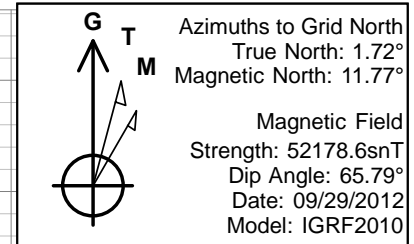
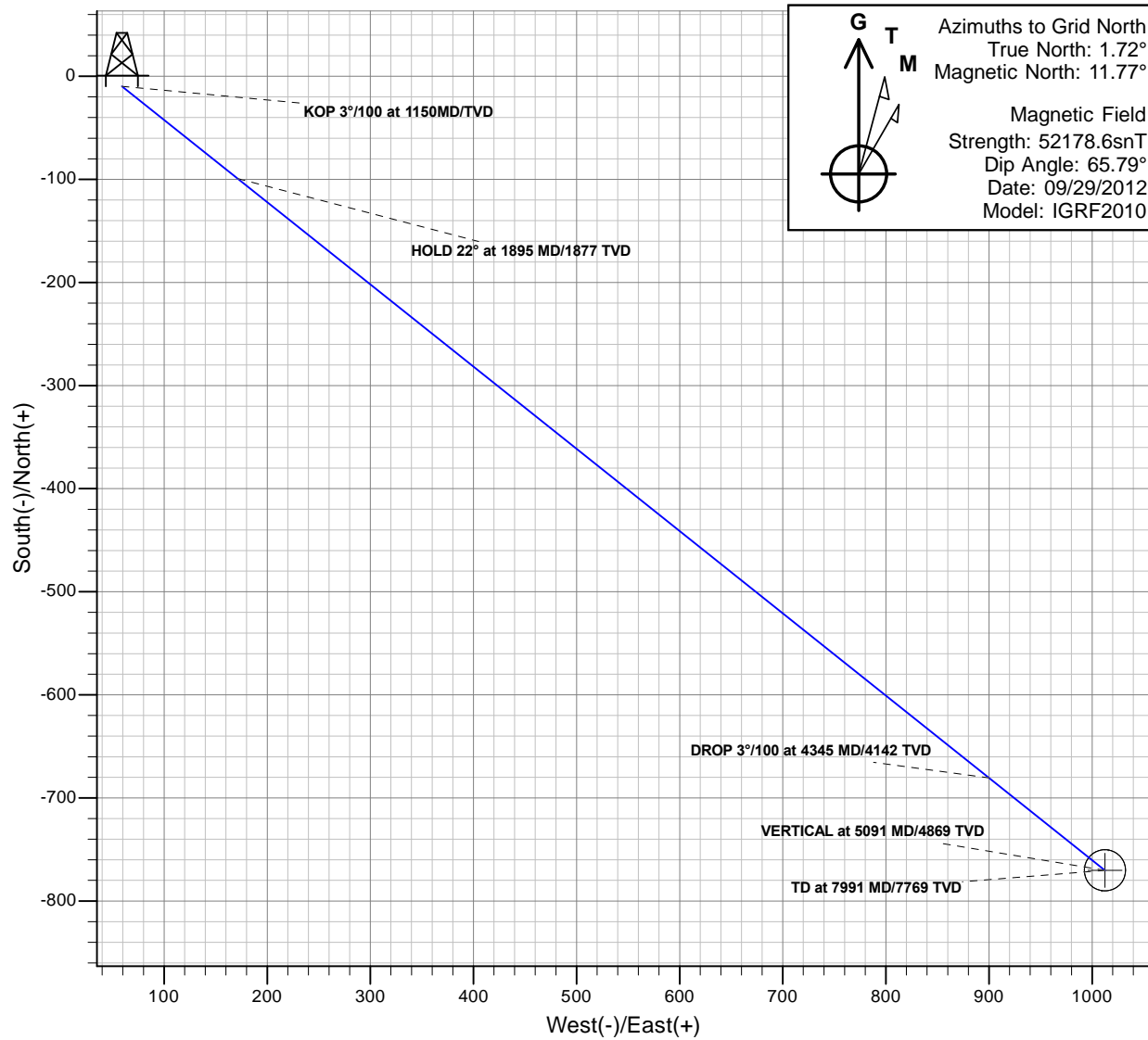
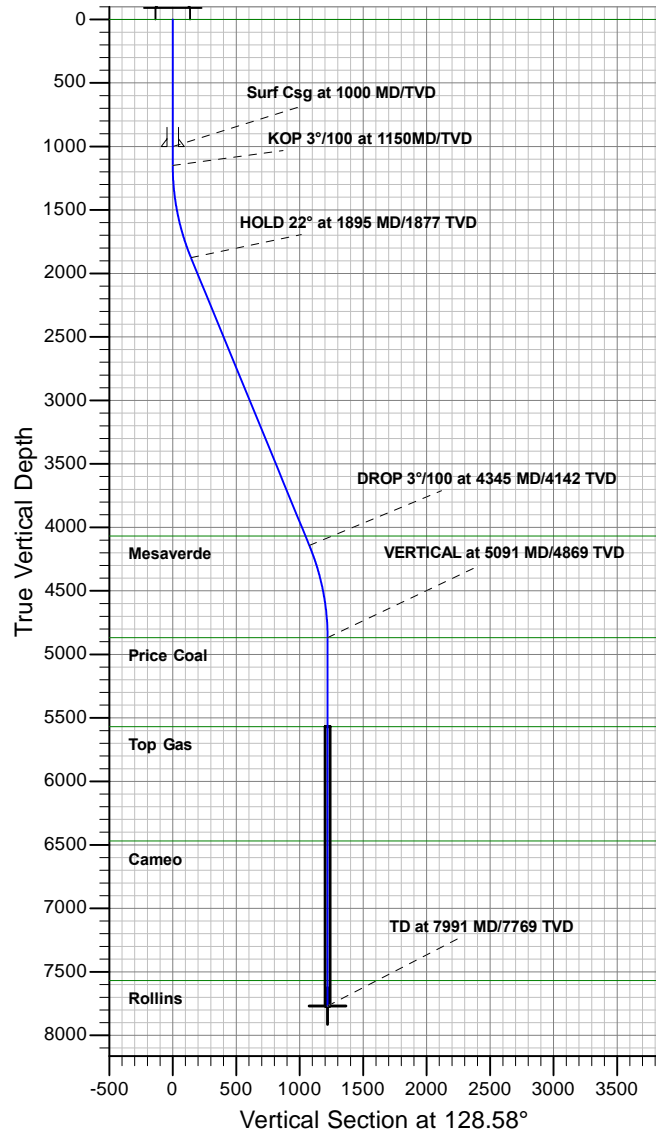




