

Antero Resources

Gentry

Gentry B

Gentry B09 (111423) - Slot B9

Gentry B09

Design: Gentry B09

Survey Report - Geographic

07 May, 2012

ARK

Survey Report - Geographic

| | | | |
|------------------|---------------------|-------------------------------------|-------------------------------------|
| Company: | Antero Resources | Local Co-ordinate Reference: | Well Gentry B09 (111423) - Slot B9 |
| Project: | Gentry | TVD Reference: | KB @ 5648.00ft (Original Well Elev) |
| Site: | Gentry B | MD Reference: | KB @ 5648.00ft (Original Well Elev) |
| Well: | Gentry B09 (111423) | North Reference: | Grid |
| Wellbore: | Gentry B09 | Survey Calculation Method: | Minimum Curvature |
| Design: | Gentry B09 | Database: | EDM5000-New |

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|--------------------|-------------------------------|----------------------|----------------|
| Project | Gentry | | |
| 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) | | |

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|------------------------------|----------|---------------------|--------------------|--------------------------|-----------------|
| Site | Gentry B | | | | |
| Site Position: | | Northing: | 14,366,383.28 usft | Latitude: | 39.528393199°N |
| From: | Map | Easting: | 880,664.23 usft | Longitude: | 107.694272643°W |
| Position Uncertainty: | 0.00 ft | Slot Radius: | 13.200 in | Grid Convergence: | -1.72 ° |

| Well | | | | | | | Gentry B09 (111423) - Slot B9 | | | | | | |
|----------------------|-------|--|---------|--|---------------------|--------------------|-------------------------------|---------------|-----------------|--|--|--|--|
| Well Position | +N/-S | | 0.00 ft | | Northing: | 14,366,367.73 usft | | Latitude: | 39.528357004°N | | | | |
| | +E/-W | | 0.00 ft | | Easting: | 880,742.71 usft | | Longitude: | 107.693992980°W | | | | |
| Position Uncertainty | | | 0.00 ft | | Wellhead Elevation: | ft | | Ground Level: | 5,624.00 ft | | | | |

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|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Gentry B09 | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 6/2/2012 | 10.10 | 65.80 | 52,212 |

| | | | | | |
|--------------------------|------------------------------|-------------------|-------------------|----------------------|------|
| Design | Gentry B09 | | | | |
| Audit Notes: | | | | | |
| Version: | 1.0 | Phase: | ACTUAL | Tie On Depth: | 0.00 |
| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) | |
| | 0.00 | 0.00 | 0.00 | 121.79 | |

| | | | | | |
|-----------------------|----------------|--------------------------|------------------|----------------------------------|--|
| Survey Program | Date | 5/7/2012 | | | |
| From (ft) | To (ft) | Survey (Wellbore) | Tool Name | Description | |
| 100.00 | 990.00 | B09 gyro (Gentry B09) | NS-GYRO-MS | North sensing gyrocompassing m/s | |
| 1,000.00 | 8,115.00 | Gentry B09 (Gentry B09) | MWD | MWD - Standard | |

| | | | | | | | | | | |
|----------------------------|------------------------|--------------------|----------------------------|-------------------|-------------------|----------------------------|---------------------------|-----------------|------------------|--|
| 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 | 14,366,367.73 | 880,742.71 | 39.528357004°N | 107.693992980°W | |
| 98.43 | 0.89 | 173.81 | 98.42 | -0.76 | 0.08 | 14,366,366.98 | 880,742.79 | 39.528354936°N | 107.693992609°W | |
| 196.85 | 0.68 | 115.23 | 196.84 | -1.78 | 0.69 | 14,366,365.95 | 880,743.40 | 39.528352169°N | 107.693990352°W | |
| 295.28 | 0.32 | 230.68 | 295.26 | -2.19 | 1.05 | 14,366,365.54 | 880,743.76 | 39.528351079°N | 107.693989041°W | |
| 393.70 | 0.63 | 142.14 | 393.68 | -2.77 | 1.10 | 14,366,364.96 | 880,743.81 | 39.528349487°N | 107.693988781°W | |
| 492.13 | 0.15 | 320.87 | 492.11 | -3.15 | 1.42 | 14,366,364.58 | 880,744.13 | 39.528348483°N | 107.693987629°W | |
| 590.55 | 0.39 | 169.62 | 590.53 | -3.30 | 1.35 | 14,366,364.44 | 880,744.06 | 39.528348070°N | 107.693987864°W | |
| 688.98 | 0.26 | 10.92 | 688.96 | -3.51 | 1.47 | 14,366,364.22 | 880,744.18 | 39.528347491°N | 107.693987408°W | |
| 787.40 | 0.41 | 181.54 | 787.38 | -3.51 | 1.50 | 14,366,364.22 | 880,744.21 | 39.528347494°N | 107.693987290°W | |
| 885.83 | 0.34 | 70.28 | 885.80 | -3.92 | 1.72 | 14,366,363.81 | 880,744.43 | 39.528346396°N | 107.693986471°W | |
| 984.25 | 0.53 | 230.42 | 984.23 | -3.97 | 1.77 | 14,366,363.76 | 880,744.49 | 39.528346264°N | 107.693986272°W | |

