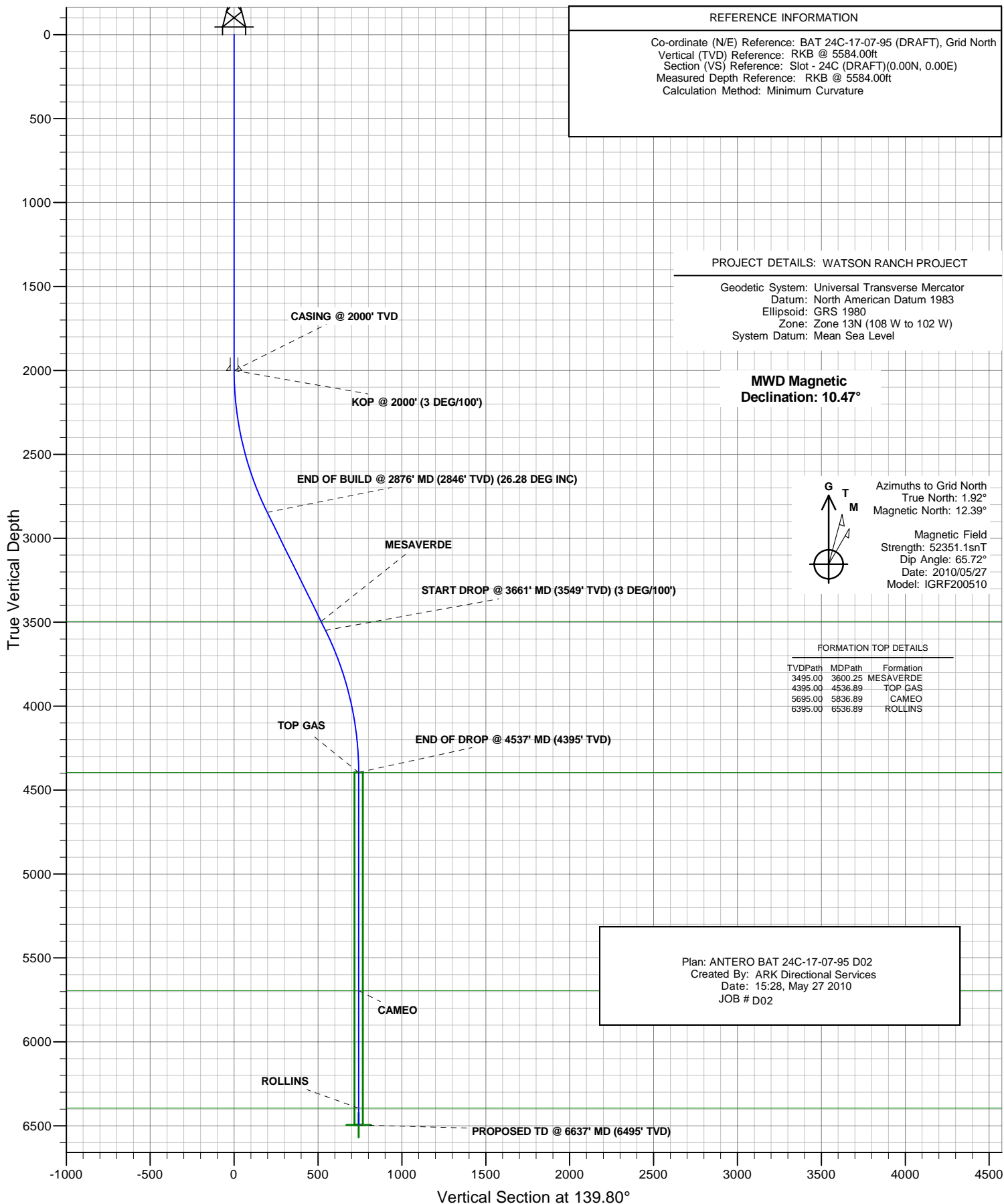




ANTERO RESOURCES

ANTERO 24C-17-07-95 (DRAFT)

