

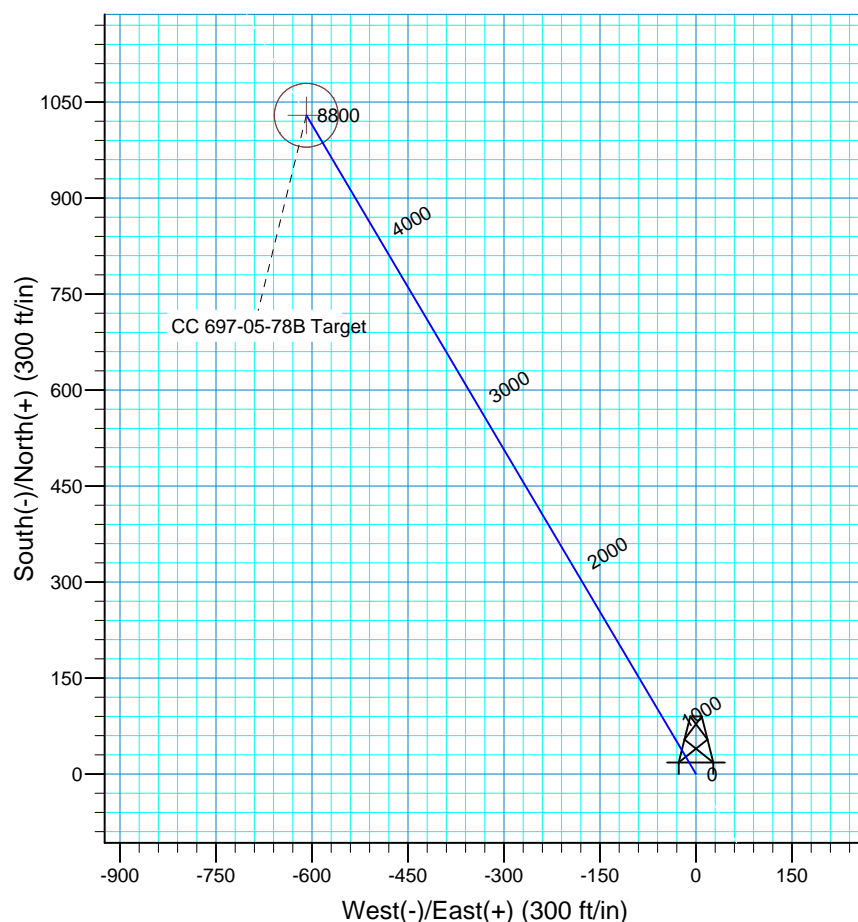
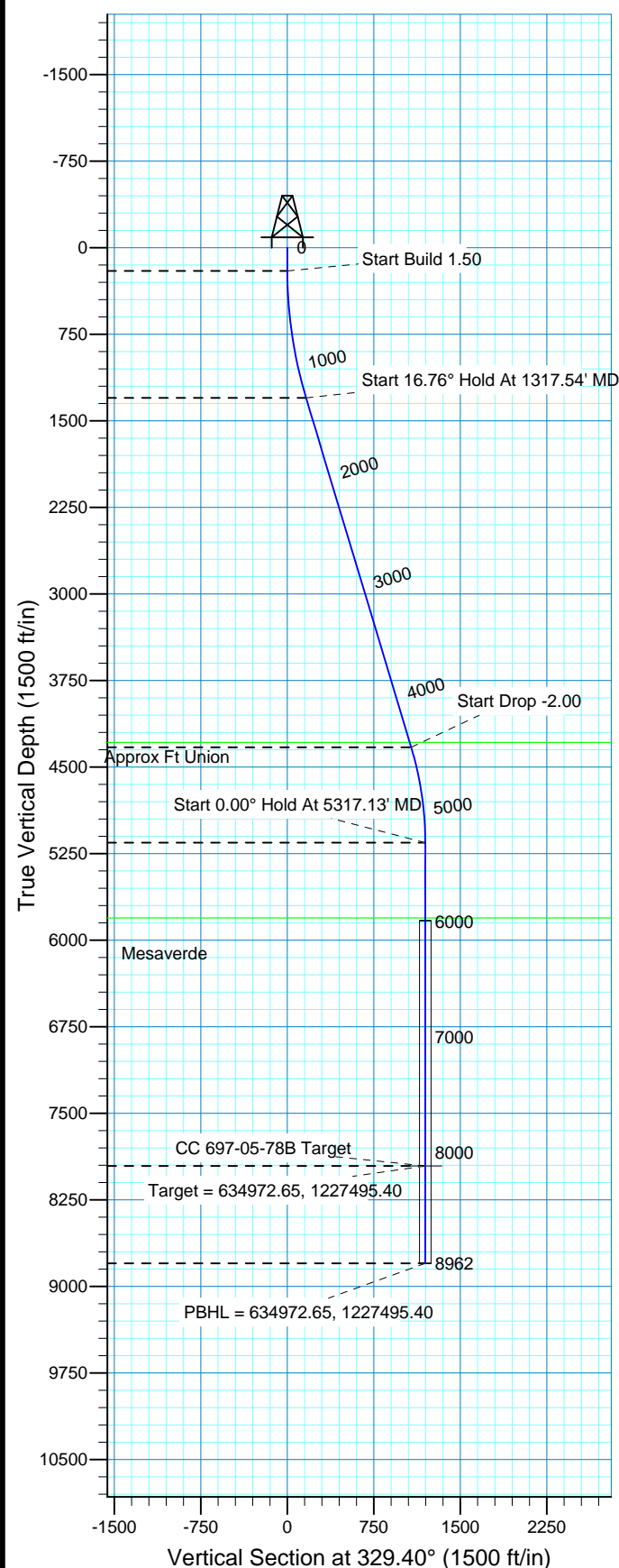
WELL DETAILS: CC 697-05-78B