Antero Resources

Dever C02 (112040)
Dever C02 P01



REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Site Dever C, Grid North
Vertical (TVD) Reference: KB @ 5609.00ft (Original Well Elev)
Section (VS) Reference: Slot - C02(-9.72N, 59.19E)
Measured Depth Reference: KB @ 5609.00ft (Original Well Elev)
Calculation Method: Minimum Curvature

PROJECT DETAILS: Dever

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	VSect	Target
0.00	0.00	0.00	0.00	-9.72	59.19	0.00	0.00	0.00	
1150.00	0.00	0.00	1150.00	-9.72	59.19	0.00	0.00	0.00	
1895.46	22.36	128.58	1876.67	-99.30	171.48	3.00	128.58	143.65	
4345.38	22.36	128.58	4142.33	-680.60	900.18	0.00	0.00	1075.80	
5090.84	0.00	128.58	4869.00	-770.18	1012.47	3.00	180.00	1219.45	
7990.84	0.00	128.58	7769.00	-770.18	1012.47	0.00	128.58	1219.45	BH C02



Antero Resources

Dever

Dever C

Dever C02 (112040) - Slot C02

Dever C02

Plan: Dever C02 P01

Standard Planning Report - Geographic

10 July, 2012



Database:	EDM5000	Local Co-ordinate Reference:	Site Dever C
Company:	Antero Resources	TVD Reference:	KB @ 5609.00ft (Original Well Elev)
Project:	Dever	MD Reference:	KB @ 5609.00ft (Original Well Elev)
Site:	Dever C	North Reference:	Grid
Well:	Dever C02 (112040)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dever C02		
Design:	Dever C02 P01		

Project	Dever		
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	Dever C					
Site Position:		Northing:	14,366,374.09 usft	Latitude:	39.528240000°N	
From:	Map	Easting:	879,108.20 usft	Longitude:	107.699784000°W	
Position Uncertainty:		0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.72 °

Well	Dever C02 (112040) - Slot C02					
Well Position	+N/-S	-9.72 ft	Northing:	14,366,364.37 usft	Latitude:	39.528218218°N
	+E/-W	59.19 ft	Easting:	879,167.39 usft	Longitude:	107.699573295°W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,585.00 ft

