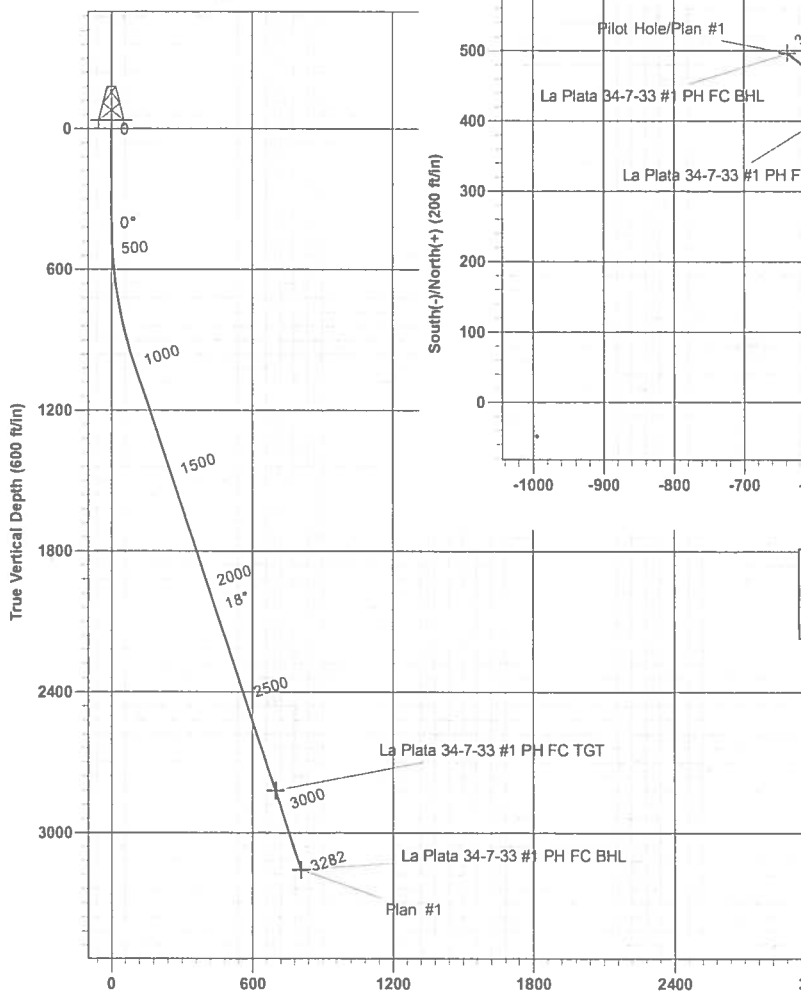
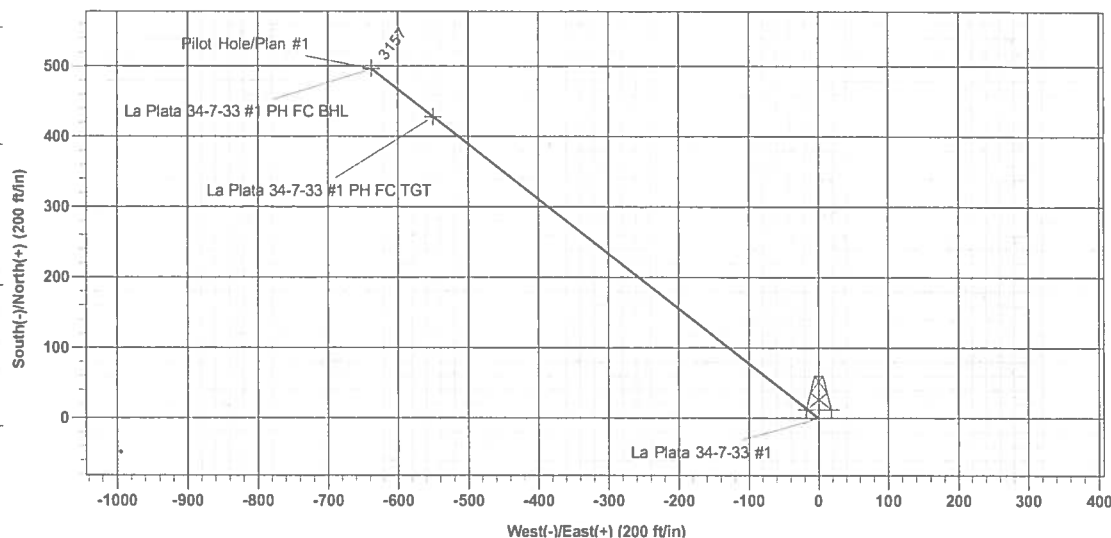


