

# **Crestone Peak Resources**

**DJ BASIN**

**S18-T2N-R67W (KUGEL)**

**KUGEL 1H-18H-H267**

**OH**

**PLAN #3 (6.11)**

## **Anticollision Summary Report**

**11 June, 2018**

# Cathedral Energy Services

## Anticollision Summary Report

|                           |                         |                                     |  |
|---------------------------|-------------------------|-------------------------------------|--|
| <b>Company:</b>           | Crestone Peak Resources | <b>Local Co-ordinate Reference:</b> | Well KUGEL 1H-18H-H267 - Slot KUGEL 1H |
| <b>Project:</b>           | DJ BASIN                | <b>TVD Reference:</b>               | 23' KB @ 4976.00usft                   |
| <b>Reference Site:</b>    | S18-T2N-R67W (KUGEL)    | <b>MD Reference:</b>                | 23' KB @ 4976.00usft                   |
| <b>Site Error:</b>        | 0.00 usft               | <b>North Reference:</b>             | True                                   |
| <b>Reference Well:</b>    | KUGEL 1H-18H-H267       | <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Well Error:</b>        | 0.00 usft               | <b>Output errors are at</b>         | 2.00 sigma                             |
| <b>Reference Wellbore</b> | OH                      | <b>Database:</b>                    | USA EDM 5000 Multi Users DB            |
| <b>Reference Design:</b>  | PLAN #3 (6.11)          | <b>Offset TVD Reference:</b>        | Offset Datum                           |

|                                     |   |                       |                     |
|-------------------------------------|---|-----------------------|---------------------|
| <b>Reference</b>                    | PLAN #3 (6.11)  |                       |                     |
| <b>Filter type:</b>                 | NO GLOBAL FILTER: Using user defined selection & filtering criteria |                       |                     |
| <b>Interpolation Method:</b>        | MD Interval 100.00usft  | <b>Error Model:</b>   | ISCWSA              |
| <b>Depth Range:</b>                 | Unlimited   | <b>Scan Method:</b>   | Closest Approach 3D |
| <b>Results Limited by:</b>          | Maximum ellipse separation of 1,000.00 usft                         | <b>Error Surface:</b> | Pedal Curve         |
| <b>Warning Levels Evaluated at:</b> | 2.00 Sigma  | <b>Casing Method:</b> | Not applied         |