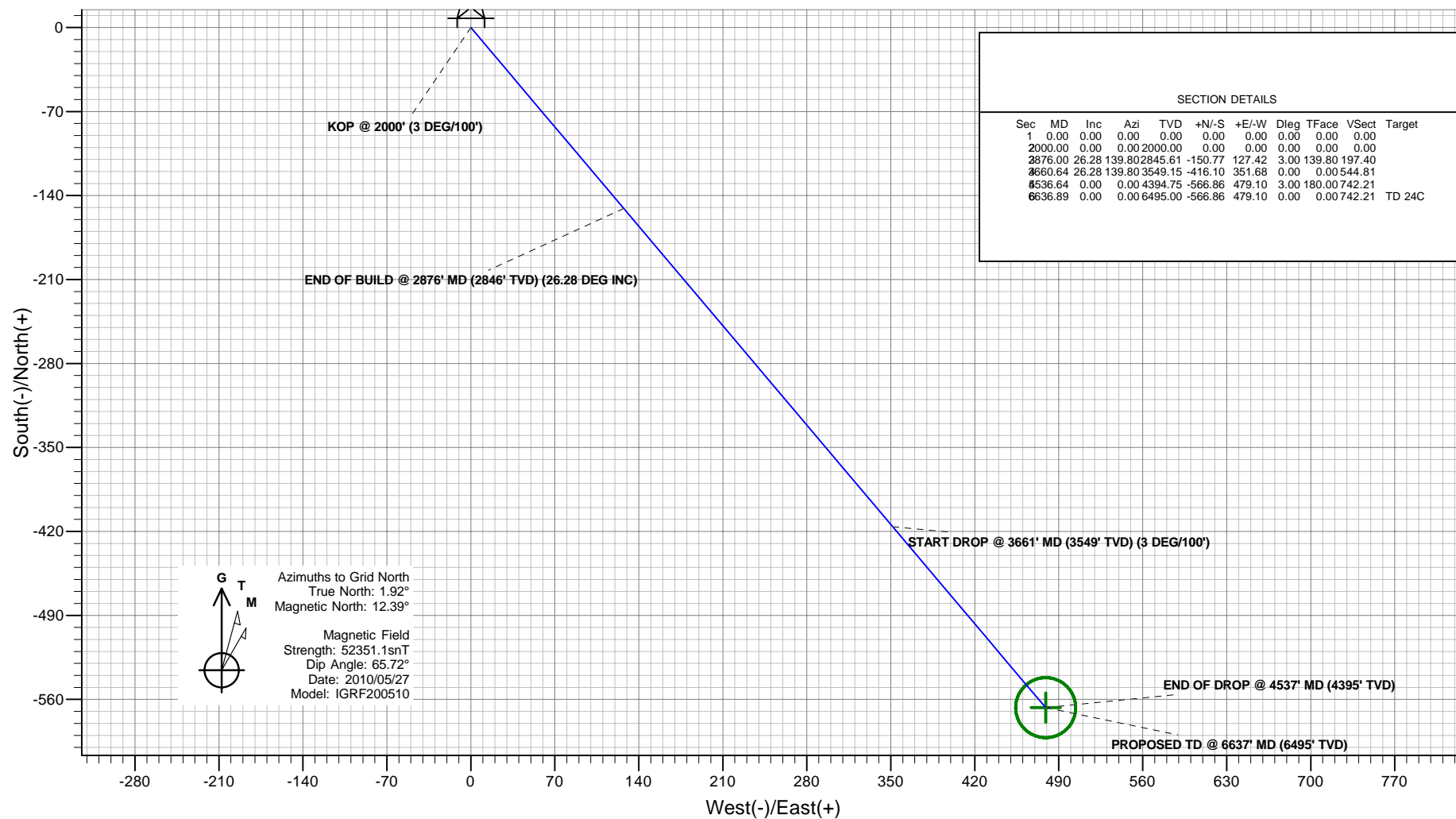




PLAN VIEW

ANTERO RESOURCES

Project: WATSON RANCH PROJECT
Site: FRONTIER 12
Well: BAT 24C-17-07-95 (DRAFT)
Wellbore: ANTERO 24C-17-07-95 (DRAFT)
Design: ANTERO BAT 24C-17-07-95 D02
JOB # D02



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2000.00	0.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00	
2876.00	26.28	139.80	2845.61	-150.77	127.42	3.00	139.80	197.40		
3660.64	26.28	139.80	3549.15	-416.10	351.68	0.00	0.00	544.81		
4536.64	0.00	0.00	4394.75	-566.86	479.10	3.00	180.00	742.21		
6636.89	0.00	0.00	6495.00	-566.86	479.10	0.00	0.00	742.21	TD 24C	

Plan: ANTERO BAT 24C-17-07-95 D02
Created By: ARK Directional Services
Date: 15:30, May 27 2010

