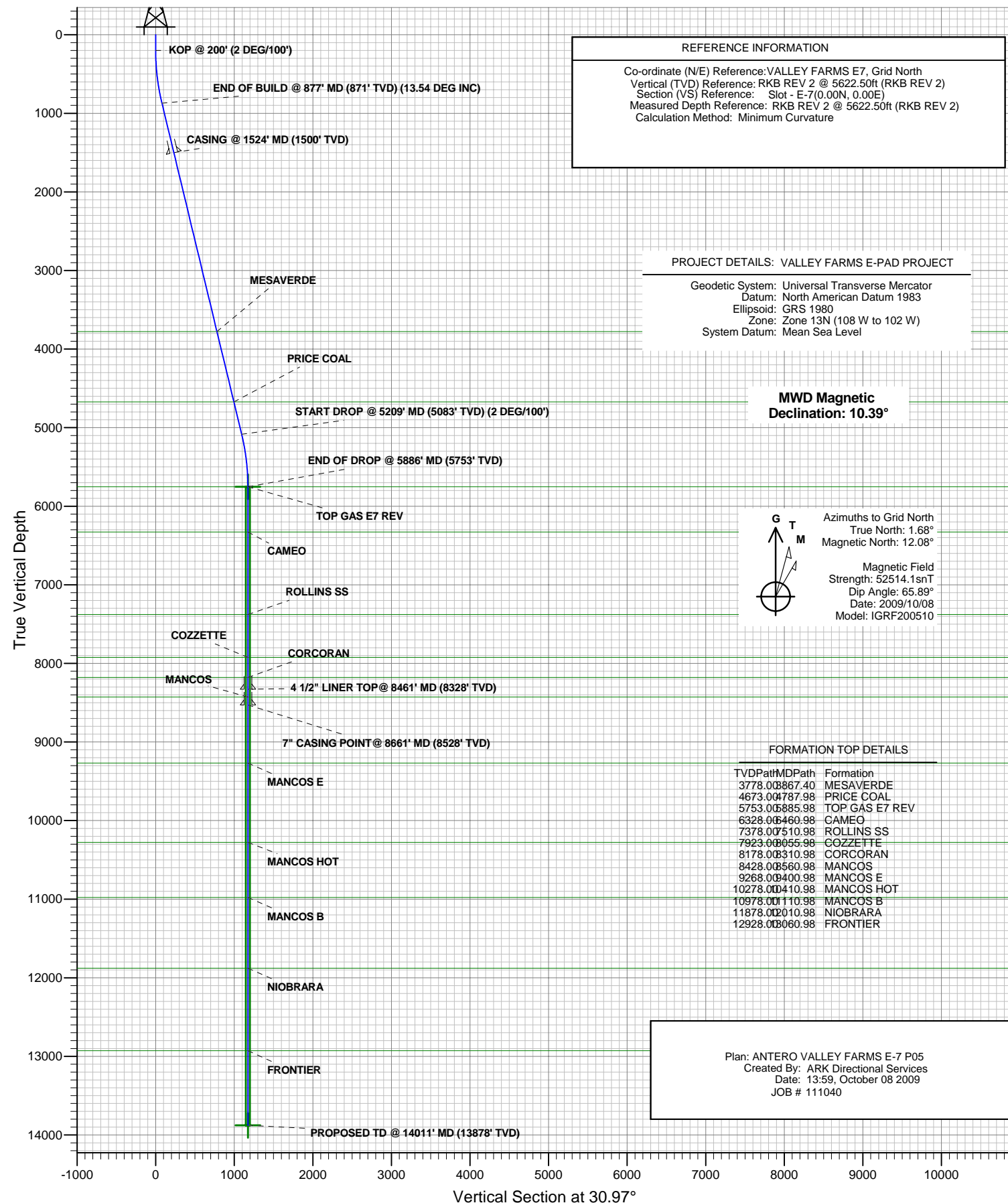




ANTERO RESOURCES

ANTERO VALLEY FARMS E7



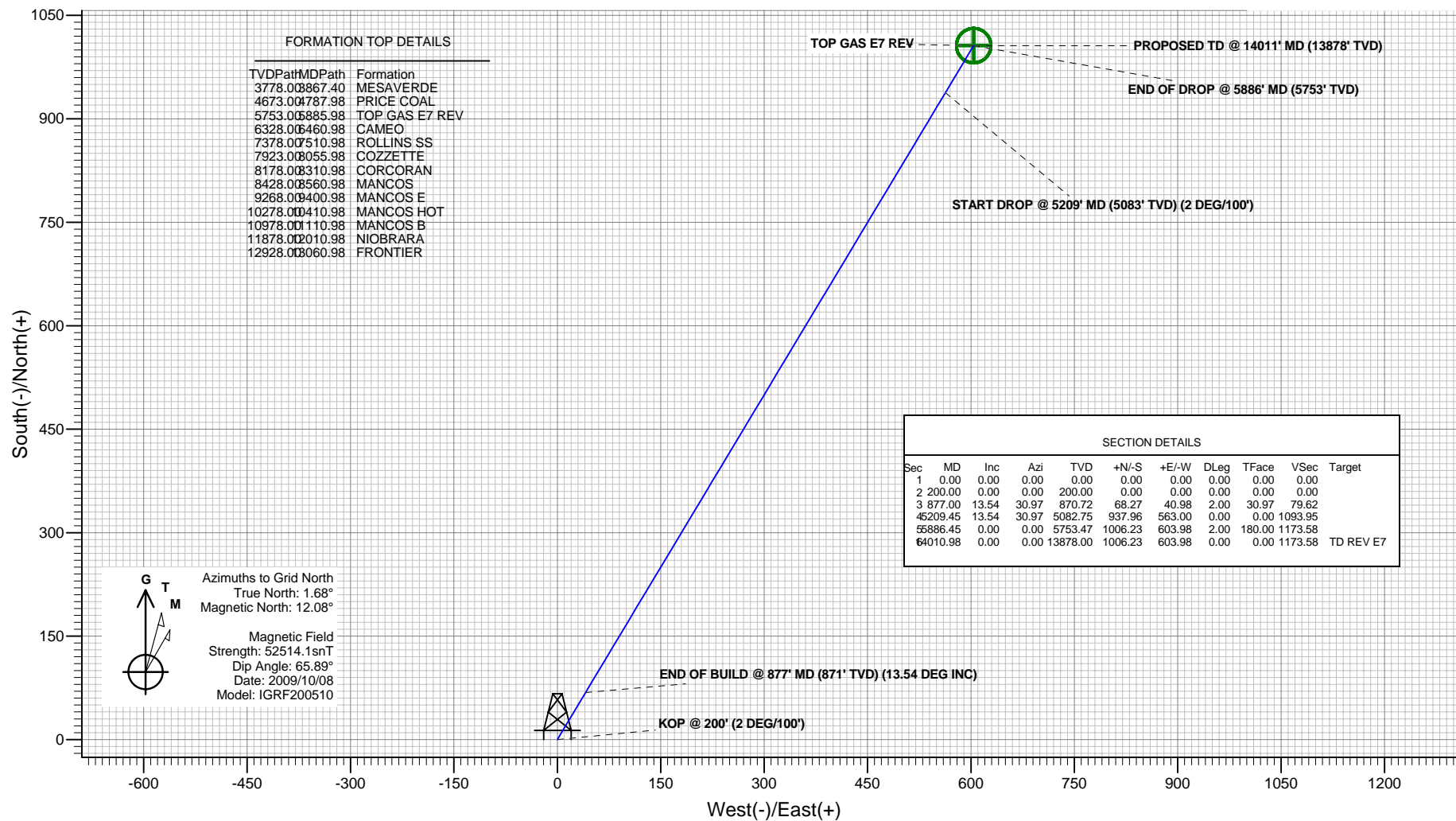


ANTERO RESOURCES

Project: VALLEY FARMS E-PAD PROJECT
Site: FRONTIER 14
Well: VALLEY FARMS E7 (111040)
Wellbore: ANTERO VALLEY FARMS E7
Design: ANTERO VALLEY FARMS E-7 P05
JOB # 111040



