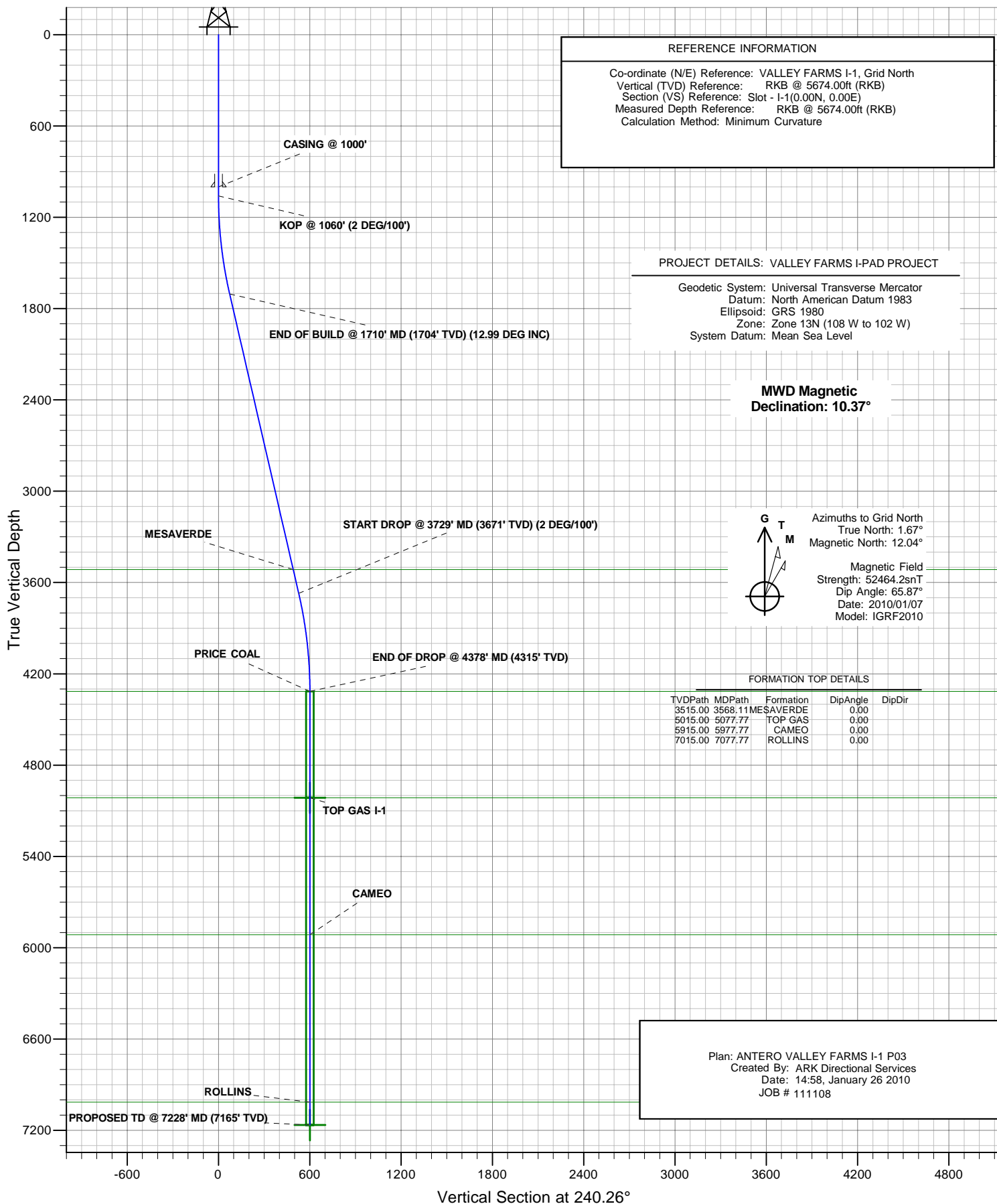




ANTERO RESOURCES

ANTERO VALLEY FARMS I-1



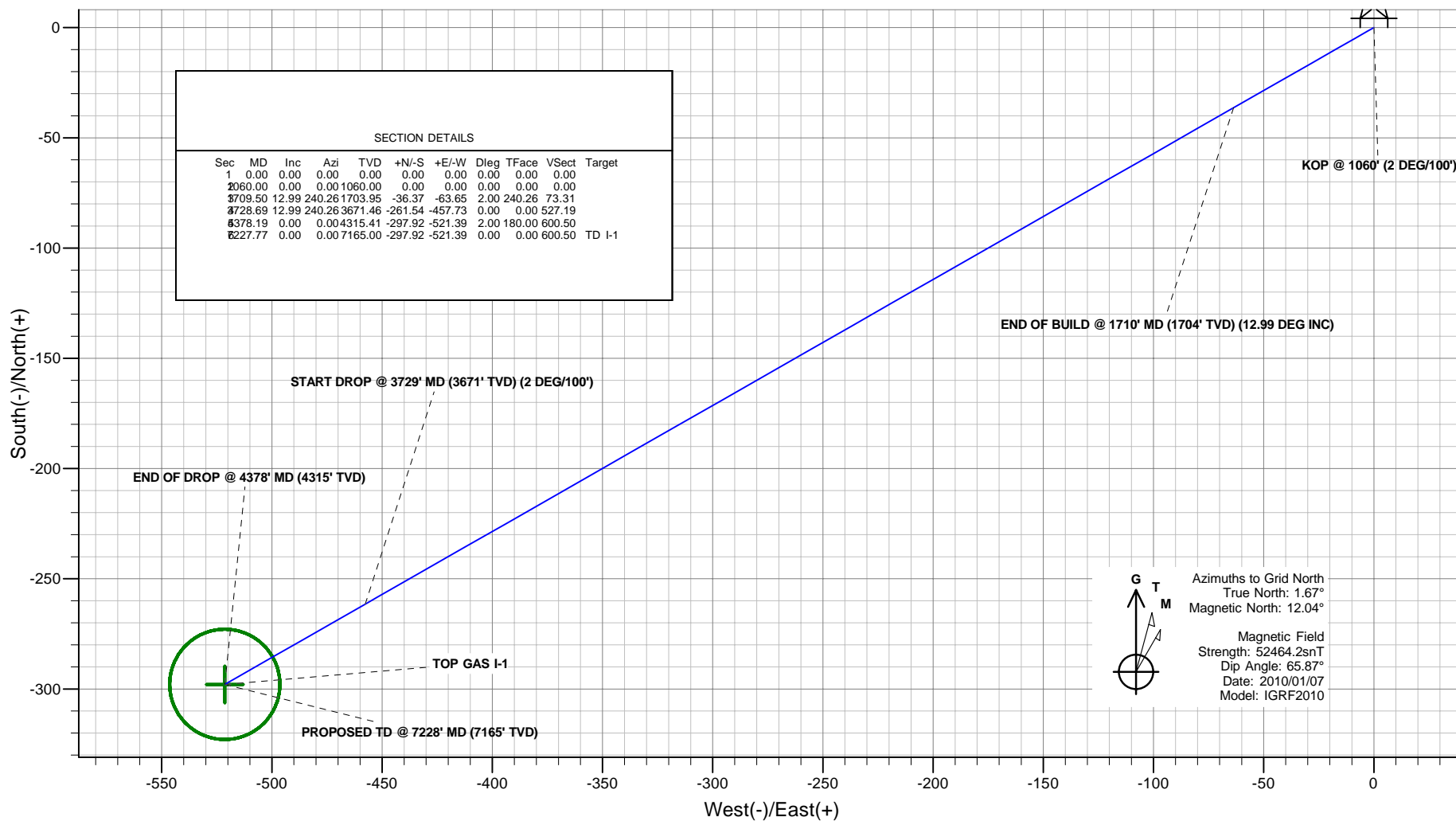


ANTERO RESOURCES

Project: VALLEY FARMS I-PAD PROJECT
Site: FRONTIER 12
Well: VALLEY FARMS I-1 (111108)
Wellbore: ANTERO VALLEY FARMS I-1
Design: ANTERO VALLEY FARMS I-1 P03
JOB # 111108



PLAN VIEW



Plan: ANTERO VALLEY FARMS I-1 P03
Created By: ARK Directional Services
Date: 15:00, January 26 2010

PROJECT DETAILS: VALLEY FARMS I-PAD 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

