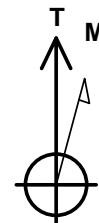


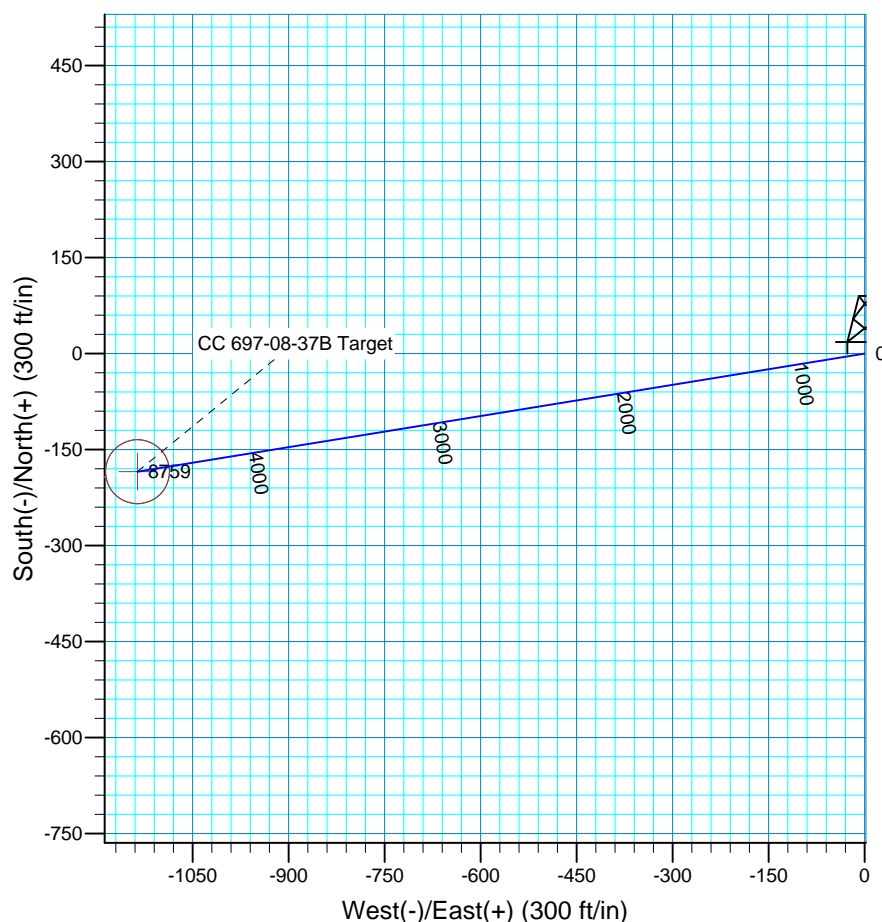
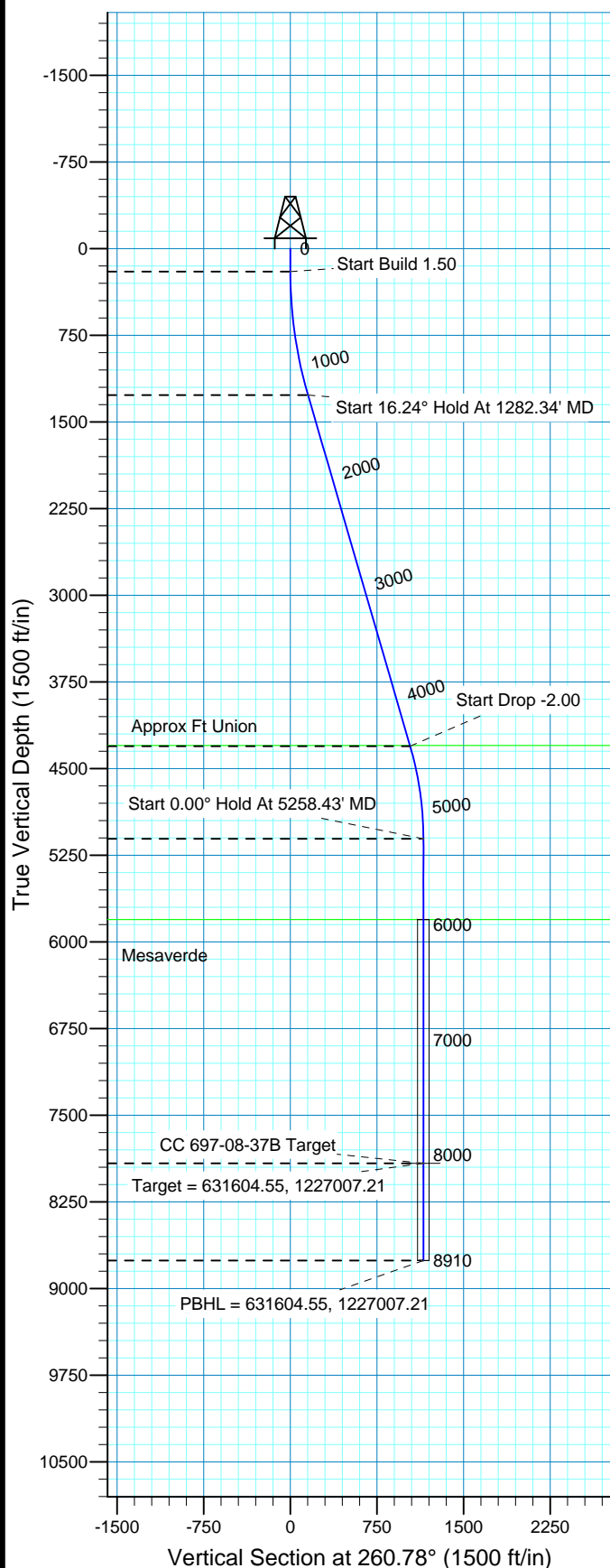
WELL DETAILS: Cascade Creek 697-08-37B