|                            |                  |                          |                  |                     |
|----------------------------|------------------|--------------------------|------------------|---------------------|
| <b>Survey Tool Program</b> | <b>Date</b>      | 6/11/2018                |                  |                     |
| <b>From (usft)</b>         | <b>To (usft)</b> | <b>Survey (Wellbore)</b> | <b>Tool Name</b> | <b>Description</b>  |
| 0.00                       | 2,000.00         | PLAN #3 (6.11) (OH)      | VESSI_GYROFLEX   | VESSI Gyroflex Gyro |
| 2,001.00                   | 15,255.58        | PLAN #3 (6.11) (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          |                                 |                              |                                 |                                  |                   |            |
| S18-T2N-R67W (KUGEL)                     |                                 |                              |                                 |                                  |                   |            |
| BRETT 1 - HS RESOURCES - NO SURVEYS      | 5,146.68                        | 5,037.00                     | 608.85                          | 578.98                           | 20.378            | CC, ES, SF |
| BRETT 2 - HS RESOURCES WELL - NO SURVEYS | 5,366.98                        | 5,035.00                     | 2,292.92                        | 2,262.43                         | 75.199            | CC, ES     |
| BRETT 2 - HS RESOURCES WELL - NO SURVEYS | 5,600.00                        | 5,035.00                     | 2,304.73                        | 2,273.71                         | 74.309            | SF         |
| BRETT 3 - KMG WELL - NO SURVEY           | 5,276.87                        | 5,040.00                     | 2,087.60                        | 2,057.04                         | 68.295            | CC, ES     |
| BRETT 3 - KMG WELL - NO SURVEY           | 5,500.00                        | 5,040.00                     | 2,099.49                        | 2,068.40                         | 67.524            | SF         |
| BRETT 4 - KMG WELL - GYRO                | 6,759.95                        | 6,724.56                     | 1,157.40                        | 1,127.34                         | 38.492            | CC, ES     |
| BRETT 4 - KMG WELL - GYRO                | 7,000.00                        | 6,963.50                     | 1,173.22                        | 1,142.40                         | 38.069            | SF         |
| DREW 1 - KMG WELL - GYRO                 | 6,726.64                        | 6,661.49                     | 2,831.76                        | 2,801.80                         | 94.518            | CC, ES     |
| DREW 1 - KMG WELL - GYRO                 | 7,300.00                        | 7,129.00                     | 2,915.75                        | 2,883.96                         | 91.729            | SF         |
| DREW GAS UNIT-TRUE 1 - KMG WELL - GYRO   | 6,627.27                        | 6,593.14                     | 1,279.44                        | 1,250.88                         | 44.793            | CC, ES     |
| DREW GAS UNIT-TRUE 1 - KMG WELL - GYRO   | 6,800.00                        | 6,763.61                     | 1,299.29                        | 1,269.93                         | 44.251            | SF         |
| FARNSWORTH 9-18A - KMG WELL - GYRO       | 6,184.63                        | 6,123.05                     | 506.54                          | 478.86                           | 18.295            | CC         |
| FARNSWORTH 9-18A - KMG WELL - GYRO       | 6,300.00                        | 6,236.52                     | 506.88                          | 478.54                           | 17.888            | ES         |
| FARNSWORTH 9-18A - KMG WELL - GYRO       | 6,700.00                        | 6,631.04                     | 518.74                          | 488.30                           | 17.041            | SF         |
| GTF RED V 6-16JI - KMG WELL - GYRO       | 15,255.58                       | 7,182.55                     | 621.55                          | 522.57                           | 6.280             | CC, ES, SF |
