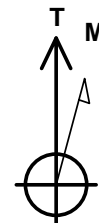


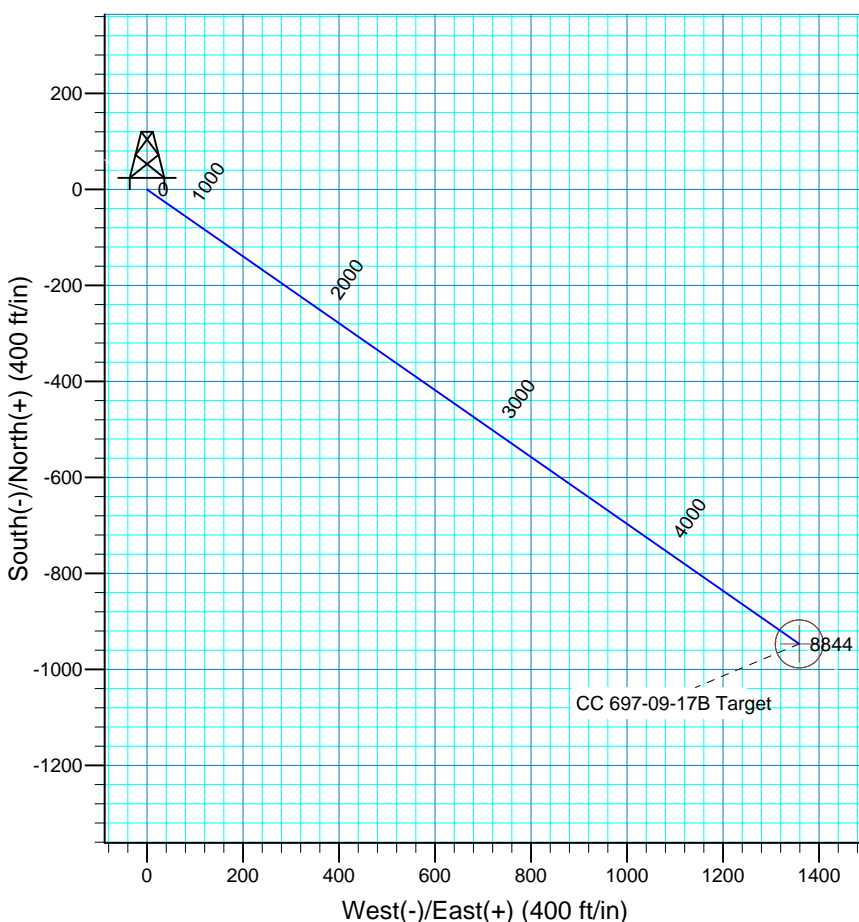
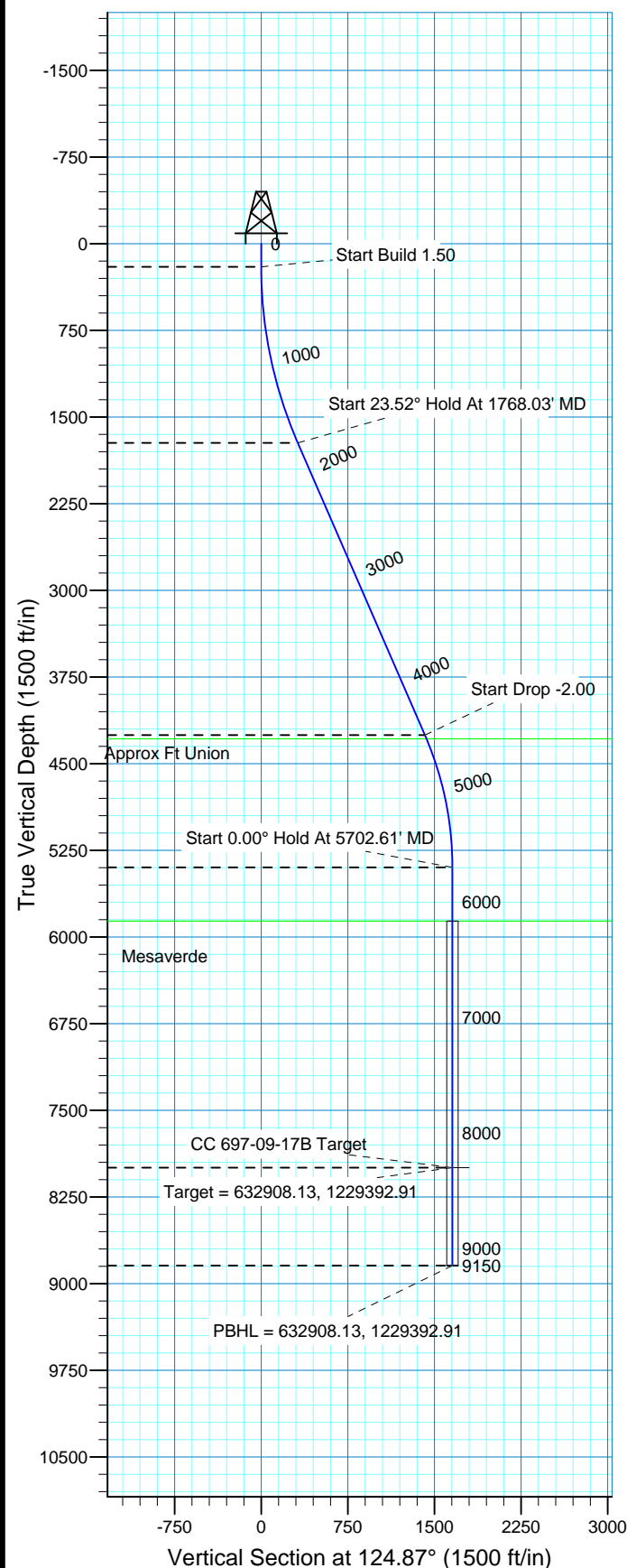
## WELL DETAILS: CC 697-09-17B

