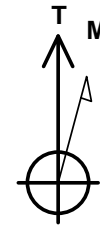


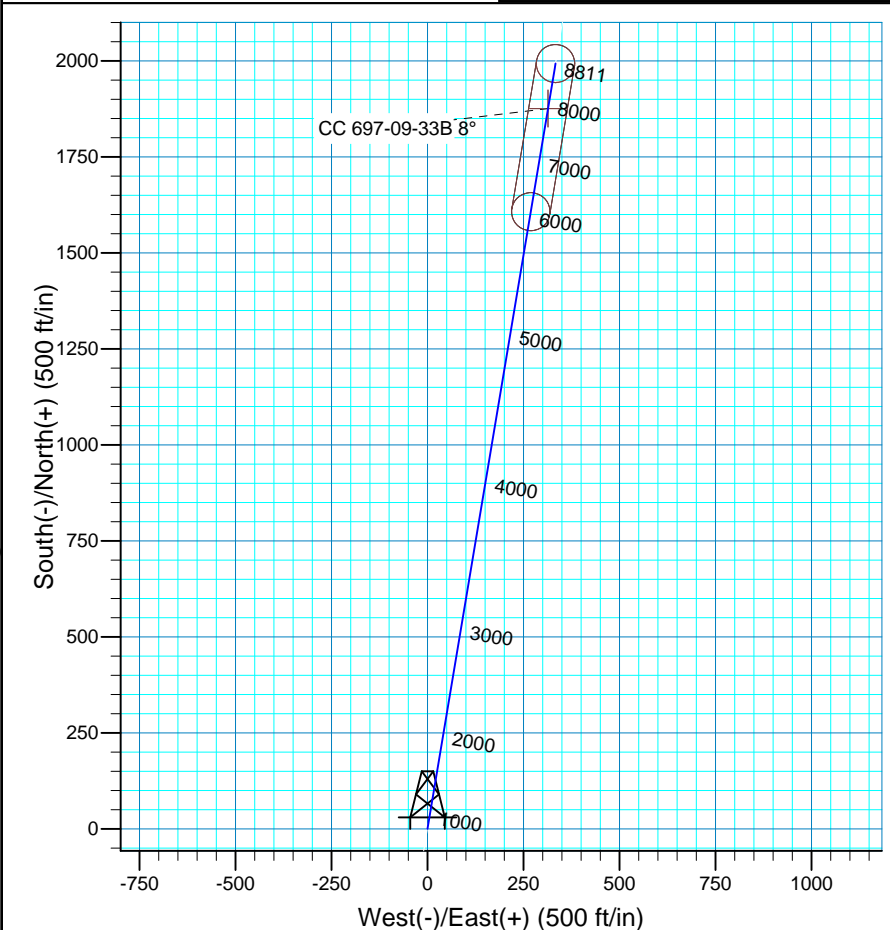
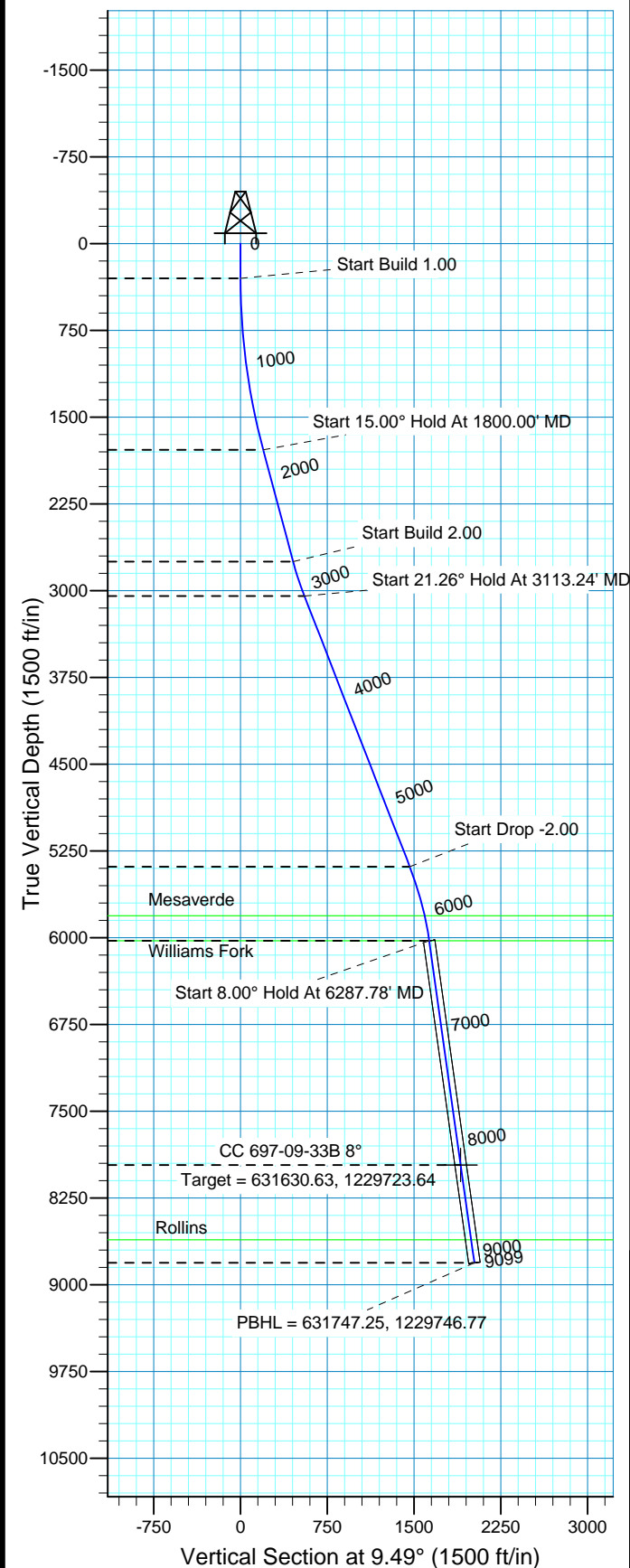
WELL DETAILS: CC 697-09-33B

