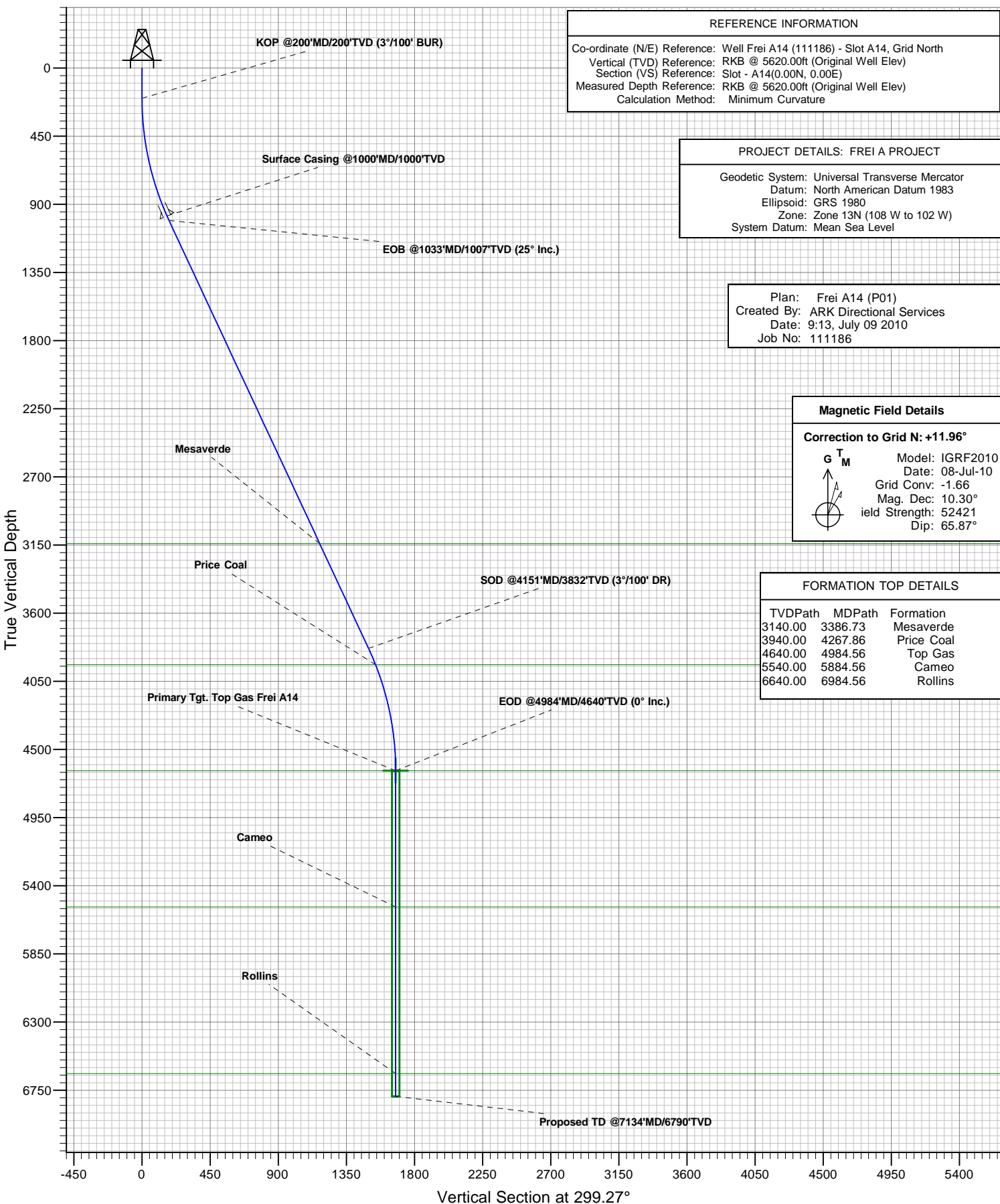




Antero Resources

Frei A14



| REFERENCE INFORMATION | |
|------------------------------|---|
| Co-ordinate (N/E) Reference: | Well Frei A14 (111186) - Slot A14, Grid North |
| Vertical (TVD) Reference: | RKB @ 5620.00ft (Original Well Elev) |
| Section (VS) Reference: | Slot - A14(0.00N, 0.00E) |
| Measured Depth Reference: | RKB @ 5620.00ft (Original Well Elev) |
| Calculation Method: | Minimum Curvature |

