

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_FEHRN 17-32 PAD

FEHRN 1-32

FEHRN 1-32

Plan: FEHRN 1-32 (wp01)

Standard Planning Report

03 February, 2011



Project: COLORADO NORTHERN ZONE - 83
Site: WELD_FEHRN 17-32 PAD
Well: FEHRN 1-32
Wellbore: FEHRN 1-32
Section:
SHL:
Design: FEHRN 1-32 (wp01)
Latitude: 40.097327
Longitude: -104.795592
GL: 4916.00
KB: GL @ 4916.00ft

FORMATION TOP DETAILS

| TVDPath | MDPath | Formation |
|---------|---------|-----------|
| 4116.00 | 4226.78 | PK Depth |
| 4486.00 | 4609.03 | SX Depth |
| 7131.00 | 7261.91 | NIO Depth |
| 7456.00 | 7586.91 | CD Depth |
| 7546.00 | 7676.91 | GH Depth |
| 7896.00 | 8026.91 | J Depth |
| 8076.00 | 8206.91 | DK Depth |



Azimuths to True North
Magnetic North: 8.93°

Magnetic Field
Strength: 53024.1snT
Dip Angle: 66.82°
Date: 12/3/2010
Model: IGRF2010

WELL DETAILS: FEHRN 1-32

| +N/-S | +E/-W | Northing | Ground Level: Easting | 4916.00 Latitude | Longitude | Slot |
|-------|-------|------------|--------------------------|---------------------|-------------|------|
| 0.00 | 0.00 | 1279083.36 | 3197058.72 | 40.097327 | -104.795592 | |