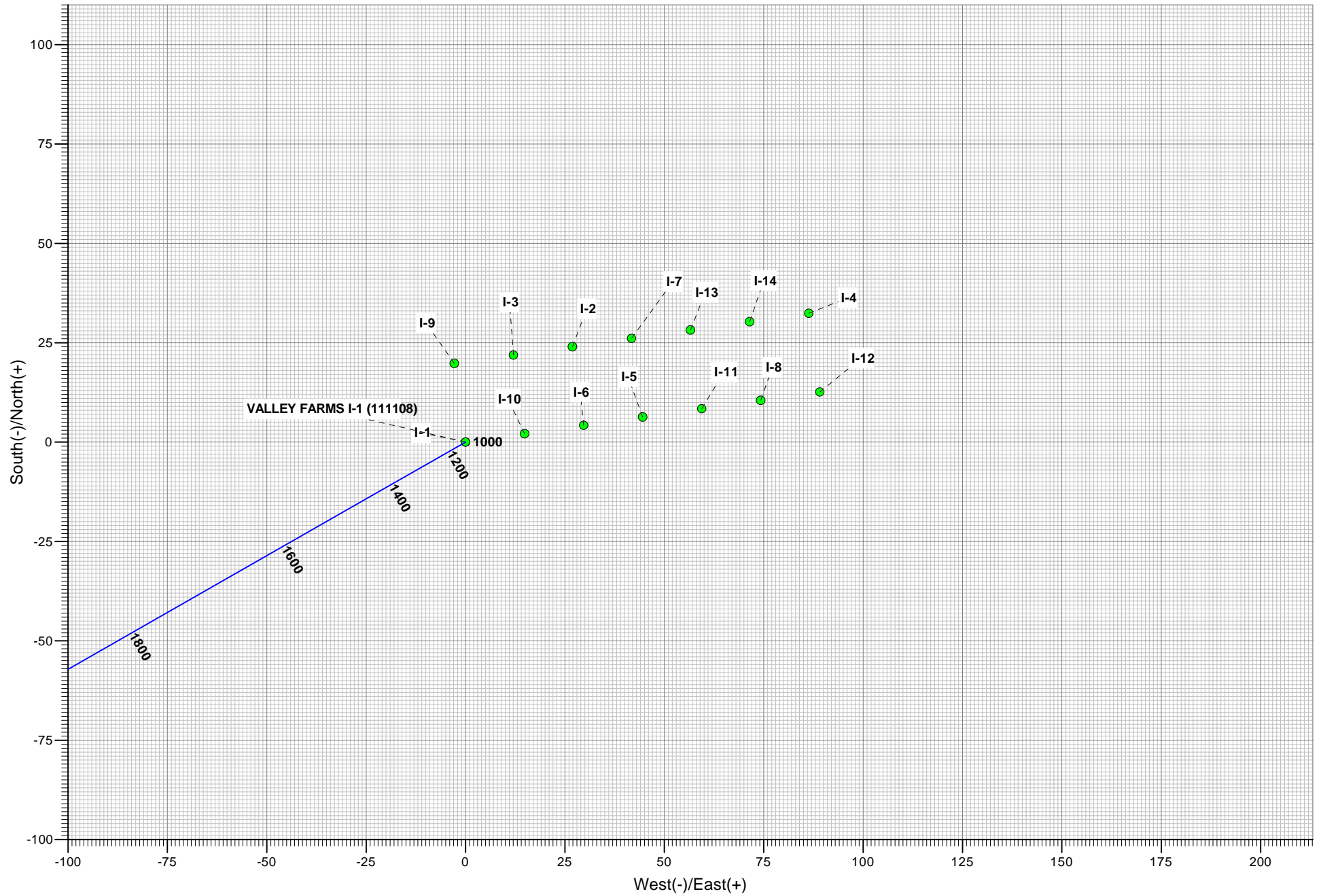
Co-ordinate (N/E) Reference: VALLEY FARMS I-1, Grid North
Vertical (TVD) Reference: RKB @ 5674.00ft (RKB)
Section (VS) Reference: Slot - I-1(0.00N, 0.00E)
Measured Depth Reference: RKB @ 5674.00ft (RKB)
Calculation Method: Minimum Curvature