Project: La Plata County CO
 Site: SEC 33-T34N-R7W
 Well: La Plata 34-7-33 #1
 Wellbore: Pilot Hole
 Design: Plan #1



Vertical Section at 307.89° (600 ft/in)



| DESIGN TARGET DETAILS | | | | | |
|-------------------------------|--------|-------|--------|-----------------|-------------------|
| Name | TVD | +N/-S | +E/-W | Latitude | Longitude |
| La Plata 34-7-33 #1 PH FC TGT | 2820.0 | 428.0 | -550.0 | 37° 8' 35.272 N | 107° 36' 33.226 W |
| La Plata 34-7-33 #1 PH FC BHL | 3157.5 | 496.3 | -637.8 | 37° 8' 35.928 N | 107° 36' 34.330 W |

| WELL DETAILS La Plata 34-7-33 #1 | | | | | |
|----------------------------------|-------|------------|------------|-----------------|-------------------|
| DFE @ 6737.5ft (GL + 13.5') | | | | | |
| Ground Level: 6724.0 | | | | | |
| +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
| 0.0 | 0.0 | 1180004.23 | 2385784.44 | 37° 8' 31.164 N | 107° 36' 26.316 W |

SITE DETAILS: SEC 33-T34N-R7W
 Site Centre Northing: 1180004.23
 Easting: 2385784.44
 Positional Uncertainty: 1.0
 Convergence: -1.29
 Local North: Grid

PROJECT DETAILS: La Plata County CO
 Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: Colorado Southern Zone
 System Datum: Mean Sea Level

ALL AZIMUTHS MUST BE CORRECTED TO GRID NORTH

To convert a Magnetic Direction to a Grid Direction, Add 10.86°
 To convert a True Direction to a Grid Direction, Add 1.29°

| | | | |
|------------------|---------------------|-------------------------------------|-----------------------------|
| Database: | EDM 5000.1 Old | Local Co-ordinate Reference: | Well La Plata 34-7-33 #1 |
| Company: | Coleman Oil & Gas | TVD Reference: | DFE @ 6737.5ft (GL + 13.5') |
| Project: | La Plata County CO | MD Reference: | DFE @ 6737.5ft (GL + 13.5') |
| Site: | SEC 33-T34N-R7W | North Reference: | Grid |
| Well: | La Plata 34-7-33 #1 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Pilot Hole | | |
| Design: | Plan #1 | | |

| | | | |
|--------------------|---------------------------|----------------------|-----------------------------|
| Project | La Plata County CO | | |
| Map System: | US State Plane 1983 | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | Using Well Reference Point |
| Map Zone: | Colorado Southern Zone | | Using geodetic scale factor |

| | | | |
|------------------------------|-----------------|--------------------------|-------------------|
| Site | SEC 33-T34N-R7W | | |
| Site Position: | | Northing: | 1,180,004.23 usft |
| From: | Lat/Long | Easting: | 2,385,784.44 usft |
| Position Uncertainty: | 1.0 ft | Slot Radius: | 6-1/8 " |
| | | Latitude: | 37° 8' 31.164 N |
| | | Longitude: | 107° 36' 26.316 W |
| | | Grid Convergence: | -1.29 ° |

