

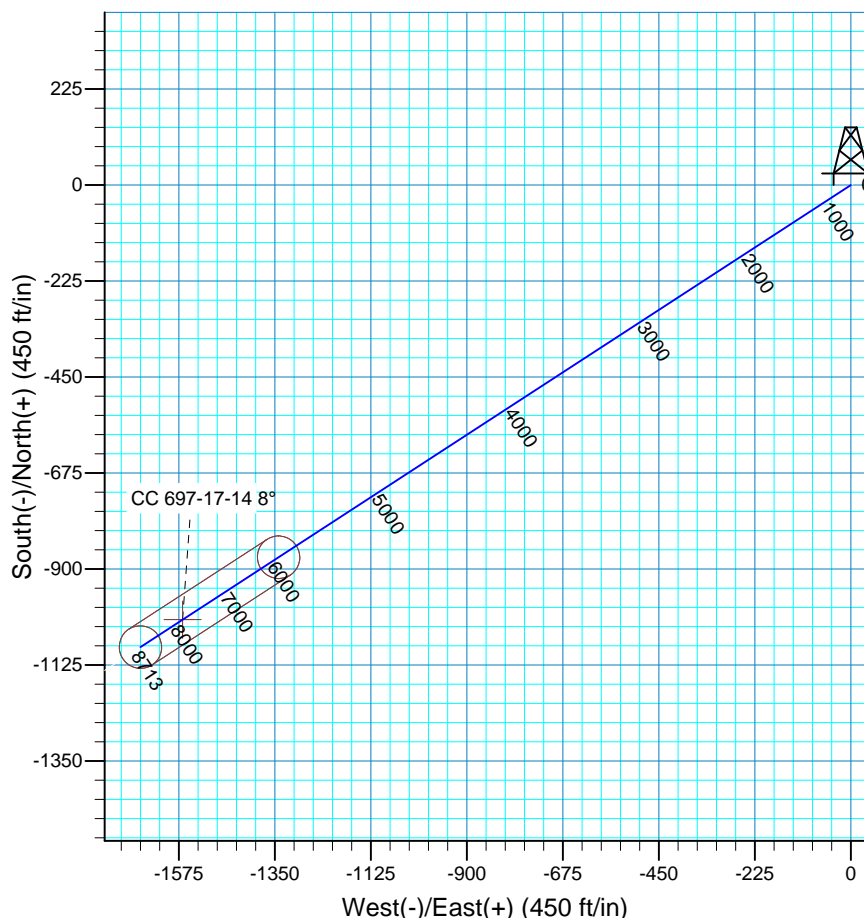
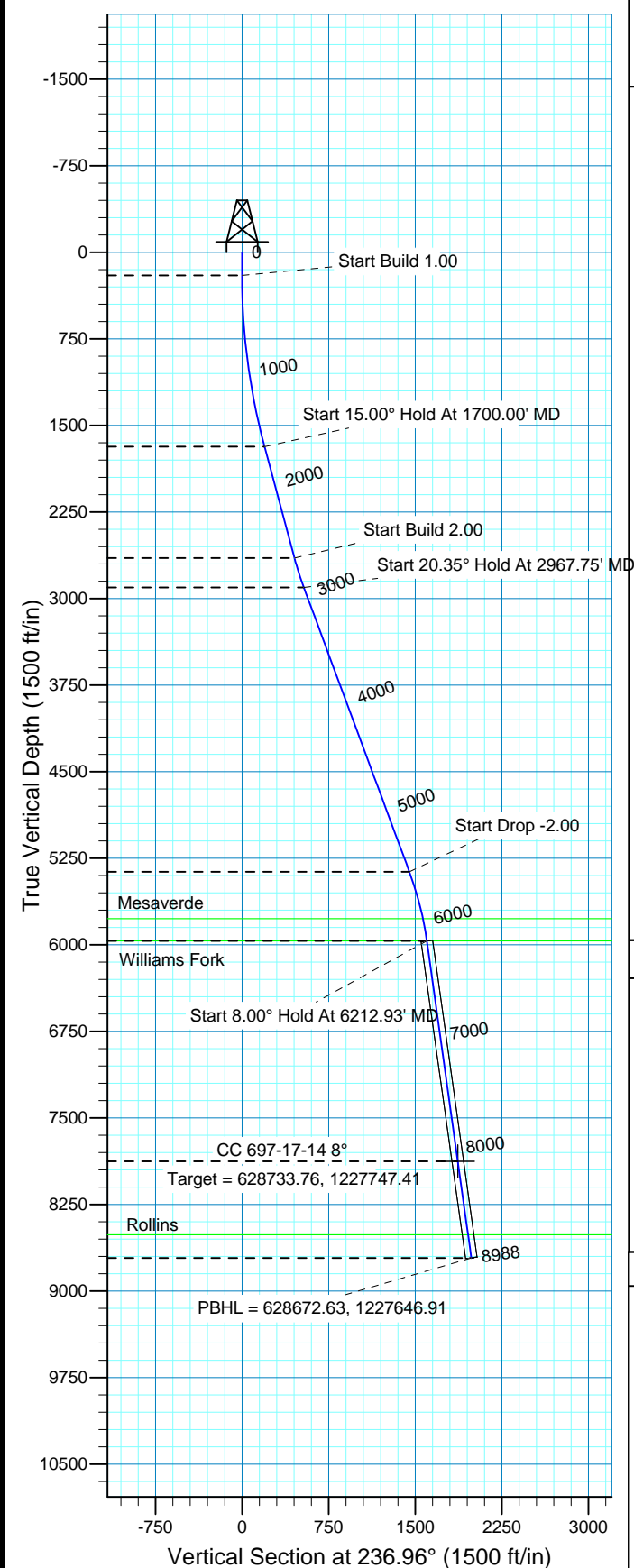
WELL DETAILS: CC 697-17-14

