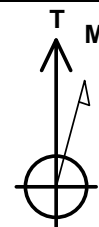


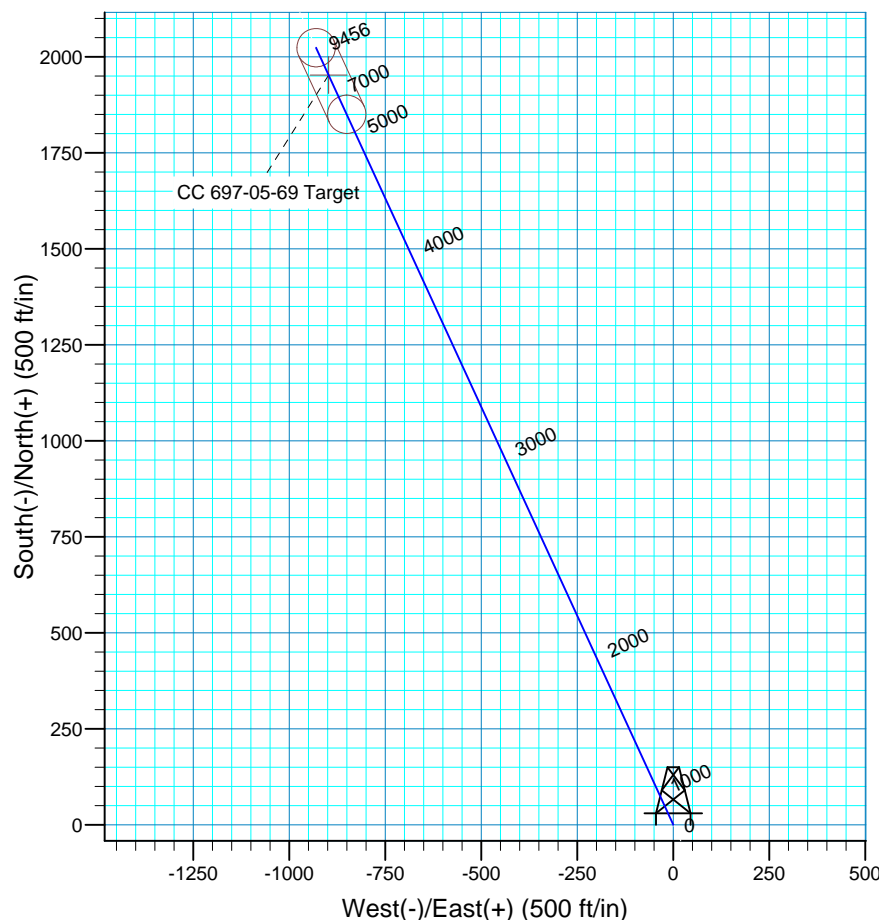
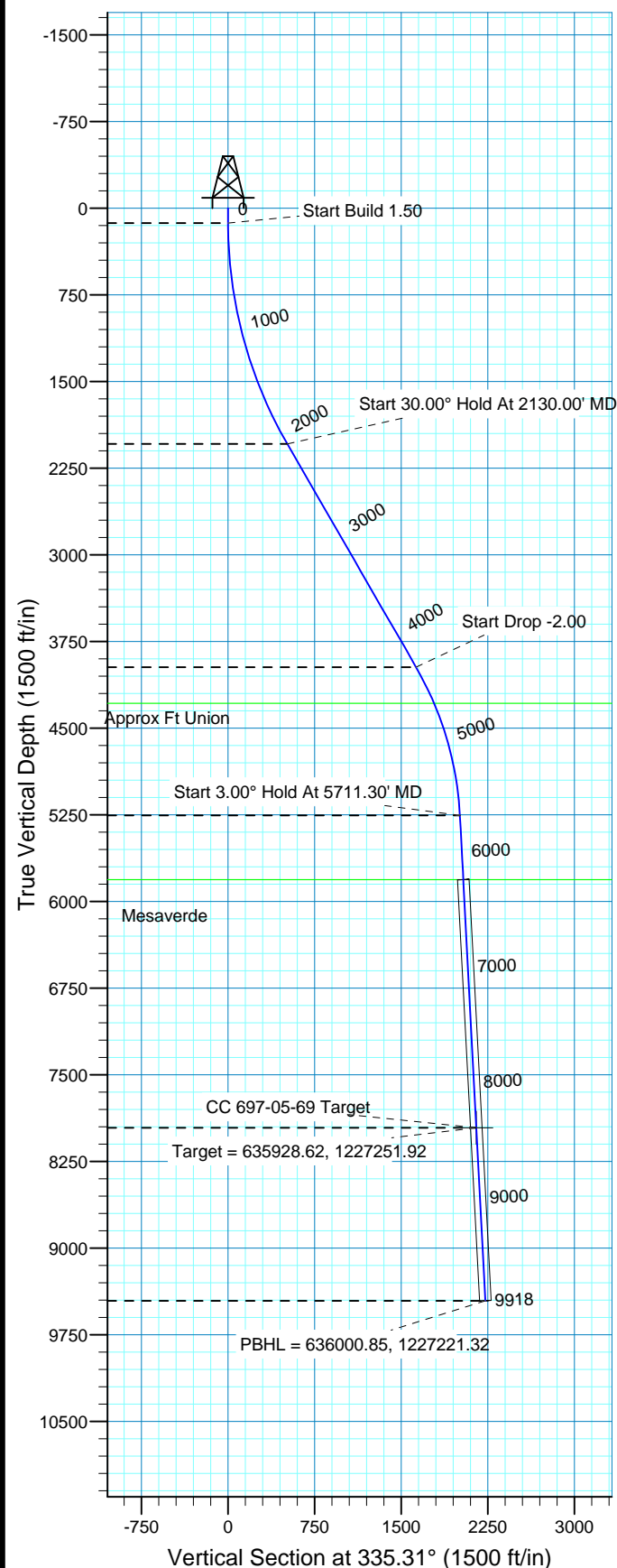
## WELL DETAILS: CC 697-05-69

