

Crestone Peak Resources

DJ BASIN

BIGHORN

BIGHORN 4Q-17H-P267

OH

PLAN #3

Anticollision Summary Report

24 May, 2018

Cathedral Energy Services

Anticollision Summary Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well BIGHORN 4Q-17H-P267 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 4983.00usft |
| Reference Site: | BIGHORN | MD Reference: | 23' KB @ 4983.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | BIGHORN 4Q-17H-P267 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #3 | Offset TVD Reference: | Offset Datum |

| | | | |
|-------------------------------------|---|-----------------------|---------------------|
| Reference | PLAN #3 | | |
| Filter type: | NO GLOBAL FILTER: Using user defined selection & filtering criteria | | |
| Interpolation Method: | MD Interval 100.00usft | Error Model: | ISCWSA |
| Depth Range: | Unlimited | Scan Method: | Closest Approach 3D |
| Results Limited by: | Maximum center-center distance of 1,933.21 usft | Error Surface: | Pedal Curve |
| Warning Levels Evaluated at: | 2.00 Sigma | Casing Method: | Not applied |

| | | | | | |
|----------------------------|------------------|--------------------------|------------------|---------------------|--|
| Survey Tool Program | Date | 5/24/2018 | | | |
| From (usft) | To (usft) | Survey (Wellbore) | Tool Name | Description | |
| 0.00 | 400.00 | PLAN #3 (OH) | VESSI_GYROFLEX | VESSI Gyroflex Gyro | |
| 2,001.00 | 15,067.81 | PLAN #3 (OH) | MWD+HDGM | OWSG MWD + HDGM | |

| Summary | | | | | | |
|-------------------------------------|---------------------------------|------------------------------|---------------------------------|----------------------------------|-------------------|---------|
| Site Name | Reference Measured Depth (usft) | Offset Measured Depth (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Separation Factor | Warning |
| Offset Well - Wellbore - Design | | | | | | |
| BIGHORN | | | | | | |
| BIGHORN 4A-17H-P267 - OH - PLAN #2 | 400.00 | 401.00 | 159.94 | 158.75 | 135.158 | CC |
| BIGHORN 4A-17H-P267 - OH - PLAN #2 | 500.00 | 498.98 | 159.99 | 158.46 | 104.639 | ES |
| BIGHORN 4A-17H-P267 - OH - PLAN #2 | 4,700.00 | 4,080.77 | 1,906.89 | 1,868.28 | 49.390 | SF |
| BIGHORN 4AA-17H-P267 - OH - PLAN #1 | 200.00 | 199.00 | 189.86 | 189.38 | 394.130 | CC, ES |
| BIGHORN 4AA-17H-P267 - OH - PLAN #1 | 4,100.00 | 3,424.91 | 1,927.41 | 1,900.81 | 72.445 | SF |
| BIGHORN 4AB-17H-P267 - OH - PLAN #2 | 300.00 | 299.00 | 180.07 | 179.24 | 216.750 | CC, ES |
| BIGHORN 4AB-17H-P267 - OH - PLAN #2 | 4,200.00 | 3,501.67 | 1,891.64 | 1,860.66 | 61.062 | SF |
| BIGHORN 4AC-17H-P267 - OH - PLAN #1 | 400.00 | 399.00 | 170.01 | 168.83 | 144.091 | CC, ES |
| BIGHORN 4AC-17H-P267 - OH - PLAN #1 | 4,400.00 | 3,727.18 | 1,877.71 | 1,843.97 | 55.651 | SF |
| BIGHORN 4B-17H-P267 - OH - PLAN #2 | 400.00 | 401.00 | 149.87 | 148.69 | 126.652 | CC |
| BIGHORN 4B-17H-P267 - OH - PLAN #2 | 600.00 | 598.84 | 150.22 | 148.34 | 79.952 | ES |
| BIGHORN 4B-17H-P267 - OH - PLAN #2 | 5,000.00 | 4,418.65 | 1,885.36 | 1,842.82 | 44.314 | SF |
| BIGHORN 4C-17H-P267 - OH - PLAN #1 | 200.00 | 199.00 | 140.09 | 139.60 | 290.809 | CC, ES |
| BIGHORN 4C-17H-P267 - OH - PLAN #1 | 4,800.00 | 4,219.61 | 1,888.85 | 1,854.31 | 54.690 | SF |
| BIGHORN 4D-17H-P267 - OH - PLAN #3 | 400.00 | 401.00 | 130.02 | 128.84 | 109.876 | CC |
| BIGHORN 4D-17H-P267 - OH - PLAN #3 | 600.00 | 601.16 | 130.40 | 128.52 | 69.252 | ES |
| BIGHORN 4D-17H-P267 - OH - PLAN #3 | 5,300.00 | 4,784.42 | 1,902.26 | 1,853.75 | 39.212 | SF |
| BIGHORN 4E-17H-P267 - OH - PLAN #1 | 263.71 | 262.72 | 119.95 | 119.25 | 170.269 | CC |
| BIGHORN 4E-17H-P267 - OH - PLAN #1 | 300.00 | 298.96 | 119.96 | 119.13 | 144.307 | ES |
| BIGHORN 4E-17H-P267 - OH - PLAN #1 | 5,400.00 | 4,938.90 | 1,927.50 | 1,881.58 | 41.975 | SF |
| BIGHORN 4F-17H-P267 - OH - PLAN #1 | 400.00 | 401.00 | 109.89 | 108.71 | 92.864 | CC |
| BIGHORN 4F-17H-P267 - OH - PLAN #1 | 500.00 | 501.02 | 109.95 | 108.42 | 71.745 | ES |
| BIGHORN 4F-17H-P267 - OH - PLAN #1 | 5,900.00 | 5,440.33 | 1,898.00 | 1,841.62 | 33.664 | SF |
| BIGHORN 4G-17H-P267 - OH - PLAN #4 | 400.00 | 401.00 | 100.10 | 98.92 | 84.592 | CC |
| BIGHORN 4G-17H-P267 - OH - PLAN #4 | 500.00 | 501.02 | 100.16 | 98.63 | 65.357 | ES |
| BIGHORN 4G-17H-P267 - OH - PLAN #4 | 6,300.00 | 5,880.63 | 1,931.20 | 1,867.75 | 30.438 | SF |
| BIGHORN 4H-17H-P267 - OH - PLAN #1 | 253.13 | 252.14 | 90.03 | 89.37 | 134.882 | CC |
| BIGHORN 4H-17H-P267 - OH - PLAN #1 | 300.00 | 298.95 | 90.05 | 89.22 | 108.331 | ES |
| BIGHORN 4H-17H-P267 - OH - PLAN #1 | 6,400.00 | 6,039.63 | 1,921.59 | 1,863.20 | 32.910 | SF |
| BIGHORN 4I-17H-P267 - OH - PLAN #1 | 352.52 | 351.53 | 79.97 | 78.95 | 78.839 | CC |
| BIGHORN 4I-17H-P267 - OH - PLAN #1 | 400.00 | 398.95 | 79.99 | 78.81 | 67.780 | ES |
| BIGHORN 4I-17H-P267 - OH - PLAN #1 | 6,800.00 | 6,518.46 | 1,783.45 | 1,719.94 | 28.084 | SF |
| BIGHORN 4J-17H-P267 - OH - PLAN #3 | 400.00 | 399.00 | 69.90 | 68.72 | 59.249 | CC, ES |
| BIGHORN 4J-17H-P267 - OH - PLAN #3 | 6,800.00 | 6,560.67 | 1,666.39 | 1,613.42 | 31.463 | SF |
| BIGHORN 4K-17H-P267 - OH - PLAN #2 | 400.00 | 401.00 | 59.84 | 58.66 | 50.568 | CC |
| BIGHORN 4K-17H-P267 - OH - PLAN #2 | 500.00 | 498.98 | 59.92 | 58.39 | 39.187 | ES |

