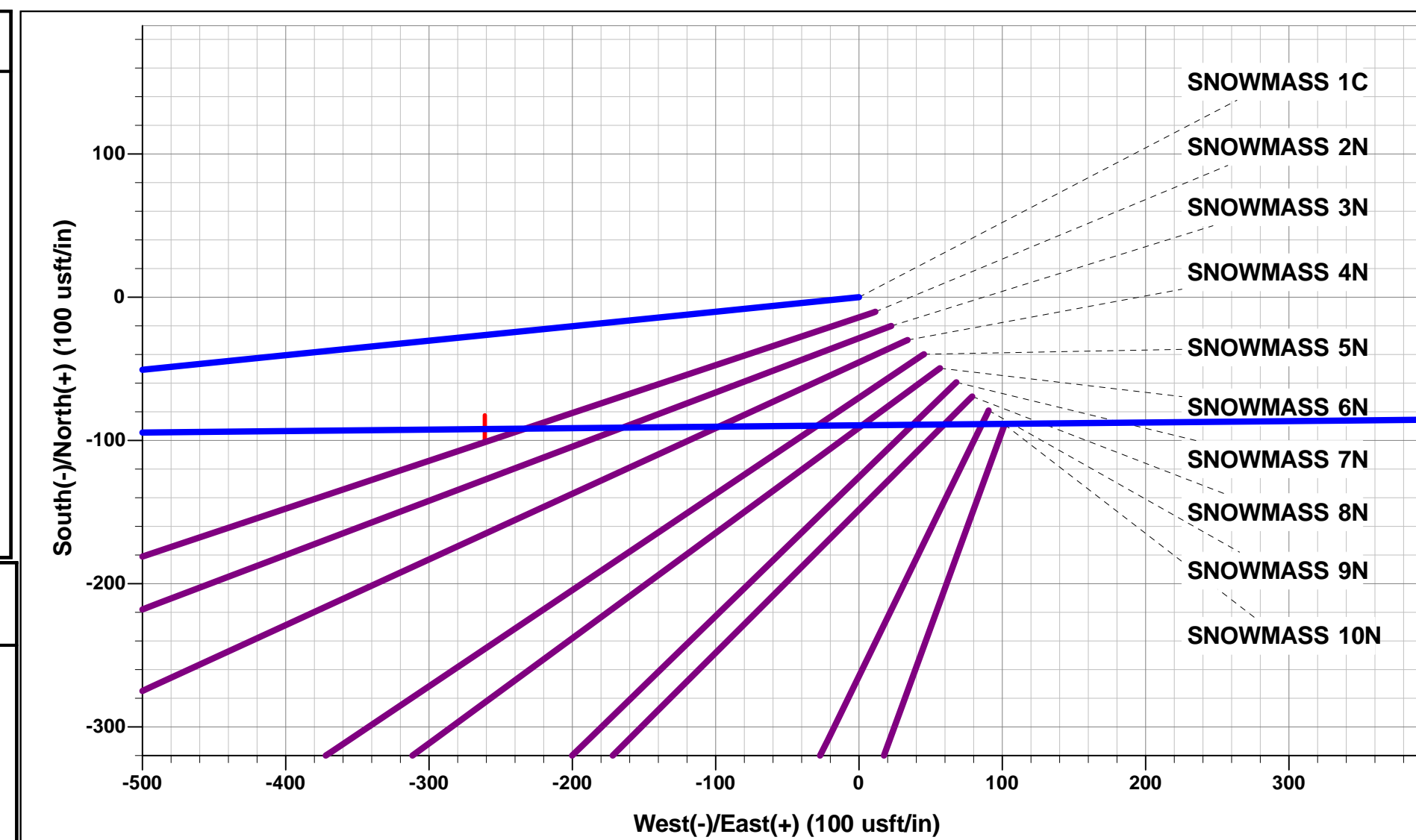




Project: WELD COUNTY, COLORADO
Site: NW NE SEC. 5 T5N R64W 6th P.M.
Well: SNOWMASS 1C
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #2

| ANNOTATIONS | | | | | | | | | |
|-------------|---------|-------|--------|-------|--------|--------|--------|--|--|
| TVD | MD | Inc | Azi | +N/-S | +E/-W | VSec | Dep | Annotation | |
| 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | SHL: 88ft FNL & 1832ft FEL of Sec 5 | |
| 300.0 | 300.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | START NUDDGE (2°/100ft BUR) | |
| 895.6 | 900.0 | 12.00 | 264.23 | -6.3 | -62.3 | -62.3 | 62.6 | EOB TO 12° INC | |
| 4947.2 | 5042.1 | 12.00 | 264.23 | -92.9 | -919.1 | -918.9 | 923.8 | END OF TANGENT | |
| 5542.8 | 5642.1 | 0.00 | 0.00 | -99.2 | -981.4 | -981.1 | 986.4 | EOD TO VERTICAL | |
| 6165.8 | 6265.1 | 0.00 | 0.00 | -99.2 | -981.4 | -981.1 | 986.4 | KOP (8°/100ft BUR) | |
| 6882.0 | 7394.3 | 90.34 | 89.43 | -92.0 | -261.0 | -260.8 | 1706.8 | HZ LP *NEW*: 180ft FNL & 2098ft FEL of Sec 5 | |
| 6838.0 | 14787.6 | 90.34 | 89.42 | -17.9 | 7131.7 | 7131.8 | 9100.0 | BHL: 180ft FNL & 0ft FEL of Sec 4 | |