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Survey Report - Geographic

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| Project: | Gentry | TVD Reference: | KB @ 5648.00ft (Original Well Elev) |
| Site: | Gentry B | MD Reference: | KB @ 5648.00ft (Original Well Elev) |
| Well: | Gentry B09 (111423) | North Reference: | Grid |
| Wellbore: | Gentry B09 | Survey Calculation Method: | Minimum Curvature |
| Design: | Gentry B09 | Database: | EDM5000-New |

| Survey | | | | | | | | | |
|---------------------|-----------------|-------------|---------------------|------------|------------|---------------------|--------------------|----------------|-----------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Map Northing (usft) | Map Easting (usft) | Latitude | Longitude |
| 1,082.68 | 0.57 | 224.95 | 1,082.65 | -4.62 | 0.98 | 14,366,363.11 | 880,743.69 | 39.528344417°N | 107.693989016°W |
| 1,181.10 | 1.88 | 132.92 | 1,181.06 | -5.80 | 1.56 | 14,366,361.94 | 880,744.27 | 39.528341233°N | 107.693986836°W |
| 1,279.53 | 4.54 | 123.57 | 1,279.30 | -9.43 | 6.20 | 14,366,358.30 | 880,748.91 | 39.528331638°N | 107.693970009°W |
| 1,377.95 | 6.38 | 125.33 | 1,377.29 | -14.09 | 14.05 | 14,366,353.64 | 880,756.76 | 39.528319509°N | 107.693941725°W |
| 1,476.38 | 9.55 | 130.49 | 1,474.79 | -22.88 | 24.19 | 14,366,344.85 | 880,766.91 | 39.528296213°N | 107.693904841°W |
| 1,574.80 | 12.84 | 123.18 | 1,571.28 | -34.54 | 39.59 | 14,366,333.19 | 880,782.30 | 39.528265503°N | 107.693849075°W |
| 1,673.23 | 15.91 | 119.96 | 1,666.63 | -46.83 | 60.61 | 14,366,320.91 | 880,803.32 | 39.528233520°N | 107.693773306°W |
| 1,771.65 | 19.41 | 121.50 | 1,760.43 | -62.03 | 86.20 | 14,366,305.71 | 880,828.92 | 39.528193923°N | 107.693681017°W |
| 1,870.08 | 22.75 | 122.17 | 1,852.22 | -80.85 | 116.31 | 14,366,286.88 | 880,859.02 | 39.528144759°N | 107.693572365°W |
| 1,968.50 | 25.92 | 121.87 | 1,941.90 | -102.38 | 150.65 | 14,366,265.35 | 880,893.36 | 39.528088519°N | 107.693448437°W |
| 2,066.93 | 26.92 | 121.57 | 2,029.76 | -125.68 | 188.39 | 14,366,242.05 | 880,931.10 | 39.528027694°N | 107.693312277°W |
| 2,165.35 | 26.44 | 121.43 | 2,117.66 | -148.81 | 226.15 | 14,366,218.93 | 880,968.86 | 39.527967349°N | 107.693176061°W |
| 2,263.78 | 26.28 | 121.24 | 2,205.90 | -171.49 | 263.39 | 14,366,196.24 | 881,006.10 | 39.527908168°N | 107.693041719°W |
| 2,362.20 | 26.07 | 121.77 | 2,294.22 | -194.14 | 300.46 | 14,366,173.59 | 881,043.18 | 39.527849074°N | 107.692907976°W |
