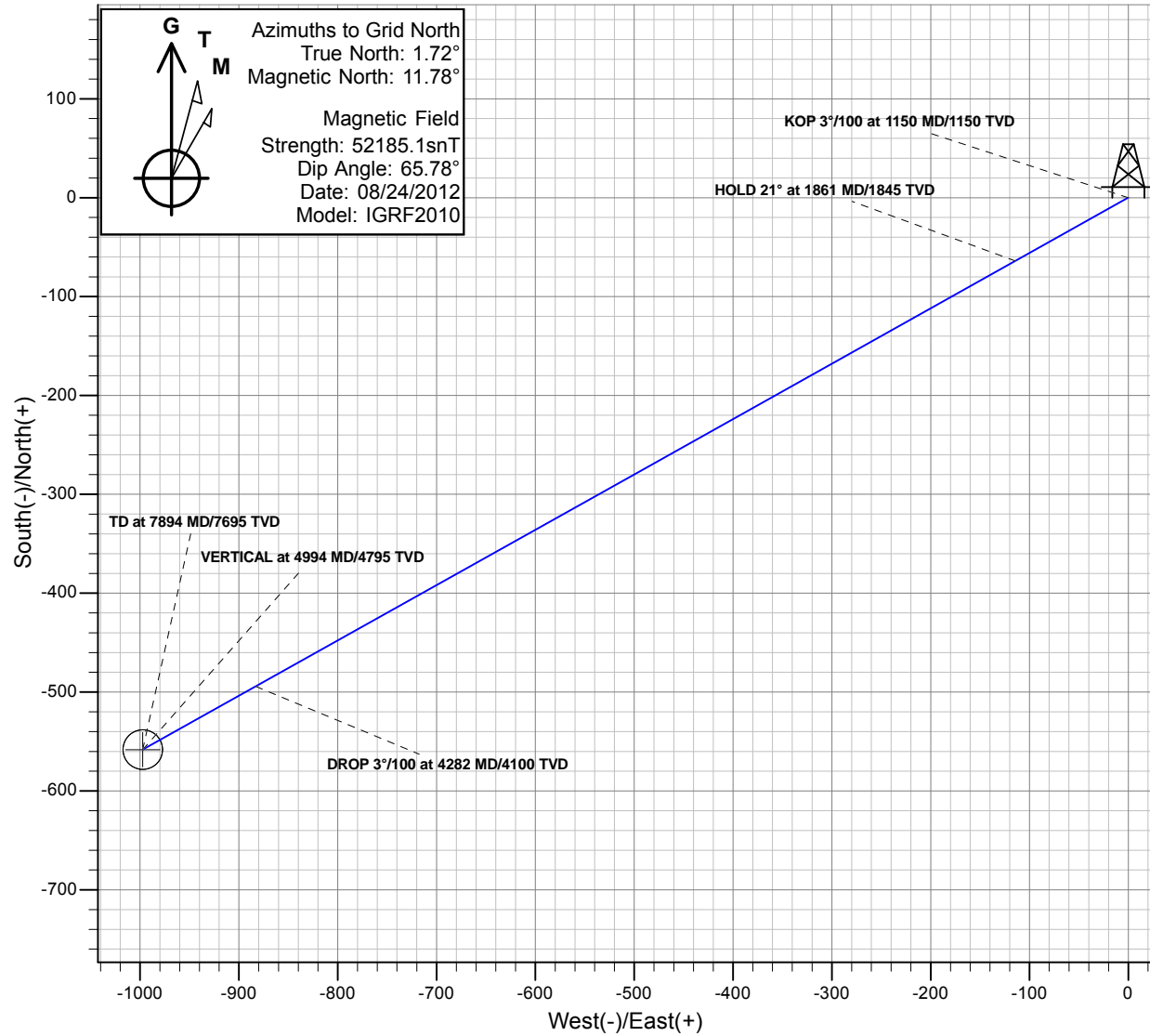
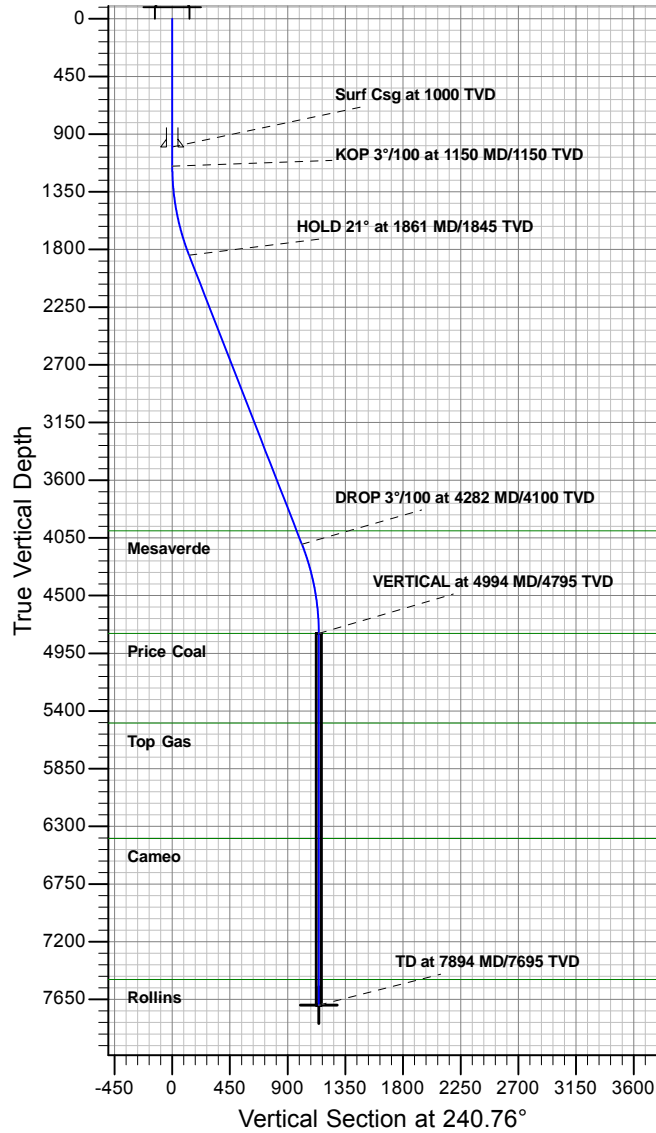