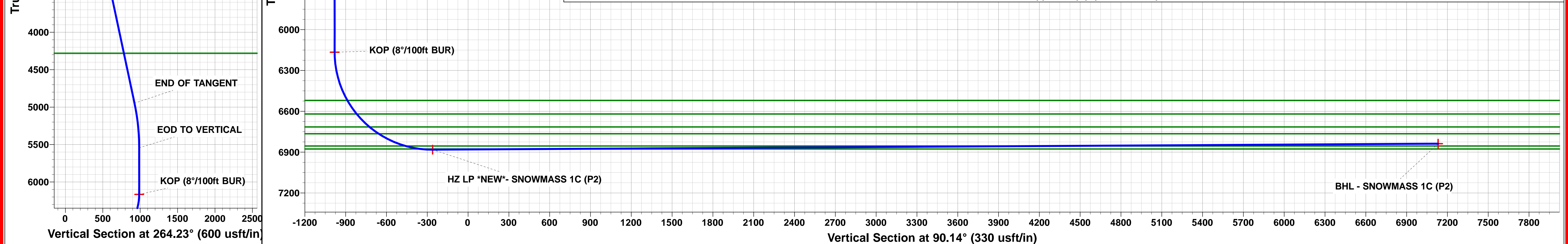
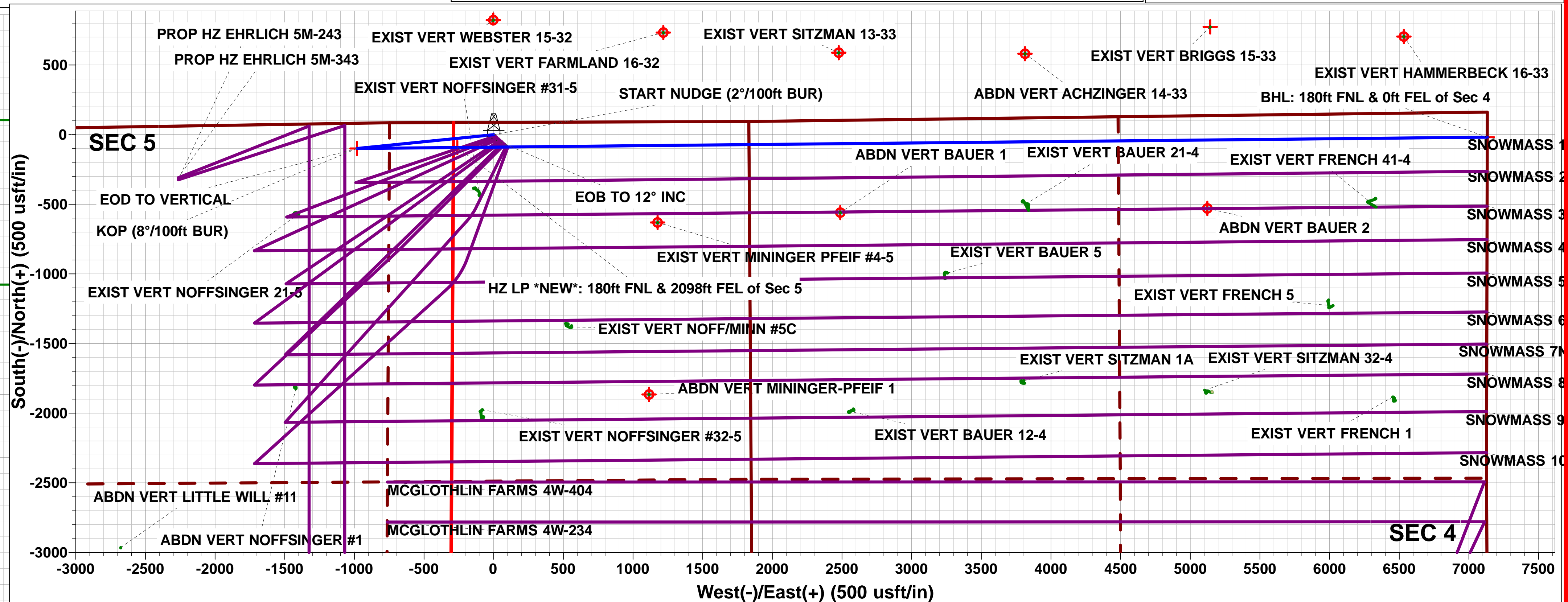
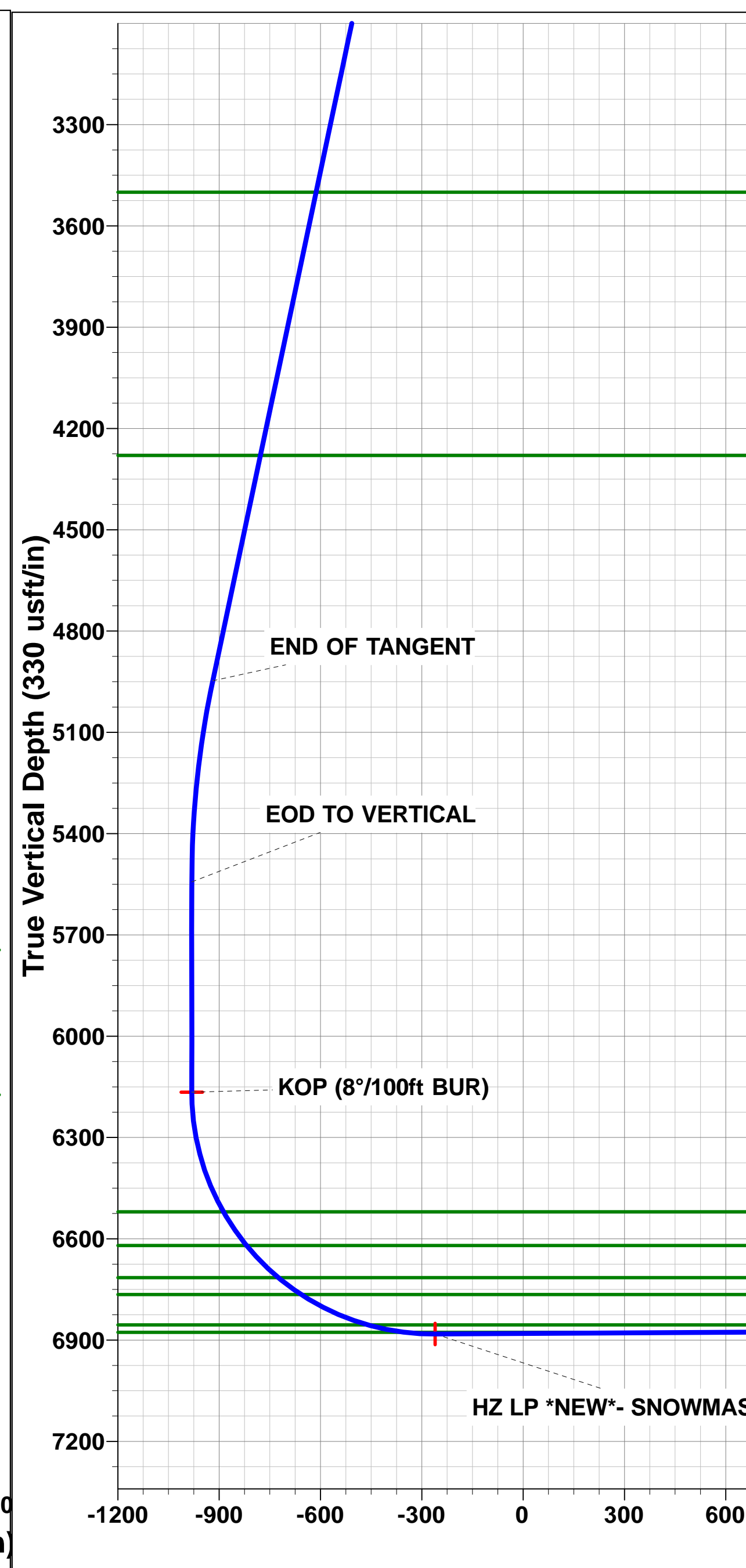
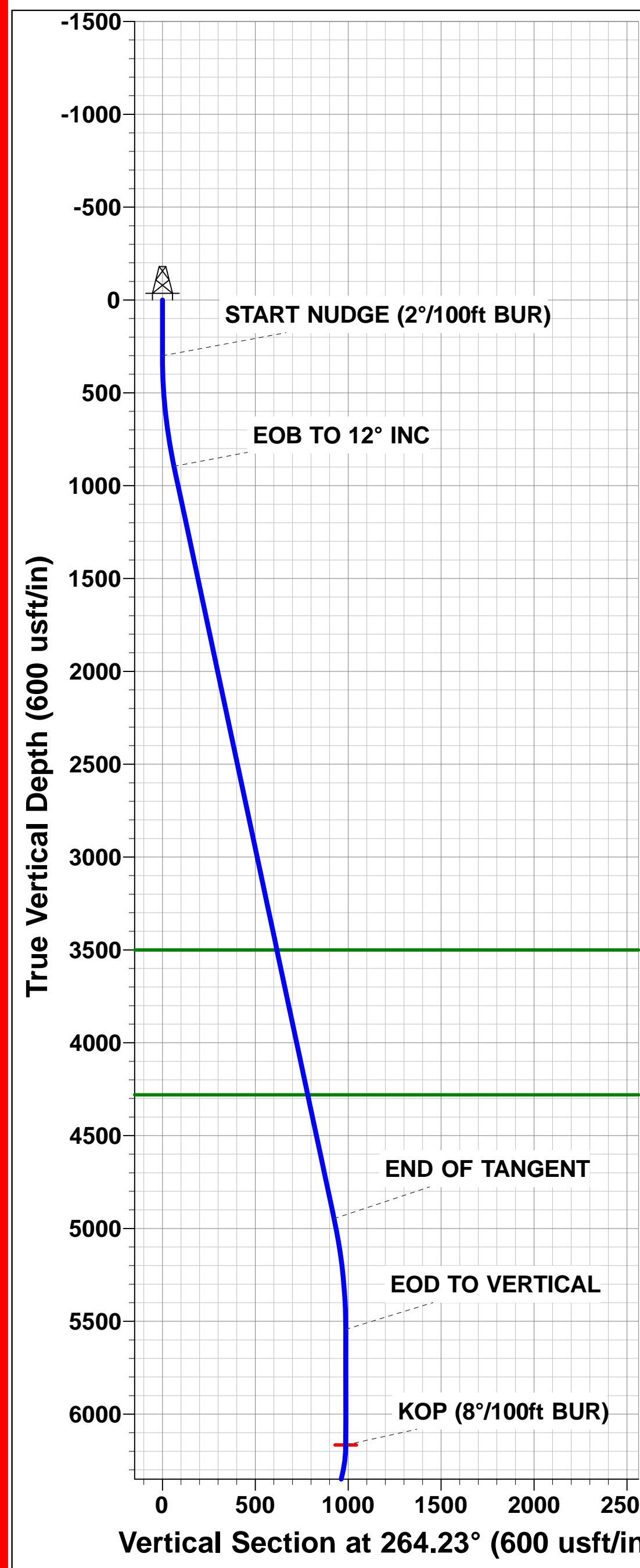
| WELLBORE TARGET DETAILS (LAT/LONG) | | | | | |
|------------------------------------|--------|-------|--------|-----------|-------------|
| Name | TVD | +N/-S | +E/-W | Latitude | Longitude |
| KOP - SNOWMASS 1C (P2) | 6165.8 | -99.2 | -981.4 | 40.434768 | -104.574891 |
| BHL - SNOWMASS 1C (P2) | 6838.0 | -17.9 | 7131.7 | 40.434988 | -104.545747 |
| HZ LP *NEW*- SNOWMASS 1C (P2) | 6882.0 | -92.0 | -261.0 | 40.434787 | -104.572304 |