+N/-S	+E/-W	GL 8425' & RKB 30' @ 8455.00ft	8425.00	Latitude	Longitude	Slot
0.00	0.00	Northing	Easting	39° 32' 9.824 N	108° 14' 13.265 W	
		631754.70	1228148.62			



Azimuths to True North
Magnetic North: 10.63°

Magnetic Field
Strength: 52394.1snT
Dip Angle: 65.77°
Date: 2009/12/31
Model: IGRF2005-10



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4300.00	4440.36	Approx Ft Union
5807.00	5958.43	Mesaverde

Plan: Plan #1 (Cascade Creek 697-08-37B/OH)

Created By: Rex Hall Date: 2010-06-15

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	1282.34	16.24	260.78	1267.92	-24.41	-150.35	1.50	260.78	152.32	
4	4446.67	16.24	260.78	4306.06	-166.16	-1023.61	0.00	0.00	1037.00	
5	5258.43	0.00	0.00	5107.00	-184.46	-1136.37	2.00	180.00	1151.24	
6	8068.43	0.00	0.00	7917.00	-184.46	-1136.37	0.00	0.00	1151.24	CC 697-08-37B Target
7	8910.43	0.00	0.00	8759.00	-184.46	-1136.37	0.00	0.00	1151.24	



OXY USA RMAT

**Garfield County, CO NAD27
Cascade Creek 608-43-31 Pad
Cascade Creek 697-08-37B
OH**

Plan: Plan #1

Standard Planning Report

15 June, 2010



Database:	EDM 2003.16 Multi-User Db	Local Co-ordinate Reference:	Well Cascade Creek 697-08-37B
Company:	OXY USA RMAT	TVD Reference:	GL 8425' & RKB 30' @ 8455.00ft
Project:	Garfield County, CO NAD27	MD Reference:	GL 8425' & RKB 30' @ 8455.00ft
Site:	Cascade Creek 608-43-31 Pad	North Reference:	True
Well:	Cascade Creek 697-08-37B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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 608-43-31 Pad, Sec 8 T6S R97W			
Site Position:		Northing:	39.54 ft	Latitude:	37° 37' 28.115 N
From:	Map	Easting:	-108.24 ft	Longitude:	112° 24' 37.715 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	-4.36 °