| PROJECT DETAILS: FREI A PROJECT | |
|---------------------------------|-------------------------------|
| Geodetic System: | Universal Transverse Mercator |
| Datum: | North American Datum 1983 |
| Ellipsoid: | GRS 1980 |
| Zone: | Zone 13N (108 W to 102 W) |
| System Datum: | Mean Sea Level |

| | |
|-------------|--------------------------|
| Plan: | Frei A14 (P01) |
| Created By: | ARK Directional Services |
| Date: | 9:13, July 09 2010 |
| Job No: | 111186 |

| Magnetic Field Details | |
|--------------------------------------|-----------------------|
| Correction to Grid N: +11.96° | |
| G T M | Model: IGRF2010 |
| | Date: 08-Jul-10 |
| | Grid Conv: -1.66 |
| | Mag. Dec: 10.30° |
| | Field Strength: 52421 |
| | Dip: 65.87° |

| FORMATION TOP DETAILS | | |
|-----------------------|---------|------------|
| TVDPath | MDPath | Formation |
| 3140.00 | 3386.73 | Mesaverde |
| 3940.00 | 4267.86 | Price Coal |
| 4640.00 | 4984.56 | Top Gas |
| 5540.00 | 5884.56 | Cameo |
| 6640.00 | 6984.56 | Rollins |

