

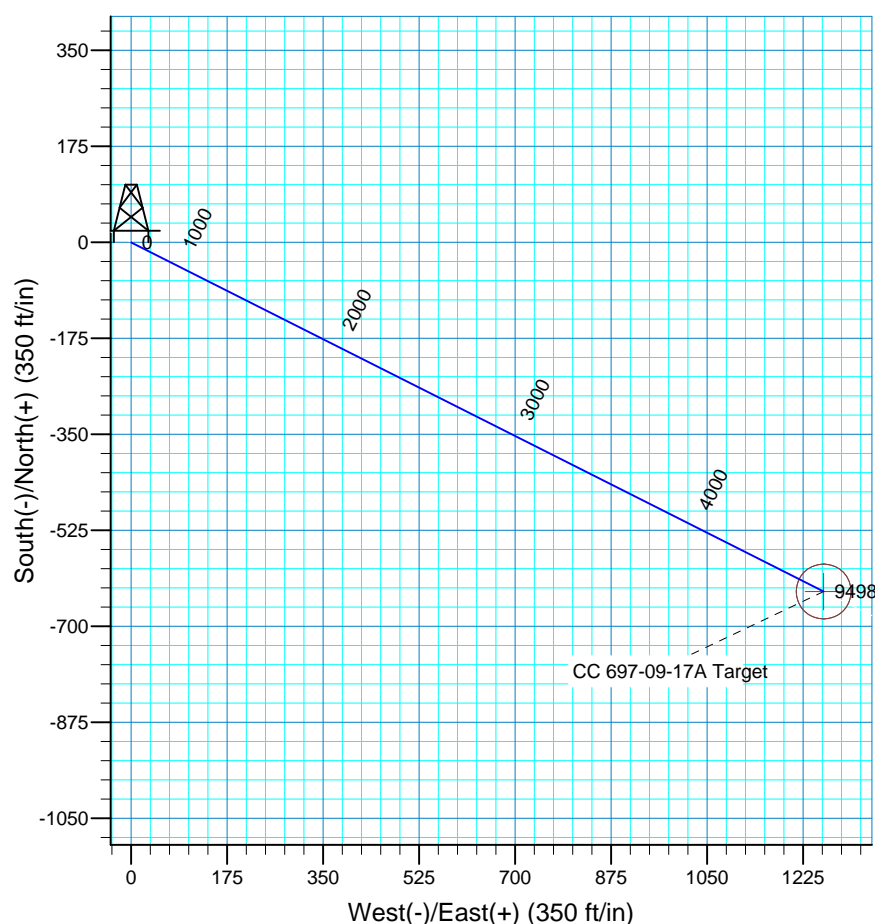
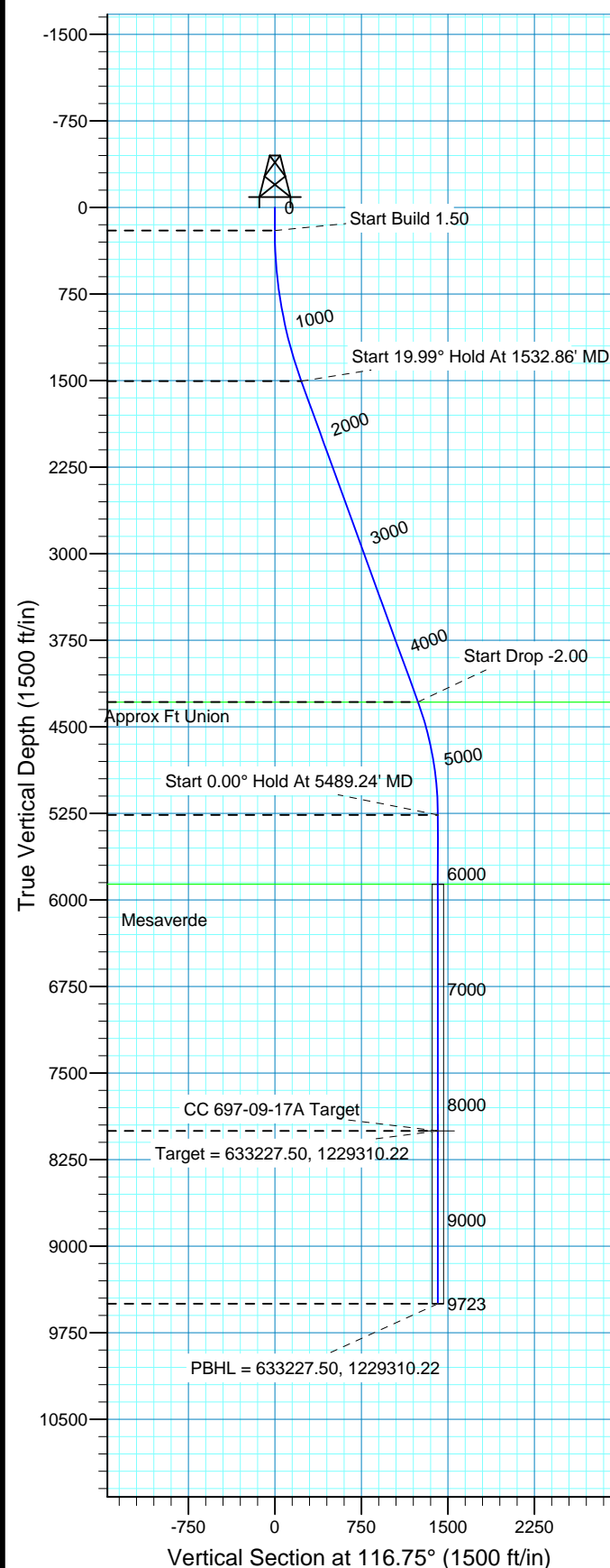
WELL DETAILS: CC 697-09-17A