ANTERO VALLEY FARMS I-1



SPIDER PLOT



ANTERO RESOURCES

**VALLEY FARMS I-PAD PROJECT
FRONTIER 12**

Plan: ANTERO VALLEY FARMS I-1 P03

Standard Planning Report - Geographic

26 January, 2010

Ark Directional Services

Planning Report - Geographic

| | | | |
|------------------|-----------------------------|-------------------------------------|---|
| Database: | EDM 5000.1 Single User Db | Local Co-ordinate Reference: | Well VALLEY FARMS I-1 (111108) - Slot I-1 |
| Company: | ANTERO RESOURCES | TVD Reference: | RKB @ 5674.00ft (RKB) |
| Project: | VALLEY FARMS I-PAD PROJECT | MD Reference: | RKB @ 5674.00ft (RKB) |
| Site: | FRONTIER 12 | North Reference: | Grid |
| Well: | VALLEY FARMS I-1 (111108) | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | ANTERO VALLEY FARMS I-1 | | |
| Design: | ANTERO VALLEY FARMS I-1 P03 | | |

| | | | |
|--------------------|-------------------------------|----------------------|----------------|
| Project | VALLEY FARMS I-PAD 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: | 14,365,113.22 usft | Latitude: | 39° 31' 35.888 N |
| From: | Lat/Long | Easting: | 901,976.81 usft | Longitude: | 107° 37' 7.093 W |
| Position Uncertainty: | 0.00 ft | Slot Radius: | 13.20 in | Grid Convergence: | -1.67 ° |

| | | | | | | |
|----------------------|--------------------------------------|---------|---------------------|--------------------|---------------|------------------|
| Well | VALLEY FARMS I-1 (111108) - Slot I-1 | | | | | |
| Well Position | +N/-S | 0.00 ft | Northing: | 14,365,106.91 usft | Latitude: | 39° 31' 35.813 N |
| | +E/-W | 0.00 ft | Easting: | 901,932.26 usft | Longitude: | 107° 37' 7.659 W |
| Position Uncertainty | | 0.00 ft | Wellhead Elevation: | | Ground Level: | 5,650.00 ft |

| | | | | | |
|------------------|-------------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | ANTERO VALLEY FARMS I-1 | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 2010/01/07 | 10.37 | 65.87 | 52,464 |

| | | | | | |
|--------------------------|------------------------------|-------------------|----------------------|----------------------|--|
| Design | ANTERO VALLEY FARMS I-1 P03 | | | | |
| 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 | 240.26 | |

| 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 | |
| 1,060.00 | 0.00 | 0.00 | 1,060.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,709.50 | 12.99 | 240.26 | 1,703.95 | -36.37 | -63.65 | 2.00 | 2.00 | 0.00 | 240.26 | |
| 3,728.69 | 12.99 | 240.26 | 3,671.46 | -261.54 | -457.73 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 4,378.19 | 0.00 | 0.00 | 4,315.41 | -297.92 | -521.39 | 2.00 | -2.00 | 0.00 | 180.00 | |
| 7,227.77 | 0.00 | 0.00 | 7,165.00 | -297.92 | -521.39 | 0.00 | 0.00 | 0.00 | 0.00 | TD I-1 |

Ark Directional Services

Planning Report - Geographic

| | | | |
|------------------|-----------------------------|-------------------------------------|---|
| Database: | EDM 5000.1 Single User Db | Local Co-ordinate Reference: | Well VALLEY FARMS I-1 (111108) - Slot I-1 |
| Company: | ANTERO RESOURCES | TVD Reference: | RKB @ 5674.00ft (RKB) |
| Project: | VALLEY FARMS I-PAD PROJECT | MD Reference: | RKB @ 5674.00ft (RKB) |
| Site: | FRONTIER 12 | North Reference: | Grid |
| Well: | VALLEY FARMS I-1 (111108) | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | ANTERO VALLEY FARMS I-1 | | |
| Design: | ANTERO VALLEY FARMS I-1 P03 | | |

