97 | 133.57 | 3.927 | | |
| 12,200.00 | 7,660.00 | 11,902.47 | 7,435.00 | 76.17 | 75.34 | -64.76 | 4,185.40 | 560.98 | 527.90 | 391.40 | 136.50 | 3.867 | | |
| 12,253.72 | 7,660.00 | 11,956.15 | 7,435.00 | 76.96 | 75.98 | -64.85 | 4,239.04 | 558.92 | 529.70 | 391.79 | 137.91 | 3.841 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 4S-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 4S-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 | -89.90 | 0.02 | -10.07 | 10.07 | | | | | | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | -89.90 | 0.02 | -10.07 | 10.07 | 9.80 | 0.28 | 36.491 | | | | | | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | -89.90 | 0.02 | -10.07 | 10.07 | 9.08 | 0.99 | 10.144 | | | | | | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.85 | 0.85 | -89.90 | 0.02 | -10.07 | 10.07 | 8.36 | 1.71 | 5.891 | | | | | | | |
| 400.00 | 400.00 | 400.00 | 400.00 | 1.21 | 1.21 | -89.90 | 0.02 | -10.07 | 10.07 | 7.65 | 2.43 | 4.150 | | | | | | | |
| 500.00 | 500.00 | 500.00 | 500.00 | 1.57 | 1.57 | -89.90 | 0.02 | -10.07 | 10.07 | 6.93 | 3.14 | 3.204 | | | | | | | |
| 600.00 | 600.00 | 600.00 | 600.00 | 1.93 | 1.93 | -89.90 | 0.02 | -10.07 | 10.07 | 6.21 | 3.86 | 2.609 | CC, ES | | | | | | |
| 700.00 | 699.98 | 699.98 | 699.98 | 2.28 | 2.29 | 154.20 | 0.02 | -10.07 | 11.62 | 7.05 | 4.57 | 2.544 | | | | | | | |
| 800.00 | 799.84 | 800.33 | 800.31 | 2.62 | 2.64 | 159.63 | -0.97 | -8.62 | 14.88 | 9.62 | 5.26 | 2.830 | | | | | | | |
| 900.00 | 899.45 | 900.81 | 900.64 | 2.97 | 2.98 | 162.36 | -3.93 | -4.25 | 18.29 | 12.33 | 5.96 | 3.070 | | | | | | | |
| 1,000.00 | 998.70 | 1,001.40 | 1,000.85 | 3.33 | 3.33 | 163.59 | -8.88 | 3.03 | 21.79 | 15.12 | 6.67 | 3.266 | | | | | | | |
| 1,103.09 | 1,100.51 | 1,105.23 | 1,103.88 | 3.72 | 3.70 | 163.95 | -16.06 | 13.60 | 25.46 | 18.04 | 7.42 | 3.432 | | | | | | | |
| 1,200.00 | 1,195.93 | 1,202.64 | 1,200.10 | 4.11 | 4.07 | 162.97 | -24.56 | 26.13 | 27.60 | 19.48 | 8.12 | 3.400 | | | | | | | |
| 1,300.00 | 1,294.39 | 1,302.62 | 1,298.77 | 4.51 | 4.45 | 161.63 | -33.66 | 39.53 | 29.21 | 20.37 | 8.83 | 3.306 | | | | | | | |
| 1,400.00 | 1,392.85 | 1,402.61 | 1,397.43 | 4.93 | 4.85 | 160.43 | -42.76 | 52.93 | 30.83 | 21.26 | 9.56 | 3.223 | | | | | | | |
| 1,500.00 | 1,491.31 | 1,502.59 | 1,496.10 | 5.35 | 5.25 | 159.35 | -51.85 | 66.33 | 32.46 | 22.16 | 10.31 | 3.150 | | | | | | | |
| 1,600.00 | 1,589.78 | 1,602.58 | 1,594.76 | 5.77 | 5.66 | 158.37 | -60.95 | 79.73 | 34.10 | 23.05 | 11.05 | 3.085 | | | | | | | |
| 1,700.00 | 1,688.24 | 1,702.56 | 1,693.42 | 6.20 | 6.07 | 157.48 | -70.05 | 93.13 | 35.76 | 23.95 | 11.81 | 3.028 | | | | | | | |
| 1,800.00 | 1,786.70 | 1,802.55 | 1,792.09 | 6.63 | 6.49 | 156.68 | -79.15 | 106.53 | 37.42 | 24.84 | 12.57 | 2.976 | | | | | | | |
| 1,900.00 | 1,885.16 | 1,902.53 | 1,890.75 | 7.06 | 6.90 | 155.94 | -88.25 | 119.93 | 39.08 | 25.74 | 13.34 | 2.930 | | | | | | | |
| 2,000.00 | 1,983.62 | 2,002.52 | 1,989.42 | 7.50 | 7.32 | 155.26 | -97.35 | 133.33 | 40.76 | 26.64 | 14.11 | 2.888 | | | | | | | |
| 2,100.00 | 2,082.09 | 2,102.50 | 2,088.08 | 7.94 | 7.75 | 154.63 | -106.44 | 146.73 | 42.44 | 27.54 | 14.89 | 2.850 | | | | | | | |
| 2,200.00 | 2,180.55 | 2,202.49 | 2,186.75 | 8.37 | 8.17 | 154.06 | -115.54 | 160.13 | 44.12 | 28.45 | 15.67 | 2.815 | | | | | | | |
| 2,300.00 | 2,279.01 | 2,302.47 | 2,285.41 | 8.81 | 8.59 | 153.52 | -124.64 | 173.53 | 45.81 | 29.35 | 16.46 | 2.784 | | | | | | | |
| 2,400.00 | 2,377.47 | 2,402.46 | 2,384.07 | 9.25 | 9.02 | 153.03 | -133.74 | 186.93 | 47.50 | 30.25 | 17.24 | 2.755 | | | | | | | |
| 2,500.00 | 2,475.93 | 2,502.44 | 2,482.74 | 9.69 | 9.45 | 152.56 | -142.84 | 200.33 | 49.19 | 31.16 | 18.03 | 2.728 | | | | | | | |
| 2,600.00 | 2,574.40 | 2,602.43 | 2,581.40 | 10.14 | 9.87 | 152.13 | -151.94 | 213.73 | 50.89 | 32.06 | 18.83 | 2.703 | | | | | | | |
| 2,700.00 | 2,672.86 | 2,702.41 | 2,680.07 | 10.58 | 10.30 | 151.73 | -161.03 | 227.13 | 52.59 | 32.97 | 19.62 | 2.680 | | | | | | | |
| 2,800.00 | 2,771.32 | 2,802.40 | 2,778.73 | 11.02 | 10.73 | 151.35 | -170.13 | 240.53 | 54.29 | 33.88 | 20.42 | 2.659 | | | | | | | |
| 2,900.00 | 2,869.78 | 2,902.38 | 2,877.40 | 11.46 | 11.16 | 150.99 | -179.23 | 253.93 | 56.00 | 34.78 | 21.21 | 2.640 | | | | | | | |
| 3,000.00 | 2,968.24 | 3,002.37 | 2,976.06 | 11.91 | 11.59 | 150.66 | -188.33 | 267.33 | 57.70 | 35.69 | 22.01 | 2.621 | | | | | | | |
| 3,100.00 | 3,066.71 | 3,102.35 | 3,074.72 | 12.35 | 12.02 | 150.34 | -197.43 | 280.73 | 59.41 | 36.60 | 22.81 | 2.604 | | | | | | | |
| 3,200.00 | 3,165.17 | 3,202.34 | 3,173.39 | 12.80 | 12.45 | 150.05 | -206.52 | 294.13 | 61.12 | 37.50 | 23.62 | 2.588 | | | | | | | |
| 3,300.00 | 3,263.63 | 3,302.32 | 3,272.05 | 13.24 | 12.89 | 149.76 | -215.62 | 307.53 | 62.83 | 38.41 | 24.42 | 2.573 | | | | | | | |
| 3,400.00 | 3,362.09 | 3,402.31 | 3,370.72 | 13.69 | 13.32 | 149.50 | -224.72 | 320.93 | 64.55 | 39.32 | 25.22 | 2.559 | | | | | | | |
| 3,500.00 | 3,460.55 | 3,502.29 | 3,469.38 | 14.13 | 13.75 | 149.24 | -233.82 | 334.33 | 66.26 | 40.23 | 26.03 | 2.546 | | | | | | | |
| 3,600.00 | 3,559.01 | 3,602.28 | 3,568.05 | 14.58 | 14.18 | 149.00 | -242.92 | 347.73 | 67.98 | 41.14 | 26.84 | 2.533 | | | | | | | |
| 3,700.00 | 3,657.48 | 3,702.26 | 3,666.71 | 15.02 | 14.62 | 148.78 | -252.02 | 361.13 | 69.69 | 42.05 | 27.64 | 2.521 | | | | | | | |
| 3,800.00 | 3,755.94 | 3,802.25 | 3,765.37 | 15.47 | 15.05 | 148.56 | -261.11 | 374.53 | 71.41 | 42.96 | 28.45 | 2.510 | | | | | | | |
| 3,900.00 | 3,854.40 | 3,902.23 | 3,864.04 | 15.92 | 15.48 | 148.35 | -270.21 | 387.93 | 73.13 | 43.87 | 29.26 | 2.499 | | | | | | | |
| 4,000.00 | 3,952.86 | 4,002.22 | 3,962.70 | 16.36 | 15.92 | 148.15 | -279.31 | 401.33 | 74.85 | 44.78 | 30.07 | 2.489 | | | | | | | |
| 4,100.00 | 4,051.32 | 4,102.20 | 4,061.37 | 16.81 | 16.35 | 147.97 | -288.41 | 414.73 | 76.57 | 45.69 | 30.88 | 2.480 | | | | | | | |
| 4,200.00 | 4,149.79 | 4,202.19 | 4,160.03 | 17.26 | 16.78 | 147.79 | -297.51 | 428.13 | 78.29 | 46.60 | 31.69 | 2.471 | | | | | | | |
| 4,300.00 | 4,248.25 | 4,302.17 | 4,258.69 | 17.70 | 17.22 | 147.61 | -306.60 | 441.53 | 80.01 | 47.51 | 32.50 | 2.462 | | | | | | | |
| 4,400.00 | 4,346.71 | 4,402.16 | 4,357.36 | 18.15 | 17.65 | 147.45 | -315.70 | 454.93 | 81.74 | 48.42 | 33.31 | 2.454 | | | | | | | |
| 4,500.00 | 4,445.17 | 4,502.14 | 4,456.02 | 18.60 | 18.09 | 147.29 | -324.80 | 468.33 | 83.46 | 49.34 | 34.13 | 2.446 | | | | | | | |
| 4,600.00 | 4,543.63 | 4,602.13 | 4,554.69 | 19.04 | 18.52 | 147.14 | -333.90 | 481.73 | 85.18 | 50.25 | 34.94 | 2.438 | | | | | | | |
| 4,700.00 | 4,642.10 | 4,702.11 | 4,653.35 | 19.49 | 18.95 | 146.99 | -343.00 | 495.13 | 86.91 | 51.16 | 35.75 | 2.431 | | | | | | | |
| 4,800.00 | 4,740.56 | 4,802.10 | 4,752.02 | 19.94 | 19.39 | 146.85 | -352.10 | 508.53 | 88.63 | 52.07 | 36.56 | 2.424 | | | | | | | |
| 4,900.00 | 4,839.02 | 4,902.08 | 4,850.68 | 20.39 | 19.82 | 146.72 | -361.19 | 521.93 | 90.36 | 52.98 | 37.38 | 2.417 | | | | | | | |
| 5,000.00 | 4,937.48 | 5,002.07 | 4,949.34 | 20.83 | 20.26 | 146.59 | -370.29 | 535.33 | 92.09 | 53.89 | 38.19 | 2.411 | | | | | | | |
| 5,100.00 | 5,035.94 | 5,102.05 | 5,048.01 | 21.28 | 20.69 | 146.46 | -379.39 | 548.73 | 93.81 | 54.81 | 39.01 | 2.405 | | | | | | | |

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 4S-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 4S-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: 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) | | | | |
| 5,200.00 | 5,134.41 | 5,202.03 | 5,146.67 | 21.73 | 21.13 | 146.34 | -388.49 | 562.13 | 95.54 | 55.72 | 39.82 | 2.399 | | |
| 5,300.00 | 5,232.87 | 5,302.02 | 5,245.34 | 22.18 | 21.56 | 146.22 | -397.59 | 575.53 | 97.27 | 56.63 | 40.64 | 2.394 | | |
| 5,400.00 | 5,331.33 | 5,402.00 | 5,344.00 | 22.63 | 22.00 | 146.11 | -406.69 | 588.93 | 99.00 | 57.54 | 41.45 | 2.388 | | |
| 5,500.00 | 5,429.79 | 5,501.99 | 5,442.67 | 23.07 | 22.43 | 146.00 | -415.78 | 602.34 | 100.72 | 58.46 | 42.27 | 2.383 | | |
| 5,600.00 | 5,528.25 | 5,601.97 | 5,541.33 | 23.52 | 22.87 | 145.90 | -424.88 | 615.74 | 102.45 | 59.37 | 43.08 | 2.378 | | |
| 5,700.00 | 5,626.72 | 5,701.96 | 5,639.99 | 23.97 | 23.30 | 145.80 | -433.98 | 629.14 | 104.18 | 60.28 | 43.90 | 2.373 | | |
| 5,800.00 | 5,725.18 | 5,801.94 | 5,738.66 | 24.42 | 23.74 | 145.70 | -443.08 | 642.54 | 105.91 | 61.19 | 44.72 | 2.369 | | |
| 5,900.00 | 5,823.64 | 5,901.93 | 5,837.32 | 24.87 | 24.17 | 145.60 | -452.18 | 655.94 | 107.64 | 62.11 | 45.53 | 2.364 | | |
| 6,000.00 | 5,922.10 | 6,001.91 | 5,935.99 | 25.31 | 24.61 | 145.51 | -461.27 | 669.34 | 109.37 | 63.02 | 46.35 | 2.360 | | |
| 6,100.00 | 6,020.56 | 6,101.90 | 6,034.65 | 25.76 | 25.04 | 145.42 | -470.37 | 682.74 | 111.10 | 63.93 | 47.17 | 2.355 | | |
| 6,200.00 | 6,119.03 | 6,201.88 | 6,133.32 | 26.21 | 25.48 | 145.34 | -479.47 | 696.14 | 112.83 | 64.85 | 47.98 | 2.351 | | |
| 6,300.00 | 6,217.49 | 6,301.87 | 6,231.98 | 26.66 | 25.92 | 145.25 | -488.57 | 709.54 | 114.56 | 65.76 | 48.80 | 2.348 | | |
| 6,400.00 | 6,315.95 | 6,401.85 | 6,330.64 | 27.11 | 26.35 | 145.17 | -497.67 | 722.94 | 116.29 | 66.67 | 49.62 | 2.344 | | |
| 6,500.00 | 6,414.41 | 6,501.84 | 6,429.31 | 27.55 | 26.79 | 145.09 | -506.77 | 736.34 | 118.02 | 67.59 | 50.44 | 2.340 | | |
| 6,600.00 | 6,512.87 | 6,601.82 | 6,527.97 | 28.00 | 27.22 | 145.02 | -515.86 | 749.74 | 119.76 | 68.50 | 51.25 | 2.336 | | |
| 6,700.00 | 6,611.34 | 6,701.81 | 6,626.64 | 28.45 | 27.66 | 144.94 | -524.96 | 763.14 | 121.49 | 69.41 | 52.07 | 2.333 | | |
| 6,800.00 | 6,709.80 | 6,801.79 | 6,725.30 | 28.90 | 28.09 | 144.87 | -534.06 | 776.54 | 123.22 | 70.33 | 52.89 | 2.330 | | |
| 6,900.00 | 6,808.26 | 6,902.67 | 6,825.02 | 29.35 | 28.52 | 144.80 | -543.16 | 790.09 | 124.95 | 71.24 | 53.70 | 2.327 | | |
| 6,982.73 | 6,889.71 | 6,984.90 | 6,906.32 | 29.72 | 28.81 | 144.73 | -552.26 | 803.64 | 126.68 | 72.15 | 54.51 | 2.324 | | |
| 7,000.00 | 6,906.74 | 7,001.70 | 6,922.84 | 29.80 | 28.86 | 144.66 | -561.36 | 817.14 | 128.41 | 73.06 | 55.32 | 2.321 | | |
| 7,050.00 | 6,956.13 | 7,050.00 | 6,969.99 | 30.01 | 29.01 | -170.41 | -570.46 | 830.64 | 130.14 | 73.97 | 56.13 | 2.318 | | |
| 7,100.00 | 7,005.50 | 7,097.52 | 7,015.74 | 30.19 | 29.13 | -142.11 | -579.56 | 844.14 | 131.87 | 74.88 | 56.94 | 2.315 | | |
| 7,150.00 | 7,054.61 | 7,144.54 | 7,060.18 | 30.36 | 29.25 | -120.96 | -588.66 | 857.64 | 133.60 | 75.79 | 57.75 | 2.312 | | |
| 7,200.00 | 7,103.23 | 7,191.01 | 7,103.10 | 30.52 | 29.34 | -106.29 | -597.76 | 871.14 | 135.33 | 76.70 | 58.56 | 2.309 | | |
| 7,250.00 | 7,151.10 | 7,236.97 | 7,144.40 | 30.65 | 29.43 | -95.77 | -606.86 | 884.64 | 137.06 | 77.61 | 59.37 | 2.306 | | |
| 7,300.00 | 7,198.01 | 7,282.44 | 7,183.98 | 30.77 | 29.50 | -87.83 | -615.96 | 898.14 | 138.79 | 78.52 | 60.18 | 2.303 | | |
| 7,350.00 | 7,243.72 | 7,327.46 | 7,221.74 | 30.88 | 29.57 | -81.55 | -625.06 | 911.64 | 140.52 | 79.43 | 60.99 | 2.300 | | |
| 7,400.00 | 7,288.00 | 7,372.06 | 7,257.60 | 30.97 | 29.62 | -76.45 | -634.16 | 925.14 | 142.25 | 80.34 | 61.80 | 2.297 | | |
| 7,450.00 | 7,330.65 | 7,416.27 | 7,291.50 | 31.05 | 29.66 | -72.19 | -643.26 | 938.64 | 143.98 | 81.25 | 62.61 | 2.294 | | |
| 7,500.00 | 7,371.46 | 7,460.13 | 7,323.37 | 31.12 | 29.70 | -68.61 | -652.36 | 952.14 | 145.71 | 82.16 | 63.42 | 2.291 | | |
| 7,550.00 | 7,410.22 | 7,503.65 | 7,353.16 | 31.17 | 29.72 | -65.55 | -661.46 | 965.64 | 147.44 | 83.07 | 64.23 | 2.288 | | |
| 7,600.00 | 7,446.75 | 7,550.00 | 7,382.73 | 31.21 | 29.74 | -62.83 | -670.56 | 979.14 | 149.17 | 83.98 | 65.04 | 2.285 | | |
| 7,650.00 | 7,480.87 | 7,589.83 | 7,406.29 | 31.24 | 29.74 | -60.67 | -679.66 | 992.64 | 150.90 | 84.89 | 65.85 | 2.282 | | |
| 7,700.00 | 7,512.42 | 7,632.54 | 7,429.54 | 31.25 | 29.74 | -58.73 | -688.76 | 1006.14 | 152.63 | 85.80 | 66.66 | 2.279 | | |
| 7,750.00 | 7,541.23 | 7,675.03 | 7,450.55 | 31.26 | 29.74 | -57.07 | -697.86 | 1019.64 | 154.36 | 86.71 | 67.47 | 2.276 | | |
| 7,800.00 | 7,567.18 | 7,717.32 | 7,469.28 | 31.25 | 29.73 | -55.66 | -706.96 | 1033.14 | 156.09 | 87.62 | 68.28 | 2.273 | | |
| 7,850.00 | 7,590.12 | 7,759.45 | 7,485.70 | 31.24 | 29.71 | -54.47 | -716.06 | 1046.64 | 157.82 | 88.53 | 69.09 | 2.270 | | |
| 7,900.00 | 7,609.96 | 7,800.00 | 7,499.35 | 31.22 | 29.69 | -53.50 | -725.16 | 1060.14 | 159.55 | 89.44 | 69.90 | 2.267 | | |
| 7,950.00 | 7,626.60 | 7,843.28 | 7,511.53 | 31.19 | 29.66 | -52.68 | -734.26 | 1073.64 | 161.28 | 90.35 | 70.71 | 2.264 | | |
| 8,000.00 | 7,639.94 | 7,885.04 | 7,520.91 | 31.15 | 29.63 | -52.05 | -743.36 | 1087.14 | 163.01 | 91.26 | 71.52 | 2.261 | | |
| 8,050.00 | 7,649.94 | 7,926.72 | 7,527.92 | 31.11 | 29.59 | -51.58 | -752.46 | 1100.64 | 164.74 | 92.17 | 72.33 | 2.258 | | |
| 8,100.00 | 7,656.54 | 7,968.36 | 7,532.54 | 31.07 | 29.56 | -51.28 | -761.56 | 1114.14 | 166.47 | 93.08 | 73.14 | 2.255 | | |
| 8,150.00 | 7,659.70 | 8,009.96 | 7,534.78 | 31.03 | 29.52 | -51.13 | -770.66 | 1127.64 | 168.20 | 93.99 | 73.95 | 2.252 | | |
| 8,170.89 | 7,660.00 | 8,027.99 | 7,535.00 | 31.01 | 29.51 | -51.12 | -779.76 | 1141.14 | 169.93 | 94.90 | 74.76 | 2.249 | | |
| 8,200.00 | 7,660.00 | 8,056.31 | 7,535.00 | 30.98 | 29.48 | -51.10 | -788.86 | 1154.64 | 171.66 | 95.81 | 75.57 | 2.246 | | |
| 8,300.00 | 7,660.00 | 8,156.31 | 7,535.00 | 30.92 | 29.40 | -51.04 | -797.96 | 1168.14 | 173.39 | 96.72 | 76.38 | 2.243 | | |
| 8,400.00 | 7,660.00 | 8,256.31 | 7,535.00 | 30.91 | 29.78 | -50.98 | -807.06 | 1181.64 | 175.12 | 97.63 | 77.19 | 2.240 | | |
| 8,500.00 | 7,660.00 | 8,356.31 | 7,535.00 | 31.22 | 30.41 | -50.93 | -816.16 | 1195.14 | 176.85 | 98.54 | 78.00 | 2.237 | | |
| 8,600.00 | 7,660.00 | 8,456.31 | 7,535.00 | 31.83 | 31.09 | -50.87 | -825.26 | 1208.64 | 178.58 | 99.45 | 78.81 | 2.234 | | |
| 8,700.00 | 7,660.00 | 8,556.31 | 7,535.00 | 32.55 | 31.84 | -50.81 | -834.36 | 1222.14 | 180.31 | 100.36 | 79.62 | 2.231 | | |
| 8,800.00 | 7,660.00 | 8,656.31 | 7,535.00 | 33.33 | 32.64 | -50.75 | -843.46 | 1235.64 | 182.04 | 101.27 | 80.43 | 2.228 | | |
| 8,900.00 | 7,660.00 | 8,756.31 | 7,535.00 | 34.16 | 33.49 | -50.70 | -852.56 | 1249.14 | 183.77 | 102.18 | 81.24 | 2.225 | | |

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 4S-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 4S-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 4R-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 | | | | |
| 9,000.00 | 7,660.00 | 8,856.31 | 7,535.00 | 35.04 | 34.39 | -50.64 | 1,004.01 | 889.65 | 197.10 | 147.89 | 49.21 | 4.005 | | | | | |
| 9,100.00 | 7,660.00 | 8,956.31 | 7,535.00 | 35.97 | 35.33 | -50.58 | 1,104.01 | 889.84 | 196.85 | 146.07 | 50.78 | 3.876 | | | | | |
| 9,200.00 | 7,660.00 | 9,056.31 | 7,535.00 | 36.94 | 36.32 | -50.52 | 1,204.01 | 890.04 | 196.61 | 144.17 | 52.44 | 3.749 | | | | | |
| 9,300.00 | 7,660.00 | 9,156.31 | 7,535.00 | 37.96 | 37.34 | -50.46 | 1,304.01 | 890.23 | 196.37 | 142.19 | 54.18 | 3.625 | | | | | |
| 9,400.00 | 7,660.00 | 9,256.31 | 7,535.00 | 39.00 | 38.41 | -50.40 | 1,404.01 | 890.43 | 196.12 | 140.15 | 55.98 | 3.504 | | | | | |
| 9,500.00 | 7,660.00 | 9,356.31 | 7,535.00 | 40.09 | 39.50 | -50.35 | 1,504.01 | 890.62 | 195.88 | 138.04 | 57.84 | 3.387 | | | | | |
| 9,600.00 | 7,660.00 | 9,456.31 | 7,535.00 | 41.20 | 40.63 | -50.29 | 1,604.01 | 890.82 | 195.64 | 135.88 | 59.75 | 3.274 | | | | | |
| 9,700.00 | 7,660.00 | 9,556.31 | 7,535.00 | 42.34 | 41.79 | -50.23 | 1,704.01 | 891.01 | 195.39 | 133.68 | 61.72 | 3.166 | | | | | |
| 9,800.00 | 7,660.00 | 9,656.30 | 7,535.00 | 43.51 | 42.97 | -50.17 | 1,804.00 | 891.21 | 195.15 | 131.43 | 63.72 | 3.062 | | | | | |
| 9,900.00 | 7,660.00 | 9,756.30 | 7,535.00 | 44.70 | 44.18 | -50.11 | 1,904.00 | 891.40 | 194.91 | 129.14 | 65.77 | 2.963 | | | | | |
| 10,000.00 | 7,660.00 | 9,856.30 | 7,535.00 | 45.92 | 45.40 | -50.05 | 2,004.00 | 891.60 | 194.67 | 126.81 | 67.85 | 2.869 | | | | | |
| 10,100.00 | 7,660.00 | 9,956.30 | 7,535.00 | 47.16 | 46.65 | -49.99 | 2,104.00 | 891.79 | 194.43 | 124.46 | 69.97 | 2.779 | | | | | |
| 10,200.00 | 7,660.00 | 10,056.30 | 7,535.00 | 48.42 | 47.92 | -49.93 | 2,204.00 | 891.99 | 194.18 | 122.07 | 72.11 | 2.693 | | | | | |
| 10,300.00 | 7,660.00 | 10,156.30 | 7,535.00 | 49.70 | 49.21 | -49.87 | 2,304.00 | 892.18 | 193.94 | 119.66 | 74.28 | 2.611 | | | | | |
| 10,400.00 | 7,660.00 | 10,256.30 | 7,535.00 | 50.99 | 50.52 | -49.81 | 2,404.00 | 892.38 | 193.70 | 117.22 | 76.48 | 2.533 | | | | | |
| 10,500.00 | 7,660.00 | 10,356.30 | 7,535.00 | 52.30 | 51.84 | -49.75 | 2,504.00 | 892.57 | 193.46 | 114.77 | 78.69 | 2.458 | | | | | |
| 10,600.00 | 7,660.00 | 10,456.30 | 7,535.00 | 53.62 | 53.17 | -49.69 | 2,604.00 | 892.77 | 193.22 | 112.29 | 80.93 | 2.388 | | | | | |
| 10,700.00 | 7,660.00 | 10,556.30 | 7,535.00 | 54.96 | 54.52 | -49.63 | 2,704.00 | 892.96 | 192.98 | 109.80 | 83.18 | 2.320 | | | | | |
| 10,800.00 | 7,660.00 | 10,656.30 | 7,535.00 | 56.31 | 55.88 | -49.57 | 2,804.00 | 893.15 | 192.74 | 107.29 | 85.45 | 2.256 | | | | | |
| 10,900.00 | 7,660.00 | 10,756.30 | 7,535.00 | 57.67 | 57.25 | -49.51 | 2,904.00 | 893.35 | 192.50 | 104.77 | 87.73 | 2.194 | | | | | |
| 11,000.00 | 7,660.00 | 10,856.30 | 7,535.00 | 59.05 | 58.63 | -49.45 | 3,004.00 | 893.54 | 192.26 | 102.24 | 90.02 | 2.136 | | | | | |
| 11,100.00 | 7,660.00 | 10,956.30 | 7,535.00 | 60.43 | 60.02 | -49.38 | 3,104.00 | 893.74 | 192.02 | 99.69 | 92.33 | 2.080 | | | | | |
| 11,200.00 | 7,660.00 | 11,056.30 | 7,535.00 | 61.82 | 61.42 | -49.32 | 3,204.00 | 893.93 | 191.78 | 97.14 | 94.64 | 2.026 | | | | | |
| 11,300.00 | 7,660.00 | 11,156.30 | 7,535.00 | 63.23 | 62.83 | -49.26 | 3,303.99 | 894.13 | 191.54 | 94.57 | 96.97 | 1.975 | | | | | |
| 11,400.00 | 7,660.00 | 11,256.30 | 7,535.00 | 64.64 | 64.24 | -49.20 | 3,403.99 | 894.32 | 191.30 | 92.00 | 99.30 | 1.926 | | | | | |
| 11,500.00 | 7,660.00 | 11,356.30 | 7,535.00 | 66.06 | 65.67 | -49.14 | 3,503.99 | 894.52 | 191.06 | 89.42 | 101.64 | 1.880 | | | | | |
| 11,600.00 | 7,660.00 | 11,456.30 | 7,535.00 | 67.48 | 67.10 | -49.08 | 3,603.99 | 894.71 | 190.83 | 86.83 | 103.99 | 1.835 | | | | | |
| 11,700.00 | 7,660.00 | 11,556.30 | 7,535.00 | 68.91 | 68.54 | -49.01 | 3,703.99 | 894.91 | 190.59 | 84.24 | 106.35 | 1.792 | | | | | |
| 11,720.51 | 7,660.00 | 11,576.36 | 7,535.00 | 69.21 | 68.83 | -49.00 | 3,724.05 | 894.93 | 190.55 | 83.74 | 106.81 | 1.784 | | | | | |
| 11,800.00 | 7,660.00 | 11,652.64 | 7,535.00 | 70.35 | 69.94 | -49.20 | 3,800.32 | 893.85 | 191.32 | 82.56 | 108.76 | 1.759 | | | | | |
| 11,900.00 | 7,660.00 | 11,752.61 | 7,535.00 | 71.80 | 71.40 | -49.63 | 3,900.27 | 891.52 | 193.01 | 81.27 | 111.74 | 1.727 | | | | | |
| 12,000.00 | 7,660.00 | 11,852.59 | 7,535.00 | 73.25 | 72.87 | -50.05 | 4,000.22 | 889.18 | 194.70 | 79.97 | 114.73 | 1.697 | | | | | |
| 12,100.00 | 7,660.00 | 11,952.56 | 7,535.00 | 74.71 | 74.35 | -50.47 | 4,100.17 | 886.84 | 196.41 | 78.67 | 117.74 | 1.668 | | | | | |
| 12,200.00 | 7,660.00 | 12,052.54 | 7,535.00 | 76.17 | 75.83 | -50.88 | 4,200.12 | 884.50 | 198.13 | 77.37 | 120.76 | 1.641 | | | | | |
| 12,253.72 | 7,660.00 | 12,106.24 | 7,535.00 | 76.96 | 76.63 | -51.09 | 4,253.81 | 883.24 | 199.05 | 76.67 | 122.38 | 1.626 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 4S-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 4S-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 | | | | | | |
| 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 | | | | | | |
| 400.00 | 400.00 | 400.00 | 400.00 | 1.21 | 1.21 | 90.10 | -0.02 | 10.07 | 10.07 | 7.65 | 2.43 | 4.150 | | | | | | |
| 500.00 | 500.00 | 500.00 | 500.00 | 1.57 | 1.57 | 90.10 | -0.02 | 10.07 | 10.07 | 6.93 | 3.14 | 3.204 | CC, ES | | | | | |
| 600.00 | 600.00 | 599.65 | 599.63 | 1.93 | 1.92 | 94.12 | -0.84 | 11.60 | 11.64 | 7.78 | 3.86 | 3.014 | | | | | | |
| 700.00 | 699.98 | 699.16 | 699.00 | 2.28 | 2.26 | -20.85 | -3.28 | 16.17 | 14.89 | 10.32 | 4.57 | 3.257 | | | | | | |
| 800.00 | 799.84 | 798.55 | 798.01 | 2.62 | 2.61 | -17.89 | -7.36 | 23.77 | 18.25 | 12.96 | 5.29 | 3.450 | | | | | | |
| 900.00 | 899.45 | 897.82 | 896.55 | 2.97 | 2.97 | -16.19 | -13.04 | 34.38 | 21.64 | 15.63 | 6.01 | 3.599 | | | | | | |
| 1,000.00 | 998.70 | 996.98 | 994.49 | 3.33 | 3.35 | -15.22 | -20.32 | 47.98 | 25.05 | 18.31 | 6.74 | 3.715 | | | | | | |
| 1,103.09 | 1,100.51 | 1,099.55 | 1,095.27 | 3.72 | 3.77 | -14.92 | -29.34 | 64.81 | 28.17 | 20.68 | 7.48 | 3.765 | | | | | | |
| 1,200.00 | 1,195.93 | 1,196.45 | 1,190.38 | 4.11 | 4.18 | -15.35 | -38.07 | 81.11 | 29.87 | 21.70 | 8.17 | 3.656 | | | | | | |
| 1,300.00 | 1,294.39 | 1,296.43 | 1,288.53 | 4.51 | 4.61 | -15.75 | -47.08 | 97.94 | 31.62 | 22.73 | 8.89 | 3.556 | | | | | | |
| 1,400.00 | 1,392.85 | 1,396.41 | 1,386.67 | 4.93 | 5.04 | -16.10 | -56.09 | 114.77 | 33.38 | 23.76 | 9.62 | 3.468 | | | | | | |
| 1,500.00 | 1,491.31 | 1,496.40 | 1,484.82 | 5.35 | 5.48 | -16.42 | -65.11 | 131.59 | 35.14 | 24.78 | 10.36 | 3.391 | | | | | | |
| 1,600.00 | 1,589.78 | 1,596.38 | 1,582.96 | 5.77 | 5.93 | -16.71 | -74.12 | 148.42 | 36.90 | 25.79 | 11.11 | 3.322 | | | | | | |
| 1,700.00 | 1,688.24 | 1,696.37 | 1,681.11 | 6.20 | 6.38 | -16.98 | -83.13 | 165.24 | 38.66 | 26.80 | 11.86 | 3.260 | | | | | | |
| 1,800.00 | 1,786.70 | 1,796.35 | 1,779.25 | 6.63 | 6.83 | -17.21 | -92.14 | 182.07 | 40.42 | 27.81 | 12.62 | 3.204 | | | | | | |
| 1,900.00 | 1,885.16 | 1,896.34 | 1,877.40 | 7.06 | 7.28 | -17.43 | -101.16 | 198.90 | 42.19 | 28.81 | 13.37 | 3.154 | | | | | | |
| 2,000.00 | 1,983.62 | 1,996.32 | 1,975.54 | 7.50 | 7.73 | -17.64 | -110.17 | 215.72 | 43.95 | 29.81 | 14.14 | 3.109 | | | | | | |
| 2,100.00 | 2,082.09 | 2,096.31 | 2,073.69 | 7.94 | 8.19 | -17.82 | -119.18 | 232.55 | 45.71 | 30.81 | 14.90 | 3.068 | | | | | | |
| 2,200.00 | 2,180.55 | 2,196.29 | 2,171.83 | 8.37 | 8.64 | -18.00 | -128.19 | 249.37 | 47.48 | 31.81 | 15.67 | 3.031 | | | | | | |
| 2,300.00 | 2,279.01 | 2,296.27 | 2,269.98 | 8.81 | 9.10 | -18.16 | -137.21 | 266.20 | 49.24 | 32.81 | 16.43 | 2.996 | | | | | | |
| 2,400.00 | 2,377.47 | 2,396.26 | 2,368.13 | 9.25 | 9.56 | -18.30 | -146.22 | 283.03 | 51.01 | 33.80 | 17.20 | 2.965 | | | | | | |
| 2,500.00 | 2,475.93 | 2,496.24 | 2,466.27 | 9.69 | 10.02 | -18.44 | -155.23 | 299.85 | 52.77 | 34.80 | 17.98 | 2.936 | | | | | | |
| 2,600.00 | 2,574.40 | 2,596.23 | 2,564.42 | 10.14 | 10.48 | -18.57 | -164.24 | 316.68 | 54.54 | 35.79 | 18.75 | 2.909 | | | | | | |
| 2,700.00 | 2,672.86 | 2,696.21 | 2,662.56 | 10.58 | 10.94 | -18.70 | -173.26 | 333.50 | 56.30 | 36.78 | 19.52 | 2.884 | | | | | | |
| 2,800.00 | 2,771.32 | 2,796.20 | 2,760.71 | 11.02 | 11.40 | -18.81 | -182.27 | 350.33 | 58.07 | 37.77 | 20.30 | 2.861 | | | | | | |
| 2,900.00 | 2,869.78 | 2,896.18 | 2,858.85 | 11.46 | 11.86 | -18.92 | -191.28 | 367.15 | 59.83 | 38.76 | 21.07 | 2.839 | | | | | | |
| 3,000.00 | 2,968.24 | 2,996.16 | 2,957.00 | 11.91 | 12.32 | -19.02 | -200.29 | 383.98 | 61.60 | 39.75 | 21.85 | 2.819 | | | | | | |
| 3,100.00 | 3,066.71 | 3,096.15 | 3,055.14 | 12.35 | 12.79 | -19.12 | -209.31 | 400.81 | 63.37 | 40.74 | 22.63 | 2.800 | | | | | | |
| 3,200.00 | 3,165.17 | 3,196.13 | 3,153.29 | 12.80 | 13.25 | -19.21 | -218.32 | 417.63 | 65.13 | 41.73 | 23.41 | 2.783 | | | | | | |
| 3,300.00 | 3,263.63 | 3,296.12 | 3,251.43 | 13.24 | 13.71 | -19.29 | -227.33 | 434.46 | 66.90 | 42.71 | 24.19 | 2.766 | | | | | | |
| 3,400.00 | 3,362.09 | 3,396.10 | 3,349.58 | 13.69 | 14.17 | -19.37 | -236.34 | 451.28 | 68.67 | 43.70 | 24.97 | 2.750 | | | | | | |
| 3,500.00 | 3,460.55 | 3,496.09 | 3,447.73 | 14.13 | 14.64 | -19.45 | -245.36 | 468.11 | 70.44 | 44.69 | 25.75 | 2.736 | | | | | | |
| 3,600.00 | 3,559.01 | 3,596.07 | 3,545.87 | 14.58 | 15.10 | -19.53 | -254.37 | 484.94 | 72.20 | 45.67 | 26.53 | 2.722 | | | | | | |
| 3,700.00 | 3,657.48 | 3,696.05 | 3,644.02 | 15.02 | 15.56 | -19.60 | -263.38 | 501.76 | 73.97 | 46.66 | 27.31 | 2.709 | | | | | | |
| 3,800.00 | 3,755.94 | 3,796.04 | 3,742.16 | 15.47 | 16.03 | -19.66 | -272.39 | 518.59 | 75.74 | 47.65 | 28.09 | 2.696 | | | | | | |
| 3,900.00 | 3,854.40 | 3,896.02 | 3,840.31 | 15.92 | 16.49 | -19.73 | -281.41 | 535.41 | 77.50 | 48.63 | 28.87 | 2.684 | | | | | | |
| 4,000.00 | 3,952.86 | 3,996.01 | 3,938.45 | 16.36 | 16.96 | -19.79 | -290.42 | 552.24 | 79.27 | 49.62 | 29.66 | 2.673 | | | | | | |
| 4,100.00 | 4,051.32 | 4,095.99 | 4,036.60 | 16.81 | 17.42 | -19.85 | -299.43 | 569.07 | 81.04 | 50.60 | 30.44 | 2.662 | | | | | | |
| 4,200.00 | 4,149.79 | 4,195.98 | 4,134.74 | 17.26 | 17.89 | -19.90 | -308.44 | 585.89 | 82.81 | 51.59 | 31.22 | 2.652 | | | | | | |
| 4,300.00 | 4,248.25 | 4,295.96 | 4,232.89 | 17.70 | 18.35 | -19.95 | -317.46 | 602.72 | 84.58 | 52.57 | 32.00 | 2.643 | | | | | | |
| 4,400.00 | 4,346.71 | 4,395.94 | 4,331.04 | 18.15 | 18.81 | -20.01 | -326.47 | 619.54 | 86.34 | 53.56 | 32.79 | 2.633 | | | | | | |
| 4,500.00 | 4,445.17 | 4,495.93 | 4,429.18 | 18.60 | 19.28 | -20.06 | -335.48 | 636.37 | 88.11 | 54.54 | 33.57 | 2.625 | | | | | | |
| 4,600.00 | 4,543.63 | 4,595.91 | 4,527.33 | 19.04 | 19.74 | -20.10 | -344.49 | 653.20 | 89.88 | 55.52 | 34.36 | 2.616 | | | | | | |
| 4,700.00 | 4,642.10 | 4,695.90 | 4,625.47 | 19.49 | 20.21 | -20.15 | -353.51 | 670.02 | 91.65 | 56.51 | 35.14 | 2.608 | | | | | | |
| 4,800.00 | 4,740.56 | 4,795.88 | 4,723.62 | 19.94 | 20.67 | -20.19 | -362.52 | 686.85 | 93.42 | 57.49 | 35.93 | 2.600 | | | | | | |
| 4,900.00 | 4,839.02 | 4,895.87 | 4,821.76 | 20.39 | 21.14 | -20.23 | -371.53 | 703.67 | 95.18 | 58.47 | 36.71 | 2.593 | | | | | | |
| 5,000.00 | 4,937.48 | 4,995.85 | 4,919.91 | 20.83 | 21.60 | -20.27 | -380.54 | 720.50 | 96.95 | 59.46 | 37.49 | 2.586 | | | | | | |
| 5,100.00 | 5,035.94 | 5,095.84 | 5,018.05 | 21.28 | 22.07 | -20.31 | -389.56 | 737.32 | 98.72 | 60.44 | 38.28 | 2.579 | | | | | | |