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	633901.63	1228067.53	39° 32' 31.010 N	108° 14' 15.125 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	4491.17	Approx Ft Union
5864.00	6089.24	Mesaverde

Plan: Plan #3 (CC 697-09-17A/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	1532.86	19.99	116.75	1505.98	-103.62	205.56	1.50	116.75	230.20	
4	4489.59	19.99	116.75	4284.52	-558.66	1108.27	0.00	0.001241.11		
5	5489.24	0.00	0.00	5264.00	-636.38	1262.44	2.00	180.001413.76		
6	8226.24	0.00	0.00	8001.00	-636.38	1262.44	0.00	0.001413.76		
7	9723.24	0.00	0.00	9498.00	-636.38	1262.44	0.00	0.001413.76		CC 697-09-17A Target



OXY USA RMAT

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

Plan: Plan #3

Standard Planning Report

24 June, 2010



Database:	EDM 2003.16 Multi-User Db	Local Co-ordinate Reference:	Well CC 697-09-17A
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 697-09-17A	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 697-09-17A,		
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) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	116.75	

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	
1,532.86	19.99	116.75	1,505.98	-103.62	205.56	1.50	1.50	0.00	116.75	
4,489.59	19.99	116.75	4,284.52	-558.66	1,108.27	0.00	0.00	0.00	0.00	
5,489.24	0.00	0.00	5,264.00	-636.38	1,262.44	2.00	-2.00	0.00	180.00	
8,226.24	0.00	0.00	8,001.00	-636.38	1,262.44	0.00	0.00	0.00	0.00	CC 697-09-17A Target
9,723.24	0.00	0.00	9,498.00	-636.38	1,262.44	0.00	0.00	0.00	0.00	