| GTF RED V 6-4D - KMG WELL - GYRO         | 15,255.58                       | 7,163.70                     | 1,268.68                        | 1,168.78                         | 12.699            | CC, ES, SF |
| GTF RED V6-16 - KMG WELL - GYRO          | 15,255.58                       | 7,177.22                     | 585.41                          | 504.97                           | 7.278             | CC, ES, SF |
| HSR-OWEN 15-18A - KMG WELL - SURVEYS     | 3,638.08                        | 3,469.31                     | 1,346.52                        | 1,333.26                         | 101.561           | CC, ES     |
| HSR-OWEN 15-18A - KMG WELL - SURVEYS     | 7,100.00                        | 7,143.19                     | 2,270.75                        | 2,233.63                         | 61.183            | SF         |
| KUGEL 1 - EXTRACTION WELL - GYRO         | 8,820.45                        | 7,264.28                     | 69.67                           | 25.42                            | 1.574             | CC, ES, SF |
| KUGEL 1-18 - CPR WELL - GYRO             | 8,568.96                        | 7,200.42                     | 2,864.71                        | 2,824.27                         | 70.836            | CC         |
| KUGEL 1-18 - CPR WELL - GYRO             | 8,600.00                        | 7,199.98                     | 2,864.88                        | 2,824.09                         | 70.234            | ES         |
| KUGEL 1-18 - CPR WELL - GYRO             | 10,100.00                       | 7,178.06                     | 3,208.68                        | 3,152.01                         | 56.619            | SF         |
| KUGEL 12-18 - KMG WELL - GYRO            | 7,817.75                        | 7,238.98                     | 2,349.75                        | 2,315.12                         | 67.856            | CC, ES     |
| KUGEL 12-18 - KMG WELL - GYRO            | 9,100.00                        | 7,204.86                     | 2,669.77                        | 2,624.43                         | 58.887            | SF         |
| KUGEL 1A-18H-H267 - OH - PLAN #3 (6.11)  | 200.74                          | 201.76                       | 69.98                           | 69.48                            | 140.699           | CC, ES     |
| KUGEL 1A-18H-H267 - OH - PLAN #3 (6.11)  | 15,255.58                       | 15,610.00                    | 1,637.49                        | 1,387.90                         | 6.561             | SF         |
| KUGEL 1B-18H-H267 - OH - PLAN #3 (6.11)  | 200.00                          | 201.00                       | 59.98                           | 59.49                            | 121.221           | CC, ES     |
| KUGEL 1B-18H-H267 - OH - PLAN #3 (6.11)  | 15,255.58                       | 15,500.00                    | 1,498.07                        | 1,245.94                         | 5.942             | SF         |
| KUGEL 1C-18H-H267 - OH - PLAN #2 (6.11)  | 200.00                          | 201.00                       | 49.99                           | 49.50                            | 101.031           | CC, ES     |
| KUGEL 1C-18H-H267 - OH - PLAN #2 (6.11)  | 15,255.58                       | 15,420.50                    | 1,318.78                        | 1,065.59                         | 5.209             | SF         |
| KUGEL 1D-18H-H267 - OH - PLAN #2 (6.11)  | 200.00                          | 201.00                       | 39.99                           | 39.50                            | 80.821            | CC, ES     |
| KUGEL 1D-18H-H267 - OH - PLAN #2 (6.11)  | 15,255.58                       | 15,481.80                    | 912.50                          | 659.78                           | 3.611             | SF         |
| KUGEL 1E-18H-H267 - OH - PLAN #2 (6.11)  | 200.00                          | 200.00                       | 29.99                           | 29.50                            | 60.829            | CC, ES     |
| KUGEL 1E-18H-H267 - OH - PLAN #2 (6.11)  | 15,255.58                       | 15,542.48                    | 772.03                          | 527.11                           | 3.152             | SF         |
| KUGEL 1F-18H-H267 - OH - PLAN #2 (6.11)  | 200.00                          | 200.00                       | 20.00                           | 19.51                            | 40.566            | CC         |