GL 8411' & RKB 30' @ 8441.00ft 8411.00  
+N/-S +E/-W Northing Easting Latitude Longitude Slot  
0.00 0.00 633895.52 1228063.18 39° 32' 30.948 N 108° 14' 15.178 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 4561.69 Approx Ft Union  
5863.00 6168.61 Mesaverde

## Plan: Plan #2 (CC 697-09-17B/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	1768.03	23.52	124.87	1724.36	-181.43	260.37	1.50	124.87	317.35	
4	4526.59	23.52	124.87	4253.73	-810.81	1163.60	0.00	0.001418.22		
5	5702.61	0.00	0.00	5397.00	-946.88	1358.87	2.00	180.001656.24		
6	8302.61	0.00	0.00	7997.00	-946.88	1358.87	0.00	0.001656.24		
7	9149.61	0.00	0.00	8844.00	-946.88	1358.87	0.00	0.001656.24		CC 697-09-17B Target



# **OXY USA RMAT**

**Garfield County, CO NAD27  
Cascade Creek 608-41 Pad  
CC 697-09-17B  
OH**

**Plan: Plan #2**

## **Standard Planning Report**

**24 June, 2010**



<b>Database:</b>	EDM 2003.16 Multi-User Db	<b>Local Co-ordinate Reference:</b>	Well CC 697-09-17B
<b>Company:</b>	OXY USA RMAT	<b>TVD Reference:</b>	GL 8411' & RKB 30' @ 8441.00ft
<b>Project:</b>	Garfield County, CO NAD27	<b>MD Reference:</b>	GL 8411' & RKB 30' @ 8441.00ft
<b>Site:</b>	Cascade Creek 608-41 Pad	<b>North Reference:</b>	True
<b>Well:</b>	CC 697-09-17B	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #2		

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

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

<b>Well</b>	CC 697-09-17B,		
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Northing:</b>
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b>
<b>Position Uncertainty</b>	0.00 ft		<b>Wellhead Elevation:</b>
			<b>Latitude:</b>
			<b>Longitude:</b>
			<b>Ground Level:</b>

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination</b>	<b>Dip Angle</b>	<b>Field Strength</b>
			(°)	(°)	(nT)
	IGRF2005-10	2008/10/15	10.79	65.81	52,515

<b>Design</b>	Plan #2			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	124.87