PROPOSED LOCAL COORDINATES:
SHL: 88ft FNL & 1832ft FEL of Sec 5
HZ LP *NEW*: 180ft FNL & 2098ft FEL of Sec 5
BHL: 180ft FNL & 0ft FEL of Sec 4

Azimuths to True North
Magnetic North: 8.16°

Magnetic Field
Strength: 52480.7snT
Dip Angle: 66.92°
Date: 13/01/2017
Model: IGRF2015



PDC ENERGY

**WELD COUNTY, COLORADO
NW NE SEC. 5 T5N R64W 6th P.M.
SNOWMASS 1C**

**ORIGINAL WELLBORE
PROPOSAL #2**

Anticollision Report

08 March, 2017



Anticollision Report



| | | | |
|---------------------------|--------------------------------|-------------------------------------|--|
| Company: | PDC ENERGY | Local Co-ordinate Reference: | Well SNOWMASS 1C |
| Project: | WELD COUNTY, COLORADO | TVD Reference: | KB-EST @ 4657.0usft (Original Well Elev) |
| Reference Site: | NW NE SEC. 5 T5N R64W 6th P.M. | MD Reference: | KB-EST @ 4657.0usft (Original Well Elev) |
| Site Error: | 0.0 usft | North Reference: | True |
| Reference Well: | SNOWMASS 1C | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | EDM 5000.1 Single User Db |
| Reference Design: | PROPOSAL #2 | Offset TVD Reference: | Offset Datum |

| | | | |
|-------------------------------------|---|-----------------------|---------------------|
| Reference | PROPOSAL #2 | | |
| Filter type: | NO GLOBAL FILTER: Using user defined selection & filtering criteria | | |
| Interpolation Method: | MD + Stations Interval 100.0usft | Error Model: | ISCWSA |
| Depth Range: | Unlimited | Scan Method: | Closest Approach 3D |
| Results Limited by: | Maximum center-center distance of 10,000.0 us | Error Surface: | Elliptical Conic |
| Warning Levels Evaluated at: | 2.00 Sigma | Casing Method: | Not applied |

| | | | | |
|----------------------------|------------------|---------------------------------|------------------|--------------------|
| Survey Tool Program | Date | 08/03/2017 | | |
| From (usft) | To (usft) | Survey (Wellbore) | Tool Name | Description |
| 0.0 | 14,787.6 | PROPOSAL #2 (ORIGINAL WELLBORE) | MWD | MWD - Standard |