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

Cathedral Energy Services

Anticollision Summary Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well BIGHORN 4Q-17H-P267 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 4983.00usft |
| Reference Site: | BIGHORN | MD Reference: | 23' KB @ 4983.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | BIGHORN 4Q-17H-P267 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #3 | Offset TVD Reference: | Offset Datum |

| Summary | | | | | | |
|------------------------------------|---------------------------------|------------------------------|---------------------------------|----------------------------------|-------------------|-----------------|
| Site Name | Reference Measured Depth (usft) | Offset Measured Depth (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Separation Factor | Warning |
| Offset Well - Wellbore - Design | | | | | | |
| BIGHORN | | | | | | |
| BIGHORN 4K-17H-P267 - OH - PLAN #2 | 15,067.81 | 14,942.86 | 1,805.74 | 1,385.97 | 4.302 | SF |
| BIGHORN 4L-17H-P267 - OH - PLAN #2 | 400.00 | 400.00 | 50.05 | 48.87 | 42.359 | CC |
| BIGHORN 4L-17H-P267 - OH - PLAN #2 | 500.00 | 500.02 | 50.13 | 48.60 | 32.745 | ES |
| BIGHORN 4L-17H-P267 - OH - PLAN #2 | 15,067.81 | 14,968.79 | 1,447.65 | 1,027.61 | 3.446 | SF |
| BIGHORN 4M-17H-P267 - OH - PLAN #1 | 200.00 | 200.00 | 39.98 | 39.50 | 82.706 | CC |
| BIGHORN 4M-17H-P267 - OH - PLAN #1 | 300.00 | 299.75 | 40.27 | 39.44 | 48.345 | ES |
| BIGHORN 4M-17H-P267 - OH - PLAN #1 | 15,067.81 | 15,152.48 | 1,355.65 | 929.06 | 3.178 | SF |
| BIGHORN 4N-17H-P267 - OH - PLAN #2 | 400.00 | 400.00 | 29.92 | 28.74 | 25.321 | CC, ES |
| BIGHORN 4N-17H-P267 - OH - PLAN #2 | 15,067.81 | 15,167.30 | 966.98 | 548.29 | 2.310 | SF |
| BIGHORN 4O-17H-P267 - OH - PLAN #2 | 300.00 | 300.00 | 19.85 | 19.02 | 23.848 | CC, ES |
| BIGHORN 4O-17H-P267 - OH - PLAN #2 | 15,067.81 | 14,811.57 | 772.87 | 363.50 | 1.888 | SF |
| BIGHORN 4P-17H-P267 - OH - PLAN #2 | 208.86 | 208.86 | 10.07 | 9.56 | 19.576 | CC |
| BIGHORN 4P-17H-P267 - OH - PLAN #2 | 300.00 | 299.96 | 10.24 | 9.40 | 12.287 | ES |
| BIGHORN 4P-17H-P267 - OH - PLAN #2 | 15,067.81 | 15,025.40 | 439.05 | 50.50 | 1.130 | Level 2, SF |
| BIGHORN 4R-17H-P267 - OH - PLAN #2 | 300.00 | 300.00 | 10.07 | 9.23 | 12.091 | CC |
| BIGHORN 4R-17H-P267 - OH - PLAN #2 | 15,067.81 | 14,823.53 | 273.33 | 0.31 | 1.001 | Level 2, ES, SF |
| BIGHORN 4S-17H-P267 - OH - PLAN #3 | 200.00 | 200.00 | 20.13 | 19.65 | 41.641 | CC, ES |
| BIGHORN 4S-17H-P267 - OH - PLAN #3 | 14,700.00 | 14,529.19 | 474.50 | 171.49 | 1.566 | SF |

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| Reference Site: | BIGHORN | MD Reference: | 23' KB @ 4983.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | BIGHORN 4Q-17H-P267 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #3 | Offset TVD Reference: | Offset Datum |