+N/-S	+E/-W	GL 8393' & RKB 30' @ 8423.00ft (H&P 330)	8393.00			
		Northing	Easting	Latitude	Longitude	Slot D
0.00	0.00	629765.15	1229353.64	39° 31' 50.528 N	108° 13' 57.127 W	



Azimuths to True North
Magnetic North: 10.63°

Magnetic Field
Strength: 52398.2snT
Dip Angle: 65.77°
Date: 12/8/2009
Model: IGRF2005-10



FORMATION TOP DETAILS

TVDPathMDPath	Formation
5810.006067.24	Mesaverde
6027.006287.78	Williams Fork
8611.008897.18	Rollins

Plan: Plan #1 (CC 697-09-33B/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	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	1800.00	15.00	9.49	1782.92	192.56	32.21	1.00	9.49	195.23	CC 697-09-33B 8°
4	2800.00	15.00	9.49	2748.85	447.83	74.90	0.00	0.00	454.05	
5	3113.24	21.26	9.49	3046.38	543.93	90.97	2.00	0.00	551.49	
6	5624.54	21.26	9.49	5386.70	1442.25	241.22	0.00	0.00	1462.28	
7	6287.78	8.00	9.49	6027.00	1607.13	268.80	2.00	180.00	1629.45	
8	8244.83	8.00	9.49	7965.00	1875.76	313.73	0.00	0.00	1901.82	CC 697-09-33B 8°
9	9099.14	8.00	9.49	8811.00	1993.03	333.34	0.00	0.00	2020.72	

OXY USA RMAT

Garfield County, CO NAD27

Cascade Creek 609-14 Pad

CC 697-09-33B - Slot D

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 697-09-33B - Slot D
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 697-09-33B	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			Latitude:			39° 31' 50.765 N					
From:			Map			Easting:			1,229,350.88 ft			Longitude:			108° 13' 57.172 W		
Position Uncertainty:			0.00 ft			Slot Radius:			in			Grid Convergence:			-1.72 °		

Well	CC 697-09-33B - Slot D					
Well Position	+N/-S	0.00 ft	Northing:	629,765.15 ft	Latitude:	39° 31' 50.528 N
	+E/-W	0.00 ft	Easting:	1,229,353.64 ft	Longitude:	108° 13' 57.127 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	8,393.00 ft