GL 8411' & RKB 30' @ 8441.00ft 8411.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 633925.46 1228072.86 39° 32' 31.247 N 108° 14' 15.066 W



Azimuths to True North
Magnetic North: 10.79°

Magnetic Field
Strength: 52514.9snT
Dip Angle: 65.81°
Date: 2008/10/15
Model: IGRF2005-10



FORMATION TOP DETAILS

TVDPath MDPATH Formation
4286.00 4434.32 Approx Ft Union
5808.00 5970.13 Mesaverde

Plan: Plan #2 (CC 697-05-78B/OH)

Created By: Rex Hall Date: 2010-06-24

PROJECT DETAILS: Garfield County, CO NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Colorado Central 502

System Datum: Mean Sea Level
Local North: No north reference data is available

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
3	1317.54	16.76	329.40	1301.67	139.71	-82.63	1.50	329.40	162.32	
4	4478.97	16.76	329.40	4328.75	924.54	-546.79	0.00	0.001074.12		
5	5317.13	0.00	0.00	5155.00	1029.32	-608.76	2.00	180.001195.86		
6	8117.13	0.00	0.00	7955.00	1029.32	-608.76	0.00	0.001195.86		
7	8962.13	0.00	0.00	8800.00	1029.32	-608.76	0.00	0.001195.86		CC 697-05-78B Target



OXY USA RMAT

**Garfield County, CO NAD27
Cascade Creek 608-41 Pad
CC 697-05-78B
OH**

Plan: Plan #2

Standard Planning Report

24 June, 2010



Database:	EDM 2003.16 Multi-User Db	Local Co-ordinate Reference:	Well CC 697-05-78B
Company:	OXY USA RMAT	TVD Reference:	GL 8411' & RKB 30' @ 8441.00ft
Project:	Garfield County, CO NAD27	MD Reference:	GL 8411' & RKB 30' @ 8441.00ft
Site:	Cascade Creek 608-41 Pad	North Reference:	True
Well:	CC 697-05-78B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Project	Garfield County, CO NAD27		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Colorado Central 502		