| Summary | | | | | | |
|---|---------------------------------|------------------------------|---------------------------------|----------------------------------|-------------------|---------------------|
| Site Name | Reference Measured Depth (usft) | Offset Measured Depth (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Separation Factor | Warning |
| Offset Well - Wellbore - Design | | | | | | |
| S17-T2N-R67W (OFFSETS) | | | | | | |
| ABBEY STATE V16-77HN - KMG WELL - SURVEYS | 10,921.72 | 10,458.82 | 1,844.27 | 1,679.56 | 11.198 | CC |
| ABBEY STATE V16-77HN - KMG WELL - SURVEYS | 12,300.00 | 11,812.00 | 1,859.31 | 1,634.08 | 8.255 | ES |
| ABBEY STATE V16-77HN - KMG WELL - SURVEYS | 12,500.00 | 11,812.00 | 1,872.79 | 1,643.25 | 8.159 | SF |
| ALFRED D SATER UNIT 2 - KMG WELL - GYRO | | | | | | Out of range |
| ALVIN STATE 1 - PDC WELL - GYRO | 8,405.18 | 7,536.72 | 1,283.13 | 1,228.25 | 23.378 | CC, ES |
| ALVIN STATE 1 - PDC WELL - GYRO | 8,900.00 | 7,534.36 | 1,338.35 | 1,276.59 | 21.673 | SF |
| ASPEN STATE V16-75HN - KMG WELL - SURVEYS | | | | | | Out of range |
| CHENG 3-8A - KMG WELL - SURVEYS | | | | | | Out of range |
| CIRBO 4-6-5 - CPR WELL - SURVEYS | | | | | | Out of range |
| CIRBO 6-4-5 - CPR WELL - SURVEYS | | | | | | Out of range |
| DECHANT 2-16 - KMG WELL - GYRO | | | | | | Out of range |
| DECHANT 6 - KPK WELL - NO SURVEYS | | | | | | Out of range |
| DECHANT 7 - KPK WELL - NO SURVEYS | 400.00 | 390.00 | 1,655.48 | 1,653.68 | 917.969 | CC, ES |
| DECHANT 7 - KPK WELL - NO SURVEYS | 2,800.00 | 2,752.37 | 1,930.14 | 1,915.22 | 129.364 | SF |
| DECHANT 8 - GERRITY WELL - NO SURVEYS | | | | | | Out of range |
| DECHANT STATE 1 - KPK WELL - SURVEYS | 10,468.84 | 7,383.40 | 1,277.93 | 1,169.84 | 11.823 | CC |
| DECHANT STATE 1 - KPK WELL - SURVEYS | 10,500.00 | 7,376.73 | 1,278.30 | 1,169.32 | 11.730 | ES |
| DECHANT STATE 1 - KPK WELL - SURVEYS | 10,700.00 | 7,316.36 | 1,298.03 | 1,184.85 | 11.468 | SF |
| DECHANT STATE GAS U 9 - KMG WELL - GYRO | 8,823.30 | 7,595.97 | 1,569.18 | 1,505.93 | 24.806 | CC, ES |
| DECHANT STATE GAS U 9 - KMG WELL - GYRO | 9,300.00 | 7,601.72 | 1,639.98 | 1,569.14 | 23.151 | SF |
| DECHANT STATE V 16-11JI - KMG WELL - GYRO | | | | | | Out of range |
| DECHANT STATE V 16-12JI - KMG WELL - GYRO | 9,795.12 | 7,460.20 | 909.02 | 820.38 | 10.255 | CC |
| DECHANT STATE V 16-12JI - KMG WELL - GYRO | 9,800.00 | 7,460.12 | 909.04 | 820.28 | 10.242 | ES |
| DECHANT STATE V 16-12JI - KMG WELL - GYRO | 9,900.00 | 7,458.23 | 916.95 | 826.29 | 10.114 | SF |
| DECHANT STATE V 16-14JI - KMG WELL - GYRO | | | | | | Out of range |
| DECHANT STATE V 16-4JI - KMG WELL - GYRO | 12,371.79 | 7,482.02 | 1,141.29 | 986.38 | 7.368 | CC |
| DECHANT STATE V 16-4JI - KMG WELL - GYRO | 12,400.00 | 7,481.52 | 1,141.64 | 985.77 | 7.324 | ES |
| DECHANT STATE V 16-4JI - KMG WELL - GYRO | 12,500.00 | 7,479.71 | 1,148.47 | 989.87 | 7.241 | SF |
| DECHANT STATE V 16-5JI - KMG WELL - GYRO | 10,724.04 | 7,510.09 | 836.04 | 724.04 | 7.465 | CC, ES |
| DECHANT STATE V 16-5JI - KMG WELL - GYRO | 10,800.00 | 7,509.13 | 839.48 | 725.04 | 7.335 | SF |
| DECHANT V 16-3JI - KMG WELL - GYRO | | | | | | Out of range |
| DECHANT-STATE 2 - KPK WELL - NO SURVEYS | | | | | | Out of range |
| DECHANT-STATE 3 - KPK WELL - NO SURVEYS | 2,321.85 | 2,304.93 | 1,459.24 | 1,447.20 | 121.139 | CC |
| DECHANT-STATE 3 - KPK WELL - NO SURVEYS | 2,600.00 | 2,568.07 | 1,460.22 | 1,446.24 | 104.435 | ES |
| DECHANT-STATE 3 - KPK WELL - NO SURVEYS | 5,300.00 | 5,100.00 | 1,571.23 | 1,533.48 | 41.624 | SF |
| DECHANT-STATE 4 - KPK WELL - NO SURVEYS | | | | | | Out of range |
| DECHANT-STATE 5 - KPK WELL - NO SURVEYS | | | | | | Out of range |
| DIER 1 - CPR WELL - GYRO | 14,900.00 | 7,459.80 | 288.85 | 67.15 | 1.303 | Level 3, ES, SF |
| DIER 1 - CPR WELL - GYRO | 14,929.66 | 7,460.11 | 287.55 | 68.70 | 1.314 | Level 3, CC |
| DIER 13-8 - CPR WELL - SURVEYS | | | | | | Out of range |
| DIER 14-8 - CPR WELL - SURVEYS | | | | | | Out of range |
| DIER 23-8 - CPR WELL - SURVEYS | | | | | | Out of range |
| DIER 24-8 - CPR WELL - SURVEYS | | | | | | Out of range |
| DIER 33-8 - CPR WELL - GYRO | 15,067.81 | 7,444.25 | 1,621.26 | 1,396.53 | 7.214 | CC, ES, SF |
| DIER 34-8 - CPR WELL - GYRO | 13,427.07 | 7,437.26 | 1,923.42 | 1,740.08 | 10.491 | CC |
| DIER 34-8 - CPR WELL - GYRO | 13,500.00 | 7,438.67 | 1,924.80 | 1,739.89 | 10.409 | ES |
| DIER 34-8 - CPR WELL - GYRO | 13,600.00 | 7,440.62 | 1,931.17 | 1,744.50 | 10.345 | SF |
| DIER 44-8 - CPR WELL - GYRO | 13,286.04 | 7,484.63 | 176.99 | -2.47 | 0.986 | Level 1, CC, ES, SF |
| DIER 4-4-8 - CPR WELL - SURVEYS | | | | | | Out of range |
| DIER 4-8 - CPR WELL - GYRO | | | | | | Out of range |
| DIER 8-4-8 - CPR WELL - SURVEYS | 15,067.81 | 7,549.96 | 520.99 | 359.84 | 3.233 | CC, ES, SF |
| DIER 8-6-8 - CPR WELL - SURVEYS | 14,141.00 | 7,599.09 | 311.20 | 100.32 | 1.476 | Level 3, CC, ES, SF |
| DIER J1A - CPR WELL - GYRO | 13,988.08 | 7,496.54 | 1,029.87 | 831.15 | 5.183 | CC |