| | | | |
|-----------------------------|-------------------------------------|----------------------------|-------------------------------------|
| Well | La Plata 34-7-33 #1, FC Horizontals | | |
| Well Position | +N/-S | 0.0 ft | Northing: 1,180,004.23 usft |
| | +E/-W | 0.0 ft | Easting: 2,385,784.44 usft |
| Position Uncertainty | 1.0 ft | Wellhead Elevation: | Latitude: 37° 8' 31.164 N |
| | | | Longitude: 107° 36' 26.316 W |
| | | | Ground Level: 6,724.0 ft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Pilot Hole | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | BGGM2014 | 2014/08/20 | 9.57 | 63.77 | 50,574 |

| | | | | |
|--------------------------|------------------------------|-------------------|----------------------|----------------------|
| Design | Plan #1 | | | |
| Audit Notes: | | | | |
| Version: | Phase: | PLAN | Tie On Depth: | 0.0 |
| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) |
| | 0.0 | 0.0 | 0.0 | 307.89 |

| Plan Sections | | | | | | | | | | |
|----------------------|-----------------|-------------|---------------------|------------|------------|-------------------------|------------------------|-----------------------|---------|---------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Dogleg Rate (°/100usft) | Bulld Rate (°/100usft) | Turn Rate (°/100usft) | TFO (°) | Target |
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 400.0 | 0.00 | 0.00 | 400.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,008.4 | 18.25 | 307.89 | 998.2 | 59.0 | -75.8 | 3.00 | 3.00 | 0.00 | 307.89 | |
| 2,926.8 | 18.25 | 307.89 | 2,820.0 | 428.0 | -550.0 | 0.00 | 0.00 | 0.00 | 0.00 | La Plata 34-7-33 #1 |
| 3,132.1 | 18.25 | 307.89 | 3,015.0 | 467.5 | -600.8 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 3,282.1 | 18.25 | 307.89 | 3,157.5 | 496.3 | -637.8 | 0.00 | 0.00 | 0.00 | 0.00 | La Plata 34-7-33 #1 |

SDI
Planning Report



| | | | |
|------------------|---------------------|-------------------------------------|-----------------------------|
| Database: | EDM 5000.1 Old | Local Co-ordinate Reference: | Well La Plata 34-7-33 #1 |
| Company: | Coleman Oil & Gas | TVD Reference: | DFE @ 6737.5ft (GL + 13.5') |
| Project: | La Plata County CO | MD Reference: | DFE @ 6737.5ft (GL + 13.5') |
| Site: | SEC 33-T34N-R7W | North Reference: | Grid |
| Well: | La Plata 34-7-33 #1 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Pilot Hole | | |
| Design: | Plan #1 | | |