| 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 | | | | | | |
| NW NE SEC. 5 T5N R64W 6th P.M. | | | | | | |
| ABDN VERT ACHZINGER 14-33 - Wellbore #1 - Design | 11,475.9 | 6,837.7 | 632.7 | 369.3 | 2.402 | CC |
| ABDN VERT ACHZINGER 14-33 - Wellbore #1 - Design | 11,500.0 | 6,837.6 | 633.1 | 369.1 | 2.398 | ES, SF |
| ABDN VERT BAUER 1 - Wellbore #1 - Design #1 | 10,138.5 | 6,886.7 | 494.8 | 267.6 | 2.177 | CC, ES, SF |
| ABDN VERT BAUER 2 - Wellbore #1 - Design #1 | 12,773.3 | 6,830.0 | 491.4 | 192.1 | 1.642 | CC |
| ABDN VERT BAUER 2 - Wellbore #1 - Design #1 | 12,800.0 | 6,829.8 | 492.1 | 192.1 | 1.640 | ES, SF |
| EXIST HZ LUCCI STATE B3-69HNL - Wellbore #1 - Wel | 14,787.6 | 17,000.0 | 557.6 | 228.4 | 1.694 | CC, ES, SF |
| EXIST VERT BAUER 21-4 - Wellbore #1 - Wellbore #1 | 11,447.8 | 6,500.0 | 544.6 | 438.0 | 5.109 | CC, ES |
| EXIST VERT BAUER 21-4 - Wellbore #1 - Wellbore #1 | 11,500.0 | 6,500.0 | 547.1 | 439.3 | 5.077 | SF |
| EXIST VERT BAUER 5 - Wellbore #1 - Wellbore #1 | 10,905.3 | 6,700.0 | 944.9 | 833.2 | 8.454 | CC, ES |
| EXIST VERT BAUER 5 - Wellbore #1 - Wellbore #1 | 11,100.0 | 6,700.0 | 964.8 | 847.7 | 8.240 | SF |
| EXIST VERT BRIGGS 15-33 - Wellbore #1 - Design #1 | 12,807.3 | 6,834.8 | 812.3 | 512.0 | 2.706 | CC, ES |
| EXIST VERT BRIGGS 15-33 - Wellbore #1 - Design #1 | 12,900.0 | 6,834.3 | 817.5 | 514.7 | 2.700 | SF |
| EXIST VERT FARMLAND 16-32 - Wellbore #1 - Design # | 8,881.1 | 6,862.2 | 810.7 | 617.0 | 4.186 | CC |
| EXIST VERT FARMLAND 16-32 - Wellbore #1 - Design # | 8,900.0 | 6,862.0 | 810.9 | 616.7 | 4.177 | ES |
| EXIST VERT FARMLAND 16-32 - Wellbore #1 - Design # | 9,000.0 | 6,861.5 | 819.3 | 622.6 | 4.165 | SF |
| EXIST VERT FRENCH 41-4 - Wellbore #1 - Wellbore #1 | 13,978.3 | 6,400.0 | 599.9 | 447.6 | 3.938 | CC |
| EXIST VERT FRENCH 41-4 - Wellbore #1 - Wellbore #1 | 14,000.0 | 6,400.0 | 600.3 | 447.5 | 3.929 | ES, SF |
| EXIST VERT FRENCH 5 - Wellbore #1 - Wellbore #1 | 13,637.9 | 6,700.0 | 1,162.3 | 974.6 | 6.193 | CC |
| EXIST VERT FRENCH 5 - Wellbore #1 - Wellbore #1 | 13,700.0 | 6,700.0 | 1,164.0 | 974.6 | 6.145 | ES |
| EXIST VERT FRENCH 5 - Wellbore #1 - Wellbore #1 | 13,800.0 | 6,700.0 | 1,173.6 | 981.4 | 6.106 | SF |
| EXIST VERT GRANADOS #4-3 - Wellbore #1 - Design # | 14,787.6 | 6,813.0 | 904.4 | 549.3 | 2.547 | CC, ES, SF |
| EXIST VERT HAMMERBECK 16-33 - Wellbore #1 - Des | 14,196.2 | 6,826.5 | 728.6 | 389.9 | 2.151 | CC |
| EXIST VERT HAMMERBECK 16-33 - Wellbore #1 - Des | 14,200.0 | 6,826.5 | 728.6 | 389.8 | 2.150 | ES, SF |
| EXIST VERT MININGER PFEIF #4-5 - Wellbore #1 - Des | 8,826.3 | 6,856.5 | 552.5 | 360.3 | 2.875 | CC, ES |
| EXIST VERT MININGER PFEIF #4-5 - Wellbore #1 - Des | 8,900.0 | 6,856.0 | 557.4 | 363.3 | 2.872 | SF |
| EXIST VERT NOFFSINGER/MINN #5C - Wellbore #1 - V | 8,177.0 | 6,835.3 | 1,277.1 | 1,236.2 | 31.231 | CC |
| EXIST VERT NOFFSINGER/MINN #5C - Wellbore #1 - V | 8,200.0 | 6,835.2 | 1,277.3 | 1,235.9 | 30.844 | ES |
| EXIST VERT NOFFSINGER/MINN #5C - Wellbore #1 - V | 9,300.0 | 6,830.4 | 1,700.6 | 1,631.5 | 24.621 | SF |
| EXIST VERT SITZMAN 13-33 - Wellbore #1 - Design #1 | 10,139.0 | 6,845.7 | 653.5 | 426.7 | 2.881 | CC, ES |
| EXIST VERT SITZMAN 13-33 - Wellbore #1 - Design #1 | 10,200.0 | 6,845.3 | 656.4 | 427.9 | 2.872 | SF |
| EXIST VERT WEBSTER 15-32 - Wellbore #1 - Design # | 300.0 | 286.0 | 823.0 | 817.5 | 150.065 | CC |
| EXIST VERT WEBSTER 15-32 - Wellbore #1 - Design # | 7,661.9 | 6,866.4 | 912.4 | 746.4 | 5.495 | ES |
| EXIST VERT WEBSTER 15-32 - Wellbore #1 - Design # | 7,800.0 | 6,865.6 | 922.8 | 754.3 | 5.476 | SF |
| SNOWMASS 10N - ORIGINAL WELLBORE - PROPOSAL | 300.0 | 300.0 | 135.0 | 133.9 | 125.918 | CC, ES |
| SNOWMASS 10N - ORIGINAL WELLBORE - PROPOSAL | 14,787.6 | 14,905.0 | 2,267.9 | 1,837.6 | 5.271 | SF |
| SNOWMASS 10N - ORIGINAL WELLBORE - PROPOSAL | 300.0 | 300.0 | 135.0 | 133.9 | 125.918 | CC, ES |
| SNOWMASS 10N - ORIGINAL WELLBORE - PROPOSAL | 14,787.6 | 16,156.5 | 2,267.9 | 1,811.7 | 4.971 | SF |

