

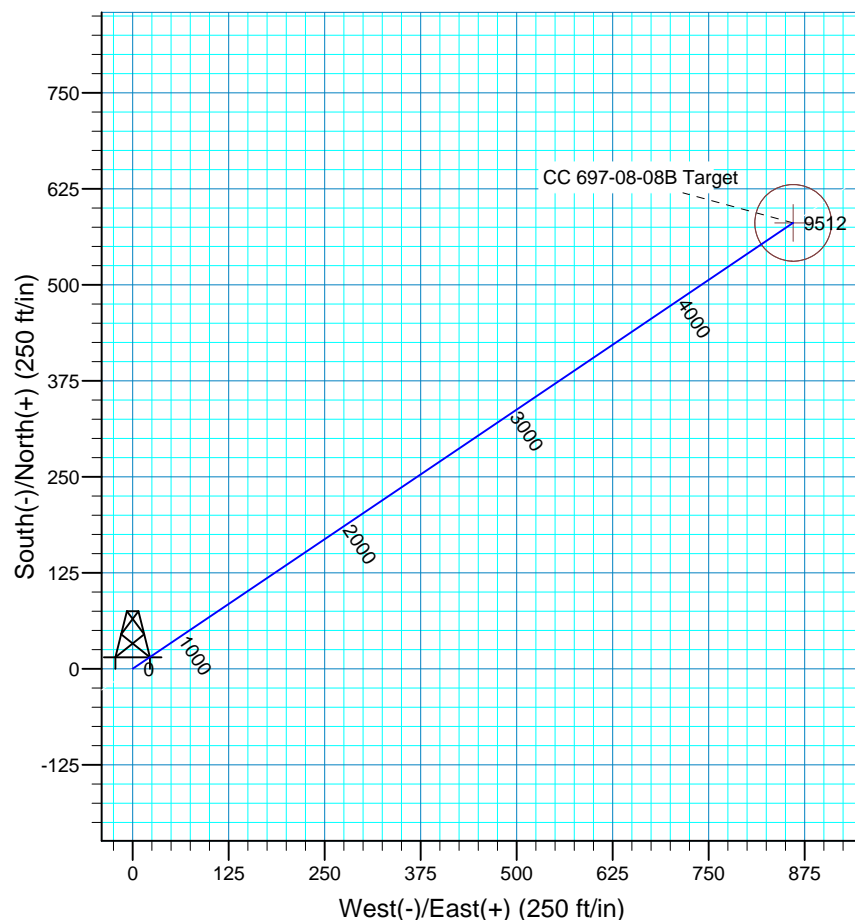
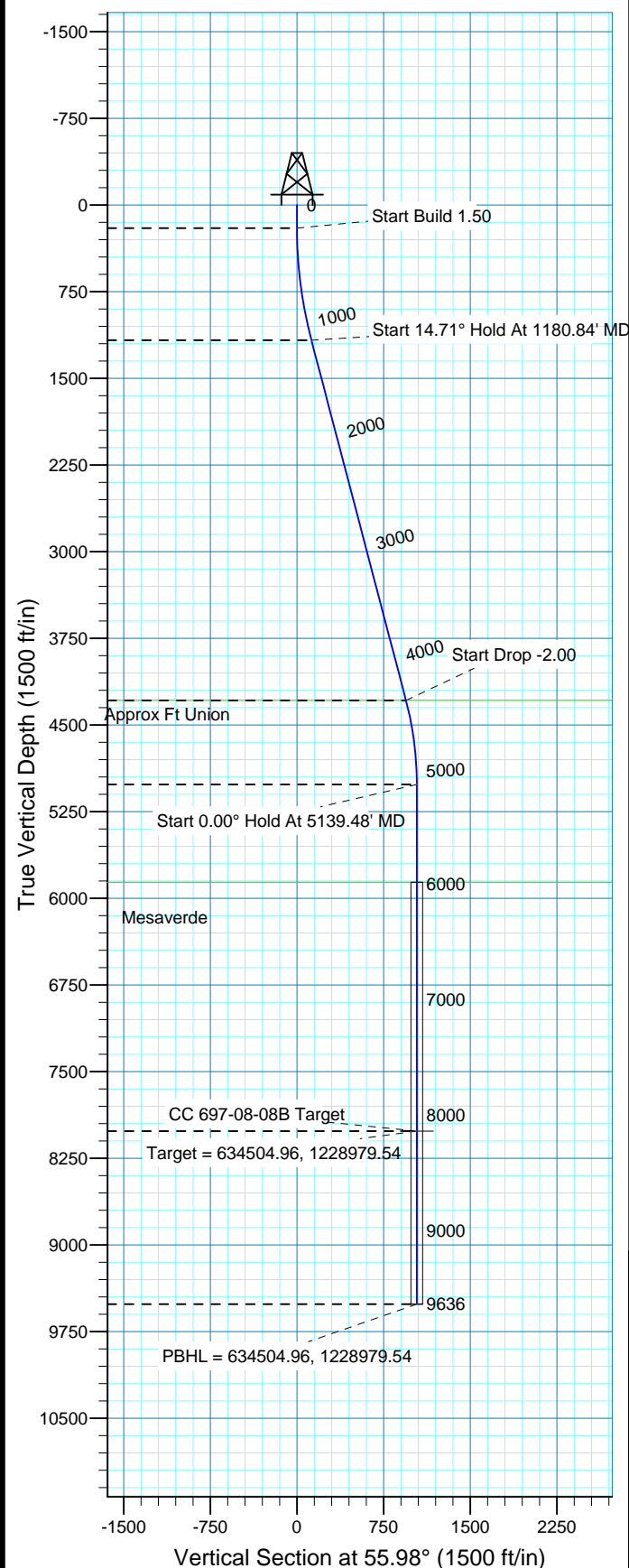
WELL DETAILS: CC 697-08-08B