Database:	EDM 2003.16 Multi-User Db	Local Co-ordinate Reference:	Well CC 697-09-17A
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 697-09-17A	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	116.75	299.99	-0.59	1.17	1.31	1.50	1.50	0.00
400.00	3.00	116.75	399.91	-2.36	4.67	5.23	1.50	1.50	0.00
500.00	4.50	116.75	499.69	-5.30	10.51	11.77	1.50	1.50	0.00
600.00	6.00	116.75	599.27	-9.42	18.69	20.92	1.50	1.50	0.00
700.00	7.50	116.75	698.57	-14.71	29.18	32.68	1.50	1.50	0.00
800.00	9.00	116.75	797.54	-21.17	41.99	47.03	1.50	1.50	0.00
900.00	10.50	116.75	896.09	-28.79	57.12	63.96	1.50	1.50	0.00
1,000.00	12.00	116.75	994.16	-37.57	74.54	83.47	1.50	1.50	0.00
1,100.00	13.50	116.75	1,091.70	-47.51	94.24	105.54	1.50	1.50	0.00
1,200.00	15.00	116.75	1,188.62	-58.59	116.22	130.15	1.50	1.50	0.00
1,300.00	16.50	116.75	1,284.86	-70.80	140.46	157.30	1.50	1.50	0.00
1,400.00	18.00	116.75	1,380.36	-84.15	166.94	186.95	1.50	1.50	0.00
1,500.00	19.50	116.75	1,475.05	-98.62	195.64	219.09	1.50	1.50	0.00
1,532.86	19.99	116.75	1,505.98	-103.62	205.56	230.20	1.50	1.50	0.00
Start 19.99° Hold At 1532.86' MD									
1,600.00	19.99	116.75	1,569.07	-113.95	226.05	253.15	0.00	0.00	0.00
1,700.00	19.99	116.75	1,663.04	-129.34	256.58	287.34	0.00	0.00	0.00
1,800.00	19.99	116.75	1,757.02	-144.73	287.12	321.53	0.00	0.00	0.00
1,900.00	19.99	116.75	1,850.99	-160.12	317.65	355.72	0.00	0.00	0.00
2,000.00	19.99	116.75	1,944.96	-175.51	348.18	389.91	0.00	0.00	0.00
2,100.00	19.99	116.75	2,038.94	-190.90	378.71	424.10	0.00	0.00	0.00
2,200.00	19.99	116.75	2,132.91	-206.29	409.24	458.29	0.00	0.00	0.00
2,300.00	19.99	116.75	2,226.88	-221.68	439.77	492.48	0.00	0.00	0.00
2,400.00	19.99	116.75	2,320.86	-237.07	470.30	526.67	0.00	0.00	0.00
2,500.00	19.99	116.75	2,414.83	-252.46	500.83	560.86	0.00	0.00	0.00
2,600.00	19.99	116.75	2,508.80	-267.85	531.36	595.06	0.00	0.00	0.00
2,700.00	19.99	116.75	2,602.78	-283.24	561.89	629.25	0.00	0.00	0.00
2,800.00	19.99	116.75	2,696.75	-298.63	592.42	663.44	0.00	0.00	0.00
2,900.00	19.99	116.75	2,790.72	-314.02	622.95	697.63	0.00	0.00	0.00
3,000.00	19.99	116.75	2,884.70	-329.41	653.49	731.82	0.00	0.00	0.00
3,100.00	19.99	116.75	2,978.67	-344.80	684.02	766.01	0.00	0.00	0.00
3,200.00	19.99	116.75	3,072.65	-360.19	714.55	800.20	0.00	0.00	0.00
3,300.00	19.99	116.75	3,166.62	-375.58	745.08	834.39	0.00	0.00	0.00
3,400.00	19.99	116.75	3,260.59	-390.97	775.61	868.58	0.00	0.00	0.00
3,500.00	19.99	116.75	3,354.57	-406.36	806.14	902.77	0.00	0.00	0.00
3,600.00	19.99	116.75	3,448.54	-421.75	836.67	936.96	0.00	0.00	0.00
3,700.00	19.99	116.75	3,542.51	-437.14	867.20	971.15	0.00	0.00	0.00
3,800.00	19.99	116.75	3,636.49	-452.54	897.73	1,005.34	0.00	0.00	0.00
3,900.00	19.99	116.75	3,730.46	-467.93	928.26	1,039.53	0.00	0.00	0.00
4,000.00	19.99	116.75	3,824.43	-483.32	958.79	1,073.72	0.00	0.00	0.00
4,100.00	19.99	116.75	3,918.41	-498.71	989.32	1,107.91	0.00	0.00	0.00
4,200.00	19.99	116.75	4,012.38	-514.10	1,019.85	1,142.10	0.00	0.00	0.00
4,300.00	19.99	116.75	4,106.35	-529.49	1,050.39	1,176.29	0.00	0.00	0.00
4,400.00	19.99	116.75	4,200.33	-544.88	1,080.92	1,210.48	0.00	0.00	0.00
4,489.59	19.99	116.75	4,284.52	-558.66	1,108.27	1,241.11	0.00	0.00	0.00
Start Drop -2.00									
4,491.17	19.96	116.75	4,286.00	-558.91	1,108.75	1,241.65	2.00	-2.00	0.00
Approx Ft Union									
4,500.00	19.78	116.75	4,294.31	-560.26	1,111.43	1,244.66	2.00	-2.00	0.00

