

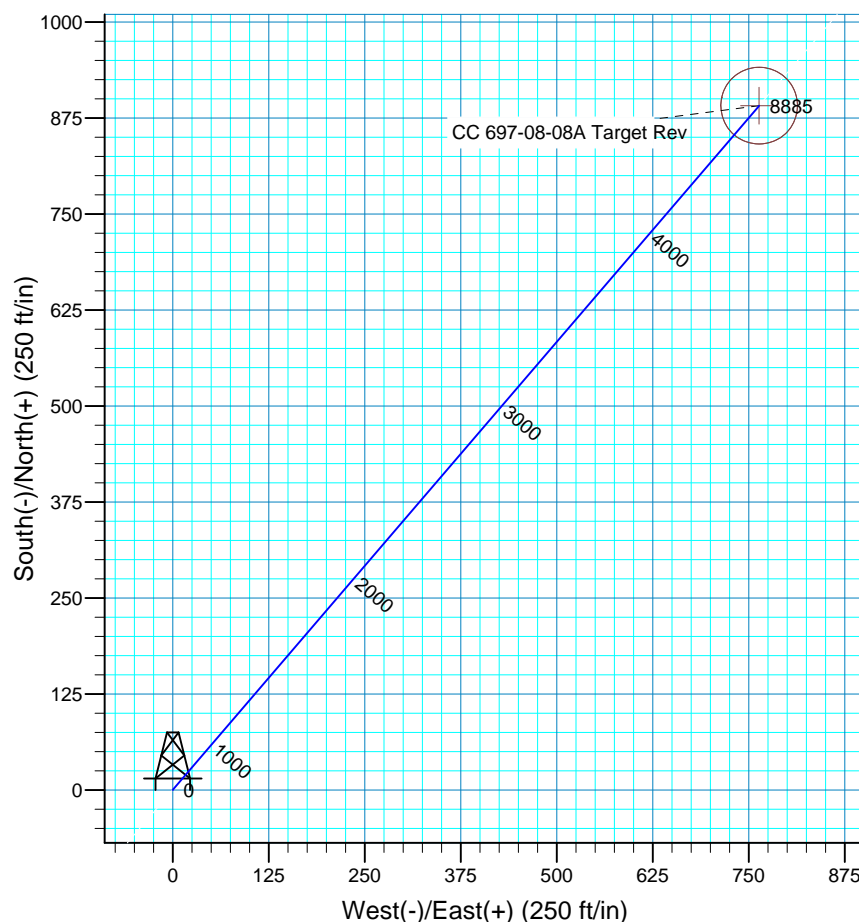
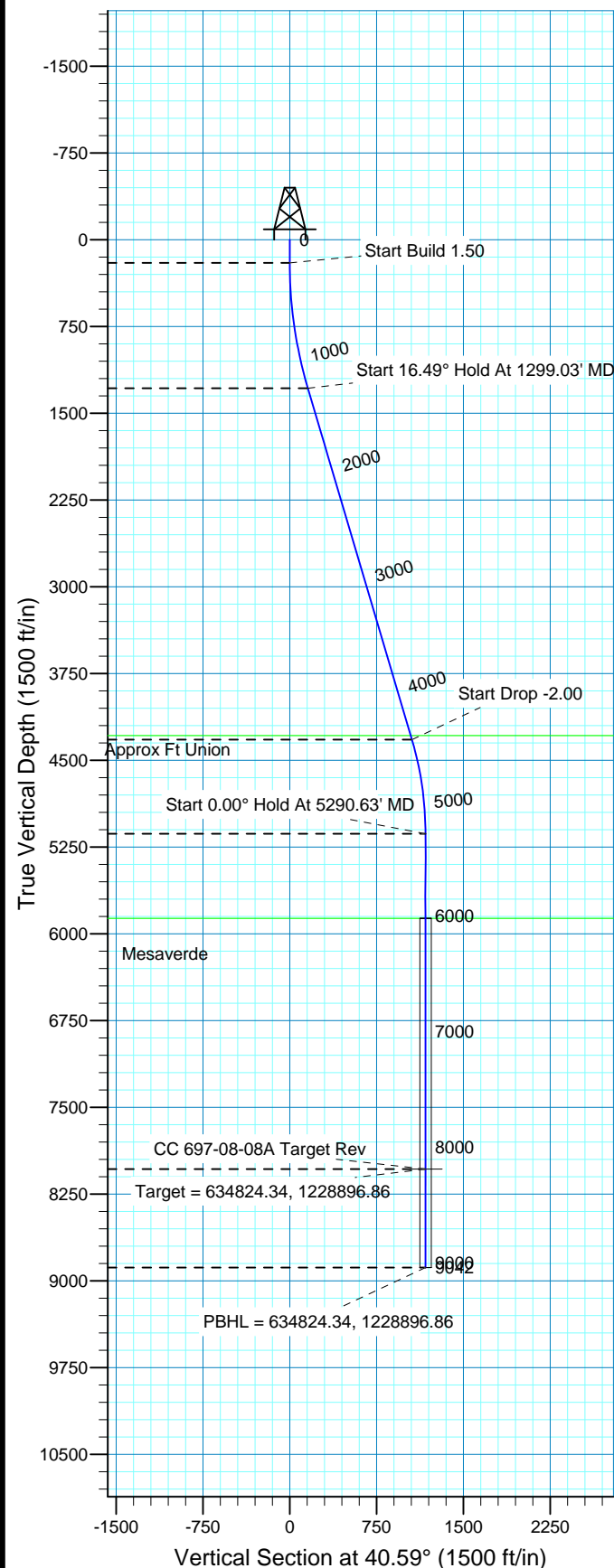
WELL DETAILS: CC 697-08-08A