CASING DETAILS

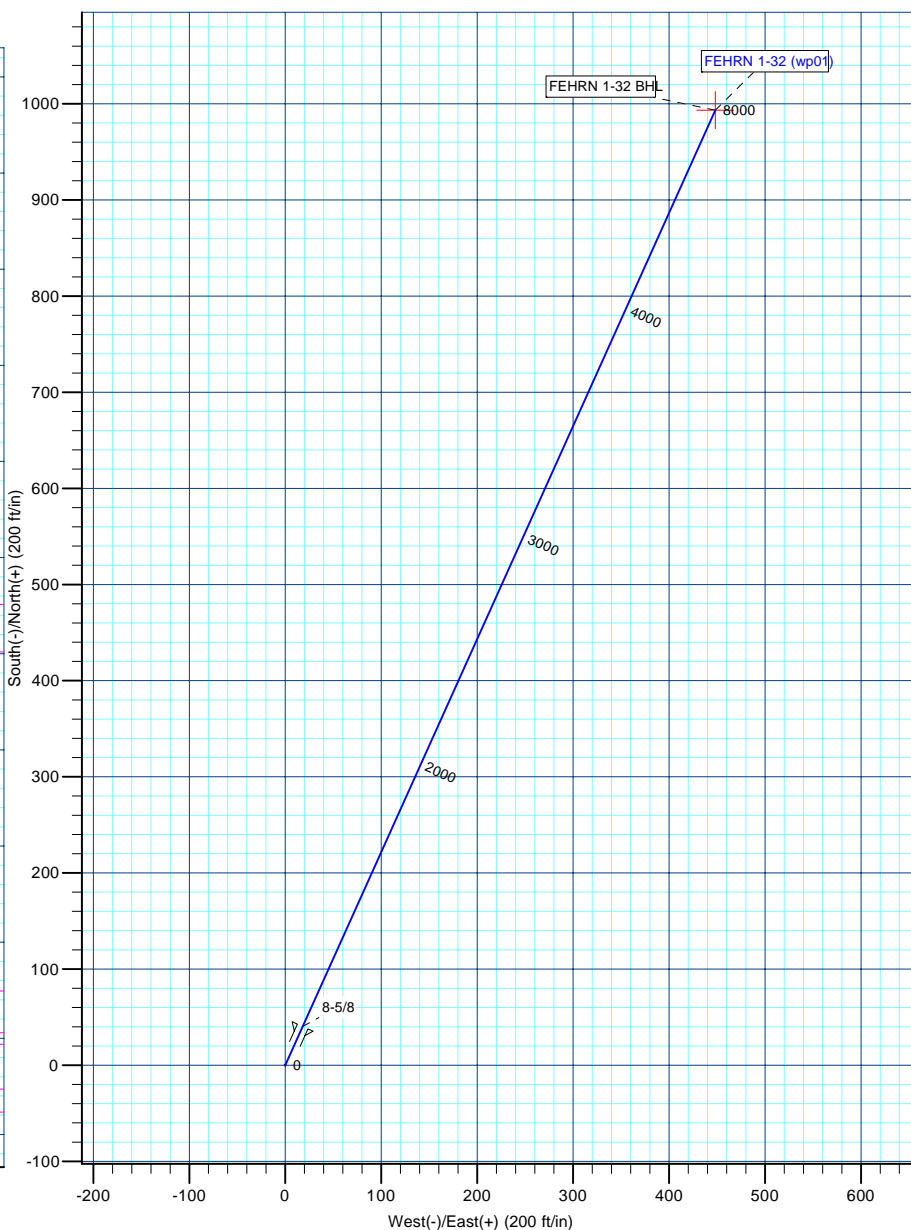
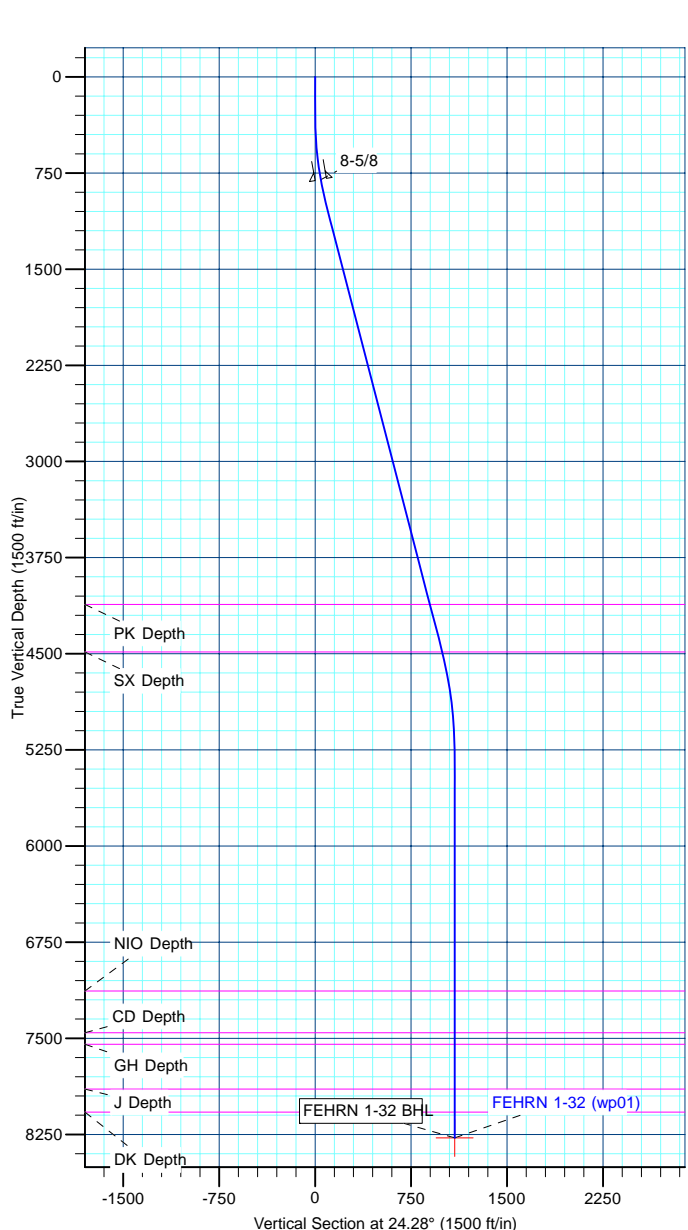
| TVD | MD | Name | Size |
|--------|--------|-------|-------|
| 801.00 | 803.59 | 8-5/8 | 8-5/8 |