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 4S-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 4S-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 | | | 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 | | | | | | |
| 5,200.00 | 5,134.41 | 5,195.82 | 5,116.20 | 21.73 | 22.53 | -20.35 | -398.57 | 754.15 | 100.49 | 61.42 | 39.07 | 2.572 | | | | | | |
| 5,300.00 | 5,232.87 | 5,295.80 | 5,214.34 | 22.18 | 23.00 | -20.39 | -407.58 | 770.98 | 102.26 | 62.41 | 39.85 | 2.566 | | | | | | |
| 5,400.00 | 5,331.33 | 5,395.79 | 5,312.49 | 22.63 | 23.46 | -20.42 | -416.59 | 787.80 | 104.03 | 63.39 | 40.64 | 2.560 | | | | | | |
| 5,500.00 | 5,429.79 | 5,495.77 | 5,410.64 | 23.07 | 23.93 | -20.46 | -425.61 | 804.63 | 105.79 | 64.37 | 41.42 | 2.554 | | | | | | |
| 5,600.00 | 5,528.25 | 5,595.76 | 5,508.78 | 23.52 | 24.39 | -20.49 | -434.62 | 821.45 | 107.56 | 65.35 | 42.21 | 2.548 | | | | | | |
| 5,700.00 | 5,626.72 | 5,695.74 | 5,606.93 | 23.97 | 24.86 | -20.52 | -443.63 | 838.28 | 109.33 | 66.34 | 42.99 | 2.543 | | | | | | |
| 5,800.00 | 5,725.18 | 5,795.73 | 5,705.07 | 24.42 | 25.33 | -20.55 | -452.64 | 855.11 | 111.10 | 67.32 | 43.78 | 2.538 | | | | | | |
| 5,900.00 | 5,823.64 | 5,895.71 | 5,803.22 | 24.87 | 25.79 | -20.58 | -461.66 | 871.93 | 112.87 | 68.30 | 44.57 | 2.533 | | | | | | |
| 6,000.00 | 5,922.10 | 5,995.69 | 5,901.36 | 25.31 | 26.26 | -20.61 | -470.67 | 888.76 | 114.64 | 69.28 | 45.35 | 2.528 | | | | | | |
| 6,100.00 | 6,020.56 | 6,095.68 | 5,999.51 | 25.76 | 26.72 | -20.64 | -479.68 | 905.58 | 116.41 | 70.27 | 46.14 | 2.523 | | | | | | |
| 6,200.00 | 6,119.03 | 6,195.66 | 6,097.65 | 26.21 | 27.19 | -20.67 | -488.69 | 922.41 | 118.17 | 71.25 | 46.93 | 2.518 | | | | | | |
| 6,300.00 | 6,217.49 | 6,295.65 | 6,195.80 | 26.66 | 27.65 | -20.69 | -497.71 | 939.24 | 119.94 | 72.23 | 47.71 | 2.514 | | | | | | |
| 6,400.00 | 6,315.95 | 6,395.63 | 6,293.94 | 27.11 | 28.12 | -20.72 | -506.72 | 956.06 | 121.71 | 73.21 | 48.50 | 2.510 | | | | | | |
| 6,500.00 | 6,414.41 | 6,495.62 | 6,392.09 | 27.55 | 28.59 | -20.74 | -515.73 | 972.89 | 123.48 | 74.20 | 49.29 | 2.505 | | | | | | |
| 6,600.00 | 6,512.87 | 6,595.60 | 6,490.24 | 28.00 | 29.05 | -20.77 | -524.74 | 989.71 | 125.25 | 75.18 | 50.07 | 2.501 | | | | | | |
| 6,700.00 | 6,611.34 | 6,695.58 | 6,588.38 | 28.45 | 29.52 | -20.79 | -533.76 | 1,006.54 | 127.02 | 76.16 | 50.86 | 2.497 | | | | | | |
| 6,800.00 | 6,709.80 | 6,796.27 | 6,687.24 | 28.90 | 29.98 | -20.99 | -542.44 | 1,023.48 | 128.73 | 77.05 | 51.67 | 2.491 | | | | | | |
| 6,900.00 | 6,808.26 | 6,898.08 | 6,787.52 | 29.35 | 30.40 | -25.63 | -541.04 | 1,040.56 | 129.21 | 76.23 | 52.98 | 2.439 | | | | | | |
| 6,982.73 | 6,889.71 | 6,978.83 | 6,866.31 | 29.72 | 30.67 | -33.74 | -529.68 | 1,053.86 | 130.45 | 75.84 | 54.61 | 2.389 | | | | | | |
| 7,000.00 | 6,906.74 | 6,995.17 | 6,882.07 | 29.80 | 30.72 | -28.58 | -526.29 | 1,056.50 | 131.14 | 76.16 | 54.98 | 2.385 SF | | | | | | |
| 7,050.00 | 6,956.13 | 7,041.90 | 6,926.68 | 30.01 | 30.85 | -9.51 | -514.59 | 1,063.98 | 134.06 | 78.14 | 55.92 | 2.397 | | | | | | |
| 7,100.00 | 7,005.50 | 7,087.83 | 6,969.71 | 30.19 | 30.96 | 9.16 | -500.24 | 1,071.15 | 138.22 | 81.65 | 56.57 | 2.443 | | | | | | |
| 7,150.00 | 7,054.61 | 7,133.03 | 7,011.09 | 30.36 | 31.06 | 21.34 | -483.42 | 1,078.01 | 143.42 | 86.55 | 56.87 | 2.522 | | | | | | |
| 7,200.00 | 7,103.23 | 7,177.55 | 7,050.75 | 30.52 | 31.14 | 27.75 | -464.30 | 1,084.56 | 149.45 | 92.65 | 56.80 | 2.631 | | | | | | |
| 7,250.00 | 7,151.10 | 7,221.44 | 7,088.64 | 30.65 | 31.22 | 30.75 | -443.04 | 1,090.78 | 156.10 | 99.72 | 56.38 | 2.769 | | | | | | |
| 7,300.00 | 7,198.01 | 7,264.75 | 7,124.70 | 30.77 | 31.28 | 31.90 | -419.80 | 1,096.66 | 163.17 | 107.53 | 55.65 | 2.932 | | | | | | |
| 7,350.00 | 7,243.72 | 7,307.53 | 7,158.90 | 30.88 | 31.33 | 32.06 | -394.72 | 1,102.21 | 170.50 | 115.86 | 54.64 | 3.121 | | | | | | |
| 7,400.00 | 7,288.00 | 7,350.00 | 7,191.33 | 30.97 | 31.37 | 31.70 | -367.81 | 1,107.44 | 177.93 | 124.50 | 53.43 | 3.330 | | | | | | |
| 7,450.00 | 7,330.65 | 7,391.66 | 7,221.56 | 31.05 | 31.40 | 31.09 | -339.58 | 1,112.28 | 185.33 | 133.35 | 51.98 | 3.565 | | | | | | |
| 7,500.00 | 7,371.46 | 7,433.08 | 7,249.98 | 31.12 | 31.43 | 30.35 | -309.78 | 1,116.79 | 192.60 | 142.18 | 50.42 | 3.820 | | | | | | |
| 7,550.00 | 7,410.22 | 7,474.14 | 7,276.42 | 31.17 | 31.44 | 29.57 | -278.66 | 1,120.94 | 199.64 | 150.88 | 48.76 | 4.094 | | | | | | |
| 7,600.00 | 7,446.75 | 7,514.85 | 7,300.87 | 31.21 | 31.45 | 28.80 | -246.33 | 1,124.75 | 206.36 | 159.33 | 47.03 | 4.388 | | | | | | |
| 7,650.00 | 7,480.87 | 7,555.26 | 7,323.30 | 31.24 | 31.45 | 28.06 | -212.91 | 1,128.20 | 212.71 | 167.43 | 45.28 | 4.697 | | | | | | |
| 7,700.00 | 7,512.42 | 7,600.00 | 7,345.94 | 31.25 | 31.44 | 27.27 | -174.48 | 1,131.63 | 218.68 | 174.48 | 44.20 | 4.948 | | | | | | |
| 7,750.00 | 7,541.23 | 7,635.28 | 7,362.09 | 31.26 | 31.43 | 26.75 | -143.21 | 1,134.03 | 224.05 | 182.18 | 41.86 | 5.352 | | | | | | |
| 7,800.00 | 7,567.18 | 7,674.95 | 7,378.42 | 31.25 | 31.42 | 26.19 | -107.14 | 1,136.41 | 228.95 | 188.68 | 40.27 | 5.685 | | | | | | |
| 7,850.00 | 7,590.12 | 7,714.44 | 7,392.69 | 31.24 | 31.40 | 25.69 | -70.38 | 1,138.44 | 233.28 | 194.48 | 38.81 | 6.011 | | | | | | |
| 7,900.00 | 7,609.96 | 7,750.00 | 7,403.82 | 31.22 | 31.37 | 25.30 | -36.64 | 1,139.96 | 237.06 | 199.91 | 37.15 | 6.381 | | | | | | |
| 7,950.00 | 7,626.60 | 7,792.95 | 7,415.04 | 31.19 | 31.34 | 24.88 | 4.78 | 1,141.41 | 240.15 | 203.71 | 36.44 | 6.590 | | | | | | |
| 8,000.00 | 7,639.94 | 7,832.02 | 7,423.11 | 31.15 | 31.31 | 24.57 | 42.99 | 1,142.35 | 242.64 | 207.03 | 35.62 | 6.813 | | | | | | |
| 8,050.00 | 7,649.94 | 7,871.01 | 7,429.10 | 31.11 | 31.28 | 24.31 | 81.51 | 1,142.95 | 244.48 | 209.41 | 35.08 | 6.970 | | | | | | |
| 8,100.00 | 7,656.54 | 7,909.93 | 7,433.02 | 31.07 | 31.24 | 24.11 | 120.23 | 1,143.18 | 245.66 | 210.81 | 34.85 | 7.050 | | | | | | |
| 8,150.00 | 7,659.70 | 7,950.00 | 7,434.87 | 31.03 | 31.21 | 23.97 | 160.25 | 1,143.05 | 246.16 | 211.22 | 34.95 | 7.044 | | | | | | |
| 8,150.52 | 7,659.71 | 7,950.00 | 7,434.87 | 31.03 | 31.21 | 23.97 | 160.25 | 1,143.05 | 246.16 | 211.22 | 34.95 | 7.044 | | | | | | |
| 8,170.89 | 7,660.00 | 7,965.47 | 7,435.00 | 31.01 | 31.20 | 23.93 | 175.72 | 1,142.90 | 246.17 | 211.10 | 35.07 | 7.019 | | | | | | |
| 8,200.00 | 7,660.00 | 7,994.58 | 7,435.00 | 30.98 | 31.17 | 23.87 | 204.83 | 1,142.57 | 246.05 | 210.76 | 35.29 | 6.971 | | | | | | |
| 8,300.00 | 7,660.00 | 8,094.57 | 7,435.00 | 30.92 | 31.11 | 23.66 | 304.81 | 1,141.46 | 245.65 | 209.54 | 36.11 | 6.803 | | | | | | |
| 8,400.00 | 7,660.00 | 8,194.57 | 7,435.00 | 30.91 | 31.08 | 23.45 | 404.80 | 1,140.34 | 245.25 | 208.26 | 36.99 | 6.629 | | | | | | |
| 8,500.00 | 7,660.00 | 8,294.56 | 7,435.00 | 31.22 | 31.17 | 23.23 | 504.79 | 1,139.23 | 244.86 | 206.91 | 37.95 | 6.452 | | | | | | |
| 8,600.00 | 7,660.00 | 8,394.56 | 7,435.00 | 31.83 | 31.57 | 23.02 | 604.78 | 1,138.11 | 244.47 | 205.50 | 38.97 | 6.274 | | | | | | |
| 8,700.00 | 7,660.00 | 8,494.55 | 7,435.00 | 32.55 | 32.22 | 22.80 | 704.77 | 1,137.00 | 244.08 | 204.04 | 40.04 | 6.097 | | | | | | |
| 8,800.00 | 7,660.00 | 8,594.55 | 7,435.00 | 33.33 | 32.99 | 22.59 | 804.76 | 1,135.88 | 243.70 | 202.54 | 41.16 | 5.921 | | | | | | |

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 4S-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 4S-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) | | | | | | | | |
| 8,900.00 | 7,660.00 | 8,694.54 | 7,435.00 | 34.16 | 33.82 | 22.37 | 904.75 | 1,134.77 | 243.32 | 201.00 | 42.32 | 5.750 | | | | | | |
| 9,000.00 | 7,660.00 | 8,794.54 | 7,435.00 | 35.04 | 34.72 | 22.16 | 1,004.74 | 1,133.65 | 242.94 | 199.42 | 43.52 | 5.582 | | | | | | |
| 9,100.00 | 7,660.00 | 8,894.53 | 7,435.00 | 35.97 | 35.66 | 21.94 | 1,104.72 | 1,132.53 | 242.57 | 197.81 | 44.76 | 5.420 | | | | | | |
| 9,200.00 | 7,660.00 | 8,994.53 | 7,435.00 | 36.94 | 36.64 | 21.72 | 1,204.71 | 1,131.42 | 242.20 | 196.17 | 46.02 | 5.262 | | | | | | |
| 9,300.00 | 7,660.00 | 9,094.52 | 7,435.00 | 37.96 | 37.67 | 21.50 | 1,304.70 | 1,130.30 | 241.83 | 194.51 | 47.32 | 5.111 | | | | | | |
| 9,400.00 | 7,660.00 | 9,194.52 | 7,435.00 | 39.00 | 38.74 | 21.28 | 1,404.69 | 1,129.19 | 241.47 | 192.83 | 48.63 | 4.965 | | | | | | |
| 9,500.00 | 7,660.00 | 9,294.51 | 7,435.00 | 40.09 | 39.83 | 21.06 | 1,504.68 | 1,128.07 | 241.11 | 191.13 | 49.97 | 4.825 | | | | | | |
| 9,600.00 | 7,660.00 | 9,394.51 | 7,435.00 | 41.20 | 40.96 | 20.84 | 1,604.67 | 1,126.96 | 240.75 | 189.42 | 51.33 | 4.691 | | | | | | |
| 9,700.00 | 7,660.00 | 9,494.50 | 7,435.00 | 42.34 | 42.12 | 20.62 | 1,704.66 | 1,125.84 | 240.40 | 187.70 | 52.70 | 4.562 | | | | | | |
| 9,800.00 | 7,660.00 | 9,594.50 | 7,435.00 | 43.51 | 43.31 | 20.40 | 1,804.65 | 1,124.73 | 240.05 | 185.97 | 54.08 | 4.439 | | | | | | |
| 9,900.00 | 7,660.00 | 9,694.49 | 7,435.00 | 44.70 | 44.52 | 20.17 | 1,904.64 | 1,123.61 | 239.71 | 184.23 | 55.47 | 4.321 | | | | | | |
| 10,000.00 | 7,660.00 | 9,794.49 | 7,435.00 | 45.92 | 45.75 | 19.95 | 2,004.62 | 1,122.49 | 239.36 | 182.49 | 56.88 | 4.208 | | | | | | |
| 10,100.00 | 7,660.00 | 9,894.48 | 7,435.00 | 47.16 | 47.01 | 19.72 | 2,104.61 | 1,121.38 | 239.03 | 180.74 | 58.29 | 4.101 | | | | | | |
| 10,200.00 | 7,660.00 | 9,994.48 | 7,435.00 | 48.42 | 48.28 | 19.50 | 2,204.60 | 1,120.26 | 238.69 | 178.98 | 59.71 | 3.998 | | | | | | |
| 10,300.00 | 7,660.00 | 10,094.47 | 7,435.00 | 49.70 | 49.57 | 19.27 | 2,304.59 | 1,119.15 | 238.36 | 177.23 | 61.13 | 3.899 | | | | | | |
| 10,400.00 | 7,660.00 | 10,194.47 | 7,435.00 | 50.99 | 50.88 | 19.05 | 2,404.58 | 1,118.03 | 238.04 | 175.48 | 62.56 | 3.805 | | | | | | |
| 10,500.00 | 7,660.00 | 10,294.47 | 7,435.00 | 52.30 | 52.20 | 18.82 | 2,504.57 | 1,116.92 | 237.71 | 173.72 | 63.99 | 3.715 | | | | | | |
| 10,600.00 | 7,660.00 | 10,394.46 | 7,435.00 | 53.62 | 53.54 | 18.59 | 2,604.56 | 1,115.80 | 237.39 | 171.97 | 65.42 | 3.629 | | | | | | |
| 10,694.68 | 7,660.00 | 10,488.39 | 7,435.00 | 54.89 | 54.81 | 18.41 | 2,698.49 | 1,114.90 | 237.14 | 170.30 | 66.84 | 3.548 | | | | | | |
| 10,700.00 | 7,660.00 | 10,493.58 | 7,435.00 | 54.96 | 54.88 | 18.41 | 2,703.67 | 1,114.89 | 237.14 | 170.21 | 66.93 | 3.543 | | | | | | |
| 10,800.00 | 7,660.00 | 10,592.47 | 7,435.00 | 56.31 | 56.22 | 18.72 | 2,802.55 | 1,116.09 | 237.57 | 168.64 | 68.92 | 3.447 | | | | | | |
| 10,900.00 | 7,660.00 | 10,692.45 | 7,435.00 | 57.67 | 57.58 | 19.09 | 2,902.53 | 1,117.62 | 238.10 | 167.13 | 70.97 | 3.355 | | | | | | |
| 11,000.00 | 7,660.00 | 10,792.44 | 7,435.00 | 59.05 | 58.95 | 19.46 | 3,002.50 | 1,119.14 | 238.64 | 165.61 | 73.03 | 3.268 | | | | | | |
| 11,100.00 | 7,660.00 | 10,892.43 | 7,435.00 | 60.43 | 60.33 | 19.84 | 3,102.47 | 1,120.67 | 239.19 | 164.08 | 75.11 | 3.184 | | | | | | |
| 11,200.00 | 7,660.00 | 10,992.41 | 7,435.00 | 61.82 | 61.72 | 20.21 | 3,202.45 | 1,122.19 | 239.76 | 162.54 | 77.21 | 3.105 | | | | | | |
| 11,300.00 | 7,660.00 | 11,092.40 | 7,435.00 | 63.23 | 63.12 | 20.57 | 3,302.42 | 1,123.71 | 240.33 | 161.00 | 79.33 | 3.029 | | | | | | |
| 11,400.00 | 7,660.00 | 11,192.39 | 7,435.00 | 64.64 | 64.53 | 20.94 | 3,402.40 | 1,125.24 | 240.91 | 159.44 | 81.47 | 2.957 | | | | | | |
| 11,500.00 | 7,660.00 | 11,292.37 | 7,435.00 | 66.06 | 65.94 | 21.30 | 3,502.37 | 1,126.76 | 241.51 | 157.88 | 83.62 | 2.888 | | | | | | |
| 11,600.00 | 7,660.00 | 11,392.36 | 7,435.00 | 67.48 | 67.36 | 21.67 | 3,602.35 | 1,128.29 | 242.11 | 156.31 | 85.80 | 2.822 | | | | | | |
| 11,700.00 | 7,660.00 | 11,492.34 | 7,435.00 | 68.91 | 68.79 | 22.03 | 3,702.32 | 1,129.81 | 242.72 | 154.73 | 87.99 | 2.759 | | | | | | |
| 11,800.00 | 7,660.00 | 11,592.33 | 7,435.00 | 70.35 | 70.22 | 22.39 | 3,802.30 | 1,131.33 | 243.34 | 153.15 | 90.20 | 2.698 | | | | | | |
| 11,900.00 | 7,660.00 | 11,692.32 | 7,435.00 | 71.80 | 71.66 | 22.74 | 3,902.27 | 1,132.86 | 243.97 | 151.55 | 92.42 | 2.640 | | | | | | |
| 12,000.00 | 7,660.00 | 11,792.30 | 7,435.00 | 73.25 | 73.11 | 23.10 | 4,002.25 | 1,134.38 | 244.62 | 149.95 | 94.67 | 2.584 | | | | | | |
| 12,100.00 | 7,660.00 | 11,892.29 | 7,435.00 | 74.71 | 74.56 | 23.45 | 4,102.22 | 1,135.91 | 245.27 | 148.33 | 96.93 | 2.530 | | | | | | |
| 12,200.00 | 7,660.00 | 11,992.28 | 7,435.00 | 76.17 | 76.01 | 23.80 | 4,202.20 | 1,137.43 | 245.92 | 146.71 | 99.21 | 2.479 | | | | | | |
| 12,253.72 | 7,660.00 | 12,045.99 | 7,435.00 | 76.96 | 76.68 | 23.99 | 4,255.90 | 1,138.25 | 246.28 | 146.00 | 100.28 | 2.456 | | | | | | |

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 4S-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 4S-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 | | | | | 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 | 90.81 | -0.28 | 19.86 | 19.87 | | | | | | | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | 90.81 | -0.28 | 19.86 | 19.87 | 19.59 | 0.28 | 71.975 | | | | | | | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | 90.81 | -0.28 | 19.86 | 19.87 | 18.87 | 0.99 | 20.008 | | | | | | | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.85 | 0.85 | 90.81 | -0.28 | 19.86 | 19.87 | 18.16 | 1.71 | 11.619 | | | | | | | | |
| 400.00 | 400.00 | 400.00 | 400.00 | 1.21 | 1.21 | 90.81 | -0.28 | 19.86 | 19.87 | 17.44 | 2.43 | 8.186 CC, ES | | | | | | | | |
| 500.00 | 500.00 | 499.51 | 499.49 | 1.57 | 1.56 | 94.37 | -1.60 | 20.98 | 21.04 | 17.91 | 3.14 | 6.707 | | | | | | | | |
| 600.00 | 600.00 | 598.78 | 598.62 | 1.93 | 1.90 | 102.89 | -5.56 | 24.30 | 24.96 | 21.10 | 3.86 | 6.464 | | | | | | | | |
| 700.00 | 699.98 | 697.71 | 697.18 | 2.28 | 2.24 | -9.18 | -11.79 | 29.94 | 30.58 | 25.99 | 4.59 | 6.659 | | | | | | | | |
| 800.00 | 799.84 | 796.50 | 795.36 | 2.62 | 2.61 | -6.04 | -18.19 | 38.81 | 36.19 | 30.88 | 5.31 | 6.810 | | | | | | | | |
| 900.00 | 899.45 | 895.17 | 893.08 | 2.97 | 2.98 | -6.41 | -24.37 | 51.04 | 41.43 | 35.40 | 6.04 | 6.862 | | | | | | | | |
| 1,000.00 | 998.70 | 993.67 | 990.15 | 3.33 | 3.38 | -9.08 | -30.32 | 66.61 | 46.32 | 39.56 | 6.77 | 6.845 | | | | | | | | |
| 1,103.09 | 1,100.51 | 1,094.97 | 1,089.38 | 3.72 | 3.81 | -13.57 | -36.21 | 86.08 | 51.24 | 43.71 | 7.52 | 6.810 | | | | | | | | |
| 1,200.00 | 1,195.93 | 1,190.72 | 1,182.58 | 4.11 | 4.24 | -18.43 | -41.58 | 107.35 | 57.29 | 49.06 | 8.23 | 6.961 | | | | | | | | |
| 1,300.00 | 1,294.39 | 1,290.37 | 1,279.49 | 4.51 | 4.70 | -22.57 | -47.14 | 129.91 | 64.32 | 55.36 | 8.96 | 7.178 | | | | | | | | |
| 1,400.00 | 1,392.85 | 1,390.03 | 1,376.40 | 4.93 | 5.17 | -25.87 | -52.69 | 152.48 | 71.62 | 61.91 | 9.71 | 7.376 | | | | | | | | |
| 1,500.00 | 1,491.31 | 1,489.69 | 1,473.31 | 5.35 | 5.65 | -28.56 | -58.25 | 175.04 | 79.12 | 68.64 | 10.48 | 7.552 | | | | | | | | |
| 1,600.00 | 1,589.78 | 1,589.34 | 1,570.22 | 5.77 | 6.14 | -30.78 | -63.81 | 197.61 | 86.76 | 75.50 | 11.26 | 7.706 | | | | | | | | |
| 1,700.00 | 1,688.24 | 1,689.00 | 1,667.13 | 6.20 | 6.63 | -32.64 | -69.36 | 220.17 | 94.50 | 82.45 | 12.05 | 7.842 | | | | | | | | |
| 1,800.00 | 1,786.70 | 1,788.66 | 1,764.03 | 6.63 | 7.13 | -34.22 | -74.92 | 242.74 | 102.33 | 89.48 | 12.85 | 7.961 | | | | | | | | |
| 1,900.00 | 1,885.16 | 1,888.31 | 1,860.94 | 7.06 | 7.63 | -35.57 | -80.48 | 265.30 | 110.23 | 96.57 | 13.67 | 8.066 | | | | | | | | |
| 2,000.00 | 1,983.62 | 1,987.97 | 1,957.85 | 7.50 | 8.13 | -36.74 | -86.04 | 287.87 | 118.18 | 103.70 | 14.48 | 8.159 | | | | | | | | |
| 2,100.00 | 2,082.09 | 2,087.63 | 2,054.76 | 7.94 | 8.63 | -37.76 | -91.59 | 310.43 | 126.17 | 110.86 | 15.31 | 8.242 | | | | | | | | |
| 2,200.00 | 2,180.55 | 2,187.28 | 2,151.67 | 8.37 | 9.14 | -38.66 | -97.15 | 333.00 | 134.20 | 118.06 | 16.14 | 8.315 | | | | | | | | |
| 2,300.00 | 2,279.01 | 2,286.94 | 2,248.58 | 8.81 | 9.64 | -39.46 | -102.71 | 355.56 | 142.26 | 125.29 | 16.97 | 8.381 | | | | | | | | |
| 2,400.00 | 2,377.47 | 2,386.59 | 2,345.49 | 9.25 | 10.15 | -40.17 | -108.26 | 378.13 | 150.34 | 132.53 | 17.81 | 8.441 | | | | | | | | |
| 2,500.00 | 2,475.93 | 2,486.25 | 2,442.40 | 9.69 | 10.66 | -40.81 | -113.82 | 400.69 | 158.44 | 139.79 | 18.65 | 8.495 | | | | | | | | |
| 2,600.00 | 2,574.40 | 2,585.91 | 2,539.31 | 10.14 | 11.17 | -41.39 | -119.38 | 423.26 | 166.56 | 147.07 | 19.50 | 8.543 | | | | | | | | |
| 2,700.00 | 2,672.86 | 2,685.56 | 2,636.21 | 10.58 | 11.68 | -41.91 | -124.93 | 445.82 | 174.70 | 154.36 | 20.34 | 8.588 | | | | | | | | |
| 2,800.00 | 2,771.32 | 2,785.22 | 2,733.12 | 11.02 | 12.19 | -42.39 | -130.49 | 468.39 | 182.85 | 161.66 | 21.19 | 8.629 | | | | | | | | |
| 2,900.00 | 2,869.78 | 2,884.88 | 2,830.03 | 11.46 | 12.70 | -42.83 | -136.05 | 490.95 | 191.01 | 168.97 | 22.04 | 8.666 | | | | | | | | |
| 3,000.00 | 2,968.24 | 2,984.53 | 2,926.94 | 11.91 | 13.21 | -43.23 | -141.61 | 513.52 | 199.18 | 176.28 | 22.89 | 8.700 | | | | | | | | |
| 3,100.00 | 3,066.71 | 3,084.19 | 3,023.85 | 12.35 | 13.72 | -43.60 | -147.16 | 536.09 | 207.36 | 183.61 | 23.75 | 8.732 | | | | | | | | |
| 3,200.00 | 3,165.17 | 3,183.85 | 3,120.76 | 12.80 | 14.23 | -43.94 | -152.72 | 558.65 | 215.54 | 190.94 | 24.60 | 8.761 | | | | | | | | |
| 3,300.00 | 3,263.63 | 3,283.50 | 3,217.67 | 13.24 | 14.75 | -44.26 | -158.28 | 581.22 | 223.74 | 198.28 | 25.46 | 8.788 | | | | | | | | |
| 3,400.00 | 3,362.09 | 3,383.16 | 3,314.58 | 13.69 | 15.26 | -44.55 | -163.83 | 603.78 | 231.94 | 205.62 | 26.32 | 8.814 | | | | | | | | |
| 3,500.00 | 3,460.55 | 3,482.81 | 3,411.49 | 14.13 | 15.77 | -44.82 | -169.39 | 626.35 | 240.14 | 212.97 | 27.17 | 8.837 | | | | | | | | |
| 3,600.00 | 3,559.01 | 3,582.47 | 3,508.39 | 14.58 | 16.29 | -45.08 | -174.95 | 648.91 | 248.36 | 220.32 | 28.03 | 8.860 | | | | | | | | |
| 3,700.00 | 3,657.48 | 3,682.13 | 3,605.30 | 15.02 | 16.80 | -45.32 | -180.51 | 671.48 | 256.57 | 227.68 | 28.89 | 8.880 | | | | | | | | |
| 3,800.00 | 3,755.94 | 3,781.78 | 3,702.21 | 15.47 | 17.32 | -45.54 | -186.06 | 694.04 | 264.79 | 235.04 | 29.75 | 8.900 | | | | | | | | |
| 3,900.00 | 3,854.40 | 3,881.44 | 3,799.12 | 15.92 | 17.83 | -45.75 | -191.62 | 716.61 | 273.01 | 242.40 | 30.61 | 8.918 | | | | | | | | |
| 4,000.00 | 3,952.86 | 3,981.10 | 3,896.03 | 16.36 | 18.35 | -45.95 | -197.18 | 739.17 | 281.24 | 249.77 | 31.48 | 8.935 | | | | | | | | |
| 4,100.00 | 4,051.32 | 4,080.75 | 3,992.94 | 16.81 | 18.86 | -46.14 | -202.73 | 761.74 | 289.47 | 257.13 | 32.34 | 8.951 | | | | | | | | |
| 4,200.00 | 4,149.79 | 4,180.41 | 4,089.85 | 17.26 | 19.38 | -46.32 | -208.29 | 784.30 | 297.71 | 264.50 | 33.20 | 8.967 | | | | | | | | |
| 4,300.00 | 4,248.25 | 4,280.07 | 4,186.76 | 17.70 | 19.89 | -46.48 | -213.85 | 806.87 | 305.94 | 271.88 | 34.06 | 8.981 | | | | | | | | |
| 4,400.00 | 4,346.71 | 4,379.72 | 4,283.66 | 18.15 | 20.41 | -46.64 | -219.40 | 829.43 | 314.18 | 279.25 | 34.93 | 8.995 | | | | | | | | |
| 4,500.00 | 4,445.17 | 4,479.38 | 4,380.57 | 18.60 | 20.92 | -46.79 | -224.96 | 852.00 | 322.42 | 286.63 | 35.79 | 9.008 | | | | | | | | |
| 4,600.00 | 4,543.63 | 4,579.04 | 4,477.48 | 19.04 | 21.44 | -46.94 | -230.52 | 874.56 | 330.66 | 294.00 | 36.66 | 9.020 | | | | | | | | |
| 4,700.00 | 4,642.10 | 4,678.69 | 4,574.39 | 19.49 | 21.95 | -47.07 | -236.08 | 897.13 | 338.91 | 301.38 | 37.52 | 9.032 | | | | | | | | |
| 4,800.00 | 4,740.56 | 4,778.35 | 4,671.30 | 19.94 | 22.47 | -47.20 | -241.63 | 919.69 | 347.15 | 308.77 | 38.39 | 9.043 | | | | | | | | |
| 4,900.00 | 4,839.02 | 4,878.00 | 4,768.21 | 20.39 | 22.98 | -47.32 | -247.19 | 942.26 | 355.40 | 316.15 | 39.25 | 9.054 | | | | | | | | |
| 5,000.00 | 4,937.48 | 4,977.66 | 4,865.12 | 20.83 | 23.50 | -47.44 | -252.75 | 964.82 | 363.65 | 323.53 | 40.12 | 9.064 | | | | | | | | |
| 5,100.00 | 5,035.94 | 5,077.32 | 4,962.03 | 21.28 | 24.02 | -47.56 | -258.30 | 987.39 | 371.90 | 330.92 | 40.99 | 9.074 | | | | | | | | |