GL 8411' & RKB 30' @ 8441.00ft 8411.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 633950.48 1228102.37 39° 32' 31.503 N 108° 14' 14.699 W



Azimuths to True North
Magnetic North: 10.79°

Magnetic Field
Strength: 52515.0snT
Dip Angle: 65.81°
Date: 2008/10/15
Model: IGRF2005-10



FORMATION TOP DETAILS

TVDPath MDPPath Formation
4286.00 4402.37 Approx Ft Union
5861.00 5985.48 Mesaverde

Plan: Plan #3 (CC 697-08-08B/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	1180.84	14.71	55.98	1170.09	70.08	103.80	1.50	55.98	125.24	
4	4403.85	14.71	55.98	4287.43	528.10	782.21	0.00	0.00	943.79	
5	5139.48	0.00	0.00	5015.00	580.66	860.06	2.00	180.00	1037.72	
6	8139.48	0.00	0.00	8015.00	580.66	860.06	0.00	0.00	1037.72	CC 697-08-08B Target
7	9636.48	0.00	0.00	9512.00	580.66	860.06	0.00	0.00	1037.72	



OXY USA RMAT

**Garfield County, CO NAD27
Cascade Creek 608-41 Pad
CC 697-08-08B
OH**

Plan: Plan #3

Standard Planning Report

24 June, 2010



Database:	EDM 2003.16 Multi-User Db	Local Co-ordinate Reference:	Well CC 697-08-08B
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 697-08-08B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3		

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

Well	CC 697-08-08B,					
Well Position	+N/-S	0.00 ft	Northing:	633,950.48 ft	Latitude:	39° 32' 31.503 N
	+E/-W	0.00 ft	Easting:	1,228,102.37 ft	Longitude:	108° 14' 14.699 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	8,411.00 ft

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 #3				
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	55.98	

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	
1,180.84	14.71	55.98	1,170.09	70.08	103.80	1.50	1.50	0.00	55.98	
4,403.85	14.71	55.98	4,287.43	528.10	782.21	0.00	0.00	0.00	0.00	
5,139.48	0.00	0.00	5,015.00	580.66	860.06	2.00	-2.00	0.00	180.00	
8,139.48	0.00	0.00	8,015.00	580.66	860.06	0.00	0.00	0.00	0.00	CC 697-08-08B Target
9,636.48	0.00	0.00	9,512.00	580.66	860.06	0.00	0.00	0.00	0.00	

Database:	EDM 2003.16 Multi-User Db	Local Co-ordinate Reference:	Well CC 697-08-08B
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 697-08-08B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3		