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

Anticollision Report



| | | | |
|---------------------------|--------------------------------|-------------------------------------|--|
| Company: | PDC ENERGY | Local Co-ordinate Reference: | Well SNOWMASS 1C |
| Project: | WELD COUNTY, COLORADO | TVD Reference: | KB-EST @ 4657.0usft (Original Well Elev) |
| Reference Site: | NW NE SEC. 5 T5N R64W 6th P.M. | MD Reference: | KB-EST @ 4657.0usft (Original Well Elev) |
| Site Error: | 0.0 usft | North Reference: | True |
| Reference Well: | SNOWMASS 1C | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | EDM 5000.1 Single User Db |
| Reference Design: | PROPOSAL #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 |
|--|--|---------------------------------------|--|---|-----------------------|---------|
| NW NE SEC. 5 T5N R64W 6th P.M. | | | | | | |
| SNOWMASS 2N - ORIGINAL WELLBORE - PROPOSAL | 300.0 | 300.0 | 15.3 | 14.2 | 14.275 CC | |
| SNOWMASS 2N - ORIGINAL WELLBORE - PROPOSAL | 14,787.6 | 14,730.5 | 263.3 | -146.2 | 0.643 Level 1, ES, SF | |
| SNOWMASS 3N - ORIGINAL WELLBORE - PROPOSAL | 300.0 | 300.0 | 30.2 | 29.1 | 28.133 CC, ES | |
| SNOWMASS 3N - ORIGINAL WELLBORE - PROPOSAL | 14,787.6 | 15,299.7 | 520.3 | 89.4 | 1.207 Level 2, SF | |
| SNOWMASS 4N - ORIGINAL WELLBORE - PROPOSAL | 300.0 | 300.0 | 45.2 | 44.2 | 42.185 CC, ES | |
| SNOWMASS 4N - ORIGINAL WELLBORE - PROPOSAL | 14,787.6 | 15,736.3 | 741.4 | 287.4 | 1.633 SF | |
| SNOWMASS 5N - ORIGINAL WELLBORE - PROPOSAL | 300.0 | 300.0 | 60.3 | 59.2 | 56.238 CC, ES | |
| SNOWMASS 5N - ORIGINAL WELLBORE - PROPOSAL | 14,787.6 | 15,407.0 | 988.3 | 542.5 | 2.217 SF | |
| SNOWMASS 6N - ORIGINAL WELLBORE - PROPOSAL | 300.0 | 300.0 | 75.2 | 74.1 | 70.096 CC, ES | |
| SNOWMASS 6N - ORIGINAL WELLBORE - PROPOSAL | 14,787.6 | 15,878.1 | 1,258.7 | 802.4 | 2.759 SF | |
| SNOWMASS 7N - ORIGINAL WELLBORE - PROPOSAL | 300.0 | 300.0 | 90.2 | 89.1 | 84.149 CC, ES | |
| SNOWMASS 7N - ORIGINAL WELLBORE - PROPOSAL | 14,787.6 | 15,556.6 | 1,496.2 | 1,047.5 | 3.335 SF | |
| SNOWMASS 8N - ORIGINAL WELLBORE - PROPOSAL | 300.0 | 300.0 | 105.1 | 104.0 | 98.007 CC, ES | |
| SNOWMASS 8N - ORIGINAL WELLBORE - PROPOSAL | 14,787.6 | 16,001.5 | 1,703.7 | 1,246.6 | 3.727 SF | |
| SNOWMASS 9N - ORIGINAL WELLBORE - PROPOSAL | 300.0 | 300.0 | 120.1 | 119.1 | 112.060 CC, ES | |
| SNOWMASS 9N - ORIGINAL WELLBORE - PROPOSAL | 14,787.6 | 15,692.3 | 1,978.4 | 1,529.8 | 4.410 SF | |
| NW NW SEC. 5 T5N R64W 6th P.M. | | | | | | |
| ABDN VERT LITTLE WILL #11 - Wellbore #1 - Design #1 | 6,265.1 | 6,124.8 | 3,329.5 | 3,188.2 | 23.566 CC | |
| ABDN VERT LITTLE WILL #11 - Wellbore #1 - Design #1 | 6,300.0 | 6,159.7 | 3,329.9 | 3,185.9 | 23.120 ES | |
| ABDN VERT LITTLE WILL #11 - Wellbore #1 - Design #1 | 6,450.0 | 6,307.7 | 3,341.8 | 3,196.0 | 22.910 SF | |
| ABDN VERT NOFFSINGER #1 - Wellbore #1 - Wellbore | 6,290.1 | 6,176.2 | 1,768.0 | 1,744.1 | 73.980 CC, ES | |
| ABDN VERT NOFFSINGER #1 - Wellbore #1 - Wellbore | 14,787.6 | 6,400.0 | 8,754.8 | 8,540.8 | 40.909 SF | |
| EHRlich 5M-243 - ORIGINAL WELLBORE - PROPOSAL | 6,400.0 | 6,626.6 | 139.2 | 95.4 | 3.180 SF | |
| EHRlich 5M-243 - ORIGINAL WELLBORE - PROPOSAL | 6,450.0 | 6,674.8 | 133.0 | 93.4 | 3.361 ES | |
| EHRlich 5M-243 - ORIGINAL WELLBORE - PROPOSAL | 6,468.9 | 6,691.9 | 132.4 | 94.5 | 3.500 CC | |
| EHRlich 5M-343 - ORIGINAL WELLBORE - PROPOSAL | 6,265.1 | 6,339.7 | 377.6 | 336.7 | 9.239 ES, SF | |
| EHRlich 5M-343 - ORIGINAL WELLBORE - PROPOSAL | 6,338.5 | 6,430.8 | 375.6 | 339.3 | 10.358 CC | |
| EXIST VERT NOFFSINGER #21-5 - Wellbore #1 - Wellbore | 5,898.0 | 5,781.4 | 636.7 | 615.5 | 30.053 CC | |
| EXIST VERT NOFFSINGER #21-5 - Wellbore #1 - Wellbore | 5,900.0 | 5,783.3 | 636.7 | 615.5 | 30.050 ES | |
| EXIST VERT NOFFSINGER #21-5 - Wellbore #1 - Wellbore | 6,265.1 | 6,147.7 | 638.0 | 616.3 | 29.408 SF | |
| EXIST VERT NOFFSINGER #31-5 - Wellbore #1 - Wellbore | 1,381.8 | 1,343.1 | 368.4 | 363.5 | 74.189 CC | |
| EXIST VERT NOFFSINGER #31-5 - Wellbore #1 - Wellbore | 1,400.0 | 1,361.0 | 368.4 | 363.4 | 72.885 ES | |
| EXIST VERT NOFFSINGER #31-5 - Wellbore #1 - Wellbore | 7,700.0 | 6,500.0 | 521.7 | 494.9 | 19.439 SF | |
| EXIST VERT NOFFSINGER #32-5 - Wellbore #1 - Wellbore | 7,553.8 | 6,850.0 | 1,884.7 | 1,855.7 | 65.158 CC | |
| EXIST VERT NOFFSINGER #32-5 - Wellbore #1 - Wellbore | 7,600.0 | 6,850.0 | 1,885.2 | 1,855.6 | 63.673 ES | |
| EXIST VERT NOFFSINGER #32-5 - Wellbore #1 - Wellbore | 12,500.0 | 6,771.3 | 5,292.9 | 5,136.2 | 33.765 SF | |
| EXIST VERT PLUMB #B5-11 - Wellbore #1 - Wellbore # | 6,356.7 | 6,302.4 | 3,136.3 | 3,111.9 | 128.881 CC, ES | |
| EXIST VERT PLUMB #B5-11 - Wellbore #1 - Wellbore # | 14,787.6 | 6,750.0 | 9,265.2 | 9,044.8 | 42.038 SF | |
| EXIST VERT PLUMB B5-14 - Wellbore #1 - Wellbore #1 | 5,600.0 | 5,455.6 | 4,272.8 | 4,249.1 | 180.137 ES | |
| EXIST VERT PLUMB B5-14 - Wellbore #1 - Wellbore #1 | 5,750.9 | 5,600.0 | 4,272.5 | 4,256.0 | 260.073 CC | |
| EXIST VERT PLUMB B5-14 - Wellbore #1 - Wellbore #1 | 14,787.6 | 6,737.9 | 9,560.0 | 9,339.7 | 43.398 SF | |