PLAN VIEW



Plan: ANTERO VALLEY FARMS E-7 P05
Created By: ARK Directional Services
Date: 14:02, October 08 2009

PROJECT DETAILS: VALLEY FARMS E-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 E7, Grid North
Vertical (TVD) Reference: RKB REV 2 @ 5622.50ft (RKB REV 2)
Section (VS) Reference: Slot - E-7(0.00N, 0.00E)
Measured Depth Reference: RKB REV 2 @ 5622.50ft (RKB REV 2)
Calculation Method: Minimum Curvature

ANTERO RESOURCES

**VALLEY FARMS E-PAD PROJECT
FRONTIER 14**

Plan: ANTERO VALLEY FARMS E-7 P05

Standard Planning Report - Geographic

08 October, 2009

Planning Report - Geographic

Database:	EDMDB	Local Co-ordinate Reference:	Well VALLEY FARMS E7 (111040) - Slot E-7
Company:	ANTERO RESOURCES	TVD Reference:	RKB REV 2 @ 5622.50ft (RKB REV 2)
Project:	VALLEY FARMS E-PAD PROJECT	MD Reference:	RKB REV 2 @ 5622.50ft (RKB REV 2)
Site:	FRONTIER 14	North Reference:	Grid
Well:	VALLEY FARMS E7 (111040)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO VALLEY FARMS E7		
Design:	ANTERO VALLEY FARMS E-7 P05		

Project	VALLEY FARMS E-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 14				
Site Position:		Northing:	14,366,226.57 ft	Latitude:	39° 31' 44.623 N
From:	Map	Easting:	894,155.95 ft	Longitude:	107° 38' 47.255 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	-1.69 °

Well	VALLEY FARMS E7 (111040) - Slot E-7					
Well Position	+N/-S	28.48 ft	Northing:	14,366,255.05 ft	Latitude:	39° 31' 44.893 N
	+E/-W	-38.42 ft	Easting:	894,117.53 ft	Longitude:	107° 38' 47.755 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,604.00 ft

Wellbore	ANTERO VALLEY FARMS E7				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	2009/10/08	10.39	65.89	52,514

Design	ANTERO VALLEY FARMS E-7 P05			
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	30.97

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	
877.00	13.54	30.97	870.72	68.27	40.98	2.00	2.00	0.00	30.97	
5,209.45	13.54	30.97	5,082.75	937.96	563.00	0.00	0.00	0.00	0.00	
5,886.45	0.00	0.00	5,753.47	1,006.23	603.98	2.00	-2.00	0.00	180.00	
14,010.98	0.00	0.00	13,878.00	1,006.23	603.98	0.00	0.00	0.00	0.00	TD REV E7