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	55.98	299.99	0.73	1.08	1.31	1.50	1.50	0.00
400.00	3.00	55.98	399.91	2.93	4.34	5.23	1.50	1.50	0.00
500.00	4.50	55.98	499.69	6.59	9.76	11.77	1.50	1.50	0.00
600.00	6.00	55.98	599.27	11.71	17.34	20.92	1.50	1.50	0.00
700.00	7.50	55.98	698.57	18.29	27.08	32.68	1.50	1.50	0.00
800.00	9.00	55.98	797.54	26.31	38.98	47.03	1.50	1.50	0.00
900.00	10.50	55.98	896.09	35.79	53.01	63.96	1.50	1.50	0.00
1,000.00	12.00	55.98	994.16	46.71	69.18	83.47	1.50	1.50	0.00
1,100.00	13.50	55.98	1,091.70	59.05	87.47	105.54	1.50	1.50	0.00
1,180.84	14.71	55.98	1,170.09	70.08	103.80	125.24	1.50	1.50	0.00
Start 14.71° Hold At 1180.84' MD									
1,200.00	14.71	55.98	1,188.63	72.80	107.83	130.11	0.00	0.00	0.00
1,300.00	14.71	55.98	1,285.35	87.01	128.88	155.50	0.00	0.00	0.00
1,400.00	14.71	55.98	1,382.07	101.22	149.93	180.90	0.00	0.00	0.00
1,500.00	14.71	55.98	1,478.79	115.43	170.98	206.30	0.00	0.00	0.00
1,600.00	14.71	55.98	1,575.51	129.65	192.03	231.70	0.00	0.00	0.00
1,700.00	14.71	55.98	1,672.23	143.86	213.08	257.09	0.00	0.00	0.00
1,800.00	14.71	55.98	1,768.96	158.07	234.13	282.49	0.00	0.00	0.00
1,900.00	14.71	55.98	1,865.68	172.28	255.18	307.89	0.00	0.00	0.00
2,000.00	14.71	55.98	1,962.40	186.49	276.22	333.28	0.00	0.00	0.00
2,100.00	14.71	55.98	2,059.12	200.70	297.27	358.68	0.00	0.00	0.00
2,200.00	14.71	55.98	2,155.84	214.91	318.32	384.08	0.00	0.00	0.00
2,300.00	14.71	55.98	2,252.56	229.12	339.37	409.47	0.00	0.00	0.00
2,400.00	14.71	55.98	2,349.28	243.33	360.42	434.87	0.00	0.00	0.00
2,500.00	14.71	55.98	2,446.00	257.54	381.47	460.27	0.00	0.00	0.00
2,600.00	14.71	55.98	2,542.73	271.75	402.52	485.67	0.00	0.00	0.00
2,700.00	14.71	55.98	2,639.45	285.97	423.57	511.06	0.00	0.00	0.00
2,800.00	14.71	55.98	2,736.17	300.18	444.62	536.46	0.00	0.00	0.00
2,900.00	14.71	55.98	2,832.89	314.39	465.66	561.86	0.00	0.00	0.00
3,000.00	14.71	55.98	2,929.61	328.60	486.71	587.25	0.00	0.00	0.00
3,100.00	14.71	55.98	3,026.33	342.81	507.76	612.65	0.00	0.00	0.00
3,200.00	14.71	55.98	3,123.05	357.02	528.81	638.05	0.00	0.00	0.00
3,300.00	14.71	55.98	3,219.77	371.23	549.86	663.44	0.00	0.00	0.00
3,400.00	14.71	55.98	3,316.49	385.44	570.91	688.84	0.00	0.00	0.00
3,500.00	14.71	55.98	3,413.22	399.65	591.96	714.24	0.00	0.00	0.00
3,600.00	14.71	55.98	3,509.94	413.86	613.01	739.64	0.00	0.00	0.00
3,700.00	14.71	55.98	3,606.66	428.07	634.06	765.03	0.00	0.00	0.00
3,800.00	14.71	55.98	3,703.38	442.29	655.11	790.43	0.00	0.00	0.00
3,900.00	14.71	55.98	3,800.10	456.50	676.15	815.83	0.00	0.00	0.00
4,000.00	14.71	55.98	3,896.82	470.71	697.20	841.22	0.00	0.00	0.00
4,100.00	14.71	55.98	3,993.54	484.92	718.25	866.62	0.00	0.00	0.00
4,200.00	14.71	55.98	4,090.26	499.13	739.30	892.02	0.00	0.00	0.00
4,300.00	14.71	55.98	4,186.99	513.34	760.35	917.42	0.00	0.00	0.00
4,400.00	14.71	55.98	4,283.71	527.55	781.40	942.81	0.00	0.00	0.00
4,402.37	14.71	55.98	4,286.00	527.89	781.90	943.41	0.00	0.00	0.00
Approx Ft Union									
4,403.85	14.71	55.98	4,287.43	528.10	782.21	943.79	0.00	0.00	0.00
Start Drop -2.00									
4,500.00	12.79	55.98	4,380.82	540.89	801.15	966.64	2.00	-2.00	0.00