DESIGN TARGET DETAILS

| Name | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude | Shape Point |
|----------------|---------|--------|--------|------------|------------|-----------|-------------|----------------|
| FEHRN 1-32 BHL | 8276.00 | 993.42 | 448.15 | 1280080.31 | 3197498.97 | 40.100054 | -104.793990 | |

SECTION DETAILS

| MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | VSect |
|---------|-------|-------|---------|--------|--------|------|--------|---------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1028.84 | 14.58 | 24.28 | 1021.01 | 84.06 | 37.92 | 2.00 | 24.28 | 92.21 |
| 4573.94 | 14.58 | 24.28 | 4451.99 | 897.36 | 404.81 | 0.00 | 0.00 | 984.44 |
| 5406.91 | 0.00 | 0.00 | 5276.00 | 993.42 | 448.15 | 1.75 | 180.00 | 1089.83 |
| 8406.91 | 0.00 | 0.00 | 8276.00 | 993.42 | 448.15 | 0.00 | 0.00 | 1089.83 |



| | | | |
|------------------|-----------------------------|-------------------------------------|-------------------|
| Database: | edm5000p | Local Co-ordinate Reference: | Well FEHRN 1-32 |
| Company: | US ROCKIES REGION PLANNING | TVD Reference: | GL @ 4916.00ft |
| Project: | COLORADO NORTHERN ZONE - 83 | MD Reference: | GL @ 4916.00ft |
| Site: | WELD_FEHRN 17-32 PAD | North Reference: | True |
| Well: | FEHRN 1-32 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | FEHRN 1-32 | | |
| Design: | FEHRN 1-32 (wp01) | | |

| | | | |
|--------------------|-----------------------------|----------------------|----------------|
| Project | COLORADO NORTHERN ZONE - 83 | | |
| Map System: | US State Plane 1983 | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | |
| Map Zone: | Colorado Northern Zone | | |

| Site | | WELD_FEHRN 17-32 PAD | | | |
|-----------------------|----------|----------------------|-----------------|-------------------|-------------|
| Site Position: | | Northing: | 1,279,083.46 ft | Latitude: | 40.097327 |
| From: | Lat/Long | Easting: | 3,197,067.90 ft | Longitude: | -104.795559 |
| Position Uncertainty: | 0.00 ft | Slot Radius: | 0 " | Grid Convergence: | 0.46 |

| | | | | | | |
|----------------------|------------|----------|---------------------|-----------------|---------------|-------------|
| Well | FEHRN 1-32 | | | | | |
| Well Position | +N-S | -0.03 ft | Northing: | 1,279,083.36 ft | Latitude: | 40.097327 |
| | +E-W | -9.18 ft | Easting: | 3,197,058.72 ft | Longitude: | -104.795592 |
| Position Uncertainty | | 0.00 ft | Wellhead Elevation: | | Ground Level: | 4,916.00 ft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | FEHRN 1-32 | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 12/3/2010 | 8.93 | 66.82 | 53,024 |

| | | | | |
|--------------------------|------------------------------|-------------------|----------------------|----------------------|
| Design | FEHRN 1-32 (wp01) | | | |
| Audit Notes: | | | | |
| Version: | Phase: | PLAN | Tie On Depth: | 0.00 |
| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) |
| | 0.00 | 0.00 | 0.00 | 24.28 |

| Plan Sections | | | | | | | | | | |
|----------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|----------------------|---------------------|---------|----------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | TFO (°) | Target |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,028.84 | 14.58 | 24.28 | 1,021.01 | 84.06 | 37.92 | 2.00 | 2.00 | 0.00 | 24.28 | |
| 4,573.94 | 14.58 | 24.28 | 4,451.99 | 897.36 | 404.81 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5,406.91 | 0.00 | 0.00 | 5,276.00 | 993.42 | 448.15 | 1.75 | -1.75 | 0.00 | 180.00 | |
| 8,406.91 | 0.00 | 0.00 | 8,276.00 | 993.42 | 448.15 | 0.00 | 0.00 | 0.00 | 0.00 | FEHRN 1-32 BHL |