| 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 | 14,365,106.91 | 901,932.26 | 39° 31' 35.813 N | 107° 37' 7.659 W |
| 100.00 | 0.00 | 0.00 | 100.00 | 0.00 | 0.00 | 14,365,106.91 | 901,932.26 | 39° 31' 35.813 N | 107° 37' 7.659 W |
| 200.00 | 0.00 | 0.00 | 200.00 | 0.00 | 0.00 | 14,365,106.91 | 901,932.26 | 39° 31' 35.813 N | 107° 37' 7.659 W |
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 14,365,106.91 | 901,932.26 | 39° 31' 35.813 N | 107° 37' 7.659 W |
| 400.00 | 0.00 | 0.00 | 400.00 | 0.00 | 0.00 | 14,365,106.91 | 901,932.26 | 39° 31' 35.813 N | 107° 37' 7.659 W |
| 500.00 | 0.00 | 0.00 | 500.00 | 0.00 | 0.00 | 14,365,106.91 | 901,932.26 | 39° 31' 35.813 N | 107° 37' 7.659 W |
| 600.00 | 0.00 | 0.00 | 600.00 | 0.00 | 0.00 | 14,365,106.91 | 901,932.26 | 39° 31' 35.813 N | 107° 37' 7.659 W |
| 700.00 | 0.00 | 0.00 | 700.00 | 0.00 | 0.00 | 14,365,106.91 | 901,932.26 | 39° 31' 35.813 N | 107° 37' 7.659 W |
| 800.00 | 0.00 | 0.00 | 800.00 | 0.00 | 0.00 | 14,365,106.91 | 901,932.26 | 39° 31' 35.813 N | 107° 37' 7.659 W |
| 900.00 | 0.00 | 0.00 | 900.00 | 0.00 | 0.00 | 14,365,106.91 | 901,932.26 | 39° 31' 35.813 N | 107° 37' 7.659 W |
| 1,000.00 | 0.00 | 0.00 | 1,000.00 | 0.00 | 0.00 | 14,365,106.91 | 901,932.26 | 39° 31' 35.813 N | 107° 37' 7.659 W |
| CASING @ 1000' | | | | | | | | | |
| 1,060.00 | 0.00 | 0.00 | 1,060.00 | 0.00 | 0.00 | 14,365,106.91 | 901,932.26 | 39° 31' 35.813 N | 107° 37' 7.659 W |
| KOP @ 1060' (2 DEG/100') | | | | | | | | | |
| 1,100.00 | 0.80 | 240.26 | 1,100.00 | -0.14 | -0.24 | 14,365,106.77 | 901,932.02 | 39° 31' 35.811 N | 107° 37' 7.662 W |
| 1,200.00 | 2.80 | 240.26 | 1,199.94 | -1.70 | -2.97 | 14,365,105.21 | 901,929.29 | 39° 31' 35.795 N | 107° 37' 7.697 W |
| 1,300.00 | 4.80 | 240.26 | 1,299.72 | -4.98 | -8.72 | 14,365,101.93 | 901,923.54 | 39° 31' 35.761 N | 107° 37' 7.769 W |
| 1,400.00 | 6.80 | 240.26 | 1,399.20 | -10.00 | -17.50 | 14,365,096.91 | 901,914.76 | 39° 31' 35.709 N | 107° 37' 7.879 W |
| 1,500.00 | 8.80 | 240.26 | 1,498.27 | -16.73 | -29.28 | 14,365,090.18 | 901,902.98 | 39° 31' 35.639 N | 107° 37' 8.026 W |
| 1,600.00 | 10.80 | 240.26 | 1,596.81 | -25.17 | -44.06 | 14,365,081.74 | 901,888.20 | 39° 31' 35.551 N | 107° 37' 8.212 W |
| 1,709.50 | 12.99 | 240.26 | 1,703.95 | -36.37 | -63.65 | 14,365,070.54 | 901,868.61 | 39° 31' 35.435 N | 107° 37' 8.458 W |
| END OF BUILD @ 1710' MD (1704' TVD) (12.99 DEG INC) | | | | | | | | | |
| 1,800.00 | 12.99 | 240.26 | 1,792.13 | -46.46 | -81.32 | 14,365,060.45 | 901,850.94 | 39° 31' 35.330 N | 107° 37' 8.679 W |
| 1,900.00 | 12.99 | 240.26 | 1,889.58 | -57.61 | -100.83 | 14,365,049.30 | 901,831.43 | 39° 31' 35.214 N | 107° 37' 8.924 W |
| 2,000.00 | 12.99 | 240.26 | 1,987.02 | -68.77 | -120.35 | 14,365,038.14 | 901,811.91 | 39° 31' 35.099 N | 107° 37' 9.169 W |
| 2,100.00 | 12.99 | 240.26 | 2,084.46 | -79.92 | -139.87 | 14,365,026.99 | 901,792.39 | 39° 31' 34.983 N | 107° 37' 9.413 W |
| 2,200.00 | 12.99 | 240.26 | 2,181.90 | -91.07 | -159.38 | 14,365,015.84 | 901,772.88 | 39° 31' 34.867 N | 107° 37' 9.658 W |