Database:	EDM 2003.16 Multi-User Db	Local Co-ordinate Reference:	Well CC 697-08-08B
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 697-08-08B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3		

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	10.79	55.98	4,478.71	552.32	818.08	987.07	2.00	-2.00	0.00
4,700.00	8.79	55.98	4,577.24	561.83	832.18	1,004.08	2.00	-2.00	0.00
4,800.00	6.79	55.98	4,676.32	569.41	843.41	1,017.63	2.00	-2.00	0.00
4,900.00	4.79	55.98	4,775.80	575.06	851.77	1,027.72	2.00	-2.00	0.00
5,000.00	2.79	55.98	4,875.58	578.76	857.25	1,034.33	2.00	-2.00	0.00
5,100.00	0.79	55.98	4,975.52	580.50	859.83	1,037.45	2.00	-2.00	0.00
5,139.48	0.00	0.00	5,015.00	580.66	860.06	1,037.72	2.00	-2.00	0.00
Start 0.00° Hold At 5139.48' MD									
5,200.00	0.00	0.00	5,075.52	580.66	860.06	1,037.72	0.00	0.00	0.00
5,300.00	0.00	0.00	5,175.52	580.66	860.06	1,037.72	0.00	0.00	0.00
5,400.00	0.00	0.00	5,275.52	580.66	860.06	1,037.72	0.00	0.00	0.00
5,500.00	0.00	0.00	5,375.52	580.66	860.06	1,037.72	0.00	0.00	0.00
5,600.00	0.00	0.00	5,475.52	580.66	860.06	1,037.72	0.00	0.00	0.00
5,700.00	0.00	0.00	5,575.52	580.66	860.06	1,037.72	0.00	0.00	0.00
5,800.00	0.00	0.00	5,675.52	580.66	860.06	1,037.72	0.00	0.00	0.00
5,900.00	0.00	0.00	5,775.52	580.66	860.06	1,037.72	0.00	0.00	0.00
5,985.48	0.00	0.00	5,861.00	580.66	860.06	1,037.72	0.00	0.00	0.00
Mesaverde									
6,000.00	0.00	0.00	5,875.52	580.66	860.06	1,037.72	0.00	0.00	0.00
6,100.00	0.00	0.00	5,975.52	580.66	860.06	1,037.72	0.00	0.00	0.00
6,200.00	0.00	0.00	6,075.52	580.66	860.06	1,037.72	0.00	0.00	0.00
6,300.00	0.00	0.00	6,175.52	580.66	860.06	1,037.72	0.00	0.00	0.00
6,400.00	0.00	0.00	6,275.52	580.66	860.06	1,037.72	0.00	0.00	0.00
6,500.00	0.00	0.00	6,375.52	580.66	860.06	1,037.72	0.00	0.00	0.00
6,600.00	0.00	0.00	6,475.52	580.66	860.06	1,037.72	0.00	0.00	0.00
6,700.00	0.00	0.00	6,575.52	580.66	860.06	1,037.72	0.00	0.00	0.00
6,800.00	0.00	0.00	6,675.52	580.66	860.06	1,037.72	0.00	0.00	0.00
6,900.00	0.00	0.00	6,775.52	580.66	860.06	1,037.72	0.00	0.00	0.00
7,000.00	0.00	0.00	6,875.52	580.66	860.06	1,037.72	0.00	0.00	0.00
7,100.00	0.00	0.00	6,975.52	580.66	860.06	1,037.72	0.00	0.00	0.00
7,200.00	0.00	0.00	7,075.52	580.66	860.06	1,037.72	0.00	0.00	0.00
7,300.00	0.00	0.00	7,175.52	580.66	860.06	1,037.72	0.00	0.00	0.00
7,400.00	0.00	0.00	7,275.52	580.66	860.06	1,037.72	0.00	0.00	0.00
7,500.00	0.00	0.00	7,375.52	580.66	860.06	1,037.72	0.00	0.00	0.00
7,600.00	0.00	0.00	7,475.52	580.66	860.06	1,037.72	0.00	0.00	0.00
7,700.00	0.00	0.00	7,575.52	580.66	860.06	1,037.72	0.00	0.00	0.00
7,800.00	0.00	0.00	7,675.52	580.66	860.06	1,037.72	0.00	0.00	0.00
7,900.00	0.00	0.00	7,775.52	580.66	860.06	1,037.72	0.00	0.00	0.00
8,000.00	0.00	0.00	7,875.52	580.66	860.06	1,037.72	0.00	0.00	0.00
8,100.00	0.00	0.00	7,975.52	580.66	860.06	1,037.72	0.00	0.00	0.00
8,139.48	0.00	0.00	8,015.00	580.66	860.06	1,037.72	0.00	0.00	0.00
Target = 634504.96, 1228979.54 - CC 697-08-08B Target									
8,200.00	0.00	0.00	8,075.52	580.66	860.06	1,037.72	0.00	0.00	0.00
8,300.00	0.00	0.00	8,175.52	580.66	860.06	1,037.72	0.00	0.00	0.00
8,400.00	0.00	0.00	8,275.52	580.66	860.06	1,037.72	0.00	0.00	0.00
8,500.00	0.00	0.00	8,375.52	580.66	860.06	1,037.72	0.00	0.00	0.00
8,600.00	0.00	0.00	8,475.52	580.66	860.06	1,037.72	0.00	0.00	0.00
8,700.00	0.00	0.00	8,575.52	580.66	860.06	1,037.72	0.00	0.00	0.00
8,800.00	0.00	0.00	8,675.52	580.66	860.06	1,037.72	0.00	0.00	0.00
8,900.00	0.00	0.00	8,775.52	580.66	860.06	1,037.72	0.00	0.00	0.00
9,000.00	0.00	0.00	8,875.52	580.66	860.06	1,037.72	0.00	0.00	0.00
9,100.00	0.00	0.00	8,975.52	580.66	860.06	1,037.72	0.00	0.00	0.00
9,200.00	0.00	0.00	9,075.52	580.66	860.06	1,037.72	0.00	0.00	0.00