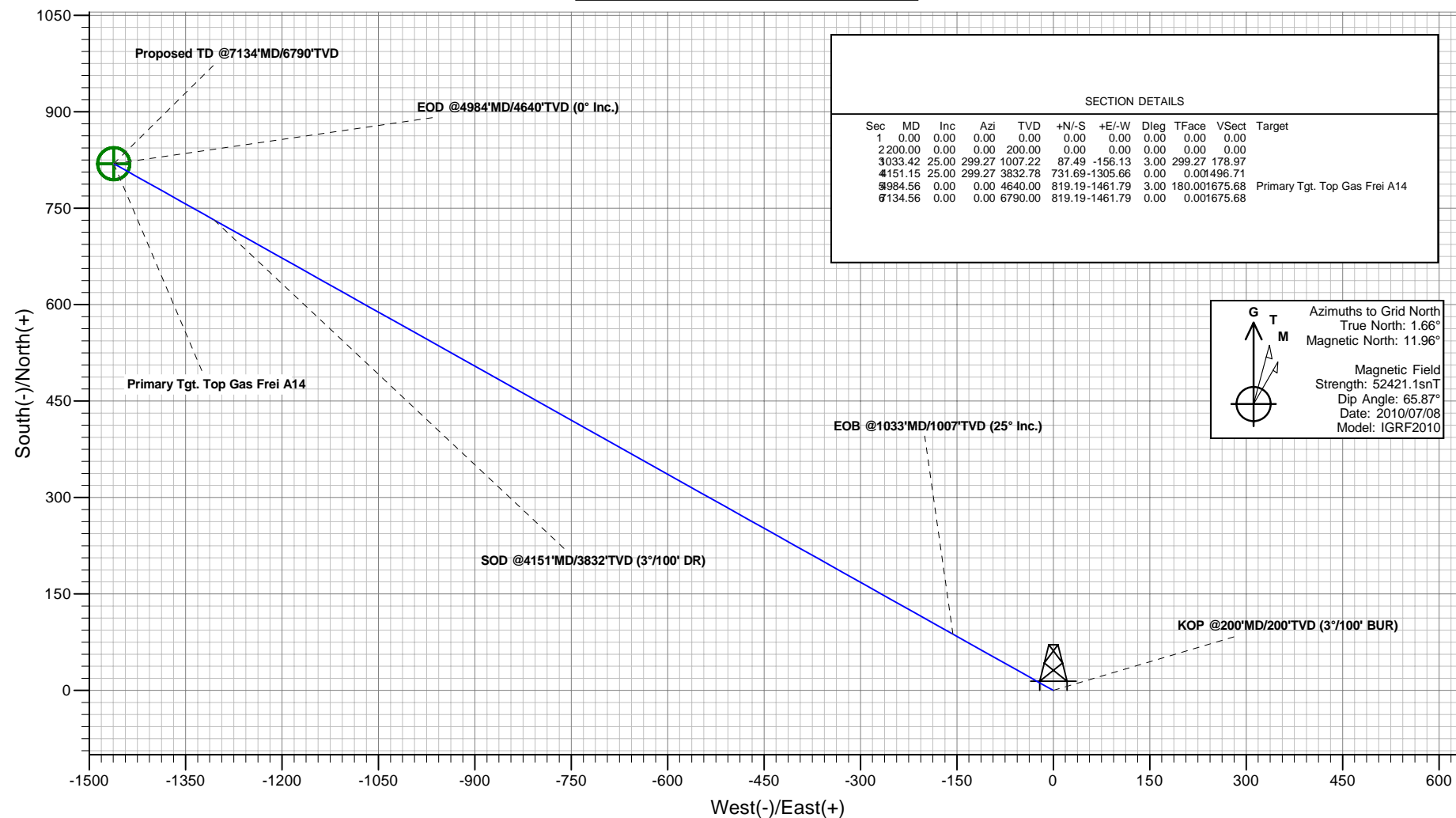


Antero Resources



PLAN VIEW

Project: FREI A PROJECT
Site: FRONTIER 12
Well: Frei A14 (111186)
Wellbore: Frei A14
Design: Frei A14 (P01)
JOB # 111186



PROJECT DETAILS: FREI A PROJECT

Geodetic System: Universal Transverse Mercator
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Zone 13N (108 W to 102 W)
System Datum: Mean Sea Level

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Frei A14 (111186), Grid North
Vertical (TVD) Reference: RKB @ 5620.00ft (Original Well Elev)
Section (VS) Reference: Slot - A14(0.00N, 0.00E)
Measured Depth Reference: RKB @ 5620.00ft (Original Well Elev)
Calculation Method: Minimum Curvature

Plan: Frei A14 (P01)
Created By: ARK Directional Services
Date: 9:15, July 09 2010

Antero Resources

**FREI A PROJECT
FRONTIER 12**

Plan: Frei A14 (P01)

Standard Planning Report - Geographic

09 July, 2010

ARK Directional Services

Planning Report - Geographic

| | | | |
|------------------|-------------------|-------------------------------------|--------------------------------------|
| Database: | EDM SERVER DB | Local Co-ordinate Reference: | Well Frei A14 (111186) - Slot A14 |
| Company: | Antero Resources | TVD Reference: | RKB @ 5620.00ft (Original Well Elev) |
| Project: | FREI A PROJECT | MD Reference: | RKB @ 5620.00ft (Original Well Elev) |
| Site: | FRONTIER 12 | North Reference: | Grid |
| Well: | Frei A14 (111186) | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Frei A14 | | |
| Design: | Frei A14 (P01) | | |

| | | | |
|--------------------|-------------------------------|----------------------|----------------|
| Project | FREI A PROJECT | | |
| Map System: | Universal Transverse Mercator | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | |
| Map Zone: | Zone 13N (108 W to 102 W) | | |

| | | | | | |
|-----------------------|----------|--------------|--------------------|-------------------|-----------------|
| Site | | FRONTIER 12 | | | |
| Site Position: | | Northing: | 14,368,390.50 usft | Latitude: | 39.535980489°N |
| From: | Lat/Long | Easting: | 906,417.64 usft | Longitude: | 107.603240409°W |
| Position Uncertainty: | 0.00 ft | Slot Radius: | 13.20 in | Grid Convergence: | -1.66 ° |

| Well | Frei A14 (111186) - Slot A14 | | | | | |
|----------------------|------------------------------|---------|---------------------|--------------------|---------------|-----------------|
| Well Position | +N/-S | 0.00 ft | Northing: | 14,368,357.55 usft | Latitude: | 39.535887819°N |
| | +E/-W | 0.00 ft | Easting: | 906,388.88 usft | Longitude: | 107.603338933°W |
| Position Uncertainty | | 0.00 ft | Wellhead Elevation: | | Ground Level: | 5,596.00 ft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Frei A14 | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 2010/07/08 | 10.30 | 65.87 | 52,421 |