<b>Plan Sections</b>										
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	
1,768.03	23.52	124.87	1,724.36	-181.43	260.37	1.50	1.50	0.00	124.87	
4,526.59	23.52	124.87	4,253.73	-810.81	1,163.60	0.00	0.00	0.00	0.00	
5,702.61	0.00	0.00	5,397.00	-946.88	1,358.87	2.00	-2.00	0.00	180.00	
8,302.61	0.00	0.00	7,997.00	-946.88	1,358.87	0.00	0.00	0.00	0.00	CC 697-09-17B Target
9,149.61	0.00	0.00	8,844.00	-946.88	1,358.87	0.00	0.00	0.00	0.00	

<b>Database:</b>	EDM 2003.16 Multi-User Db	<b>Local Co-ordinate Reference:</b>	Well CC 697-09-17B
<b>Company:</b>	OXY USA RMAT	<b>TVD Reference:</b>	GL 8411' & RKB 30' @ 8441.00ft
<b>Project:</b>	Garfield County, CO NAD27	<b>MD Reference:</b>	GL 8411' & RKB 30' @ 8441.00ft
<b>Site:</b>	Cascade Creek 608-41 Pad	<b>North Reference:</b>	True
<b>Well:</b>	CC 697-09-17B	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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
<b>Start Build 1.50</b>									
300.00	1.50	124.87	299.99	-0.75	1.07	1.31	1.50	1.50	0.00
400.00	3.00	124.87	399.91	-2.99	4.29	5.23	1.50	1.50	0.00
500.00	4.50	124.87	499.69	-6.73	9.66	11.77	1.50	1.50	0.00
600.00	6.00	124.87	599.27	-11.96	17.17	20.92	1.50	1.50	0.00
700.00	7.50	124.87	698.57	-18.68	26.81	32.68	1.50	1.50	0.00
800.00	9.00	124.87	797.54	-26.89	38.58	47.03	1.50	1.50	0.00
900.00	10.50	124.87	896.09	-36.57	52.48	63.96	1.50	1.50	0.00
1,000.00	12.00	124.87	994.16	-47.72	68.48	83.47	1.50	1.50	0.00
1,100.00	13.50	124.87	1,091.70	-60.34	86.59	105.54	1.50	1.50	0.00
1,200.00	15.00	124.87	1,188.62	-74.41	106.79	130.15	1.50	1.50	0.00
1,300.00	16.50	124.87	1,284.86	-89.93	129.06	157.30	1.50	1.50	0.00
1,400.00	18.00	124.87	1,380.36	-106.88	153.39	186.95	1.50	1.50	0.00
1,500.00	19.50	124.87	1,475.05	-125.26	179.76	219.09	1.50	1.50	0.00
1,600.00	21.00	124.87	1,568.86	-145.04	208.15	253.70	1.50	1.50	0.00
1,700.00	22.50	124.87	1,661.74	-166.23	238.56	290.76	1.50	1.50	0.00
1,768.03	23.52	124.87	1,724.36	-181.43	260.37	317.35	1.50	1.50	0.00
<b>Start 23.52° Hold At 1768.03' MD</b>									
1,800.00	23.52	124.87	1,753.67	-188.73	270.84	330.11	0.00	0.00	0.00
1,900.00	23.52	124.87	1,845.37	-211.54	303.58	370.02	0.00	0.00	0.00
2,000.00	23.52	124.87	1,937.06	-234.36	336.33	409.92	0.00	0.00	0.00
2,100.00	23.52	124.87	2,028.75	-257.17	369.07	449.83	0.00	0.00	0.00
2,200.00	23.52	124.87	2,120.44	-279.99	401.81	489.74	0.00	0.00	0.00
2,300.00	23.52	124.87	2,212.13	-302.80	434.55	529.65	0.00	0.00	0.00
2,400.00	23.52	124.87	2,303.82	-325.62	467.30	569.55	0.00	0.00	0.00
2,500.00	23.52	124.87	2,395.52	-348.43	500.04	609.46	0.00	0.00	0.00
2,600.00	23.52	124.87	2,487.21	-371.25	532.78	649.37	0.00	0.00	0.00
2,700.00	23.52	124.87	2,578.90	-394.06	565.52	689.28	0.00	0.00	0.00
2,800.00	23.52	124.87	2,670.59	-416.88	598.27	729.18	0.00	0.00	0.00
2,900.00	23.52	124.87	2,762.28	-439.69	631.01	769.09	0.00	0.00	0.00
3,000.00	23.52	124.87	2,853.98	-462.51	663.75	809.00	0.00	0.00	0.00
3,100.00	23.52	124.87	2,945.67	-485.33	696.49	848.91	0.00	0.00	0.00
3,200.00	23.52	124.87	3,037.36	-508.14	729.24	888.82	0.00	0.00	0.00
3,300.00	23.52	124.87	3,129.05	-530.96	761.98	928.72	0.00	0.00	0.00
3,400.00	23.52	124.87	3,220.74	-553.77	794.72	968.63	0.00	0.00	0.00
3,500.00	23.52	124.87	3,312.43	-576.59	827.46	1,008.54	0.00	0.00	0.00
3,600.00	23.52	124.87	3,404.13	-599.40	860.21	1,048.45	0.00	0.00	0.00
3,700.00	23.52	124.87	3,495.82	-622.22	892.95	1,088.35	0.00	0.00	0.00
3,800.00	23.52	124.87	3,587.51	-645.03	925.69	1,128.26	0.00	0.00	0.00
3,900.00	23.52	124.87	3,679.20	-667.85	958.43	1,168.17	0.00	0.00	0.00
4,000.00	23.52	124.87	3,770.89	-690.66	991.18	1,208.08	0.00	0.00	0.00
4,100.00	23.52	124.87	3,862.58	-713.48	1,023.92	1,247.98	0.00	0.00	0.00
4,200.00	23.52	124.87	3,954.28	-736.29	1,056.66	1,287.89	0.00	0.00	0.00
4,300.00	23.52	124.87	4,045.97	-759.11	1,089.40	1,327.80	0.00	0.00	0.00
4,400.00	23.52	124.87	4,137.66	-781.92	1,122.15	1,367.71	0.00	0.00	0.00
4,500.00	23.52	124.87	4,229.35	-804.74	1,154.89	1,407.61	0.00	0.00	0.00
4,526.59	23.52	124.87	4,253.73	-810.81	1,163.60	1,418.22	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
4,561.69	22.82	124.87	4,286.00	-818.70	1,174.92	1,432.03	2.00	-2.00	0.00
<b>Approx Ft Union</b>									