Site	Cascade Creek 608-41 Pad, SEction 8 T6S R97W		
Site Position:		Northing:	633,966.94 ft
From:	Map	Easting:	1,228,168.67 ft
Position Uncertainty:	0.00 ft	Slot Radius:	in
		Latitude:	39° 32' 31.685 N
		Longitude:	108° 14' 13.859 W
		Grid Convergence:	-1.73 °

Well	CC 697-05-78B,		
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	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	2008/10/15	10.79	65.81	52,515

Design	Plan #2			
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	329.40

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	
1,317.54	16.76	329.40	1,301.67	139.71	-82.63	1.50	1.50	0.00	329.40	
4,478.97	16.76	329.40	4,328.75	924.54	-546.79	0.00	0.00	0.00	0.00	
5,317.13	0.00	0.00	5,155.00	1,029.32	-608.76	2.00	-2.00	0.00	180.00	
8,117.13	0.00	0.00	7,955.00	1,029.32	-608.76	0.00	0.00	0.00	0.00	CC 697-05-78B Target
8,962.13	0.00	0.00	8,800.00	1,029.32	-608.76	0.00	0.00	0.00	0.00	

Database:	EDM 2003.16 Multi-User Db	Local Co-ordinate Reference:	Well CC 697-05-78B
Company:	OXY USA RMAT	TVD Reference:	GL 8411' & RKB 30' @ 8441.00ft
Project:	Garfield County, CO NAD27	MD Reference:	GL 8411' & RKB 30' @ 8441.00ft
Site:	Cascade Creek 608-41 Pad	North Reference:	True
Well:	CC 697-05-78B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	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
Start Build 1.50									
300.00	1.50	329.40	299.99	1.13	-0.67	1.31	1.50	1.50	0.00
400.00	3.00	329.40	399.91	4.51	-2.66	5.23	1.50	1.50	0.00
500.00	4.50	329.40	499.69	10.14	-5.99	11.77	1.50	1.50	0.00
600.00	6.00	329.40	599.27	18.01	-10.65	20.92	1.50	1.50	0.00
700.00	7.50	329.40	698.57	28.13	-16.63	32.68	1.50	1.50	0.00
800.00	9.00	329.40	797.54	40.48	-23.94	47.03	1.50	1.50	0.00
900.00	10.50	329.40	896.09	55.05	-32.56	63.96	1.50	1.50	0.00
1,000.00	12.00	329.40	994.16	71.85	-42.49	83.47	1.50	1.50	0.00
1,100.00	13.50	329.40	1,091.70	90.84	-53.72	105.54	1.50	1.50	0.00
1,200.00	15.00	329.40	1,188.62	112.03	-66.26	130.15	1.50	1.50	0.00
1,300.00	16.50	329.40	1,284.86	135.39	-80.07	157.30	1.50	1.50	0.00
1,317.54	16.76	329.40	1,301.67	139.71	-82.63	162.32	1.50	1.50	0.00
Start 16.76° Hold At 1317.54' MD									
1,400.00	16.76	329.40	1,380.62	160.18	-94.73	186.10	0.00	0.00	0.00
1,500.00	16.76	329.40	1,476.37	185.01	-109.42	214.94	0.00	0.00	0.00
1,600.00	16.76	329.40	1,572.12	209.83	-124.10	243.78	0.00	0.00	0.00
1,700.00	16.76	329.40	1,667.87	234.66	-138.78	272.62	0.00	0.00	0.00
1,800.00	16.76	329.40	1,763.62	259.48	-153.46	301.47	0.00	0.00	0.00
1,900.00	16.76	329.40	1,859.37	284.31	-168.14	330.31	0.00	0.00	0.00
2,000.00	16.76	329.40	1,955.12	309.13	-182.83	359.15	0.00	0.00	0.00
2,100.00	16.76	329.40	2,050.87	333.96	-197.51	387.99	0.00	0.00	0.00
2,200.00	16.76	329.40	2,146.62	358.78	-212.19	416.83	0.00	0.00	0.00
2,300.00	16.76	329.40	2,242.38	383.61	-226.87	445.67	0.00	0.00	0.00
2,400.00	16.76	329.40	2,338.13	408.43	-241.55	474.52	0.00	0.00	0.00
2,500.00	16.76	329.40	2,433.88	433.26	-256.24	503.36	0.00	0.00	0.00
2,600.00	16.76	329.40	2,529.63	458.08	-270.92	532.20	0.00	0.00	0.00
2,700.00	16.76	329.40	2,625.38	482.91	-285.60	561.04	0.00	0.00	0.00
2,800.00	16.76	329.40	2,721.13	507.73	-300.28	589.88	0.00	0.00	0.00
2,900.00	16.76	329.40	2,816.88	532.56	-314.96	618.72	0.00	0.00	0.00
3,000.00	16.76	329.40	2,912.63	557.38	-329.64	647.57	0.00	0.00	0.00
3,100.00	16.76	329.40	3,008.38	582.21	-344.33	676.41	0.00	0.00	0.00
3,200.00	16.76	329.40	3,104.13	607.03	-359.01	705.25	0.00	0.00	0.00
3,300.00	16.76	329.40	3,199.88	631.86	-373.69	734.09	0.00	0.00	0.00
3,400.00	16.76	329.40	3,295.63	656.68	-388.37	762.93	0.00	0.00	0.00
3,500.00	16.76	329.40	3,391.38	681.51	-403.05	791.77	0.00	0.00	0.00
3,600.00	16.76	329.40	3,487.13	706.33	-417.74	820.61	0.00	0.00	0.00
3,700.00	16.76	329.40	3,582.88	731.16	-432.42	849.46	0.00	0.00	0.00
3,800.00	16.76	329.40	3,678.63	755.98	-447.10	878.30	0.00	0.00	0.00
3,900.00	16.76	329.40	3,774.38	780.81	-461.78	907.14	0.00	0.00	0.00
4,000.00	16.76	329.40	3,870.13	805.63	-476.46	935.98	0.00	0.00	0.00
4,100.00	16.76	329.40	3,965.88	830.46	-491.15	964.82	0.00	0.00	0.00
4,200.00	16.76	329.40	4,061.64	855.28	-505.83	993.66	0.00	0.00	0.00
4,300.00	16.76	329.40	4,157.39	880.11	-520.51	1,022.51	0.00	0.00	0.00
4,400.00	16.76	329.40	4,253.14	904.93	-535.19	1,051.35	0.00	0.00	0.00
4,434.32	16.76	329.40	4,286.00	913.45	-540.23	1,061.25	0.00	0.00	0.00
Approx Ft Union									
4,478.97	16.76	329.40	4,328.75	924.54	-546.79	1,074.12	0.00	0.00	0.00
Start Drop -2.00									
4,500.00	16.34	329.40	4,348.91	929.69	-549.84	1,080.12	2.00	-2.00	0.00