GL 8411' & RKB 30' @ 8441.00ft 8411.00  
+N/-S +E/-W Northing Easting Latitude Longitude Slot  
0.00 0.00 633949.89 1228090.28 39° 32' 31.494 N 108° 14' 14.853 W



Azimuths to True North  
Magnetic North: 10.63°

Magnetic Field  
Strength: 52397.5snT  
Dip Angle: 65.78°  
Date: 2009/12/31  
Model: IGRF2005-10



## FORMATION TOP DETAILS

TVDPath MDPATH Formation  
4286.00 4712.11 Approx Ft Union  
5811.00 6268.38 Mesaverde

Plan: Plan #1 (CC 697-05-69/OH)

Created By: Rex Hall Date: 2010-06-23

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	130.00	0.00	0.00	130.00	0.00	0.00	0.00	0.00	0.00	
3	2130.00	30.00	335.31	2039.86	464.97	-213.75	1.50	335.31	511.75	
4	4361.30	30.00	335.31	3972.22	1478.64	-679.73	0.00	0.001627.39		
5	5711.30	3.00	335.31	5254.68	1823.80	-838.40	2.00	180.002007.28		
6	8419.33	3.00	335.31	7959.00	1952.57	-897.60	0.00	0.002149.00		CC 697-05-69 Target
7	9918.38	3.00	335.31	9456.00	2023.86	-930.37	0.00	0.002227.46		



# **OXY USA RMAT**

**Garfield County, CO NAD27  
Cascade Creek 608-41 Pad  
CC 697-05-69  
OH**

**Plan: Plan #1**

## **Standard Planning Report**

**23 June, 2010**



<b>Database:</b>	EDM 2003.16 Multi-User Db	<b>Local Co-ordinate Reference:</b>	Well CC 697-05-69
<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 697-05-69	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

<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 697-05-69		
<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	2009/12/31	10.63	65.78	52,397

<b>Design</b>	Plan #1			
<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	335.31