Planning Report - Geographic

Database:	EDMDB	Local Co-ordinate Reference:	Well VALLEY FARMS E7 (111040) - Slot E-7
Company:	ANTERO RESOURCES	TVD Reference:	RKB REV 2 @ 5622.50ft (RKB REV 2)
Project:	VALLEY FARMS E-PAD PROJECT	MD Reference:	RKB REV 2 @ 5622.50ft (RKB REV 2)
Site:	FRONTIER 14	North Reference:	Grid
Well:	VALLEY FARMS E7 (111040)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO VALLEY FARMS E7		
Design:	ANTERO VALLEY FARMS E-7 P05		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	14,366,255.05	894,117.53	39° 31' 44.893 N	107° 38' 47.755 W
100.00	0.00	0.00	100.00	0.00	0.00	14,366,255.05	894,117.53	39° 31' 44.893 N	107° 38' 47.755 W
200.00	0.00	0.00	200.00	0.00	0.00	14,366,255.05	894,117.53	39° 31' 44.893 N	107° 38' 47.755 W
KOP @ 200' (2 DEG/100')									
300.00	2.00	30.97	299.98	1.50	0.90	14,366,256.55	894,118.43	39° 31' 44.909 N	107° 38' 47.744 W
400.00	4.00	30.97	399.84	5.98	3.59	14,366,261.03	894,121.12	39° 31' 44.954 N	107° 38' 47.712 W
500.00	6.00	30.97	499.45	13.46	8.08	14,366,268.51	894,125.61	39° 31' 45.029 N	107° 38' 47.657 W
600.00	8.00	30.97	598.70	23.90	14.35	14,366,278.95	894,131.88	39° 31' 45.134 N	107° 38' 47.581 W
700.00	10.00	30.97	697.47	37.32	22.40	14,366,292.37	894,139.93	39° 31' 45.269 N	107° 38' 47.484 W
800.00	12.00	30.97	795.62	53.68	32.22	14,366,308.73	894,149.75	39° 31' 45.433 N	107° 38' 47.365 W
877.00	13.54	30.97	870.72	68.27	40.98	14,366,323.32	894,158.51	39° 31' 45.580 N	107° 38' 47.258 W
END OF BUILD @ 877' MD (871' TVD) (13.54 DEG INC)									
900.00	13.54	30.97	893.08	72.89	43.75	14,366,327.93	894,161.28	39° 31' 45.626 N	107° 38' 47.225 W
1,000.00	13.54	30.97	990.30	92.96	55.80	14,366,348.01	894,173.33	39° 31' 45.828 N	107° 38' 47.079 W
1,100.00	13.54	30.97	1,087.52	113.03	67.85	14,366,368.08	894,185.38	39° 31' 46.030 N	107° 38' 46.932 W
1,200.00	13.54	30.97	1,184.74	133.11	79.90	14,366,388.16	894,197.43	39° 31' 46.231 N	107° 38' 46.786 W
1,300.00	13.54	30.97	1,281.96	153.18	91.94	14,366,408.23	894,209.47	39° 31' 46.433 N	107° 38' 46.640 W
1,400.00	13.54	30.97	1,379.18	173.25	103.99	14,366,428.30	894,221.52	39° 31' 46.635 N	107° 38' 46.494 W
1,500.00	13.54	30.97	1,476.40	193.33	116.04	14,366,448.38	894,233.57	39° 31' 46.837 N	107° 38' 46.348 W
1,524.27	13.54	30.97	1,500.00	198.20	118.97	14,366,453.25	894,236.50	39° 31' 46.886 N	107° 38' 46.312 W
CASING @ 1524' MD (1500' TVD)									
1,600.00	13.54	30.97	1,573.62	213.40	128.09	14,366,468.45	894,245.62	39° 31' 47.038 N	107° 38' 46.202 W
1,700.00	13.54	30.97	1,670.84	233.48	140.14	14,366,488.53	894,257.67	39° 31' 47.240 N	107° 38' 46.056 W
1,800.00	13.54	30.97	1,768.06	253.55	152.19	14,366,508.60	894,269.72	39° 31' 47.442 N	107° 38' 45.909 W
1,900.00	13.54	30.97	1,865.28	273.62	164.24	14,366,528.67	894,281.77	39° 31' 47.644 N	107° 38' 45.763 W
2,000.00	13.54	30.97	1,962.50	293.70	176.29	14,366,548.75	894,293.82	39° 31' 47.845 N	107° 38' 45.617 W