PROJECT DETAILS: WATSON RANCH 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: BAT 24C-17-07-95 (DRAFT), Grid North
Vertical (TVD) Reference: RKB @ 5584.00ft
Section (VS) Reference: Slot - 24C (DRAFT)(0.00N, 0.00E)
Measured Depth Reference: RKB @ 5584.00ft
Calculation Method: Minimum Curvature

ANTERO RESOURCES

WATSON RANCH PROJECT

FRONTIER 12

BAT 24C-17-07-95 (DRAFT) - Slot 24C (DRAFT)

ANTERO 24C-17-07-95 (DRAFT)

Plan: ANTERO BAT 24C-17-07-95 D02

Standard Planning Report - Geographic

27 May, 2010

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well BAT 24C-17-07-95 (DRAFT) - Slot 24C (DRAFT)
Company:	ANTERO RESOURCES	TVD Reference:	RKB @ 5584.00ft
Project:	WATSON RANCH PROJECT	MD Reference:	RKB @ 5584.00ft
Site:	FRONTIER 12	North Reference:	Grid
Well:	BAT 24C-17-07-95 (DRAFT)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO 24C-17-07-95 (DRAFT)		
Design:	ANTERO BAT 24C-17-07-95 D02		

Project	WATSON RANCH 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:	14,334,677.51 usft
From:	Map	Easting:	786,189.73 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13.20 in
		Latitude:	39° 25' 59.496 N
		Longitude:	108° 1' 30.417 W
		Grid Convergence:	-1.92 °

Well	BAT 24C-17-07-95 (DRAFT) - Slot 24C (DRAFT)		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.00 ft		Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	ANTERO 24C-17-07-95 (DRAFT)				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	2010/05/27	10.47	65.72	52,351

Design	ANTERO BAT 24C-17-07-95 D02			
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	139.80

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	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,876.00	26.28	139.80	2,845.61	-150.77	127.42	3.00	3.00	0.00	139.80	
3,660.64	26.28	139.80	3,549.15	-416.10	351.68	0.00	0.00	0.00	0.00	
4,536.64	0.00	0.00	4,394.75	-566.86	479.10	3.00	-3.00	0.00	180.00	
6,636.89	0.00	0.00	6,495.00	-566.86	479.10	0.00	0.00	0.00	0.00	TD 24C

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well BAT 24C-17-07-95 (DRAFT) - Slot 24C (DRAFT)
Company:	ANTERO RESOURCES	TVD Reference:	RKB @ 5584.00ft
Project:	WATSON RANCH PROJECT	MD Reference:	RKB @ 5584.00ft
Site:	FRONTIER 12	North Reference:	Grid
Well:	BAT 24C-17-07-95 (DRAFT)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO 24C-17-07-95 (DRAFT)		
Design:	ANTERO BAT 24C-17-07-95 D02		