Antero Resources

Gentry E09 (112032)
Gentry E09 P01



REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Gentry E09 (112032), Grid North
Vertical (TVD) Reference: KB @ 5690.00ft (Original Well Elev)
Section (VS) Reference: Slot - (0.00N, 0.00E)
Measured Depth Reference: KB @ 5690.00ft (Original Well Elev)
Calculation Method: Minimum Curvature

PROJECT DETAILS: Gentry

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

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1150.00	0.00	0.00	1150.00	0.00	0.00	0.00	0.00	0.00	
1861.34	21.34	240.76	1845.00	-63.96	-114.27	3.00	240.76	130.95	
4282.32	21.34	240.76	4100.00	-494.25	-883.04	0.00	0.00	1011.95	
4993.66	0.00	240.00	4795.00	-558.21	-997.30	3.00	180.00	1142.90	
7893.66	0.00	240.00	7695.00	-558.21	-997.30	3.00	360.00	1142.90	E09 BH 7695 TVD



Antero Resources

Gentry

Gentry E

Gentry E09 (112032) - Slot E9

Gentry E09

Plan: Gentry E09 P01

Standard Planning Report - Geographic

31 May, 2012



Database:	EDM5000	Local Co-ordinate Reference:	Well Gentry E09 (112032) - Slot E9
Company:	Antero Resources	TVD Reference:	KB @ 5690.00ft (Original Well Elev)
Project:	Gentry	MD Reference:	KB @ 5690.00ft (Original Well Elev)
Site:	Gentry E	North Reference:	Grid
Well:	Gentry E09 (112032)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Gentry E09		
Design:	Gentry E09 P01		

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)		

Site		Gentry E			
Site Position:		Northing:	14,363,914.47 usft	Latitude:	39.521619566°N
From:	Map	Easting:	880,654.83 usft	Longitude:	107.694044034°W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.72 °

Well	Gentry E09 (112032) - Slot E9					
Well Position	+N/-S	0.00 ft	Northing:	14,363,911.52 usft	Latitude:	39.521612264°N
	+E/-W	0.00 ft	Easting:	880,664.39 usft	Longitude:	107.694009879°W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,666.00 ft

Wellbore	Gentry E09				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	08/24/12	10.07	65.78	52,185