| 2,460.63 | 26.51 | 122.00 | 2,382.51 | -217.15 | 337.38 | 14,366,150.58 | 881,080.10 | 39.527788996°N | 107.692774747°W |
| 2,559.06 | 26.51 | 122.02 | 2,470.55 | -240.47 | 374.68 | 14,366,127.26 | 881,117.40 | 39.527728069°N | 107.692640135°W |
| 2,657.48 | 26.04 | 122.19 | 2,558.79 | -263.64 | 411.62 | 14,366,104.09 | 881,154.33 | 39.527667549°N | 107.692506838°W |
| 2,755.91 | 25.41 | 121.89 | 2,647.46 | -286.32 | 447.83 | 14,366,081.42 | 881,190.54 | 39.527608312°N | 107.692376152°W |
| 2,854.33 | 24.96 | 122.55 | 2,736.55 | -308.64 | 483.21 | 14,366,059.09 | 881,225.92 | 39.527549974°N | 107.692248440°W |
| 2,952.76 | 26.04 | 121.21 | 2,825.37 | -331.00 | 519.25 | 14,366,036.74 | 881,261.96 | 39.527491605°N | 107.692118395°W |
| 3,051.18 | 26.31 | 121.28 | 2,913.70 | -353.56 | 556.35 | 14,366,014.17 | 881,299.06 | 39.527432750°N | 107.691984603°W |
| 3,149.61 | 26.45 | 120.28 | 3,001.85 | -375.92 | 593.99 | 14,365,991.81 | 881,336.70 | 39.527374484°N | 107.691848894°W |
| 3,248.03 | 26.11 | 120.20 | 3,090.10 | -397.84 | 631.67 | 14,365,969.90 | 881,374.38 | 39.527317467°N | 107.691713076°W |
| 3,346.46 | 25.90 | 120.60 | 3,178.61 | -419.65 | 668.77 | 14,365,948.08 | 881,411.48 | 39.527260668°N | 107.691579336°W |
| 3,444.88 | 26.16 | 120.53 | 3,267.02 | -441.65 | 706.03 | 14,365,926.09 | 881,448.74 | 39.527203382°N | 107.691445005°W |
| 3,543.31 | 26.16 | 121.19 | 3,355.38 | -463.73 | 743.33 | 14,365,904.00 | 881,486.04 | 39.527145846°N | 107.691310534°W |
| 3,641.73 | 26.06 | 121.57 | 3,443.70 | -486.71 | 780.22 | 14,365,881.02 | 881,522.93 | 39.527085846°N | 107.691177428°W |
| 3,740.16 | 25.62 | 120.08 | 3,532.31 | -508.42 | 817.14 | 14,365,859.32 | 881,559.85 | 39.527029324°N | 107.691044325°W |
| 3,838.58 | 25.91 | 120.49 | 3,621.06 | -529.88 | 853.89 | 14,365,837.86 | 881,596.60 | 39.526973466°N | 107.690911877°W |
| 3,937.01 | 25.75 | 121.77 | 3,709.43 | -552.13 | 891.07 | 14,365,815.60 | 881,633.78 | 39.526915463°N | 107.690777805°W |
| 4,035.43 | 25.30 | 121.17 | 3,798.42 | -574.53 | 926.67 | 14,365,793.20 | 881,669.38 | 39.526856928°N | 107.690649300°W |
| 4,133.86 | 25.71 | 119.06 | 3,887.25 | -595.63 | 963.44 | 14,365,772.11 | 881,706.15 | 39.526802082°N | 107.690516830°W |
| 4,232.28 | 26.13 | 118.54 | 3,975.77 | -616.27 | 1,001.18 | 14,365,751.46 | 881,743.89 | 39.526748542°N | 107.690380930°W |
| 4,330.71 | 25.96 | 119.08 | 4,064.12 | -637.10 | 1,039.23 | 14,365,730.63 | 881,781.94 | 39.526694520°N | 107.690243926°W |
| 4,429.13 | 25.18 | 118.99 | 4,152.87 | -657.86 | 1,076.38 | 14,365,709.87 | 881,819.09 | 39.526640608°N | 107.690110130°W |