| Planned Survey | | | | | | | | | |
|---|-----------------|-------------|---------------------|------------|------------|-----------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 100.0 | 0.00 | 0.00 | 100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 200.0 | 0.00 | 0.00 | 200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 300.0 | 0.00 | 0.00 | 300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 400.0 | 0.00 | 0.00 | 400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 500.0 | 3.00 | 307.89 | 500.0 | 1.6 | -2.1 | 2.6 | 3.00 | 3.00 | 0.00 |
| 600.0 | 6.00 | 307.89 | 599.6 | 6.4 | -8.3 | 10.5 | 3.00 | 3.00 | 0.00 |
| 700.0 | 9.00 | 307.89 | 698.8 | 14.4 | -18.6 | 23.5 | 3.00 | 3.00 | 0.00 |
| 800.0 | 12.00 | 307.89 | 797.1 | 25.6 | -32.9 | 41.7 | 3.00 | 3.00 | 0.00 |
| 900.0 | 15.00 | 307.89 | 894.3 | 40.0 | -51.4 | 65.1 | 3.00 | 3.00 | 0.00 |
| 1,008.4 | 18.25 | 307.89 | 998.2 | 59.0 | -75.8 | 96.1 | 3.00 | 3.00 | 0.00 |
| 1,100.0 | 18.25 | 307.89 | 1,085.2 | 76.6 | -98.5 | 124.8 | 0.00 | 0.00 | 0.00 |
| 1,200.0 | 18.25 | 307.89 | 1,180.1 | 95.9 | -123.2 | 156.1 | 0.00 | 0.00 | 0.00 |
| 1,300.0 | 18.25 | 307.89 | 1,275.1 | 115.1 | -147.9 | 187.4 | 0.00 | 0.00 | 0.00 |
| 1,400.0 | 18.25 | 307.89 | 1,370.1 | 134.3 | -172.6 | 218.7 | 0.00 | 0.00 | 0.00 |
| 1,500.0 | 18.25 | 307.89 | 1,465.0 | 153.6 | -197.3 | 250.1 | 0.00 | 0.00 | 0.00 |
| 1,600.0 | 18.25 | 307.89 | 1,560.0 | 172.8 | -222.1 | 281.4 | 0.00 | 0.00 | 0.00 |
| 1,700.0 | 18.25 | 307.89 | 1,655.0 | 192.0 | -246.8 | 312.7 | 0.00 | 0.00 | 0.00 |
| 1,794.8 | 18.25 | 307.89 | 1,745.0 | 210.3 | -270.2 | 342.4 | 0.00 | 0.00 | 0.00 |
| Ojo Alamo | | | | | | | | | |
| 1,800.0 | 18.25 | 307.89 | 1,749.9 | 211.3 | -271.5 | 344.0 | 0.00 | 0.00 | 0.00 |
| 1,868.5 | 18.25 | 307.89 | 1,815.0 | 224.5 | -288.4 | 365.5 | 0.00 | 0.00 | 0.00 |
| Kirtland | | | | | | | | | |
| 1,900.0 | 18.25 | 307.89 | 1,844.9 | 230.5 | -296.2 | 375.3 | 0.00 | 0.00 | 0.00 |
| 2,000.0 | 18.25 | 307.89 | 1,939.9 | 249.7 | -320.9 | 406.7 | 0.00 | 0.00 | 0.00 |
| 2,100.0 | 18.25 | 307.89 | 2,034.8 | 269.0 | -345.6 | 438.0 | 0.00 | 0.00 | 0.00 |
| 2,200.0 | 18.25 | 307.89 | 2,129.8 | 288.2 | -370.4 | 469.3 | 0.00 | 0.00 | 0.00 |
| 2,300.0 | 18.25 | 307.89 | 2,224.8 | 307.4 | -395.1 | 500.6 | 0.00 | 0.00 | 0.00 |
| 2,400.0 | 18.25 | 307.89 | 2,319.7 | 326.7 | -419.8 | 531.9 | 0.00 | 0.00 | 0.00 |
| 2,500.0 | 18.25 | 307.89 | 2,414.7 | 345.9 | -444.5 | 563.3 | 0.00 | 0.00 | 0.00 |
| 2,600.0 | 18.25 | 307.89 | 2,509.7 | 365.2 | -469.2 | 594.6 | 0.00 | 0.00 | 0.00 |
| 2,700.0 | 18.25 | 307.89 | 2,604.7 | 384.4 | -494.0 | 625.9 | 0.00 | 0.00 | 0.00 |
| 2,800.0 | 18.25 | 307.89 | 2,699.6 | 403.6 | -518.7 | 657.2 | 0.00 | 0.00 | 0.00 |
| 2,900.0 | 18.25 | 307.89 | 2,794.6 | 422.9 | -543.4 | 688.5 | 0.00 | 0.00 | 0.00 |
| 2,926.8 | 18.25 | 307.89 | 2,820.0 | 428.0 | -550.0 | 696.9 | 0.00 | 0.00 | 0.00 |
| Top Upper Coal - La Plata 34-7-33 #1 PH FC TGT | | | | | | | | | |
| 2,936.2 | 18.25 | 307.89 | 2,829.0 | 429.8 | -552.3 | 699.9 | 0.00 | 0.00 | 0.00 |
| Base Upper Coal | | | | | | | | | |
| 3,000.0 | 18.25 | 307.89 | 2,889.6 | 442.1 | -568.1 | 719.9 | 0.00 | 0.00 | 0.00 |
| 3,053.1 | 18.25 | 307.89 | 2,940.0 | 452.3 | -581.2 | 736.5 | 0.00 | 0.00 | 0.00 |
| Top Basal Coal | | | | | | | | | |
| 3,068.9 | 18.25 | 307.89 | 2,955.0 | 455.3 | -585.1 | 741.4 | 0.00 | 0.00 | 0.00 |
| Base Basal Coal | | | | | | | | | |
| 3,100.0 | 18.25 | 307.89 | 2,984.5 | 461.3 | -592.8 | 751.2 | 0.00 | 0.00 | 0.00 |
| 3,132.1 | 18.25 | 307.89 | 3,015.0 | 467.5 | -600.8 | 761.2 | 0.00 | 0.00 | 0.00 |
| PC | | | | | | | | | |
| 3,200.0 | 18.25 | 307.89 | 3,079.5 | 480.6 | -617.5 | 782.5 | 0.00 | 0.00 | 0.00 |
| 3,282.1 | 18.25 | 307.89 | 3,157.5 | 496.3 | -637.8 | 808.2 | 0.00 | 0.00 | 0.00 |
| La Plata 34-7-33 #1 PH FC BHL | | | | | | | | | |