Design	Gentry E09 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	240.76

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	
1,150.00	0.00	0.00	1,150.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,861.34	21.34	240.76	1,845.00	-63.96	-114.27	3.00	3.00	0.00	240.76	
4,282.32	21.34	240.76	4,100.00	-494.25	-883.04	0.00	0.00	0.00	0.00	
4,993.66	0.00	240.00	4,795.00	-558.21	-997.30	3.00	-3.00	0.00	180.00	
7,893.66	0.00	240.00	7,695.00	-558.21	-997.30	0.00	0.00	0.00	240.00	E09 BH

Database:	EDM5000	Local Co-ordinate Reference:	Well Gentry E09 (112032) - Slot E9
Company:	Antero Resources	TVD Reference:	KB @ 5690.00ft (Original Well Elev)
Project:	Gentry	MD Reference:	KB @ 5690.00ft (Original Well Elev)
Site:	Gentry E	North Reference:	Grid
Well:	Gentry E09 (112032)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Gentry E09		
Design:	Gentry E09 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	14,363,911.52	880,664.39	39.521612264°N	107.694009879°W
100.00	0.00	0.00	100.00	0.00	0.00	14,363,911.52	880,664.39	39.521612264°N	107.694009879°W
200.00	0.00	0.00	200.00	0.00	0.00	14,363,911.52	880,664.39	39.521612264°N	107.694009879°W
300.00	0.00	0.00	300.00	0.00	0.00	14,363,911.52	880,664.39	39.521612264°N	107.694009879°W
400.00	0.00	0.00	400.00	0.00	0.00	14,363,911.52	880,664.39	39.521612264°N	107.694009879°W
500.00	0.00	0.00	500.00	0.00	0.00	14,363,911.52	880,664.39	39.521612264°N	107.694009879°W
600.00	0.00	0.00	600.00	0.00	0.00	14,363,911.52	880,664.39	39.521612264°N	107.694009879°W
700.00	0.00	0.00	700.00	0.00	0.00	14,363,911.52	880,664.39	39.521612264°N	107.694009879°W
800.00	0.00	0.00	800.00	0.00	0.00	14,363,911.52	880,664.39	39.521612264°N	107.694009879°W
900.00	0.00	0.00	900.00	0.00	0.00	14,363,911.52	880,664.39	39.521612264°N	107.694009879°W
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,363,911.52	880,664.39	39.521612264°N	107.694009879°W
Surf Csg at 1000 TVD									
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,363,911.52	880,664.39	39.521612264°N	107.694009879°W
1,150.00	0.00	0.00	1,150.00	0.00	0.00	14,363,911.52	880,664.39	39.521612264°N	107.694009879°W
KOP 3°/100 at 1150 MD/1150 TVD									
1,200.00	1.50	240.76	1,199.99	-0.32	-0.57	14,363,911.20	880,663.82	39.521611340°N	107.694011868°W
1,300.00	4.50	240.76	1,299.85	-2.88	-5.14	14,363,908.65	880,659.25	39.521603953°N	107.694027772°W
1,400.00	7.50	240.76	1,399.29	-7.98	-14.26	14,363,903.54	880,650.13	39.521589200°N	107.694059537°W
1,500.00	10.50	240.76	1,498.04	-15.62	-27.91	14,363,895.90	880,636.48	39.521567120°N	107.694107074°W
1,600.00	13.50	240.76	1,595.85	-25.77	-46.05	14,363,885.75	880,618.34	39.521537775°N	107.694170255°W
1,700.00	16.50	240.76	1,692.43	-38.41	-68.63	14,363,873.11	880,595.76	39.521501244°N	107.694248906°W
1,800.00	19.50	240.76	1,787.52	-53.50	-95.59	14,363,858.02	880,568.80	39.521457629°N	107.694342810°W
1,861.34	21.34	240.76	1,845.00	-63.96	-114.27	14,363,847.57	880,550.12	39.521427422°N	107.694407847°W
HOLD 21° at 1861 MD/1845 TVD									
1,900.00	21.34	240.76	1,881.02	-70.83	-126.54	14,363,840.70	880,537.85	39.521407561°N	107.694450607°W
2,000.00	21.34	240.76	1,974.16	-88.60	-158.30	14,363,822.92	880,506.09	39.521356192°N	107.694561203°W
2,100.00	21.34	240.76	2,067.30	-106.37	-190.05	14,363,805.15	880,474.34	39.521304824°N	107.694671799°W
2,200.00	21.34	240.76	2,160.45	-124.15	-221.81	14,363,787.37	880,442.58	39.521253455°N	107.694782394°W
2,300.00	21.34	240.76	2,253.59	-141.92	-253.56	14,363,769.60	880,410.83	39.521202086°N	107.694892990°W
2,400.00	21.34	240.76	2,346.73	-159.70	-285.32	14,363,751.83	880,379.07	39.521150717°N	107.695003585°W
2,500.00	21.34	240.76	2,439.88	-177.47	-317.07	14,363,734.05	880,347.32	39.521099348°N	107.695114180°W
2,600.00	21.34	240.76	2,533.02	-195.24	-348.82	14,363,716.28	880,315.56	39.521047979°N	107.695224775°W
2,700.00	21.34	240.76	2,626.17	-213.02	-380.58	14,363,698.51	880,283.81	39.520996610°N	107.695335370°W
2,800.00	21.34	240.76	2,719.31	-230.79	-412.33	14,363,680.73	880,252.05	39.520945241°N	107.695445964°W
2,900.00	21.34	240.76	2,812.45	-248.56	-444.09	14,363,662.96	880,220.30	39.520893871°N	107.695556559°W
3,000.00	21.34	240.76	2,905.60	-266.34	-475.84	14,363,645.19	880,188.55	39.520842502°N	107.695667153°W
3,100.00	21.34	240.76	2,998.74	-284.11	-507.60	14,363,627.41	880,156.79	39.520791132°N	107.695777747°W
3,200.00	21.34	240.76	3,091.88	-301.88	-539.35	14,363,609.64	880,125.04	39.520739762°N	107.695888341°W
3,300.00	21.34	240.76	3,185.03	-319.66	-571.11	14,363,591.87	880,093.28	39.520688393°N	107.695998935°W
3,400.00	21.34	240.76	3,278.17	-337.43	-602.86	14,363,574.09	880,061.53	39.520637023°N	107.696109528°W
3,500.00	21.34	240.76	3,371.32	-355.20	-634.62	14,363,556.32	880,029.77	39.520585653°N	107.696220122°W
3,600.00	21.34	240.76	3,464.46	-372.98	-666.37	14,363,538.55	879,998.02	39.520534283°N	107.696330715°W
3,700.00	21.34	240.76	3,557.60	-390.75	-698.13	14,363,520.77	879,966.26	39.520482912°N	107.696441308°W
3,800.00	21.34	240.76	3,650.75	-408.53	-729.88	14,363,503.00	879,934.51	39.520431542°N	107.696551901°W
3,900.00	21.34	240.76	3,743.89	-426.30	-761.63	14,363,485.22	879,902.75	39.520380172°N	107.696662494°W
4,000.00	21.34	240.76	3,837.03	-444.07	-793.39	14,363,467.45	879,871.00	39.520328801°N	107.696773086°W
4,100.00	21.34	240.76	3,930.18	-461.85	-825.14	14,363,449.68	879,839.25	39.520277431°N	107.696883679°W
4,169.59	21.34	240.76	3,995.00	-474.22	-847.24	14,363,437.31	879,817.15	39.520241680°N	107.696960645°W
Mesaverde									
4,200.00	21.34	240.76	4,023.32	-479.62	-856.90	14,363,431.90	879,807.49	39.520226060°N	107.696994271°W
4,282.32	21.34	240.76	4,100.00	-494.25	-883.04	14,363,417.27	879,781.35	39.520183772°N	107.697085310°W
DROP 3°/100 at 4282 MD/4100 TVD									
4,300.00	20.81	240.76	4,116.49	-497.36	-888.59	14,363,414.17	879,775.80	39.520174797°N	107.697104631°W
4,400.00	17.81	240.76	4,210.86	-513.50	-917.44	14,363,398.02	879,746.95	39.520128122°N	107.697205113°W