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 4S-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 4S-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: 0-MWD+HDGM | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | Total | | 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) | Uncertainty Axis | | | |
| 5,200.00 | 5,134.41 | 5,176.97 | 5,058.94 | 21.73 | 24.53 | -47.66 | -263.86 | 1,009.96 | 380.16 | 338.30 | 41.85 | 9.083 | | |
| 5,300.00 | 5,232.87 | 5,276.63 | 5,155.84 | 22.18 | 25.05 | -47.77 | -269.42 | 1,032.52 | 388.41 | 345.69 | 42.72 | 9.092 | | |
| 5,400.00 | 5,331.33 | 5,376.29 | 5,252.75 | 22.63 | 25.56 | -47.87 | -274.97 | 1,055.09 | 396.66 | 353.08 | 43.59 | 9.101 | | |
| 5,500.00 | 5,429.79 | 5,475.94 | 5,349.66 | 23.07 | 26.08 | -47.96 | -280.53 | 1,077.65 | 404.92 | 360.47 | 44.45 | 9.109 | | |
| 5,600.00 | 5,528.25 | 5,575.60 | 5,446.57 | 23.52 | 26.60 | -48.05 | -286.09 | 1,100.22 | 413.18 | 367.86 | 45.32 | 9.117 | | |
| 5,700.00 | 5,626.72 | 5,675.26 | 5,543.48 | 23.97 | 27.11 | -48.14 | -291.65 | 1,122.78 | 421.44 | 375.25 | 46.19 | 9.124 | | |
| 5,800.00 | 5,725.18 | 5,774.91 | 5,640.39 | 24.42 | 27.63 | -48.22 | -297.20 | 1,145.35 | 429.70 | 382.64 | 47.06 | 9.132 | | |
| 5,900.00 | 5,823.64 | 5,874.57 | 5,737.30 | 24.87 | 28.15 | -48.30 | -302.76 | 1,167.91 | 437.96 | 390.03 | 47.92 | 9.139 | | |
| 6,000.00 | 5,922.10 | 5,974.22 | 5,834.21 | 25.31 | 28.66 | -48.38 | -308.32 | 1,190.48 | 446.22 | 397.42 | 48.79 | 9.145 | | |
| 6,100.00 | 6,020.56 | 6,073.88 | 5,931.12 | 25.76 | 29.18 | -48.46 | -313.87 | 1,213.04 | 454.48 | 404.82 | 49.66 | 9.152 | | |
| 6,200.00 | 6,119.03 | 6,173.54 | 6,028.02 | 26.21 | 29.70 | -48.53 | -319.43 | 1,235.61 | 462.74 | 412.21 | 50.53 | 9.158 | | |
| 6,300.00 | 6,217.49 | 6,273.19 | 6,124.93 | 26.66 | 30.21 | -48.60 | -324.99 | 1,258.17 | 471.00 | 419.61 | 51.40 | 9.164 | | |
| 6,400.00 | 6,315.95 | 6,372.85 | 6,221.84 | 27.11 | 30.73 | -48.67 | -330.55 | 1,280.74 | 479.27 | 427.00 | 52.27 | 9.170 | | |
| 6,500.00 | 6,414.41 | 6,472.51 | 6,318.75 | 27.55 | 31.25 | -48.73 | -336.10 | 1,303.30 | 487.53 | 434.40 | 53.13 | 9.176 | | |
| 6,600.00 | 6,512.87 | 6,572.16 | 6,415.66 | 28.00 | 31.76 | -48.80 | -341.66 | 1,325.87 | 495.80 | 441.79 | 54.00 | 9.181 | | |
| 6,700.00 | 6,611.34 | 6,671.82 | 6,512.57 | 28.45 | 32.28 | -48.86 | -347.22 | 1,348.43 | 504.06 | 449.19 | 54.87 | 9.186 | | |
| 6,800.00 | 6,709.80 | 6,771.48 | 6,609.48 | 28.90 | 32.80 | -48.92 | -352.77 | 1,371.00 | 512.33 | 456.59 | 55.74 | 9.191 | | |
| 6,900.00 | 6,808.26 | 6,871.13 | 6,706.39 | 29.35 | 33.31 | -48.97 | -358.33 | 1,393.56 | 520.60 | 463.99 | 56.61 | 9.196 | | |
| 6,982.73 | 6,889.71 | 6,953.58 | 6,786.56 | 29.72 | 33.74 | -49.02 | -362.93 | 1,412.23 | 527.43 | 470.11 | 57.33 | 9.200 | | |
| 7,000.00 | 6,906.74 | 6,968.59 | 6,801.16 | 29.80 | 33.82 | -49.11 | -363.69 | 1,415.63 | 528.82 | 471.37 | 57.45 | 9.205 | | |
| 7,050.00 | 6,956.13 | 7,009.54 | 6,841.05 | 30.01 | 34.02 | -17.33 | -364.23 | 1,424.84 | 532.61 | 474.88 | 57.73 | 9.226 | | |
| 7,100.00 | 7,005.50 | 7,050.00 | 6,880.45 | 30.19 | 34.22 | 6.58 | -362.46 | 1,433.84 | 536.07 | 478.15 | 57.92 | 9.255 | | |
| 7,150.00 | 7,054.61 | 7,091.45 | 6,920.68 | 30.36 | 34.40 | 23.65 | -358.28 | 1,442.92 | 539.20 | 481.13 | 58.07 | 9.286 | | |
| 7,200.00 | 7,103.23 | 7,132.46 | 6,960.20 | 30.52 | 34.57 | 34.57 | -351.82 | 1,451.74 | 541.98 | 483.84 | 58.14 | 9.321 | | |
| 7,250.00 | 7,151.10 | 7,173.55 | 6,999.38 | 30.65 | 34.73 | 41.69 | -343.03 | 1,460.39 | 544.41 | 486.24 | 58.17 | 9.359 | | |
| 7,300.00 | 7,198.01 | 7,214.72 | 7,038.11 | 30.77 | 34.87 | 46.61 | -331.93 | 1,468.82 | 546.47 | 488.31 | 58.16 | 9.396 | | |
| 7,350.00 | 7,243.72 | 7,256.01 | 7,076.29 | 30.88 | 35.01 | 50.20 | -318.53 | 1,477.03 | 548.17 | 490.06 | 58.11 | 9.433 | | |
| 7,400.00 | 7,288.00 | 7,300.00 | 7,116.09 | 30.97 | 35.14 | 52.99 | -301.81 | 1,485.47 | 549.52 | 491.41 | 58.11 | 9.456 | | |
| 7,450.00 | 7,330.65 | 7,339.03 | 7,150.52 | 31.05 | 35.25 | 55.21 | -284.91 | 1,492.66 | 550.50 | 492.53 | 57.97 | 9.497 | | |
| 7,500.00 | 7,371.46 | 7,380.81 | 7,186.34 | 31.12 | 35.35 | 57.10 | -264.72 | 1,500.03 | 551.14 | 493.25 | 57.89 | 9.521 | | |
| 7,550.00 | 7,410.22 | 7,422.80 | 7,221.15 | 31.17 | 35.45 | 58.75 | -242.32 | 1,507.07 | 551.43 | 493.61 | 57.82 | 9.538 | | |
| 7,600.00 | 7,446.75 | 7,465.04 | 7,254.83 | 31.21 | 35.54 | 60.25 | -217.74 | 1,513.76 | 551.39 | 493.63 | 57.76 | 9.546 | | |
| 7,650.00 | 7,480.87 | 7,507.53 | 7,287.25 | 31.24 | 35.61 | 61.63 | -191.01 | 1,520.06 | 551.03 | 493.29 | 57.73 | 9.544 | | |
| 7,700.00 | 7,512.42 | 7,550.00 | 7,318.07 | 31.25 | 35.68 | 62.93 | -162.39 | 1,525.91 | 550.36 | 492.63 | 57.73 | 9.533 | | |
| 7,750.00 | 7,541.23 | 7,593.43 | 7,347.83 | 31.26 | 35.74 | 64.20 | -131.25 | 1,531.40 | 549.41 | 491.63 | 57.79 | 9.508 | | |
| 7,800.00 | 7,567.18 | 7,636.89 | 7,375.74 | 31.25 | 35.79 | 65.44 | -98.32 | 1,536.39 | 548.20 | 490.32 | 57.88 | 9.472 | | |
| 7,850.00 | 7,590.12 | 7,680.72 | 7,401.87 | 31.24 | 35.83 | 66.66 | -63.43 | 1,540.89 | 546.73 | 488.71 | 58.02 | 9.424 | | |
| 7,900.00 | 7,609.96 | 7,724.96 | 7,426.10 | 31.22 | 35.87 | 67.87 | -26.64 | 1,544.87 | 545.04 | 486.83 | 58.20 | 9.364 | | |
| 7,950.00 | 7,626.60 | 7,769.64 | 7,448.30 | 31.19 | 35.90 | 69.09 | 11.98 | 1,548.29 | 543.15 | 484.71 | 58.44 | 9.294 | | |
| 8,000.00 | 7,639.94 | 7,814.78 | 7,468.31 | 31.15 | 35.92 | 70.31 | 52.34 | 1,551.14 | 541.07 | 482.36 | 58.72 | 9.215 | | |
| 8,050.00 | 7,649.94 | 7,860.43 | 7,485.99 | 31.11 | 35.93 | 71.54 | 94.35 | 1,553.38 | 538.85 | 479.82 | 59.04 | 9.127 | | |
| 8,100.00 | 7,656.54 | 7,906.61 | 7,501.20 | 31.07 | 35.94 | 72.78 | 137.92 | 1,554.98 | 536.50 | 477.11 | 59.39 | 9.034 | | |
| 8,150.00 | 7,659.70 | 7,953.37 | 7,513.78 | 31.03 | 35.94 | 74.03 | 182.93 | 1,555.91 | 534.05 | 474.29 | 59.76 | 8.936 | | |
| 8,170.89 | 7,660.00 | 7,973.08 | 7,518.22 | 31.01 | 35.94 | 74.55 | 202.13 | 1,556.10 | 533.00 | 473.07 | 59.93 | 8.894 | | |
| 8,200.00 | 7,660.00 | 8,000.83 | 7,523.60 | 30.98 | 35.94 | 75.12 | 229.36 | 1,556.15 | 531.58 | 471.43 | 60.16 | 8.837 | | |
| 8,300.00 | 7,660.00 | 8,098.54 | 7,534.31 | 30.92 | 35.94 | 76.19 | 326.39 | 1,554.38 | 527.20 | 466.22 | 60.98 | 8.645 | | |
| 8,400.00 | 7,660.00 | 8,198.12 | 7,535.00 | 30.91 | 35.94 | 76.16 | 425.87 | 1,550.19 | 523.07 | 461.18 | 61.90 | 8.451 | | |
| 8,500.00 | 7,660.00 | 8,298.03 | 7,535.00 | 31.22 | 35.97 | 76.05 | 525.68 | 1,545.84 | 518.95 | 456.00 | 62.96 | 8.243 | | |
| 8,600.00 | 7,660.00 | 8,397.94 | 7,535.00 | 31.83 | 36.04 | 75.94 | 625.50 | 1,541.48 | 514.84 | 450.69 | 64.15 | 8.026 | | |
| 8,700.00 | 7,660.00 | 8,497.85 | 7,535.00 | 32.55 | 36.17 | 75.82 | 725.31 | 1,537.12 | 510.73 | 445.25 | 65.47 | 7.800 | | |
| 8,800.00 | 7,660.00 | 8,597.76 | 7,535.00 | 33.33 | 36.36 | 75.70 | 825.13 | 1,532.76 | 506.61 | 439.70 | 66.92 | 7.571 | | |
| 8,900.00 | 7,660.00 | 8,697.67 | 7,535.00 | 34.16 | 36.65 | 75.58 | 924.94 | 1,528.40 | 502.50 | 434.03 | 68.48 | 7.338 | | |

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 4S-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 4S-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 4U-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 | | | |
| 9,000.00 | 7,660.00 | 8,797.58 | 7,535.00 | 35.04 | 37.04 | 75.46 | 1,024.76 | 1,524.04 | 498.40 | 428.26 | 70.14 | 7.106 | | | | |
| 9,100.00 | 7,660.00 | 8,897.49 | 7,535.00 | 35.97 | 37.56 | 75.34 | 1,124.57 | 1,519.69 | 494.29 | 422.40 | 71.90 | 6.875 | | | | |
| 9,200.00 | 7,660.00 | 8,997.40 | 7,535.00 | 36.94 | 38.21 | 75.21 | 1,224.39 | 1,515.33 | 490.19 | 416.44 | 73.75 | 6.647 | | | | |
| 9,300.00 | 7,660.00 | 9,097.31 | 7,535.00 | 37.96 | 38.97 | 75.09 | 1,324.20 | 1,510.97 | 486.09 | 410.41 | 75.68 | 6.423 | | | | |
| 9,400.00 | 7,660.00 | 9,197.22 | 7,535.00 | 39.00 | 39.82 | 74.96 | 1,424.02 | 1,506.61 | 481.99 | 404.30 | 77.69 | 6.204 | | | | |
| 9,500.00 | 7,660.00 | 9,297.13 | 7,535.00 | 40.09 | 40.75 | 74.82 | 1,523.83 | 1,502.25 | 477.90 | 398.13 | 79.77 | 5.991 | | | | |
| 9,600.00 | 7,660.00 | 9,397.04 | 7,535.00 | 41.20 | 41.75 | 74.69 | 1,623.65 | 1,497.90 | 473.81 | 391.90 | 81.91 | 5.784 | | | | |
| 9,700.00 | 7,660.00 | 9,496.95 | 7,535.00 | 42.34 | 42.80 | 74.55 | 1,723.46 | 1,493.54 | 469.72 | 385.60 | 84.11 | 5.584 | | | | |
| 9,800.00 | 7,660.00 | 9,596.86 | 7,535.00 | 43.51 | 43.89 | 74.41 | 1,823.28 | 1,489.18 | 465.63 | 379.26 | 86.37 | 5.391 | | | | |
| 9,900.00 | 7,660.00 | 9,696.77 | 7,535.00 | 44.70 | 45.03 | 74.27 | 1,923.09 | 1,484.82 | 461.54 | 372.87 | 88.67 | 5.205 | | | | |
| 10,000.00 | 7,660.00 | 9,796.68 | 7,535.00 | 45.92 | 46.20 | 74.13 | 2,022.91 | 1,480.46 | 457.46 | 366.44 | 91.02 | 5.026 | | | | |
| 10,100.00 | 7,660.00 | 9,896.59 | 7,535.00 | 47.16 | 47.40 | 73.98 | 2,122.72 | 1,476.11 | 453.38 | 359.97 | 93.42 | 4.853 | | | | |
| 10,200.00 | 7,660.00 | 9,996.50 | 7,535.00 | 48.42 | 48.63 | 73.83 | 2,222.54 | 1,471.75 | 449.31 | 353.46 | 95.85 | 4.688 | | | | |
| 10,300.00 | 7,660.00 | 10,096.41 | 7,535.00 | 49.70 | 49.88 | 73.68 | 2,322.35 | 1,467.39 | 445.24 | 346.93 | 98.31 | 4.529 | | | | |
| 10,400.00 | 7,660.00 | 10,196.32 | 7,535.00 | 50.99 | 51.16 | 73.53 | 2,422.17 | 1,463.03 | 441.17 | 340.36 | 100.80 | 4.376 | | | | |
| 10,500.00 | 7,660.00 | 10,296.23 | 7,535.00 | 52.30 | 52.45 | 73.37 | 2,521.98 | 1,458.67 | 437.10 | 333.77 | 103.33 | 4.230 | | | | |
| 10,600.00 | 7,660.00 | 10,396.14 | 7,535.00 | 53.62 | 53.77 | 73.21 | 2,621.80 | 1,454.32 | 433.04 | 327.16 | 105.88 | 4.090 | | | | |
| 10,700.00 | 7,660.00 | 10,496.05 | 7,535.00 | 54.96 | 55.10 | 73.04 | 2,721.61 | 1,449.96 | 428.98 | 320.53 | 108.45 | 3.956 | | | | |
| 10,800.00 | 7,660.00 | 10,595.96 | 7,535.00 | 56.31 | 56.45 | 72.88 | 2,821.43 | 1,445.60 | 424.92 | 313.88 | 111.04 | 3.827 | | | | |
| 10,900.00 | 7,660.00 | 10,695.87 | 7,535.00 | 57.67 | 57.81 | 72.71 | 2,921.24 | 1,441.24 | 420.87 | 307.21 | 113.66 | 3.703 | | | | |
| 11,000.00 | 7,660.00 | 10,795.78 | 7,535.00 | 59.05 | 59.19 | 72.53 | 3,021.06 | 1,436.88 | 416.82 | 300.54 | 116.29 | 3.584 | | | | |
| 11,100.00 | 7,660.00 | 10,895.69 | 7,535.00 | 60.43 | 60.57 | 72.36 | 3,120.87 | 1,432.52 | 412.78 | 293.85 | 118.93 | 3.471 | | | | |
| 11,200.00 | 7,660.00 | 10,995.60 | 7,535.00 | 61.82 | 61.97 | 72.18 | 3,220.69 | 1,428.17 | 408.74 | 287.15 | 121.59 | 3.362 | | | | |
| 11,300.00 | 7,660.00 | 11,095.51 | 7,535.00 | 63.23 | 63.39 | 71.99 | 3,320.50 | 1,423.81 | 404.70 | 280.44 | 124.26 | 3.257 | | | | |
| 11,400.00 | 7,660.00 | 11,195.42 | 7,535.00 | 64.64 | 64.81 | 71.81 | 3,420.32 | 1,419.45 | 400.67 | 273.72 | 126.95 | 3.156 | | | | |
| 11,500.00 | 7,660.00 | 11,295.33 | 7,535.00 | 66.06 | 66.24 | 71.62 | 3,520.13 | 1,415.09 | 396.64 | 267.01 | 129.64 | 3.060 | | | | |
| 11,600.00 | 7,660.00 | 11,395.24 | 7,535.00 | 67.48 | 67.68 | 71.42 | 3,619.95 | 1,410.73 | 392.62 | 260.28 | 132.34 | 2.967 | | | | |
| 11,700.00 | 7,660.00 | 11,495.15 | 7,535.00 | 68.91 | 69.12 | 71.22 | 3,719.76 | 1,406.38 | 388.60 | 253.56 | 135.04 | 2.878 | | | | |
| 11,800.00 | 7,660.00 | 11,595.06 | 7,535.00 | 70.35 | 70.58 | 71.02 | 3,819.58 | 1,402.02 | 384.59 | 246.83 | 137.76 | 2.792 | | | | |
| 11,900.00 | 7,660.00 | 11,694.97 | 7,535.00 | 71.80 | 72.04 | 70.81 | 3,919.39 | 1,397.66 | 380.58 | 240.11 | 140.47 | 2.709 | | | | |
| 12,000.00 | 7,660.00 | 11,794.88 | 7,535.00 | 73.25 | 73.51 | 70.60 | 4,019.21 | 1,393.30 | 376.58 | 233.39 | 143.19 | 2.630 | | | | |
| 12,100.00 | 7,660.00 | 11,894.79 | 7,535.00 | 74.71 | 74.98 | 70.38 | 4,119.02 | 1,388.94 | 372.58 | 226.67 | 145.91 | 2.553 | | | | |
| 12,200.00 | 7,660.00 | 11,994.70 | 7,535.00 | 76.17 | 76.47 | 70.16 | 4,218.84 | 1,384.59 | 368.58 | 219.95 | 148.63 | 2.480 | | | | |
| 12,250.40 | 7,660.00 | 12,030.43 | 7,535.00 | 76.91 | 77.00 | 70.08 | 4,254.53 | 1,383.03 | 366.87 | 216.38 | 150.48 | 2.438 | | | | |
| 12,253.72 | 7,660.00 | 12,030.43 | 7,535.00 | 76.96 | 77.00 | 70.08 | 4,254.53 | 1,383.03 | 366.88 | 216.22 | 150.66 | 2.435 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 4S-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 4S-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 | 90.57 | -0.30 | 29.94 | 29.94 | | | | | | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | 90.57 | -0.30 | 29.94 | 29.94 | 29.66 | 0.28 | 108.464 | | | | | | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | 90.57 | -0.30 | 29.94 | 29.94 | 28.95 | 0.99 | 30.151 | | | | | | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.85 | 0.85 | 90.57 | -0.30 | 29.94 | 29.94 | 28.23 | 1.71 | 17.509 | CC, ES | | | | | | |
| 400.00 | 400.00 | 398.99 | 398.97 | 1.21 | 1.20 | 91.64 | -0.90 | 31.54 | 31.57 | 29.13 | 2.44 | 12.944 | | | | | | | |
| 500.00 | 500.00 | 497.74 | 497.59 | 1.57 | 1.55 | 94.27 | -2.71 | 36.32 | 36.50 | 33.31 | 3.19 | 11.445 | | | | | | | |
| 600.00 | 600.00 | 596.03 | 595.50 | 1.93 | 1.90 | 97.36 | -5.71 | 44.23 | 44.82 | 40.87 | 3.95 | 11.347 | | | | | | | |
| 700.00 | 699.98 | 693.83 | 692.59 | 2.28 | 2.27 | -20.61 | -9.87 | 55.21 | 54.95 | 50.26 | 4.69 | 11.705 | | | | | | | |
| 800.00 | 799.84 | 791.29 | 788.88 | 2.62 | 2.65 | -19.56 | -15.18 | 69.24 | 65.20 | 59.77 | 5.43 | 12.017 | | | | | | | |
| 900.00 | 899.45 | 888.41 | 884.28 | 2.97 | 3.06 | -19.20 | -21.63 | 86.25 | 75.51 | 69.35 | 6.16 | 12.259 | | | | | | | |
| 1,000.00 | 998.70 | 985.18 | 978.67 | 3.33 | 3.50 | -19.28 | -29.19 | 106.20 | 85.86 | 78.97 | 6.89 | 12.460 | | | | | | | |
| 1,103.09 | 1,100.51 | 1,086.91 | 1,077.29 | 3.72 | 3.98 | -19.80 | -38.03 | 129.55 | 95.69 | 88.07 | 7.62 | 12.559 | | | | | | | |
| 1,200.00 | 1,195.93 | 1,183.50 | 1,170.89 | 4.11 | 4.46 | -20.56 | -46.48 | 151.84 | 103.46 | 95.15 | 8.31 | 12.447 | | | | | | | |
| 1,300.00 | 1,294.39 | 1,283.17 | 1,267.47 | 4.51 | 4.96 | -21.24 | -55.19 | 174.85 | 111.49 | 102.44 | 9.04 | 12.327 | | | | | | | |
| 1,400.00 | 1,392.85 | 1,382.84 | 1,364.05 | 4.93 | 5.47 | -21.83 | -63.91 | 197.86 | 119.53 | 109.74 | 9.79 | 12.212 | | | | | | | |
| 1,500.00 | 1,491.31 | 1,482.51 | 1,460.64 | 5.35 | 5.98 | -22.35 | -72.63 | 220.87 | 127.59 | 117.04 | 10.54 | 12.102 | | | | | | | |
| 1,600.00 | 1,589.78 | 1,582.18 | 1,557.22 | 5.77 | 6.50 | -22.80 | -81.34 | 243.88 | 135.65 | 124.35 | 11.31 | 11.999 | | | | | | | |
| 1,700.00 | 1,688.24 | 1,681.85 | 1,653.81 | 6.20 | 7.02 | -23.20 | -90.06 | 266.89 | 143.72 | 131.65 | 12.07 | 11.902 | | | | | | | |
| 1,800.00 | 1,786.70 | 1,781.52 | 1,750.39 | 6.63 | 7.54 | -23.56 | -98.78 | 289.90 | 151.80 | 138.95 | 12.85 | 11.813 | | | | | | | |
| 1,900.00 | 1,885.16 | 1,881.18 | 1,846.98 | 7.06 | 8.07 | -23.88 | -107.49 | 312.91 | 159.88 | 146.25 | 13.63 | 11.730 | | | | | | | |
| 2,000.00 | 1,983.62 | 1,980.85 | 1,943.56 | 7.50 | 8.59 | -24.18 | -116.21 | 335.92 | 167.97 | 153.56 | 14.41 | 11.653 | | | | | | | |
| 2,100.00 | 2,082.09 | 2,080.52 | 2,040.14 | 7.94 | 9.12 | -24.44 | -124.92 | 358.93 | 176.06 | 160.86 | 15.20 | 11.581 | | | | | | | |
| 2,200.00 | 2,180.55 | 2,180.19 | 2,136.73 | 8.37 | 9.65 | -24.68 | -133.64 | 381.94 | 184.16 | 168.16 | 15.99 | 11.515 | | | | | | | |
| 2,300.00 | 2,279.01 | 2,279.86 | 2,233.31 | 8.81 | 10.18 | -24.90 | -142.36 | 404.94 | 192.25 | 175.47 | 16.79 | 11.453 | | | | | | | |
| 2,400.00 | 2,377.47 | 2,379.53 | 2,329.90 | 9.25 | 10.71 | -25.11 | -151.07 | 427.95 | 200.35 | 182.77 | 17.58 | 11.395 | | | | | | | |
| 2,500.00 | 2,475.93 | 2,479.20 | 2,426.48 | 9.69 | 11.24 | -25.29 | -159.79 | 450.96 | 208.46 | 190.08 | 18.38 | 11.342 | | | | | | | |
| 2,600.00 | 2,574.40 | 2,578.87 | 2,523.06 | 10.14 | 11.77 | -25.47 | -168.51 | 473.97 | 216.56 | 197.38 | 19.18 | 11.291 | | | | | | | |
| 2,700.00 | 2,672.86 | 2,678.54 | 2,619.65 | 10.58 | 12.30 | -25.63 | -177.22 | 496.98 | 224.67 | 204.69 | 19.98 | 11.244 | | | | | | | |
| 2,800.00 | 2,771.32 | 2,778.20 | 2,716.23 | 11.02 | 12.83 | -25.78 | -185.94 | 519.99 | 232.78 | 211.99 | 20.78 | 11.200 | | | | | | | |
| 2,900.00 | 2,869.78 | 2,877.87 | 2,812.82 | 11.46 | 13.37 | -25.92 | -194.65 | 543.00 | 240.89 | 219.30 | 21.59 | 11.159 | | | | | | | |
| 3,000.00 | 2,968.24 | 2,977.54 | 2,909.40 | 11.91 | 13.90 | -26.05 | -203.37 | 566.01 | 249.00 | 226.61 | 22.39 | 11.120 | | | | | | | |
| 3,100.00 | 3,066.71 | 3,077.21 | 3,005.99 | 12.35 | 14.43 | -26.17 | -212.09 | 589.02 | 257.11 | 233.91 | 23.20 | 11.083 | | | | | | | |
| 3,200.00 | 3,165.17 | 3,176.88 | 3,102.57 | 12.80 | 14.97 | -26.29 | -220.80 | 612.03 | 265.22 | 241.22 | 24.00 | 11.049 | | | | | | | |
| 3,300.00 | 3,263.63 | 3,276.55 | 3,199.15 | 13.24 | 15.50 | -26.40 | -229.52 | 635.04 | 273.34 | 248.53 | 24.81 | 11.016 | | | | | | | |
| 3,400.00 | 3,362.09 | 3,376.22 | 3,295.74 | 13.69 | 16.04 | -26.50 | -238.24 | 658.05 | 281.45 | 255.83 | 25.62 | 10.985 | | | | | | | |
| 3,500.00 | 3,460.55 | 3,475.89 | 3,392.32 | 14.13 | 16.57 | -26.59 | -246.95 | 681.05 | 289.57 | 263.14 | 26.43 | 10.956 | | | | | | | |
| 3,600.00 | 3,559.01 | 3,575.56 | 3,488.91 | 14.58 | 17.10 | -26.68 | -255.67 | 704.06 | 297.69 | 270.45 | 27.24 | 10.928 | | | | | | | |
| 3,700.00 | 3,657.48 | 3,675.23 | 3,585.49 | 15.02 | 17.64 | -26.77 | -264.38 | 727.07 | 305.80 | 277.75 | 28.05 | 10.902 | | | | | | | |
| 3,800.00 | 3,755.94 | 3,774.89 | 3,682.08 | 15.47 | 18.17 | -26.85 | -273.10 | 750.08 | 313.92 | 285.06 | 28.86 | 10.877 | | | | | | | |
| 3,900.00 | 3,854.40 | 3,874.56 | 3,778.66 | 15.92 | 18.71 | -26.93 | -281.82 | 773.09 | 322.04 | 292.37 | 29.67 | 10.853 | | | | | | | |
| 4,000.00 | 3,952.86 | 3,974.23 | 3,875.24 | 16.36 | 19.24 | -27.00 | -290.53 | 796.10 | 330.16 | 299.67 | 30.48 | 10.830 | | | | | | | |
| 4,100.00 | 4,051.32 | 4,073.90 | 3,971.83 | 16.81 | 19.78 | -27.07 | -299.25 | 819.11 | 338.28 | 306.98 | 31.30 | 10.809 | | | | | | | |
| 4,200.00 | 4,149.79 | 4,173.57 | 4,068.41 | 17.26 | 20.31 | -27.14 | -307.97 | 842.12 | 346.40 | 314.29 | 32.11 | 10.788 | | | | | | | |
| 4,300.00 | 4,248.25 | 4,273.24 | 4,165.00 | 17.70 | 20.85 | -27.21 | -316.68 | 865.13 | 354.52 | 321.60 | 32.92 | 10.768 | | | | | | | |
| 4,400.00 | 4,346.71 | 4,372.91 | 4,261.58 | 18.15 | 21.38 | -27.27 | -325.40 | 888.14 | 362.64 | 328.91 | 33.74 | 10.749 | | | | | | | |
| 4,500.00 | 4,445.17 | 4,472.58 | 4,358.16 | 18.60 | 21.92 | -27.32 | -334.11 | 911.15 | 370.76 | 336.21 | 34.55 | 10.731 | | | | | | | |
| 4,600.00 | 4,543.63 | 4,572.25 | 4,454.75 | 19.04 | 22.46 | -27.38 | -342.83 | 934.16 | 378.89 | 343.52 | 35.36 | 10.714 | | | | | | | |
| 4,700.00 | 4,642.10 | 4,671.91 | 4,551.33 | 19.49 | 22.99 | -27.43 | -351.55 | 957.16 | 387.01 | 350.83 | 36.18 | 10.697 | | | | | | | |
| 4,800.00 | 4,740.56 | 4,771.58 | 4,647.92 | 19.94 | 23.53 | -27.48 | -360.26 | 980.17 | 395.13 | 358.14 | 36.99 | 10.681 | | | | | | | |
| 4,900.00 | 4,839.02 | 4,871.25 | 4,744.50 | 20.39 | 24.06 | -27.53 | -368.98 | 1,003.18 | 403.25 | 365.45 | 37.81 | 10.666 | | | | | | | |
| 5,000.00 | 4,937.48 | 4,970.92 | 4,841.09 | 20.83 | 24.60 | -27.58 | -377.70 | 1,026.19 | 411.38 | 372.75 | 38.62 | 10.651 | | | | | | | |
| 5,100.00 | 5,035.94 | 5,070.59 | 4,937.67 | 21.28 | 25.14 | -27.63 | -386.41 | 1,049.20 | 419.50 | 380.06 | 39.44 | 10.637 | | | | | | | |