| 2,300.00 | 12.99 | 240.26 | 2,279.34 | -102.22 | -178.90 | 14,365,004.69 | 901,753.36 | 39° 31' 34.751 N | 107° 37' 9.903 W |
| 2,400.00 | 12.99 | 240.26 | 2,376.78 | -113.37 | -198.42 | 14,364,993.54 | 901,733.84 | 39° 31' 34.636 N | 107° 37' 10.148 W |
| 2,500.00 | 12.99 | 240.26 | 2,474.22 | -124.53 | -217.93 | 14,364,982.39 | 901,714.33 | 39° 31' 34.520 N | 107° 37' 10.392 W |
| 2,600.00 | 12.99 | 240.26 | 2,571.66 | -135.68 | -237.45 | 14,364,971.23 | 901,694.81 | 39° 31' 34.404 N | 107° 37' 10.637 W |
| 2,700.00 | 12.99 | 240.26 | 2,669.10 | -146.83 | -256.97 | 14,364,960.08 | 901,675.29 | 39° 31' 34.288 N | 107° 37' 10.882 W |
| 2,800.00 | 12.99 | 240.26 | 2,766.54 | -157.98 | -276.48 | 14,364,948.93 | 901,655.78 | 39° 31' 34.173 N | 107° 37' 11.127 W |
| 2,900.00 | 12.99 | 240.26 | 2,863.98 | -169.13 | -296.00 | 14,364,937.78 | 901,636.26 | 39° 31' 34.057 N | 107° 37' 11.372 W |
| 3,000.00 | 12.99 | 240.26 | 2,961.43 | -180.28 | -315.52 | 14,364,926.63 | 901,616.74 | 39° 31' 33.941 N | 107° 37' 11.616 W |
| 3,100.00 | 12.99 | 240.26 | 3,058.87 | -191.44 | -335.03 | 14,364,915.48 | 901,597.23 | 39° 31' 33.825 N | 107° 37' 11.861 W |
| 3,200.00 | 12.99 | 240.26 | 3,156.31 | -202.59 | -354.55 | 14,364,904.32 | 901,577.71 | 39° 31' 33.710 N | 107° 37' 12.106 W |
| 3,300.00 | 12.99 | 240.26 | 3,253.75 | -213.74 | -374.07 | 14,364,893.17 | 901,558.19 | 39° 31' 33.594 N | 107° 37' 12.351 W |
| 3,400.00 | 12.99 | 240.26 | 3,351.19 | -224.89 | -393.58 | 14,364,882.02 | 901,538.68 | 39° 31' 33.478 N | 107° 37' 12.595 W |
| 3,500.00 | 12.99 | 240.26 | 3,448.63 | -236.04 | -413.10 | 14,364,870.87 | 901,519.16 | 39° 31' 33.362 N | 107° 37' 12.840 W |
| 3,568.11 | 12.99 | 240.26 | 3,515.00 | -243.64 | -426.40 | 14,364,863.27 | 901,505.87 | 39° 31' 33.284 N | 107° 37' 13.007 W |
| MESAVERDE | | | | | | | | | |
| 3,600.00 | 12.99 | 240.26 | 3,546.07 | -247.19 | -432.62 | 14,364,859.72 | 901,499.64 | 39° 31' 33.247 N | 107° 37' 13.085 W |
| 3,700.00 | 12.99 | 240.26 | 3,643.51 | -258.35 | -452.14 | 14,364,848.57 | 901,480.13 | 39° 31' 33.131 N | 107° 37' 13.330 W |
| 3,728.69 | 12.99 | 240.26 | 3,671.47 | -261.54 | -457.73 | 14,364,845.37 | 901,474.53 | 39° 31' 33.098 N | 107° 37' 13.400 W |
| START DROP @ 3729' MD (3671' TVD) (2 DEG/100') | | | | | | | | | |
| 3,800.00 | 11.56 | 240.26 | 3,741.15 | -269.07 | -470.90 | 14,364,837.84 | 901,461.36 | 39° 31' 33.020 N | 107° 37' 13.565 W |
| 3,900.00 | 9.56 | 240.26 | 3,839.45 | -278.16 | -486.82 | 14,364,828.75 | 901,445.44 | 39° 31' 32.925 N | 107° 37' 13.765 W |
| 4,000.00 | 7.56 | 240.26 | 3,938.33 | -285.55 | -499.75 | 14,364,821.36 | 901,432.52 | 39° 31' 32.848 N | 107° 37' 13.927 W |
| 4,100.00 | 5.56 | 240.26 | 4,037.66 | -291.22 | -509.67 | 14,364,815.69 | 901,422.59 | 39° 31' 32.790 N | 107° 37' 14.051 W |
| 4,200.00 | 3.56 | 240.26 | 4,137.34 | -295.17 | -516.58 | 14,364,811.74 | 901,415.68 | 39° 31' 32.749 N | 107° 37' 14.138 W |
| 4,300.00 | 1.56 | 240.26 | 4,237.24 | -297.39 | -520.46 | 14,364,809.53 | 901,411.80 | 39° 31' 32.726 N | 107° 37' 14.187 W |
| 4,377.77 | 0.01 | 240.26 | 4,315.00 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W |
| PRICE COAL | | | | | | | | | |