2,100.00	13.54	30.97	2,059.73	313.77	188.34	14,366,568.82	894,305.87	39° 31' 48.047 N	107° 38' 45.471 W
2,200.00	13.54	30.97	2,156.95	333.85	200.39	14,366,588.89	894,317.92	39° 31' 48.249 N	107° 38' 45.325 W
2,300.00	13.54	30.97	2,254.17	353.92	212.44	14,366,608.97	894,329.97	39° 31' 48.451 N	107° 38' 45.179 W
2,400.00	13.54	30.97	2,351.39	373.99	224.48	14,366,629.04	894,342.01	39° 31' 48.652 N	107° 38' 45.033 W
2,500.00	13.54	30.97	2,448.61	394.07	236.53	14,366,649.12	894,354.06	39° 31' 48.854 N	107° 38' 44.886 W
2,600.00	13.54	30.97	2,545.83	414.14	248.58	14,366,669.19	894,366.11	39° 31' 49.056 N	107° 38' 44.740 W
2,700.00	13.54	30.97	2,643.05	434.21	260.63	14,366,689.26	894,378.16	39° 31' 49.258 N	107° 38' 44.594 W
2,800.00	13.54	30.97	2,740.27	454.29	272.68	14,366,709.34	894,390.21	39° 31' 49.459 N	107° 38' 44.448 W
2,900.00	13.54	30.97	2,837.49	474.36	284.73	14,366,729.41	894,402.26	39° 31' 49.661 N	107° 38' 44.302 W
3,000.00	13.54	30.97	2,934.71	494.44	296.78	14,366,749.49	894,414.31	39° 31' 49.863 N	107° 38' 44.156 W
3,100.00	13.54	30.97	3,031.93	514.51	308.83	14,366,769.56	894,426.36	39° 31' 50.065 N	107° 38' 44.010 W
3,200.00	13.54	30.97	3,129.15	534.58	320.88	14,366,789.63	894,438.41	39° 31' 50.267 N	107° 38' 43.863 W
3,300.00	13.54	30.97	3,226.37	554.66	332.93	14,366,809.71	894,450.46	39° 31' 50.468 N	107° 38' 43.717 W
3,400.00	13.54	30.97	3,323.59	574.73	344.98	14,366,829.78	894,462.51	39° 31' 50.670 N	107° 38' 43.571 W
3,500.00	13.54	30.97	3,420.81	594.81	357.02	14,366,849.85	894,474.55	39° 31' 50.872 N	107° 38' 43.425 W
3,600.00	13.54	30.97	3,518.04	614.88	369.07	14,366,869.93	894,486.60	39° 31' 51.074 N	107° 38' 43.279 W
3,700.00	13.54	30.97	3,615.26	634.95	381.12	14,366,890.00	894,498.65	39° 31' 51.275 N	107° 38' 43.133 W
3,800.00	13.54	30.97	3,712.48	655.03	393.17	14,366,910.08	894,510.70	39° 31' 51.477 N	107° 38' 42.987 W
3,867.40	13.54	30.97	3,778.00	668.56	401.29	14,366,923.61	894,518.82	39° 31' 51.613 N	107° 38' 42.888 W
MESAVERDE									
3,900.00	13.54	30.97	3,809.70	675.10	405.22	14,366,930.15	894,522.75	39° 31' 51.679 N	107° 38' 42.840 W
4,000.00	13.54	30.97	3,906.92	695.18	417.27	14,366,950.22	894,534.80	39° 31' 51.881 N	107° 38' 42.694 W
4,100.00	13.54	30.97	4,004.14	715.25	429.32	14,366,970.30	894,546.85	39° 31' 52.082 N	107° 38' 42.548 W
4,200.00	13.54	30.97	4,101.36	735.32	441.37	14,366,990.37	894,558.90	39° 31' 52.284 N	107° 38' 42.402 W
4,300.00	13.54	30.97	4,198.58	755.40	453.42	14,367,010.45	894,570.95	39° 31' 52.486 N	107° 38' 42.256 W
4,400.00	13.54	30.97	4,295.80	775.47	465.47	14,367,030.52	894,583.00	39° 31' 52.688 N	107° 38' 42.110 W
4,500.00	13.54	30.97	4,393.02	795.54	477.52	14,367,050.59	894,595.04	39° 31' 52.889 N	107° 38' 41.964 W
4,600.00	13.54	30.97	4,490.24	815.62	489.56	14,367,070.67	894,607.09	39° 31' 53.091 N	107° 38' 41.817 W