Wellbore	Dever C02				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2012/09/29	10.06	65.79	52,179

Design	Dever C02 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	-9.72	59.19	128.58

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	-9.72	59.19	0.00	0.00	0.00	0.00	
1,150.00	0.00	0.00	1,150.00	-9.72	59.19	0.00	0.00	0.00	0.00	
1,895.46	22.36	128.58	1,876.67	-99.30	171.48	3.00	3.00	0.00	128.58	
4,345.38	22.36	128.58	4,142.33	-680.60	900.18	0.00	0.00	0.00	0.00	
5,090.84	0.00	128.58	4,869.00	-770.18	1,012.47	3.00	-3.00	0.00	180.00	
7,990.84	0.00	128.58	7,769.00	-770.18	1,012.47	0.00	0.00	0.00	128.58	BH C02

Database:	EDM5000	Local Co-ordinate Reference:	Site Dever C
Company:	Antero Resources	TVD Reference:	KB @ 5609.00ft (Original Well Elev)
Project:	Dever	MD Reference:	KB @ 5609.00ft (Original Well Elev)
Site:	Dever C	North Reference:	Grid
Well:	Dever C02 (112040)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dever C02		
Design:	Dever C02 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	-9.72	59.19	14,366,364.37	879,167.39	39.528218218°N	107.699573295°W
Wasatch									
100.00	0.00	0.00	100.00	-9.72	59.19	14,366,364.37	879,167.39	39.528218218°N	107.699573295°W
200.00	0.00	0.00	200.00	-9.72	59.19	14,366,364.37	879,167.39	39.528218218°N	107.699573295°W
300.00	0.00	0.00	300.00	-9.72	59.19	14,366,364.37	879,167.39	39.528218218°N	107.699573295°W
400.00	0.00	0.00	400.00	-9.72	59.19	14,366,364.37	879,167.39	39.528218218°N	107.699573295°W
500.00	0.00	0.00	500.00	-9.72	59.19	14,366,364.37	879,167.39	39.528218218°N	107.699573295°W
600.00	0.00	0.00	600.00	-9.72	59.19	14,366,364.37	879,167.39	39.528218218°N	107.699573295°W
700.00	0.00	0.00	700.00	-9.72	59.19	14,366,364.37	879,167.39	39.528218218°N	107.699573295°W
800.00	0.00	0.00	800.00	-9.72	59.19	14,366,364.37	879,167.39	39.528218218°N	107.699573295°W
900.00	0.00	0.00	900.00	-9.72	59.19	14,366,364.37	879,167.39	39.528218218°N	107.699573295°W
1,000.00	0.00	0.00	1,000.00	-9.72	59.19	14,366,364.37	879,167.39	39.528218218°N	107.699573295°W
Surf Csg at 1000 MD/TVD									
1,100.00	0.00	0.00	1,100.00	-9.72	59.19	14,366,364.37	879,167.39	39.528218218°N	107.699573295°W
1,150.00	0.00	0.00	1,150.00	-9.72	59.19	14,366,364.37	879,167.39	39.528218218°N	107.699573295°W
KOP 3°/100 at 1150MD/TVD									
1,200.00	1.50	128.58	1,199.99	-10.12	59.70	14,366,363.96	879,167.90	39.528217141°N	107.699571439°W
1,300.00	4.50	128.58	1,299.85	-13.39	63.79	14,366,360.70	879,171.99	39.528208525°N	107.699556600°W
1,400.00	7.50	128.58	1,399.29	-19.91	71.96	14,366,354.18	879,180.16	39.528191317°N	107.699526963°W
1,500.00	10.50	128.58	1,498.04	-29.66	84.19	14,366,344.43	879,192.39	39.528165564°N	107.699482609°W
1,600.00	13.50	128.58	1,595.85	-42.62	100.44	14,366,331.46	879,208.64	39.528131337°N	107.699423660°W
1,700.00	16.50	128.58	1,692.43	-58.76	120.67	14,366,315.32	879,228.87	39.528088728°N	107.699350278°W
1,800.00	19.50	128.58	1,787.52	-78.03	144.82	14,366,296.05	879,253.03	39.528037856°N	107.699262663°W