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Cathedral Energy Services

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| S17-T2N-R67W (OFFSETS) | | | | | | |
| DIER J1A - CPR WELL - GYRO | 14,000.00 | 7,496.41 | 1,029.94 | 831.00 | 5.177 | ES, SF |
| ELKHORN CO B 3 - KPK WELL - NO SURVEYS | | | | | | Out of range |
| ELKHORN CO UNIT 2 - KMG WELL - GYRO | | | | | | Out of range |
| ELKHORN CO-B 6 - KPK WELL - NO SURVEYS | 5,404.61 | 5,200.00 | 1,608.12 | 1,569.88 | 42.057 | CC, ES |
| ELKHORN CO-B 6 - KPK WELL - NO SURVEYS | 5,600.00 | 5,200.00 | 1,619.95 | 1,580.99 | 41.586 | SF |
| ELKHORN CO-B 7 - KPK WELL - NO SURVEYS | | | | | | Out of range |
| ELKHORN COMPANY B 2 - KMG WELL - GYRO | | | | | | Out of range |
| FIRESTONE 20-29D - KMG WELL - SURVEYS | | | | | | Out of range |
| FIRESTONE V 20-04D - KMG WELL - SURVEYS | | | | | | Out of range |
| FIRESTONE V 20-08D - KMG WELL - SURVEYS | 6,904.34 | 6,940.84 | 1,656.26 | 1,621.43 | 47.547 | CC, ES |
| FIRESTONE V 20-08D - KMG WELL - SURVEYS | 7,000.00 | 7,040.41 | 1,662.38 | 1,627.15 | 47.176 | SF |
| FIRESTONE V 20-18D - KMG WELL - SURVEYS | | | | | | Out of range |
| FIRESTONE V 20-2 - KMG WELL - GYRO | 6,835.03 | 6,705.59 | 1,451.31 | 1,397.78 | 27.112 | CC, ES |
| FIRESTONE V 20-2 - KMG WELL - GYRO | 7,100.00 | 6,961.88 | 1,462.80 | 1,407.89 | 26.643 | SF |
| FIRESTONE V 20-3 - KMG WELL - GYRO | | | | | | Out of range |
| HOMESTEAD 22-4 - KMG WELL - SURVEYS | | | | | | Out of range |
| HOMESTEAD 29-4 - KMG WELL - SURVEYS | | | | | | Out of range |
| HOMESTEAD 31-4 - KMG WELL - SURVEYS | | | | | | Out of range |
| HOMESTEAD 4-4 - KMG WELL - GYRO | | | | | | Out of range |
| HSR-DODERO 6-4A - KMG WELL - GYRO | | | | | | Out of range |
| HSR-MCHALE 7-5A - KMG WELL - GYRO | | | | | | Out of range |
| HSR-RHOADES 8-5A - KMG WELL - GYRO | | | | | | Out of range |
| HSR-SATER 1-8A - KMG WELL - GYRO | | | | | | Out of range |
| HSR-VOGL 3-5A - KMG WELL - GYRO | | | | | | Out of range |
| MAHONEY 1 - KPK WELL - NO SURVEYS | 5,237.78 | 5,042.00 | 575.00 | 544.64 | 18.941 | CC, ES, SF |
| MAHONEY 2 - KPK WELL - NO SURVEYS | | | | | | Out of range |
| MAHONEY-PERRIN 2 - KPK WELL - NO SURVEYS | 5,275.40 | 5,050.00 | 1,357.74 | 1,320.95 | 36.902 | CC, ES |
| MAHONEY-PERRIN 2 - KPK WELL - NO SURVEYS | 5,400.00 | 5,050.00 | 1,363.45 | 1,326.21 | 36.610 | SF |
| MCCLAY 5-4A - KMG WELL - GYRO | | | | | | Out of range |
| MCCOY 1 - CPR WELL - GYRO | | | | | | Out of range |
| MCCOY 13-5 - CPR WELL - GYRO | | | | | | Out of range |
| MCCOY 14-5 - CPR WELL - GYRO | | | | | | Out of range |
| MCCOY 23-5 - CPR WELL - GYRO | | | | | | Out of range |
| MCCOY 24-5 - CPR WELL - GYRO | | | | | | Out of range |
| MCCOY 2-4-5 - CPR WELL - SURVEYS | | | | | | Out of range |
| MCHALE 2-5 - KMG WELL - GYRO | | | | | | Out of range |
| MCHALE UNIT 1 - KMG WELL - GYRO | | | | | | Out of range |
| MCHALE-B 1 - AMOCO WELL - NO SURVEYS | | | | | | Out of range |
| MERLE L MCHALE UNIT 2 - KMG WELL - GYRO | | | | | | Out of range |
| MILLER 1 - EXTRACTION WELL - GYRO | 11,861.62 | 7,454.83 | 675.87 | 534.50 | 4.781 | CC, ES |
| MILLER 1 - EXTRACTION WELL - GYRO | 11,900.00 | 7,454.70 | 676.95 | 535.36 | 4.781 | SF |
| MILLER 11-17 - CPR WELL - SURVEYS | | | | | | Out of range |
| MILLER 1-17 - CPR WELL - SURVEYS | | | | | | Out of range |
| MILLER 12-17 - CPR WELL - SURVEYS | | | | | | Out of range |
| MILLER 13-17 - CPR WELL - SURVEYS | | | | | | Out of range |
| MILLER 14-17 - EXTRACTION WELL - NO SURVEYS | | | | | | Out of range |
| MILLER 21-17 - CPR WELL - GYRO | | | | | | Out of range |
| MILLER 2-17 - CPR WELL - GYRO | 11,249.82 | 7,468.78 | 701.70 | 576.30 | 5.596 | CC, ES, SF |
| MILLER 22-17 - CPR WELL - SURVEYS | | | | | | Out of range |
| MILLER 23-17 - CPR WELL - SURVEYS | | | | | | Out of range |
| MILLER 24-17 - CPR WELL - GYRO | | | | | | Out of range |
| MILLER 2-4-17 - CPR WELL - SURVEYS | | | | | | Out of range |
| MILLER 31-17C - EXTRACTION WELL - GYRO | 12,231.62 | 7,380.44 | 1,557.74 | 1,406.80 | 10.320 | CC, ES |

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

Cathedral Energy Services

Anticollision Summary Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well BIGHORN 4Q-17H-P267 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 4983.00usft |
| Reference Site: | BIGHORN | MD Reference: | 23' KB @ 4983.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | BIGHORN 4Q-17H-P267 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #3 | Offset TVD Reference: | Offset Datum |