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 4S-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 4S-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 4V-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 | | |
| 5,200.00 | 5,134.41 | 5,170.26 | 5,034.25 | 21.73 | 25.67 | -27.67 | -395.13 | 1,072.21 | 427.62 | 387.37 | 40.25 | 10.623 | | | |
| 5,300.00 | 5,232.87 | 5,269.93 | 5,130.84 | 22.18 | 26.21 | -27.71 | -403.84 | 1,095.22 | 435.75 | 394.68 | 41.07 | 10.610 | | | |
| 5,400.00 | 5,331.33 | 5,369.60 | 5,227.42 | 22.63 | 26.74 | -27.75 | -412.56 | 1,118.23 | 443.87 | 401.99 | 41.89 | 10.597 | | | |
| 5,500.00 | 5,429.79 | 5,469.27 | 5,324.01 | 23.07 | 27.28 | -27.79 | -421.28 | 1,141.24 | 452.00 | 409.29 | 42.70 | 10.585 | | | |
| 5,600.00 | 5,528.25 | 5,568.94 | 5,420.59 | 23.52 | 27.82 | -27.83 | -429.99 | 1,164.25 | 460.12 | 416.60 | 43.52 | 10.573 | | | |
| 5,700.00 | 5,626.72 | 5,668.60 | 5,517.17 | 23.97 | 28.35 | -27.87 | -438.71 | 1,187.26 | 468.25 | 423.91 | 44.33 | 10.562 | | | |
| 5,800.00 | 5,725.18 | 5,768.27 | 5,613.76 | 24.42 | 28.89 | -27.90 | -447.43 | 1,210.27 | 476.37 | 431.22 | 45.15 | 10.551 | | | |
| 5,900.00 | 5,823.64 | 5,867.94 | 5,710.34 | 24.87 | 29.42 | -27.94 | -456.14 | 1,233.27 | 484.50 | 438.53 | 45.97 | 10.540 | | | |
| 6,000.00 | 5,922.10 | 5,967.61 | 5,806.93 | 25.31 | 29.96 | -27.97 | -464.86 | 1,256.28 | 492.62 | 445.84 | 46.78 | 10.530 | | | |
| 6,100.00 | 6,020.56 | 6,067.28 | 5,903.51 | 25.76 | 30.50 | -28.00 | -473.58 | 1,279.29 | 500.75 | 453.15 | 47.60 | 10.520 | | | |
| 6,200.00 | 6,119.03 | 6,166.95 | 6,000.10 | 26.21 | 31.03 | -28.03 | -482.29 | 1,302.30 | 508.87 | 460.45 | 48.42 | 10.510 | | | |
| 6,300.00 | 6,217.49 | 6,266.62 | 6,096.68 | 26.66 | 31.57 | -28.06 | -491.01 | 1,325.31 | 517.00 | 467.76 | 49.23 | 10.501 | | | |
| 6,400.00 | 6,315.95 | 6,366.29 | 6,193.26 | 27.11 | 32.11 | -28.09 | -499.72 | 1,348.32 | 525.12 | 475.07 | 50.05 | 10.492 | | | |
| 6,500.00 | 6,414.41 | 6,465.96 | 6,289.85 | 27.55 | 32.64 | -28.12 | -508.44 | 1,371.33 | 533.25 | 482.38 | 50.87 | 10.483 | | | |
| 6,600.00 | 6,512.87 | 6,565.62 | 6,386.43 | 28.00 | 33.18 | -28.14 | -517.16 | 1,394.34 | 541.38 | 489.69 | 51.69 | 10.474 | | | |
| 6,700.00 | 6,611.34 | 6,665.29 | 6,483.02 | 28.45 | 33.72 | -28.17 | -525.87 | 1,417.35 | 549.50 | 497.00 | 52.50 | 10.466 | | | |
| 6,800.00 | 6,709.80 | 6,764.96 | 6,579.60 | 28.90 | 34.25 | -28.20 | -534.59 | 1,440.36 | 557.63 | 504.31 | 53.32 | 10.458 | | | |
| 6,900.00 | 6,808.26 | 6,864.63 | 6,676.19 | 29.35 | 34.79 | -28.22 | -543.31 | 1,463.37 | 565.76 | 511.62 | 54.14 | 10.450 | | | |
| 6,982.73 | 6,889.71 | 6,948.14 | 6,757.34 | 29.72 | 35.21 | -28.72 | -545.86 | 1,482.69 | 572.40 | 517.51 | 54.88 | 10.430 | | | |
| 7,000.00 | 6,906.74 | 6,965.40 | 6,774.11 | 29.80 | 35.29 | -21.82 | -545.18 | 1,486.69 | 573.78 | 518.74 | 55.04 | 10.424 | | | |
| 7,050.00 | 6,956.13 | 7,015.09 | 6,822.27 | 30.01 | 35.51 | 2.10 | -540.89 | 1,498.15 | 577.83 | 522.34 | 55.49 | 10.414 | | | |
| 7,100.00 | 7,005.50 | 7,064.39 | 6,869.64 | 30.19 | 35.71 | 25.30 | -533.25 | 1,509.42 | 581.94 | 526.05 | 55.88 | 10.413 | | | |
| 7,150.00 | 7,054.61 | 7,113.32 | 6,916.04 | 30.36 | 35.89 | 41.59 | -522.38 | 1,520.45 | 586.07 | 529.83 | 56.24 | 10.421 | | | |
| 7,200.00 | 7,103.23 | 7,161.89 | 6,961.28 | 30.52 | 36.04 | 51.69 | -508.40 | 1,531.21 | 590.22 | 533.66 | 56.56 | 10.436 | | | |
| 7,250.00 | 7,151.10 | 7,210.11 | 7,005.19 | 30.65 | 36.18 | 57.93 | -491.42 | 1,541.64 | 594.35 | 537.51 | 56.84 | 10.457 | | | |
| 7,300.00 | 7,198.01 | 7,258.01 | 7,047.60 | 30.77 | 36.30 | 61.93 | -471.59 | 1,551.72 | 598.44 | 541.36 | 57.08 | 10.484 | | | |
| 7,350.00 | 7,243.72 | 7,305.60 | 7,088.37 | 30.88 | 36.41 | 64.55 | -449.05 | 1,561.40 | 602.46 | 545.17 | 57.29 | 10.516 | | | |
| 7,400.00 | 7,288.00 | 7,352.90 | 7,127.36 | 30.97 | 36.50 | 66.32 | -423.94 | 1,570.65 | 606.40 | 548.93 | 57.47 | 10.551 | | | |
| 7,450.00 | 7,330.65 | 7,400.00 | 7,164.50 | 31.05 | 36.58 | 67.53 | -396.36 | 1,579.46 | 610.22 | 552.59 | 57.63 | 10.589 | | | |
| 7,500.00 | 7,371.46 | 7,446.70 | 7,199.50 | 31.12 | 36.64 | 68.35 | -366.60 | 1,587.76 | 613.91 | 556.15 | 57.76 | 10.629 | | | |
| 7,550.00 | 7,410.22 | 7,493.23 | 7,232.43 | 31.17 | 36.69 | 68.90 | -334.68 | 1,595.56 | 617.44 | 559.56 | 57.88 | 10.668 | | | |
| 7,600.00 | 7,446.75 | 7,539.54 | 7,263.14 | 31.21 | 36.73 | 69.27 | -300.79 | 1,602.83 | 620.78 | 562.80 | 57.98 | 10.707 | | | |
| 7,650.00 | 7,480.87 | 7,585.65 | 7,291.53 | 31.24 | 36.76 | 69.50 | -265.10 | 1,609.55 | 623.93 | 565.85 | 58.08 | 10.742 | | | |
| 7,700.00 | 7,512.42 | 7,631.58 | 7,317.53 | 31.25 | 36.78 | 69.63 | -227.75 | 1,615.69 | 626.86 | 568.68 | 58.18 | 10.774 | | | |
| 7,750.00 | 7,541.23 | 7,677.33 | 7,341.06 | 31.26 | 36.79 | 69.70 | -188.91 | 1,621.25 | 629.55 | 571.26 | 58.29 | 10.801 | | | |
| 7,800.00 | 7,567.18 | 7,722.94 | 7,362.08 | 31.25 | 36.80 | 69.72 | -148.75 | 1,626.20 | 631.98 | 573.58 | 58.40 | 10.821 | | | |
| 7,850.00 | 7,590.12 | 7,768.41 | 7,380.51 | 31.24 | 36.79 | 69.71 | -107.42 | 1,630.54 | 634.15 | 575.61 | 58.54 | 10.833 | | | |
| 7,900.00 | 7,609.96 | 7,813.76 | 7,396.31 | 31.22 | 36.78 | 69.67 | -65.08 | 1,634.25 | 636.04 | 577.34 | 58.70 | 10.836 | | | |
| 7,950.00 | 7,626.60 | 7,859.02 | 7,409.46 | 31.19 | 36.77 | 69.63 | -21.89 | 1,637.33 | 637.63 | 578.75 | 58.88 | 10.829 | | | |
| 8,000.00 | 7,639.94 | 7,904.18 | 7,419.90 | 31.15 | 36.75 | 69.58 | 21.97 | 1,639.76 | 638.91 | 579.82 | 59.09 | 10.812 | | | |
| 8,050.00 | 7,649.94 | 7,950.00 | 7,427.73 | 31.11 | 36.73 | 69.54 | 67.07 | 1,641.57 | 639.89 | 580.54 | 59.35 | 10.782 | | | |
| 8,100.00 | 7,656.54 | 7,994.32 | 7,432.62 | 31.07 | 36.70 | 69.49 | 111.10 | 1,642.68 | 640.55 | 580.92 | 59.62 | 10.744 | | | |
| 8,150.00 | 7,659.70 | 8,039.32 | 7,434.86 | 31.03 | 36.68 | 69.46 | 156.04 | 1,643.16 | 640.88 | 580.94 | 59.94 | 10.692 | | | |
| 8,170.89 | 7,660.00 | 8,058.63 | 7,435.00 | 31.01 | 36.67 | 69.45 | 175.34 | 1,643.17 | 640.92 | 580.84 | 60.08 | 10.667 | | | |
| 8,200.00 | 7,660.00 | 8,087.74 | 7,435.00 | 30.98 | 36.65 | 69.45 | 204.45 | 1,643.13 | 640.92 | 580.61 | 60.32 | 10.626 | | | |
| 8,300.00 | 7,660.00 | 8,187.74 | 7,435.00 | 30.92 | 36.61 | 69.45 | 304.45 | 1,643.01 | 640.92 | 579.72 | 61.20 | 10.472 | | | |
| 8,400.00 | 7,660.00 | 8,287.74 | 7,435.00 | 30.91 | 36.60 | 69.45 | 404.45 | 1,642.89 | 640.92 | 578.70 | 62.22 | 10.301 | | | |
| 8,500.00 | 7,660.00 | 8,387.74 | 7,435.00 | 31.22 | 36.62 | 69.45 | 504.45 | 1,642.76 | 640.92 | 577.55 | 63.37 | 10.114 | | | |
| 8,600.00 | 7,660.00 | 8,487.74 | 7,435.00 | 31.83 | 36.68 | 69.45 | 604.45 | 1,642.64 | 640.91 | 576.28 | 64.64 | 9.916 | | | |
| 8,700.00 | 7,660.00 | 8,587.74 | 7,435.00 | 32.55 | 36.80 | 69.45 | 704.45 | 1,642.52 | 640.91 | 574.89 | 66.02 | 9.708 | | | |
| 8,800.00 | 7,660.00 | 8,687.74 | 7,435.00 | 33.33 | 36.99 | 69.45 | 804.45 | 1,642.39 | 640.91 | 573.40 | 67.51 | 9.494 | | | |
| 8,900.00 | 7,660.00 | 8,787.74 | 7,435.00 | 34.16 | 37.29 | 69.45 | 904.45 | 1,642.27 | 640.91 | 571.81 | 69.10 | 9.275 | | | |

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 4S-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 4S-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 4V-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 | |
| 9,000.00 | 7,660.00 | 8,887.74 | 7,435.00 | 35.04 | 37.70 | 69.45 | 1,004.45 | 1,642.15 | 640.91 | 570.12 | 70.78 | 9.054 | | |
| 9,100.00 | 7,660.00 | 8,987.74 | 7,435.00 | 35.97 | 38.26 | 69.45 | 1,104.45 | 1,642.02 | 640.90 | 568.35 | 72.56 | 8.833 | | |
| 9,200.00 | 7,660.00 | 9,087.74 | 7,435.00 | 36.94 | 38.94 | 69.45 | 1,204.45 | 1,641.90 | 640.90 | 566.49 | 74.41 | 8.613 | | |
| 9,300.00 | 7,660.00 | 9,187.74 | 7,435.00 | 37.96 | 39.73 | 69.45 | 1,304.45 | 1,641.78 | 640.90 | 564.56 | 76.34 | 8.396 | | |
| 9,400.00 | 7,660.00 | 9,287.74 | 7,435.00 | 39.00 | 40.61 | 69.45 | 1,404.45 | 1,641.66 | 640.90 | 562.56 | 78.33 | 8.182 | | |
| 9,500.00 | 7,660.00 | 9,387.74 | 7,435.00 | 40.09 | 41.57 | 69.45 | 1,504.45 | 1,641.53 | 640.89 | 560.50 | 80.40 | 7.972 | | |
| 9,600.00 | 7,660.00 | 9,487.74 | 7,435.00 | 41.20 | 42.58 | 69.45 | 1,604.45 | 1,641.41 | 640.89 | 558.37 | 82.52 | 7.767 | | |
| 9,700.00 | 7,660.00 | 9,587.74 | 7,435.00 | 42.34 | 43.63 | 69.45 | 1,704.45 | 1,641.29 | 640.89 | 556.20 | 84.69 | 7.567 | | |
| 9,800.00 | 7,660.00 | 9,687.74 | 7,435.00 | 43.51 | 44.73 | 69.45 | 1,804.45 | 1,641.16 | 640.89 | 553.97 | 86.92 | 7.373 | | |
| 9,900.00 | 7,660.00 | 9,787.74 | 7,435.00 | 44.70 | 45.87 | 69.45 | 1,904.45 | 1,641.04 | 640.88 | 551.69 | 89.20 | 7.185 | | |
| 10,000.00 | 7,660.00 | 9,887.74 | 7,435.00 | 45.92 | 47.03 | 69.45 | 2,004.45 | 1,640.92 | 640.88 | 549.37 | 91.51 | 7.003 | | |
| 10,100.00 | 7,660.00 | 9,987.74 | 7,435.00 | 47.16 | 48.22 | 69.45 | 2,104.45 | 1,640.79 | 640.88 | 547.01 | 93.87 | 6.827 | | |
| 10,200.00 | 7,660.00 | 10,087.74 | 7,435.00 | 48.42 | 49.44 | 69.45 | 2,204.45 | 1,640.67 | 640.88 | 544.61 | 96.27 | 6.657 | | |
| 10,300.00 | 7,660.00 | 10,187.74 | 7,435.00 | 49.70 | 50.67 | 69.45 | 2,304.45 | 1,640.55 | 640.88 | 542.18 | 98.70 | 6.493 | | |
| 10,400.00 | 7,660.00 | 10,287.74 | 7,435.00 | 50.99 | 51.93 | 69.45 | 2,404.45 | 1,640.42 | 640.87 | 539.71 | 101.16 | 6.335 | | |
| 10,500.00 | 7,660.00 | 10,387.74 | 7,435.00 | 52.30 | 53.21 | 69.45 | 2,504.45 | 1,640.30 | 640.87 | 537.22 | 103.65 | 6.183 | | |
| 10,600.00 | 7,660.00 | 10,487.74 | 7,435.00 | 53.62 | 54.50 | 69.45 | 2,604.45 | 1,640.18 | 640.87 | 534.70 | 106.17 | 6.036 | | |
| 10,700.00 | 7,660.00 | 10,587.74 | 7,435.00 | 54.96 | 55.81 | 69.45 | 2,704.45 | 1,640.05 | 640.87 | 532.15 | 108.72 | 5.895 | | |
| 10,800.00 | 7,660.00 | 10,687.74 | 7,435.00 | 56.31 | 57.14 | 69.45 | 2,804.45 | 1,639.93 | 640.86 | 529.58 | 111.29 | 5.759 | | |
| 10,900.00 | 7,660.00 | 10,787.74 | 7,435.00 | 57.67 | 58.47 | 69.45 | 2,904.45 | 1,639.81 | 640.86 | 526.98 | 113.88 | 5.628 | | |
| 11,000.00 | 7,660.00 | 10,887.74 | 7,435.00 | 59.05 | 59.82 | 69.45 | 3,004.45 | 1,639.69 | 640.86 | 524.37 | 116.49 | 5.501 | | |
| 11,100.00 | 7,660.00 | 10,987.74 | 7,435.00 | 60.43 | 61.19 | 69.45 | 3,104.45 | 1,639.56 | 640.86 | 521.73 | 119.13 | 5.380 | | |
| 11,200.00 | 7,660.00 | 11,087.74 | 7,435.00 | 61.82 | 62.56 | 69.45 | 3,204.45 | 1,639.44 | 640.86 | 519.08 | 121.78 | 5.263 | | |
| 11,300.00 | 7,660.00 | 11,187.74 | 7,435.00 | 63.23 | 63.94 | 69.45 | 3,304.45 | 1,639.32 | 640.85 | 516.41 | 124.45 | 5.150 | | |
| 11,400.00 | 7,660.00 | 11,287.74 | 7,435.00 | 64.64 | 65.33 | 69.45 | 3,404.45 | 1,639.19 | 640.85 | 513.72 | 127.13 | 5.041 | | |
| 11,500.00 | 7,660.00 | 11,387.74 | 7,435.00 | 66.06 | 66.73 | 69.45 | 3,504.45 | 1,639.07 | 640.85 | 511.02 | 129.83 | 4.936 | | |
| 11,600.00 | 7,660.00 | 11,487.74 | 7,435.00 | 67.48 | 68.14 | 69.45 | 3,604.45 | 1,638.95 | 640.85 | 508.30 | 132.54 | 4.835 | | |
| 11,700.00 | 7,660.00 | 11,587.74 | 7,435.00 | 68.91 | 69.56 | 69.45 | 3,704.45 | 1,638.82 | 640.84 | 505.57 | 135.27 | 4.738 | | |
| 11,800.00 | 7,660.00 | 11,687.74 | 7,435.00 | 70.35 | 70.98 | 69.45 | 3,804.45 | 1,638.70 | 640.84 | 502.83 | 138.01 | 4.643 | | |
| 11,900.00 | 7,660.00 | 11,787.74 | 7,435.00 | 71.80 | 72.41 | 69.45 | 3,904.45 | 1,638.58 | 640.84 | 500.08 | 140.76 | 4.553 | | |
| 12,000.00 | 7,660.00 | 11,887.74 | 7,435.00 | 73.25 | 73.84 | 69.45 | 4,004.45 | 1,638.45 | 640.84 | 497.31 | 143.52 | 4.465 | | |
| 12,100.00 | 7,660.00 | 11,987.74 | 7,435.00 | 74.71 | 75.29 | 69.45 | 4,104.45 | 1,638.33 | 640.83 | 494.54 | 146.29 | 4.380 | | |
| 12,200.00 | 7,660.00 | 12,087.74 | 7,435.00 | 76.17 | 76.74 | 69.45 | 4,204.45 | 1,638.21 | 640.83 | 491.76 | 149.08 | 4.299 | | |
| 12,247.18 | 7,660.00 | 12,134.92 | 7,435.00 | 76.86 | 77.42 | 69.44 | 4,251.63 | 1,638.15 | 640.83 | 490.44 | 150.39 | 4.261 | | |
| 12,253.72 | 7,660.00 | 12,135.65 | 7,435.00 | 76.96 | 77.43 | 69.44 | 4,252.36 | 1,638.15 | 640.86 | 490.21 | 150.65 | 4.254 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 4S-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 4S-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 4W-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 | 2.00 | 2.00 | 0.00 | 0.00 | 90.46 | -0.32 | 40.01 | 40.01 | | | | | |
| 100.00 | 100.00 | 102.00 | 102.00 | 0.14 | 0.15 | 90.46 | -0.32 | 40.01 | 40.01 | 39.73 | 0.28 | 141.284 | | |
| 115.99 | 115.99 | 117.99 | 117.99 | 0.20 | 0.20 | 90.46 | -0.32 | 40.01 | 40.01 | 39.61 | 0.40 | 100.578 | CC | |
| 200.00 | 200.00 | 201.99 | 201.99 | 0.50 | 0.50 | 90.46 | -0.32 | 40.01 | 40.01 | 39.01 | 1.00 | 40.018 | ES | |
| 300.00 | 300.00 | 301.24 | 301.22 | 0.85 | 0.85 | 92.61 | -1.87 | 40.90 | 40.95 | 39.24 | 1.71 | 23.898 | | |
| 400.00 | 400.00 | 400.00 | 399.85 | 1.21 | 1.19 | 97.81 | -6.00 | 43.72 | 44.18 | 41.72 | 2.46 | 17.975 | | |
| 500.00 | 500.00 | 498.07 | 497.63 | 1.57 | 1.55 | 101.97 | -10.53 | 49.67 | 50.96 | 47.72 | 3.24 | 15.746 | | |
| 600.00 | 600.00 | 595.64 | 594.65 | 1.93 | 1.91 | 104.41 | -15.13 | 58.91 | 61.26 | 57.26 | 4.01 | 15.285 | | |
| 700.00 | 699.98 | 692.70 | 690.79 | 2.28 | 2.29 | -14.99 | -19.79 | 71.38 | 73.24 | 68.49 | 4.75 | 15.406 | | |
| 800.00 | 799.84 | 789.39 | 786.08 | 2.62 | 2.69 | -15.51 | -24.50 | 87.03 | 85.14 | 79.66 | 5.48 | 15.529 | | |
| 900.00 | 899.45 | 885.67 | 880.38 | 2.97 | 3.11 | -16.87 | -29.25 | 105.80 | 97.00 | 90.79 | 6.21 | 15.614 | | |
| 1,000.00 | 998.70 | 981.50 | 973.57 | 3.33 | 3.55 | -18.77 | -34.05 | 127.63 | 108.89 | 101.95 | 6.94 | 15.683 | | |
| 1,103.09 | 1,100.51 | 1,079.81 | 1,068.35 | 3.72 | 4.05 | -21.11 | -39.03 | 153.25 | 121.31 | 113.61 | 7.70 | 15.755 | | |
| 1,200.00 | 1,195.93 | 1,175.20 | 1,159.75 | 4.11 | 4.56 | -23.42 | -43.89 | 180.10 | 133.64 | 125.25 | 8.39 | 15.930 | | |
| 1,300.00 | 1,294.39 | 1,274.24 | 1,254.64 | 4.51 | 5.11 | -25.40 | -48.94 | 208.02 | 146.59 | 137.47 | 9.12 | 16.075 | | |
| 1,400.00 | 1,392.85 | 1,373.29 | 1,349.54 | 4.93 | 5.66 | -27.06 | -53.99 | 235.93 | 159.69 | 149.82 | 9.87 | 16.184 | | |
| 1,500.00 | 1,491.31 | 1,472.33 | 1,444.43 | 5.35 | 6.22 | -28.47 | -59.05 | 263.84 | 172.90 | 162.27 | 10.63 | 16.265 | | |
| 1,600.00 | 1,589.78 | 1,571.37 | 1,539.32 | 5.77 | 6.79 | -29.68 | -64.10 | 291.75 | 186.19 | 174.79 | 11.41 | 16.324 | | |
| 1,700.00 | 1,688.24 | 1,670.41 | 1,634.21 | 6.20 | 7.37 | -30.73 | -69.15 | 319.66 | 199.56 | 187.37 | 12.19 | 16.367 | | |
| 1,800.00 | 1,786.70 | 1,769.45 | 1,729.11 | 6.63 | 7.94 | -31.65 | -74.20 | 347.58 | 212.99 | 200.00 | 12.99 | 16.397 | | |
| 1,900.00 | 1,885.16 | 1,868.49 | 1,824.00 | 7.06 | 8.52 | -32.45 | -79.25 | 375.49 | 226.46 | 212.66 | 13.79 | 16.418 | | |
| 2,000.00 | 1,983.62 | 1,967.53 | 1,918.89 | 7.50 | 9.10 | -33.17 | -84.30 | 403.40 | 239.97 | 225.36 | 14.60 | 16.431 | | |
| 2,100.00 | 2,082.09 | 2,066.57 | 2,013.78 | 7.94 | 9.69 | -33.81 | -89.35 | 431.31 | 253.51 | 238.09 | 15.42 | 16.439 | | |
| 2,200.00 | 2,180.55 | 2,165.61 | 2,108.67 | 8.37 | 10.27 | -34.39 | -94.40 | 459.23 | 267.08 | 250.84 | 16.24 | 16.443 | | |
| 2,300.00 | 2,279.01 | 2,264.65 | 2,203.57 | 8.81 | 10.86 | -34.91 | -99.45 | 487.14 | 280.68 | 263.61 | 17.07 | 16.444 | | |
| 2,400.00 | 2,377.47 | 2,363.69 | 2,298.46 | 9.25 | 11.45 | -35.38 | -104.50 | 515.05 | 294.29 | 276.40 | 17.90 | 16.442 | | |
| 2,500.00 | 2,475.93 | 2,462.74 | 2,393.35 | 9.69 | 12.03 | -35.81 | -109.55 | 542.96 | 307.93 | 289.20 | 18.73 | 16.439 | | |
| 2,600.00 | 2,574.40 | 2,561.78 | 2,488.24 | 10.14 | 12.62 | -36.20 | -114.60 | 570.87 | 321.58 | 302.01 | 19.57 | 16.438 | | |
| 2,700.00 | 2,672.86 | 2,660.82 | 2,583.13 | 10.58 | 13.21 | -36.56 | -119.65 | 598.79 | 335.24 | 314.83 | 20.41 | 16.424 | | |
| 2,800.00 | 2,771.32 | 2,759.86 | 2,678.03 | 11.02 | 13.80 | -36.90 | -124.70 | 626.70 | 348.92 | 327.67 | 21.25 | 16.421 | | |
| 2,900.00 | 2,869.78 | 2,858.90 | 2,772.92 | 11.46 | 14.39 | -37.20 | -129.75 | 654.61 | 362.60 | 340.51 | 22.09 | 16.414 | | |
| 3,000.00 | 2,968.24 | 2,957.94 | 2,867.81 | 11.91 | 14.98 | -37.49 | -134.81 | 682.52 | 376.30 | 353.36 | 22.94 | 16.407 | | |
| 3,100.00 | 3,066.71 | 3,056.98 | 2,962.70 | 12.35 | 15.57 | -37.76 | -139.86 | 710.44 | 390.00 | 366.22 | 23.78 | 16.399 | | |
| 3,200.00 | 3,165.17 | 3,156.02 | 3,057.59 | 12.80 | 16.17 | -38.00 | -144.91 | 738.35 | 403.71 | 379.08 | 24.63 | 16.391 | | |
| 3,300.00 | 3,263.63 | 3,255.06 | 3,152.49 | 13.24 | 16.76 | -38.23 | -149.96 | 766.26 | 417.43 | 391.95 | 25.48 | 16.383 | | |
| 3,400.00 | 3,362.09 | 3,354.10 | 3,247.38 | 13.69 | 17.35 | -38.45 | -155.01 | 794.17 | 431.16 | 404.83 | 26.33 | 16.375 | | |
| 3,500.00 | 3,460.55 | 3,453.15 | 3,342.27 | 14.13 | 17.94 | -38.65 | -160.06 | 822.08 | 444.89 | 417.71 | 27.18 | 16.367 | | |
| 3,600.00 | 3,559.01 | 3,552.19 | 3,437.16 | 14.58 | 18.54 | -38.84 | -165.11 | 850.00 | 458.62 | 430.59 | 28.03 | 16.359 | | |
| 3,700.00 | 3,657.48 | 3,651.23 | 3,532.05 | 15.02 | 19.13 | -39.02 | -170.16 | 877.91 | 472.36 | 443.48 | 28.89 | 16.352 | | |
| 3,800.00 | 3,755.94 | 3,750.27 | 3,626.95 | 15.47 | 19.72 | -39.19 | -175.21 | 905.82 | 486.11 | 456.37 | 29.74 | 16.344 | | |
| 3,900.00 | 3,854.40 | 3,849.31 | 3,721.84 | 15.92 | 20.31 | -39.35 | -180.26 | 933.73 | 499.86 | 469.26 | 30.60 | 16.336 | | |
| 4,000.00 | 3,952.86 | 3,948.35 | 3,816.73 | 16.36 | 20.91 | -39.51 | -185.31 | 961.65 | 513.61 | 482.16 | 31.45 | 16.329 | | |
| 4,100.00 | 4,051.32 | 4,047.39 | 3,911.62 | 16.81 | 21.50 | -39.65 | -190.36 | 989.56 | 527.37 | 495.06 | 32.31 | 16.322 | | |
| 4,200.00 | 4,149.79 | 4,146.43 | 4,006.51 | 17.26 | 22.10 | -39.79 | -195.41 | 1,017.47 | 541.13 | 507.96 | 33.17 | 16.315 | | |
| 4,300.00 | 4,248.25 | 4,245.47 | 4,101.41 | 17.70 | 22.69 | -39.92 | -200.46 | 1,045.38 | 554.89 | 520.86 | 34.03 | 16.308 | | |
| 4,400.00 | 4,346.71 | 4,344.51 | 4,196.30 | 18.15 | 23.28 | -40.04 | -205.51 | 1,073.29 | 568.65 | 533.77 | 34.88 | 16.301 | | |
| 4,500.00 | 4,445.17 | 4,443.55 | 4,291.19 | 18.60 | 23.88 | -40.16 | -210.57 | 1,101.21 | 582.42 | 546.68 | 35.74 | 16.295 | | |
| 4,600.00 | 4,543.63 | 4,542.60 | 4,386.08 | 19.04 | 24.47 | -40.27 | -215.62 | 1,129.12 | 596.19 | 559.59 | 36.60 | 16.288 | | |
| 4,700.00 | 4,642.10 | 4,641.64 | 4,480.97 | 19.49 | 25.07 | -40.38 | -220.67 | 1,157.03 | 609.96 | 572.50 | 37.46 | 16.282 | | |
| 4,800.00 | 4,740.56 | 4,740.68 | 4,575.87 | 19.94 | 25.66 | -40.48 | -225.72 | 1,184.94 | 623.73 | 585.41 | 38.32 | 16.276 | | |
| 4,900.00 | 4,839.02 | 4,839.72 | 4,670.76 | 20.39 | 26.25 | -40.58 | -230.77 | 1,212.86 | 637.51 | 598.32 | 39.18 | 16.270 | | |
| 5,000.00 | 4,937.48 | 4,938.76 | 4,765.65 | 20.83 | 26.85 | -40.67 | -235.82 | 1,240.77 | 651.28 | 611.24 | 40.04 | 16.264 | | |