<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	
130.00	0.00	0.00	130.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,130.00	30.00	335.31	2,039.86	464.97	-213.75	1.50	1.50	0.00	335.31	
4,361.30	30.00	335.31	3,972.22	1,478.64	-679.73	0.00	0.00	0.00	0.00	
5,711.30	3.00	335.31	5,254.68	1,823.80	-838.40	2.00	-2.00	0.00	180.00	
8,419.33	3.00	335.31	7,959.00	1,952.57	-897.60	0.00	0.00	0.00	0.00	CC 697-05-69 Target
9,918.38	3.00	335.31	9,456.00	2,023.86	-930.37	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 697-05-69
<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 697-05-69	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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
130.00	0.00	0.00	130.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Start Build 1.50</b>									
200.00	1.05	335.31	200.00	0.58	-0.27	0.64	1.50	1.50	0.00
300.00	2.55	335.31	299.94	3.44	-1.58	3.78	1.50	1.50	0.00
400.00	4.05	335.31	399.78	8.67	-3.98	9.54	1.50	1.50	0.00
500.00	5.55	335.31	499.42	16.27	-7.48	17.91	1.50	1.50	0.00
600.00	7.05	335.31	598.81	26.24	-12.06	28.88	1.50	1.50	0.00
700.00	8.55	335.31	697.89	38.57	-17.73	42.45	1.50	1.50	0.00
800.00	10.05	335.31	796.57	53.25	-24.48	58.61	1.50	1.50	0.00
900.00	11.55	335.31	894.80	70.28	-32.31	77.35	1.50	1.50	0.00
1,000.00	13.05	335.31	992.50	89.63	-41.20	98.65	1.50	1.50	0.00
1,100.00	14.55	335.31	1,089.61	111.31	-51.17	122.50	1.50	1.50	0.00
1,200.00	16.05	335.31	1,186.06	135.28	-62.19	148.89	1.50	1.50	0.00
1,300.00	17.55	335.31	1,281.79	161.54	-74.26	177.79	1.50	1.50	0.00
1,400.00	19.05	335.31	1,376.73	190.07	-87.37	209.19	1.50	1.50	0.00
1,500.00	20.55	335.31	1,470.82	220.85	-101.52	243.06	1.50	1.50	0.00
1,600.00	22.05	335.31	1,563.98	253.85	-116.69	279.39	1.50	1.50	0.00
1,700.00	23.55	335.31	1,656.17	289.06	-132.88	318.14	1.50	1.50	0.00
1,800.00	25.05	335.31	1,747.30	326.45	-150.07	359.29	1.50	1.50	0.00
1,900.00	26.55	335.31	1,837.33	365.99	-168.25	402.81	1.50	1.50	0.00
2,000.00	28.05	335.31	1,926.19	407.66	-187.40	448.67	1.50	1.50	0.00
2,100.00	29.55	335.31	2,013.82	451.43	-207.52	496.85	1.50	1.50	0.00
2,130.00	30.00	335.31	2,039.86	464.97	-213.75	511.75	1.50	1.50	0.00
<b>Start 30.00° Hold At 2130.00' MD</b>									
2,200.00	30.00	335.31	2,100.48	496.77	-228.36	546.75	0.00	0.00	0.00
2,300.00	30.00	335.31	2,187.08	542.20	-249.25	596.75	0.00	0.00	0.00
2,400.00	30.00	335.31	2,273.69	587.63	-270.13	646.75	0.00	0.00	0.00
2,500.00	30.00	335.31	2,360.29	633.06	-291.02	696.75	0.00	0.00	0.00
2,600.00	30.00	335.31	2,446.89	678.49	-311.90	746.75	0.00	0.00	0.00
2,700.00	30.00	335.31	2,533.49	723.92	-332.79	796.75	0.00	0.00	0.00
2,800.00	30.00	335.31	2,620.10	769.35	-353.67	846.75	0.00	0.00	0.00
2,900.00	30.00	335.31	2,706.70	814.78	-374.55	896.75	0.00	0.00	0.00
3,000.00	30.00	335.31	2,793.30	860.21	-395.44	946.75	0.00	0.00	0.00
3,100.00	30.00	335.31	2,879.90	905.64	-416.32	996.75	0.00	0.00	0.00
3,200.00	30.00	335.31	2,966.51	951.07	-437.21	1,046.75	0.00	0.00	0.00
3,300.00	30.00	335.31	3,053.11	996.50	-458.09	1,096.75	0.00	0.00	0.00
3,400.00	30.00	335.31	3,139.71	1,041.93	-478.97	1,146.75	0.00	0.00	0.00
3,500.00	30.00	335.31	3,226.31	1,087.36	-499.86	1,196.75	0.00	0.00	0.00
3,600.00	30.00	335.31	3,312.92	1,132.79	-520.74	1,246.75	0.00	0.00	0.00
3,700.00	30.00	335.31	3,399.52	1,178.21	-541.63	1,296.75	0.00	0.00	0.00
3,800.00	30.00	335.31	3,486.12	1,223.64	-562.51	1,346.75	0.00	0.00	0.00
3,900.00	30.00	335.31	3,572.72	1,269.07	-583.39	1,396.75	0.00	0.00	0.00
4,000.00	30.00	335.31	3,659.33	1,314.50	-604.28	1,446.75	0.00	0.00	0.00
4,100.00	30.00	335.31	3,745.93	1,359.93	-625.16	1,496.75	0.00	0.00	0.00
4,200.00	30.00	335.31	3,832.53	1,405.36	-646.05	1,546.75	0.00	0.00	0.00
4,300.00	30.00	335.31	3,919.13	1,450.79	-666.93	1,596.75	0.00	0.00	0.00
4,361.30	30.00	335.31	3,972.22	1,478.64	-679.73	1,627.39	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
4,400.00	29.23	335.31	4,005.87	1,496.02	-687.72	1,646.52	2.00	-2.00	0.00
4,500.00	27.23	335.31	4,093.97	1,538.99	-707.47	1,693.81	2.00	-2.00	0.00
4,600.00	25.23	335.31	4,183.67	1,579.14	-725.93	1,738.00	2.00	-2.00	0.00