Well	Cascade Creek 697-08-37B					
Well Position	+N/-S	0.00 ft	Northing:	631,754.70 ft	Latitude:	39° 32' 9.824 N
	+E/-W	0.00 ft	Easting:	1,228,148.62 ft	Longitude:	108° 14' 13.265 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	8,425.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	2009/12/31	10.63	65.78	52,394

Design	Plan #1				
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	260.78	

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	
1,282.34	16.24	260.78	1,267.92	-24.41	-150.35	1.50	1.50	0.00	260.78	
4,446.67	16.24	260.78	4,306.06	-166.16	-1,023.61	0.00	0.00	0.00	0.00	
5,258.43	0.00	0.00	5,107.00	-184.46	-1,136.37	2.00	-2.00	0.00	180.00	
8,068.43	0.00	0.00	7,917.00	-184.46	-1,136.37	0.00	0.00	0.00	0.00	CC 697-08-37B Target
8,910.43	0.00	0.00	8,759.00	-184.46	-1,136.37	0.00	0.00	0.00	0.00	

Database:	EDM 2003.16 Multi-User Db	Local Co-ordinate Reference:	Well Cascade Creek 697-08-37B
Company:	OXY USA RMAT	TVD Reference:	GL 8425' & RKB 30' @ 8455.00ft
Project:	Garfield County, CO NAD27	MD Reference:	GL 8425' & RKB 30' @ 8455.00ft
Site:	Cascade Creek 608-43-31 Pad	North Reference:	True
Well:	Cascade Creek 697-08-37B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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	260.78	299.99	-0.21	-1.29	1.31	1.50	1.50	0.00
400.00	3.00	260.78	399.91	-0.84	-5.17	5.23	1.50	1.50	0.00
500.00	4.50	260.78	499.69	-1.89	-11.62	11.77	1.50	1.50	0.00
600.00	6.00	260.78	599.27	-3.35	-20.65	20.92	1.50	1.50	0.00
700.00	7.50	260.78	698.57	-5.24	-32.26	32.68	1.50	1.50	0.00
800.00	9.00	260.78	797.54	-7.54	-46.42	47.03	1.50	1.50	0.00
900.00	10.50	260.78	896.09	-10.25	-63.14	63.96	1.50	1.50	0.00
1,000.00	12.00	260.78	994.16	-13.37	-82.39	83.47	1.50	1.50	0.00
1,100.00	13.50	260.78	1,091.70	-16.91	-104.18	105.54	1.50	1.50	0.00
1,200.00	15.00	260.78	1,188.62	-20.85	-128.47	130.15	1.50	1.50	0.00
1,282.34	16.24	260.78	1,267.92	-24.41	-150.35	152.32	1.50	1.50	0.00
Start 16.24° Hold At 1282.34' MD									
1,300.00	16.24	260.78	1,284.87	-25.20	-155.23	157.26	0.00	0.00	0.00
1,400.00	16.24	260.78	1,380.88	-29.68	-182.82	185.22	0.00	0.00	0.00
1,500.00	16.24	260.78	1,476.89	-34.16	-210.42	213.17	0.00	0.00	0.00
1,600.00	16.24	260.78	1,572.91	-38.64	-238.02	241.13	0.00	0.00	0.00