| Summary | | | | | | |
|--|---------------------------------|------------------------------|---------------------------------|----------------------------------|-------------------|--------------|
| Site Name | Reference Measured Depth (usft) | Offset Measured Depth (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Separation Factor | Warning |
| Offset Well - Wellbore - Design | | | | | | |
| S17-T2N-R67W (OFFSETS) | | | | | | |
| MILLER 31-17C - EXTRACTION WELL - GYRO | 12,400.00 | 7,382.00 | 1,566.81 | 1,413.31 | 10.207 | SF |
| MILLER 3-17J - CPR WELL - GYRO | 417.35 | 399.87 | 655.18 | 653.94 | 528.328 | CC, ES |
| MILLER 3-17J - CPR WELL - GYRO | 8,900.00 | 7,483.99 | 762.51 | 697.16 | 11.669 | SF |
| MILLER 32-17 - EXTRACTION WELL - GYRO | | | | | | Out of range |
| MILLER 33-17J - CPR WELL - SURVEYS | 1,076.13 | 1,055.31 | 802.05 | 798.69 | 238.162 | CC |
| MILLER 33-17J - CPR WELL - SURVEYS | 1,200.00 | 1,176.14 | 802.45 | 798.59 | 208.176 | ES |
| MILLER 33-17J - CPR WELL - SURVEYS | 9,900.00 | 7,697.28 | 1,782.85 | 1,679.44 | 17.241 | SF |
| MILLER 34-17J - CPR WELL - SURVEYS | 965.37 | 942.30 | 678.51 | 675.59 | 232.250 | CC |
| MILLER 34-17J - CPR WELL - SURVEYS | 1,000.00 | 975.20 | 678.53 | 675.48 | 222.400 | ES |
| MILLER 34-17J - CPR WELL - SURVEYS | 8,400.00 | 7,447.75 | 1,330.14 | 1,273.98 | 23.684 | SF |
| MILLER 41-17 - EXTRACTION WELL - GYRO | | | | | | Out of range |
| MILLER 4-17J - CPR WELL - GYRO | | | | | | Out of range |
| MILLER 42-17 - EXTRACTION WELL - NO SURVEYS | | | | | | Out of range |
| MILLER 43-17 - EXTRACTION WELL - GYRO | 417.61 | 406.04 | 1,055.86 | 1,054.61 | 842.159 | CC, ES |
| MILLER 43-17 - EXTRACTION WELL - GYRO | 5,200.00 | 5,056.00 | 1,915.97 | 1,894.80 | 90.508 | SF |
| MILLER 43-17J - EXTRACTION WELL - GYRO | 9,492.49 | 7,497.14 | 390.33 | 310.05 | 4.862 | CC |
| MILLER 43-17J - EXTRACTION WELL - GYRO | 9,500.00 | 7,497.17 | 390.40 | 309.81 | 4.844 | ES, SF |
| MILLER 44-17J - CPR WELL - SURVEYS | 8,100.00 | 7,666.79 | 191.53 | 138.16 | 3.589 | CC, ES, SF |
| MILLER CJ 17-A - CPR WELL - SURVEYS | | | | | | Out of range |
| PACE 1 - GO PUMPING & CONS WELL - NO SURVEYS | 2,477.04 | 2,432.39 | 557.70 | 544.70 | 42.910 | CC |
| PACE 1 - GO PUMPING & CONS WELL - NO SURVEYS | 2,600.00 | 2,553.07 | 558.19 | 544.27 | 40.098 | ES |
| PACE 1 - GO PUMPING & CONS WELL - NO SURVEYS | 5,200.00 | 5,092.00 | 763.71 | 728.75 | 21.845 | SF |
| PACE 2 - TEXAS TEA WELL - NO SURVEYS | 400.00 | 375.00 | 1,356.51 | 1,354.77 | 778.854 | CC, ES |
| PACE 2 - TEXAS TEA WELL - NO SURVEYS | 4,400.00 | 4,307.74 | 1,925.78 | 1,899.28 | 72.686 | SF |
| PACE 3 - DENVER EAST MACHINERY WELL - NO SUR | 1,534.44 | 1,510.25 | 268.05 | 260.19 | 34.117 | CC |
| PACE 3 - DENVER EAST MACHINERY WELL - NO SUR | 1,600.00 | 1,574.59 | 268.34 | 260.13 | 32.694 | ES |
| PACE 3 - DENVER EAST MACHINERY WELL - NO SUR | 3,700.00 | 3,635.70 | 493.88 | 472.57 | 23.173 | SF |
| PERRIN GU 1 - KMG WELL - GYRO | 6,892.70 | 6,788.90 | 774.68 | 742.09 | 23.774 | CC |
| PERRIN GU 1 - KMG WELL - GYRO | 6,900.00 | 6,795.92 | 774.71 | 742.09 | 23.746 | ES |
| PERRIN GU 1 - KMG WELL - GYRO | 7,000.00 | 6,898.61 | 782.08 | 749.03 | 23.666 | SF |
| PERRIN GU 2-20 - KMG WELL - GYRO | | | | | | Out of range |
| PERRIN V 20-5D - KMG WELL - GYRO | | | | | | Out of range |
| PERRIN V 20-7DI - KMG WELL - GYRO | | | | | | Out of range |
| PERRIN-MAHONEY 1 - KPG WELL - NO SURVEYS | | | | | | Out of range |
| PROMINENCE 4-8 - KMG WELL - GYRO | | | | | | Out of range |
| RHOADES 1-5A - KMG WELL - GYRO | | | | | | Out of range |
| ROBERT E BALDWIN 2 - KMG WELL - GYRO | | | | | | Out of range |
| RUCA 20-1HZ - KMG - PLAN ONLY | 3,124.01 | 3,148.21 | 1,117.09 | 1,090.61 | 42.192 | CC, ES |
| RUCA 20-1HZ - KMG - PLAN ONLY | 8,100.00 | 7,800.00 | 1,928.93 | 1,853.59 | 25.602 | SF |
| RUCA 20-2HZ - KMG - PLAN ONLY | 3,334.16 | 3,382.03 | 999.99 | 971.54 | 35.139 | CC |
| RUCA 20-2HZ - KMG - PLAN ONLY | 3,400.00 | 3,436.05 | 1,000.70 | 971.51 | 34.283 | ES |
| RUCA 20-2HZ - KMG - PLAN ONLY | 8,500.00 | 7,650.00 | 1,694.51 | 1,613.40 | 20.890 | SF |
| RUCA 20-3HZ - KMG - PLAN ONLY | 3,469.43 | 3,536.45 | 907.81 | 878.10 | 30.564 | CC |
| RUCA 20-3HZ - KMG - PLAN ONLY | 3,500.00 | 3,561.44 | 907.98 | 877.93 | 30.218 | ES |
| RUCA 20-3HZ - KMG - PLAN ONLY | 8,300.00 | 7,600.00 | 1,467.54 | 1,392.15 | 19.466 | SF |
| RUCA 20-4HZ - KMG - PLAN ONLY | 3,577.53 | 3,663.94 | 780.75 | 749.87 | 25.284 | CC |
| RUCA 20-4HZ - KMG - PLAN ONLY | 3,600.00 | 3,682.63 | 780.85 | 749.72 | 25.084 | ES |
| RUCA 20-4HZ - KMG - PLAN ONLY | 7,700.00 | 7,836.62 | 1,114.21 | 1,047.93 | 16.811 | SF |
| RUCA 20-5HZ - KMG - PLAN ONLY | 3,701.82 | 3,805.92 | 634.52 | 602.53 | 19.833 | CC, ES |
| RUCA 20-5HZ - KMG - PLAN ONLY | 7,900.00 | 7,788.07 | 876.52 | 808.70 | 12.925 | SF |
| RUCA 20-6HZ - KMG - PLAN ONLY | 3,950.06 | 4,053.97 | 502.59 | 468.97 | 14.949 | CC, ES |
| RUCA 20-6HZ - KMG - PLAN ONLY | 7,700.00 | 7,830.18 | 679.67 | 614.70 | 10.462 | SF |
| RUCA 20-7HZ - KMG - PLAN ONLY | 4,033.68 | 4,148.61 | 182.26 | 147.92 | 5.308 | CC, ES |