<b>Database:</b>	EDM 2003.16 Multi-User Db	<b>Local Co-ordinate Reference:</b>	Well CC 697-09-17B
<b>Company:</b>	OXY USA RMAT	<b>TVD Reference:</b>	GL 8411' & RKB 30' @ 8441.00ft
<b>Project:</b>	Garfield County, CO NAD27	<b>MD Reference:</b>	GL 8411' & RKB 30' @ 8441.00ft
<b>Site:</b>	Cascade Creek 608-41 Pad	<b>North Reference:</b>	True
<b>Well:</b>	CC 697-09-17B	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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	22.05	124.87	4,321.41	-827.06	1,186.92	1,446.66	2.00	-2.00	0.00	
4,700.00	20.05	124.87	4,414.73	-847.60	1,216.39	1,482.58	2.00	-2.00	0.00	
4,800.00	18.05	124.87	4,509.25	-866.26	1,243.17	1,515.22	2.00	-2.00	0.00	
4,900.00	16.05	124.87	4,604.85	-883.02	1,267.23	1,544.54	2.00	-2.00	0.00	
5,000.00	14.05	124.87	4,701.41	-897.87	1,288.54	1,570.51	2.00	-2.00	0.00	
5,100.00	12.05	124.87	4,798.82	-910.78	1,307.07	1,593.09	2.00	-2.00	0.00	
5,200.00	10.05	124.87	4,896.96	-921.74	1,322.79	1,612.26	2.00	-2.00	0.00	
5,300.00	8.05	124.87	4,995.71	-930.73	1,335.70	1,627.99	2.00	-2.00	0.00	
5,400.00	6.05	124.87	5,094.95	-937.75	1,345.77	1,640.27	2.00	-2.00	0.00	
5,500.00	4.05	124.87	5,194.56	-942.79	1,353.00	1,649.07	2.00	-2.00	0.00	
5,600.00	2.05	124.87	5,294.41	-945.83	1,357.37	1,654.40	2.00	-2.00	0.00	
5,700.00	0.05	124.87	5,394.39	-946.88	1,358.87	1,656.24	2.00	-2.00	0.00	
5,702.61	0.00	0.00	5,397.00	-946.88	1,358.87	1,656.24	2.00	-2.00	0.00	
Start 0.00° Hold At 5702.61' MD										
5,800.00	0.00	0.00	5,494.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
5,900.00	0.00	0.00	5,594.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
6,000.00	0.00	0.00	5,694.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
6,100.00	0.00	0.00	5,794.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
6,168.61	0.00	0.00	5,863.00	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
Mesaverde										
6,200.00	0.00	0.00	5,894.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
6,300.00	0.00	0.00	5,994.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
6,400.00	0.00	0.00	6,094.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
6,500.00	0.00	0.00	6,194.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
6,600.00	0.00	0.00	6,294.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
6,700.00	0.00	0.00	6,394.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
6,800.00	0.00	0.00	6,494.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
6,900.00	0.00	0.00	6,594.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
7,000.00	0.00	0.00	6,694.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
7,100.00	0.00	0.00	6,794.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
7,200.00	0.00	0.00	6,894.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
7,300.00	0.00	0.00	6,994.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
7,400.00	0.00	0.00	7,094.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
7,500.00	0.00	0.00	7,194.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
7,600.00	0.00	0.00	7,294.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
7,700.00	0.00	0.00	7,394.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
7,800.00	0.00	0.00	7,494.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
7,900.00	0.00	0.00	7,594.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
8,000.00	0.00	0.00	7,694.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
8,100.00	0.00	0.00	7,794.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
8,200.00	0.00	0.00	7,894.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
8,300.00	0.00	0.00	7,994.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
8,302.61	0.00	0.00	7,997.00	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
Target = 632908.13, 1229392.91 - CC 697-09-17B Target										
8,400.00	0.00	0.00	8,094.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
8,500.00	0.00	0.00	8,194.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
8,600.00	0.00	0.00	8,294.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
8,700.00	0.00	0.00	8,394.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
8,800.00	0.00	0.00	8,494.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
8,900.00	0.00	0.00	8,594.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
9,000.00	0.00	0.00	8,694.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
9,100.00	0.00	0.00	8,794.39	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	
9,149.61	0.00	0.00	8,844.00	-946.88	1,358.87	1,656.24	0.00	0.00	0.00	