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

# Cathedral Energy Services

## Anticollision Summary Report

|                           |                         |                                     |  |
|---------------------------|-------------------------|-------------------------------------|--|
| <b>Company:</b>           | Crestone Peak Resources | <b>Local Co-ordinate Reference:</b> | Well KUGEL 1H-18H-H267 - Slot KUGEL 1H |
| <b>Project:</b>           | DJ BASIN                | <b>TVD Reference:</b>               | 23' KB @ 4976.00usft                   |
| <b>Reference Site:</b>    | S18-T2N-R67W (KUGEL)    | <b>MD Reference:</b>                | 23' KB @ 4976.00usft                   |
| <b>Site Error:</b>        | 0.00 usft               | <b>North Reference:</b>             | True                                   |
| <b>Reference Well:</b>    | KUGEL 1H-18H-H267       | <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Well Error:</b>        | 0.00 usft               | <b>Output errors are at</b>         | 2.00 sigma                             |
| <b>Reference Wellbore</b> | OH                      | <b>Database:</b>                    | USA EDM 5000 Multi Users DB            |
| <b>Reference Design:</b>  | PLAN #3 (6.11)          | <b>Offset TVD Reference:</b>        | Offset Datum                           |

### Summary

| Site Name<br>Offset Well - Wellbore - Design | Reference<br>Measured<br>Depth<br>(usft) | Offset<br>Measured<br>Depth<br>(usft) | Distance<br>Between<br>Centres<br>(usft) | Distance<br>Between<br>Ellipses<br>(usft) | Separation<br>Factor | Warning             |
|--|--|---------------------------------------|--|---|----------------------|---------------------|
| S18-T2N-R67W (KUGEL)                         |  |                                       |  |   |                      |                     |
| KUGEL 1F-18H-H267 - OH - PLAN #2 (6.11)      | 300.00                                   | 300.54                                | 20.23                                    | 19.38                                     | 23.962               | ES                  |
| KUGEL 1F-18H-H267 - OH - PLAN #2 (6.11)      | 15,255.58                                | 15,305.85                             | 659.77                                   | 405.43                                    | 2.594                | SF                  |
| KUGEL 1G-18H-H267 - OH - PLAN #2 (6.11)      | 200.00                                   | 200.00                                | 10.00                                    | 9.51                                      | 20.283               | CC                  |
| KUGEL 1G-18H-H267 - OH - PLAN #2 (6.11)      | 15,255.58                                | 15,346.21                             | 219.12                                   | -24.42                                    | 0.900                | Level 1, ES, SF     |
| KUGEL 1I-18H-H267 - OH - PLAN #3 (6.11)      | 426.78                                   | 423.54                                | 4.39                                     | 3.12                                      | 3.444                | CC, ES              |
| KUGEL 1I-18H-H267 - OH - PLAN #3 (6.11)      | 15,255.58                                | 15,456.99                             | 263.20                                   | 87.68                                     | 1.500                | Level 3, SF         |
| KUGEL 1J-18H-H267 - OH - PLAN #2 (6.11)      | 231.96                                   | 228.76                                | 19.98                                    | 19.38                                     | 33.318               | CC                  |
| KUGEL 1J-18H-H267 - OH - PLAN #2 (6.11)      | 14,300.00                                | 14,367.81                             | 198.58                                   | -15.55                                    | 0.927                | Level 1, SF         |
| KUGEL 1J-18H-H267 - OH - PLAN #2 (6.11)      | 14,400.00                                | 14,467.75                             | 201.69                                   | -15.69                                    | 0.928                | Level 1, ES         |
| KUGEL 1K-18H-H267 - OH - PLAN #2 (6.11)      | 500.22                                   | 495.19                                | 24.02                                    | 22.48                                     | 15.589               | CC, ES              |
| KUGEL 1K-18H-H267 - OH - PLAN #2 (6.11)      | 14,600.00                                | 14,594.37                             | 545.17                                   | 310.70                                    | 2.325                | SF                  |
| KUGEL 1L-18H-H267 - OH - PLAN #2 (6.11)      | 582.02                                   | 577.61                                | 13.92                                    | 12.09                                     | 7.634                | CC, ES, SF          |
| KUGEL 1M-18H-H267 - OH - PLAN #2 (6.11)      | 599.91                                   | 594.84                                | 16.71                                    | 14.82                                     | 8.848                | CC, ES, SF          |
| KUGEL 1N-18H-H267 - OH - PLAN #2 (6.11)      | 582.12                                   | 577.91                                | 20.29                                    | 18.45                                     | 11.058               | CC, ES              |
| KUGEL 1N-18H-H267 - OH - PLAN #2 (6.11)      | 600.00                                   | 595.03                                | 20.98                                    | 19.08                                     | 11.033               | SF                  |
| KUGEL 21-18 - CPR WELL - GYRO                | 9,399.58                                 | 7,254.19                              | 2,396.60                                 | 2,344.83                                  | 46.294               | CC                  |
| KUGEL 21-18 - CPR WELL - GYRO                | 9,400.00                                 | 7,254.20                              | 2,396.60                                 | 2,344.82                                  | 46.288               | ES                  |
| KUGEL 21-18 - CPR WELL - GYRO                | 10,300.00                                | 7,285.81                              | 2,560.05                                 | 2,498.11                                  | 41.331               | SF                  |
| KUGEL 2-18 - CPR WELL - GYRO                 | 8,291.32                                 | 7,265.75                              | 96.90                                    | 58.38                                     | 2.516                | CC, ES, SF          |
| KUGEL 22-18 - CPR WELL - GYRO                | 7,850.98                                 | 7,173.27                              | 2,224.03                                 | 2,189.32                                  | 64.071               | CC, ES              |
| KUGEL 22-18 - CPR WELL - GYRO                | 9,000.00                                 | 7,141.69                              | 2,499.45                                 | 2,455.18                                  | 56.456               | SF                  |
| KUGEL 31-18 - CPR WELL - GYRO                | 9,509.26                                 | 7,272.80                              | 1,209.87                                 | 1,156.56                                  | 22.695               | CC, ES              |
| KUGEL 31-18 - CPR WELL - GYRO                | 9,700.00                                 | 7,273.11                              | 1,224.81                                 | 1,169.22                                  | 22.033               | SF                  |