Database:	EDM 2003.16 Multi-User Db	Local Co-ordinate Reference:	Well CC 697-05-78B
Company:	OXY USA RMAT	TVD Reference:	GL 8411' & RKB 30' @ 8441.00ft
Project:	Garfield County, CO NAD27	MD Reference:	GL 8411' & RKB 30' @ 8441.00ft
Site:	Cascade Creek 608-41 Pad	North Reference:	True
Well:	CC 697-05-78B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,600.00	14.34	329.40	4,445.34	952.47	-563.30	1,106.57	2.00	-2.00	0.00
4,700.00	12.34	329.40	4,542.64	972.33	-575.05	1,129.65	2.00	-2.00	0.00
4,800.00	10.34	329.40	4,640.68	989.26	-585.06	1,149.32	2.00	-2.00	0.00
4,900.00	8.34	329.40	4,739.35	1,003.23	-593.33	1,165.55	2.00	-2.00	0.00
5,000.00	6.34	329.40	4,838.52	1,014.23	-599.83	1,178.33	2.00	-2.00	0.00
5,100.00	4.34	329.40	4,938.08	1,022.24	-604.57	1,187.64	2.00	-2.00	0.00
5,200.00	2.34	329.40	5,037.91	1,027.26	-607.54	1,193.47	2.00	-2.00	0.00
5,300.00	0.34	329.40	5,137.87	1,029.28	-608.73	1,195.81	2.00	-2.00	0.00
5,317.13	0.00	0.00	5,155.00	1,029.32	-608.76	1,195.86	2.00	-2.00	0.00
Start 0.00° Hold At 5317.13' MD									
5,400.00	0.00	0.00	5,237.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
5,500.00	0.00	0.00	5,337.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
5,600.00	0.00	0.00	5,437.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
5,700.00	0.00	0.00	5,537.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
5,800.00	0.00	0.00	5,637.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
5,900.00	0.00	0.00	5,737.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
5,970.13	0.00	0.00	5,808.00	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
Mesaverde									
6,000.00	0.00	0.00	5,837.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
6,100.00	0.00	0.00	5,937.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
6,200.00	0.00	0.00	6,037.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
6,300.00	0.00	0.00	6,137.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
6,400.00	0.00	0.00	6,237.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
6,500.00	0.00	0.00	6,337.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
6,600.00	0.00	0.00	6,437.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
6,700.00	0.00	0.00	6,537.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
6,800.00	0.00	0.00	6,637.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
6,900.00	0.00	0.00	6,737.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
7,000.00	0.00	0.00	6,837.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
7,100.00	0.00	0.00	6,937.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
7,200.00	0.00	0.00	7,037.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
7,300.00	0.00	0.00	7,137.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
7,400.00	0.00	0.00	7,237.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
7,500.00	0.00	0.00	7,337.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
7,600.00	0.00	0.00	7,437.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
7,700.00	0.00	0.00	7,537.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
7,800.00	0.00	0.00	7,637.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
7,900.00	0.00	0.00	7,737.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
8,000.00	0.00	0.00	7,837.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
8,100.00	0.00	0.00	7,937.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
8,117.13	0.00	0.00	7,955.00	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
Target = 634972.65, 1227495.40 - CC 697-05-78B Target									
8,200.00	0.00	0.00	8,037.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
8,300.00	0.00	0.00	8,137.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
8,400.00	0.00	0.00	8,237.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
8,500.00	0.00	0.00	8,337.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
8,600.00	0.00	0.00	8,437.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
8,700.00	0.00	0.00	8,537.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
8,800.00	0.00	0.00	8,637.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
8,900.00	0.00	0.00	8,737.87	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
8,962.13	0.00	0.00	8,800.00	1,029.32	-608.76	1,195.86	0.00	0.00	0.00
PBHL = 634972.65, 1227495.40									