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 4S-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 4S-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 | 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 | | |
| 5,100.00 | 5,035.94 | 5,037.80 | 4,860.54 | 21.28 | 27.44 | -40.76 | -240.87 | 1,268.68 | 665.06 | 624.16 | 40.90 | 16.259 | | | |
| 5,200.00 | 5,134.41 | 5,136.84 | 4,955.44 | 21.73 | 28.04 | -40.85 | -245.92 | 1,296.59 | 678.84 | 637.08 | 41.77 | 16.253 | | | |
| 5,300.00 | 5,232.87 | 5,235.88 | 5,050.33 | 22.18 | 28.63 | -40.93 | -250.97 | 1,324.50 | 692.62 | 650.00 | 42.63 | 16.248 | | | |
| 5,400.00 | 5,331.33 | 5,334.92 | 5,145.22 | 22.63 | 29.23 | -41.01 | -256.02 | 1,352.42 | 706.41 | 662.92 | 43.49 | 16.243 | | | |
| 5,500.00 | 5,429.79 | 5,433.96 | 5,240.11 | 23.07 | 29.82 | -41.09 | -261.07 | 1,380.33 | 720.19 | 675.84 | 44.35 | 16.238 | | | |
| 5,600.00 | 5,528.25 | 5,533.00 | 5,335.00 | 23.52 | 30.42 | -41.16 | -266.12 | 1,408.24 | 733.98 | 688.76 | 45.22 | 16.233 | | | |
| 5,700.00 | 5,626.72 | 5,632.05 | 5,429.90 | 23.97 | 31.01 | -41.23 | -271.17 | 1,436.15 | 747.76 | 701.69 | 46.08 | 16.228 | | | |
| 5,800.00 | 5,725.18 | 5,731.09 | 5,524.79 | 24.42 | 31.61 | -41.30 | -276.22 | 1,464.07 | 761.55 | 714.61 | 46.94 | 16.224 | | | |
| 5,900.00 | 5,823.64 | 5,830.13 | 5,619.68 | 24.87 | 32.20 | -41.37 | -281.27 | 1,491.98 | 775.34 | 727.53 | 47.80 | 16.219 | | | |
| 6,000.00 | 5,922.10 | 5,929.17 | 5,714.57 | 25.31 | 32.80 | -41.43 | -286.33 | 1,519.89 | 789.13 | 740.46 | 48.67 | 16.215 | | | |
| 6,100.00 | 6,020.56 | 6,028.21 | 5,809.46 | 25.76 | 33.39 | -41.49 | -291.38 | 1,547.80 | 802.92 | 753.39 | 49.53 | 16.210 | | | |
| 6,200.00 | 6,119.03 | 6,127.25 | 5,904.36 | 26.21 | 33.99 | -41.55 | -296.43 | 1,575.71 | 816.71 | 766.32 | 50.40 | 16.206 | | | |
| 6,300.00 | 6,217.49 | 6,226.29 | 5,999.25 | 26.66 | 34.58 | -41.61 | -301.48 | 1,603.63 | 830.50 | 779.24 | 51.26 | 16.202 | | | |
| 6,400.00 | 6,315.95 | 6,325.33 | 6,094.14 | 27.11 | 35.18 | -41.66 | -306.53 | 1,631.54 | 844.30 | 792.17 | 52.12 | 16.198 | | | |
| 6,500.00 | 6,414.41 | 6,424.37 | 6,189.03 | 27.55 | 35.77 | -41.72 | -311.58 | 1,659.45 | 858.09 | 805.10 | 52.99 | 16.194 | | | |
| 6,600.00 | 6,512.87 | 6,523.41 | 6,283.92 | 28.00 | 36.37 | -41.77 | -316.63 | 1,687.36 | 871.88 | 818.03 | 53.85 | 16.190 | | | |
| 6,700.00 | 6,611.34 | 6,622.45 | 6,378.82 | 28.45 | 36.96 | -41.82 | -321.68 | 1,715.28 | 885.68 | 830.96 | 54.72 | 16.186 | | | |
| 6,800.00 | 6,709.80 | 6,721.50 | 6,473.71 | 28.90 | 37.56 | -41.87 | -326.73 | 1,743.19 | 899.48 | 843.89 | 55.58 | 16.183 | | | |
| 6,900.00 | 6,808.26 | 6,820.54 | 6,568.60 | 29.35 | 38.15 | -41.92 | -331.78 | 1,771.10 | 913.27 | 856.83 | 56.45 | 16.179 | | | |
| 6,982.73 | 6,889.71 | 6,902.47 | 6,647.10 | 29.72 | 38.65 | -41.95 | -335.96 | 1,794.19 | 924.69 | 867.52 | 57.16 | 16.176 | | | |
| 7,000.00 | 6,906.74 | 6,919.58 | 6,663.50 | 29.80 | 38.75 | -34.92 | -336.83 | 1,799.01 | 927.03 | 869.72 | 57.31 | 16.176 | | | |
| 7,050.00 | 6,956.13 | 6,969.11 | 6,710.95 | 30.01 | 39.05 | -10.44 | -339.36 | 1,812.97 | 933.30 | 875.62 | 57.68 | 16.180 | | | |
| 7,100.00 | 7,005.50 | 7,018.45 | 6,758.22 | 30.19 | 39.34 | 13.56 | -341.87 | 1,826.88 | 938.85 | 880.87 | 57.98 | 16.192 | | | |
| 7,150.00 | 7,054.61 | 7,067.34 | 6,805.06 | 30.36 | 39.64 | 30.90 | -344.37 | 1,840.65 | 943.70 | 885.48 | 58.22 | 16.210 | | | |
| 7,200.00 | 7,103.23 | 7,115.55 | 6,851.26 | 30.52 | 39.93 | 42.25 | -346.83 | 1,854.24 | 947.92 | 889.53 | 58.39 | 16.234 | | | |
| 7,250.00 | 7,151.10 | 7,162.85 | 6,896.58 | 30.65 | 40.21 | 49.94 | -349.24 | 1,867.57 | 951.63 | 893.13 | 58.50 | 16.267 | | | |
| 7,300.00 | 7,198.01 | 7,207.15 | 6,939.03 | 30.77 | 40.48 | 55.46 | -351.26 | 1,880.04 | 954.99 | 896.45 | 58.54 | 16.313 | | | |
| 7,350.00 | 7,243.72 | 7,250.00 | 6,980.19 | 30.88 | 40.72 | 59.60 | -351.08 | 1,891.96 | 958.25 | 899.70 | 58.55 | 16.366 | | | |
| 7,400.00 | 7,288.00 | 7,292.51 | 7,020.98 | 30.97 | 40.95 | 62.87 | -348.37 | 1,903.56 | 961.46 | 902.91 | 58.55 | 16.422 | | | |
| 7,450.00 | 7,330.65 | 7,336.68 | 7,063.19 | 31.05 | 41.18 | 65.59 | -342.90 | 1,915.36 | 964.63 | 906.07 | 58.56 | 16.473 | | | |
| 7,500.00 | 7,371.46 | 7,381.98 | 7,106.12 | 31.12 | 41.39 | 67.93 | -334.50 | 1,927.13 | 967.75 | 909.16 | 58.59 | 16.518 | | | |
| 7,550.00 | 7,410.22 | 7,428.54 | 7,149.67 | 31.17 | 41.59 | 70.01 | -322.97 | 1,938.82 | 970.84 | 912.19 | 58.64 | 16.555 | | | |
| 7,600.00 | 7,446.75 | 7,476.47 | 7,193.73 | 31.21 | 41.78 | 71.90 | -308.08 | 1,950.39 | 973.87 | 915.14 | 58.73 | 16.582 | | | |
| 7,650.00 | 7,480.87 | 7,525.93 | 7,238.14 | 31.24 | 41.96 | 73.64 | -289.56 | 1,961.78 | 976.85 | 918.00 | 58.84 | 16.600 | | | |
| 7,700.00 | 7,512.42 | 7,577.04 | 7,282.71 | 31.25 | 42.12 | 75.29 | -267.16 | 1,972.89 | 979.75 | 920.76 | 58.99 | 16.609 | | | |
| 7,750.00 | 7,541.23 | 7,629.98 | 7,327.19 | 31.26 | 42.27 | 76.86 | -240.57 | 1,983.65 | 982.55 | 923.39 | 59.16 | 16.610 | | | |
| 7,800.00 | 7,567.18 | 7,684.91 | 7,371.30 | 31.25 | 42.41 | 78.38 | -209.51 | 1,993.93 | 985.22 | 925.88 | 59.34 | 16.603 | | | |
| 7,850.00 | 7,590.12 | 7,742.00 | 7,414.64 | 31.24 | 42.53 | 79.85 | -173.67 | 2,003.62 | 987.73 | 928.20 | 59.53 | 16.591 | | | |
| 7,900.00 | 7,609.96 | 7,801.42 | 7,456.77 | 31.22 | 42.63 | 81.29 | -132.75 | 2,012.53 | 990.03 | 930.30 | 59.73 | 16.576 | | | |
| 7,950.00 | 7,626.60 | 7,863.34 | 7,497.12 | 31.19 | 42.72 | 82.69 | -86.49 | 2,020.51 | 992.05 | 932.13 | 59.92 | 16.557 | | | |
| 8,000.00 | 7,639.94 | 7,927.91 | 7,535.01 | 31.15 | 42.79 | 84.06 | -34.68 | 2,027.32 | 993.74 | 933.64 | 60.09 | 16.536 | | | |
| 8,050.00 | 7,649.94 | 7,995.24 | 7,569.64 | 31.11 | 42.84 | 85.39 | 22.78 | 2,032.74 | 995.01 | 934.75 | 60.26 | 16.512 | | | |
| 8,100.00 | 7,656.54 | 8,065.41 | 7,600.12 | 31.07 | 42.87 | 86.68 | 85.84 | 2,036.50 | 995.78 | 935.36 | 60.43 | 16.479 | | | |
| 8,150.00 | 7,659.70 | 8,138.42 | 7,625.43 | 31.03 | 42.89 | 87.91 | 154.27 | 2,038.33 | 995.97 | 935.37 | 60.60 | 16.434 | | | |
| 8,170.89 | 7,660.00 | 8,169.75 | 7,634.22 | 31.01 | 42.89 | 88.40 | 184.33 | 2,038.46 | 995.86 | 935.17 | 60.69 | 16.409 | | | |
| 8,200.00 | 7,660.00 | 8,214.39 | 7,644.56 | 30.98 | 42.88 | 89.00 | 227.75 | 2,037.96 | 995.40 | 934.57 | 60.83 | 16.364 | | | |
| 8,300.00 | 7,660.00 | 8,371.05 | 7,660.00 | 30.92 | 42.84 | 89.88 | 383.13 | 2,029.94 | 990.25 | 928.60 | 61.65 | 16.063 | | | |
| 8,400.00 | 7,660.00 | 8,470.74 | 7,660.00 | 30.91 | 42.81 | 89.88 | 482.50 | 2,021.94 | 982.35 | 919.86 | 62.49 | 15.720 | | | |
| 8,500.00 | 7,660.00 | 8,570.43 | 7,660.00 | 31.22 | 42.80 | 89.88 | 581.86 | 2,013.95 | 974.45 | 910.97 | 63.48 | 15.351 | | | |
| 8,600.00 | 7,660.00 | 8,670.12 | 7,660.00 | 31.83 | 42.80 | 89.88 | 681.23 | 2,005.95 | 966.55 | 901.94 | 64.61 | 14.959 | | | |
| 8,700.00 | 7,660.00 | 8,769.80 | 7,660.00 | 32.55 | 42.82 | 89.88 | 780.60 | 1,997.96 | 958.65 | 892.76 | 65.89 | 14.550 | | | |
| 8,800.00 | 7,660.00 | 8,869.49 | 7,660.00 | 33.33 | 42.86 | 89.88 | 879.96 | 1,989.96 | 950.75 | 883.45 | 67.29 | 14.128 | | | |

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 4S-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 4S-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) | | | | | | | | |
| 8,900.00 | 7,660.00 | 8,969.18 | 7,660.00 | 34.16 | 42.93 | 89.88 | 979.33 | 1,981.97 | 942.85 | 874.02 | 68.83 | 13.699 | | | | | | |
| 9,000.00 | 7,660.00 | 9,068.87 | 7,660.00 | 35.04 | 43.04 | 89.88 | 1,078.70 | 1,973.97 | 934.95 | 864.47 | 70.47 | 13.267 | | | | | | |
| 9,100.00 | 7,660.00 | 9,168.55 | 7,660.00 | 35.97 | 43.19 | 89.88 | 1,178.06 | 1,965.98 | 927.05 | 854.82 | 72.23 | 12.835 | | | | | | |
| 9,200.00 | 7,660.00 | 9,268.24 | 7,660.00 | 36.94 | 43.40 | 89.87 | 1,277.43 | 1,957.98 | 919.15 | 845.06 | 74.09 | 12.407 | | | | | | |
| 9,300.00 | 7,660.00 | 9,367.93 | 7,660.00 | 37.96 | 43.68 | 89.87 | 1,376.80 | 1,949.99 | 911.25 | 835.21 | 76.03 | 11.985 | | | | | | |
| 9,400.00 | 7,660.00 | 9,467.62 | 7,660.00 | 39.00 | 44.07 | 89.87 | 1,476.16 | 1,941.99 | 903.35 | 825.28 | 78.07 | 11.571 | | | | | | |
| 9,500.00 | 7,660.00 | 9,567.30 | 7,660.00 | 40.09 | 44.58 | 89.87 | 1,575.53 | 1,934.00 | 895.45 | 815.27 | 80.18 | 11.167 | | | | | | |
| 9,600.00 | 7,660.00 | 9,666.99 | 7,660.00 | 41.20 | 45.22 | 89.87 | 1,674.89 | 1,926.00 | 887.55 | 805.18 | 82.37 | 10.775 | | | | | | |
| 9,700.00 | 7,660.00 | 9,766.68 | 7,660.00 | 42.34 | 45.98 | 89.87 | 1,774.26 | 1,918.01 | 879.65 | 795.02 | 84.63 | 10.394 | | | | | | |
| 9,800.00 | 7,660.00 | 9,866.37 | 7,660.00 | 43.51 | 46.85 | 89.87 | 1,873.63 | 1,910.01 | 871.75 | 784.81 | 86.94 | 10.027 | | | | | | |
| 9,900.00 | 7,660.00 | 9,942.95 | 7,660.00 | 44.70 | 47.60 | 89.87 | 1,950.04 | 1,904.89 | 865.18 | 775.81 | 89.37 | 9.681 | | | | | | |
| 10,000.00 | 7,660.00 | 10,019.74 | 7,660.00 | 45.92 | 48.40 | 89.87 | 2,026.77 | 1,901.80 | 861.29 | 769.45 | 91.84 | 9.379 | | | | | | |
| 10,100.00 | 7,660.00 | 10,101.70 | 7,660.00 | 47.16 | 49.29 | 89.87 | 2,108.72 | 1,900.70 | 860.01 | 765.69 | 94.31 | 9.119 | | | | | | |
| 10,200.00 | 7,660.00 | 10,201.70 | 7,660.00 | 48.42 | 50.43 | 89.87 | 2,208.72 | 1,900.12 | 859.55 | 762.75 | 96.79 | 8.880 | | | | | | |
| 10,300.00 | 7,660.00 | 10,301.70 | 7,660.00 | 49.70 | 51.60 | 89.87 | 2,308.71 | 1,899.54 | 859.08 | 759.77 | 99.31 | 8.650 | | | | | | |
| 10,400.00 | 7,660.00 | 10,401.70 | 7,660.00 | 50.99 | 52.81 | 89.87 | 2,408.71 | 1,898.95 | 858.62 | 756.76 | 101.87 | 8.429 | | | | | | |
| 10,500.00 | 7,660.00 | 10,501.70 | 7,660.00 | 52.30 | 54.04 | 89.87 | 2,508.71 | 1,898.37 | 858.16 | 753.70 | 104.46 | 8.215 | | | | | | |
| 10,600.00 | 7,660.00 | 10,601.70 | 7,660.00 | 53.62 | 55.29 | 89.87 | 2,608.70 | 1,897.79 | 857.70 | 750.62 | 107.08 | 8.010 | | | | | | |
| 10,700.00 | 7,660.00 | 10,701.70 | 7,660.00 | 54.96 | 56.56 | 89.87 | 2,708.70 | 1,897.21 | 857.24 | 747.51 | 109.73 | 7.812 | | | | | | |
| 10,800.00 | 7,660.00 | 10,801.70 | 7,660.00 | 56.31 | 57.85 | 89.87 | 2,808.70 | 1,896.63 | 856.78 | 744.37 | 112.41 | 7.622 | | | | | | |
| 10,900.00 | 7,660.00 | 10,901.70 | 7,660.00 | 57.67 | 59.16 | 89.87 | 2,908.70 | 1,896.04 | 856.32 | 741.20 | 115.12 | 7.439 | | | | | | |
| 11,000.00 | 7,660.00 | 11,001.69 | 7,660.00 | 59.05 | 60.48 | 89.87 | 3,008.69 | 1,895.46 | 855.86 | 738.01 | 117.85 | 7.263 | | | | | | |
| 11,100.00 | 7,660.00 | 11,101.69 | 7,660.00 | 60.43 | 61.82 | 89.87 | 3,108.69 | 1,894.88 | 855.39 | 734.80 | 120.60 | 7.093 | | | | | | |
| 11,200.00 | 7,660.00 | 11,201.69 | 7,660.00 | 61.82 | 63.17 | 89.87 | 3,208.69 | 1,894.30 | 854.93 | 731.57 | 123.37 | 6.930 | | | | | | |
| 11,300.00 | 7,660.00 | 11,301.69 | 7,660.00 | 63.23 | 64.53 | 89.87 | 3,308.68 | 1,893.72 | 854.47 | 728.31 | 126.16 | 6.773 | | | | | | |
| 11,400.00 | 7,660.00 | 11,401.69 | 7,660.00 | 64.64 | 65.90 | 89.87 | 3,408.68 | 1,893.13 | 854.01 | 725.04 | 128.97 | 6.622 | | | | | | |
| 11,500.00 | 7,660.00 | 11,501.69 | 7,660.00 | 66.06 | 67.28 | 89.87 | 3,508.68 | 1,892.55 | 853.55 | 721.76 | 131.79 | 6.476 | | | | | | |
| 11,600.00 | 7,660.00 | 11,601.69 | 7,660.00 | 67.48 | 68.67 | 89.87 | 3,608.68 | 1,891.97 | 853.09 | 718.45 | 134.63 | 6.336 | | | | | | |
| 11,700.00 | 7,660.00 | 11,701.69 | 7,660.00 | 68.91 | 70.07 | 89.87 | 3,708.67 | 1,891.39 | 852.63 | 715.14 | 137.49 | 6.201 | | | | | | |
| 11,800.00 | 7,660.00 | 11,801.69 | 7,660.00 | 70.35 | 71.48 | 89.87 | 3,808.67 | 1,890.81 | 852.16 | 711.80 | 140.36 | 6.071 | | | | | | |
| 11,900.00 | 7,660.00 | 11,901.68 | 7,660.00 | 71.80 | 72.90 | 89.87 | 3,908.67 | 1,890.22 | 851.70 | 708.46 | 143.24 | 5.946 | | | | | | |
| 12,000.00 | 7,660.00 | 12,001.68 | 7,660.00 | 73.25 | 74.32 | 89.87 | 4,008.67 | 1,889.64 | 851.24 | 705.10 | 146.14 | 5.825 | | | | | | |
| 12,100.00 | 7,660.00 | 12,101.68 | 7,660.00 | 74.71 | 75.75 | 89.87 | 4,108.66 | 1,889.06 | 850.78 | 701.73 | 149.05 | 5.708 | | | | | | |
| 12,200.00 | 7,660.00 | 12,201.68 | 7,660.00 | 76.17 | 77.19 | 89.87 | 4,208.66 | 1,888.48 | 850.32 | 698.35 | 151.97 | 5.595 | | | | | | |
| 12,245.46 | 7,660.00 | 12,243.21 | 7,660.00 | 76.84 | 77.78 | 89.87 | 4,250.19 | 1,888.24 | 850.12 | 696.80 | 153.32 | 5.545 | | | | | | |
| 12,253.72 | 7,660.00 | 12,243.21 | 7,660.00 | 76.96 | 77.78 | 89.87 | 4,250.19 | 1,888.24 | 850.16 | 696.56 | 153.60 | 5.535 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 4S-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 4S-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 - Nelson 1 - TEXAS TEA - NO SURVEYS | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|-------------------|--------------------|-----------|
| Survey Program: 5000-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 | -3.80 | 1,422.94 | -94.56 | 1,426.82 | | | | | |
| 100.00 | 100.00 | 54.00 | 54.00 | 0.14 | 0.10 | -3.80 | 1,422.94 | -94.56 | 1,426.08 | 1,425.85 | 0.23 | 6,077.126 | | |
| 200.00 | 200.00 | 154.00 | 154.00 | 0.50 | 0.28 | -3.80 | 1,422.94 | -94.56 | 1,426.08 | 1,425.31 | 0.77 | 1,846.967 | | |
| 300.00 | 300.00 | 254.00 | 254.00 | 0.85 | 0.45 | -3.80 | 1,422.94 | -94.56 | 1,426.08 | 1,424.77 | 1.31 | 1,088.963 | | |
| 400.00 | 400.00 | 354.00 | 354.00 | 1.21 | 0.63 | -3.80 | 1,422.94 | -94.56 | 1,426.08 | 1,424.23 | 1.85 | 772.092 | | |
| 500.00 | 500.00 | 454.00 | 454.00 | 1.57 | 0.81 | -3.80 | 1,422.94 | -94.56 | 1,426.08 | 1,423.70 | 2.38 | 598.065 | | |
| 600.00 | 600.00 | 554.00 | 554.00 | 1.93 | 0.99 | -3.80 | 1,422.94 | -94.56 | 1,426.08 | 1,423.16 | 2.92 | 488.058 | CC, ES | |
| 700.00 | 699.98 | 653.98 | 653.98 | 2.28 | 1.17 | -124.05 | 1,422.94 | -94.56 | 1,427.06 | 1,423.61 | 3.45 | 413.974 | | |
| 800.00 | 799.84 | 753.84 | 753.84 | 2.62 | 1.35 | -124.17 | 1,422.94 | -94.56 | 1,429.99 | 1,426.03 | 3.97 | 360.477 | | |
| 900.00 | 899.45 | 853.45 | 853.45 | 2.97 | 1.53 | -124.38 | 1,422.94 | -94.56 | 1,434.92 | 1,430.42 | 4.49 | 319.230 | | |
| 1,000.00 | 998.70 | 952.70 | 952.70 | 3.33 | 1.71 | -124.66 | 1,422.94 | -94.56 | 1,441.86 | 1,436.83 | 5.03 | 286.536 | | |
| 1,103.09 | 1,100.51 | 1,054.51 | 1,054.51 | 3.72 | 1.89 | -125.03 | 1,422.94 | -94.56 | 1,451.18 | 1,445.59 | 5.60 | 259.265 | | |
| 1,200.00 | 1,195.93 | 1,149.93 | 1,149.93 | 4.11 | 2.06 | -125.57 | 1,422.94 | -94.56 | 1,461.07 | 1,454.93 | 6.14 | 238.055 | | |
| 1,300.00 | 1,294.39 | 1,248.39 | 1,248.39 | 4.51 | 2.23 | -126.12 | 1,422.94 | -94.56 | 1,471.40 | 1,464.70 | 6.70 | 219.615 | | |
| 1,400.00 | 1,392.85 | 1,346.85 | 1,346.85 | 4.93 | 2.41 | -126.66 | 1,422.94 | -94.56 | 1,481.87 | 1,474.60 | 7.27 | 203.917 | | |
| 1,500.00 | 1,491.31 | 1,445.31 | 1,445.31 | 5.35 | 2.59 | -127.19 | 1,422.94 | -94.56 | 1,492.47 | 1,484.63 | 7.84 | 190.427 | 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 4S-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 4S-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 | 45.97 | 859.05 | 888.57 | 1,237.34 | | | | | | |
| 100.00 | 100.00 | 41.20 | 41.20 | 0.14 | 0.03 | 45.97 | 859.04 | 888.58 | 1,235.93 | 1,235.78 | 0.15 | 8,005.483 | | | |
| 200.00 | 200.00 | 141.15 | 141.15 | 0.50 | 0.09 | 45.97 | 858.96 | 888.62 | 1,235.90 | 1,235.33 | 0.57 | 2,178.258 | | | |
| 219.54 | 219.54 | 160.53 | 160.53 | 0.57 | 0.10 | 45.97 | 858.97 | 888.61 | 1,235.90 | 1,235.25 | 0.65 | 1,900.120 | | | |
| 300.00 | 300.00 | 240.09 | 240.09 | 0.85 | 0.15 | 45.96 | 859.14 | 888.48 | 1,235.93 | 1,234.94 | 0.99 | 1,247.836 | | | |
| 400.00 | 400.00 | 338.92 | 338.92 | 1.21 | 0.24 | 45.95 | 859.43 | 888.37 | 1,236.05 | 1,234.63 | 1.42 | 869.596 | | | |
| 500.00 | 500.00 | 437.94 | 437.93 | 1.57 | 0.36 | 45.94 | 859.73 | 888.36 | 1,236.26 | 1,234.38 | 1.88 | 659.280 | | | |
| 600.00 | 600.00 | 539.46 | 539.46 | 1.93 | 0.48 | 45.93 | 859.98 | 888.48 | 1,236.51 | 1,234.18 | 2.33 | 529.981 | | | |
| 700.00 | 699.98 | 642.17 | 642.16 | 2.28 | 0.59 | -74.37 | 860.13 | 888.24 | 1,235.97 | 1,233.23 | 2.75 | 450.023 | | | |
| 800.00 | 799.84 | 740.77 | 740.77 | 2.62 | 0.72 | -74.66 | 860.61 | 887.73 | 1,234.54 | 1,231.41 | 3.14 | 393.428 | | | |
| 900.00 | 899.45 | 841.19 | 841.19 | 2.97 | 0.86 | -75.13 | 861.09 | 887.26 | 1,232.26 | 1,228.71 | 3.55 | 346.719 | | | |
| 1,000.00 | 998.70 | 941.54 | 941.53 | 3.33 | 1.01 | -75.79 | 861.71 | 886.44 | 1,229.05 | 1,225.07 | 3.98 | 308.673 | | | |
| 1,103.09 | 1,100.51 | 1,043.14 | 1,043.12 | 3.72 | 1.16 | -76.65 | 862.48 | 885.46 | 1,225.01 | 1,220.57 | 4.44 | 275.913 | | | |
| 1,200.00 | 1,195.93 | 1,140.42 | 1,140.39 | 4.11 | 1.30 | -77.49 | 863.28 | 884.37 | 1,221.00 | 1,216.11 | 4.89 | 249.791 | | | |
| 1,300.00 | 1,294.39 | 1,240.90 | 1,240.86 | 4.51 | 1.45 | -78.37 | 864.07 | 882.88 | 1,216.86 | 1,211.50 | 5.36 | 227.053 | | | |
| 1,400.00 | 1,392.85 | 1,338.20 | 1,338.14 | 4.93 | 1.59 | -79.24 | 864.99 | 881.25 | 1,213.01 | 1,207.18 | 5.84 | 207.791 | | | |
| 1,500.00 | 1,491.31 | 1,435.83 | 1,435.75 | 5.35 | 1.74 | -80.13 | 866.09 | 879.52 | 1,209.52 | 1,203.20 | 6.32 | 191.238 | | | |
| 1,600.00 | 1,589.78 | 1,533.35 | 1,533.24 | 5.77 | 1.89 | -81.03 | 867.30 | 877.65 | 1,206.35 | 1,199.53 | 6.82 | 176.935 | | | |
| 1,700.00 | 1,688.24 | 1,629.69 | 1,629.55 | 6.20 | 2.04 | -81.93 | 868.68 | 875.77 | 1,203.62 | 1,196.30 | 7.32 | 164.510 | | | |
| 1,800.00 | 1,786.70 | 1,727.90 | 1,727.74 | 6.63 | 2.19 | -82.86 | 870.17 | 873.90 | 1,201.29 | 1,193.47 | 7.82 | 153.608 | | | |
| 1,900.00 | 1,885.16 | 1,828.45 | 1,828.25 | 7.06 | 2.34 | -83.80 | 871.46 | 871.99 | 1,199.11 | 1,190.78 | 8.33 | 143.983 | | | |
| 2,000.00 | 1,983.62 | 1,926.93 | 1,926.71 | 7.50 | 2.49 | -84.71 | 872.47 | 870.32 | 1,197.16 | 1,188.32 | 8.84 | 135.492 | | | |
| 2,100.00 | 2,082.09 | 2,025.08 | 2,024.85 | 7.94 | 2.64 | -85.61 | 873.30 | 868.84 | 1,195.48 | 1,186.14 | 9.34 | 127.932 | | | |
| 2,200.00 | 2,180.55 | 2,121.85 | 2,121.61 | 8.37 | 2.79 | -86.49 | 874.11 | 867.51 | 1,194.18 | 1,184.33 | 9.86 | 121.165 | | | |
| 2,300.00 | 2,279.01 | 2,220.54 | 2,220.29 | 8.81 | 2.94 | -87.39 | 874.99 | 866.25 | 1,193.28 | 1,182.90 | 10.37 | 115.060 | | | |
| 2,400.00 | 2,377.47 | 2,324.91 | 2,324.65 | 9.25 | 3.10 | -88.34 | 875.56 | 864.76 | 1,192.30 | 1,181.42 | 10.89 | 109.535 | | | |
| 2,500.00 | 2,475.93 | 2,425.17 | 2,424.89 | 9.69 | 3.23 | -89.25 | 875.77 | 863.24 | 1,191.31 | 1,179.92 | 11.39 | 104.580 | | | |
| 2,600.00 | 2,574.40 | 2,524.27 | 2,523.99 | 10.14 | 3.36 | -90.13 | 875.79 | 861.89 | 1,190.52 | 1,178.62 | 11.90 | 100.084 | | | |
| 2,700.00 | 2,672.86 | 2,623.15 | 2,622.86 | 10.58 | 3.49 | -91.02 | 875.69 | 860.47 | 1,189.90 | 1,177.50 | 12.40 | 95.966 | | | |
| 2,800.00 | 2,771.32 | 2,719.32 | 2,719.02 | 11.02 | 3.62 | -91.89 | 875.81 | 859.10 | 1,189.75 | 1,176.85 | 12.90 | 92.198 | | | |
| 2,834.59 | 2,805.38 | 2,756.12 | 2,755.81 | 11.17 | 3.67 | -92.22 | 875.82 | 858.55 | 1,189.73 | 1,176.65 | 13.08 | 90.951 | | | |
| 2,900.00 | 2,869.78 | 2,823.38 | 2,823.06 | 11.46 | 3.76 | -92.83 | 875.65 | 857.47 | 1,189.60 | 1,176.19 | 13.41 | 88.689 | | | |
| 2,941.49 | 2,910.64 | 2,863.53 | 2,863.20 | 11.65 | 3.81 | -93.19 | 875.54 | 856.80 | 1,189.56 | 1,175.94 | 13.62 | 87.325 | | | |
| 3,000.00 | 2,968.24 | 2,919.44 | 2,919.10 | 11.91 | 3.89 | -93.70 | 875.45 | 855.84 | 1,189.64 | 1,175.72 | 13.92 | 85.483 | | | |
| 3,100.00 | 3,066.71 | 3,013.35 | 3,013.00 | 12.35 | 4.02 | -94.56 | 875.63 | 854.15 | 1,190.29 | 1,175.87 | 14.42 | 82.534 | | | |
| 3,200.00 | 3,165.17 | 3,110.87 | 3,110.50 | 12.80 | 4.17 | -95.47 | 876.07 | 852.30 | 1,191.44 | 1,176.51 | 14.93 | 79.795 | | | |
| 3,300.00 | 3,263.63 | 3,209.64 | 3,209.25 | 13.24 | 4.32 | -96.39 | 876.59 | 850.25 | 1,192.89 | 1,177.45 | 15.44 | 77.252 | | | |
| 3,400.00 | 3,362.09 | 3,309.64 | 3,309.23 | 13.69 | 4.47 | -97.33 | 877.03 | 848.04 | 1,194.54 | 1,178.59 | 15.95 | 74.884 | | | |
| 3,500.00 | 3,460.55 | 3,406.55 | 3,406.11 | 14.13 | 4.61 | -98.24 | 877.46 | 845.85 | 1,196.49 | 1,180.03 | 16.46 | 72.693 | | | |
| 3,600.00 | 3,559.01 | 3,503.30 | 3,502.84 | 14.58 | 4.76 | -99.14 | 877.95 | 843.80 | 1,198.85 | 1,181.89 | 16.97 | 70.657 | | | |
| 3,700.00 | 3,657.48 | 3,600.00 | 3,599.52 | 15.02 | 4.91 | -100.03 | 878.54 | 841.85 | 1,201.67 | 1,184.19 | 17.48 | 68.760 | | | |
| 3,800.00 | 3,755.94 | 3,699.95 | 3,699.44 | 15.47 | 5.06 | -100.95 | 879.21 | 839.59 | 1,204.77 | 1,186.78 | 17.99 | 66.975 | | | |
| 3,900.00 | 3,854.40 | 3,802.84 | 3,802.29 | 15.92 | 5.22 | -101.92 | 879.73 | 836.75 | 1,207.88 | 1,189.38 | 18.50 | 65.292 | | | |
| 4,000.00 | 3,952.86 | 3,900.00 | 3,899.40 | 16.36 | 5.36 | -102.85 | 880.19 | 833.78 | 1,211.20 | 1,192.19 | 19.00 | 63.731 | | | |
| 4,100.00 | 4,051.32 | 3,992.45 | 3,991.81 | 16.81 | 5.51 | -103.72 | 880.85 | 831.02 | 1,215.09 | 1,195.58 | 19.51 | 62.286 | | | |
| 4,200.00 | 4,149.79 | 4,086.40 | 4,085.71 | 17.26 | 5.65 | -104.60 | 881.81 | 828.41 | 1,219.66 | 1,199.65 | 20.02 | 60.933 | | | |
| 4,300.00 | 4,248.25 | 4,181.28 | 4,180.56 | 17.70 | 5.80 | -105.47 | 883.00 | 826.05 | 1,224.84 | 1,204.31 | 20.53 | 59.660 | | | |
| 4,400.00 | 4,346.71 | 4,275.76 | 4,275.01 | 18.15 | 5.95 | -106.32 | 884.36 | 823.95 | 1,230.57 | 1,209.52 | 21.05 | 58.464 | | | |
| 4,500.00 | 4,445.17 | 4,370.11 | 4,369.32 | 18.60 | 6.09 | -107.17 | 886.00 | 821.89 | 1,236.89 | 1,215.31 | 21.57 | 57.335 | | | |
| 4,600.00 | 4,543.63 | 4,467.36 | 4,466.54 | 19.04 | 6.23 | -108.01 | 887.82 | 820.13 | 1,243.70 | 1,221.59 | 22.11 | 56.256 | | | |
| 4,700.00 | 4,642.10 | 4,561.54 | 4,560.68 | 19.49 | 6.37 | -108.83 | 889.69 | 818.28 | 1,250.89 | 1,228.25 | 22.64 | 55.245 | | | |
| 4,800.00 | 4,740.56 | 4,659.27 | 4,658.36 | 19.94 | 6.51 | -109.66 | 891.91 | 816.56 | 1,258.66 | 1,235.47 | 23.19 | 54.282 | | | |