| KUGEL 32-18 - EXTRACTION WELL - NO SURVEYS   | 3,114.29                                 | 3,087.83                              | 1,219.76                                 | 1,203.32                                  | 74.215               | CC                  |
| KUGEL 32-18 - EXTRACTION WELL - NO SURVEYS   | 3,700.00                                 | 3,669.30                              | 1,221.79                                 | 1,201.30                                  | 59.625               | ES                  |
| KUGEL 32-18 - EXTRACTION WELL - NO SURVEYS   | 5,100.00                                 | 5,018.00                              | 1,243.57                                 | 1,213.04                                  | 40.734               | SF                  |
| KUGEL 41-18 - CPR WELL - GYRO                | 9,453.19                                 | 7,241.02                              | 422.49                                   | 369.96                                    | 8.043                | CC, ES              |
| KUGEL 41-18 - CPR WELL - GYRO                | 9,500.00                                 | 7,241.51                              | 425.08                                   | 372.13                                    | 8.028                | SF                  |
| KUGEL 42-18 - CPR WELL - GYRO                | 206.29                                   | 188.50                                | 221.33                                   | 220.84                                    | 454.532              | CC, ES              |
| KUGEL 42-18 - CPR WELL - GYRO                | 7,700.00                                 | 7,257.49                              | 452.25                                   | 418.31                                    | 13.325               | SF                  |
| KUGEL V18-3 - KMG WELL - GYRO                | 9,350.71                                 | 7,234.06                              | 2,436.93                                 | 2,385.84                                  | 47.698               | CC                  |
| KUGEL V18-3 - KMG WELL - GYRO                | 9,400.00                                 | 7,235.18                              | 2,437.43                                 | 2,385.67                                  | 47.091               | ES                  |
| KUGEL V18-3 - KMG WELL - GYRO                | 10,300.00                                | 7,258.14                              | 2,615.19                                 | 2,553.48                                  | 42.377               | SF                  |
| LINCOLN 2 - LINCOLN 2 - HS RESOURCES WELL    | 5,283.17                                 | 5,010.00                              | 2,506.87                                 | 2,476.14                                  | 81.563               | CC, ES              |
| LINCOLN 2 - LINCOLN 2 - HS RESOURCES WELL    | 5,700.00                                 | 5,010.00                              | 2,541.29                                 | 2,509.53                                  | 80.014               | SF                  |
| LISA 1 - KMG WELL - GYRO                     | 6,784.93                                 | 6,701.86                              | 2,356.01                                 | 2,325.59                                  | 77.447               | CC                  |
| LISA 1 - KMG WELL - GYRO                     | 6,800.00                                 | 6,717.01                              | 2,356.04                                 | 2,325.56                                  | 77.300               | ES                  |
| LISA 1 - KMG WELL - GYRO                     | 7,300.00                                 | 7,130.58                              | 2,403.72                                 | 2,371.75                                  | 75.179               | SF                  |
| LISA 2 - KMG WELL - GYRO                     | 6,662.37                                 | 6,596.37                              | 2,795.63                                 | 2,766.50                                  | 95.971               | CC, ES              |
| LISA 2 - KMG WELL - GYRO                     | 7,000.00                                 | 6,915.43                              | 2,842.35                                 | 2,811.93                                  | 93.434               | SF                  |
| ROCKY MOUNTAIN FUEL 12 - HS RESOURCES WELL   | 5,542.69                                 | 5,100.00                              | 3,290.11                                 | 3,258.77                                  | 104.983              | CC, ES              |
| ROCKY MOUNTAIN FUEL 12 - HS RESOURCES WELL   | 6,100.00                                 | 5,100.00                              | 3,336.97                                 | 3,304.30                                  | 102.120              | SF                  |
| ROCKY MTN FUEL D 8 - HS RESOURCES WELL - NO  | 5,546.68                                 | 5,026.00                              | 3,841.43                                 | 3,810.32                                  | 123.501              | CC, ES              |
| ROCKY MTN FUEL D 8 - HS RESOURCES WELL - NO  | 6,400.00                                 | 5,026.00                              | 3,935.06                                 | 3,901.89                                  | 118.616              | SF                  |
| STREAR V 06-23D - KMG WELL - GYRO            | 15,255.58                                | 7,288.29                              | 1,383.16                                 | 1,332.62                                  | 27.367               | CC, ES, SF          |
| STREAR V 06-63HN - KMG WELL - SURVEYS        | 15,255.58                                | 7,672.24                              | 984.58                                   | 920.25                                    | 15.306               | CC, ES, SF          |
| WANDELL 1 - CPR WELL - GYRO                  | 14,262.26                                | 7,205.03                              | 160.28                                   | 36.17                                     | 1.291                | Level 3, CC, ES, SF |
| WANDELL 21-7 - CPR WELL - GYRO               | 14,259.65                                | 7,165.19                              | 2,181.35                                 | 2,057.40                                  | 17.600               | CC                  |
| WANDELL 21-7 - CPR WELL - GYRO               | 14,300.00                                | 7,164.65                              | 2,181.72                                 | 2,057.11                                  | 17.509               | ES                  |
| WANDELL 21-7 - CPR WELL - GYRO               | 14,800.00                                | 7,158.41                              | 2,208.94                                 | 2,079.00                                  | 17.000               | SF                  |
| WANDELL 22-7 - CPR WELL - SURVEYS            | 13,141.20                                | 7,513.59                              | 2,074.85                                 | 1,962.98                                  | 18.547               | CC                  |
| WANDELL 22-7 - CPR WELL - SURVEYS            | 13,200.00                                | 7,513.93                              | 2,075.68                                 | 1,962.83                                  | 18.393               | ES                  |
| WANDELL 22-7 - CPR WELL - SURVEYS            | 13,500.00                                | 7,515.62                              | 2,105.64                                 | 1,988.64                                  | 17.996               | SF                  |