Database:	EDM5000	Local Co-ordinate Reference:	Well Gentry E09 (112032) - Slot E9
Company:	Antero Resources	TVD Reference:	KB @ 5690.00ft (Original Well Elev)
Project:	Gentry	MD Reference:	KB @ 5690.00ft (Original Well Elev)
Site:	Gentry E	North Reference:	Grid
Well:	Gentry E09 (112032)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Gentry E09		
Design:	Gentry E09 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
4,500.00	14.81	240.76	4,306.82	-527.22	-941.94	14,363,384.30	879,722.45	39.520088483°N	107.697290448°W
4,600.00	11.81	240.76	4,404.13	-538.46	-962.03	14,363,373.06	879,702.36	39.520055988°N	107.697360403°W
4,700.00	8.81	240.76	4,502.50	-547.20	-977.64	14,363,364.32	879,686.75	39.520030727°N	107.697414786°W
4,800.00	5.81	240.76	4,601.68	-553.42	-988.74	14,363,358.11	879,675.65	39.520012768°N	107.697453448°W
4,900.00	2.81	240.76	4,701.38	-557.09	-995.30	14,363,354.44	879,669.09	39.520002161°N	107.697476283°W
4,993.66	0.00	240.00	4,795.00	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
VERTICAL at 4994 MD/4795 TVD - Price Coal									
5,000.00	0.00	240.00	4,801.34	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
5,100.00	0.00	240.00	4,901.34	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
5,200.00	0.00	240.00	5,001.34	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
5,300.00	0.00	240.00	5,101.34	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
5,400.00	0.00	240.00	5,201.34	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
5,500.00	0.00	240.00	5,301.34	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
5,600.00	0.00	240.00	5,401.34	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
5,693.66	0.00	240.00	5,495.00	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
Top Gas									
5,700.00	0.00	240.00	5,501.34	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
5,800.00	0.00	240.00	5,601.34	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
5,900.00	0.00	240.00	5,701.34	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
6,000.00	0.00	240.00	5,801.34	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
6,100.00	0.00	240.00	5,901.34	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
6,200.00	0.00	240.00	6,001.34	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
6,300.00	0.00	240.00	6,101.34	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
6,400.00	0.00	240.00	6,201.34	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
6,500.00	0.00	240.00	6,301.34	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
6,593.66	0.00	240.00	6,395.00	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
Cameo									
6,600.00	0.00	240.00	6,401.34	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
6,700.00	0.00	240.00	6,501.34	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
6,800.00	0.00	240.00	6,601.34	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
6,900.00	0.00	240.00	6,701.34	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
7,000.00	0.00	240.00	6,801.34	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
7,100.00	0.00	240.00	6,901.34	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
7,200.00	0.00	240.00	7,001.34	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
7,300.00	0.00	240.00	7,101.34	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
7,400.00	0.00	240.00	7,201.34	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
7,500.00	0.00	240.00	7,301.34	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
7,600.00	0.00	240.00	7,401.34	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
7,693.66	0.00	240.00	7,495.00	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
Rollins									
7,700.00	0.00	240.00	7,501.34	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
7,800.00	0.00	240.00	7,601.34	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
7,893.66	0.00	240.00	7,695.00	-558.21	-997.30	14,363,353.32	879,667.09	39.519998920°N	107.697483260°W
TD at 7894 MD/7695 TVD									