1,700.00	16.24	260.78	1,668.92	-43.12	-265.61	269.09	0.00	0.00	0.00
1,800.00	16.24	260.78	1,764.93	-47.60	-293.21	297.05	0.00	0.00	0.00
1,900.00	16.24	260.78	1,860.94	-52.08	-320.81	325.01	0.00	0.00	0.00
2,000.00	16.24	260.78	1,956.96	-56.56	-348.40	352.96	0.00	0.00	0.00
2,100.00	16.24	260.78	2,052.97	-61.03	-376.00	380.92	0.00	0.00	0.00
2,200.00	16.24	260.78	2,148.98	-65.51	-403.60	408.88	0.00	0.00	0.00
2,300.00	16.24	260.78	2,244.99	-69.99	-431.19	436.84	0.00	0.00	0.00
2,400.00	16.24	260.78	2,341.00	-74.47	-458.79	464.80	0.00	0.00	0.00
2,500.00	16.24	260.78	2,437.02	-78.95	-486.39	492.75	0.00	0.00	0.00
2,600.00	16.24	260.78	2,533.03	-83.43	-513.98	520.71	0.00	0.00	0.00
2,700.00	16.24	260.78	2,629.04	-87.91	-541.58	548.67	0.00	0.00	0.00
2,800.00	16.24	260.78	2,725.05	-92.39	-569.18	576.63	0.00	0.00	0.00
2,900.00	16.24	260.78	2,821.07	-96.87	-596.77	604.59	0.00	0.00	0.00
3,000.00	16.24	260.78	2,917.08	-101.35	-624.37	632.54	0.00	0.00	0.00
3,100.00	16.24	260.78	3,013.09	-105.83	-651.97	660.50	0.00	0.00	0.00
3,200.00	16.24	260.78	3,109.10	-110.31	-679.56	688.46	0.00	0.00	0.00
3,300.00	16.24	260.78	3,205.12	-114.79	-707.16	716.42	0.00	0.00	0.00
3,400.00	16.24	260.78	3,301.13	-119.27	-734.76	744.38	0.00	0.00	0.00
3,500.00	16.24	260.78	3,397.14	-123.75	-762.35	772.33	0.00	0.00	0.00
3,600.00	16.24	260.78	3,493.15	-128.23	-789.95	800.29	0.00	0.00	0.00
3,700.00	16.24	260.78	3,589.16	-132.71	-817.55	828.25	0.00	0.00	0.00
3,800.00	16.24	260.78	3,685.18	-137.19	-845.14	856.21	0.00	0.00	0.00
3,900.00	16.24	260.78	3,781.19	-141.67	-872.74	884.16	0.00	0.00	0.00
4,000.00	16.24	260.78	3,877.20	-146.15	-900.34	912.12	0.00	0.00	0.00
4,100.00	16.24	260.78	3,973.21	-150.63	-927.93	940.08	0.00	0.00	0.00
4,200.00	16.24	260.78	4,069.23	-155.11	-955.53	968.04	0.00	0.00	0.00
4,300.00	16.24	260.78	4,165.24	-159.59	-983.13	996.00	0.00	0.00	0.00
4,400.00	16.24	260.78	4,261.25	-164.07	-1,010.73	1,023.95	0.00	0.00	0.00
4,440.36	16.24	260.78	4,300.00	-165.88	-1,021.86	1,035.24	0.00	0.00	0.00
Approx Ft Union									
4,446.67	16.24	260.78	4,306.06	-166.16	-1,023.61	1,037.00	0.00	0.00	0.00
Start Drop -2.00									
4,500.00	15.17	260.78	4,357.40	-168.47	-1,037.85	1,051.44	2.00	-2.00	0.00