Planning Report - Geographic

Database:	EDMDB	Local Co-ordinate Reference:	Well VALLEY FARMS E7 (111040) - Slot E-7
Company:	ANTERO RESOURCES	TVD Reference:	RKB REV 2 @ 5622.50ft (RKB REV 2)
Project:	VALLEY FARMS E-PAD PROJECT	MD Reference:	RKB REV 2 @ 5622.50ft (RKB REV 2)
Site:	FRONTIER 14	North Reference:	Grid
Well:	VALLEY FARMS E7 (111040)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO VALLEY FARMS E7		
Design:	ANTERO VALLEY FARMS E-7 P05		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
4,700.00	13.54	30.97	4,587.46	835.69	501.61	14,367,090.74	894,619.14	39° 31' 53.293 N	107° 38' 41.671 W
4,787.98	13.54	30.97	4,673.00	853.35	512.22	14,367,108.40	894,629.74	39° 31' 53.470 N	107° 38' 41.543 W
PRICE COAL									
4,800.00	13.54	30.97	4,684.68	855.77	513.66	14,367,110.81	894,631.19	39° 31' 53.495 N	107° 38' 41.525 W
4,900.00	13.54	30.97	4,781.90	875.84	525.71	14,367,130.89	894,643.24	39° 31' 53.696 N	107° 38' 41.379 W
5,000.00	13.54	30.97	4,879.12	895.91	537.76	14,367,150.96	894,655.29	39° 31' 53.898 N	107° 38' 41.233 W
5,100.00	13.54	30.97	4,976.35	915.99	549.81	14,367,171.04	894,667.34	39° 31' 54.100 N	107° 38' 41.087 W
5,209.45	13.54	30.97	5,082.75	937.96	563.00	14,367,193.01	894,680.53	39° 31' 54.321 N	107° 38' 40.927 W
START DROP @ 5209' MD (5083' TVD) (2 DEG/100')									
5,300.00	11.73	30.97	5,171.11	954.94	573.19	14,367,209.99	894,690.72	39° 31' 54.491 N	107° 38' 40.803 W
5,400.00	9.73	30.97	5,269.35	970.90	582.77	14,367,225.95	894,700.30	39° 31' 54.652 N	107° 38' 40.687 W
5,500.00	7.73	30.97	5,368.19	983.91	590.58	14,367,238.96	894,708.11	39° 31' 54.783 N	107° 38' 40.592 W
5,600.00	5.73	30.97	5,467.50	993.96	596.61	14,367,249.01	894,714.14	39° 31' 54.884 N	107° 38' 40.519 W
5,700.00	3.73	30.97	5,567.15	1,001.03	600.85	14,367,256.07	894,718.38	39° 31' 54.955 N	107° 38' 40.467 W
5,800.00	1.73	30.97	5,667.03	1,005.11	603.30	14,367,260.16	894,720.83	39° 31' 54.996 N	107° 38' 40.438 W
5,885.98	0.01	30.97	5,753.00	1,006.23	603.98	14,367,261.27	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
TOP GAS E7 REV - TOP GAS E7 REV									
5,886.45	0.00	0.00	5,753.47	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
END OF DROP @ 5886' MD (5753' TVD)									
5,887.48	0.00	0.00	5,754.50	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
TOP GAS E7 - TOP GAS E7 TGT									
5,900.00	0.00	0.00	5,767.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
6,000.00	0.00	0.00	5,867.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
6,100.00	0.00	0.00	5,967.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
6,200.00	0.00	0.00	6,067.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
6,300.00	0.00	0.00	6,167.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
6,400.00	0.00	0.00	6,267.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
6,460.98	0.00	0.00	6,328.00	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
CAMEO									
6,500.00	0.00	0.00	6,367.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
6,600.00	0.00	0.00	6,467.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
6,700.00	0.00	0.00	6,567.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
6,800.00	0.00	0.00	6,667.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
6,900.00	0.00	0.00	6,767.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
7,000.00	0.00	0.00	6,867.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
7,100.00	0.00	0.00	6,967.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
7,200.00	0.00	0.00	7,067.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
7,300.00	0.00	0.00	7,167.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
7,400.00	0.00	0.00	7,267.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
7,500.00	0.00	0.00	7,367.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
7,510.98	0.00	0.00	7,378.00	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
ROLLINS SS									
7,600.00	0.00	0.00	7,467.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
7,700.00	0.00	0.00	7,567.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
7,800.00	0.00	0.00	7,667.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
7,900.00	0.00	0.00	7,767.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
8,000.00	0.00	0.00	7,867.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
8,055.98	0.00	0.00	7,923.00	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
COZZETTE									
8,100.00	0.00	0.00	7,967.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
8,200.00	0.00	0.00	8,067.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
8,300.00	0.00	0.00	8,167.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W