| | | | | | |
|--------------------------|------------------------------|-------------------|-------------------|----------------------|------|
| Design | Frei A14 (P01) | | | | |
| Audit Notes: | | | | | |
| Version: | Phase: | PROTOTYPE | | Tie On Depth: | 0.00 |
| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) | |
| | 0.00 | 0.00 | 0.00 | 299.27 | |

| 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 | |
| 200.00 | 0.00 | 0.00 | 200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,033.42 | 25.00 | 299.27 | 1,007.22 | 87.49 | -156.13 | 3.00 | 3.00 | 0.00 | 299.27 | |
| 4,151.15 | 25.00 | 299.27 | 3,832.78 | 731.69 | -1,305.66 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 4,984.56 | 0.00 | 0.00 | 4,640.00 | 819.19 | -1,461.79 | 3.00 | -3.00 | 0.00 | 180.00 | Primary Tgt. Top Gas |
| 7,134.56 | 0.00 | 0.00 | 6,790.00 | 819.19 | -1,461.79 | 0.00 | 0.00 | 0.00 | 0.00 | |

ARK Directional Services

Planning Report - Geographic

| | | | |
|------------------|-------------------|-------------------------------------|--------------------------------------|
| Database: | EDM SERVER DB | Local Co-ordinate Reference: | Well Frei A14 (111186) - Slot A14 |
| Company: | Antero Resources | TVD Reference: | RKB @ 5620.00ft (Original Well Elev) |
| Project: | FREI A PROJECT | MD Reference: | RKB @ 5620.00ft (Original Well Elev) |
| Site: | FRONTIER 12 | North Reference: | Grid |
| Well: | Frei A14 (111186) | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Frei A14 | | |
| Design: | Frei A14 (P01) | | |

| Planned Survey | | | | | | | | | |
|--|-----------------|-------------|---------------------|------------|------------|---------------------|--------------------|----------------|-----------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Map Northing (usft) | Map Easting (usft) | Latitude | Longitude |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 14,368,357.55 | 906,388.88 | 39.535887819°N | 107.603338933°W |
| 200.00 | 0.00 | 0.00 | 200.00 | 0.00 | 0.00 | 14,368,357.55 | 906,388.88 | 39.535887819°N | 107.603338933°W |
| KOP @200'MD/200'TVD (3°/100' BUR) | | | | | | | | | |
| 1,000.00 | 24.00 | 299.27 | 976.81 | 80.72 | -144.04 | 14,368,438.27 | 906,244.84 | 39.536097840°N | 107.603857576°W |
| Surface Casing @1000'MD/1000'TVD | | | | | | | | | |
| 1,033.42 | 25.00 | 299.27 | 1,007.22 | 87.50 | -156.13 | 14,368,445.05 | 906,232.75 | 39.536115469°N | 107.603901111°W |
| EOB @1033'MD/1007'TVD (25° Inc.) | | | | | | | | | |
| 3,386.73 | 25.00 | 299.27 | 3,140.00 | 573.75 | -1,023.82 | 14,368,931.30 | 905,365.07 | 39.537380569°N | 107.607025439°W |
| Mesaverde | | | | | | | | | |
| 4,151.15 | 25.00 | 299.27 | 3,832.79 | 731.69 | -1,305.66 | 14,369,089.25 | 905,083.22 | 39.537791489°N | 107.608040330°W |
| SOD @4151'MD/3832'TVD (3°/100' DR) | | | | | | | | | |
| 4,267.86 | 21.50 | 299.27 | 3,940.00 | 754.21 | -1,345.85 | 14,369,111.77 | 905,043.03 | 39.537850078°N | 107.608185037°W |
| Price Coal | | | | | | | | | |
| 4,984.56 | 0.00 | 0.00 | 4,640.00 | 819.19 | -1,461.79 | 14,369,176.74 | 904,927.09 | 39.538019112°N | 107.608602529°W |
| EOD @4984'MD/4640'TVD (0° Inc.) - Top Gas | | | | | | | | | |
| 5,884.56 | 0.00 | 0.00 | 5,540.00 | 819.19 | -1,461.79 | 14,369,176.74 | 904,927.09 | 39.538019112°N | 107.608602529°W |
| Cameo | | | | | | | | | |
| 6,984.56 | 0.00 | 0.00 | 6,640.00 | 819.19 | -1,461.79 | 14,369,176.74 | 904,927.09 | 39.538019112°N | 107.608602529°W |
| Rollins | | | | | | | | | |
| 7,134.53 | 0.00 | 0.00 | 6,789.97 | 819.19 | -1,461.79 | 14,369,176.74 | 904,927.09 | 39.538019112°N | 107.608602529°W |
| Proposed TD @7134'MD/6790'TVD | | | | | | | | | |
| 7,134.56 | 0.00 | 0.00 | 6,790.00 | 819.19 | -1,461.79 | 14,369,176.74 | 904,927.09 | 39.538019112°N | 107.608602529°W |