1,895.46	22.36	128.58	1,876.67	-99.30	171.48	14,366,274.79	879,279.68	39.527981714°N	107.699165970°W
HOLD 22° at 1895 MD/1877 TVD									
1,900.00	22.36	128.58	1,880.87	-100.37	172.83	14,366,273.71	879,281.03	39.527978868°N	107.699161070°W
2,000.00	22.36	128.58	1,973.35	-124.10	202.57	14,366,249.98	879,310.78	39.527916223°N	107.699053179°W
2,100.00	22.36	128.58	2,065.83	-147.83	232.32	14,366,226.26	879,340.52	39.527853578°N	107.698945289°W
2,200.00	22.36	128.58	2,158.31	-171.56	262.06	14,366,202.53	879,370.26	39.527790933°N	107.698837399°W
2,300.00	22.36	128.58	2,250.79	-195.28	291.81	14,366,178.80	879,400.01	39.527728288°N	107.698729510°W
2,400.00	22.36	128.58	2,343.27	-219.01	321.55	14,366,155.07	879,429.75	39.527665643°N	107.698621620°W
2,500.00	22.36	128.58	2,435.75	-242.74	351.29	14,366,131.35	879,459.50	39.527602998°N	107.698513731°W
2,600.00	22.36	128.58	2,528.22	-266.47	381.04	14,366,107.62	879,489.24	39.527540352°N	107.698405842°W
2,700.00	22.36	128.58	2,620.70	-290.19	410.78	14,366,083.89	879,518.98	39.527477707°N	107.698297953°W
2,800.00	22.36	128.58	2,713.18	-313.92	440.53	14,366,060.16	879,548.73	39.527415061°N	107.698190064°W
2,900.00	22.36	128.58	2,805.66	-337.65	470.27	14,366,036.44	879,578.47	39.527352415°N	107.698082176°W
3,000.00	22.36	128.58	2,898.14	-361.38	500.01	14,366,012.71	879,608.21	39.527289769°N	107.697974287°W
3,100.00	22.36	128.58	2,990.62	-385.10	529.76	14,365,988.98	879,637.96	39.527227123°N	107.697866399°W
3,200.00	22.36	128.58	3,083.10	-408.83	559.50	14,365,965.25	879,667.70	39.527164477°N	107.697758511°W
3,300.00	22.36	128.58	3,175.58	-432.56	589.24	14,365,941.53	879,697.45	39.527101831°N	107.697650624°W
3,400.00	22.36	128.58	3,268.05	-456.29	618.99	14,365,917.80	879,727.19	39.527039185°N	107.697542736°W
3,500.00	22.36	128.58	3,360.53	-480.01	648.73	14,365,894.07	879,756.93	39.526976538°N	107.697434849°W
3,600.00	22.36	128.58	3,453.01	-503.74	678.48	14,365,870.34	879,786.68	39.526913892°N	107.697326961°W
3,700.00	22.36	128.58	3,545.49	-527.47	708.22	14,365,846.62	879,816.42	39.526851245°N	107.697219074°W
3,800.00	22.36	128.58	3,637.97	-551.20	737.96	14,365,822.89	879,846.16	39.526788598°N	107.697111188°W
3,900.00	22.36	128.58	3,730.45	-574.92	767.71	14,365,799.16	879,875.91	39.526725951°N	107.697003301°W
4,000.00	22.36	128.58	3,822.93	-598.65	797.45	14,365,775.43	879,905.65	39.526663304°N	107.696895415°W
4,100.00	22.36	128.58	3,915.41	-622.38	827.19	14,365,751.71	879,935.40	39.526600657°N	107.696787528°W
4,200.00	22.36	128.58	4,007.88	-646.11	856.94	14,365,727.98	879,965.14	39.526538010°N	107.696679642°W
4,266.09	22.36	128.58	4,069.00	-661.79	876.59	14,365,712.30	879,984.80	39.526496609°N	107.696608344°W
Mesaverde									
4,300.00	22.36	128.58	4,100.36	-669.83	886.68	14,365,704.25	879,994.88	39.526475363°N	107.696571757°W
4,345.38	22.36	128.58	4,142.33	-680.60	900.18	14,365,693.49	880,008.38	39.526446935°N	107.696522801°W
DROP 3°/100 at 4345 MD/4142 TVD									