Planning Report - Geographic

Database:	EDMDB	Local Co-ordinate Reference:	Well VALLEY FARMS E7 (111040) - Slot E-7
Company:	ANTERO RESOURCES	TVD Reference:	RKB REV 2 @ 5622.50ft (RKB REV 2)
Project:	VALLEY FARMS E-PAD PROJECT	MD Reference:	RKB REV 2 @ 5622.50ft (RKB REV 2)
Site:	FRONTIER 14	North Reference:	Grid
Well:	VALLEY FARMS E7 (111040)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO VALLEY FARMS E7		
Design:	ANTERO VALLEY FARMS E-7 P05		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude	
8,310.98	0.00	0.00	8,178.00	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
CORCORAN										
8,400.00	0.00	0.00	8,267.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
8,460.98	0.00	0.00	8,328.00	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
4 1/2" LINER TOP@ 8461' MD (8328' TVD)										
8,500.00	0.00	0.00	8,367.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
8,560.98	0.00	0.00	8,428.00	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
MANCOS										
8,600.00	0.00	0.00	8,467.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
8,660.98	0.00	0.00	8,528.00	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
7" CASING POINT@ 8661' MD (8528' TVD)										
8,700.00	0.00	0.00	8,567.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
8,800.00	0.00	0.00	8,667.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
8,900.00	0.00	0.00	8,767.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
9,000.00	0.00	0.00	8,867.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
9,100.00	0.00	0.00	8,967.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
9,200.00	0.00	0.00	9,067.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
9,300.00	0.00	0.00	9,167.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
9,400.00	0.00	0.00	9,267.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
9,400.98	0.00	0.00	9,268.00	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
MANCOS E										
9,500.00	0.00	0.00	9,367.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
9,600.00	0.00	0.00	9,467.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
9,700.00	0.00	0.00	9,567.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
9,800.00	0.00	0.00	9,667.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
9,900.00	0.00	0.00	9,767.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
10,000.00	0.00	0.00	9,867.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
10,100.00	0.00	0.00	9,967.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
10,200.00	0.00	0.00	10,067.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
10,300.00	0.00	0.00	10,167.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
10,400.00	0.00	0.00	10,267.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
10,410.98	0.00	0.00	10,278.00	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
MANCOS HOT										
10,500.00	0.00	0.00	10,367.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
10,600.00	0.00	0.00	10,467.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
10,700.00	0.00	0.00	10,567.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
10,800.00	0.00	0.00	10,667.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
10,900.00	0.00	0.00	10,767.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
11,000.00	0.00	0.00	10,867.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
11,100.00	0.00	0.00	10,967.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
11,110.98	0.00	0.00	10,978.00	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
MANCOS B										
11,200.00	0.00	0.00	11,067.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
11,300.00	0.00	0.00	11,167.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
11,400.00	0.00	0.00	11,267.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
11,500.00	0.00	0.00	11,367.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
11,600.00	0.00	0.00	11,467.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
11,700.00	0.00	0.00	11,567.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
11,800.00	0.00	0.00	11,667.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
11,900.00	0.00	0.00	11,767.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
12,000.00	0.00	0.00	11,867.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
12,010.98	0.00	0.00	11,878.00	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	
NIOBRARA										
12,100.00	0.00	0.00	11,967.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W	