Ark Directional Services

Planning Report - Geographic

| | | | |
|------------------|-----------------------------|-------------------------------------|---|
| Database: | EDM 5000.1 Single User Db | Local Co-ordinate Reference: | Well VALLEY FARMS I-1 (111108) - Slot I-1 |
| Company: | ANTERO RESOURCES | TVD Reference: | RKB @ 5674.00ft (RKB) |
| Project: | VALLEY FARMS I-PAD PROJECT | MD Reference: | RKB @ 5674.00ft (RKB) |
| Site: | FRONTIER 12 | North Reference: | Grid |
| Well: | VALLEY FARMS I-1 (111108) | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | ANTERO VALLEY FARMS I-1 | | |
| Design: | ANTERO VALLEY FARMS I-1 P03 | | |

| Planned Survey | | | | | | | | | | |
|---|-----------------|-------------|---------------------|------------|------------|---------------------|--------------------|------------------|-------------------|--|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Map Northing (usft) | Map Easting (usft) | Latitude | Longitude | |
| 4,378.19 | 0.00 | 0.00 | 4,315.42 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| END OF DROP @ 4378' MD (4315' TVD) | | | | | | | | | | |
| 4,400.00 | 0.00 | 0.00 | 4,337.23 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| 4,500.00 | 0.00 | 0.00 | 4,437.23 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| 4,600.00 | 0.00 | 0.00 | 4,537.23 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| 4,700.00 | 0.00 | 0.00 | 4,637.23 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| 4,800.00 | 0.00 | 0.00 | 4,737.23 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| 4,900.00 | 0.00 | 0.00 | 4,837.23 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| 5,000.00 | 0.00 | 0.00 | 4,937.23 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| 5,077.77 | 0.00 | 0.00 | 5,015.00 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| TOP GAS - TOP GAS I-1 | | | | | | | | | | |
| 5,100.00 | 0.00 | 0.00 | 5,037.23 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| 5,200.00 | 0.00 | 0.00 | 5,137.23 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| 5,300.00 | 0.00 | 0.00 | 5,237.23 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| 5,400.00 | 0.00 | 0.00 | 5,337.23 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| 5,500.00 | 0.00 | 0.00 | 5,437.23 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| 5,600.00 | 0.00 | 0.00 | 5,537.23 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| 5,700.00 | 0.00 | 0.00 | 5,637.23 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| 5,800.00 | 0.00 | 0.00 | 5,737.23 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| 5,900.00 | 0.00 | 0.00 | 5,837.23 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| 5,977.77 | 0.00 | 0.00 | 5,915.00 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| CAMEO | | | | | | | | | | |
| 6,000.00 | 0.00 | 0.00 | 5,937.23 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| 6,100.00 | 0.00 | 0.00 | 6,037.23 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| 6,200.00 | 0.00 | 0.00 | 6,137.23 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| 6,300.00 | 0.00 | 0.00 | 6,237.23 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| 6,400.00 | 0.00 | 0.00 | 6,337.23 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| 6,500.00 | 0.00 | 0.00 | 6,437.23 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| 6,600.00 | 0.00 | 0.00 | 6,537.23 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| 6,700.00 | 0.00 | 0.00 | 6,637.23 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| 6,800.00 | 0.00 | 0.00 | 6,737.23 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| 6,900.00 | 0.00 | 0.00 | 6,837.23 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| 7,000.00 | 0.00 | 0.00 | 6,937.23 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| 7,077.77 | 0.00 | 0.00 | 7,015.00 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| ROLLINS | | | | | | | | | | |
| 7,100.00 | 0.00 | 0.00 | 7,037.23 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| 7,200.00 | 0.00 | 0.00 | 7,137.23 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| 7,227.75 | 0.00 | 0.00 | 7,164.98 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| PROPOSED TD @ 7228' MD (7165' TVD) | | | | | | | | | | |
| 7,227.77 | 0.00 | 0.00 | 7,165.00 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W | |
| TD I-1 | | | | | | | | | | |