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

Anticollision Report



| | | | |
|---------------------------|--------------------------------|-------------------------------------|--|
| Company: | PDC ENERGY | Local Co-ordinate Reference: | Well SNOWMASS 1C |
| Project: | WELD COUNTY, COLORADO | TVD Reference: | KB-EST @ 4657.0usft (Original Well Elev) |
| Reference Site: | NW NE SEC. 5 T5N R64W 6th P.M. | MD Reference: | KB-EST @ 4657.0usft (Original Well Elev) |
| Site Error: | 0.0 usft | North Reference: | True |
| Reference Well: | SNOWMASS 1C | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | EDM 5000.1 Single User Db |
| Reference Design: | PROPOSAL #2 | Offset TVD Reference: | Offset Datum |

Summary

| Site Name | Reference Measured Depth (usft) | Offset Measured Depth (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Separation Factor | Warning |
|---|---------------------------------|------------------------------|---------------------------------|----------------------------------|-------------------|------------|
| Offset Well - Wellbore - Design | | | | | | |
| SE SE SEC. 4 T5N R64W 6th P.M. | | | | | | |
| ABDN VERT ACHZIGER B5-9 - Wellbore #1 - Wellbore # | 8,840.3 | 6,800.0 | 3,028.5 | 2,971.5 | 53.166 | CC |
| ABDN VERT ACHZIGER B5-9 - Wellbore #1 - Wellbore # | 8,900.0 | 6,800.0 | 3,029.1 | 2,970.6 | 51.786 | ES |
| ABDN VERT ACHZIGER B5-9 - Wellbore #1 - Wellbore # | 13,500.0 | 6,780.7 | 5,557.5 | 5,373.2 | 30.150 | SF |
| ABDN VERT MININGER-PFEIF 1 - Wellbore #1 - Design | 8,752.8 | 6,858.9 | 1,786.8 | 1,598.5 | 9.487 | CC |
| ABDN VERT MININGER-PFEIF 1 - Wellbore #1 - Design | 8,800.0 | 6,858.6 | 1,787.5 | 1,597.9 | 9.431 | ES |
| ABDN VERT MININGER-PFEIF 1 - Wellbore #1 - Design | 9,200.0 | 6,856.3 | 1,841.9 | 1,642.1 | 9.216 | SF |
| EXIST DD MILLAGE 13-3D - Wellbore #1 - Wellbore #1 | 14,787.6 | 6,826.7 | 3,080.1 | 2,847.4 | 13.240 | CC, ES, SF |
| EXIST VERT ACHZINGER 1 - Wellbore #1 - Wellbore #1 | 9,882.1 | 6,800.0 | 3,051.6 | 2,967.1 | 36.117 | CC |
| EXIST VERT ACHZINGER 1 - Wellbore #1 - Wellbore #1 | 10,000.0 | 6,800.0 | 3,053.9 | 2,966.2 | 34.829 | ES |
| EXIST VERT ACHZINGER 1 - Wellbore #1 - Wellbore #1 | 13,000.0 | 6,779.4 | 4,362.8 | 4,192.4 | 25.603 | SF |
| EXIST VERT BAUER 12-4 - Wellbore #1 - Design #1 | 10,218.8 | 6,847.2 | 1,915.4 | 1,686.2 | 8.357 | CC |
| EXIST VERT BAUER 12-4 - Wellbore #1 - Design #1 | 10,300.0 | 6,846.7 | 1,917.1 | 1,685.7 | 8.284 | ES |
| EXIST VERT BAUER 12-4 - Wellbore #1 - Design #1 | 10,700.0 | 6,844.3 | 1,975.0 | 1,732.6 | 8.151 | SF |
| EXIST VERT BAUER 12-4 - Wellbore #1 - Wellbore #1 | 10,189.2 | 6,528.0 | 1,948.8 | 1,856.8 | 21.171 | CC |
| EXIST VERT BAUER 12-4 - Wellbore #1 - Wellbore #1 | 10,200.0 | 6,528.0 | 1,948.8 | 1,856.5 | 21.105 | ES |
| EXIST VERT BAUER 12-4 - Wellbore #1 - Wellbore #1 | 11,300.0 | 6,528.0 | 2,243.2 | 2,121.1 | 18.369 | SF |
| EXIST VERT FLACK 5-3 - Wellbore #1 - Design #1 | 14,787.6 | 6,807.0 | 1,920.3 | 1,565.1 | 5.406 | CC, ES, SF |
| EXIST VERT FRENCH 1 - Wellbore #1 - Wellbore #1 | 14,096.3 | 6,800.0 | 1,885.3 | 1,684.2 | 9.375 | CC |
| EXIST VERT FRENCH 1 - Wellbore #1 - Wellbore #1 | 14,100.0 | 6,800.0 | 1,885.3 | 1,684.1 | 9.370 | ES |