| | | | |
|------------------|-----------------------------|-------------------------------------|-------------------|
| Database: | edm5000p | Local Co-ordinate Reference: | Well FEHRN 1-32 |
| Company: | US ROCKIES REGION PLANNING | TVD Reference: | GL @ 4916.00ft |
| Project: | COLORADO NORTHERN ZONE - 83 | MD Reference: | GL @ 4916.00ft |
| Site: | WELD_FEHRN 17-32 PAD | North Reference: | True |
| Well: | FEHRN 1-32 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | FEHRN 1-32 | | |
| Design: | FEHRN 1-32 (wp01) | | |

| Planned Survey | | | | | | | | | |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100.00 | 0.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 200.00 | 0.00 | 0.00 | 200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 400.00 | 2.00 | 24.28 | 399.98 | 1.59 | 0.72 | 1.75 | 2.00 | 2.00 | 0.00 |
| 500.00 | 4.00 | 24.28 | 499.84 | 6.36 | 2.87 | 6.98 | 2.00 | 2.00 | 0.00 |
| 600.00 | 6.00 | 24.28 | 599.45 | 14.31 | 6.45 | 15.69 | 2.00 | 2.00 | 0.00 |
| 700.00 | 8.00 | 24.28 | 698.70 | 25.41 | 11.46 | 27.88 | 2.00 | 2.00 | 0.00 |
| 800.00 | 10.00 | 24.28 | 797.47 | 39.67 | 17.90 | 43.52 | 2.00 | 2.00 | 0.00 |
| 803.59 | 10.07 | 24.28 | 801.00 | 40.24 | 18.15 | 44.15 | 2.00 | 2.00 | 0.00 |
| 8-5/8 | | | | | | | | | |
| 900.00 | 12.00 | 24.28 | 895.62 | 57.06 | 25.74 | 62.60 | 2.00 | 2.00 | 0.00 |
| 1,000.00 | 14.00 | 24.28 | 993.06 | 77.57 | 34.99 | 85.10 | 2.00 | 2.00 | 0.00 |
| 1,028.84 | 14.58 | 24.28 | 1,021.01 | 84.06 | 37.92 | 92.21 | 2.00 | 2.00 | 0.00 |
| 1,100.00 | 14.58 | 24.28 | 1,089.87 | 100.38 | 45.28 | 110.12 | 0.00 | 0.00 | 0.00 |
| 1,200.00 | 14.58 | 24.28 | 1,186.65 | 123.32 | 55.63 | 135.29 | 0.00 | 0.00 | 0.00 |
| 1,300.00 | 14.58 | 24.28 | 1,283.43 | 146.27 | 65.98 | 160.46 | 0.00 | 0.00 | 0.00 |
| 1,400.00 | 14.58 | 24.28 | 1,380.22 | 169.21 | 76.33 | 185.63 | 0.00 | 0.00 | 0.00 |
| 1,500.00 | 14.58 | 24.28 | 1,477.00 | 192.15 | 86.68 | 210.79 | 0.00 | 0.00 | 0.00 |
| 1,600.00 | 14.58 | 24.28 | 1,573.78 | 215.09 | 97.03 | 235.96 | 0.00 | 0.00 | 0.00 |
| 1,700.00 | 14.58 | 24.28 | 1,670.56 | 238.03 | 107.38 | 261.13 | 0.00 | 0.00 | 0.00 |
| 1,800.00 | 14.58 | 24.28 | 1,767.34 | 260.97 | 117.73 | 286.30 | 0.00 | 0.00 | 0.00 |
| 1,900.00 | 14.58 | 24.28 | 1,864.12 | 283.91 | 128.08 | 311.47 | 0.00 | 0.00 | 0.00 |
| 2,000.00 | 14.58 | 24.28 | 1,960.90 | 306.86 | 138.43 | 336.63 | 0.00 | 0.00 | 0.00 |
| 2,100.00 | 14.58 | 24.28 | 2,057.68 | 329.80 | 148.78 | 361.80 | 0.00 | 0.00 | 0.00 |