| Design Targets | | | | | | | | | |
|---------------------------|---------------|--------------|----------|------------|------------|-----------------|----------------|----------------|-----------------|
| Target Name | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (usft) | Easting (usft) | Latitude | Longitude |
| - hit/miss target | | | | | | | | | |
| - Shape | | | | | | | | | |
| Primary Tgt. Top Gas Fr | 0.00 | 360.00 | 4,640.00 | 819.19 | -1,461.79 | 14,369,176.74 | 904,927.09 | 39.538019112°N | 107.608602529°W |
| - plan hits target center | | | | | | | | | |
| - Circle (radius 25.00) | | | | | | | | | |

| Casing Points | | | | | |
|---------------------|---------------------|----------------------------------|----------------------|--------------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Name | Casing Diameter (in) | Hole Diameter (in) | |
| 1,000.00 | 976.81 | Surface Casing @1000'MD/1000'TVD | 5.50 | 6.00 | |

| Formations | | | | | | |
|---------------------|---------------------|------------|-----------|---------|-------------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Name | Lithology | Dip (°) | Dip Direction (°) | |
| 3,386.73 | 3,140.00 | Mesaverde | | 0.00 | | |
| 4,267.86 | 3,940.00 | Price Coal | | 0.00 | | |
| 4,984.56 | 4,640.00 | Top Gas | | 0.00 | | |
| 5,884.56 | 5,540.00 | Cameo | | 0.00 | | |
| 6,984.56 | 6,640.00 | Rollins | | 0.00 | | |

ARK Directional Services

Planning Report - Geographic

| | | | |
|------------------|-------------------|-------------------------------------|--------------------------------------|
| Database: | EDM SERVER DB | Local Co-ordinate Reference: | Well Frei A14 (111186) - Slot A14 |
| Company: | Antero Resources | TVD Reference: | RKB @ 5620.00ft (Original Well Elev) |
| Project: | FREI A PROJECT | MD Reference: | RKB @ 5620.00ft (Original Well Elev) |
| Site: | FRONTIER 12 | North Reference: | Grid |
| Well: | Frei A14 (111186) | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Frei A14 | | |
| Design: | Frei A14 (P01) | | |

| Plan Annotations | | | | |
|---------------------------|---------------------------|-------------------|---------------|------------------------------------|
| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates | | Comment |
| | | +N/-S (ft) | +E/-W (ft) | |
| 200.00 | 200.00 | 0.00 | 0.00 | KOP @200'MD/200'TVD (3°/100' BUR) |
| 1,033.42 | 1,007.22 | 87.50 | -156.13 | EOB @1033'MD/1007'TVD (25° Inc.) |
| 4,151.15 | 3,832.79 | 731.69 | -1,305.66 | SOD @4151'MD/3832'TVD (3°/100' DR) |
| 4,984.56 | 4,640.00 | 819.19 | -1,461.79 | EOD @4984'MD/4640'TVD (0° Inc.) |
| 7,134.53 | 6,789.97 | 819.19 | -1,461.79 | Proposed TD @7134'MD/6790'TVD |