+N/-S	+E/-W	GL 8393' & RKB 30' @ 8423.00ft (H&P 330)	8393.00	Slot
0.00	0.00	Northing	Easting	Latitude
0.00	0.00	629705.02	1229344.01	39° 31' 49.931 N
				Longitude
				108° 13' 57.227 W
				S



Azimuths to True North
Magnetic North: 10.63°

Magnetic Field
Strength: 52398.1snT
Dip Angle: 65.77°
Date: 12/8/2009
Model: IGRF2005-10



FORMATION TOP DETAILS

TVDPathMDPath	Formation
5774.006018.98	Mesaverde
5965.006212.93	Williams Fork
8513.008785.97	Rollins

Plan: Plan #1 (CC 697-17-14/OH)

Created By: Rex Hall Date: 2009-12-09

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	1700.00	15.00	236.96	1682.92	-106.44	-163.67	1.00	236.96	195.23	CC 697-17-14 8°
4	2700.00	15.00	236.96	2648.85	-247.54	-380.64	0.00	0.00	454.05	
5	2967.75	20.35	236.96	2903.86	-291.85	-448.77	2.00	0.00	535.32	
6	5595.18	20.35	236.96	5367.23	-790.09	-1214.93	0.00	0.00	1449.24	
7	6212.93	8.00	236.96	5965.00	-872.42	-1341.52	2.00	180.00	1600.25	
8	8142.71	8.00	236.96	7876.00	-1018.84	-1566.67	0.00	0.00	1868.82	CC 697-17-14 8°
9	8987.94	8.00	236.96	8713.00	-1082.97	-1665.28	0.00	0.00	1986.45	