GL 8411' & RKB 30' @ 8441.00ft 8411.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 633956.59 1228106.73 39° 32' 31.565 N 108° 14' 14.646 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 4429.80 Approx Ft Union
5866.00 6022.63 Mesaverde

Plan: Plan #3 (CC 697-08-08A/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	1299.03	16.49	40.59	1283.93	119.23	102.17	1.50	40.59	157.02	
4	4466.36	16.49	40.59	4321.05	801.74	687.00	0.00	0.001055.82		
5	5290.63	0.00	0.00	5134.00	891.16	763.63	2.00	180.001173.58		
6	8190.63	0.00	0.00	8034.00	891.16	763.63	0.00	0.001173.58		CC 697-08-08A Target Rev
7	9041.63	0.00	0.00	8885.00	891.16	763.63	0.00	0.001173.58		



OXY USA RMAT

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

Plan: Plan #3

Standard Planning Report

24 June, 2010



Database:	EDM 2003.16 Multi-User Db	Local Co-ordinate Reference:	Well CC 697-08-08A
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 697-08-08A	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, 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 697-08-08A,		
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 #3			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	40.59

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	
1,299.03	16.49	40.59	1,283.93	119.23	102.17	1.50	1.50	0.00	40.59	
4,466.36	16.49	40.59	4,321.05	801.74	687.00	0.00	0.00	0.00	0.00	
5,290.63	0.00	0.00	5,134.00	891.16	763.63	2.00	-2.00	0.00	180.00	
8,190.63	0.00	0.00	8,034.00	891.16	763.63	0.00	0.00	0.00	0.00	CC 697-08-08A Target
9,041.63	0.00	0.00	8,885.00	891.16	763.63	0.00	0.00	0.00	0.00	