<b>Database:</b>	EDM 2003.16 Multi-User Db	<b>Local Co-ordinate Reference:</b>	Well CC 697-05-69
<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 697-05-69	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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)
4,700.00	23.23	335.31	4,274.86	1,616.42	-743.07	1,779.03	2.00	-2.00	0.00
4,712.11	22.98	335.31	4,286.00	1,620.73	-745.05	1,783.78	2.00	-2.00	0.00
<b>Approx Ft Union</b>									
4,800.00	21.23	335.31	4,367.43	1,650.78	-758.87	1,816.86	2.00	-2.00	0.00
4,900.00	19.23	335.31	4,461.26	1,682.19	-773.31	1,851.43	2.00	-2.00	0.00
5,000.00	17.23	335.31	4,556.23	1,710.61	-786.37	1,882.70	2.00	-2.00	0.00
5,100.00	15.23	335.31	4,652.25	1,736.00	-798.04	1,910.64	2.00	-2.00	0.00
5,200.00	13.23	335.31	4,749.17	1,758.33	-808.30	1,935.22	2.00	-2.00	0.00
5,300.00	11.23	335.31	4,846.90	1,777.57	-817.15	1,956.39	2.00	-2.00	0.00
5,400.00	9.23	335.31	4,945.31	1,793.69	-824.56	1,974.14	2.00	-2.00	0.00
5,500.00	7.23	335.31	5,044.27	1,806.69	-830.54	1,988.45	2.00	-2.00	0.00
5,600.00	5.23	335.31	5,143.68	1,816.55	-835.07	1,999.30	2.00	-2.00	0.00
5,700.00	3.23	335.31	5,243.40	1,823.24	-838.14	2,006.66	2.00	-2.00	0.00
5,711.30	3.00	335.31	5,254.68	1,823.80	-838.40	2,007.28	2.00	-2.00	0.00
<b>Start 3.00° Hold At 5711.30' MD</b>									
5,800.00	3.00	335.31	5,343.26	1,828.02	-840.34	2,011.92	0.00	0.00	0.00
5,900.00	3.00	335.31	5,443.13	1,832.77	-842.53	2,017.15	0.00	0.00	0.00
6,000.00	3.00	335.31	5,542.99	1,837.53	-844.71	2,022.39	0.00	0.00	0.00
6,100.00	3.00	335.31	5,642.85	1,842.28	-846.90	2,027.62	0.00	0.00	0.00
6,200.00	3.00	335.31	5,742.72	1,847.04	-849.08	2,032.85	0.00	0.00	0.00
6,268.38	3.00	335.31	5,811.00	1,850.29	-850.58	2,036.43	0.00	0.00	0.00
<b>Mesaverde</b>									
6,300.00	3.00	335.31	5,842.58	1,851.79	-851.27	2,038.09	0.00	0.00	0.00
6,400.00	3.00	335.31	5,942.44	1,856.55	-853.46	2,043.32	0.00	0.00	0.00
6,500.00	3.00	335.31	6,042.30	1,861.30	-855.64	2,048.55	0.00	0.00	0.00
6,600.00	3.00	335.31	6,142.17	1,866.06	-857.83	2,053.79	0.00	0.00	0.00
6,700.00	3.00	335.31	6,242.03	1,870.81	-860.01	2,059.02	0.00	0.00	0.00
6,800.00	3.00	335.31	6,341.89	1,875.57	-862.20	2,064.26	0.00	0.00	0.00
6,900.00	3.00	335.31	6,441.76	1,880.33	-864.39	2,069.49	0.00	0.00	0.00
7,000.00	3.00	335.31	6,541.62	1,885.08	-866.57	2,074.72	0.00	0.00	0.00
7,100.00	3.00	335.31	6,641.48	1,889.84	-868.76	2,079.96	0.00	0.00	0.00
7,200.00	3.00	335.31	6,741.34	1,894.59	-870.94	2,085.19	0.00	0.00	0.00
7,300.00	3.00	335.31	6,841.21	1,899.35	-873.13	2,090.42	0.00	0.00	0.00
7,400.00	3.00	335.31	6,941.07	1,904.10	-875.32	2,095.66	0.00	0.00	0.00
7,500.00	3.00	335.31	7,040.93	1,908.86	-877.50	2,100.89	0.00	0.00	0.00
7,600.00	3.00	335.31	7,140.80	1,913.61	-879.69	2,106.12	0.00	0.00	0.00
7,700.00	3.00	335.31	7,240.66	1,918.37	-881.87	2,111.36	0.00	0.00	0.00
7,800.00	3.00	335.31	7,340.52	1,923.12	-884.06	2,116.59	0.00	0.00	0.00
7,900.00	3.00	335.31	7,440.39	1,927.88	-886.25	2,121.83	0.00	0.00	0.00
8,000.00	3.00	335.31	7,540.25	1,932.63	-888.43	2,127.06	0.00	0.00	0.00
8,100.00	3.00	335.31	7,640.11	1,937.39	-890.62	2,132.29	0.00	0.00	0.00
8,200.00	3.00	335.31	7,739.97	1,942.14	-892.80	2,137.53	0.00	0.00	0.00
8,300.00	3.00	335.31	7,839.84	1,946.90	-894.99	2,142.76	0.00	0.00	0.00
8,400.00	3.00	335.31	7,939.70	1,951.65	-897.18	2,147.99	0.00	0.00	0.00
8,419.33	3.00	335.31	7,959.00	1,952.57	-897.60	2,149.00	0.00	0.00	0.00
<b>Target = 635928.62, 1227251.92 - CC 697-05-69 Target</b>									
8,500.00	3.00	335.31	8,039.56	1,956.41	-899.36	2,153.23	0.00	0.00	0.00
8,600.00	3.00	335.31	8,139.43	1,961.16	-901.55	2,158.46	0.00	0.00	0.00
8,700.00	3.00	335.31	8,239.29	1,965.92	-903.73	2,163.69	0.00	0.00	0.00
8,800.00	3.00	335.31	8,339.15	1,970.67	-905.92	2,168.93	0.00	0.00	0.00
8,900.00	3.00	335.31	8,439.02	1,975.43	-908.11	2,174.16	0.00	0.00	0.00
9,000.00	3.00	335.31	8,538.88	1,980.18	-910.29	2,179.39	0.00	0.00	0.00
9,100.00	3.00	335.31	8,638.74	1,984.94	-912.48	2,184.63	0.00	0.00	0.00