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 4S-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 4S-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 | | | | | |
| 4,900.00 | 4,839.02 | 4,755.01 | 4,754.06 | 20.39 | 6.65 | -110.48 | 894.03 | 814.65 | 1,266.61 | 1,242.88 | 23.73 | 53.370 | | | | | |
| 5,000.00 | 4,937.48 | 4,849.16 | 4,848.17 | 20.83 | 6.79 | -111.26 | 896.43 | 813.08 | 1,275.20 | 1,250.92 | 24.28 | 52.521 | | | | | |
| 5,100.00 | 5,035.94 | 4,950.95 | 4,949.91 | 21.28 | 6.93 | -112.09 | 899.07 | 811.42 | 1,284.11 | 1,259.27 | 24.85 | 51.681 | | | | | |
| 5,200.00 | 5,134.41 | 5,052.53 | 5,051.45 | 21.73 | 7.08 | -112.91 | 901.20 | 809.71 | 1,292.78 | 1,267.37 | 25.41 | 50.873 | | | | | |
| 5,300.00 | 5,232.87 | 5,149.44 | 5,148.34 | 22.18 | 7.22 | -113.68 | 903.25 | 808.11 | 1,301.72 | 1,275.75 | 25.97 | 50.128 | | | | | |
| 5,400.00 | 5,331.33 | 5,247.02 | 5,245.87 | 22.63 | 7.36 | -114.45 | 905.36 | 806.50 | 1,310.94 | 1,284.41 | 26.53 | 49.417 | | | | | |
| 5,500.00 | 5,429.79 | 5,344.15 | 5,342.98 | 23.07 | 7.50 | -115.19 | 907.48 | 805.09 | 1,320.44 | 1,293.35 | 27.09 | 48.740 | | | | | |
| 5,600.00 | 5,528.25 | 5,442.58 | 5,441.37 | 23.52 | 7.64 | -115.92 | 909.68 | 803.97 | 1,330.23 | 1,302.57 | 27.66 | 48.089 | | | | | |
| 5,700.00 | 5,626.72 | 5,543.55 | 5,542.32 | 23.97 | 7.78 | -116.66 | 911.77 | 802.64 | 1,340.08 | 1,311.84 | 28.24 | 47.457 | | | | | |
| 5,800.00 | 5,725.18 | 5,643.78 | 5,642.52 | 24.42 | 7.93 | -117.39 | 913.65 | 801.36 | 1,349.94 | 1,321.13 | 28.81 | 46.857 | | | | | |
| 5,900.00 | 5,823.64 | 5,743.40 | 5,742.11 | 24.87 | 8.08 | -118.10 | 915.40 | 800.06 | 1,359.89 | 1,330.51 | 29.38 | 46.290 | | | | | |
| 6,000.00 | 5,922.10 | 5,840.84 | 5,839.53 | 25.31 | 8.22 | -118.79 | 917.02 | 798.70 | 1,369.96 | 1,340.02 | 29.94 | 45.757 | | | | | |
| 6,100.00 | 6,020.56 | 5,935.29 | 5,933.96 | 25.76 | 8.36 | -119.44 | 918.79 | 797.56 | 1,380.44 | 1,349.95 | 30.50 | 45.263 | | | | | |
| 6,200.00 | 6,119.03 | 6,030.96 | 6,029.60 | 26.21 | 8.49 | -120.08 | 920.81 | 796.66 | 1,391.34 | 1,360.27 | 31.07 | 44.787 | | | | | |
| 6,300.00 | 6,217.49 | 6,128.72 | 6,127.33 | 26.66 | 8.63 | -120.72 | 922.97 | 795.81 | 1,402.52 | 1,370.88 | 31.64 | 44.326 | | | | | |
| 6,400.00 | 6,315.95 | 6,228.91 | 6,227.49 | 27.11 | 8.77 | -121.37 | 925.10 | 794.79 | 1,413.80 | 1,381.58 | 32.22 | 43.878 | | | | | |
| 6,500.00 | 6,414.41 | 6,327.77 | 6,326.33 | 27.55 | 8.90 | -122.01 | 927.08 | 793.87 | 1,425.13 | 1,392.33 | 32.80 | 43.453 | | | | | |
| 6,600.00 | 6,512.87 | 6,423.81 | 6,422.35 | 28.00 | 9.03 | -122.60 | 929.10 | 793.27 | 1,436.70 | 1,403.34 | 33.37 | 43.057 | | | | | |
| 6,700.00 | 6,611.34 | 6,520.59 | 6,519.10 | 28.45 | 9.15 | -123.18 | 931.23 | 792.75 | 1,448.54 | 1,414.60 | 33.94 | 42.679 | | | | | |
| 6,800.00 | 6,709.80 | 6,616.51 | 6,614.99 | 28.90 | 9.28 | -123.76 | 933.47 | 791.99 | 1,460.68 | 1,426.17 | 34.51 | 42.329 | | | | | |
| 6,900.00 | 6,808.26 | 6,715.25 | 6,713.71 | 29.35 | 9.42 | -124.35 | 935.82 | 791.13 | 1,473.01 | 1,437.93 | 35.08 | 41.986 | | | | | |
| 6,982.73 | 6,889.71 | 6,797.52 | 6,795.95 | 29.72 | 9.53 | -124.83 | 937.73 | 790.55 | 1,483.28 | 1,447.72 | 35.56 | 41.711 | | | | | |
| 7,000.00 | 6,906.74 | 6,814.55 | 6,812.97 | 29.80 | 9.55 | -117.70 | 938.12 | 790.44 | 1,485.22 | 1,449.56 | 35.66 | 41.650 | | | | | |
| 7,050.00 | 6,956.13 | 6,863.89 | 6,862.30 | 30.01 | 9.62 | -93.15 | 939.24 | 790.00 | 1,488.54 | 1,452.60 | 35.94 | 41.416 | | | | | |
| 7,100.00 | 7,005.50 | 6,912.93 | 6,911.32 | 30.19 | 9.69 | -69.38 | 940.33 | 789.39 | 1,488.43 | 1,452.22 | 36.22 | 41.099 | | | | | |
| 7,150.00 | 7,054.61 | 6,960.91 | 6,959.28 | 30.36 | 9.76 | -52.57 | 941.42 | 788.66 | 1,484.93 | 1,448.45 | 36.48 | 40.710 | | | | | |
| 7,200.00 | 7,103.23 | 7,009.35 | 7,007.70 | 30.52 | 9.84 | -42.03 | 942.53 | 787.81 | 1,478.06 | 1,441.33 | 36.73 | 40.242 | | | | | |
| 7,250.00 | 7,151.10 | 7,061.26 | 7,059.60 | 30.65 | 9.92 | -35.46 | 943.64 | 786.87 | 1,467.76 | 1,430.77 | 36.99 | 39.685 | | | | | |
| 7,300.00 | 7,198.01 | 7,110.31 | 7,108.62 | 30.77 | 9.99 | -31.22 | 944.58 | 786.02 | 1,454.04 | 1,416.82 | 37.23 | 39.060 | | | | | |
| 7,350.00 | 7,243.72 | 7,152.45 | 7,150.75 | 30.88 | 10.06 | -28.39 | 945.42 | 785.27 | 1,437.15 | 1,399.71 | 37.44 | 38.386 | | | | | |
| 7,400.00 | 7,288.00 | 7,193.43 | 7,191.72 | 30.97 | 10.12 | -26.55 | 946.35 | 784.50 | 1,417.24 | 1,379.60 | 37.64 | 37.649 | | | | | |
| 7,450.00 | 7,330.65 | 7,235.25 | 7,233.51 | 31.05 | 10.19 | -25.43 | 947.36 | 783.68 | 1,394.38 | 1,356.53 | 37.85 | 36.843 | | | | | |
| 7,500.00 | 7,371.46 | 7,275.80 | 7,274.04 | 31.12 | 10.25 | -24.87 | 948.38 | 782.88 | 1,368.62 | 1,330.57 | 38.04 | 35.978 | | | | | |
| 7,550.00 | 7,410.22 | 7,313.96 | 7,312.19 | 31.17 | 10.31 | -24.76 | 949.35 | 782.12 | 1,340.09 | 1,301.87 | 38.22 | 35.059 | | | | | |
| 7,600.00 | 7,446.75 | 7,349.34 | 7,347.54 | 31.21 | 10.36 | -25.06 | 950.30 | 781.41 | 1,308.98 | 1,270.58 | 38.40 | 34.092 | | | | | |
| 7,650.00 | 7,480.87 | 7,382.58 | 7,380.77 | 31.24 | 10.41 | -25.78 | 951.24 | 780.74 | 1,275.43 | 1,236.87 | 38.56 | 33.078 | | | | | |
| 7,700.00 | 7,512.42 | 7,414.97 | 7,413.13 | 31.25 | 10.46 | -26.97 | 952.19 | 780.08 | 1,239.60 | 1,200.88 | 38.72 | 32.016 | | | | | |
| 7,750.00 | 7,541.23 | 7,446.35 | 7,444.50 | 31.26 | 10.51 | -28.72 | 953.09 | 779.47 | 1,201.61 | 1,162.74 | 38.87 | 30.910 | | | | | |
| 7,800.00 | 7,567.18 | 7,474.70 | 7,472.83 | 31.25 | 10.55 | -31.08 | 953.87 | 778.92 | 1,161.66 | 1,122.63 | 39.02 | 29.768 | | | | | |
| 7,850.00 | 7,590.12 | 7,499.88 | 7,498.00 | 31.24 | 10.59 | -34.20 | 954.54 | 778.45 | 1,119.95 | 1,080.79 | 39.16 | 28.596 | | | | | |
| 7,900.00 | 7,609.96 | 7,520.58 | 7,518.68 | 31.22 | 10.62 | -38.18 | 955.08 | 778.07 | 1,076.73 | 1,037.44 | 39.29 | 27.402 | | | | | |
| 7,950.00 | 7,626.60 | 7,538.18 | 7,536.28 | 31.19 | 10.65 | -43.34 | 955.55 | 777.76 | 1,032.24 | 992.82 | 39.42 | 26.185 | | | | | |
| 8,000.00 | 7,639.94 | 7,552.61 | 7,550.69 | 31.15 | 10.67 | -49.94 | 955.94 | 777.51 | 986.69 | 947.15 | 39.54 | 24.952 | | | | | |
| 8,050.00 | 7,649.94 | 7,563.77 | 7,561.86 | 31.11 | 10.69 | -58.24 | 956.24 | 777.32 | 940.34 | 900.67 | 39.67 | 23.706 | | | | | |
| 8,100.00 | 7,656.54 | 7,571.62 | 7,569.70 | 31.07 | 10.70 | -68.25 | 956.45 | 777.18 | 893.41 | 853.62 | 39.79 | 22.454 | | | | | |
| 8,150.00 | 7,659.70 | 7,576.10 | 7,574.18 | 31.03 | 10.70 | -79.53 | 956.58 | 777.11 | 846.16 | 806.25 | 39.92 | 21.199 | | | | | |
| 8,170.89 | 7,660.00 | 7,576.97 | 7,575.04 | 31.01 | 10.71 | -84.41 | 956.60 | 777.09 | 826.39 | 786.42 | 39.97 | 20.675 | | | | | |
| 8,200.00 | 7,660.00 | 7,577.76 | 7,575.84 | 30.98 | 10.71 | -84.58 | 956.62 | 777.08 | 798.89 | 758.84 | 40.05 | 19.947 | | | | | |
| 8,300.00 | 7,660.00 | 7,580.49 | 7,578.57 | 30.92 | 10.71 | -85.16 | 956.70 | 777.03 | 705.38 | 665.02 | 40.37 | 17.474 | | | | | |
| 8,400.00 | 7,660.00 | 7,583.24 | 7,581.31 | 30.91 | 10.71 | -85.75 | 956.77 | 776.99 | 613.92 | 573.14 | 40.78 | 15.056 | | | | | |
| 8,500.00 | 7,660.00 | 7,585.99 | 7,584.06 | 31.22 | 10.72 | -86.35 | 956.85 | 776.94 | 525.56 | 484.25 | 41.31 | 12.721 | | | | | |
| 8,600.00 | 7,660.00 | 7,588.75 | 7,586.82 | 31.83 | 10.72 | -86.94 | 956.93 | 776.90 | 442.17 | 400.15 | 42.02 | 10.523 | | | | | |

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 4S-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 4S-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 | | | | 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 | 7,660.00 | 7,591.52 | 7,589.59 | 32.55 | 10.73 | -87.54 | 957.00 | 776.85 | 367.15 | 324.27 | 42.89 | 8.561 | | | |
| 8,800.00 | 7,660.00 | 7,594.30 | 7,592.37 | 33.33 | 10.73 | -88.14 | 957.08 | 776.81 | 306.71 | 263.01 | 43.70 | 7.018 | | | |
| 8,900.00 | 7,660.00 | 7,597.09 | 7,595.16 | 34.16 | 10.74 | -88.74 | 957.16 | 776.76 | 270.79 | 227.09 | 43.70 | 6.196 | | | |
| 8,953.80 | 7,660.00 | 7,598.60 | 7,596.67 | 34.63 | 10.74 | -89.07 | 957.20 | 776.73 | 265.39 | 222.38 | 43.01 | 6.170 | CC, ES, SF | | |
| 9,000.00 | 7,660.00 | 7,599.90 | 7,597.96 | 35.04 | 10.74 | -89.35 | 957.23 | 776.71 | 269.38 | 227.36 | 42.02 | 6.411 | | | |
| 9,100.00 | 7,660.00 | 7,602.66 | 7,600.73 | 35.97 | 10.74 | -89.94 | 957.31 | 776.67 | 302.97 | 263.45 | 39.51 | 7.667 | | | |
| 9,200.00 | 7,660.00 | 7,605.41 | 7,603.47 | 36.94 | 10.75 | -90.54 | 957.39 | 776.62 | 361.94 | 324.17 | 37.77 | 9.583 | | | |
| 9,300.00 | 7,660.00 | 7,608.14 | 7,606.20 | 37.96 | 10.75 | -91.12 | 957.46 | 776.58 | 436.11 | 399.11 | 37.00 | 11.788 | | | |
| 9,400.00 | 7,660.00 | 7,610.85 | 7,608.91 | 39.00 | 10.76 | -91.71 | 957.54 | 776.53 | 519.01 | 482.25 | 36.76 | 14.120 | | | |
| 9,500.00 | 7,660.00 | 7,613.55 | 7,611.60 | 40.09 | 10.76 | -92.29 | 957.61 | 776.49 | 607.07 | 570.33 | 36.74 | 16.525 | | | |
| 9,600.00 | 7,660.00 | 7,616.23 | 7,614.28 | 41.20 | 10.76 | -92.86 | 957.69 | 776.45 | 698.34 | 661.54 | 36.80 | 18.977 | | | |
| 9,700.00 | 7,660.00 | 7,618.89 | 7,616.94 | 42.34 | 10.77 | -93.44 | 957.76 | 776.40 | 791.72 | 754.83 | 36.89 | 21.462 | | | |
| 9,800.00 | 7,660.00 | 7,621.53 | 7,619.58 | 43.51 | 10.77 | -94.00 | 957.83 | 776.36 | 886.53 | 849.54 | 36.99 | 23.968 | | | |
| 9,900.00 | 7,660.00 | 7,624.16 | 7,622.21 | 44.70 | 10.78 | -94.57 | 957.90 | 776.31 | 982.37 | 945.28 | 37.09 | 26.489 | | | |
| 10,000.00 | 7,660.00 | 7,626.77 | 7,624.82 | 45.92 | 10.78 | -95.12 | 957.97 | 776.27 | 1,078.95 | 1,041.77 | 37.18 | 29.021 | | | |
| 10,100.00 | 7,660.00 | 7,629.37 | 7,627.42 | 47.16 | 10.78 | -95.68 | 958.04 | 776.23 | 1,176.10 | 1,138.83 | 37.27 | 31.560 | | | |
| 10,200.00 | 7,660.00 | 7,631.95 | 7,629.99 | 48.42 | 10.79 | -96.22 | 958.11 | 776.18 | 1,273.69 | 1,236.34 | 37.35 | 34.104 | | | |
| 10,300.00 | 7,660.00 | 7,634.51 | 7,632.55 | 49.70 | 10.79 | -96.77 | 958.18 | 776.14 | 1,371.61 | 1,334.19 | 37.42 | 36.650 | | | |
| 10,400.00 | 7,660.00 | 7,637.06 | 7,635.10 | 50.99 | 10.80 | -97.31 | 958.25 | 776.10 | 1,469.82 | 1,432.32 | 37.50 | 39.198 | | | |

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 4S-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 4S-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 | | | |
| 12,000.00 | 7,660.00 | 7,786.15 | 7,650.75 | 73.25 | 33.70 | 105.88 | 5,485.60 | 1,232.53 | 1,495.59 | 1,431.22 | 64.37 | 23.235 | | | |
| 12,100.00 | 7,660.00 | 7,782.53 | 7,647.13 | 74.71 | 33.69 | 104.90 | 5,485.74 | 1,232.51 | 1,396.58 | 1,332.17 | 64.41 | 21.681 | | | |
| 12,200.00 | 7,660.00 | 7,778.88 | 7,643.48 | 76.17 | 33.68 | 103.90 | 5,485.88 | 1,232.48 | 1,297.72 | 1,233.23 | 64.49 | 20.122 | | | |
| 12,253.72 | 7,660.00 | 7,776.90 | 7,641.50 | 76.96 | 33.68 | 103.36 | 5,485.96 | 1,232.47 | 1,244.68 | 1,180.13 | 64.55 | 19.282 | CC, ES, SF | | |

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well HWY52 4S-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 4S-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 | | | | | | |
| 11,400.00 | 7,660.00 | 7,729.98 | 7,590.88 | 64.64 | 31.40 | -89.22 | 4,788.66 | 733.26 | 1,418.34 | 1,353.31 | 65.03 | 21.812 | | | | | | |
| 11,500.00 | 7,660.00 | 7,730.66 | 7,591.56 | 66.06 | 31.40 | -89.35 | 4,788.67 | 733.27 | 1,320.84 | 1,255.16 | 65.68 | 20.110 | | | | | | |
| 11,600.00 | 7,660.00 | 7,731.34 | 7,592.24 | 67.48 | 31.40 | -89.48 | 4,788.67 | 733.28 | 1,223.74 | 1,157.28 | 66.46 | 18.413 | | | | | | |
| 11,700.00 | 7,660.00 | 7,732.01 | 7,592.91 | 68.91 | 31.40 | -89.61 | 4,788.68 | 733.29 | 1,127.16 | 1,059.74 | 67.41 | 16.720 | | | | | | |
| 11,800.00 | 7,660.00 | 7,732.69 | 7,593.59 | 70.35 | 31.41 | -89.73 | 4,788.68 | 733.30 | 1,031.22 | 962.64 | 68.58 | 15.036 | | | | | | |
| 11,900.00 | 7,660.00 | 7,733.36 | 7,594.26 | 71.80 | 31.41 | -89.86 | 4,788.69 | 733.31 | 936.13 | 866.09 | 70.05 | 13.365 | | | | | | |
| 12,000.00 | 7,660.00 | 7,734.03 | 7,594.93 | 73.25 | 31.41 | -89.99 | 4,788.69 | 733.32 | 842.18 | 770.28 | 71.90 | 11.713 | | | | | | |
| 12,100.00 | 7,660.00 | 7,734.70 | 7,595.60 | 74.71 | 31.41 | -90.11 | 4,788.70 | 733.34 | 749.80 | 675.51 | 74.29 | 10.093 | | | | | | |
| 12,200.00 | 7,660.00 | 7,735.36 | 7,596.26 | 76.17 | 31.41 | -90.24 | 4,788.70 | 733.35 | 659.65 | 582.22 | 77.42 | 8.520 | | | | | | |
| 12,253.72 | 7,660.00 | 7,735.72 | 7,596.62 | 76.96 | 31.42 | -90.31 | 4,788.70 | 733.35 | 612.48 | 532.98 | 79.50 | 7.704 | 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 4S-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 4S-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 | | | | 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) | Between Centres (usft) | | | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 47.92 | 224.83 | 249.01 | 336.08 | | | | | | |
| 100.00 | 100.00 | 80.65 | 80.65 | 0.14 | 0.14 | 47.92 | 224.77 | 248.95 | 335.41 | 335.13 | | 0.28 | 1,210.783 | | |
| 200.00 | 200.00 | 181.48 | 181.48 | 0.50 | 0.32 | 47.92 | 224.56 | 248.71 | 335.09 | 334.28 | | 0.81 | 414.298 | | |
| 300.00 | 300.00 | 282.31 | 282.30 | 0.85 | 0.50 | 47.92 | 224.18 | 248.28 | 334.52 | 333.18 | | 1.34 | 249.523 | | |
| 400.00 | 400.00 | 383.13 | 383.12 | 1.21 | 0.67 | 47.92 | 223.64 | 247.66 | 333.70 | 331.83 | | 1.87 | 178.221 | | |
| 500.00 | 500.00 | 483.95 | 483.93 | 1.57 | 0.85 | 47.92 | 222.93 | 246.86 | 332.64 | 330.24 | | 2.40 | 138.362 | | |
| 600.00 | 600.00 | 584.76 | 584.74 | 1.93 | 1.03 | 47.91 | 222.05 | 245.87 | 331.33 | 328.40 | | 2.94 | 112.860 | | |
| 700.00 | 699.98 | 685.53 | 685.50 | 2.28 | 1.21 | -72.62 | 221.01 | 244.70 | 329.25 | 325.80 | | 3.45 | 95.299 | | |
| 800.00 | 799.84 | 786.15 | 786.10 | 2.62 | 1.38 | -73.58 | 219.81 | 243.34 | 325.92 | 321.96 | | 3.97 | 82.134 | | |
| 900.00 | 899.45 | 886.48 | 886.41 | 2.97 | 1.56 | -75.17 | 218.45 | 241.80 | 321.51 | 317.02 | | 4.49 | 71.596 | | |
| 1,000.00 | 998.70 | 983.24 | 983.15 | 3.33 | 1.73 | -77.46 | 217.61 | 239.88 | 316.60 | 311.58 | | 5.02 | 63.044 | | |
| 1,103.09 | 1,100.51 | 1,074.05 | 1,073.89 | 3.72 | 1.88 | -80.65 | 219.79 | 237.41 | 313.56 | 307.98 | | 5.58 | 56.206 | | |
| 1,116.88 | 1,114.08 | 1,085.79 | 1,085.61 | 3.78 | 1.90 | -81.11 | 220.32 | 237.20 | 313.51 | 307.86 | | 5.65 | 55.442 | CC, ES | |
| 1,200.00 | 1,195.93 | 1,157.26 | 1,156.93 | 4.11 | 2.02 | -84.00 | 224.92 | 236.32 | 315.29 | 309.17 | | 6.12 | 51.487 | | |
| 1,300.00 | 1,294.39 | 1,244.47 | 1,243.72 | 4.51 | 2.18 | -87.64 | 233.45 | 235.89 | 321.99 | 315.30 | | 6.69 | 48.138 | | |
| 1,400.00 | 1,392.85 | 1,333.70 | 1,332.26 | 4.93 | 2.35 | -91.28 | 244.42 | 236.30 | 332.93 | 325.66 | | 7.26 | 45.830 | | |
| 1,500.00 | 1,491.31 | 1,420.26 | 1,417.81 | 5.35 | 2.55 | -94.84 | 257.57 | 236.18 | 347.76 | 339.94 | | 7.83 | 44.440 | | |
| 1,600.00 | 1,589.78 | 1,509.57 | 1,505.67 | 5.77 | 2.78 | -98.37 | 273.62 | 236.09 | 366.70 | 358.31 | | 8.38 | 43.743 | | |
| 1,700.00 | 1,688.24 | 1,595.32 | 1,589.71 | 6.20 | 3.04 | -101.63 | 290.61 | 235.34 | 388.64 | 379.72 | | 8.92 | 43.593 | | |
| 1,800.00 | 1,786.70 | 1,679.27 | 1,671.42 | 6.63 | 3.33 | -104.72 | 309.80 | 233.69 | 414.57 | 405.15 | | 9.42 | 44.001 | | |
| 1,900.00 | 1,885.16 | 1,767.09 | 1,756.45 | 7.06 | 3.66 | -107.73 | 331.65 | 231.38 | 443.61 | 433.68 | | 9.93 | 44.661 | | |
| 2,000.00 | 1,983.62 | 1,851.02 | 1,837.45 | 7.50 | 4.01 | -110.36 | 353.45 | 228.74 | 474.86 | 464.45 | | 10.41 | 45.615 | | |
| 2,100.00 | 2,082.09 | 1,935.98 | 1,918.95 | 7.94 | 4.39 | -112.79 | 377.26 | 225.70 | 509.00 | 498.12 | | 10.88 | 46.772 | | |
| 2,200.00 | 2,180.55 | 2,022.55 | 2,001.77 | 8.37 | 4.80 | -115.06 | 402.18 | 221.95 | 544.73 | 533.36 | | 11.36 | 47.942 | | |
| 2,300.00 | 2,279.01 | 2,101.97 | 2,077.35 | 8.81 | 5.21 | -117.10 | 426.01 | 216.67 | 582.44 | 570.65 | | 11.79 | 49.409 | | |
| 2,400.00 | 2,377.47 | 2,183.89 | 2,154.68 | 9.25 | 5.65 | -119.08 | 452.26 | 210.25 | 622.83 | 610.61 | | 12.22 | 50.959 | | |
| 2,500.00 | 2,475.93 | 2,275.54 | 2,241.32 | 9.69 | 6.15 | -120.91 | 481.55 | 204.41 | 663.74 | 651.01 | | 12.72 | 52.164 | | |
| 2,600.00 | 2,574.40 | 2,364.86 | 2,325.79 | 10.14 | 6.64 | -122.34 | 510.32 | 200.55 | 705.17 | 691.96 | | 13.22 | 53.358 | | |
| 2,700.00 | 2,672.86 | 2,455.38 | 2,411.43 | 10.58 | 7.14 | -123.73 | 539.20 | 195.38 | 746.81 | 733.09 | | 13.72 | 54.444 | | |
| 2,800.00 | 2,771.32 | 2,543.40 | 2,494.69 | 11.02 | 7.64 | -124.96 | 567.25 | 190.10 | 788.79 | 774.59 | | 14.20 | 55.539 | | |
| 2,900.00 | 2,869.78 | 2,627.80 | 2,574.42 | 11.46 | 8.13 | -126.05 | 594.42 | 184.82 | 831.40 | 816.74 | | 14.67 | 56.693 | | |
| 3,000.00 | 2,968.24 | 2,709.11 | 2,651.02 | 11.91 | 8.61 | -127.00 | 621.18 | 179.55 | 874.96 | 859.85 | | 15.11 | 57.914 | | |
| 3,100.00 | 3,066.71 | 2,795.78 | 2,732.43 | 12.35 | 9.12 | -127.91 | 650.40 | 174.16 | 919.45 | 903.85 | | 15.59 | 58.962 | | |
| 3,200.00 | 3,165.17 | 2,890.90 | 2,821.96 | 12.80 | 9.69 | -128.85 | 681.90 | 167.72 | 963.65 | 947.51 | | 16.14 | 59.695 | | |
| 3,300.00 | 3,263.63 | 2,989.30 | 2,914.77 | 13.24 | 10.26 | -129.74 | 713.89 | 161.09 | 1,007.48 | 990.76 | | 16.72 | 60.267 | | |
| 3,400.00 | 3,362.09 | 3,085.84 | 3,006.17 | 13.69 | 10.81 | -130.57 | 744.24 | 154.31 | 1,050.52 | 1,033.24 | | 17.28 | 60.800 | | |
| 3,500.00 | 3,460.55 | 3,177.95 | 3,093.48 | 14.13 | 11.33 | -131.28 | 772.92 | 148.13 | 1,093.36 | 1,075.55 | | 17.81 | 61.383 | | |
| 3,600.00 | 3,559.01 | 3,281.75 | 3,192.08 | 14.58 | 11.91 | -132.01 | 804.66 | 141.42 | 1,135.77 | 1,117.34 | | 18.43 | 61.635 | | |
| 3,700.00 | 3,657.48 | 3,415.36 | 3,320.16 | 15.02 | 12.58 | -132.91 | 841.76 | 133.01 | 1,175.52 | 1,156.29 | | 19.23 | 61.133 | | |
| 3,800.00 | 3,755.94 | 3,531.06 | 3,431.82 | 15.47 | 13.13 | -133.59 | 871.46 | 127.08 | 1,213.32 | 1,193.41 | | 19.91 | 60.941 | | |
| 3,900.00 | 3,854.40 | 3,636.51 | 3,534.03 | 15.92 | 13.61 | -134.16 | 896.89 | 122.15 | 1,249.64 | 1,229.11 | | 20.53 | 60.868 | | |
| 4,000.00 | 3,952.86 | 3,731.93 | 3,626.65 | 16.36 | 14.04 | -134.60 | 919.63 | 118.77 | 1,285.47 | 1,264.37 | | 21.10 | 60.931 | | |
| 4,100.00 | 4,051.32 | 3,817.09 | 3,709.22 | 16.81 | 14.44 | -134.94 | 940.33 | 116.43 | 1,321.58 | 1,299.98 | | 21.61 | 61.160 | | |
| 4,200.00 | 4,149.79 | 3,898.00 | 3,787.50 | 17.26 | 14.82 | -135.22 | 960.69 | 114.63 | 1,358.40 | 1,336.30 | | 22.10 | 61.472 | | |
| 4,300.00 | 4,248.25 | 3,981.00 | 3,867.64 | 17.70 | 15.23 | -135.47 | 982.25 | 113.05 | 1,395.91 | 1,373.31 | | 22.60 | 61.762 | | |
| 4,400.00 | 4,346.71 | 4,051.09 | 3,935.09 | 18.15 | 15.59 | -135.67 | 1,001.20 | 111.42 | 1,434.53 | 1,411.51 | | 23.02 | 62.309 | | |
| 4,500.00 | 4,445.17 | 4,114.01 | 3,995.35 | 18.60 | 15.94 | -135.85 | 1,019.20 | 109.57 | 1,474.79 | 1,451.40 | | 23.40 | 63.035 | | |
| 8,500.00 | 7,660.00 | 7,812.63 | 7,629.01 | 31.22 | 27.32 | -89.39 | 1,563.06 | 6.02 | 1,482.20 | 1,432.12 | | 50.08 | 29.597 | | |
| 8,600.00 | 7,660.00 | 7,813.65 | 7,630.04 | 31.83 | 27.32 | -89.45 | 1,563.07 | 6.02 | 1,412.37 | 1,361.06 | | 51.31 | 27.526 | | |
| 8,700.00 | 7,660.00 | 7,814.68 | 7,631.06 | 32.55 | 27.33 | -89.51 | 1,563.08 | 6.02 | 1,346.36 | 1,293.66 | | 52.70 | 25.547 | | |
| 8,800.00 | 7,660.00 | 7,815.71 | 7,632.09 | 33.33 | 27.33 | -89.56 | 1,563.09 | 6.02 | 1,284.74 | 1,230.49 | | 54.25 | 23.683 | | |
| 8,900.00 | 7,660.00 | 7,816.73 | 7,633.12 | 34.16 | 27.33 | -89.62 | 1,563.10 | 6.02 | 1,228.18 | 1,172.24 | | 55.94 | 21.955 | | |

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 4S-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 4S-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 | | | | 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 | | | |
| 9,000.00 | 7,660.00 | 7,817.76 | 7,634.14 | 35.04 | 27.33 | -89.68 | 1,563.11 | 6.02 | 1,177.41 | 1,119.65 | 57.76 | 20.386 | | | |
| 9,100.00 | 7,660.00 | 7,818.79 | 7,635.17 | 35.97 | 27.33 | -89.73 | 1,563.12 | 6.02 | 1,133.21 | 1,073.56 | 59.65 | 18.998 | | | |
| 9,200.00 | 7,660.00 | 7,819.82 | 7,636.20 | 36.94 | 27.33 | -89.79 | 1,563.13 | 6.02 | 1,096.37 | 1,034.81 | 61.56 | 17.809 | | | |
| 9,300.00 | 7,660.00 | 7,820.84 | 7,637.23 | 37.96 | 27.33 | -89.85 | 1,563.14 | 6.02 | 1,067.66 | 1,004.25 | 63.41 | 16.838 | | | |
| 9,400.00 | 7,660.00 | 7,821.87 | 7,638.26 | 39.00 | 27.33 | -89.90 | 1,563.15 | 6.02 | 1,047.74 | 982.64 | 65.10 | 16.094 | | | |
| 9,500.00 | 7,660.00 | 7,822.90 | 7,639.29 | 40.09 | 27.33 | -89.96 | 1,563.17 | 6.02 | 1,037.12 | 970.58 | 66.55 | 15.585 | | | |
| 9,560.71 | 7,660.00 | 7,823.53 | 7,639.91 | 40.76 | 27.33 | -90.00 | 1,563.17 | 6.02 | 1,035.34 | 968.07 | 67.27 | 15.390 | | | |
| 9,600.00 | 7,660.00 | 7,823.93 | 7,640.32 | 41.20 | 27.34 | -90.02 | 1,563.18 | 6.02 | 1,036.09 | 968.42 | 67.67 | 15.311 | | | |
| 9,700.00 | 7,660.00 | 7,826.00 | 7,642.38 | 42.34 | 27.34 | -90.13 | 1,563.20 | 6.02 | 1,044.67 | 976.23 | 68.44 | 15.265 SF | | | |
| 9,800.00 | 7,660.00 | 7,826.00 | 7,642.38 | 43.51 | 27.34 | -90.13 | 1,563.20 | 6.02 | 1,062.63 | 993.82 | 68.81 | 15.443 | | | |
| 9,900.00 | 7,660.00 | 7,826.00 | 7,642.38 | 44.70 | 27.34 | -90.13 | 1,563.20 | 6.02 | 1,089.51 | 1,020.69 | 68.83 | 15.830 | | | |
| 10,000.00 | 7,660.00 | 7,826.00 | 7,642.38 | 45.92 | 27.34 | -90.13 | 1,563.20 | 6.02 | 1,124.68 | 1,056.14 | 68.54 | 16.409 | | | |
| 10,100.00 | 7,660.00 | 7,829.06 | 7,645.44 | 47.16 | 27.34 | -90.30 | 1,563.23 | 6.02 | 1,167.36 | 1,099.34 | 68.02 | 17.162 | | | |
| 10,200.00 | 7,660.00 | 7,830.07 | 7,646.46 | 48.42 | 27.34 | -90.36 | 1,563.24 | 6.02 | 1,216.79 | 1,149.48 | 67.31 | 18.077 | | | |
| 10,300.00 | 7,660.00 | 7,831.09 | 7,647.48 | 49.70 | 27.34 | -90.41 | 1,563.25 | 6.02 | 1,272.17 | 1,205.69 | 66.48 | 19.136 | | | |
| 10,400.00 | 7,660.00 | 7,832.11 | 7,648.49 | 50.99 | 27.34 | -90.47 | 1,563.26 | 6.02 | 1,332.77 | 1,267.19 | 65.58 | 20.323 | | | |
| 10,500.00 | 7,660.00 | 7,833.13 | 7,649.51 | 52.30 | 27.34 | -90.53 | 1,563.27 | 6.02 | 1,397.89 | 1,333.24 | 64.65 | 21.622 | | | |
| 10,600.00 | 7,660.00 | 7,834.14 | 7,650.52 | 53.62 | 27.35 | -90.58 | 1,563.28 | 6.02 | 1,466.95 | 1,403.23 | 63.72 | 23.022 | | | |