OXY USA RMAT

Garfield County, CO NAD27

Cascade Creek 609-14 Pad

CC 697-17-14 - Slot S

OH

Plan: Plan #1

Standard Planning Report

09 December, 2009

Scientific Drilling International

Planning Report

Database:	EDM 2003.16 Multi-User Db	Local Co-ordinate Reference:	Well CC 697-17-14 - Slot S
Company:	OXY USA RMAT	TVD Reference:	GL 8393' & RKB 30' @ 8423.00ft (H&P 330)
Project:	Garfield County, CO NAD27	MD Reference:	GL 8393' & RKB 30' @ 8423.00ft (H&P 330)
Site:	Cascade Creek 609-14 Pad	North Reference:	True
Well:	CC 697-17-14	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 609-14 Pad, Sec 9 T6S R97W		
Site Position:		Northing:	629,789.23 ft
From:	Map	Easting:	1,229,350.88 ft
Position Uncertainty:	0.00 ft	Slot Radius:	in
		Latitude:	39° 31' 50.765 N
		Longitude:	108° 13' 57.172 W
		Grid Convergence:	-1.72 °

Well	CC 697-17-14 - Slot S		
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	12/8/2009	10.63	65.77	52,398

Design	Plan #1			
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	236.96

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	
1,700.00	15.00	236.96	1,682.92	-106.44	-163.67	1.00	1.00	0.00	236.96	CC 697-17-14 8°
2,700.00	15.00	236.96	2,648.85	-247.54	-380.64	0.00	0.00	0.00	0.00	
2,967.75	20.35	236.96	2,903.86	-291.85	-448.77	2.00	2.00	0.00	0.00	
5,595.18	20.35	236.96	5,367.23	-790.09	-1,214.93	0.00	0.00	0.00	0.00	
6,212.93	8.00	236.96	5,965.00	-872.42	-1,341.52	2.00	-2.00	0.00	180.00	
8,142.71	8.00	236.96	7,876.00	-1,018.84	-1,566.67	0.00	0.00	0.00	0.00	CC 697-17-14 8°
8,987.94	8.00	236.96	8,713.00	-1,082.97	-1,665.28	0.00	0.00	0.00	0.00	