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

# Cathedral Energy Services

## Anticollision Summary Report

|                           |                         |                                     |  |
|---------------------------|-------------------------|-------------------------------------|--|
| <b>Company:</b>           | Crestone Peak Resources | <b>Local Co-ordinate Reference:</b> | Well KUGEL 1H-18H-H267 - Slot KUGEL 1H |
| <b>Project:</b>           | DJ BASIN                | <b>TVD Reference:</b>               | 23' KB @ 4976.00usft                   |
| <b>Reference Site:</b>    | S18-T2N-R67W (KUGEL)    | <b>MD Reference:</b>                | 23' KB @ 4976.00usft                   |
| <b>Site Error:</b>        | 0.00 usft               | <b>North Reference:</b>             | True                                   |
| <b>Reference Well:</b>    | KUGEL 1H-18H-H267       | <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Well Error:</b>        | 0.00 usft               | <b>Output errors are at</b>         | 2.00 sigma                             |
| <b>Reference Wellbore</b> | OH                      | <b>Database:</b>                    | USA EDM 5000 Multi Users DB            |
| <b>Reference Design:</b>  | PLAN #3 (6.11)          | <b>Offset TVD Reference:</b>        | 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          |                                 |                              |                                 |                                  |                   |                     |
| S18-T2N-R67W (KUGEL)                     |                                 |                              |                                 |                                  |                   |                     |
| WANDELL 24-7 - CPR WELL - SURVEYS        | 10,480.93                       | 7,381.00                     | 2,242.74                        | 2,159.15                         | 26.832            | CC                  |
| WANDELL 24-7 - CPR WELL - SURVEYS        | 10,500.00                       | 7,381.00                     | 2,242.82                        | 2,158.96                         | 26.744            | ES                  |
| WANDELL 24-7 - CPR WELL - SURVEYS        | 10,900.00                       | 7,381.00                     | 2,282.15                        | 2,193.38                         | 25.709            | SF                  |
| WANDELL 31-7 - CPR WELL - SURVEYS        | 14,872.67                       | 7,312.11                     | 1,017.74                        | 870.96                           | 6.934             | CC, ES, SF          |
| WANDELL 32-7 - CPR WELL - GYRO           | 13,269.84                       | 7,209.58                     | 1,024.67                        | 915.78                           | 9.410             | CC                  |
| WANDELL 32-7 - CPR WELL - GYRO           | 13,300.00                       | 7,209.57                     | 1,025.11                        | 915.71                           | 9.370             | ES                  |
| WANDELL 32-7 - CPR WELL - GYRO           | 13,400.00                       | 7,209.56                     | 1,032.90                        | 922.36                           | 9.344             | SF                  |
| WANDELL 33-7 - CPR WELL - SURVEYS        | 11,924.24                       | 7,386.66                     | 998.61                          | 890.84                           | 9.266             | CC, ES              |
| WANDELL 33-7 - CPR WELL - SURVEYS        | 12,000.00                       | 7,385.96                     | 1,001.48                        | 892.58                           | 9.196             | SF                  |
| WANDELL 34-7 - CPR WELL - GYRO           | 10,486.74                       | 7,380.83                     | 1,029.74                        | 961.63                           | 15.120            | CC                  |
| WANDELL 34-7 - CPR WELL - GYRO           | 10,500.00                       | 7,380.81                     | 1,029.82                        | 961.52                           | 15.078            | ES                  |
| WANDELL 34-7 - CPR WELL - GYRO           | 10,600.00                       | 7,380.72                     | 1,035.95                        | 966.42                           | 14.899            | SF                  |
| WANDELL 4-0-7 - CPR WELL - SURVEYS       | 15,255.58                       | 7,465.78                     | 1,626.93                        | 1,474.24                         | 10.655            | CC, ES, SF          |
| WANDELL 41-7 - CPR WELL - SURVEYS        | 14,725.76                       | 7,287.47                     | 381.29                          | 250.41                           | 2.913             | CC, ES, SF          |
| WANDELL 42-7 - CPR WELL - SURVEYS        | 13,199.81                       | 7,381.75                     | 358.80                          | 233.27                           | 2.858             | CC, ES, SF          |
| WANDELL 43-7 - CPR WELL - SURVEYS        | 11,882.14                       | 7,594.95                     | 282.82                          | 172.40                           | 2.561             | CC, ES, SF          |
| WANDELL 4-4-7 - CPR WELL - SURVEYS       | 12,439.31                       | 7,570.86                     | 1,760.38                        | 1,652.87                         | 16.374            | CC                  |
| WANDELL 4-4-7 - CPR WELL - SURVEYS       | 12,500.00                       | 7,571.27                     | 1,761.43                        | 1,652.31                         | 16.143            | ES                  |
| WANDELL 4-4-7 - CPR WELL - SURVEYS       | 12,900.00                       | 7,573.96                     | 1,819.66                        | 1,702.37                         | 15.514            | SF                  |
| WANDELL 4-6-7 - CPR WELL - SURVEYS       | 11,199.66                       | 7,598.02                     | 1,388.06                        | 1,285.49                         | 13.532            | CC                  |
| WANDELL 4-6-7 - CPR WELL - SURVEYS       | 11,200.00                       | 7,598.03                     | 1,388.06                        | 1,285.48                         | 13.532            | ES                  |
| WANDELL 4-6-7 - CPR WELL - SURVEYS       | 11,400.00                       | 7,599.09                     | 1,402.45                        | 1,296.69                         | 13.262            | SF                  |
| WANDELL 6-0-7 - CPR WELL - SURVEYS       | 15,255.58                       | 7,297.62                     | 347.36                          | 191.73                           | 2.232             | CC, ES, SF          |
| WANDELL 6-4-7 - CPR WELL - SURVEYS       | 12,413.38                       | 7,599.00                     | 337.72                          | 215.38                           | 2.761             | CC, ES, SF          |
| WANDELL 6-8-7 - CPR WELL - SURVEYS       | 9,996.62                        | 7,380.34                     | 299.32                          | 224.57                           | 4.004             | CC, ES              |
| WANDELL 6-8-7 - CPR WELL - SURVEYS       | 10,000.00                       | 7,380.35                     | 299.34                          | 224.57                           | 4.004             | SF                  |
| WANDELL 8-2-7 - CPR WELL - SURVEYS       | 13,904.96                       | 7,378.93                     | 838.12                          | 704.84                           | 6.289             | CC, ES, SF          |
| WANDELL 8-4-7 - CPR WELL - SURVEYS       | 12,695.13                       | 7,612.15                     | 857.24                          | 731.62                           | 6.824             | CC, ES, SF          |
| WANDELL E UNIT 1 - CPR WELL - NO SURVEYS | 10,883.59                       | 7,236.00                     | 81.99                           | 5.27                             | 1.069             | Level 2, CC, ES, SF |