Database:	EDM 2003.16 Multi-User Db	Local Co-ordinate Reference:	Well Cascade Creek 697-08-37B
Company:	OXY USA RMAT	TVD Reference:	GL 8425' & RKB 30' @ 8455.00ft
Project:	Garfield County, CO NAD27	MD Reference:	GL 8425' & RKB 30' @ 8455.00ft
Site:	Cascade Creek 608-43-31 Pad	North Reference:	True
Well:	Cascade Creek 697-08-37B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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	13.17	260.78	4,454.35	-172.39	-1,062.01	1,075.91	2.00	-2.00	0.00
4,700.00	11.17	260.78	4,552.10	-175.77	-1,082.82	1,096.99	2.00	-2.00	0.00
4,800.00	9.17	260.78	4,650.52	-178.60	-1,100.24	1,114.64	2.00	-2.00	0.00
4,900.00	7.17	260.78	4,749.50	-180.88	-1,114.27	1,128.85	2.00	-2.00	0.00
5,000.00	5.17	260.78	4,848.92	-182.60	-1,124.87	1,139.60	2.00	-2.00	0.00
5,100.00	3.17	260.78	4,948.65	-183.76	-1,132.05	1,146.86	2.00	-2.00	0.00
5,200.00	1.17	260.78	5,048.57	-184.37	-1,135.78	1,150.65	2.00	-2.00	0.00
5,258.43	0.00	0.00	5,107.00	-184.46	-1,136.37	1,151.24	2.00	-2.00	0.00
Start 0.00° Hold At 5258.43' MD									
5,300.00	0.00	0.00	5,148.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
5,400.00	0.00	0.00	5,248.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
5,500.00	0.00	0.00	5,348.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
5,600.00	0.00	0.00	5,448.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
5,700.00	0.00	0.00	5,548.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
5,800.00	0.00	0.00	5,648.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
5,900.00	0.00	0.00	5,748.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
5,958.43	0.00	0.00	5,807.00	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
Mesaverde									
6,000.00	0.00	0.00	5,848.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
6,100.00	0.00	0.00	5,948.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
6,200.00	0.00	0.00	6,048.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
6,300.00	0.00	0.00	6,148.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
6,400.00	0.00	0.00	6,248.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
6,500.00	0.00	0.00	6,348.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
6,600.00	0.00	0.00	6,448.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
6,700.00	0.00	0.00	6,548.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
6,800.00	0.00	0.00	6,648.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
6,900.00	0.00	0.00	6,748.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
7,000.00	0.00	0.00	6,848.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
7,100.00	0.00	0.00	6,948.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
7,200.00	0.00	0.00	7,048.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
7,300.00	0.00	0.00	7,148.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
7,400.00	0.00	0.00	7,248.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
7,500.00	0.00	0.00	7,348.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
7,600.00	0.00	0.00	7,448.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
7,700.00	0.00	0.00	7,548.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
7,800.00	0.00	0.00	7,648.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
7,900.00	0.00	0.00	7,748.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
8,000.00	0.00	0.00	7,848.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
8,068.43	0.00	0.00	7,917.00	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
Target = 631604.55, 1227007.21 - CC 697-08-37B Target									
8,100.00	0.00	0.00	7,948.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
8,200.00	0.00	0.00	8,048.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
8,300.00	0.00	0.00	8,148.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
8,400.00	0.00	0.00	8,248.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
8,500.00	0.00	0.00	8,348.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
8,600.00	0.00	0.00	8,448.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
8,700.00	0.00	0.00	8,548.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
8,800.00	0.00	0.00	8,648.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
8,900.00	0.00	0.00	8,748.57	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
8,910.43	0.00	0.00	8,759.00	-184.46	-1,136.37	1,151.24	0.00	0.00	0.00
PBHL = 631604.55, 1227007.21									

Database:	EDM 2003.16 Multi-User Db	Local Co-ordinate Reference:	Well Cascade Creek 697-08-37B
Company:	OXY USA RMAT	TVD Reference:	GL 8425' & RKB 30' @ 8455.00ft
Project:	Garfield County, CO NAD27	MD Reference:	GL 8425' & RKB 30' @ 8455.00ft
Site:	Cascade Creek 608-43-31 Pad	North Reference:	True
Well:	Cascade Creek 697-08-37B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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 697-08-37B Target	0.00	0.00	7,917.00	-184.46	-1,136.37	631,604.55	1,227,007.21	39° 32' 8.001 N	108° 14' 27.769 W
- plan hits target center									
- Circle (radius 50.00)									

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,440.36	4,300.00	Approx Ft Union		0.00	
5,958.43	5,807.00	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	
1,282.34	1,267.92	-24.41	-150.35	Start 16.24° Hold At 1282.34' MD	
4,446.67	4,306.06	-166.16	-1,023.61	Start Drop -2.00	
5,258.43	5,107.00	-184.46	-1,136.37	Start 0.00° Hold At 5258.43' MD	
8,068.43	7,917.00	-184.46	-1,136.37	Target = 631604.55, 1227007.21	
8,910.43	8,759.00	-184.46	-1,136.37	PBHL = 631604.55, 1227007.21	