Planning Report - Geographic

Database:	EDMDB	Local Co-ordinate Reference:	Well VALLEY FARMS E7 (111040) - Slot E-7
Company:	ANTERO RESOURCES	TVD Reference:	RKB REV 2 @ 5622.50ft (RKB REV 2)
Project:	VALLEY FARMS E-PAD PROJECT	MD Reference:	RKB REV 2 @ 5622.50ft (RKB REV 2)
Site:	FRONTIER 14	North Reference:	Grid
Well:	VALLEY FARMS E7 (111040)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO VALLEY FARMS E7		
Design:	ANTERO VALLEY FARMS E-7 P05		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
12,200.00	0.00	0.00	12,067.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
12,300.00	0.00	0.00	12,167.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
12,400.00	0.00	0.00	12,267.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
12,500.00	0.00	0.00	12,367.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
12,600.00	0.00	0.00	12,467.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
12,700.00	0.00	0.00	12,567.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
12,800.00	0.00	0.00	12,667.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
12,900.00	0.00	0.00	12,767.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
13,000.00	0.00	0.00	12,867.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
13,060.98	0.00	0.00	12,928.00	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
FRONTIER									
13,100.00	0.00	0.00	12,967.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
13,200.00	0.00	0.00	13,067.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
13,300.00	0.00	0.00	13,167.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
13,400.00	0.00	0.00	13,267.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
13,462.48	0.00	0.00	13,329.50	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
TD VF E7									
13,500.00	0.00	0.00	13,367.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
13,600.00	0.00	0.00	13,467.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
13,700.00	0.00	0.00	13,567.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
13,800.00	0.00	0.00	13,667.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
13,900.00	0.00	0.00	13,767.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
14,000.00	0.00	0.00	13,867.02	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
14,010.96	0.00	0.00	13,877.98	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
PROPOSED TD @ 14011' MD (13878' TVD)									
14,010.98	0.00	0.00	13,878.00	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
TD REV E7									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
TOP GAS E7 REV		360.00	5,753.00	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
- plan hits target									
- Circle (radius 25.00)									
TD REV E7	0.00	0.00	13,878.00	1,006.23	603.98	14,367,261.28	894,721.50	39° 31' 55.007 N	107° 38' 40.430 W
- plan hits target									
- Circle (radius 25.00)									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,524.27	1,500.00	CASING @ 1524' MD (1500' TVD)	9.62	12.25	
8,460.98	8,328.00	4 1/2" LINER TOP@ 8461' MD (8328' TVD)	7.00	7.50	
8,660.98	8,528.00	7" CASING POINT@ 8661' MD (8528' TVD)	7.00	7.50	

Planning Report - Geographic

Database:	EDMDB	Local Co-ordinate Reference:	Well VALLEY FARMS E7 (111040) - Slot E-7
Company:	ANTERO RESOURCES	TVD Reference:	RKB REV 2 @ 5622.50ft (RKB REV 2)
Project:	VALLEY FARMS E-PAD PROJECT	MD Reference:	RKB REV 2 @ 5622.50ft (RKB REV 2)
Site:	FRONTIER 14	North Reference:	Grid
Well:	VALLEY FARMS E7 (111040)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO VALLEY FARMS E7		
Design:	ANTERO VALLEY FARMS E-7 P05		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,867.40	3,778.00	MESAVERDE		0.00	
4,787.98	4,673.00	PRICE COAL		0.00	
5,885.98	5,753.00	TOP GAS E7 REV		0.00	
6,460.98	6,328.00	CAMEO		0.00	
7,510.98	7,378.00	ROLLINS SS		0.00	
8,055.98	7,923.00	COZZETTE		0.00	
8,310.98	8,178.00	CORCORAN		0.00	
8,560.98	8,428.00	MANCOS		0.00	
9,400.98	9,268.00	MANCOS E		0.00	
10,410.98	10,278.00	MANCOS HOT		0.00	
11,110.98	10,978.00	MANCOS B		0.00	
12,010.98	11,878.00	NIOBRARA		0.00	
13,060.98	12,928.00	FRONTIER		0.00	

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' (2 DEG/100')
877.00	870.72	68.27	40.98	END OF BUILD @ 877' MD (871' TVD) (13.54 DEG INC)
5,209.45	5,082.75	937.96	563.00	START DROP @ 5209' MD (5083' TVD) (2 DEG/100')
5,886.45	5,753.47	1,006.23	603.98	END OF DROP @ 5886' MD (5753' TVD)
14,010.96	13,877.98	1,006.23	603.98	PROPOSED TD @ 14011' MD (13878' TVD)