Scientific Drilling International

Planning Report

Database:	EDM 2003.16 Multi-User Db	Local Co-ordinate Reference:	Well CC 697-17-14 - Slot S
Company:	OXY USA RMAT	TVD Reference:	GL 8393' & RKB 30' @ 8423.00ft (H&P 330)
Project:	Garfield County, CO NAD27	MD Reference:	GL 8393' & RKB 30' @ 8423.00ft (H&P 330)
Site:	Cascade Creek 609-14 Pad	North Reference:	True
Well:	CC 697-17-14	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 1.00									
300.00	1.00	236.96	299.99	-0.48	-0.73	0.87	1.00	1.00	0.00
400.00	2.00	236.96	399.96	-1.90	-2.93	3.49	1.00	1.00	0.00
500.00	3.00	236.96	499.86	-4.28	-6.58	7.85	1.00	1.00	0.00
600.00	4.00	236.96	599.68	-7.61	-11.70	13.96	1.00	1.00	0.00
700.00	5.00	236.96	699.37	-11.89	-18.28	21.80	1.00	1.00	0.00
800.00	6.00	236.96	798.90	-17.11	-26.31	31.39	1.00	1.00	0.00
900.00	7.00	236.96	898.26	-23.28	-35.80	42.71	1.00	1.00	0.00
1,000.00	8.00	236.96	997.40	-30.40	-46.74	55.76	1.00	1.00	0.00
1,100.00	9.00	236.96	1,096.30	-38.46	-59.14	70.54	1.00	1.00	0.00
1,200.00	10.00	236.96	1,194.93	-47.46	-72.97	87.05	1.00	1.00	0.00
1,300.00	11.00	236.96	1,293.26	-57.39	-88.25	105.27	1.00	1.00	0.00
1,400.00	12.00	236.96	1,391.25	-68.26	-104.96	125.21	1.00	1.00	0.00
1,500.00	13.00	236.96	1,488.87	-80.06	-123.11	146.85	1.00	1.00	0.00
1,600.00	14.00	236.96	1,586.11	-92.79	-142.68	170.19	1.00	1.00	0.00
1,700.00	15.00	236.96	1,682.92	-106.44	-163.67	195.23	1.00	1.00	0.00
Start 15.00° Hold At 1700.00' MD									
1,800.00	15.00	236.96	1,779.52	-120.55	-185.36	221.11	0.00	0.00	0.00
1,900.00	15.00	236.96	1,876.11	-134.66	-207.06	246.99	0.00	0.00	0.00
2,000.00	15.00	236.96	1,972.70	-148.77	-228.76	272.88	0.00	0.00	0.00
2,100.00	15.00	236.96	2,069.29	-162.88	-250.46	298.76	0.00	0.00	0.00
2,200.00	15.00	236.96	2,165.89	-176.99	-272.15	324.64	0.00	0.00	0.00
2,300.00	15.00	236.96	2,262.48	-191.10	-293.85	350.52	0.00	0.00	0.00
2,400.00	15.00	236.96	2,359.07	-205.21	-315.55	376.40	0.00	0.00	0.00
2,500.00	15.00	236.96	2,455.66	-219.32	-337.24	402.29	0.00	0.00	0.00
2,600.00	15.00	236.96	2,552.26	-233.43	-358.94	428.17	0.00	0.00	0.00
2,700.00	15.00	236.96	2,648.85	-247.54	-380.64	454.05	0.00	0.00	0.00
Start Build 2.00									
2,800.00	17.00	236.96	2,744.97	-262.56	-403.75	481.61	2.00	2.00	0.00
2,900.00	19.00	236.96	2,840.07	-279.41	-429.65	512.51	2.00	2.00	0.00
2,967.75	20.35	236.96	2,903.86	-291.85	-448.77	535.32	2.00	2.00	0.00
Start 20.35° Hold At 2967.75' MD									
3,000.00	20.35	236.96	2,934.10	-297.96	-458.18	546.54	0.00	0.00	0.00
3,100.00	20.35	236.96	3,027.86	-316.93	-487.34	581.33	0.00	0.00	0.00
3,200.00	20.35	236.96	3,121.61	-335.89	-516.50	616.11	0.00	0.00	0.00
3,300.00	20.35	236.96	3,215.37	-354.85	-545.66	650.89	0.00	0.00	0.00
3,400.00	20.35	236.96	3,309.12	-373.81	-574.82	685.68	0.00	0.00	0.00
3,500.00	20.35	236.96	3,402.88	-392.78	-603.98	720.46	0.00	0.00	0.00
3,600.00	20.35	236.96	3,496.63	-411.74	-633.14	755.24	0.00	0.00	0.00
3,700.00	20.35	236.96	3,590.39	-430.70	-662.30	790.03	0.00	0.00	0.00
3,800.00	20.35	236.96	3,684.14	-449.67	-691.46	824.81	0.00	0.00	0.00
3,900.00	20.35	236.96	3,777.90	-468.63	-720.62	859.59	0.00	0.00	0.00
4,000.00	20.35	236.96	3,871.66	-487.59	-749.77	894.38	0.00	0.00	0.00
4,100.00	20.35	236.96	3,965.41	-506.56	-778.93	929.16	0.00	0.00	0.00
4,200.00	20.35	236.96	4,059.17	-525.52	-808.09	963.94	0.00	0.00	0.00
4,300.00	20.35	236.96	4,152.92	-544.48	-837.25	998.73	0.00	0.00	0.00
4,400.00	20.35	236.96	4,246.68	-563.45	-866.41	1,033.51	0.00	0.00	0.00
4,500.00	20.35	236.96	4,340.43	-582.41	-895.57	1,068.29	0.00	0.00	0.00
4,600.00	20.35	236.96	4,434.19	-601.37	-924.73	1,103.08	0.00	0.00	0.00
4,700.00	20.35	236.96	4,527.95	-620.34	-953.89	1,137.86	0.00	0.00	0.00