Database:	EDM5000	Local Co-ordinate Reference:	Well Gentry E09 (112032) - Slot E9
Company:	Antero Resources	TVD Reference:	KB @ 5690.00ft (Original Well Elev)
Project:	Gentry	MD Reference:	KB @ 5690.00ft (Original Well Elev)
Site:	Gentry E	North Reference:	Grid
Well:	Gentry E09 (112032)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Gentry E09		
Design:	Gentry E09 P01		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
E09 BH	0.00	0.00	7,695.00	-558.21	-997.30	14,363,353.32	879,667.09	39.519998922°N	107.697483262°W
- plan hits target center									
- Circle (radius 20.00)									

Casing Points					
Measured Depth	Vertical Depth			Casing Diameter	Hole Diameter
(ft)	(ft)	Name		(in)	(in)
1,000.00	1,000.00	Surf Csg at 1000 TVD		5.500	6.000

Formations					
Measured Depth	Vertical Depth			Dip	Dip Direction
(ft)	(ft)	Name	Lithology	(°)	(°)
4,169.59	3,995.00	Mesaverde			
4,993.66	4,795.00	Price Coal			
5,693.66	5,495.00	Top Gas			
6,593.66	6,395.00	Cameo			
7,693.66	7,495.00	Rollins			

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(ft)	(ft)	+N/-S	+E/-W	Comment	
(ft)	(ft)	(ft)	(ft)		
1,150.00	1,150.00	0.00	0.00	KOP 3°/100 at 1150 MD/1150 TVD	
1,861.34	1,845.00	-63.96	-114.27	HOLD 21° at 1861 MD/1845 TVD	
4,282.32	4,100.00	-494.25	-883.04	DROP 3°/100 at 4282 MD/4100 TVD	
4,993.66	4,795.00	-558.21	-997.30	VERTICAL at 4994 MD/4795 TVD	
7,893.66	7,695.00	-558.21	-997.30	TD at 7894 MD/7695 TVD	