Database:	EDM 2003.16 Multi-User Db	Local Co-ordinate Reference:	Well CC 697-08-08A
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 697-08-08A	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	40.59	299.99	0.99	0.85	1.31	1.50	1.50	0.00
400.00	3.00	40.59	399.91	3.98	3.41	5.23	1.50	1.50	0.00
500.00	4.50	40.59	499.69	8.94	7.66	11.77	1.50	1.50	0.00
600.00	6.00	40.59	599.27	15.89	13.62	20.92	1.50	1.50	0.00
700.00	7.50	40.59	698.57	24.81	21.26	32.68	1.50	1.50	0.00
800.00	9.00	40.59	797.54	35.71	30.60	47.03	1.50	1.50	0.00
900.00	10.50	40.59	896.09	48.57	41.62	63.96	1.50	1.50	0.00
1,000.00	12.00	40.59	994.16	63.38	54.31	83.47	1.50	1.50	0.00
1,100.00	13.50	40.59	1,091.70	80.14	68.67	105.54	1.50	1.50	0.00
1,200.00	15.00	40.59	1,188.62	98.83	84.69	130.15	1.50	1.50	0.00
1,299.03	16.49	40.59	1,283.93	119.23	102.17	157.02	1.50	1.50	0.00
Start 16.49° Hold At 1299.03' MD									
1,300.00	16.49	40.59	1,284.86	119.44	102.35	157.30	0.00	0.00	0.00
1,400.00	16.49	40.59	1,380.75	140.99	120.82	185.67	0.00	0.00	0.00
1,500.00	16.49	40.59	1,476.64	162.54	139.28	214.05	0.00	0.00	0.00
1,600.00	16.49	40.59	1,572.53	184.09	157.74	242.43	0.00	0.00	0.00
1,700.00	16.49	40.59	1,668.42	205.64	176.21	270.81	0.00	0.00	0.00
1,800.00	16.49	40.59	1,764.30	227.18	194.67	299.18	0.00	0.00	0.00
1,900.00	16.49	40.59	1,860.19	248.73	213.14	327.56	0.00	0.00	0.00
2,000.00	16.49	40.59	1,956.08	270.28	231.60	355.94	0.00	0.00	0.00
2,100.00	16.49	40.59	2,051.97	291.83	250.07	384.31	0.00	0.00	0.00
2,200.00	16.49	40.59	2,147.86	313.38	268.53	412.69	0.00	0.00	0.00
2,300.00	16.49	40.59	2,243.75	334.92	287.00	441.07	0.00	0.00	0.00
2,400.00	16.49	40.59	2,339.64	356.47	305.46	469.45	0.00	0.00	0.00
2,500.00	16.49	40.59	2,435.53	378.02	323.93	497.82	0.00	0.00	0.00
2,600.00	16.49	40.59	2,531.42	399.57	342.39	526.20	0.00	0.00	0.00
2,700.00	16.49	40.59	2,627.31	421.12	360.85	554.58	0.00	0.00	0.00
2,800.00	16.49	40.59	2,723.20	442.67	379.32	582.95	0.00	0.00	0.00
2,900.00	16.49	40.59	2,819.09	464.21	397.78	611.33	0.00	0.00	0.00
3,000.00	16.49	40.59	2,914.98	485.76	416.25	639.71	0.00	0.00	0.00
3,100.00	16.49	40.59	3,010.86	507.31	434.71	668.09	0.00	0.00	0.00
3,200.00	16.49	40.59	3,106.75	528.86	453.18	696.46	0.00	0.00	0.00
3,300.00	16.49	40.59	3,202.64	550.41	471.64	724.84	0.00	0.00	0.00
3,400.00	16.49	40.59	3,298.53	571.95	490.11	753.22	0.00	0.00	0.00
3,500.00	16.49	40.59	3,394.42	593.50	508.57	781.59	0.00	0.00	0.00
3,600.00	16.49	40.59	3,490.31	615.05	527.03	809.97	0.00	0.00	0.00
3,700.00	16.49	40.59	3,586.20	636.60	545.50	838.35	0.00	0.00	0.00
3,800.00	16.49	40.59	3,682.09	658.15	563.96	866.73	0.00	0.00	0.00
3,900.00	16.49	40.59	3,777.98	679.70	582.43	895.10	0.00	0.00	0.00
4,000.00	16.49	40.59	3,873.87	701.24	600.89	923.48	0.00	0.00	0.00
4,100.00	16.49	40.59	3,969.76	722.79	619.36	951.86	0.00	0.00	0.00
4,200.00	16.49	40.59	4,065.65	744.34	637.82	980.23	0.00	0.00	0.00
4,300.00	16.49	40.59	4,161.53	765.89	656.29	1,008.61	0.00	0.00	0.00
4,400.00	16.49	40.59	4,257.42	787.44	674.75	1,036.99	0.00	0.00	0.00
4,429.80	16.49	40.59	4,286.00	793.86	680.25	1,045.45	0.00	0.00	0.00
Approx Ft Union									
4,466.36	16.49	40.59	4,321.05	801.74	687.00	1,055.82	0.00	0.00	0.00
Start Drop -2.00									
4,500.00	15.81	40.59	4,353.37	808.84	693.09	1,065.18	2.00	-2.00	0.00