# Cathedral Energy Services

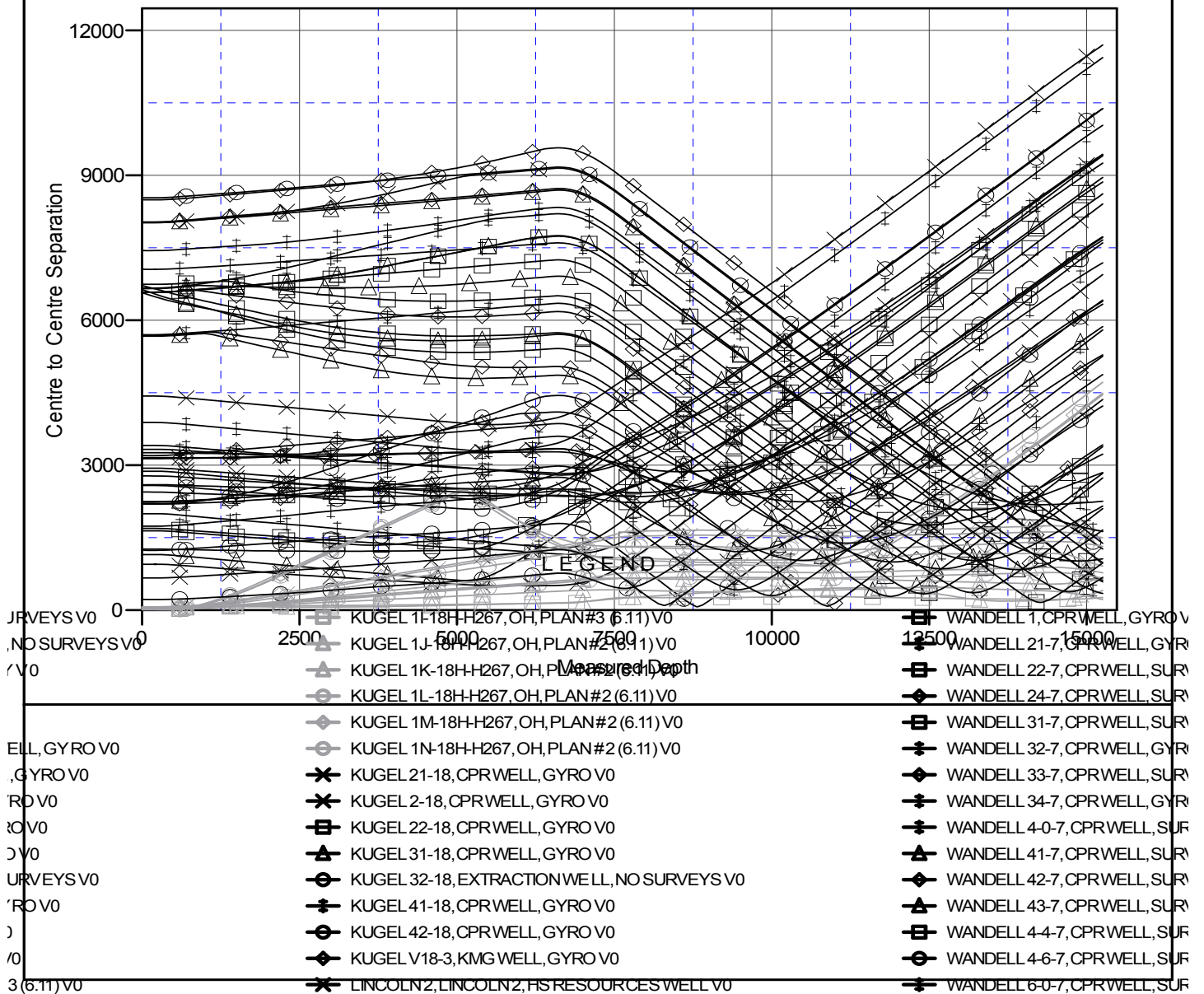
## Anticollision Summary Report

|                           |                         |                                     |  |
|---------------------------|-------------------------|-------------------------------------|--|
| <b>Company:</b>           | Crestone Peak Resources | <b>Local Co-ordinate Reference:</b> | Well KUGEL 1H-18H-H267 - Slot KUGEL 1H |
| <b>Project:</b>           | DJ BASIN                | <b>TVD Reference:</b>               | 23' KB @ 4976.00usft                   |
| <b>Reference Site:</b>    | S18-T2N-R67W (KUGEL)    | <b>MD Reference:</b>                | 23' KB @ 4976.00usft                   |
| <b>Site Error:</b>        | 0.00 usft               | <b>North Reference:</b>             | True                                   |
| <b>Reference Well:</b>    | KUGEL 1H-18H-H267       | <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Well Error:</b>        | 0.00 usft               | <b>Output errors are at</b>         | 2.00 sigma                             |
| <b>Reference Wellbore</b> | OH                      | <b>Database:</b>                    | USA EDM 5000 Multi Users DB            |
| <b>Reference Design:</b>  | PLAN #3 (6.11)          | <b>Offset TVD Reference:</b>        | Offset Datum                           |

Reference Depths are relative to 23' KB @ 4976.00usft  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000

Coordinates are relative to: KUGEL 1H-18H-H267 - Slot KUGEL 1H  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 0.37°