<b>Database:</b>	EDM 2003.16 Multi-User Db	<b>Local Co-ordinate Reference:</b>	Well CC 697-09-17B
<b>Company:</b>	OXY USA RMAT	<b>TVD Reference:</b>	GL 8411' & RKB 30' @ 8441.00ft
<b>Project:</b>	Garfield County, CO NAD27	<b>MD Reference:</b>	GL 8411' & RKB 30' @ 8441.00ft
<b>Site:</b>	Cascade Creek 608-41 Pad	<b>North Reference:</b>	True
<b>Well:</b>	CC 697-09-17B	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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)
PBHL = 632908.13, 1229392.91									

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
CC 697-09-17B Target	0.00	127.55	7,997.00	-946.88	1,358.87	632,908.13	1,229,392.91	39° 32' 21.589 N	108° 13' 57.833 W
- hit/miss target									
- Shape									
- plan hits target center									
- Circle (radius 50.00)									

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,561.69	4,286.00	Approx Ft Union		0.00		
6,168.61	5,863.00	Mesaverde		0.00		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
200.00	200.00	0.00	0.00	Start Build 1.50	
1,768.03	1,724.36	-181.43	260.37	Start 23.52° Hold At 1768.03' MD	
4,526.59	4,253.73	-810.81	1,163.60	Start Drop -2.00	
5,702.61	5,397.00	-946.88	1,358.87	Start 0.00° Hold At 5702.61' MD	
8,302.61	7,997.00	-946.88	1,358.87	Target = 632908.13, 1229392.91	
9,149.61	8,844.00	-946.88	1,358.87	PBHL = 632908.13, 1229392.91	