| 2,200.00 | 14.58 | 24.28 | 2,154.46 | 352.74 | 159.13 | 386.97 | 0.00 | 0.00 | 0.00 |
| 2,300.00 | 14.58 | 24.28 | 2,251.25 | 375.68 | 169.47 | 412.14 | 0.00 | 0.00 | 0.00 |
| 2,400.00 | 14.58 | 24.28 | 2,348.03 | 398.62 | 179.82 | 437.31 | 0.00 | 0.00 | 0.00 |
| 2,500.00 | 14.58 | 24.28 | 2,444.81 | 421.56 | 190.17 | 462.47 | 0.00 | 0.00 | 0.00 |
| 2,600.00 | 14.58 | 24.28 | 2,541.59 | 444.50 | 200.52 | 487.64 | 0.00 | 0.00 | 0.00 |
| 2,700.00 | 14.58 | 24.28 | 2,638.37 | 467.45 | 210.87 | 512.81 | 0.00 | 0.00 | 0.00 |
| 2,800.00 | 14.58 | 24.28 | 2,735.15 | 490.39 | 221.22 | 537.98 | 0.00 | 0.00 | 0.00 |
| 2,900.00 | 14.58 | 24.28 | 2,831.93 | 513.33 | 231.57 | 563.14 | 0.00 | 0.00 | 0.00 |
| 3,000.00 | 14.58 | 24.28 | 2,928.71 | 536.27 | 241.92 | 588.31 | 0.00 | 0.00 | 0.00 |
| 3,100.00 | 14.58 | 24.28 | 3,025.49 | 559.21 | 252.27 | 613.48 | 0.00 | 0.00 | 0.00 |
| 3,200.00 | 14.58 | 24.28 | 3,122.28 | 582.15 | 262.62 | 638.65 | 0.00 | 0.00 | 0.00 |
| 3,300.00 | 14.58 | 24.28 | 3,219.06 | 605.10 | 272.97 | 663.82 | 0.00 | 0.00 | 0.00 |
| 3,400.00 | 14.58 | 24.28 | 3,315.84 | 628.04 | 283.32 | 688.98 | 0.00 | 0.00 | 0.00 |
| 3,500.00 | 14.58 | 24.28 | 3,412.62 | 650.98 | 293.67 | 714.15 | 0.00 | 0.00 | 0.00 |
| 3,600.00 | 14.58 | 24.28 | 3,509.40 | 673.92 | 304.02 | 739.32 | 0.00 | 0.00 | 0.00 |
| 3,700.00 | 14.58 | 24.28 | 3,606.18 | 696.86 | 314.36 | 764.49 | 0.00 | 0.00 | 0.00 |
| 3,800.00 | 14.58 | 24.28 | 3,702.96 | 719.80 | 324.71 | 789.66 | 0.00 | 0.00 | 0.00 |
| 3,900.00 | 14.58 | 24.28 | 3,799.74 | 742.74 | 335.06 | 814.82 | 0.00 | 0.00 | 0.00 |
| 4,000.00 | 14.58 | 24.28 | 3,896.52 | 765.69 | 345.41 | 839.99 | 0.00 | 0.00 | 0.00 |
| 4,100.00 | 14.58 | 24.28 | 3,993.31 | 788.63 | 355.76 | 865.16 | 0.00 | 0.00 | 0.00 |
| 4,200.00 | 14.58 | 24.28 | 4,090.09 | 811.57 | 366.11 | 890.33 | 0.00 | 0.00 | 0.00 |
| 4,226.78 | 14.58 | 24.28 | 4,116.00 | 817.71 | 368.88 | 897.07 | 0.00 | 0.00 | 0.00 |
| PK Depth | | | | | | | | | |
| 4,300.00 | 14.58 | 24.28 | 4,186.87 | 834.51 | 376.46 | 915.49 | 0.00 | 0.00 | 0.00 |
| 4,400.00 | 14.58 | 24.28 | 4,283.65 | 857.45 | 386.81 | 940.66 | 0.00 | 0.00 | 0.00 |
| 4,500.00 | 14.58 | 24.28 | 4,380.43 | 880.39 | 397.16 | 965.83 | 0.00 | 0.00 | 0.00 |
| 4,573.94 | 14.58 | 24.28 | 4,451.99 | 897.36 | 404.81 | 984.44 | 0.00 | 0.00 | 0.00 |
| 4,600.00 | 14.12 | 24.28 | 4,477.24 | 903.24 | 407.47 | 990.90 | 1.75 | -1.75 | 0.00 |
| 4,609.03 | 13.96 | 24.28 | 4,486.00 | 905.24 | 408.37 | 993.09 | 1.75 | -1.75 | 0.00 |