| | | | |
|------------------|---------------------|-------------------------------------|-----------------------------|
| Database: | EDM 5000.1 Old | Local Co-ordinate Reference: | Well La Plata 34-7-33 #1 |
| Company: | Coleman Oil & Gas | TVD Reference: | DFE @ 6737.5ft (GL + 13.5') |
| Project: | La Plata County CO | MD Reference: | DFE @ 6737.5ft (GL + 13.5') |
| Site: | SEC 33-T34N-R7W | North Reference: | Grid |
| Well: | La Plata 34-7-33 #1 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Pilot Hole | | |
| Design: | Plan #1 | | |

Design Targets

| Target Name - hit/miss target - Shape | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (usft) | Easting (usft) | Latitude | Longitude |
|---|------------------|-----------------|-------------|---------------|---------------|--------------------|-------------------|-----------------|-------------------|
| La Plata 34-7-33 #1 P - plan hits target center - Point | 0.00 | 360.00 | 2,820.0 | 428.0 | -550.0 | 1,180,432.24 | 2,385,234.43 | 37° 8' 35.272 N | 107° 36' 33.226 W |
| La Plata 34-7-33 #1 P - plan hits target center - Point | 0.00 | 0.00 | 3,157.5 | 496.3 | -637.8 | 1,180,500.58 | 2,385,146.60 | 37° 8' 35.928 N | 107° 36' 34.330 W |

Formations

| Measured Depth (ft) | Vertical Depth (ft) | Name | Lithology | Dip (°) | Dip Direction (°) |
|---------------------------|---------------------------|-----------------|-----------|------------|-------------------------|
| 1,794.8 | -4,992.5 | Ojo Alamo | | 0.00 | |
| 1,868.5 | -4,922.5 | Kirtland | | 0.00 | |
| 2,926.8 | -3,917.5 | Top Upper Coal | | 0.00 | |
| 2,936.2 | -3,908.5 | Base Upper Coal | | 0.00 | |
| 3,053.1 | -3,797.5 | Top Basal Coal | | 0.00 | |
| 3,068.9 | -3,782.5 | Base Basal Coal | | 0.00 | |
| 3,132.1 | -3,722.5 | PC | | 0.00 | |