Ark Directional Services

Planning Report - Geographic

| | | | |
|------------------|-----------------------------|-------------------------------------|---|
| Database: | EDM 5000.1 Single User Db | Local Co-ordinate Reference: | Well VALLEY FARMS I-1 (111108) - Slot I-1 |
| Company: | ANTERO RESOURCES | TVD Reference: | RKB @ 5674.00ft (RKB) |
| Project: | VALLEY FARMS I-PAD PROJECT | MD Reference: | RKB @ 5674.00ft (RKB) |
| Site: | FRONTIER 12 | North Reference: | Grid |
| Well: | VALLEY FARMS I-1 (111108) | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | ANTERO VALLEY FARMS I-1 | | |
| Design: | ANTERO VALLEY FARMS I-1 P03 | | |

| Design Targets | | | | | | | | | |
|---------------------------|-----------|----------|----------|---------|---------|---------------|------------|------------------|-------------------|
| Target Name | Dip Angle | Dip Dir. | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
| - hit/miss target | (°) | (°) | (ft) | (ft) | (ft) | (usft) | (usft) | | |
| - Shape | | | | | | | | | |
| TOP GAS I-1 | 0.00 | 0.00 | 5,015.00 | -297.91 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W |
| - plan hits target center | | | | | | | | | |
| - Circle (radius 25.00) | | | | | | | | | |
| TD I-1 | 0.00 | 0.00 | 7,165.00 | -297.92 | -521.39 | 14,364,809.00 | 901,410.87 | 39° 31' 32.720 N | 107° 37' 14.198 W |
| - plan hits target center | | | | | | | | | |
| - Circle (radius 25.00) | | | | | | | | | |

| Casing Points | | | | | |
|----------------|----------------|----------------|--|-----------------|---------------|
| Measured Depth | Vertical Depth | Name | | Casing Diameter | Hole Diameter |
| (ft) | (ft) | | | (in) | (in) |
| 1,000.00 | 1,000.00 | CASING @ 1000' | | 9.62 | 12.25 |

| Formations | | | | | |
|----------------|----------------|------------|--|------|---------------|
| Measured Depth | Vertical Depth | Name | | Dip | Dip Direction |
| (ft) | (ft) | | | (°) | (°) |
| 3,568.11 | 3,515.00 | MESAVERDE | | 0.00 | |
| 4,377.77 | 4,315.00 | PRICE COAL | | 0.00 | |
| 5,077.77 | 5,015.00 | TOP GAS | | 0.00 | |
| 5,977.77 | 5,915.00 | CAMEO | | 0.00 | |
| 7,077.77 | 7,015.00 | ROLLINS | | 0.00 | |

| Plan Annotations | | | | | |
|------------------|----------------|-------------------|---------|---|--|
| Measured Depth | Vertical Depth | Local Coordinates | | Comment | |
| (ft) | (ft) | +N/-S | +E/-W | | |
| (ft) | (ft) | (ft) | (ft) | | |
| 1,060.00 | 1,060.00 | 0.00 | 0.00 | KOP @ 1060' (2 DEG/100') | |
| 1,709.50 | 1,703.95 | -36.37 | -63.65 | END OF BUILD @ 1710' MD (1704' TVD) (12.99 DEG INC) | |
| 3,728.69 | 3,671.47 | -261.54 | -457.73 | START DROP @ 3729' MD (3671' TVD) (2 DEG/100') | |
| 4,378.19 | 4,315.42 | -297.92 | -521.39 | END OF DROP @ 4378' MD (4315' TVD) | |
| 7,227.75 | 7,164.98 | -297.92 | -521.39 | PROPOSED TD @ 7228' MD (7165' TVD) | |