### Ladder Plot

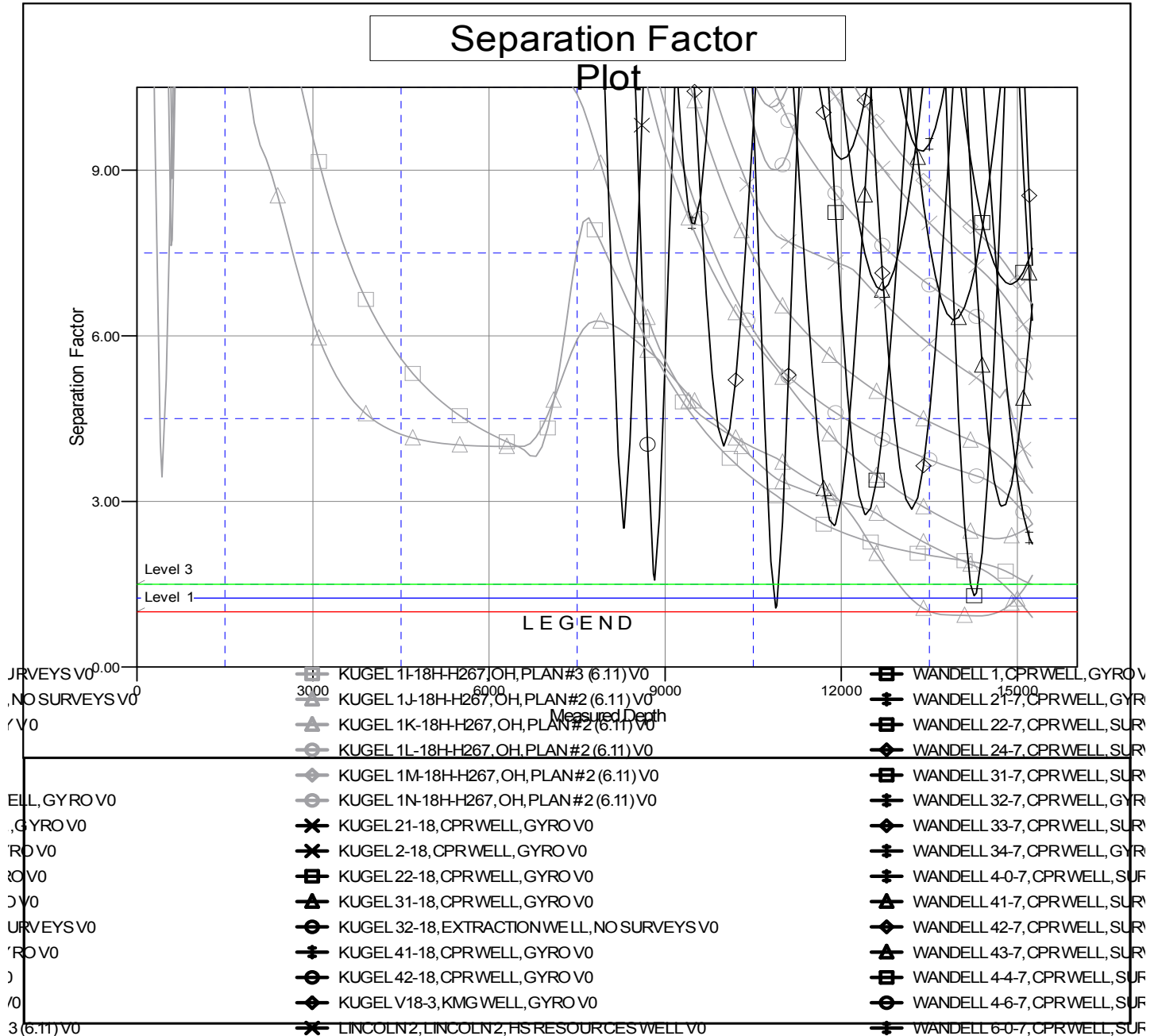


**Cathedral Energy Services**  
Anticollision Summary Report

|                           |                         |                                     |  |
|---------------------------|-------------------------|-------------------------------------|--|
| <b>Company:</b>           | Crestone Peak Resources | <b>Local Co-ordinate Reference:</b> | Well KUGEL 1H-18H-H267 - Slot KUGEL 1H |
| <b>Project:</b>           | DJ BASIN                | <b>TVD Reference:</b>               | 23' KB @ 4976.00usft                   |
| <b>Reference Site:</b>    | S18-T2N-R67W (KUGEL)    | <b>MD Reference:</b>                | 23' KB @ 4976.00usft                   |
| <b>Site Error:</b>        | 0.00 usft               | <b>North Reference:</b>             | True                                   |
| <b>Reference Well:</b>    | KUGEL 1H-18H-H267       | <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Well Error:</b>        | 0.00 usft               | <b>Output errors are at</b>         | 2.00 sigma                             |
| <b>Reference Wellbore</b> | OH                      | <b>Database:</b>                    | USA EDM 5000 Multi Users DB            |
| <b>Reference Design:</b>  | PLAN #3 (6.11)          | <b>Offset TVD Reference:</b>        | Offset Datum                           |

Reference Depths are relative to 23' KB @ 4976.00usft  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000

Coordinates are relative to: KUGEL 1H-18H-H267 - Slot KUGEL 1H  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 0.37°



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