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 4S-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 4S-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 | | | | | | | | | | | | | 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 | 48.97 | 224.48 | 257.96 | 342.54 | | | | | | | | |
| 100.00 | 100.00 | 78.51 | 78.51 | 0.14 | 0.12 | 48.99 | 224.50 | 258.17 | 342.13 | 341.87 | 0.26 | 1,328.292 | | | | | |
| 200.00 | 200.00 | 177.91 | 177.91 | 0.50 | 0.28 | 49.08 | 224.48 | 258.94 | 342.70 | 341.91 | 0.78 | 437.899 | | | | | |
| 300.00 | 300.00 | 279.32 | 279.31 | 0.85 | 0.46 | 49.23 | 224.08 | 259.88 | 343.15 | 341.83 | 1.32 | 260.420 | | | | | |
| 400.00 | 400.00 | 380.25 | 380.24 | 1.21 | 0.64 | 49.41 | 223.32 | 260.60 | 343.20 | 341.34 | 1.85 | 185.197 | | | | | |
| 500.00 | 500.00 | 480.18 | 480.16 | 1.57 | 0.81 | 49.57 | 222.55 | 261.17 | 343.13 | 340.74 | 2.39 | 143.769 | | | | | |
| 522.34 | 522.34 | 502.35 | 502.33 | 1.65 | 0.85 | 49.60 | 222.40 | 261.28 | 343.12 | 340.61 | 2.51 | 136.946 | | | | | |
| 600.00 | 600.00 | 579.67 | 579.65 | 1.93 | 0.99 | 49.69 | 222.01 | 261.69 | 343.18 | 340.26 | 2.92 | 117.563 | | | | | |
| 700.00 | 699.98 | 680.06 | 680.03 | 2.28 | 1.16 | -70.71 | 221.60 | 262.07 | 342.62 | 339.18 | 3.44 | 99.590 | | | | | |
| 800.00 | 799.84 | 779.88 | 779.86 | 2.62 | 1.34 | -71.53 | 221.41 | 262.22 | 340.91 | 336.96 | 3.95 | 86.207 | | | | | |
| 900.00 | 899.45 | 879.87 | 879.84 | 2.97 | 1.51 | -72.98 | 221.35 | 262.20 | 338.19 | 333.72 | 4.48 | 75.513 | | | | | |
| 1,000.00 | 998.70 | 979.86 | 979.84 | 3.33 | 1.69 | -75.11 | 221.49 | 261.79 | 334.61 | 329.60 | 5.02 | 66.717 | | | | | |
| 1,103.09 | 1,100.51 | 1,082.01 | 1,081.98 | 3.72 | 1.86 | -77.94 | 221.40 | 261.23 | 330.34 | 324.75 | 5.59 | 59.146 | | | | | |
| 1,200.00 | 1,195.93 | 1,177.84 | 1,177.81 | 4.11 | 2.03 | -80.92 | 221.48 | 260.41 | 326.69 | 320.56 | 6.14 | 53.238 | | | | | |
| 1,300.00 | 1,294.39 | 1,274.90 | 1,274.87 | 4.51 | 2.20 | -84.08 | 221.84 | 259.31 | 323.97 | 317.26 | 6.71 | 48.260 | | | | | |
| 1,400.00 | 1,392.85 | 1,372.63 | 1,372.59 | 4.93 | 2.37 | -87.30 | 222.50 | 258.31 | 322.61 | 315.31 | 7.30 | 44.203 | | | | | |
| 1,470.88 | 1,462.64 | 1,442.34 | 1,442.28 | 5.23 | 2.49 | -89.64 | 223.09 | 257.47 | 322.34 | 314.62 | 7.72 | 41.767 | CC | | | | |
| 1,500.00 | 1,491.31 | 1,471.16 | 1,471.11 | 5.35 | 2.54 | -90.63 | 223.37 | 257.05 | 322.38 | 314.49 | 7.89 | 40.859 | ES | | | | |
| 1,600.00 | 1,589.78 | 1,570.53 | 1,570.46 | 5.77 | 2.72 | -94.03 | 224.16 | 255.37 | 323.02 | 314.53 | 8.49 | 38.066 | | | | | |
| 1,700.00 | 1,688.24 | 1,668.03 | 1,667.94 | 6.20 | 2.89 | -97.37 | 224.77 | 253.51 | 324.57 | 315.49 | 9.08 | 35.753 | | | | | |
| 1,800.00 | 1,786.70 | 1,764.22 | 1,764.12 | 6.63 | 3.06 | -100.57 | 225.82 | 252.18 | 327.85 | 318.19 | 9.67 | 33.919 | | | | | |
| 1,900.00 | 1,885.16 | 1,860.84 | 1,860.72 | 7.06 | 3.23 | -103.70 | 227.22 | 251.03 | 332.62 | 322.37 | 10.25 | 32.449 | | | | | |
| 2,000.00 | 1,983.62 | 1,959.24 | 1,959.09 | 7.50 | 3.40 | -106.81 | 229.01 | 249.78 | 338.74 | 327.91 | 10.83 | 31.265 | | | | | |
| 2,100.00 | 2,082.09 | 2,060.40 | 2,060.24 | 7.94 | 3.58 | -109.81 | 230.21 | 248.89 | 345.30 | 333.88 | 11.42 | 30.234 | | | | | |
| 2,200.00 | 2,180.55 | 2,162.56 | 2,162.39 | 8.37 | 3.75 | -112.64 | 230.25 | 248.39 | 351.69 | 339.68 | 12.01 | 29.293 | | | | | |
| 2,300.00 | 2,279.01 | 2,261.39 | 2,261.23 | 8.81 | 3.93 | -115.22 | 229.67 | 248.15 | 358.25 | 345.67 | 12.58 | 28.482 | | | | | |
| 2,400.00 | 2,377.47 | 2,360.39 | 2,360.22 | 9.25 | 4.10 | -117.74 | 229.13 | 247.71 | 365.56 | 352.41 | 13.15 | 27.809 | | | | | |
| 2,500.00 | 2,475.93 | 2,462.67 | 2,462.50 | 9.69 | 4.28 | -120.23 | 227.88 | 247.32 | 372.89 | 359.17 | 13.72 | 27.183 | | | | | |
| 2,600.00 | 2,574.40 | 2,561.09 | 2,560.87 | 10.14 | 4.45 | -122.81 | 225.88 | 245.06 | 380.15 | 365.88 | 14.27 | 26.633 | | | | | |
| 2,700.00 | 2,672.86 | 2,666.94 | 2,666.53 | 10.58 | 4.64 | -125.95 | 223.05 | 239.52 | 387.86 | 373.02 | 14.84 | 26.138 | | | | | |
| 2,800.00 | 2,771.32 | 2,768.92 | 2,768.21 | 11.02 | 4.83 | -128.96 | 218.24 | 233.59 | 394.62 | 379.23 | 15.39 | 25.642 | | | | | |
| 2,900.00 | 2,869.78 | 2,872.00 | 2,870.81 | 11.46 | 5.03 | -132.15 | 211.57 | 226.21 | 400.96 | 385.02 | 15.94 | 25.154 | | | | | |
| 3,000.00 | 2,968.24 | 2,968.11 | 2,966.39 | 11.91 | 5.23 | -135.16 | 205.20 | 218.32 | 408.55 | 392.08 | 16.47 | 24.799 | | | | | |
| 3,100.00 | 3,066.71 | 3,071.48 | 3,068.87 | 12.35 | 5.45 | -138.58 | 196.76 | 207.94 | 416.43 | 399.40 | 17.03 | 24.450 | | | | | |
| 3,200.00 | 3,165.17 | 3,169.99 | 3,166.04 | 12.80 | 5.68 | -142.16 | 186.60 | 195.25 | 424.70 | 407.12 | 17.58 | 24.159 | | | | | |
| 3,300.00 | 3,263.63 | 3,262.80 | 3,257.64 | 13.24 | 5.91 | -145.35 | 177.26 | 183.59 | 434.68 | 416.57 | 18.11 | 23.999 | SF | | | | |
| 3,400.00 | 3,362.09 | 3,351.46 | 3,345.22 | 13.69 | 6.13 | -148.23 | 169.50 | 172.25 | 447.34 | 428.71 | 18.63 | 24.012 | | | | | |
| 3,500.00 | 3,460.55 | 3,447.38 | 3,439.70 | 14.13 | 6.39 | -151.39 | 161.18 | 157.93 | 462.44 | 443.24 | 19.20 | 24.091 | | | | | |
| 3,600.00 | 3,559.01 | 3,542.04 | 3,532.48 | 14.58 | 6.67 | -154.60 | 151.48 | 141.87 | 478.78 | 459.02 | 19.76 | 24.232 | | | | | |
| 3,700.00 | 3,657.48 | 3,635.68 | 3,624.08 | 15.02 | 6.96 | -157.68 | 141.51 | 125.21 | 496.79 | 476.46 | 20.33 | 24.433 | | | | | |
| 3,800.00 | 3,755.94 | 3,745.37 | 3,731.05 | 15.47 | 7.33 | -161.22 | 127.34 | 105.52 | 514.67 | 493.64 | 21.03 | 24.471 | | | | | |
| 3,900.00 | 3,854.40 | 3,844.07 | 3,826.96 | 15.92 | 7.68 | -164.35 | 112.47 | 87.58 | 532.73 | 511.06 | 21.68 | 24.574 | | | | | |
| 4,000.00 | 3,952.86 | 3,939.41 | 3,919.48 | 16.36 | 8.03 | -167.25 | 96.89 | 70.64 | 551.10 | 528.79 | 22.32 | 24.695 | | | | | |
| 4,100.00 | 4,051.32 | 4,026.06 | 4,003.39 | 16.81 | 8.36 | -169.79 | 82.98 | 54.10 | 571.95 | 549.06 | 22.89 | 24.985 | | | | | |
| 4,200.00 | 4,149.79 | 4,118.11 | 4,092.66 | 17.26 | 8.71 | -172.24 | 69.16 | 36.39 | 594.78 | 571.27 | 23.51 | 25.302 | | | | | |
| 4,300.00 | 4,248.25 | 4,219.73 | 4,191.44 | 17.70 | 9.09 | -174.66 | 54.44 | 17.66 | 618.36 | 594.16 | 24.20 | 25.551 | | | | | |
| 4,400.00 | 4,346.71 | 4,315.06 | 4,284.57 | 18.15 | 9.43 | -176.61 | 41.45 | 1.94 | 641.69 | 616.85 | 24.83 | 25.841 | | | | | |
| 4,500.00 | 4,445.17 | 4,424.56 | 4,391.90 | 18.60 | 9.81 | -178.55 | 27.49 | -14.63 | 665.05 | 639.47 | 25.58 | 26.001 | | | | | |
| 4,600.00 | 4,543.63 | 4,520.30 | 4,485.89 | 19.04 | 10.14 | -179.91 | 14.97 | -27.84 | 687.64 | 661.42 | 26.22 | 26.231 | | | | | |
| 4,700.00 | 4,642.10 | 4,616.54 | 4,580.27 | 19.49 | 10.48 | -178.41 | 1.99 | -41.51 | 710.84 | 683.98 | 26.86 | 26.463 | | | | | |
| 4,800.00 | 4,740.56 | 4,718.58 | 4,680.64 | 19.94 | 10.80 | -177.05 | -10.80 | -54.61 | 733.73 | 706.21 | 27.53 | 26.657 | | | | | |
| 4,900.00 | 4,839.02 | 4,823.75 | 4,784.62 | 20.39 | 11.10 | -175.96 | -21.62 | -66.09 | 756.24 | 728.05 | 28.19 | 26.828 | | | | | |

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 4S-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 4S-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 | | | | | | | | | | | | | 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 | 4,937.48 | 4,932.38 | 4,892.61 | 20.83 | 11.36 | 175.24 | -29.66 | -74.60 | 777.41 | 748.57 | 28.84 | 26.953 | | | | | |
| 5,100.00 | 5,035.94 | 5,030.39 | 4,990.29 | 21.28 | 11.57 | 174.80 | -35.01 | -80.52 | 797.90 | 768.48 | 29.41 | 27.129 | | | | | |
| 5,200.00 | 5,134.41 | 5,134.49 | 5,094.20 | 21.73 | 11.77 | 174.51 | -38.94 | -85.53 | 818.02 | 788.02 | 29.99 | 27.272 | | | | | |
| 5,300.00 | 5,232.87 | 5,232.73 | 5,192.36 | 22.18 | 11.94 | 174.41 | -40.67 | -89.09 | 837.92 | 807.39 | 30.53 | 27.450 | | | | | |
| 5,400.00 | 5,331.33 | 5,340.39 | 5,299.99 | 22.63 | 12.09 | 174.43 | -41.16 | -91.66 | 857.27 | 826.17 | 31.09 | 27.571 | | | | | |
| 5,500.00 | 5,429.79 | 5,439.74 | 5,399.33 | 23.07 | 12.23 | 174.57 | -40.38 | -92.38 | 875.63 | 844.02 | 31.61 | 27.704 | | | | | |
| 5,600.00 | 5,528.25 | 5,533.37 | 5,492.94 | 23.52 | 12.35 | 174.75 | -38.75 | -93.16 | 894.48 | 862.40 | 32.08 | 27.879 | | | | | |
| 5,700.00 | 5,626.72 | 5,636.66 | 5,596.20 | 23.97 | 12.48 | 174.97 | -36.43 | -93.82 | 913.41 | 880.79 | 32.61 | 28.006 | | | | | |
| 5,800.00 | 5,725.18 | 5,741.39 | 5,700.91 | 24.42 | 12.61 | 175.17 | -34.71 | -93.86 | 931.53 | 898.38 | 33.15 | 28.100 | | | | | |
| 5,900.00 | 5,823.64 | 5,834.94 | 5,794.46 | 24.87 | 12.74 | 175.33 | -33.28 | -93.91 | 949.65 | 916.01 | 33.64 | 28.234 | | | | | |
| 6,000.00 | 5,922.10 | 5,929.81 | 5,889.31 | 25.31 | 12.87 | 175.49 | -31.65 | -94.40 | 968.24 | 934.11 | 34.13 | 28.369 | | | | | |
| 6,100.00 | 6,020.56 | 6,028.88 | 5,988.37 | 25.76 | 13.02 | 175.59 | -30.68 | -95.33 | 986.92 | 952.26 | 34.66 | 28.473 | | | | | |
| 6,200.00 | 6,119.03 | 6,125.94 | 6,085.42 | 26.21 | 13.16 | 175.64 | -30.55 | -96.61 | 1,005.56 | 970.39 | 35.17 | 28.589 | | | | | |
| 6,300.00 | 6,217.49 | 6,220.78 | 6,180.25 | 26.66 | 13.29 | 175.73 | -29.72 | -97.80 | 1,024.48 | 988.81 | 35.67 | 28.724 | | | | | |
| 6,400.00 | 6,315.95 | 6,319.31 | 6,278.76 | 27.11 | 13.44 | 175.85 | -28.17 | -98.94 | 1,043.61 | 1,007.42 | 36.19 | 28.840 | | | | | |
| 6,500.00 | 6,414.41 | 6,419.98 | 6,379.41 | 27.55 | 13.59 | 175.95 | -27.08 | -100.12 | 1,062.54 | 1,025.82 | 36.72 | 28.937 | | | | | |
| 6,600.00 | 6,512.87 | 6,515.26 | 6,474.69 | 28.00 | 13.73 | 176.03 | -26.14 | -101.27 | 1,081.46 | 1,044.25 | 37.22 | 29.058 | | | | | |
| 6,700.00 | 6,611.34 | 6,610.66 | 6,570.07 | 28.45 | 13.86 | 176.13 | -24.60 | -102.47 | 1,100.70 | 1,062.99 | 37.71 | 29.185 | | | | | |
| 6,800.00 | 6,709.80 | 6,716.06 | 6,675.44 | 28.90 | 14.00 | 176.29 | -22.36 | -103.24 | 1,119.72 | 1,081.46 | 38.25 | 29.270 | | | | | |
| 6,900.00 | 6,808.26 | 6,815.26 | 6,774.61 | 29.35 | 14.13 | 176.46 | -19.85 | -103.18 | 1,138.21 | 1,099.45 | 38.76 | 29.362 | | | | | |
| 6,982.73 | 6,889.71 | 6,889.73 | 6,849.04 | 29.72 | 14.23 | 176.59 | -17.80 | -103.39 | 1,153.85 | 1,114.70 | 39.15 | 29.472 | | | | | |
| 7,000.00 | 6,906.74 | 6,905.28 | 6,864.59 | 29.80 | 14.26 | -175.95 | -17.35 | -103.49 | 1,157.09 | 1,117.86 | 39.23 | 29.494 | | | | | |
| 7,050.00 | 6,956.13 | 6,953.00 | 6,912.29 | 30.01 | 14.32 | -150.57 | -15.97 | -103.91 | 1,165.53 | 1,126.06 | 39.47 | 29.530 | | | | | |
| 7,100.00 | 7,005.50 | 6,999.02 | 6,958.28 | 30.19 | 14.39 | -126.19 | -14.57 | -104.39 | 1,172.50 | 1,132.82 | 39.69 | 29.543 | | | | | |
| 7,150.00 | 7,054.61 | 7,047.70 | 7,006.94 | 30.36 | 14.45 | -108.98 | -13.02 | -104.89 | 1,177.92 | 1,138.02 | 39.91 | 29.515 | | | | | |
| 7,200.00 | 7,103.23 | 7,096.02 | 7,055.23 | 30.52 | 14.52 | -98.23 | -11.40 | -105.37 | 1,181.82 | 1,141.70 | 40.12 | 29.455 | | | | | |
| 7,250.00 | 7,151.10 | 7,146.32 | 7,105.50 | 30.65 | 14.59 | -91.62 | -9.67 | -105.84 | 1,184.22 | 1,143.88 | 40.34 | 29.354 | | | | | |
| 7,300.00 | 7,198.01 | 7,200.20 | 7,159.36 | 30.77 | 14.67 | -87.62 | -8.17 | -106.26 | 1,185.02 | 1,144.44 | 40.58 | 29.201 | | | | | |
| 7,350.00 | 7,243.72 | 7,252.52 | 7,211.66 | 30.88 | 14.75 | -85.26 | -7.18 | -106.56 | 1,184.30 | 1,143.49 | 40.81 | 29.021 | | | | | |
| 7,400.00 | 7,288.00 | 7,302.91 | 7,262.05 | 30.97 | 14.82 | -84.02 | -6.66 | -106.75 | 1,182.24 | 1,141.21 | 41.02 | 28.820 | | | | | |
| 7,450.00 | 7,330.65 | 7,350.93 | 7,310.07 | 31.05 | 14.88 | -83.54 | -6.24 | -106.73 | 1,179.06 | 1,137.84 | 41.21 | 28.608 | | | | | |
| 7,500.00 | 7,371.46 | 7,397.28 | 7,356.42 | 31.12 | 14.94 | -83.63 | -5.62 | -106.41 | 1,174.97 | 1,133.57 | 41.40 | 28.381 | | | | | |
| 7,550.00 | 7,410.22 | 7,441.74 | 7,400.87 | 31.17 | 15.00 | -84.14 | -4.83 | -105.83 | 1,170.20 | 1,128.62 | 41.58 | 28.143 | | | | | |
| 7,600.00 | 7,446.75 | 7,482.98 | 7,442.08 | 31.21 | 15.05 | -84.92 | -3.93 | -105.05 | 1,164.98 | 1,123.23 | 41.75 | 27.903 | | | | | |
| 7,650.00 | 7,480.87 | 7,516.59 | 7,475.67 | 31.24 | 15.09 | -85.74 | -3.09 | -104.36 | 1,159.69 | 1,117.80 | 41.90 | 27.681 | | | | | |
| 7,700.00 | 7,512.42 | 7,547.91 | 7,506.98 | 31.25 | 15.13 | -86.67 | -2.25 | -103.74 | 1,154.64 | 1,112.60 | 42.04 | 27.466 | | | | | |
| 7,750.00 | 7,541.23 | 7,576.80 | 7,535.85 | 31.26 | 15.16 | -87.65 | -1.42 | -103.19 | 1,150.05 | 1,107.87 | 42.18 | 27.264 | | | | | |
| 7,800.00 | 7,567.18 | 7,603.11 | 7,562.14 | 31.25 | 15.20 | -88.63 | -0.62 | -102.70 | 1,146.16 | 1,103.83 | 42.33 | 27.079 | | | | | |
| 7,850.00 | 7,590.12 | 7,626.70 | 7,585.72 | 31.24 | 15.22 | -89.54 | 0.14 | -102.28 | 1,143.18 | 1,100.71 | 42.47 | 26.917 | | | | | |
| 7,900.00 | 7,609.96 | 7,647.44 | 7,606.44 | 31.22 | 15.25 | -90.34 | 0.83 | -101.92 | 1,141.33 | 1,098.72 | 42.62 | 26.781 | | | | | |
| 7,945.06 | 7,625.10 | 7,664.67 | 7,623.66 | 31.19 | 15.27 | -90.98 | 1.43 | -101.62 | 1,140.77 | 1,098.02 | 42.76 | 26.681 | | | | | |
| 7,950.00 | 7,626.60 | 7,666.43 | 7,625.42 | 31.19 | 15.27 | -91.04 | 1.49 | -101.59 | 1,140.78 | 1,098.01 | 42.77 | 26.672 | | | | | |
| 8,000.00 | 7,639.94 | 7,682.38 | 7,641.35 | 31.15 | 15.29 | -91.56 | 2.06 | -101.29 | 1,141.67 | 1,098.74 | 42.92 | 26.598 | | | | | |
| 8,050.00 | 7,649.94 | 7,694.88 | 7,653.85 | 31.11 | 15.31 | -91.85 | 2.52 | -101.06 | 1,144.12 | 1,101.05 | 43.07 | 26.562 | | | | | |
| 8,100.00 | 7,656.54 | 7,703.85 | 7,662.81 | 31.07 | 15.32 | -91.88 | 2.85 | -100.88 | 1,148.22 | 1,105.01 | 43.22 | 26.568 | | | | | |
| 8,150.00 | 7,659.70 | 7,709.22 | 7,668.17 | 31.03 | 15.32 | -91.65 | 3.05 | -100.78 | 1,154.02 | 1,110.67 | 43.35 | 26.618 | | | | | |
| 8,170.89 | 7,660.00 | 7,710.38 | 7,669.33 | 31.01 | 15.32 | -91.47 | 3.09 | -100.75 | 1,156.95 | 1,113.54 | 43.41 | 26.652 | | | | | |
| 8,200.00 | 7,660.00 | 7,711.54 | 7,670.50 | 30.98 | 15.32 | -91.53 | 3.13 | -100.73 | 1,161.59 | 1,118.10 | 43.49 | 26.712 | | | | | |
| 8,300.00 | 7,660.00 | 7,715.59 | 7,674.54 | 30.92 | 15.33 | -91.73 | 3.29 | -100.65 | 1,162.84 | 1,119.08 | 43.76 | 27.033 | | | | | |
| 8,400.00 | 7,660.00 | 7,719.68 | 7,678.62 | 30.91 | 15.33 | -91.93 | 3.44 | -100.56 | 1,211.98 | 1,167.95 | 44.03 | 27.525 | | | | | |
| 8,500.00 | 7,660.00 | 7,723.81 | 7,682.75 | 31.22 | 15.34 | -92.14 | 3.60 | -100.48 | 1,248.47 | 1,204.16 | 44.30 | 28.179 | | | | | |
| 8,600.00 | 7,660.00 | 7,728.00 | 7,686.93 | 31.83 | 15.34 | -92.35 | 3.76 | -100.39 | 1,291.66 | 1,247.10 | 44.57 | 28.984 | | | | | |

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 4S-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 4S-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 | | | | | | |
| 8,700.00 | 7,660.00 | 7,732.23 | 7,691.16 | 32.55 | 15.35 | -92.56 | 3.92 | -100.30 | 1,340.93 | 1,296.12 | 44.81 | 29.926 | | | | | | |
| 8,800.00 | 7,660.00 | 7,736.51 | 7,695.44 | 33.33 | 15.35 | -92.78 | 4.09 | -100.21 | 1,395.62 | 1,350.59 | 45.03 | 30.992 | | | | | | |
| 8,900.00 | 7,660.00 | 7,740.85 | 7,699.77 | 34.16 | 15.36 | -92.99 | 4.26 | -100.12 | 1,455.13 | 1,409.89 | 45.23 | 32.170 | | | | | | |

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well HWY52 4S-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 4S-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 | | | 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 | 50.82 | 212.08 | 260.20 | 336.34 | | | | | | |
| 100.00 | 100.00 | 79.61 | 79.61 | 0.14 | 0.13 | 50.87 | 211.81 | 260.32 | 335.61 | 335.34 | | 0.26 | 1,272.415 | | |
| 164.37 | 164.37 | 143.36 | 143.36 | 0.37 | 0.23 | 50.97 | 211.24 | 260.59 | 335.46 | 334.86 | | 0.60 | 563.000 | | |
| 200.00 | 200.00 | 175.45 | 175.44 | 0.50 | 0.28 | 51.02 | 211.12 | 260.91 | 335.65 | 334.86 | | 0.78 | 428.584 | | |
| 300.00 | 300.00 | 265.03 | 264.99 | 0.85 | 0.45 | 51.07 | 212.33 | 262.88 | 338.21 | 336.88 | | 1.33 | 255.023 | | |
| 400.00 | 400.00 | 357.25 | 357.07 | 1.21 | 0.63 | 51.15 | 215.11 | 267.05 | 343.61 | 341.75 | | 1.86 | 184.311 | | |
| 500.00 | 500.00 | 447.90 | 447.45 | 1.57 | 0.83 | 51.32 | 218.58 | 273.05 | 351.18 | 348.78 | | 2.40 | 146.117 | | |
| 600.00 | 600.00 | 539.45 | 538.50 | 1.93 | 1.05 | 51.63 | 222.92 | 281.54 | 361.38 | 358.45 | | 2.94 | 123.094 | | |
| 700.00 | 699.98 | 631.71 | 630.04 | 2.28 | 1.30 | -68.18 | 227.80 | 291.98 | 372.91 | 369.45 | | 3.45 | 108.078 | | |
| 800.00 | 799.84 | 721.84 | 719.18 | 2.62 | 1.58 | -68.10 | 233.03 | 304.20 | 385.24 | 381.28 | | 3.96 | 97.248 | | |
| 900.00 | 899.45 | 815.56 | 811.49 | 2.97 | 1.89 | -68.18 | 238.23 | 319.51 | 398.33 | 393.85 | | 4.49 | 88.810 | | |
| 1,000.00 | 998.70 | 920.34 | 914.57 | 3.33 | 2.25 | -68.47 | 242.29 | 337.88 | 410.05 | 405.01 | | 5.04 | 81.307 | | |
| 1,103.09 | 1,100.51 | 1,022.41 | 1,014.90 | 3.72 | 2.61 | -68.92 | 244.03 | 356.53 | 420.05 | 414.38 | | 5.67 | 74.143 | | |
| 1,200.00 | 1,195.93 | 1,104.00 | 1,094.59 | 4.11 | 2.95 | -69.24 | 244.16 | 374.01 | 430.38 | 424.11 | | 6.27 | 68.593 | | |
| 1,300.00 | 1,294.39 | 1,196.27 | 1,183.98 | 4.51 | 3.38 | -69.31 | 244.15 | 396.87 | 443.53 | 436.58 | | 6.94 | 63.894 | | |
| 1,400.00 | 1,392.85 | 1,288.29 | 1,272.57 | 4.93 | 3.84 | -69.21 | 244.39 | 421.76 | 458.60 | 450.97 | | 7.63 | 60.106 | | |
| 1,500.00 | 1,491.31 | 1,386.52 | 1,366.83 | 5.35 | 4.35 | -69.02 | 244.50 | 449.39 | 474.46 | 466.11 | | 8.35 | 56.789 | | |
| 1,600.00 | 1,589.78 | 1,489.30 | 1,465.27 | 5.77 | 4.89 | -68.68 | 243.50 | 478.92 | 490.13 | 481.01 | | 9.12 | 53.772 | | |
| 1,700.00 | 1,688.24 | 1,589.12 | 1,561.16 | 6.20 | 5.40 | -68.40 | 242.00 | 506.62 | 504.68 | 494.82 | | 9.86 | 51.191 | | |
| 1,800.00 | 1,786.70 | 1,682.59 | 1,650.97 | 6.63 | 5.89 | -68.28 | 242.05 | 532.52 | 520.17 | 509.59 | | 10.58 | 49.161 | | |
| 1,900.00 | 1,885.16 | 1,777.59 | 1,742.03 | 7.06 | 6.40 | -68.13 | 242.31 | 559.59 | 536.44 | 525.12 | | 11.32 | 47.407 | | |
| 2,000.00 | 1,983.62 | 1,882.04 | 1,841.98 | 7.50 | 6.97 | -67.88 | 241.91 | 589.91 | 552.75 | 540.64 | | 12.11 | 45.638 | | |
| 2,100.00 | 2,082.09 | 1,987.10 | 1,942.63 | 7.94 | 7.52 | -67.55 | 239.82 | 619.93 | 567.71 | 554.81 | | 12.91 | 43.984 | | |
| 2,200.00 | 2,180.55 | 2,087.14 | 2,038.73 | 8.37 | 8.04 | -67.31 | 238.06 | 647.68 | 582.15 | 568.48 | | 13.67 | 42.574 | | |
| 2,300.00 | 2,279.01 | 2,188.69 | 2,136.36 | 8.81 | 8.57 | -67.08 | 236.00 | 675.54 | 596.19 | 581.73 | | 14.46 | 41.229 | | |
| 2,400.00 | 2,377.47 | 2,290.45 | 2,234.06 | 9.25 | 9.10 | -66.76 | 232.88 | 703.84 | 609.93 | 594.69 | | 15.24 | 40.026 | | |
| 2,500.00 | 2,475.93 | 2,391.94 | 2,331.87 | 9.69 | 9.61 | -66.58 | 230.52 | 730.83 | 623.11 | 607.10 | | 16.01 | 38.909 | | |
| 2,600.00 | 2,574.40 | 2,492.38 | 2,428.67 | 10.14 | 10.12 | -66.39 | 227.87 | 757.48 | 636.08 | 619.29 | | 16.79 | 37.879 | | |
| 2,700.00 | 2,672.86 | 2,594.30 | 2,527.04 | 10.58 | 10.62 | -66.25 | 225.39 | 784.01 | 648.76 | 631.20 | | 17.56 | 36.943 | | |
| 2,800.00 | 2,771.32 | 2,699.36 | 2,628.65 | 11.02 | 11.13 | -66.14 | 222.63 | 810.60 | 660.73 | 642.37 | | 18.36 | 35.990 | | |
| 2,900.00 | 2,869.78 | 2,805.13 | 2,731.18 | 11.46 | 11.61 | -66.08 | 219.85 | 836.41 | 671.96 | 652.82 | | 19.14 | 35.101 | | |
| 3,000.00 | 2,968.24 | 2,915.43 | 2,838.63 | 11.91 | 12.09 | -66.16 | 217.29 | 861.19 | 681.78 | 661.82 | | 19.96 | 34.165 | | |
| 3,100.00 | 3,066.71 | 3,011.14 | 2,932.00 | 12.35 | 12.50 | -66.23 | 214.75 | 882.08 | 690.89 | 670.19 | | 20.69 | 33.386 | | |
| 3,200.00 | 3,165.17 | 3,093.41 | 3,012.08 | 12.80 | 12.88 | -66.32 | 213.65 | 900.87 | 701.61 | 680.24 | | 21.37 | 32.825 | | |
| 3,300.00 | 3,263.63 | 3,186.24 | 3,102.06 | 13.24 | 13.32 | -66.40 | 213.31 | 923.69 | 714.31 | 692.21 | | 22.10 | 32.325 | | |
| 3,400.00 | 3,362.09 | 3,285.46 | 3,198.19 | 13.69 | 13.80 | -66.48 | 213.14 | 948.25 | 727.27 | 704.40 | | 22.87 | 31.804 | | |
| 3,500.00 | 3,460.55 | 3,387.97 | 3,297.43 | 14.13 | 14.29 | -66.51 | 212.37 | 973.90 | 740.12 | 716.47 | | 23.65 | 31.289 | | |
| 3,600.00 | 3,559.01 | 3,499.50 | 3,405.46 | 14.58 | 14.82 | -66.43 | 209.26 | 1,001.45 | 751.46 | 726.96 | | 24.50 | 30.677 | | |
| 3,700.00 | 3,657.48 | 3,600.62 | 3,503.48 | 15.02 | 15.30 | -66.33 | 205.95 | 1,026.10 | 762.28 | 737.01 | | 25.28 | 30.158 | | |
| 3,800.00 | 3,755.94 | 3,695.58 | 3,595.57 | 15.47 | 15.73 | -66.26 | 202.94 | 1,049.08 | 773.02 | 747.02 | | 26.01 | 29.726 | | |
| 3,900.00 | 3,854.40 | 3,788.04 | 3,685.39 | 15.92 | 16.16 | -66.35 | 202.17 | 1,070.97 | 784.71 | 757.98 | | 26.73 | 29.356 | | |
| 4,000.00 | 3,952.86 | 3,888.35 | 3,782.86 | 16.36 | 16.61 | -66.48 | 202.11 | 1,094.69 | 796.84 | 769.34 | | 27.50 | 28.981 | | |
| 4,100.00 | 4,051.32 | 4,003.98 | 3,895.43 | 16.81 | 17.13 | -66.61 | 200.91 | 1,121.02 | 807.66 | 779.29 | | 28.37 | 28.473 | | |
| 4,200.00 | 4,149.79 | 4,097.71 | 3,986.57 | 17.26 | 17.56 | -66.60 | 198.23 | 1,142.74 | 817.75 | 788.64 | | 29.11 | 28.091 | | |
| 4,300.00 | 4,248.25 | 4,181.56 | 4,067.77 | 17.70 | 17.98 | -66.55 | 196.16 | 1,163.57 | 829.41 | 799.61 | | 29.80 | 27.835 | | |
| 4,400.00 | 4,346.71 | 4,276.18 | 4,158.97 | 18.15 | 18.46 | -66.42 | 193.85 | 1,188.68 | 842.48 | 811.94 | | 30.54 | 27.589 | | |
| 4,500.00 | 4,445.17 | 4,395.98 | 4,275.00 | 18.60 | 19.00 | -66.40 | 191.70 | 1,218.39 | 854.56 | 823.16 | | 31.40 | 27.212 | | |
| 4,600.00 | 4,543.63 | 4,508.65 | 4,385.12 | 19.04 | 19.45 | -66.63 | 191.09 | 1,242.14 | 864.29 | 832.06 | | 32.23 | 26.816 | | |
| 4,700.00 | 4,642.10 | 4,614.81 | 4,489.24 | 19.49 | 19.86 | -66.93 | 190.95 | 1,262.86 | 873.03 | 840.00 | | 33.03 | 26.431 | | |
| 4,800.00 | 4,740.56 | 4,717.89 | 4,590.54 | 19.94 | 20.23 | -67.28 | 191.27 | 1,281.94 | 881.26 | 847.45 | | 33.81 | 26.065 | | |
| 4,900.00 | 4,839.02 | 4,829.34 | 4,700.39 | 20.39 | 20.59 | -67.79 | 192.88 | 1,300.67 | 888.88 | 854.25 | | 34.63 | 25.668 | | |
| 5,000.00 | 4,937.48 | 4,949.72 | 4,819.53 | 20.83 | 20.93 | -68.46 | 194.63 | 1,317.78 | 894.49 | 859.02 | | 35.48 | 25.213 | | |