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

Cathedral Energy Services

Anticollision Summary Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well BIGHORN 4Q-17H-P267 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 4983.00usft |
| Reference Site: | BIGHORN | MD Reference: | 23' KB @ 4983.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | BIGHORN 4Q-17H-P267 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #3 | 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 |
| S17-T2N-R67W (OFFSETS) | | | | | | |
| RUCA 20-7HZ - KMG - PLAN ONLY | 7,504.90 | 7,776.19 | 235.22 | 173.32 | 3.800 | SF |
| RUCA 20-8HZ - KMG - PLAN ONLY | 7,792.38 | 7,816.82 | 62.58 | -2.19 | 0.966 | Level 1, CC, ES, SF |
| RUCA 20-9HZ - KMG - PLAN ONLY | 3,957.57 | 4,077.72 | 261.08 | 227.51 | 7.778 | CC, ES |
| RUCA 20-9HZ - KMG - PLAN ONLY | 7,664.51 | 7,832.28 | 316.71 | 253.39 | 5.002 | SF |
| SATER 21-8 - KMG WELL - SURVEYS | | | | | | Out of range |
| SATER 24-8 - KMG WELL - SURVEYS | 15,067.81 | 7,545.85 | 1,032.11 | 824.33 | 4.967 | CC, ES, SF |
| SATER 24C-5HZ - KMG WELL - SURVEYS | 15,067.81 | 7,333.00 | 756.66 | 570.32 | 4.061 | CC, ES, SF |
| SATER 24N-5HZ - KMG WELL - SURVEYS | 15,067.81 | 7,176.16 | 1,322.86 | 1,112.00 | 6.274 | CC, ES, SF |
| SATER 25C-5HZ - KMG WELL - SURVEYS | | | | | | Out of range |
| SATER 2-8 - KMG WELL - SURVEYS | | | | | | Out of range |
| SATER 28-8 - KMG WELL - SURVEYS | | | | | | Out of range |
| SATER 40N-5HZ - KMG WELL - SURVEYS | 15,067.81 | 7,200.00 | 590.79 | 514.60 | 7.754 | CC, ES, SF |
| SATER 7-8 - KMG WELL - SURVEYS | 15,067.81 | 7,511.59 | 1,923.72 | 1,718.13 | 9.357 | CC, ES, SF |
| SATER 8-8 - KMG WELL - SURVEYS | 15,067.81 | 7,831.43 | 1,147.78 | 1,056.20 | 12.533 | CC, ES, SF |
| SATER ALFRED D UNIT 1 (P&A) - KMG WELL - GYRO | 15,067.81 | 7,389.58 | 1,844.80 | 1,696.69 | 12.456 | CC, ES, SF |
| SCOTT 1C-32HZ - KMG WELL - SURVEYS | | | | | | Out of range |
| SCOTT 26N-32HZ - KMG WELL - SURVEYS | | | | | | Out of range |
| SCOTT 27N-32HZ - KMG WELL - SURVEYS | | | | | | Out of range |
| SCOTT 28C-32HZ - KMG WELL - SURVEYS | | | | | | Out of range |
| SHELEY 1 - CPR WELL - GYRO | | | | | | Out of range |
| SHELEY 14-4 - CPR WELL - GYRO | | | | | | Out of range |
| SHELEY 24-4 - MACHII-ROSS WELL - GYRO | | | | | | Out of range |
| SHELEY 3A-4H - CPR WELL - SURVEYS | | | | | | Out of range |
| SHELEY 3B-4H - CPR WELL - SURVEYS | | | | | | Out of range |
| SHELEY 4-6-4 - CPR WELL - SURVEYS | | | | | | Out of range |
| SPRAGUE 11-9 - CPR WELL - GYRO | | | | | | Out of range |
| SPRAGUE 13-9 - CPR WELL - GYRO | 14,770.13 | 7,518.63 | 1,237.33 | 1,019.43 | 5.679 | CC |
| SPRAGUE 13-9 - CPR WELL - GYRO | 14,800.00 | 7,519.09 | 1,237.92 | 1,018.60 | 5.644 | ES |
| SPRAGUE 13-9 - CPR WELL - GYRO | 14,900.00 | 7,520.66 | 1,248.50 | 1,025.37 | 5.595 | SF |
| SPRAGUE 14-9 - CPR WELL - GYRO | 13,550.80 | 7,564.88 | 1,140.18 | 953.52 | 6.108 | CC |
| SPRAGUE 14-9 - CPR WELL - GYRO | 13,600.00 | 7,564.05 | 1,141.25 | 953.08 | 6.065 | ES |
| SPRAGUE 14-9 - CPR WELL - GYRO | 13,700.00 | 7,562.32 | 1,149.90 | 959.68 | 6.045 | SF |
| SPRAGUE 24-9 - CPR WELL - GYRO | | | | | | Out of range |
| SPRAGUE 2-4-9 - CPR WELL - SURVEYS | 15,026.19 | 7,592.37 | 1,899.08 | 1,675.68 | 8.501 | CC |
| SPRAGUE 2-4-9 - CPR WELL - SURVEYS | 15,067.81 | 7,593.56 | 1,899.99 | 1,674.27 | 8.418 | ES, SF |
| SPRAGUE 2-8-9 - CPR WELL - SURVEYS | 12,948.79 | 7,624.95 | 1,748.27 | 1,573.06 | 9.978 | CC |
| SPRAGUE 2-8-9 - CPR WELL - SURVEYS | 13,000.00 | 7,625.09 | 1,749.02 | 1,572.10 | 9.886 | ES |
| SPRAGUE 2-8-9 - CPR WELL - SURVEYS | 13,300.00 | 7,625.87 | 1,782.88 | 1,598.56 | 9.673 | SF |
| SPRAGUE 3A-9H-N267 - CPR WELL - SURVEYS | 13,504.29 | 7,716.72 | 951.32 | 762.72 | 5.044 | CC |
| SPRAGUE 3A-9H-N267 - CPR WELL - SURVEYS | 14,600.00 | 8,816.82 | 951.38 | 722.31 | 4.153 | ES |
| SPRAGUE 3A-9H-N267 - CPR WELL - SURVEYS | 14,800.00 | 8,991.57 | 965.42 | 729.06 | 4.085 | SF |
| SPRAGUE 3AA-9H-N267 - CPR WELL - SURVEYS | 13,768.49 | 8,132.43 | 722.96 | 520.38 | 3.569 | CC |
| SPRAGUE 3AA-9H-N267 - CPR WELL - SURVEYS | 14,600.00 | 8,948.13 | 729.48 | 495.63 | 3.119 | ES |
| SPRAGUE 3AA-9H-N267 - CPR WELL - SURVEYS | 14,900.00 | 9,289.79 | 753.21 | 505.91 | 3.046 | SF |
| SPRAGUE 3B-9H-N267 - CPR WELL - SURVEYS | 14,600.00 | 8,923.26 | 1,140.40 | 907.02 | 4.886 | CC |
| SPRAGUE 3B-9H-N267 - CPR WELL - SURVEYS | 14,700.00 | 9,021.75 | 1,143.56 | 905.94 | 4.813 | ES |
| SPRAGUE 3B-9H-N267 - CPR WELL - SURVEYS | 14,900.00 | 9,220.75 | 1,167.02 | 921.25 | 4.748 | SF |
| SPRAGUE 3C-9H-N267 - CPR WELL - SURVEYS | 14,604.03 | 8,652.00 | 1,448.09 | 1,216.78 | 6.260 | CC |
| SPRAGUE 3C-9H-N267 - CPR WELL - SURVEYS | 14,700.00 | 8,727.78 | 1,451.10 | 1,216.03 | 6.173 | ES |
| SPRAGUE 3C-9H-N267 - CPR WELL - SURVEYS | 15,067.81 | 9,100.05 | 1,507.96 | 1,258.04 | 6.034 | SF |
| SPRAGUE 3D-9H-N267 - CPR WELL - SURVEYS | 14,065.74 | 8,102.90 | 1,691.65 | 1,481.98 | 8.068 | CC |
| SPRAGUE 3D-9H-N267 - CPR WELL - SURVEYS | 14,700.00 | 8,784.71 | 1,700.91 | 1,464.71 | 7.201 | ES |
| SPRAGUE 3D-9H-N267 - CPR WELL - SURVEYS | 15,067.81 | 9,128.00 | 1,748.65 | 1,497.67 | 6.967 | SF |