Scientific Drilling International

Planning Report

Database:	EDM 2003.16 Multi-User Db	Local Co-ordinate Reference:	Well CC 697-17-14 - Slot S
Company:	OXY USA RMAT	TVD Reference:	GL 8393' & RKB 30' @ 8423.00ft (H&P 330)
Project:	Garfield County, CO NAD27	MD Reference:	GL 8393' & RKB 30' @ 8423.00ft (H&P 330)
Site:	Cascade Creek 609-14 Pad	North Reference:	True
Well:	CC 697-17-14	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)
4,800.00	20.35	236.96	4,621.70	-639.30	-983.05	1,172.64	0.00	0.00	0.00
4,900.00	20.35	236.96	4,715.46	-658.26	-1,012.21	1,207.43	0.00	0.00	0.00
5,000.00	20.35	236.96	4,809.21	-677.22	-1,041.37	1,242.21	0.00	0.00	0.00
5,100.00	20.35	236.96	4,902.97	-696.19	-1,070.53	1,276.99	0.00	0.00	0.00
5,200.00	20.35	236.96	4,996.72	-715.15	-1,099.69	1,311.78	0.00	0.00	0.00
5,300.00	20.35	236.96	5,090.48	-734.11	-1,128.85	1,346.56	0.00	0.00	0.00
5,400.00	20.35	236.96	5,184.23	-753.08	-1,158.01	1,381.34	0.00	0.00	0.00
5,500.00	20.35	236.96	5,277.99	-772.04	-1,187.17	1,416.13	0.00	0.00	0.00
5,595.18	20.35	236.96	5,367.23	-790.09	-1,214.93	1,449.24	0.00	0.00	0.00
Start Drop -2.00									
5,600.00	20.26	236.96	5,371.75	-791.00	-1,216.33	1,450.91	2.00	-2.00	0.00
5,700.00	18.26	236.96	5,466.15	-808.98	-1,243.98	1,483.89	2.00	-2.00	0.00
5,800.00	16.26	236.96	5,561.64	-825.16	-1,268.85	1,513.56	2.00	-2.00	0.00
5,900.00	14.26	236.96	5,658.11	-839.50	-1,290.91	1,539.87	2.00	-2.00	0.00
6,000.00	12.26	236.96	5,755.44	-852.01	-1,310.13	1,562.81	2.00	-2.00	0.00
6,018.98	11.88	236.96	5,774.00	-854.17	-1,313.46	1,566.77	2.00	-2.00	0.00
Mesaverde									
6,100.00	10.26	236.96	5,853.51	-862.65	-1,326.50	1,582.33	2.00	-2.00	0.00
6,200.00	8.26	236.96	5,952.20	-871.42	-1,339.99	1,598.42	2.00	-2.00	0.00
6,212.93	8.00	236.96	5,965.00	-872.42	-1,341.52	1,600.25	2.00	-2.00	0.00
Start 8.00° Hold At 6212.93' MD - Williams Fork									
6,300.00	8.00	236.96	6,051.22	-879.02	-1,351.68	1,612.36	0.00	0.00	0.00
6,400.00	8.00	236.96	6,150.25	-886.61	-1,363.35	1,626.28	0.00	0.00	0.00
6,500.00	8.00	236.96	6,249.28	-894.20	-1,375.01	1,640.20	0.00	0.00	0.00
6,600.00	8.00	236.96	6,348.30	-901.79	-1,386.68	1,654.12	0.00	0.00	0.00
6,700.00	8.00	236.96	6,447.33	-909.37	-1,398.35	1,668.03	0.00	0.00	0.00
6,800.00	8.00	236.96	6,546.36	-916.96	-1,410.01	1,681.95	0.00	0.00	0.00
6,900.00	8.00	236.96	6,645.38	-924.55	-1,421.68	1,695.87	0.00	0.00	0.00
7,000.00	8.00	236.96	6,744.41	-932.13	-1,433.35	1,709.78	0.00	0.00	0.00
7,100.00	8.00	236.96	6,843.44	-939.72	-1,445.02	1,723.70	0.00	0.00	0.00
7,200.00	8.00	236.96	6,942.47	-947.31	-1,456.68	1,737.62	0.00	0.00	0.00
7,300.00	8.00	236.96	7,041.49	-954.90	-1,468.35	1,751.54	0.00	0.00	0.00
7,400.00	8.00	236.96	7,140.52	-962.48	-1,480.02	1,765.45	0.00	0.00	0.00
7,500.00	8.00	236.96	7,239.55	-970.07	-1,491.68	1,779.37	0.00	0.00	0.00
7,600.00	8.00	236.96	7,338.57	-977.66	-1,503.35	1,793.29	0.00	0.00	0.00
7,700.00	8.00	236.96	7,437.60	-985.25	-1,515.02	1,807.21	0.00	0.00	0.00
7,800.00	8.00	236.96	7,536.63	-992.83	-1,526.69	1,821.12	0.00	0.00	0.00
7,900.00	8.00	236.96	7,635.65	-1,000.42	-1,538.35	1,835.04	0.00	0.00	0.00
8,000.00	8.00	236.96	7,734.68	-1,008.01	-1,550.02	1,848.96	0.00	0.00	0.00
8,100.00	8.00	236.96	7,833.71	-1,015.60	-1,561.69	1,862.87	0.00	0.00	0.00
8,142.71	8.00	236.96	7,876.00	-1,018.84	-1,566.67	1,868.82	0.00	0.00	0.00
Target = 628733.76, 1227747.41 - CC 697-17-14 8° - CC 697-17-14 8°									
8,200.00	8.00	236.96	7,932.73	-1,023.18	-1,573.35	1,876.79	0.00	0.00	0.00
8,300.00	8.00	236.96	8,031.76	-1,030.77	-1,585.02	1,890.71	0.00	0.00	0.00
8,400.00	8.00	236.96	8,130.79	-1,038.36	-1,596.69	1,904.63	0.00	0.00	0.00
8,500.00	8.00	236.96	8,229.81	-1,045.95	-1,608.36	1,918.54	0.00	0.00	0.00
8,600.00	8.00	236.96	8,328.84	-1,053.53	-1,620.02	1,932.46	0.00	0.00	0.00
8,700.00	8.00	236.96	8,427.87	-1,061.12	-1,631.69	1,946.38	0.00	0.00	0.00
8,785.97	8.00	236.96	8,513.00	-1,067.64	-1,641.72	1,958.34	0.00	0.00	0.00
Rollins									
8,800.00	8.00	236.96	8,526.89	-1,068.71	-1,643.36	1,960.30	0.00	0.00	0.00
8,900.00	8.00	236.96	8,625.92	-1,076.30	-1,655.02	1,974.21	0.00	0.00	0.00
8,987.94	8.00	236.96	8,713.00	-1,082.97	-1,665.28	1,986.45	0.00	0.00	0.00