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Project:	Garfield County, CO NAD27	MD Reference:	GL 8411' & RKB 30' @ 8441.00ft
Site:	Cascade Creek 608-41 Pad	North Reference:	True
Well:	CC 697-09-17A	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	17.78	116.75	4,388.98	-574.75	1,140.18	1,276.86	2.00	-2.00	0.00
4,700.00	15.78	116.75	4,484.71	-587.75	1,165.97	1,305.73	2.00	-2.00	0.00
4,800.00	13.78	116.75	4,581.39	-599.24	1,188.76	1,331.25	2.00	-2.00	0.00
4,900.00	11.78	116.75	4,678.91	-609.20	1,208.51	1,353.38	2.00	-2.00	0.00
5,000.00	9.78	116.75	4,777.14	-617.62	1,225.22	1,372.09	2.00	-2.00	0.00
5,100.00	7.78	116.75	4,875.96	-624.49	1,238.86	1,387.36	2.00	-2.00	0.00
5,200.00	5.78	116.75	4,975.26	-629.81	1,249.41	1,399.17	2.00	-2.00	0.00
5,300.00	3.78	116.75	5,074.90	-633.57	1,256.86	1,407.51	2.00	-2.00	0.00
5,400.00	1.78	116.75	5,174.78	-635.75	1,261.19	1,412.37	2.00	-2.00	0.00
5,489.24	0.00	0.00	5,264.00	-636.38	1,262.44	1,413.76	2.00	-2.00	0.00
Start 0.00° Hold At 5489.24' MD									
5,500.00	0.00	0.00	5,274.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
5,600.00	0.00	0.00	5,374.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
5,700.00	0.00	0.00	5,474.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
5,800.00	0.00	0.00	5,574.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
5,900.00	0.00	0.00	5,674.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
6,000.00	0.00	0.00	5,774.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
6,089.24	0.00	0.00	5,864.00	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
Mesaverde									
6,100.00	0.00	0.00	5,874.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
6,200.00	0.00	0.00	5,974.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
6,300.00	0.00	0.00	6,074.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
6,400.00	0.00	0.00	6,174.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
6,500.00	0.00	0.00	6,274.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
6,600.00	0.00	0.00	6,374.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
6,700.00	0.00	0.00	6,474.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
6,800.00	0.00	0.00	6,574.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
6,900.00	0.00	0.00	6,674.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
7,000.00	0.00	0.00	6,774.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
7,100.00	0.00	0.00	6,874.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
7,200.00	0.00	0.00	6,974.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
7,300.00	0.00	0.00	7,074.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
7,400.00	0.00	0.00	7,174.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
7,500.00	0.00	0.00	7,274.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
7,600.00	0.00	0.00	7,374.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
7,700.00	0.00	0.00	7,474.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
7,800.00	0.00	0.00	7,574.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
7,900.00	0.00	0.00	7,674.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
8,000.00	0.00	0.00	7,774.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
8,100.00	0.00	0.00	7,874.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
8,200.00	0.00	0.00	7,974.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
8,226.24	0.00	0.00	8,001.00	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
Target = 633227.50, 1229310.22 - CC 697-09-17A Target									
8,300.00	0.00	0.00	8,074.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
8,400.00	0.00	0.00	8,174.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
8,500.00	0.00	0.00	8,274.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
8,600.00	0.00	0.00	8,374.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
8,700.00	0.00	0.00	8,474.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
8,800.00	0.00	0.00	8,574.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
8,900.00	0.00	0.00	8,674.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
9,000.00	0.00	0.00	8,774.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
9,100.00	0.00	0.00	8,874.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00
9,200.00	0.00	0.00	8,974.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00

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Project:	Garfield County, CO NAD27	MD Reference:	GL 8411' & RKB 30' @ 8441.00ft
Site:	Cascade Creek 608-41 Pad	North Reference:	True
Well:	CC 697-09-17A	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	9,074.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00	
9,400.00	0.00	0.00	9,174.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00	
9,500.00	0.00	0.00	9,274.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00	
9,600.00	0.00	0.00	9,374.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00	
9,700.00	0.00	0.00	9,474.76	-636.38	1,262.44	1,413.76	0.00	0.00	0.00	
9,723.24	0.00	0.00	9,498.00	-636.38	1,262.44	1,413.76	0.00	0.00	0.00	
PBHL = 633227.50, 1229310.22										

Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude	
CC 697-09-17A Target	0.00	119.67	8,001.00	-636.38	1,262.44	633,227.50	1,229,310.22	39° 32' 24.720 N	108° 13' 59.010 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 (°)	
4,491.17	4,286.00	Approx Ft Union		0.00		
6,089.24	5,864.00	Mesaverde		0.00		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment	
200.00	200.00	0.00	0.00	Start Build 1.50	
1,532.86	1,505.98	-103.62	205.56	Start 19.99° Hold At 1532.86' MD	
4,489.59	4,284.52	-558.66	1,108.27	Start Drop -2.00	
5,489.24	5,264.00	-636.38	1,262.44	Start 0.00° Hold At 5489.24' MD	
8,226.24	8,001.00	-636.38	1,262.44	Target = 633227.50, 1229310.22	
9,723.24	9,498.00	-636.38	1,262.44	PBHL = 633227.50, 1229310.22	