| 4,527.56 | 23.34 | 118.82 | 4,242.51 | -677.47 | 1,111.98 | 14,365,690.26 | 881,854.69 | 39.526589740°N | 107.689981946°W |
| 4,625.98 | 20.52 | 119.05 | 4,333.75 | -695.29 | 1,144.26 | 14,365,672.44 | 881,886.96 | 39.526543504°N | 107.689865721°W |
| 4,724.41 | 16.78 | 122.23 | 4,426.95 | -711.19 | 1,171.54 | 14,365,656.55 | 881,914.25 | 39.526502129°N | 107.689767381°W |
| 4,822.83 | 13.80 | 122.86 | 4,521.92 | -725.22 | 1,193.21 | 14,365,642.52 | 881,935.92 | 39.526465418°N | 107.689689126°W |
| 4,921.26 | 10.30 | 122.54 | 4,618.15 | -736.36 | 1,210.56 | 14,365,631.37 | 881,953.27 | 39.526436266°N | 107.689626489°W |
| 5,019.69 | 7.47 | 118.70 | 4,715.39 | -744.17 | 1,223.54 | 14,365,623.57 | 881,966.25 | 39.526415912°N | 107.689579686°W |
| 5,118.11 | 4.22 | 127.21 | 4,813.29 | -749.41 | 1,232.07 | 14,365,618.33 | 881,974.78 | 39.526402244°N | 107.689548914°W |
| 5,216.54 | 2.12 | 154.49 | 4,911.57 | -753.26 | 1,235.69 | 14,365,614.47 | 881,978.40 | 39.526391960°N | 107.689535664°W |
| 5,314.96 | 0.77 | 215.19 | 5,009.96 | -755.39 | 1,236.03 | 14,365,612.34 | 881,978.74 | 39.526386146°N | 107.689534256°W |
| 5,413.39 | 0.71 | 260.31 | 5,108.38 | -756.00 | 1,234.95 | 14,365,611.73 | 881,977.66 | 39.526384379°N | 107.689538001°W |
| 5,511.81 | 0.18 | 329.55 | 5,206.80 | -756.01 | 1,234.25 | 14,365,611.72 | 881,976.96 | 39.526384297°N | 107.689540477°W |
| 5,610.24 | 0.77 | 40.76 | 5,305.22 | -755.28 | 1,234.70 | 14,365,612.45 | 881,977.41 | 39.526386341°N | 107.689538961°W |
| 5,708.66 | 0.62 | 48.55 | 5,403.64 | -754.41 | 1,235.57 | 14,365,613.33 | 881,978.28 | 39.526388806°N | 107.689535978°W |
| 5,807.09 | 0.35 | 71.49 | 5,502.06 | -753.92 | 1,236.22 | 14,365,613.81 | 881,978.93 | 39.526390189°N | 107.689533733°W |
| 5,905.51 | 0.48 | 134.68 | 5,600.48 | -754.12 | 1,236.81 | 14,365,613.62 | 881,979.52 | 39.526389705°N | 107.689531631°W |
| 6,003.94 | 0.63 | 171.98 | 5,698.90 | -755.03 | 1,237.30 | 14,365,612.70 | 881,980.01 | 39.526387245°N | 107.689529800°W |
| 6,102.36 | 0.77 | 213.63 | 5,797.32 | -756.11 | 1,236.93 | 14,365,611.62 | 881,979.64 | 39.526384252°N | 107.689530969°W |
| 6,200.79 | 0.70 | 244.73 | 5,895.74 | -757.09 | 1,235.98 | 14,365,610.64 | 881,978.69 | 39.526381480°N | 107.689534228°W |
| 6,299.21 | 0.66 | 262.21 | 5,994.16 | -757.15 | 1,234.84 | 14,365,610.58 | 881,977.55 | 39.526381226°N | 107.689538273°W |
| 6,397.64 | 0.66 | 275.69 | 6,092.57 | -757.43 | 1,233.74 | 14,365,610.30 | 881,976.45 | 39.526380359°N | 107.689542133°W |