Scientific Drilling International

Planning Report

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Company:	OXY USA RMAT	TVD Reference:	GL 8393' & RKB 30' @ 8423.00ft (H&P 330)
Project:	Garfield County, CO NAD27	MD Reference:	GL 8393' & RKB 30' @ 8423.00ft (H&P 330)
Site:	Cascade Creek 609-14 Pad	North Reference:	True
Well:	CC 697-17-14	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)
PBHL = 628672.63, 1227646.91									

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 697-17-14 8° - plan hits target center - Circle (radius 50.00)	-8.00	236.96	7,876.00	-1,018.84	-1,566.67	628,733.76	1,227,747.41	39° 31' 39.860 N	108° 14' 17.221 W

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
6,018.98	5,774.00	Mesaverde		0.00		
6,212.93	5,965.00	Williams Fork		0.00		
8,785.97	8,513.00	Rollins		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 1.00
1,700.00	1,682.92	-106.44	-163.67	Start 15.00° Hold At 1700.00' MD
2,700.00	2,648.85	-247.54	-380.64	Start Build 2.00
2,967.75	2,903.86	-291.85	-448.77	Start 20.35° Hold At 2967.75' MD
5,595.18	5,367.23	-790.09	-1,214.93	Start Drop -2.00
6,212.93	5,965.00	-872.42	-1,341.52	Start 8.00° Hold At 6212.93' MD
8,142.71	7,876.00	-1,018.84	-1,566.67	Target = 628733.76, 1227747.41
8,987.94	8,713.00	-1,082.97	-1,665.28	PBHL = 628672.63, 1227646.91