| EXIST VERT FRENCH 1 - Wellbore #1 - Wellbore #1 | 14,600.0 | 6,800.0 | 1,951.4 | 1,736.3 | 9.069 | SF |
| EXIST VERT OGRADY 1 - Wellbore #1 - Wellbore #1 | 12,723.2 | 6,800.0 | 3,146.1 | 2,983.3 | 19.327 | CC |
| EXIST VERT OGRADY 1 - Wellbore #1 - Wellbore #1 | 12,800.0 | 6,800.0 | 3,147.1 | 2,982.1 | 19.082 | ES |
| EXIST VERT OGRADY 1 - Wellbore #1 - Wellbore #1 | 14,400.0 | 6,800.0 | 3,565.1 | 3,355.6 | 17.016 | SF |
| EXIST VERT OGRADY 43-4 - Wellbore #1 - Wellbore #1 | 14,087.3 | 6,700.0 | 3,288.4 | 3,087.8 | 16.389 | CC |
| EXIST VERT OGRADY 43-4 - Wellbore #1 - Wellbore #1 | 14,200.0 | 6,700.0 | 3,290.4 | 3,086.6 | 16.146 | ES |
| EXIST VERT OGRADY 43-4 - Wellbore #1 - Wellbore #1 | 14,787.6 | 6,700.0 | 3,362.2 | 3,142.0 | 15.269 | SF |
| EXIST VERT SITZMAN 1A - Wellbore #1 - Wellbore #1 | 11,450.6 | 6,700.0 | 1,738.7 | 1,611.3 | 13.653 | CC |
| EXIST VERT SITZMAN 1A - Wellbore #1 - Wellbore #1 | 11,500.0 | 6,700.0 | 1,739.4 | 1,610.7 | 13.514 | ES |
| EXIST VERT SITZMAN 1A - Wellbore #1 - Wellbore #1 | 12,100.0 | 6,700.0 | 1,856.0 | 1,710.7 | 12.776 | SF |
| EXIST VERT SITZMAN 23-4 - Wellbore #1 - Wellbore #1 | 11,623.0 | 6,600.0 | 3,145.2 | 3,013.2 | 23.817 | CC |
| EXIST VERT SITZMAN 23-4 - Wellbore #1 - Wellbore #1 | 11,700.0 | 6,600.0 | 3,146.2 | 3,012.0 | 23.447 | ES |
| EXIST VERT SITZMAN 23-4 - Wellbore #1 - Wellbore #1 | 13,700.0 | 6,600.0 | 3,769.2 | 3,579.5 | 19.876 | SF |
| EXIST VERT SITZMAN 32-4 - Wellbore #1 - Design #1 | 12,794.2 | 6,826.9 | 1,807.9 | 1,508.0 | 6.028 | CC |
| EXIST VERT SITZMAN 32-4 - Wellbore #1 - Design #1 | 12,800.0 | 6,826.8 | 1,807.9 | 1,507.8 | 6.024 | ES |
| EXIST VERT SITZMAN 32-4 - Wellbore #1 - Design #1 | 13,100.0 | 6,825.1 | 1,833.6 | 1,525.2 | 5.945 | SF |
| EXIST VERT SITZMAN 32-4 - Wellbore #1 - Wellbore #1 | 12,743.2 | 6,475.0 | 1,830.6 | 1,669.7 | 11.375 | CC |
| EXIST VERT SITZMAN 32-4 - Wellbore #1 - Wellbore #1 | 12,800.0 | 6,475.0 | 1,831.5 | 1,669.0 | 11.271 | ES |
| EXIST VERT SITZMAN 32-4 - Wellbore #1 - Wellbore #1 | 13,300.0 | 6,475.0 | 1,913.4 | 1,737.3 | 10.862 | SF |
| MCGLOTHLIN FARMS 4W-234 - ORIGINAL WELLBORI | 6,750.0 | 14,507.5 | 2,686.2 | 2,448.6 | 11.304 | SF |
| MCGLOTHLIN FARMS 4W-234 - ORIGINAL WELLBORI | 6,832.0 | 14,507.5 | 2,684.9 | 2,447.4 | 11.306 | CC, ES |
| MCGLOTHLIN FARMS 4W-404 - ORIGINAL WELLBORI | 6,800.0 | 14,720.3 | 2,404.8 | 2,167.2 | 10.121 | SF |
| MCGLOTHLIN FARMS 4W-404 - ORIGINAL WELLBORI | 6,900.0 | 14,675.1 | 2,401.0 | 2,164.9 | 10.169 | ES |
| MCGLOTHLIN FARMS 4W-404 - ORIGINAL WELLBORI | 7,032.2 | 14,565.5 | 2,399.6 | 2,166.6 | 10.299 | CC |

| | | | | | | | | | | | | | |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|-----------------------------|-------------------|---------|
| Offset Design NW NE SEC. 5 T5N R64W 6th P.M. - ABDN VERT ACHZINGER 14-33 - Wellbore #1 - Design #1 | | | | | | | | | | | Offset Site Error: 0.0 usft | | |
| Survey Program: 0-INC | | | | | | | | | | | Offset Well Error: 0.0 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) | Minimum Separation (usft) | Separation Factor | Warning |
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 81.33 | 581.4 | 3,814.0 | 3,858.1 | | | | |

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