Database:	EDM5000	Local Co-ordinate Reference:	Site Dever C
Company:	Antero Resources	TVD Reference:	KB @ 5609.00ft (Original Well Elev)
Project:	Dever	MD Reference:	KB @ 5609.00ft (Original Well Elev)
Site:	Dever C	North Reference:	Grid
Well:	Dever C02 (112040)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dever C02		
Design:	Dever C02 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
4,400.00	20.73	128.58	4,193.13	-693.11	915.86	14,365,680.98	880,024.06	39.526413909°N	107.696465927°W
4,500.00	17.73	128.58	4,287.54	-713.64	941.60	14,365,660.44	880,049.80	39.526359699°N	107.696372571°W
4,600.00	14.73	128.58	4,383.55	-731.06	963.44	14,365,643.02	880,071.64	39.526313699°N	107.696293354°W
4,700.00	11.73	128.58	4,480.89	-745.33	981.32	14,365,628.76	880,089.52	39.526276035°N	107.696228493°W
4,800.00	8.73	128.58	4,579.29	-756.40	995.19	14,365,617.69	880,103.39	39.526246810°N	107.696178165°W
4,900.00	5.73	128.58	4,678.48	-764.24	1,005.02	14,365,609.85	880,113.23	39.526226104°N	107.696142508°W
5,000.00	2.73	128.58	4,778.20	-768.83	1,010.78	14,365,605.25	880,118.98	39.526213975°N	107.696121621°W
5,090.84	0.00	128.58	4,869.00	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
VERTICAL at 5091 MD/4869 TVD - Price Coal									
5,100.00	0.00	128.58	4,878.16	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
5,200.00	0.00	128.58	4,978.16	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
5,300.00	0.00	128.58	5,078.16	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
5,400.00	0.00	128.58	5,178.16	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
5,500.00	0.00	128.58	5,278.16	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
5,600.00	0.00	128.58	5,378.16	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
5,700.00	0.00	128.58	5,478.16	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
5,790.84	0.00	128.58	5,569.00	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
Top Gas									
5,800.00	0.00	128.58	5,578.16	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
5,900.00	0.00	128.58	5,678.16	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
6,000.00	0.00	128.58	5,778.16	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
6,100.00	0.00	128.58	5,878.16	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
6,200.00	0.00	128.58	5,978.16	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
6,300.00	0.00	128.58	6,078.16	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
6,400.00	0.00	128.58	6,178.16	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
6,500.00	0.00	128.58	6,278.16	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
6,600.00	0.00	128.58	6,378.16	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
6,690.84	0.00	128.58	6,469.00	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
Cameo									
6,700.00	0.00	128.58	6,478.16	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
6,800.00	0.00	128.58	6,578.16	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
6,900.00	0.00	128.58	6,678.16	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
7,000.00	0.00	128.58	6,778.16	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
7,100.00	0.00	128.58	6,878.16	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
7,200.00	0.00	128.58	6,978.16	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
7,300.00	0.00	128.58	7,078.16	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
7,400.00	0.00	128.58	7,178.16	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
7,500.00	0.00	128.58	7,278.16	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
7,600.00	0.00	128.58	7,378.16	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
7,700.00	0.00	128.58	7,478.16	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
7,790.84	0.00	128.58	7,569.00	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
Rollins									
7,800.00	0.00	128.58	7,578.16	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
7,900.00	0.00	128.58	7,678.16	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
7,990.84	0.00	128.58	7,769.00	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
TD at 7991 MD/7769 TVD - BH C02									

Database:	EDM5000	Local Co-ordinate Reference:	Site Dever C
Company:	Antero Resources	TVD Reference:	KB @ 5609.00ft (Original Well Elev)
Project:	Dever	MD Reference:	KB @ 5609.00ft (Original Well Elev)
Site:	Dever C	North Reference:	Grid
Well:	Dever C02 (112040)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dever C02		
Design:	Dever C02 P01		

Design Targets									
Target Name									
- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- Shape									
BH C02	0.00	0.00	7,769.00	-770.18	1,012.47	14,365,603.91	880,120.67	39.526210419°N	107.696115497°W
- plan hits target center									
- Circle (radius 20.00)									

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

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
0.00	0.00	Wasatch				
4,266.09	4,069.00	Mesaverde				
5,090.84	4,869.00	Price Coal				
5,790.84	5,569.00	Top Gas				
6,690.84	6,469.00	Cameo				
7,790.84	7,569.00	Rollins				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,150.00	1,150.00	-9.72	59.19	KOP 3°/100 at 1150MD/TVD	
1,895.46	1,876.67	-99.30	171.48	HOLD 22° at 1895 MD/1877 TVD	
4,345.38	4,142.33	-680.60	900.18	DROP 3°/100 at 4345 MD/4142 TVD	
5,090.84	4,869.00	-770.18	1,012.47	VERTICAL at 5091 MD/4869 TVD	
7,990.84	7,769.00	-770.18	1,012.47	TD at 7991 MD/7769 TVD	