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

Cathedral Energy Services

Anticollision Summary Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well BIGHORN 4Q-17H-P267 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 4983.00usft |
| Reference Site: | BIGHORN | MD Reference: | 23' KB @ 4983.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | BIGHORN 4Q-17H-P267 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #3 | Offset TVD Reference: | Offset Datum |

Summary

| Site Name | Reference Measured Depth (usft) | Offset Measured Depth (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Separation Factor | Warning |
|--|--|---------------------------------------|--|---|----------------------|--------------|
| Offset Well - Wellbore - Design | | | | | | |
| S17-T2N-R67W (OFFSETS) | | | | | | |
| SPRAGUE 3E-9H-N267 - CPR WELL - SURVEYS | | | | | | Out of range |
| SPRAGUE 3E-9HX1-N267 - CPR WELL - SURVEYS | | | | | | Out of range |
| SPRAGUE 3F-9H-N267 - CPR WELL - SURVEYS | | | | | | Out of range |
| SPRAGUE 3G-9H-N267 - CPR WELL - SURVEYS | | | | | | Out of range |
| SPRAGUE 3H-9H-N267 - CPR WELL - SURVEYS | | | | | | Out of range |
| SPRAGUE 3I-9H-N267 - CPR WELL - SURVEYS | | | | | | Out of range |
| SPRAGUE 3J-9H-N267 - CPR WELL - SURVEYS | | | | | | Out of range |
| SPRAGUE 4-6-9 - CPR WELL - SURVEYS | | | | | | Out of range |
| SPRAGUE 4-8-9 - CPR WELL - SURVEYS | | | | | | Out of range |
| STANLEY #2 - GERRITY WELL - NO SURVEYS | 2,401.46 | 2,407.21 | 1,368.90 | 1,356.26 | 108.296 | CC |
| STANLEY #2 - GERRITY WELL - NO SURVEYS | 2,700.00 | 2,700.22 | 1,370.09 | 1,355.19 | 91.933 | ES |
| STANLEY #2 - GERRITY WELL - NO SURVEYS | 5,300.00 | 5,175.00 | 1,479.22 | 1,441.21 | 38.916 | SF |
| STANLEY 3 - GERRITY WELL - NO SURVEYS | | | | | | Out of range |
| TEETS PERRIN 1 - KPK WELL - NO SURVEYS | | | | | | Out of range |
| TEETS-PERRIN 2 - KPK WELL - NO SURVEYS | | | | | | Out of range |
| TEETS-PERRIN 3 - KPK WELL - NO SURVEYS | | | | | | Out of range |
| TEETS-PERRIN 4 - KPK WELL - NO SURVEYS | | | | | | Out of range |
| TEETS-PERRIN 5 - KPK WELL - NO SURVEYS | | | | | | Out of range |
| TOWNSEND 33-5 - CPR WELL - GYRO | | | | | | Out of range |
| TOWNSEND 34-5 - CPR WELL - GYRO | | | | | | Out of range |
| TOWNSEND 43-5 - CPR WELL - GYRO | | | | | | Out of range |
| TOWNSEND 44-5 - CPR WELL - GYRO | | | | | | Out of range |
| VOGL 21-5 - KMG WELL - SURVEYS | | | | | | Out of range |
| VOGL 21-5X - KMG WELL - SURVEYS | | | | | | Out of range |
| VOGL 5-5 - KMG WELL - GYRO | | | | | | Out of range |
| VOGL 5-8A - KMG WELL - GYRO | | | | | | Out of range |
| VOGL 6-5A - KMG WELL - GYRO | | | | | | Out of range |
| VOGL GEIST 2A-5H-E267 - CPR WELL - SURVEYS | | | | | | Out of range |
| VOGL GEIST 2B-5H-E267 - CPR WELL - SURVEYS | | | | | | Out of range |
| VOGL GEIST 2C-5H-E267 - CPR WELL - SURVEYS | | | | | | Out of range |
| VOGL GEIST 2D-5H-F267 - CPR WELL - SURVEYS | | | | | | Out of range |
| VOGL GEIST 2E-5H-F267 - CPR WELL - SURVEYS | | | | | | Out of range |
| VOGL GEIST 2F-5H-F267 - CPR WELL - SURVEYS | | | | | | Out of range |
| VOGL MCCOY 2A-5H-E267 - CPR WELL - SURVEYS | | | | | | Out of range |
| VOGL MCCOY 2B-5H-E267 - CPR WELL - SURVEYS | | | | | | Out of range |
| VOGL MCCOY 2C-5H-E267 - CPR WELL - SURVEYS | | | | | | Out of range |
| VOGL MCCOY 2D-5H-E267 - CPR WELL - SURVEYS | | | | | | Out of range |
| VOGL MCCOY 2E-5H-F267 - CPR WELL - SURVEYS | | | | | | Out of range |
| VOGL MCCOY 2F-5H-F267 - CPR WELL - SURVEYS | | | | | | Out of range |
| VOGL MCCOY 2G-5H-F267 - CPR WELL - SURVEYS | | | | | | Out of range |
| VOGL MCCOY 2H-5H-F267 - CPR WELL - SURVEYS | | | | | | Out of range |