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 4S-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 4S-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 | | |
| 5,100.00 | 5,035.94 | 5,069.68 | 4,938.67 | 21.28 | 21.21 | -69.25 | 196.43 | 1,331.58 | 898.16 | 861.86 | 36.31 | 24.739 | | |
| 5,200.00 | 5,134.41 | 5,193.64 | 5,062.24 | 21.73 | 21.42 | -70.23 | 198.13 | 1,341.28 | 898.97 | 861.85 | 37.12 | 24.216 | | |
| 5,300.00 | 5,232.87 | 5,309.27 | 5,177.70 | 22.18 | 21.58 | -71.26 | 199.37 | 1,347.39 | 897.89 | 859.97 | 37.92 | 23.679 | | |
| 5,400.00 | 5,331.33 | 5,418.81 | 5,287.16 | 22.63 | 21.70 | -72.29 | 200.17 | 1,351.35 | 895.58 | 856.88 | 38.71 | 23.138 | | |
| 5,500.00 | 5,429.79 | 5,522.92 | 5,391.24 | 23.07 | 21.81 | -73.32 | 200.65 | 1,353.94 | 892.52 | 853.03 | 39.49 | 22.602 | | |
| 5,600.00 | 5,528.25 | 5,622.63 | 5,490.92 | 23.52 | 21.91 | -74.34 | 201.30 | 1,355.95 | 889.51 | 849.24 | 40.27 | 22.089 | | |
| 5,700.00 | 5,626.72 | 5,723.18 | 5,591.46 | 23.97 | 22.01 | -75.40 | 202.11 | 1,357.59 | 886.64 | 845.59 | 41.05 | 21.599 | | |
| 5,800.00 | 5,725.18 | 5,824.14 | 5,692.41 | 24.42 | 22.11 | -76.48 | 202.95 | 1,358.87 | 883.83 | 842.01 | 41.83 | 21.130 | | |
| 5,900.00 | 5,823.64 | 5,928.84 | 5,797.11 | 24.87 | 22.19 | -77.65 | 203.75 | 1,359.51 | 880.86 | 838.26 | 42.60 | 20.678 | | |
| 6,000.00 | 5,922.10 | 6,029.65 | 5,897.92 | 25.31 | 22.27 | -78.81 | 204.40 | 1,359.34 | 877.61 | 834.24 | 43.37 | 20.235 | | |
| 6,100.00 | 6,020.56 | 6,124.86 | 5,993.12 | 25.76 | 22.35 | -79.91 | 205.18 | 1,359.25 | 874.90 | 830.75 | 44.14 | 19.820 | | |
| 6,200.00 | 6,119.03 | 6,221.33 | 6,089.59 | 26.21 | 22.43 | -81.04 | 206.19 | 1,359.36 | 872.86 | 827.95 | 44.90 | 19.439 | | |
| 6,300.00 | 6,217.49 | 6,318.70 | 6,186.94 | 26.66 | 22.51 | -82.19 | 207.40 | 1,359.45 | 871.31 | 825.66 | 45.66 | 19.084 | | |
| 6,400.00 | 6,315.95 | 6,416.67 | 6,284.90 | 27.11 | 22.59 | -83.37 | 208.84 | 1,359.39 | 870.23 | 823.83 | 46.40 | 18.755 | | |
| 6,500.00 | 6,414.41 | 6,514.70 | 6,382.92 | 27.55 | 22.67 | -84.57 | 210.53 | 1,359.04 | 869.56 | 822.42 | 47.14 | 18.446 | | |
| 6,579.98 | 6,493.17 | 6,592.12 | 6,460.32 | 27.91 | 22.74 | -85.53 | 211.97 | 1,358.72 | 869.38 | 821.66 | 47.72 | 18.218 | | |
| 6,600.00 | 6,512.87 | 6,611.49 | 6,479.70 | 28.00 | 22.75 | -85.77 | 212.34 | 1,358.66 | 869.39 | 821.53 | 47.87 | 18.162 | | |
| 6,700.00 | 6,611.34 | 6,708.70 | 6,576.89 | 28.45 | 22.84 | -86.96 | 214.19 | 1,358.49 | 869.78 | 821.18 | 48.60 | 17.896 | | |
| 6,800.00 | 6,709.80 | 6,807.60 | 6,675.77 | 28.90 | 22.92 | -88.18 | 216.08 | 1,358.33 | 870.57 | 821.26 | 49.32 | 17.652 | | |
| 6,900.00 | 6,808.26 | 6,911.47 | 6,779.62 | 29.35 | 23.01 | -89.45 | 217.89 | 1,358.03 | 871.57 | 821.54 | 50.03 | 17.421 | | |
| 6,982.73 | 6,889.71 | 6,995.58 | 6,863.73 | 29.72 | 23.08 | -90.45 | 218.58 | 1,357.73 | 872.01 | 821.40 | 50.61 | 17.230 | | |
| 7,000.00 | 6,906.74 | 7,011.83 | 6,879.98 | 29.80 | 23.10 | -83.43 | 218.73 | 1,357.67 | 871.96 | 821.23 | 50.73 | 17.189 | | |
| 7,050.00 | 6,956.13 | 7,059.68 | 6,927.83 | 30.01 | 23.14 | -59.01 | 219.25 | 1,357.49 | 869.91 | 818.86 | 51.05 | 17.041 | | |
| 7,100.00 | 7,005.50 | 7,108.59 | 6,976.73 | 30.19 | 23.19 | -35.13 | 219.79 | 1,357.40 | 864.91 | 813.57 | 51.34 | 16.848 | | |
| 7,150.00 | 7,054.61 | 7,155.98 | 7,024.12 | 30.36 | 23.23 | -17.93 | 220.32 | 1,357.38 | 856.95 | 805.37 | 51.59 | 16.612 | | |
| 7,200.00 | 7,103.23 | 7,202.17 | 7,070.30 | 30.52 | 23.27 | -6.74 | 221.00 | 1,357.35 | 846.14 | 794.34 | 51.81 | 16.333 | | |
| 7,250.00 | 7,151.10 | 7,249.79 | 7,117.91 | 30.65 | 23.31 | 0.81 | 221.83 | 1,357.28 | 832.48 | 780.48 | 52.00 | 16.010 | | |
| 7,300.00 | 7,198.01 | 7,297.28 | 7,165.40 | 30.77 | 23.36 | 6.34 | 222.69 | 1,357.12 | 815.90 | 763.75 | 52.16 | 15.643 | | |
| 7,350.00 | 7,243.72 | 7,344.16 | 7,212.27 | 30.88 | 23.40 | 10.77 | 223.56 | 1,356.87 | 796.49 | 744.20 | 52.29 | 15.233 | | |
| 7,400.00 | 7,288.00 | 7,389.67 | 7,257.77 | 30.97 | 23.43 | 14.65 | 224.37 | 1,356.55 | 774.31 | 721.93 | 52.38 | 14.782 | | |
| 7,450.00 | 7,330.65 | 7,432.91 | 7,301.00 | 31.05 | 23.47 | 18.32 | 225.12 | 1,356.24 | 749.55 | 697.10 | 52.44 | 14.292 | | |
| 7,500.00 | 7,371.46 | 7,474.33 | 7,342.41 | 31.12 | 23.51 | 22.02 | 225.81 | 1,355.97 | 722.37 | 669.91 | 52.46 | 13.769 | | |
| 7,550.00 | 7,410.22 | 7,513.71 | 7,381.79 | 31.17 | 23.55 | 25.95 | 226.44 | 1,355.74 | 692.98 | 640.55 | 52.43 | 13.216 | | |
| 7,600.00 | 7,446.75 | 7,550.87 | 7,418.95 | 31.21 | 23.58 | 30.26 | 227.01 | 1,355.54 | 661.62 | 609.27 | 52.35 | 12.638 | | |
| 7,650.00 | 7,480.87 | 7,585.41 | 7,453.48 | 31.24 | 23.61 | 35.08 | 227.53 | 1,355.38 | 628.55 | 576.35 | 52.21 | 12.040 | | |
| 7,700.00 | 7,512.42 | 7,617.29 | 7,485.35 | 31.25 | 23.64 | 40.50 | 228.00 | 1,355.25 | 594.13 | 542.14 | 51.99 | 11.428 | | |
| 7,750.00 | 7,541.23 | 7,646.48 | 7,514.54 | 31.26 | 23.67 | 46.55 | 228.42 | 1,355.17 | 558.71 | 507.04 | 51.67 | 10.812 | | |
| 7,800.00 | 7,567.18 | 7,672.85 | 7,540.91 | 31.25 | 23.70 | 53.15 | 228.80 | 1,355.11 | 522.77 | 471.53 | 51.25 | 10.201 | | |
| 7,850.00 | 7,590.12 | 7,696.25 | 7,564.31 | 31.24 | 23.72 | 60.09 | 229.14 | 1,355.07 | 486.86 | 436.18 | 50.68 | 9.606 | | |
| 7,900.00 | 7,609.96 | 7,716.59 | 7,584.65 | 31.22 | 23.74 | 67.02 | 229.42 | 1,355.06 | 451.63 | 401.69 | 49.94 | 9.043 | | |
| 7,950.00 | 7,626.60 | 7,733.76 | 7,601.81 | 31.19 | 23.76 | 73.54 | 229.66 | 1,355.05 | 417.92 | 368.91 | 49.01 | 8.527 | | |
| 8,000.00 | 7,639.94 | 7,747.73 | 7,615.78 | 31.15 | 23.77 | 79.27 | 229.86 | 1,355.05 | 386.75 | 338.89 | 47.86 | 8.080 | | |
| 8,050.00 | 7,649.94 | 7,758.41 | 7,626.46 | 31.11 | 23.78 | 83.92 | 230.01 | 1,355.05 | 359.32 | 312.79 | 46.52 | 7.723 | | |
| 8,100.00 | 7,656.54 | 7,765.72 | 7,633.77 | 31.07 | 23.79 | 87.33 | 230.12 | 1,355.05 | 337.02 | 291.91 | 45.11 | 7.471 | | |
| 8,150.00 | 7,659.70 | 7,769.61 | 7,637.66 | 31.03 | 23.79 | 89.40 | 230.17 | 1,355.04 | 321.26 | 277.40 | 43.86 | 7.324 | | |
| 8,170.89 | 7,660.00 | 7,770.22 | 7,638.27 | 31.01 | 23.79 | 89.87 | 230.18 | 1,355.04 | 316.92 | 273.44 | 43.48 | 7.289 | | |
| 8,200.00 | 7,660.00 | 7,770.64 | 7,638.69 | 30.98 | 23.80 | 89.95 | 230.19 | 1,355.04 | 313.16 | 270.02 | 43.15 | 7.258 | | |
| 8,226.10 | 7,660.00 | 7,771.02 | 7,639.07 | 30.96 | 23.80 | 90.02 | 230.19 | 1,355.04 | 312.07 | 268.97 | 43.10 | 7.240 CC, ES, SF | | |
| 8,300.00 | 7,660.00 | 7,772.11 | 7,640.16 | 30.92 | 23.80 | 90.21 | 230.21 | 1,355.04 | 320.70 | 276.52 | 44.18 | 7.259 | | |
| 8,400.00 | 7,660.00 | 7,773.58 | 7,641.63 | 30.91 | 23.80 | 90.48 | 230.23 | 1,355.04 | 357.24 | 310.06 | 47.18 | 7.571 | | |
| 8,500.00 | 7,660.00 | 7,775.05 | 7,643.10 | 31.22 | 23.80 | 90.75 | 230.25 | 1,355.04 | 415.20 | 365.22 | 49.98 | 8.307 | | |
| 8,600.00 | 7,660.00 | 7,776.53 | 7,644.58 | 31.83 | 23.80 | 91.03 | 230.28 | 1,355.04 | 486.99 | 435.03 | 51.96 | 9.373 | | |

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 4S-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 4S-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 | | | | 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) | | | | | |
| 8,700.00 | 7,660.00 | 7,778.02 | 7,646.07 | 32.55 | 23.80 | 91.30 | 230.30 | 1,355.04 | 567.38 | 514.12 | 53.26 | 10.653 | | | |
| 8,800.00 | 7,660.00 | 7,779.52 | 7,647.57 | 33.33 | 23.80 | 91.57 | 230.32 | 1,355.04 | 653.20 | 599.09 | 54.12 | 12.070 | | | |
| 8,900.00 | 7,660.00 | 7,781.02 | 7,649.07 | 34.16 | 23.81 | 91.85 | 230.34 | 1,355.04 | 742.58 | 687.88 | 54.70 | 13.576 | | | |
| 9,000.00 | 7,660.00 | 7,782.52 | 7,650.57 | 35.04 | 23.81 | 92.13 | 230.36 | 1,355.04 | 834.37 | 779.27 | 55.11 | 15.141 | | | |
| 9,100.00 | 7,660.00 | 7,784.04 | 7,652.08 | 35.97 | 23.81 | 92.40 | 230.39 | 1,355.04 | 927.86 | 872.46 | 55.40 | 16.749 | | | |
| 9,200.00 | 7,660.00 | 7,785.55 | 7,653.60 | 36.94 | 23.81 | 92.68 | 230.41 | 1,355.04 | 1,022.57 | 966.96 | 55.62 | 18.385 | | | |
| 9,300.00 | 7,660.00 | 7,787.08 | 7,655.13 | 37.96 | 23.81 | 92.96 | 230.43 | 1,355.04 | 1,118.21 | 1,062.42 | 55.79 | 20.044 | | | |
| 9,400.00 | 7,660.00 | 7,788.61 | 7,656.66 | 39.00 | 23.81 | 93.24 | 230.45 | 1,355.04 | 1,214.55 | 1,158.63 | 55.92 | 21.719 | | | |
| 9,500.00 | 7,660.00 | 7,790.14 | 7,658.19 | 40.09 | 23.81 | 93.52 | 230.48 | 1,355.04 | 1,311.43 | 1,255.40 | 56.03 | 23.407 | | | |
| 9,600.00 | 7,660.00 | 7,791.69 | 7,659.74 | 41.20 | 23.82 | 93.80 | 230.50 | 1,355.04 | 1,408.75 | 1,352.63 | 56.12 | 25.104 | | | |

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well HWY52 4S-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 4S-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) | | | | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 54.59 | 195.32 | 274.75 | 337.75 | | | | | | |
| 100.00 | 100.00 | 76.10 | 76.10 | 0.14 | 0.11 | 54.61 | 195.45 | 275.08 | 337.46 | 337.21 | 0.25 | 1,329.555 | CC, ES | | |
| 200.00 | 200.00 | 173.48 | 173.47 | 0.50 | 0.28 | 54.69 | 195.64 | 276.23 | 338.54 | 337.76 | 0.78 | 432.526 | | | |
| 300.00 | 300.00 | 271.61 | 271.55 | 0.85 | 0.46 | 55.13 | 194.60 | 279.24 | 340.44 | 339.13 | 1.32 | 258.033 | | | |
| 400.00 | 400.00 | 364.87 | 364.60 | 1.21 | 0.66 | 56.02 | 191.88 | 284.68 | 343.61 | 341.74 | 1.88 | 183.095 | | | |
| 500.00 | 500.00 | 460.20 | 459.46 | 1.57 | 0.89 | 57.36 | 187.80 | 293.18 | 348.72 | 346.27 | 2.45 | 142.096 | | | |
| 600.00 | 600.00 | 555.34 | 553.83 | 1.93 | 1.15 | 59.09 | 181.82 | 303.65 | 354.81 | 351.76 | 3.06 | 116.079 | | | |
| 700.00 | 699.98 | 647.06 | 644.36 | 2.28 | 1.46 | -59.19 | 174.67 | 316.51 | 362.27 | 358.60 | 3.68 | 98.569 | | | |
| 800.00 | 799.84 | 738.41 | 733.91 | 2.62 | 1.80 | -57.31 | 165.97 | 332.26 | 370.36 | 366.05 | 4.31 | 86.000 | | | |
| 900.00 | 899.45 | 828.44 | 821.74 | 2.97 | 2.18 | -55.77 | 157.46 | 350.09 | 379.22 | 374.27 | 4.95 | 76.623 | | | |
| 1,000.00 | 998.70 | 921.97 | 912.61 | 3.33 | 2.60 | -54.54 | 148.89 | 370.53 | 388.33 | 382.71 | 5.62 | 69.118 | | | |
| 1,103.09 | 1,100.51 | 1,017.36 | 1,004.60 | 3.72 | 3.09 | -53.38 | 138.35 | 393.43 | 397.05 | 390.70 | 6.36 | 62.467 | | | |
| 1,200.00 | 1,195.93 | 1,101.80 | 1,085.00 | 4.11 | 3.59 | -52.28 | 127.24 | 416.70 | 406.83 | 399.76 | 7.07 | 57.572 | | | |
| 1,300.00 | 1,294.39 | 1,188.42 | 1,166.43 | 4.51 | 4.15 | -50.93 | 115.03 | 443.58 | 420.13 | 412.33 | 7.80 | 53.847 | | | |
| 1,400.00 | 1,392.85 | 1,277.45 | 1,249.14 | 4.93 | 4.78 | -49.40 | 101.77 | 473.72 | 436.23 | 427.68 | 8.55 | 51.032 | | | |
| 1,500.00 | 1,491.31 | 1,370.95 | 1,335.01 | 5.35 | 5.47 | -47.61 | 86.22 | 507.29 | 454.24 | 444.93 | 9.31 | 48.766 | | | |
| 1,600.00 | 1,589.78 | 1,468.34 | 1,423.80 | 5.77 | 6.22 | -45.64 | 68.12 | 542.96 | 473.01 | 462.92 | 10.09 | 46.892 | | | |
| 1,700.00 | 1,688.24 | 1,561.40 | 1,508.57 | 6.20 | 6.93 | -43.87 | 50.72 | 577.21 | 492.44 | 481.64 | 10.79 | 45.636 | | | |
| 1,800.00 | 1,786.70 | 1,654.09 | 1,593.18 | 6.63 | 7.64 | -42.46 | 35.53 | 611.85 | 513.26 | 501.80 | 11.47 | 44.767 | | | |
| 1,900.00 | 1,885.16 | 1,748.68 | 1,679.50 | 7.06 | 8.38 | -41.21 | 20.82 | 647.62 | 534.98 | 522.84 | 12.15 | 44.048 | | | |
| 2,000.00 | 1,983.62 | 1,838.52 | 1,761.20 | 7.50 | 9.09 | -40.09 | 6.77 | 682.26 | 557.69 | 544.92 | 12.77 | 43.662 | | | |
| 2,100.00 | 2,082.09 | 1,940.67 | 1,853.93 | 7.94 | 9.90 | -38.90 | -9.25 | 722.00 | 580.97 | 567.49 | 13.48 | 43.097 | | | |
| 2,200.00 | 2,180.55 | 2,056.28 | 1,959.63 | 8.37 | 10.76 | -37.58 | -28.61 | 764.64 | 602.25 | 587.99 | 14.26 | 42.246 | | | |
| 2,300.00 | 2,279.01 | 2,158.59 | 2,054.08 | 8.81 | 11.51 | -36.56 | -45.50 | 800.12 | 621.46 | 606.53 | 14.93 | 41.618 | | | |
| 2,400.00 | 2,377.47 | 2,259.75 | 2,147.37 | 9.25 | 12.24 | -35.57 | -62.68 | 835.28 | 640.92 | 625.32 | 15.60 | 41.093 | | | |
| 2,500.00 | 2,475.93 | 2,374.66 | 2,253.92 | 9.69 | 13.04 | -34.47 | -82.87 | 873.28 | 658.77 | 642.45 | 16.32 | 40.363 | | | |
| 2,600.00 | 2,574.40 | 2,474.07 | 2,347.04 | 10.14 | 13.68 | -33.79 | -97.97 | 904.60 | 675.22 | 658.29 | 16.93 | 39.886 | | | |
| 2,700.00 | 2,672.86 | 2,571.97 | 2,439.01 | 10.58 | 14.31 | -33.35 | -110.52 | 935.69 | 692.09 | 674.54 | 17.55 | 39.443 | | | |
| 2,800.00 | 2,771.32 | 2,689.37 | 2,549.87 | 11.02 | 15.03 | -32.84 | -125.85 | 971.17 | 707.39 | 689.11 | 18.28 | 38.707 | | | |
| 2,900.00 | 2,869.78 | 2,779.12 | 2,634.90 | 11.46 | 15.59 | -32.44 | -137.92 | 997.22 | 721.54 | 702.69 | 18.84 | 38.291 | | | |
| 3,000.00 | 2,968.24 | 2,888.71 | 2,738.28 | 11.91 | 16.27 | -31.93 | -153.17 | 1,030.23 | 736.88 | 717.35 | 19.53 | 37.731 | | | |
| 3,100.00 | 3,066.71 | 2,993.22 | 2,836.97 | 12.35 | 16.91 | -31.24 | -170.61 | 1,059.83 | 750.35 | 730.18 | 20.17 | 37.203 | | | |
| 3,200.00 | 3,165.17 | 3,093.67 | 2,932.17 | 12.80 | 17.51 | -30.68 | -186.41 | 1,087.70 | 763.31 | 742.55 | 20.76 | 36.770 | | | |
| 3,300.00 | 3,263.63 | 3,183.37 | 3,017.25 | 13.24 | 18.06 | -30.31 | -198.90 | 1,113.24 | 777.02 | 755.70 | 21.32 | 36.447 | | | |
| 3,400.00 | 3,362.09 | 3,275.26 | 3,103.87 | 13.69 | 18.65 | -29.83 | -213.38 | 1,140.28 | 791.83 | 769.95 | 21.88 | 36.189 | | | |
| 3,500.00 | 3,460.55 | 3,369.51 | 3,192.52 | 14.13 | 19.25 | -29.34 | -228.26 | 1,168.59 | 807.33 | 784.90 | 22.43 | 35.992 | | | |
| 3,600.00 | 3,559.01 | 3,470.03 | 3,287.31 | 14.58 | 19.88 | -29.02 | -241.71 | 1,199.23 | 823.24 | 800.21 | 23.03 | 35.750 | | | |
| 3,700.00 | 3,657.48 | 3,580.35 | 3,391.75 | 15.02 | 20.55 | -28.72 | -255.72 | 1,231.87 | 838.21 | 814.51 | 23.70 | 35.364 | | | |
| 3,800.00 | 3,755.94 | 3,676.86 | 3,483.24 | 15.47 | 21.13 | -28.43 | -268.62 | 1,259.74 | 852.50 | 828.23 | 24.27 | 35.119 | | | |
| 3,900.00 | 3,854.40 | 3,768.00 | 3,569.50 | 15.92 | 21.70 | -28.20 | -280.30 | 1,286.74 | 867.55 | 842.72 | 24.83 | 34.939 | | | |
| 4,000.00 | 3,952.86 | 3,870.34 | 3,666.28 | 16.36 | 22.33 | -27.89 | -294.32 | 1,316.94 | 882.54 | 857.10 | 25.44 | 34.687 | | | |
| 4,100.00 | 4,051.32 | 3,943.00 | 3,734.69 | 16.81 | 22.81 | -27.69 | -304.11 | 1,339.35 | 898.97 | 873.10 | 25.87 | 34.752 | | | |
| 4,200.00 | 4,149.79 | 4,040.96 | 3,826.50 | 17.26 | 23.45 | -27.49 | -316.36 | 1,371.22 | 917.06 | 890.61 | 26.46 | 34.664 | | | |
| 4,300.00 | 4,248.25 | 4,179.34 | 3,957.16 | 17.70 | 24.29 | -27.11 | -335.36 | 1,412.64 | 932.40 | 905.12 | 27.28 | 34.181 | | | |
| 4,400.00 | 4,346.71 | 4,257.49 | 4,031.32 | 18.15 | 24.78 | -26.95 | -345.35 | 1,435.15 | 946.81 | 919.07 | 27.74 | 34.130 | | | |
| 4,500.00 | 4,445.17 | 4,326.49 | 4,096.15 | 18.60 | 25.25 | -26.84 | -353.60 | 1,457.26 | 964.37 | 936.22 | 28.15 | 34.258 | | | |
| 4,600.00 | 4,543.63 | 4,408.27 | 4,172.12 | 19.04 | 25.83 | -26.66 | -364.53 | 1,485.50 | 984.58 | 955.96 | 28.62 | 34.401 | | | |
| 4,700.00 | 4,642.10 | 4,556.49 | 4,310.60 | 19.49 | 26.79 | -26.35 | -384.20 | 1,534.48 | 1,003.64 | 974.10 | 29.53 | 33.985 | | | |
| 4,800.00 | 4,740.56 | 4,657.84 | 4,406.46 | 19.94 | 27.42 | -26.19 | -396.74 | 1,564.93 | 1,019.20 | 989.07 | 30.13 | 33.823 | | | |
| 4,900.00 | 4,839.02 | 4,756.28 | 4,499.51 | 20.39 | 28.03 | -26.01 | -409.51 | 1,594.38 | 1,034.69 | 1,003.97 | 30.73 | 33.675 | | | |
| 5,000.00 | 4,937.48 | 4,848.68 | 4,586.67 | 20.83 | 28.62 | -25.76 | -422.91 | 1,621.99 | 1,050.33 | 1,019.07 | 31.27 | 33.593 | | | |
| 5,100.00 | 5,035.94 | 4,972.88 | 4,703.57 | 21.28 | 29.39 | -25.38 | -442.05 | 1,659.28 | 1,066.47 | 1,034.50 | 31.98 | 33.352 | | | |

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 4S-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 4S-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) | | | | | |
| 5,200.00 | 5,134.41 | 5,119.25 | 4,843.65 | 21.73 | 30.16 | -24.94 | -464.11 | 1,695.49 | 1,076.38 | 1,043.63 | 32.75 | 32.868 | | | |
| 5,300.00 | 5,232.87 | 5,212.90 | 4,933.36 | 22.18 | 30.67 | -24.67 | -478.15 | 1,718.36 | 1,086.50 | 1,053.21 | 33.29 | 32.640 | | | |
| 5,400.00 | 5,331.33 | 5,311.03 | 5,027.52 | 22.63 | 31.19 | -24.41 | -492.43 | 1,742.04 | 1,096.32 | 1,062.48 | 33.84 | 32.398 | | | |
| 5,500.00 | 5,429.79 | 5,442.23 | 5,153.87 | 23.07 | 31.83 | -24.18 | -509.58 | 1,772.92 | 1,105.48 | 1,070.95 | 34.53 | 32.018 | | | |
| 5,600.00 | 5,528.25 | 5,580.58 | 5,288.58 | 23.52 | 32.40 | -24.15 | -522.95 | 1,801.37 | 1,111.15 | 1,075.91 | 35.24 | 31.533 | | | |
| 5,700.00 | 5,626.72 | 5,742.53 | 5,448.05 | 23.97 | 32.91 | -24.27 | -534.98 | 1,826.75 | 1,111.21 | 1,075.23 | 35.98 | 30.888 | | | |
| 5,800.00 | 5,725.18 | 5,885.97 | 5,590.25 | 24.42 | 33.26 | -24.53 | -542.08 | 1,844.00 | 1,107.81 | 1,071.18 | 36.64 | 30.236 | | | |
| 5,900.00 | 5,823.64 | 6,021.26 | 5,725.01 | 24.87 | 33.51 | -24.89 | -546.19 | 1,855.25 | 1,100.40 | 1,063.12 | 37.28 | 29.514 | | | |
| 6,000.00 | 5,922.10 | 6,143.02 | 5,846.54 | 25.31 | 33.68 | -25.28 | -548.40 | 1,862.29 | 1,090.40 | 1,052.48 | 37.93 | 28.751 | | | |
| 6,100.00 | 6,020.56 | 6,252.07 | 5,955.47 | 25.76 | 33.81 | -25.68 | -549.56 | 1,867.19 | 1,079.13 | 1,040.54 | 38.59 | 27.966 | | | |
| 6,200.00 | 6,119.03 | 6,358.36 | 6,061.69 | 26.21 | 33.93 | -26.10 | -550.17 | 1,871.05 | 1,067.01 | 1,027.75 | 39.26 | 27.179 | | | |
| 6,300.00 | 6,217.49 | 6,475.08 | 6,178.36 | 26.66 | 34.03 | -26.61 | -550.07 | 1,874.20 | 1,053.99 | 1,014.07 | 39.92 | 26.403 | | | |
| 6,400.00 | 6,315.95 | 6,575.55 | 6,278.82 | 27.11 | 34.11 | -27.07 | -549.71 | 1,875.90 | 1,040.01 | 999.39 | 40.62 | 25.604 | | | |
| 6,500.00 | 6,414.41 | 6,681.18 | 6,384.44 | 27.55 | 34.18 | -27.60 | -548.96 | 1,877.23 | 1,025.64 | 984.32 | 41.32 | 24.824 | | | |
| 6,600.00 | 6,512.87 | 6,783.87 | 6,487.12 | 28.00 | 34.24 | -28.13 | -548.06 | 1,877.89 | 1,010.74 | 968.71 | 42.03 | 24.049 | | | |
| 6,700.00 | 6,611.34 | 6,883.52 | 6,586.76 | 28.45 | 34.30 | -28.66 | -547.12 | 1,878.34 | 995.72 | 952.97 | 42.76 | 23.287 | | | |
| 6,800.00 | 6,709.80 | 6,983.81 | 6,687.05 | 28.90 | 34.35 | -29.22 | -546.04 | 1,878.64 | 980.65 | 937.16 | 43.49 | 22.548 | | | |
| 6,900.00 | 6,808.26 | 7,084.00 | 6,787.23 | 29.35 | 34.40 | -29.82 | -544.64 | 1,878.75 | 965.47 | 921.23 | 44.24 | 21.824 | | | |
| 6,982.73 | 6,889.71 | 7,165.33 | 6,868.55 | 29.72 | 34.45 | -30.32 | -543.43 | 1,878.76 | 952.91 | 908.04 | 44.88 | 21.235 | | | |
| 7,000.00 | 6,906.74 | 7,182.29 | 6,885.51 | 29.80 | 34.46 | -22.99 | -543.19 | 1,878.76 | 950.30 | 905.30 | 45.00 | 21.117 | | | |
| 7,050.00 | 6,956.13 | 7,231.52 | 6,934.74 | 30.01 | 34.49 | 2.32 | -542.54 | 1,878.78 | 942.74 | 897.45 | 45.29 | 20.814 | | | |
| 7,100.00 | 7,005.50 | 7,281.33 | 6,984.54 | 30.19 | 34.51 | 27.10 | -541.93 | 1,878.80 | 935.20 | 889.73 | 45.47 | 20.568 | | | |
| 7,150.00 | 7,054.61 | 7,331.52 | 7,034.73 | 30.36 | 34.54 | 45.18 | -541.32 | 1,878.77 | 927.67 | 882.14 | 45.53 | 20.374 | | | |
| 7,200.00 | 7,103.23 | 7,381.23 | 7,084.44 | 30.52 | 34.56 | 57.26 | -540.73 | 1,878.68 | 920.26 | 874.77 | 45.48 | 20.233 | | | |
| 7,250.00 | 7,151.10 | 7,430.21 | 7,133.41 | 30.65 | 34.59 | 65.66 | -540.15 | 1,878.55 | 913.08 | 867.75 | 45.33 | 20.143 | | | |
| 7,300.00 | 7,198.01 | 7,477.78 | 7,180.98 | 30.77 | 34.62 | 71.94 | -539.60 | 1,878.38 | 906.34 | 861.25 | 45.08 | 20.104 SF | | | |
| 7,350.00 | 7,243.72 | 7,524.12 | 7,227.31 | 30.88 | 34.64 | 76.95 | -539.11 | 1,878.19 | 900.24 | 855.49 | 44.74 | 20.120 | | | |
| 7,400.00 | 7,288.00 | 7,569.02 | 7,272.21 | 30.97 | 34.66 | 81.16 | -538.66 | 1,877.98 | 895.03 | 850.71 | 44.33 | 20.191 | | | |
| 7,450.00 | 7,330.65 | 7,612.21 | 7,315.40 | 31.05 | 34.69 | 84.81 | -538.27 | 1,877.75 | 891.00 | 847.14 | 43.85 | 20.317 | | | |
| 7,500.00 | 7,371.46 | 7,653.12 | 7,356.31 | 31.12 | 34.71 | 88.00 | -537.93 | 1,877.53 | 888.42 | 845.07 | 43.35 | 20.494 | | | |
| 7,545.69 | 7,406.97 | 7,688.69 | 7,391.88 | 31.16 | 34.73 | 90.58 | -537.67 | 1,877.33 | 887.61 | 844.73 | 42.88 | 20.699 | | | |
| 7,550.00 | 7,410.22 | 7,691.95 | 7,395.13 | 31.17 | 34.73 | 90.81 | -537.65 | 1,877.31 | 887.62 | 844.78 | 42.84 | 20.720 | | | |
| 7,600.00 | 7,446.75 | 7,728.51 | 7,431.69 | 31.21 | 34.75 | 93.27 | -537.43 | 1,877.11 | 888.87 | 846.51 | 42.36 | 20.986 | | | |
| 7,650.00 | 7,480.87 | 7,762.61 | 7,465.80 | 31.24 | 34.77 | 95.37 | -537.25 | 1,876.92 | 892.45 | 850.51 | 41.94 | 21.280 | | | |
| 7,700.00 | 7,512.42 | 7,794.45 | 7,497.63 | 31.25 | 34.79 | 97.11 | -537.11 | 1,876.74 | 898.60 | 856.98 | 41.63 | 21.588 | | | |
| 7,750.00 | 7,541.23 | 7,824.09 | 7,527.27 | 31.26 | 34.80 | 98.49 | -536.97 | 1,876.56 | 907.50 | 866.05 | 41.45 | 21.893 | | | |
| 7,800.00 | 7,567.18 | 7,850.87 | 7,554.05 | 31.25 | 34.82 | 99.46 | -536.82 | 1,876.38 | 919.28 | 877.83 | 41.44 | 22.182 | | | |
| 7,850.00 | 7,590.12 | 7,874.64 | 7,577.82 | 31.24 | 34.83 | 100.00 | -536.67 | 1,876.21 | 934.02 | 892.41 | 41.61 | 22.446 | | | |
| 7,900.00 | 7,609.96 | 7,895.29 | 7,598.47 | 31.22 | 34.84 | 100.06 | -536.53 | 1,876.06 | 951.74 | 909.79 | 41.96 | 22.683 | | | |
| 7,950.00 | 7,626.60 | 7,912.71 | 7,615.89 | 31.19 | 34.85 | 99.63 | -536.41 | 1,875.93 | 972.40 | 929.94 | 42.46 | 22.900 | | | |
| 8,000.00 | 7,639.94 | 7,926.80 | 7,629.98 | 31.15 | 34.86 | 98.67 | -536.30 | 1,875.81 | 995.88 | 952.79 | 43.10 | 23.107 | | | |
| 8,050.00 | 7,649.94 | 7,937.48 | 7,640.66 | 31.11 | 34.86 | 97.13 | -536.21 | 1,875.73 | 1,022.02 | 978.19 | 43.83 | 23.317 | | | |
| 8,100.00 | 7,656.54 | 7,944.70 | 7,647.87 | 31.07 | 34.87 | 95.00 | -536.15 | 1,875.67 | 1,050.59 | 1,005.96 | 44.63 | 23.541 | | | |
| 8,150.00 | 7,659.70 | 7,948.39 | 7,651.57 | 31.03 | 34.87 | 92.24 | -536.12 | 1,875.63 | 1,081.34 | 1,035.89 | 45.46 | 23.789 | | | |
| 8,170.89 | 7,660.00 | 7,948.88 | 7,652.06 | 31.01 | 34.87 | 90.90 | -536.12 | 1,875.63 | 1,094.76 | 1,048.96 | 45.81 | 23.900 | | | |
| 8,200.00 | 7,660.00 | 7,949.14 | 7,652.31 | 30.98 | 34.87 | 90.92 | -536.12 | 1,875.63 | 1,113.91 | 1,067.62 | 46.29 | 24.062 | | | |
| 8,300.00 | 7,660.00 | 7,950.01 | 7,653.19 | 30.92 | 34.87 | 90.98 | -536.11 | 1,875.62 | 1,182.78 | 1,134.82 | 47.96 | 24.662 | | | |
| 8,400.00 | 7,660.00 | 7,950.89 | 7,654.07 | 30.91 | 34.87 | 91.04 | -536.10 | 1,875.61 | 1,255.84 | 1,206.29 | 49.55 | 25.345 | | | |
| 8,500.00 | 7,660.00 | 7,951.78 | 7,654.95 | 31.22 | 34.87 | 91.10 | -536.09 | 1,875.61 | 1,332.40 | 1,281.37 | 51.03 | 26.113 | | | |
| 8,600.00 | 7,660.00 | 7,952.67 | 7,655.84 | 31.83 | 34.87 | 91.16 | -536.09 | 1,875.60 | 1,411.90 | 1,359.53 | 52.37 | 26.960 | | | |
| 8,700.00 | 7,660.00 | 7,953.56 | 7,656.74 | 32.55 | 34.87 | 91.22 | -536.08 | 1,875.59 | 1,493.86 | 1,440.27 | 53.59 | 27.878 | | | |

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

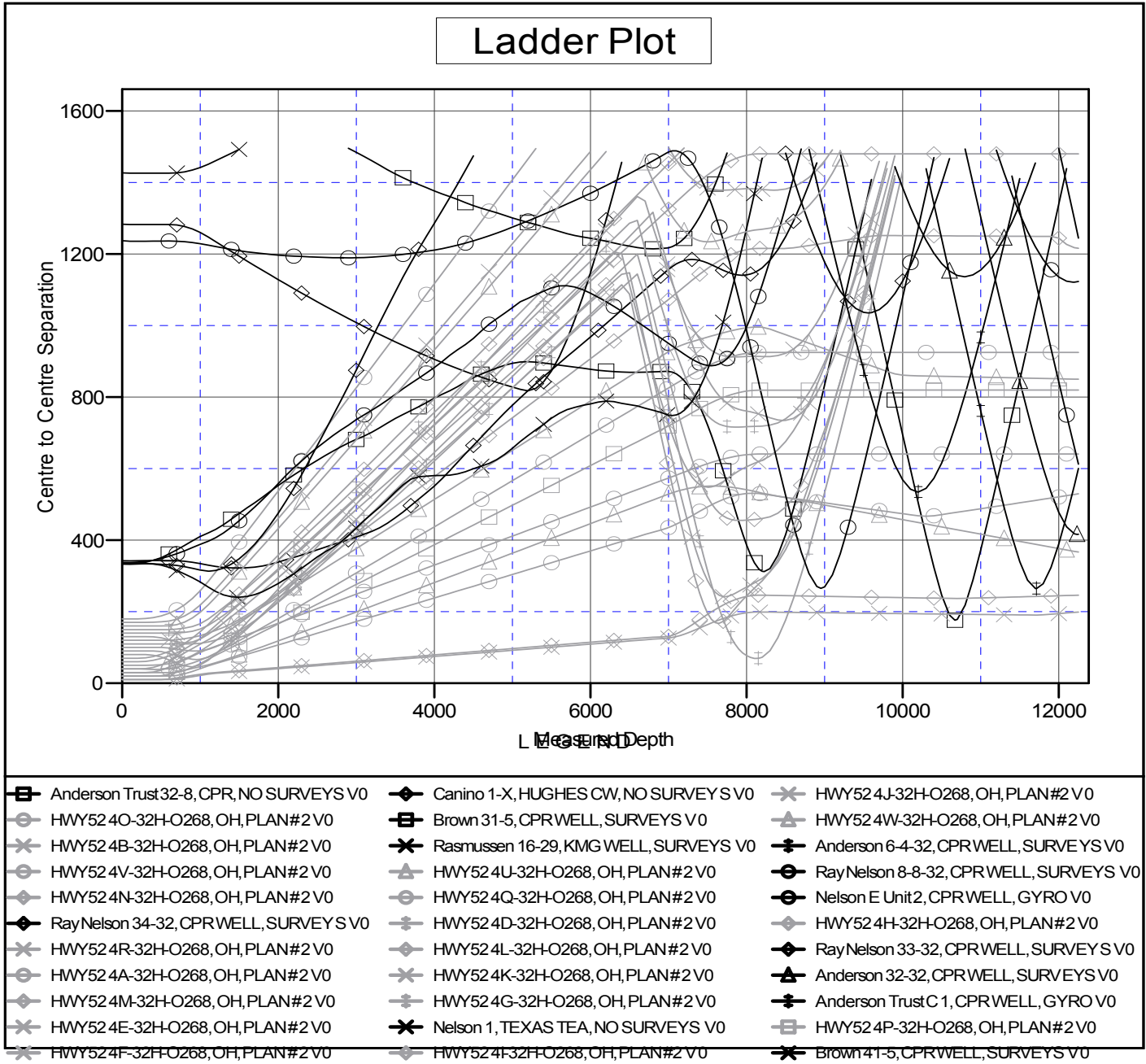
Cathedral Energy Services

Anticollision Report

| | | |
|--|--|--|
| Company: Crestone Peak Resources | Local Co-ordinate Reference: Well HWY52 4S-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 4S-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 4S-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