ARK

Survey Report - Geographic

| | | | |
|------------------|---------------------|-------------------------------------|-------------------------------------|
| Company: | Antero Resources | Local Co-ordinate Reference: | Well Gentry B09 (111423) - Slot B9 |
| Project: | Gentry | TVD Reference: | KB @ 5648.00ft (Original Well Elev) |
| Site: | Gentry B | MD Reference: | KB @ 5648.00ft (Original Well Elev) |
| Well: | Gentry B09 (111423) | North Reference: | Grid |
| Wellbore: | Gentry B09 | Survey Calculation Method: | Minimum Curvature |
| Design: | Gentry B09 | Database: | EDM5000-New |

| Survey | | | | | | | | | |
|---|-----------------|-------------|---------------------|------------|------------|---------------------|--------------------|----------------|-----------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Map Northing (usft) | Map Easting (usft) | Latitude | Longitude |
| 6,496.06 | 0.75 | 265.35 | 6,190.99 | -757.10 | 1,232.55 | 14,365,610.64 | 881,975.26 | 39.526381180°N | 107.689546396°W |
| 6,594.49 | 0.76 | 271.52 | 6,289.41 | -757.44 | 1,231.23 | 14,365,610.29 | 881,973.93 | 39.526380120°N | 107.689551049°W |
| 6,692.91 | 0.67 | 298.77 | 6,387.82 | -757.03 | 1,230.03 | 14,365,610.71 | 881,972.74 | 39.526381172°N | 107.689555330°W |
| 6,791.34 | 0.46 | 83.85 | 6,486.25 | -756.61 | 1,229.69 | 14,365,611.13 | 881,972.40 | 39.526382293°N | 107.689556582°W |
| 6,889.76 | 0.72 | 70.81 | 6,584.66 | -756.52 | 1,230.97 | 14,365,611.21 | 881,973.68 | 39.526382637°N | 107.689552058°W |
| 6,988.19 | 0.03 | 299.77 | 6,683.08 | -756.16 | 1,231.62 | 14,365,611.57 | 881,974.33 | 39.526383670°N | 107.689549800°W |
| 7,086.61 | 0.04 | 88.92 | 6,781.51 | -756.22 | 1,231.46 | 14,365,611.51 | 881,974.17 | 39.526383486°N | 107.689550350°W |
| 7,185.04 | 0.53 | 205.11 | 6,879.93 | -756.56 | 1,231.38 | 14,365,611.18 | 881,974.09 | 39.526382569°N | 107.689550602°W |
| 7,283.46 | 1.06 | 209.34 | 6,978.35 | -757.78 | 1,230.73 | 14,365,609.95 | 881,973.44 | 39.526379158°N | 107.689552770°W |
| 7,381.89 | 0.34 | 216.41 | 7,076.76 | -758.89 | 1,230.07 | 14,365,608.85 | 881,972.77 | 39.526376064°N | 107.689555006°W |
| 7,480.32 | 0.31 | 15.03 | 7,175.19 | -758.87 | 1,229.96 | 14,365,608.87 | 881,972.67 | 39.526376116°N | 107.689555377°W |
| 7,578.74 | 1.19 | 355.67 | 7,273.60 | -757.57 | 1,229.95 | 14,365,610.17 | 881,972.66 | 39.526379682°N | 107.689555543°W |
| 7,677.17 | 1.06 | 348.84 | 7,372.01 | -755.55 | 1,229.69 | 14,365,612.18 | 881,972.40 | 39.526385190°N | 107.689556681°W |
| 7,775.59 | 0.47 | 202.58 | 7,470.43 | -755.09 | 1,229.33 | 14,365,612.64 | 881,972.04 | 39.526386416°N | 107.689558006°W |
| 7,874.02 | 1.17 | 174.70 | 7,568.84 | -756.51 | 1,229.30 | 14,365,611.23 | 881,972.01 | 39.526382537°N | 107.689557978°W |
| 7,972.44 | 1.57 | 173.43 | 7,667.24 | -758.84 | 1,229.56 | 14,365,608.89 | 881,972.27 | 39.526376146°N | 107.689556798°W |
| 8,070.87 | 1.89 | 175.20 | 7,765.62 | -761.83 | 1,229.85 | 14,365,605.91 | 881,972.56 | 39.526367983°N | 107.689555463°W |
| 8,115.00 | 1.89 | 175.20 | 7,809.73 | -763.28 | 1,229.97 | 14,365,604.46 | 881,972.68 | 39.526364014°N | 107.689554878°W |
| PROJ TO TD AT 8115 MD/7810 TVD - B9 Tgt | | | | | | | | | |

| Design Annotations | | | | |
|---------------------|---------------------|-------------------|------------|--------------------------------|
| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates | | Comment |
| | | +N/-S (ft) | +E/-W (ft) | |
| 8,115.00 | 7,809.73 | -763.28 | 1,229.97 | PROJ TO TD AT 8115 MD/7810 TVD |

| | | |
|-------------------|--------------------|-------------|
| Checked By: _____ | Approved By: _____ | Date: _____ |
|-------------------|--------------------|-------------|