Database:	EDM 2003.16 Multi-User Db	Local Co-ordinate Reference:	Well CC 697-08-08A
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 697-08-08A	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	13.81	40.59	4,450.04	828.25	709.73	1,090.74	2.00	-2.00	0.00
4,700.00	11.81	40.59	4,547.55	845.09	724.16	1,112.92	2.00	-2.00	0.00
4,800.00	9.81	40.59	4,645.76	859.34	736.36	1,131.67	2.00	-2.00	0.00
4,900.00	7.81	40.59	4,744.58	870.97	746.33	1,146.99	2.00	-2.00	0.00
5,000.00	5.81	40.59	4,843.87	879.98	754.05	1,158.86	2.00	-2.00	0.00
5,100.00	3.81	40.59	4,943.51	886.35	759.51	1,167.24	2.00	-2.00	0.00
5,200.00	1.81	40.59	5,043.39	890.07	762.70	1,172.15	2.00	-2.00	0.00
5,290.63	0.00	0.00	5,134.00	891.16	763.63	1,173.58	2.00	-2.00	0.00
Start 0.00° Hold At 5290.63' MD									
5,300.00	0.00	0.00	5,143.37	891.16	763.63	1,173.58	0.00	0.00	0.00
5,400.00	0.00	0.00	5,243.37	891.16	763.63	1,173.58	0.00	0.00	0.00
5,500.00	0.00	0.00	5,343.37	891.16	763.63	1,173.58	0.00	0.00	0.00
5,600.00	0.00	0.00	5,443.37	891.16	763.63	1,173.58	0.00	0.00	0.00
5,700.00	0.00	0.00	5,543.37	891.16	763.63	1,173.58	0.00	0.00	0.00
5,800.00	0.00	0.00	5,643.37	891.16	763.63	1,173.58	0.00	0.00	0.00
5,900.00	0.00	0.00	5,743.37	891.16	763.63	1,173.58	0.00	0.00	0.00
6,000.00	0.00	0.00	5,843.37	891.16	763.63	1,173.58	0.00	0.00	0.00
6,022.63	0.00	0.00	5,866.00	891.16	763.63	1,173.58	0.00	0.00	0.00
Mesaverde									
6,100.00	0.00	0.00	5,943.37	891.16	763.63	1,173.58	0.00	0.00	0.00
6,200.00	0.00	0.00	6,043.37	891.16	763.63	1,173.58	0.00	0.00	0.00
6,300.00	0.00	0.00	6,143.37	891.16	763.63	1,173.58	0.00	0.00	0.00
6,400.00	0.00	0.00	6,243.37	891.16	763.63	1,173.58	0.00	0.00	0.00
6,500.00	0.00	0.00	6,343.37	891.16	763.63	1,173.58	0.00	0.00	0.00
6,600.00	0.00	0.00	6,443.37	891.16	763.63	1,173.58	0.00	0.00	0.00
6,700.00	0.00	0.00	6,543.37	891.16	763.63	1,173.58	0.00	0.00	0.00
6,800.00	0.00	0.00	6,643.37	891.16	763.63	1,173.58	0.00	0.00	0.00
6,900.00	0.00	0.00	6,743.37	891.16	763.63	1,173.58	0.00	0.00	0.00
7,000.00	0.00	0.00	6,843.37	891.16	763.63	1,173.58	0.00	0.00	0.00
7,100.00	0.00	0.00	6,943.37	891.16	763.63	1,173.58	0.00	0.00	0.00
7,200.00	0.00	0.00	7,043.37	891.16	763.63	1,173.58	0.00	0.00	0.00
7,300.00	0.00	0.00	7,143.37	891.16	763.63	1,173.58	0.00	0.00	0.00
7,400.00	0.00	0.00	7,243.37	891.16	763.63	1,173.58	0.00	0.00	0.00
7,500.00	0.00	0.00	7,343.37	891.16	763.63	1,173.58	0.00	0.00	0.00