Cathedral Energy Services

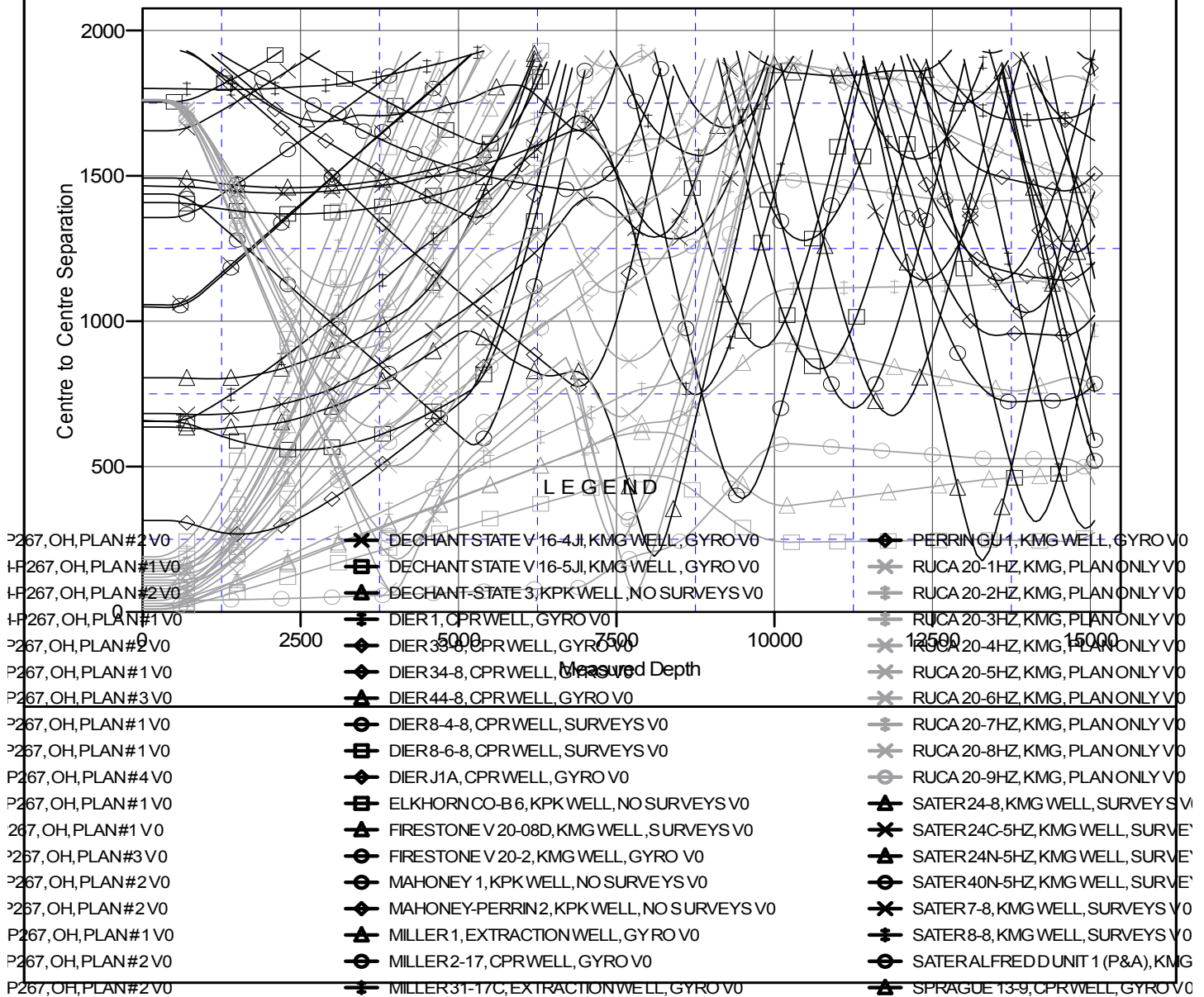
Anticollision Summary Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well BIGHORN 4Q-17H-P267 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 4983.00usft |
| Reference Site: | BIGHORN | MD Reference: | 23' KB @ 4983.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | BIGHORN 4Q-17H-P267 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #3 | Offset TVD Reference: | Offset Datum |

Reference Depths are relative to 23' KB @ 4983.00usft
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000

Coordinates are relative to: BIGHORN 4Q-17H-P267
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.38°

Ladder Plot



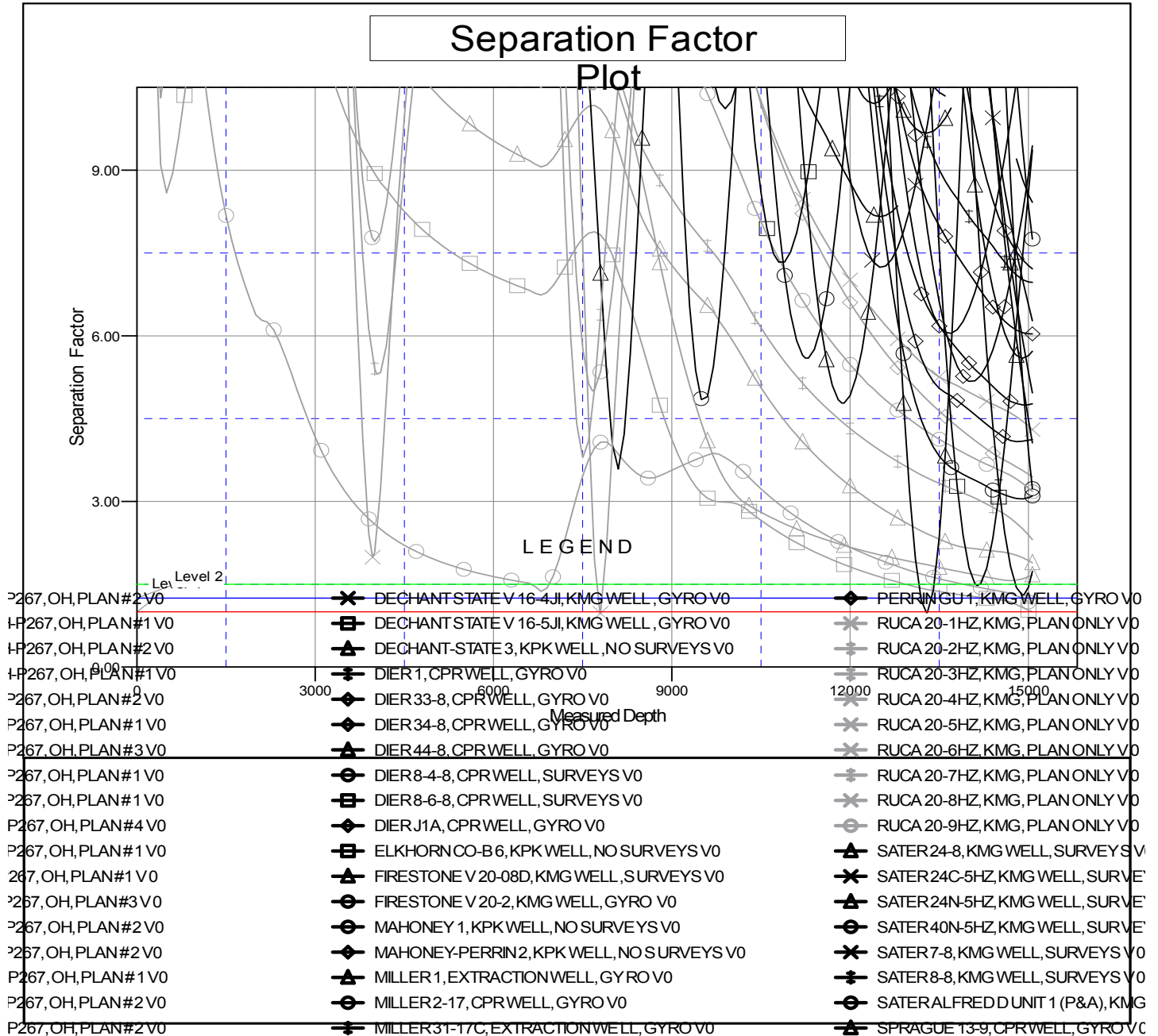
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services
Anticollision Summary Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well BIGHORN 4Q-17H-P267 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 4983.00usft |
| Reference Site: | BIGHORN | MD Reference: | 23' KB @ 4983.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | BIGHORN 4Q-17H-P267 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #3 | Offset TVD Reference: | Offset Datum |

Reference Depths are relative to 23' KB @ 4983.00usft
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000

Coordinates are relative to: BIGHORN 4Q-17H-P267
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.38°



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