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	14,334,688.88	786,194.76	39° 25' 59.610 N	108° 1' 30.357 W	
100.00	0.00	0.00	100.00	0.00	0.00	14,334,688.88	786,194.76	39° 25' 59.610 N	108° 1' 30.357 W	
200.00	0.00	0.00	200.00	0.00	0.00	14,334,688.88	786,194.76	39° 25' 59.610 N	108° 1' 30.357 W	
300.00	0.00	0.00	300.00	0.00	0.00	14,334,688.88	786,194.76	39° 25' 59.610 N	108° 1' 30.357 W	
400.00	0.00	0.00	400.00	0.00	0.00	14,334,688.88	786,194.76	39° 25' 59.610 N	108° 1' 30.357 W	
500.00	0.00	0.00	500.00	0.00	0.00	14,334,688.88	786,194.76	39° 25' 59.610 N	108° 1' 30.357 W	
600.00	0.00	0.00	600.00	0.00	0.00	14,334,688.88	786,194.76	39° 25' 59.610 N	108° 1' 30.357 W	
700.00	0.00	0.00	700.00	0.00	0.00	14,334,688.88	786,194.76	39° 25' 59.610 N	108° 1' 30.357 W	
800.00	0.00	0.00	800.00	0.00	0.00	14,334,688.88	786,194.76	39° 25' 59.610 N	108° 1' 30.357 W	
900.00	0.00	0.00	900.00	0.00	0.00	14,334,688.88	786,194.76	39° 25' 59.610 N	108° 1' 30.357 W	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,334,688.88	786,194.76	39° 25' 59.610 N	108° 1' 30.357 W	
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,334,688.88	786,194.76	39° 25' 59.610 N	108° 1' 30.357 W	
1,200.00	0.00	0.00	1,200.00	0.00	0.00	14,334,688.88	786,194.76	39° 25' 59.610 N	108° 1' 30.357 W	
1,300.00	0.00	0.00	1,300.00	0.00	0.00	14,334,688.88	786,194.76	39° 25' 59.610 N	108° 1' 30.357 W	
1,400.00	0.00	0.00	1,400.00	0.00	0.00	14,334,688.88	786,194.76	39° 25' 59.610 N	108° 1' 30.357 W	
1,500.00	0.00	0.00	1,500.00	0.00	0.00	14,334,688.88	786,194.76	39° 25' 59.610 N	108° 1' 30.357 W	
1,600.00	0.00	0.00	1,600.00	0.00	0.00	14,334,688.88	786,194.76	39° 25' 59.610 N	108° 1' 30.357 W	
1,700.00	0.00	0.00	1,700.00	0.00	0.00	14,334,688.88	786,194.76	39° 25' 59.610 N	108° 1' 30.357 W	
1,800.00	0.00	0.00	1,800.00	0.00	0.00	14,334,688.88	786,194.76	39° 25' 59.610 N	108° 1' 30.357 W	
1,900.00	0.00	0.00	1,900.00	0.00	0.00	14,334,688.88	786,194.76	39° 25' 59.610 N	108° 1' 30.357 W	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	14,334,688.88	786,194.76	39° 25' 59.610 N	108° 1' 30.357 W	
KOP @ 2000' (3 DEG/100') - CASING @ 2000' TVD										
2,100.00	3.00	139.80	2,099.95	-2.00	1.69	14,334,686.88	786,196.45	39° 25' 59.591 N	108° 1' 30.335 W	
2,200.00	6.00	139.80	2,199.63	-7.99	6.75	14,334,680.89	786,201.51	39° 25' 59.533 N	108° 1' 30.268 W	
2,300.00	9.00	139.80	2,298.77	-17.96	15.18	14,334,670.92	786,209.94	39° 25' 59.437 N	108° 1' 30.156 W	
2,400.00	12.00	139.80	2,397.08	-31.88	26.94	14,334,657.01	786,221.70	39° 25' 59.304 N	108° 1' 30.001 W	
2,500.00	15.00	139.80	2,494.31	-49.70	42.01	14,334,639.18	786,236.77	39° 25' 59.133 N	108° 1' 29.801 W	
2,600.00	18.00	139.80	2,590.18	-71.39	60.34	14,334,617.49	786,255.10	39° 25' 58.925 N	108° 1' 29.559 W	
2,700.00	21.00	139.80	2,684.43	-96.88	81.88	14,334,592.00	786,276.64	39° 25' 58.680 N	108° 1' 29.273 W	
2,800.00	24.00	139.80	2,776.81	-126.11	106.58	14,334,562.77	786,301.34	39° 25' 58.400 N	108° 1' 28.946 W	
2,876.00	26.28	139.80	2,845.61	-150.77	127.42	14,334,538.11	786,322.18	39° 25' 58.163 N	108° 1' 28.671 W	
END OF BUILD @ 2876' MD (2846' TVD) (26.28 DEG INC)										
2,900.00	26.28	139.80	2,867.13	-158.88	134.28	14,334,530.00	786,329.04	39° 25' 58.086 N	108° 1' 28.580 W	
3,000.00	26.28	139.80	2,956.79	-192.70	162.86	14,334,496.18	786,357.62	39° 25' 57.761 N	108° 1' 28.201 W	
3,100.00	26.28	139.80	3,046.45	-226.51	191.44	14,334,462.37	786,386.20	39° 25' 57.437 N	108° 1' 27.823 W	
3,200.00	26.28	139.80	3,136.12	-260.33	220.02	14,334,428.55	786,414.78	39° 25' 57.112 N	108° 1' 27.445 W	
3,300.00	26.28	139.80	3,225.78	-294.15	248.60	14,334,394.74	786,443.36	39° 25' 56.788 N	108° 1' 27.066 W	
3,400.00	26.28	139.80	3,315.45	-327.96	277.18	14,334,360.92	786,471.94	39° 25' 56.463 N	108° 1' 26.688 W	
3,500.00	26.28	139.80	3,405.11	-361.78	305.77	14,334,327.10	786,500.52	39° 25' 56.139 N	108° 1' 26.310 W	
3,600.00	26.28	139.80	3,494.77	-395.59	334.35	14,334,293.29	786,529.10	39° 25' 55.815 N	108° 1' 25.931 W	
3,600.25	26.28	139.80	3,495.00	-395.68	334.42	14,334,293.20	786,529.17	39° 25' 55.814 N	108° 1' 25.930 W	
MESAVERDE										
3,660.64	26.28	139.80	3,549.15	-416.10	351.68	14,334,272.78	786,546.43	39° 25' 55.618 N	108° 1' 25.702 W	
START DROP @ 3661' MD (3549' TVD) (3 DEG/100')										
3,700.00	25.10	139.80	3,584.62	-429.13	362.69	14,334,259.75	786,557.45	39° 25' 55.493 N	108° 1' 25.556 W	
3,800.00	22.10	139.80	3,676.24	-459.70	388.53	14,334,229.18	786,583.29	39° 25' 55.200 N	108° 1' 25.214 W	
3,900.00	19.10	139.80	3,769.84	-486.57	411.24	14,334,202.31	786,605.99	39° 25' 54.942 N	108° 1' 24.914 W	
4,000.00	16.10	139.80	3,865.15	-509.66	430.75	14,334,179.22	786,625.51	39° 25' 54.720 N	108° 1' 24.655 W	
4,100.00	13.10	139.80	3,961.91	-528.91	447.02	14,334,159.97	786,641.78	39° 25' 54.536 N	108° 1' 24.440 W	
4,200.00	10.10	139.80	4,059.85	-544.26	460.00	14,334,144.62	786,654.76	39° 25' 54.388 N	108° 1' 24.268 W	
4,300.00	7.10	139.80	4,158.72	-555.68	469.65	14,334,133.20	786,664.41	39° 25' 54.279 N	108° 1' 24.140 W	
4,400.00	4.10	139.80	4,258.23	-563.13	475.95	14,334,125.75	786,670.70	39° 25' 54.207 N	108° 1' 24.057 W	
4,500.00	1.10	139.80	4,358.11	-566.60	478.87	14,334,122.29	786,673.63	39° 25' 54.174 N	108° 1' 24.018 W	