7,600.00	0.00	0.00	7,443.37	891.16	763.63	1,173.58	0.00	0.00	0.00
7,700.00	0.00	0.00	7,543.37	891.16	763.63	1,173.58	0.00	0.00	0.00
7,800.00	0.00	0.00	7,643.37	891.16	763.63	1,173.58	0.00	0.00	0.00
7,900.00	0.00	0.00	7,743.37	891.16	763.63	1,173.58	0.00	0.00	0.00
8,000.00	0.00	0.00	7,843.37	891.16	763.63	1,173.58	0.00	0.00	0.00
8,100.00	0.00	0.00	7,943.37	891.16	763.63	1,173.58	0.00	0.00	0.00
8,190.63	0.00	0.00	8,034.00	891.16	763.63	1,173.58	0.00	0.00	0.00
Target = 634824.34, 1228896.86 - CC 697-08-08A Target Rev									
8,200.00	0.00	0.00	8,043.37	891.16	763.63	1,173.58	0.00	0.00	0.00
8,300.00	0.00	0.00	8,143.37	891.16	763.63	1,173.58	0.00	0.00	0.00
8,400.00	0.00	0.00	8,243.37	891.16	763.63	1,173.58	0.00	0.00	0.00
8,500.00	0.00	0.00	8,343.37	891.16	763.63	1,173.58	0.00	0.00	0.00
8,600.00	0.00	0.00	8,443.37	891.16	763.63	1,173.58	0.00	0.00	0.00
8,700.00	0.00	0.00	8,543.37	891.16	763.63	1,173.58	0.00	0.00	0.00
8,800.00	0.00	0.00	8,643.37	891.16	763.63	1,173.58	0.00	0.00	0.00
8,900.00	0.00	0.00	8,743.37	891.16	763.63	1,173.58	0.00	0.00	0.00
9,000.00	0.00	0.00	8,843.37	891.16	763.63	1,173.58	0.00	0.00	0.00
9,041.63	0.00	0.00	8,885.00	891.16	763.63	1,173.58	0.00	0.00	0.00
PBHL = 634824.34, 1228896.86									

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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 697-08-08A	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)

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 697-08-08A Target F	0.00	38.62	8,034.00	891.16	763.63	634,824.34	1,228,896.86	39° 32' 40.372 N	108° 14' 4.898 W
- plan hits target center									
- Circle (radius 50.00)									
CC 697-08-08A Target	-8.00	29.96	8,034.00	1,230.30	763.62	635,163.32	1,228,907.07	39° 32' 43.724 N	108° 14' 4.898 W
- plan misses target center by 339.14ft at 8190.63ft MD (8034.00 TVD, 891.16 N, 763.63 E)									
- Circle (radius 50.00)									

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,429.80	4,286.00	Approx Ft Union		0.00	
6,022.63	5,866.00	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
1,299.03	1,283.93	119.23	102.17	Start 16.49° Hold At 1299.03' MD
4,466.36	4,321.05	801.74	687.00	Start Drop -2.00
5,290.63	5,134.00	891.16	763.63	Start 0.00° Hold At 5290.63' MD
8,190.63	8,034.00	891.16	763.63	Target = 634824.34, 1228896.86
9,041.63	8,885.00	891.16	763.63	PBHL = 634824.34, 1228896.86