Database:	EDM 2003.16 Multi-User Db	Local Co-ordinate Reference:	Well CC 697-05-78B
Company:	OXY USA RMAT	TVD Reference:	GL 8411' & RKB 30' @ 8441.00ft
Project:	Garfield County, CO NAD27	MD Reference:	GL 8411' & RKB 30' @ 8441.00ft
Site:	Cascade Creek 608-41 Pad	North Reference:	True
Well:	CC 697-05-78B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
- Shape									
CC 697-05-78B Target	0.00	326.34	7,955.00	1,029.32	-608.76	634,972.65	1,227,495.40	39° 32' 41.420 N	108° 14' 22.837 W
- plan hits target center									
- Circle (radius 50.00)									

Formations					
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(ft)	(ft)			(°)	(°)
4,434.32	4,286.00	Approx Ft Union		0.00	
5,970.13	5,808.00	Mesaverde		0.00	

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
200.00	200.00	0.00	0.00	Start Build 1.50
1,317.54	1,301.67	139.71	-82.63	Start 16.76° Hold At 1317.54' MD
4,478.97	4,328.75	924.54	-546.79	Start Drop -2.00
5,317.13	5,155.00	1,029.32	-608.76	Start 0.00° Hold At 5317.13' MD
8,117.13	7,955.00	1,029.32	-608.76	Target = 634972.65, 1227495.40
8,962.13	8,800.00	1,029.32	-608.76	PBHL = 634972.65, 1227495.40