| | | | |
|------------------|-----------------------------|-------------------------------------|-------------------|
| Database: | edm5000p | Local Co-ordinate Reference: | Well FEHRN 1-32 |
| Company: | US ROCKIES REGION PLANNING | TVD Reference: | GL @ 4916.00ft |
| Project: | COLORADO NORTHERN ZONE - 83 | MD Reference: | GL @ 4916.00ft |
| Site: | WELD_FEHRN 17-32 PAD | North Reference: | True |
| Well: | FEHRN 1-32 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | FEHRN 1-32 | | |
| Design: | FEHRN 1-32 (wp01) | | |

| Planned Survey | | | | | | | | | |
|-----------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| SX Depth | | | | | | | | | |
| 4,700.00 | 12.37 | 24.28 | 4,574.57 | 924.13 | 416.89 | 1,013.81 | 1.75 | -1.75 | 0.00 |
| 4,800.00 | 10.62 | 24.28 | 4,672.56 | 942.29 | 425.08 | 1,033.74 | 1.75 | -1.75 | 0.00 |
| 4,900.00 | 8.87 | 24.28 | 4,771.12 | 957.72 | 432.04 | 1,050.67 | 1.75 | -1.75 | 0.00 |
| 5,000.00 | 7.12 | 24.28 | 4,870.14 | 970.40 | 437.76 | 1,064.58 | 1.75 | -1.75 | 0.00 |
| 5,100.00 | 5.37 | 24.28 | 4,969.54 | 980.32 | 442.24 | 1,075.45 | 1.75 | -1.75 | 0.00 |
| 5,200.00 | 3.62 | 24.28 | 5,069.23 | 987.47 | 445.46 | 1,083.29 | 1.75 | -1.75 | 0.00 |
| 5,300.00 | 1.87 | 24.28 | 5,169.11 | 991.83 | 447.43 | 1,088.08 | 1.75 | -1.75 | 0.00 |
| 5,400.00 | 0.12 | 24.28 | 5,269.09 | 993.42 | 448.14 | 1,089.82 | 1.75 | -1.75 | 0.00 |
| 5,406.91 | 0.00 | 0.00 | 5,276.00 | 993.42 | 448.15 | 1,089.83 | 1.75 | -1.75 | 0.00 |
| 5,500.00 | 0.00 | 0.00 | 5,369.09 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| 5,600.00 | 0.00 | 0.00 | 5,469.09 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| 5,700.00 | 0.00 | 0.00 | 5,569.09 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| 5,800.00 | 0.00 | 0.00 | 5,669.09 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| 5,900.00 | 0.00 | 0.00 | 5,769.09 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| 6,000.00 | 0.00 | 0.00 | 5,869.09 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| 6,100.00 | 0.00 | 0.00 | 5,969.09 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| 6,200.00 | 0.00 | 0.00 | 6,069.09 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| 6,300.00 | 0.00 | 0.00 | 6,169.09 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| 6,400.00 | 0.00 | 0.00 | 6,269.09 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| 6,500.00 | 0.00 | 0.00 | 6,369.09 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| 6,600.00 | 0.00 | 0.00 | 6,469.09 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| 6,700.00 | 0.00 | 0.00 | 6,569.09 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| 6,800.00 | 0.00 | 0.00 | 6,669.09 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| 6,900.00 | 0.00 | 0.00 | 6,769.09 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| 7,000.00 | 0.00 | 0.00 | 6,869.09 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| 7,100.00 | 0.00 | 0.00 | 6,969.09 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| 7,200.00 | 0.00 | 0.00 | 7,069.09 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| 7,261.91 | 0.00 | 0.00 | 7,131.00 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| NIO Depth | | | | | | | | | |
| 7,300.00 | 0.00 | 0.00 | 7,169.09 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| 7,400.00 | 0.00 | 0.00 | 7,269.09 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| 7,500.00 | 0.00 | 0.00 | 7,369.09 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| 7,586.91 | 0.00 | 0.00 | 7,456.00 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| CD Depth | | | | | | | | | |
| 7,600.00 | 0.00 | 0.00 | 7,469.09 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| 7,676.91 | 0.00 | 0.00 | 7,546.00 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| GH Depth | | | | | | | | | |
| 7,700.00 | 0.00 | 0.00 | 7,569.09 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| 7,800.00 | 0.00 | 0.00 | 7,669.09 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| 7,900.00 | 0.00 | 0.00 | 7,769.09 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| 8,000.00 | 0.00 | 0.00 | 7,869.09 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| 8,026.91 | 0.00 | 0.00 | 7,896.00 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| J Depth | | | | | | | | | |
| 8,100.00 | 0.00 | 0.00 | 7,969.09 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| 8,200.00 | 0.00 | 0.00 | 8,069.09 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| 8,206.91 | 0.00 | 0.00 | 8,076.00 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| DK Depth | | | | | | | | | |
| 8,300.00 | 0.00 | 0.00 | 8,169.09 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| 8,400.00 | 0.00 | 0.00 | 8,269.09 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| 8,406.91 | 0.00 | 0.00 | 8,276.00 | 993.42 | 448.15 | 1,089.83 | 0.00 | 0.00 | 0.00 |
| FEHRN 1-32 BHL | | | | | | | | | |