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Site:	Cascade Creek 608-41 Pad	North Reference:	True
Well:	CC 697-08-08B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3		

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)
9,300.00	0.00	0.00	9,175.52	580.66	860.06	1,037.72	0.00	0.00	0.00
9,400.00	0.00	0.00	9,275.52	580.66	860.06	1,037.72	0.00	0.00	0.00
9,500.00	0.00	0.00	9,375.52	580.66	860.06	1,037.72	0.00	0.00	0.00
9,600.00	0.00	0.00	9,475.52	580.66	860.06	1,037.72	0.00	0.00	0.00
9,636.48	0.00	0.00	9,512.00	580.66	860.06	1,037.72	0.00	0.00	0.00
PBHL = 634504.96, 1228979.54									

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									
CC 697-08-08B Target	0.00	0.00	8,015.00	580.66	860.06	634,504.96	1,228,979.54	39° 32' 37.242 N	108° 14' 3.720 W
- plan hits target center									
- Circle (radius 50.00)									

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,402.37	4,286.00	Approx Ft Union		0.00		
5,985.48	5,861.00	Mesaverde		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	Start Build 1.50
1,180.84	1,170.09	70.08	103.80	Start 14.71° Hold At 1180.84' MD
4,403.85	4,287.43	528.10	782.21	Start Drop -2.00
5,139.48	5,015.00	580.66	860.06	Start 0.00° Hold At 5139.48' MD
8,139.48	8,015.00	580.66	860.06	Target = 634504.96, 1228979.54
9,636.48	9,512.00	580.66	860.06	PBHL = 634504.96, 1228979.54