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<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 697-05-69	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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)	
9,200.00	3.00	335.31	8,738.60	1,989.70	-914.66	2,189.86	0.00	0.00	0.00	
9,300.00	3.00	335.31	8,838.47	1,994.45	-916.85	2,195.10	0.00	0.00	0.00	
9,400.00	3.00	335.31	8,938.33	1,999.21	-919.04	2,200.33	0.00	0.00	0.00	
9,500.00	3.00	335.31	9,038.19	2,003.96	-921.22	2,205.56	0.00	0.00	0.00	
9,600.00	3.00	335.31	9,138.06	2,008.72	-923.41	2,210.80	0.00	0.00	0.00	
9,700.00	3.00	335.31	9,237.92	2,013.47	-925.59	2,216.03	0.00	0.00	0.00	
9,800.00	3.00	335.31	9,337.78	2,018.23	-927.78	2,221.26	0.00	0.00	0.00	
9,900.00	3.00	335.31	9,437.64	2,022.98	-929.96	2,226.50	0.00	0.00	0.00	
9,918.38	3.00	335.31	9,456.00	2,023.86	-930.37	2,227.46	0.00	0.00	0.00	
PBHL = 636000.85, 1227221.32										

Targets										
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude	
CC 697-05-69 Target - plan hits target center - Circle (radius 50.00)	-3.00	335.31	7,959.00	1,952.57	-897.60	635,928.62	1,227,251.92	39° 32' 50.792 N	108° 14' 26.312 W	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,712.11	4,286.00	Approx Ft Union		0.00		
6,268.38	5,811.00	Mesaverde		0.00		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
130.00	130.00	0.00	0.00	Start Build 1.50	
2,130.00	2,039.86	464.97	-213.75	Start 30.00° Hold At 2130.00' MD	
4,361.30	3,972.22	1,478.64	-679.73	Start Drop -2.00	
5,711.30	5,254.68	1,823.80	-838.40	Start 3.00° Hold At 5711.30' MD	
8,419.33	7,959.00	1,952.57	-897.60	Target = 635928.62, 1227251.92	
9,918.38	9,456.00	2,023.86	-930.37	PBHL = 636000.85, 1227221.32	