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well BAT 24C-17-07-95 (DRAFT) - Slot 24C (DRAFT)
Company:	ANTERO RESOURCES	TVD Reference:	RKB @ 5584.00ft
Project:	WATSON RANCH PROJECT	MD Reference:	RKB @ 5584.00ft
Site:	FRONTIER 12	North Reference:	Grid
Well:	BAT 24C-17-07-95 (DRAFT)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO 24C-17-07-95 (DRAFT)		
Design:	ANTERO BAT 24C-17-07-95 D02		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,536.64	0.00	0.00	4,394.75	-566.86	479.10	14,334,122.02	786,673.86	39° 25' 54.172 N	108° 1' 24.015 W
END OF DROP @ 4537' MD (4395' TVD)									
4,536.89	0.00	0.00	4,395.00	-566.86	479.10	14,334,122.02	786,673.86	39° 25' 54.172 N	108° 1' 24.015 W
TOP GAS									
4,600.00	0.00	0.00	4,458.11	-566.86	479.10	14,334,122.02	786,673.86	39° 25' 54.172 N	108° 1' 24.015 W
4,700.00	0.00	0.00	4,558.11	-566.86	479.10	14,334,122.02	786,673.86	39° 25' 54.172 N	108° 1' 24.015 W
4,800.00	0.00	0.00	4,658.11	-566.86	479.10	14,334,122.02	786,673.86	39° 25' 54.172 N	108° 1' 24.015 W
4,900.00	0.00	0.00	4,758.11	-566.86	479.10	14,334,122.02	786,673.86	39° 25' 54.172 N	108° 1' 24.015 W
5,000.00	0.00	0.00	4,858.11	-566.86	479.10	14,334,122.02	786,673.86	39° 25' 54.172 N	108° 1' 24.015 W
5,100.00	0.00	0.00	4,958.11	-566.86	479.10	14,334,122.02	786,673.86	39° 25' 54.172 N	108° 1' 24.015 W
5,200.00	0.00	0.00	5,058.11	-566.86	479.10	14,334,122.02	786,673.86	39° 25' 54.172 N	108° 1' 24.015 W
5,300.00	0.00	0.00	5,158.11	-566.86	479.10	14,334,122.02	786,673.86	39° 25' 54.172 N	108° 1' 24.015 W
5,400.00	0.00	0.00	5,258.11	-566.86	479.10	14,334,122.02	786,673.86	39° 25' 54.172 N	108° 1' 24.015 W
5,500.00	0.00	0.00	5,358.11	-566.86	479.10	14,334,122.02	786,673.86	39° 25' 54.172 N	108° 1' 24.015 W
5,600.00	0.00	0.00	5,458.11	-566.86	479.10	14,334,122.02	786,673.86	39° 25' 54.172 N	108° 1' 24.015 W
5,700.00	0.00	0.00	5,558.11	-566.86	479.10	14,334,122.02	786,673.86	39° 25' 54.172 N	108° 1' 24.015 W
5,800.00	0.00	0.00	5,658.11	-566.86	479.10	14,334,122.02	786,673.86	39° 25' 54.172 N	108° 1' 24.015 W
5,836.89	0.00	0.00	5,695.00	-566.86	479.10	14,334,122.02	786,673.86	39° 25' 54.172 N	108° 1' 24.015 W
CAMEO									
5,900.00	0.00	0.00	5,758.11	-566.86	479.10	14,334,122.02	786,673.86	39° 25' 54.172 N	108° 1' 24.015 W
6,000.00	0.00	0.00	5,858.11	-566.86	479.10	14,334,122.02	786,673.86	39° 25' 54.172 N	108° 1' 24.015 W
6,100.00	0.00	0.00	5,958.11	-566.86	479.10	14,334,122.02	786,673.86	39° 25' 54.172 N	108° 1' 24.015 W
6,200.00	0.00	0.00	6,058.11	-566.86	479.10	14,334,122.02	786,673.86	39° 25' 54.172 N	108° 1' 24.015 W
6,300.00	0.00	0.00	6,158.11	-566.86	479.10	14,334,122.02	786,673.86	39° 25' 54.172 N	108° 1' 24.015 W
6,400.00	0.00	0.00	6,258.11	-566.86	479.10	14,334,122.02	786,673.86	39° 25' 54.172 N	108° 1' 24.015 W
6,500.00	0.00	0.00	6,358.11	-566.86	479.10	14,334,122.02	786,673.86	39° 25' 54.172 N	108° 1' 24.015 W
6,536.89	0.00	0.00	6,395.00	-566.86	479.10	14,334,122.02	786,673.86	39° 25' 54.172 N	108° 1' 24.015 W
ROLLINS									
6,600.00	0.00	0.00	6,458.11	-566.86	479.10	14,334,122.02	786,673.86	39° 25' 54.172 N	108° 1' 24.015 W
6,636.86	0.00	0.00	6,494.97	-566.86	479.10	14,334,122.02	786,673.86	39° 25' 54.172 N	108° 1' 24.015 W
PROPOSED TD @ 6637' MD (6495' TVD)									
6,636.89	0.00	0.00	6,495.00	-566.86	479.10	14,334,122.02	786,673.86	39° 25' 54.172 N	108° 1' 24.015 W
TD 24C									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
TD 24C - plan hits target center - Circle (radius 25.00)	0.00	0.00	6,495.00	-566.86	479.10	14,334,122.02	786,673.86	39° 25' 54.172 N	108° 1' 24.015 W