| | | | |
|------------------|-----------------------------|-------------------------------------|-------------------|
| Database: | edm5000p | Local Co-ordinate Reference: | Well FEHRN 1-32 |
| Company: | US ROCKIES REGION PLANNING | TVD Reference: | GL @ 4916.00ft |
| Project: | COLORADO NORTHERN ZONE - 83 | MD Reference: | GL @ 4916.00ft |
| Site: | WELD_FEHRN 17-32 PAD | North Reference: | True |
| Well: | FEHRN 1-32 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | FEHRN 1-32 | | |
| Design: | FEHRN 1-32 (wp01) | | |

| Design Targets | | | | | | | | | |
|---------------------------|-----------|----------|----------|--------|--------|--------------|--------------|-----------|-------------|
| Target Name | | | | | | | | | |
| - hit/miss target | Dip Angle | Dip Dir. | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
| - Shape | (°) | (°) | (ft) | (ft) | (ft) | (ft) | (ft) | | |
| FEHRN 1-32 BHL | 0.00 | 0.00 | 8,276.00 | 993.42 | 448.15 | 1,280,080.31 | 3,197,498.97 | 40.100054 | -104.793990 |
| - plan hits target center | | | | | | | | | |
| - Point | | | | | | | | | |

| Casing Points | | | | | |
|----------------|----------------|-------|--|-----------------|---------------|
| Measured Depth | Vertical Depth | | | Casing Diameter | Hole Diameter |
| (ft) | (ft) | | | (") | (") |
| | | Name | | | |
| 803.59 | 801.00 | 8-5/8 | | 8-5/8 | 11 |

| Formations | | | | | | |
|----------------|----------------|-----------|-----------|--|------|---------------|
| Measured Depth | Vertical Depth | | | | Dip | Dip Direction |
| (ft) | (ft) | Name | Lithology | | (°) | (°) |
| 4,226.78 | 4,116.00 | PK Depth | | | 0.00 | |
| 4,609.03 | 4,486.00 | SX Depth | | | 0.00 | |
| 7,261.91 | 7,131.00 | NIO Depth | | | 0.00 | |
| 7,586.91 | 7,456.00 | CD Depth | | | 0.00 | |
| 7,676.91 | 7,546.00 | GH Depth | | | 0.00 | |
| 8,026.91 | 7,896.00 | J Depth | | | 0.00 | |
| 8,206.91 | 8,076.00 | DK Depth | | | 0.00 | |