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
2,000.00	2,000.00	CASING @ 2000' TVD	9.62	12.25	

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well BAT 24C-17-07-95 (DRAFT) - Slot 24C (DRAFT)
Company:	ANTERO RESOURCES	TVD Reference:	RKB @ 5584.00ft
Project:	WATSON RANCH PROJECT	MD Reference:	RKB @ 5584.00ft
Site:	FRONTIER 12	North Reference:	Grid
Well:	BAT 24C-17-07-95 (DRAFT)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO 24C-17-07-95 (DRAFT)		
Design:	ANTERO BAT 24C-17-07-95 D02		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,600.25	3,495.00	MESAVERDE		0.00	
4,536.89	4,395.00	TOP GAS		0.00	
5,836.89	5,695.00	CAMEO		0.00	
6,536.89	6,395.00	ROLLINS		0.00	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
2,000.00	2,000.00	0.00	0.00	KOP @ 2000' (3 DEG/100')	
2,876.00	2,845.61	-150.77	127.42	END OF BUILD @ 2876' MD (2846' TVD) (26.28 DEG INC)	
3,660.64	3,549.15	-416.10	351.68	START DROP @ 3661' MD (3549' TVD) (3 DEG/100')	
4,536.64	4,394.75	-566.86	479.10	END OF DROP @ 4537' MD (4395' TVD)	
6,636.86	6,494.97	-566.86	479.10	PROPOSED TD @ 6637' MD (6495' TVD)	