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	9.49

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	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,800.00	15.00	9.49	1,782.92	192.56	32.21	1.00	1.00	0.00	9.49	CC 697-09-33B 8°
2,800.00	15.00	9.49	2,748.85	447.83	74.90	0.00	0.00	0.00	0.00	
3,113.24	21.26	9.49	3,046.38	543.93	90.97	2.00	2.00	0.00	0.00	
5,624.54	21.26	9.49	5,386.70	1,442.25	241.22	0.00	0.00	0.00	0.00	
6,287.78	8.00	9.49	6,027.00	1,607.13	268.80	2.00	-2.00	0.00	180.00	
8,244.83	8.00	9.49	7,965.00	1,875.76	313.73	0.00	0.00	0.00	0.00	CC 697-09-33B 8°
9,099.14	8.00	9.49	8,811.00	1,993.03	333.34	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 697-09-33B - Slot D
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 697-09-33B	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
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 1.00									
400.00	1.00	9.49	399.99	0.86	0.14	0.87	1.00	1.00	0.00
500.00	2.00	9.49	499.96	3.44	0.58	3.49	1.00	1.00	0.00
600.00	3.00	9.49	599.86	7.74	1.30	7.85	1.00	1.00	0.00
700.00	4.00	9.49	699.68	13.77	2.30	13.96	1.00	1.00	0.00
800.00	5.00	9.49	799.37	21.50	3.60	21.80	1.00	1.00	0.00
900.00	6.00	9.49	898.90	30.96	5.18	31.39	1.00	1.00	0.00
1,000.00	7.00	9.49	998.26	42.12	7.05	42.71	1.00	1.00	0.00
1,100.00	8.00	9.49	1,097.40	55.00	9.20	55.76	1.00	1.00	0.00
1,200.00	9.00	9.49	1,196.30	69.57	11.64	70.54	1.00	1.00	0.00
1,300.00	10.00	9.49	1,294.93	85.85	14.36	87.05	1.00	1.00	0.00
1,400.00	11.00	9.49	1,393.26	103.83	17.37	105.27	1.00	1.00	0.00
1,500.00	12.00	9.49	1,491.25	123.49	20.65	125.21	1.00	1.00	0.00
1,600.00	13.00	9.49	1,588.87	144.84	24.22	146.85	1.00	1.00	0.00
1,700.00	14.00	9.49	1,686.11	167.86	28.08	170.19	1.00	1.00	0.00
1,800.00	15.00	9.49	1,782.92	192.56	32.21	195.23	1.00	1.00	0.00
Start 15.00° Hold At 1800.00' MD									
1,900.00	15.00	9.49	1,879.52	218.08	36.48	221.11	0.00	0.00	0.00
2,000.00	15.00	9.49	1,976.11	243.61	40.74	246.99	0.00	0.00	0.00
2,100.00	15.00	9.49	2,072.70	269.14	45.01	272.88	0.00	0.00	0.00
2,200.00	15.00	9.49	2,169.29	294.67	49.28	298.76	0.00	0.00	0.00
2,300.00	15.00	9.49	2,265.89	320.19	53.55	324.64	0.00	0.00	0.00
2,400.00	15.00	9.49	2,362.48	345.72	57.82	350.52	0.00	0.00	0.00
2,500.00	15.00	9.49	2,459.07	371.25	62.09	376.40	0.00	0.00	0.00
2,600.00	15.00	9.49	2,555.66	396.77	66.36	402.29	0.00	0.00	0.00
2,700.00	15.00	9.49	2,652.26	422.30	70.63	428.17	0.00	0.00	0.00
2,800.00	15.00	9.49	2,748.85	447.83	74.90	454.05	0.00	0.00	0.00
Start Build 2.00									
2,900.00	17.00	9.49	2,844.97	475.01	79.45	481.61	2.00	2.00	0.00
3,000.00	19.00	9.49	2,940.07	505.49	84.54	512.51	2.00	2.00	0.00
3,100.00	21.00	9.49	3,034.04	539.22	90.19	546.71	2.00	2.00	0.00
3,113.24	21.26	9.49	3,046.38	543.93	90.97	551.49	2.00	2.00	0.00
Start 21.26° Hold At 3113.24' MD									
3,200.00	21.26	9.49	3,127.24	574.97	96.16	582.95	0.00	0.00	0.00
3,300.00	21.26	9.49	3,220.43	610.74	102.15	619.22	0.00	0.00	0.00
3,400.00	21.26	9.49	3,313.62	646.51	108.13	655.49	0.00	0.00	0.00
3,500.00	21.26	9.49	3,406.81	682.28	114.11	691.76	0.00	0.00	0.00
3,600.00	21.26	9.49	3,500.00	718.05	120.10	728.02	0.00	0.00	0.00
3,700.00	21.26	9.49	3,593.20	753.82	126.08	764.29	0.00	0.00	0.00
3,800.00	21.26	9.49	3,686.39	789.59	132.06	800.56	0.00	0.00	0.00
3,900.00	21.26	9.49	3,779.58	825.36	138.04	836.83	0.00	0.00	0.00
4,000.00	21.26	9.49	3,872.77	861.13	144.03	873.09	0.00	0.00	0.00
4,100.00	21.26	9.49	3,965.96	896.90	150.01	909.36	0.00	0.00	0.00
4,200.00	21.26	9.49	4,059.15	932.67	155.99	945.63	0.00	0.00	0.00
4,300.00	21.26	9.49	4,152.34	968.45	161.98	981.90	0.00	0.00	0.00
4,400.00	21.26	9.49	4,245.54	1,004.22	167.96	1,018.17	0.00	0.00	0.00
4,500.00	21.26	9.49	4,338.73	1,039.99	173.94	1,054.43	0.00	0.00	0.00
4,600.00	21.26	9.49	4,431.92	1,075.76	179.92	1,090.70	0.00	0.00	0.00
4,700.00	21.26	9.49	4,525.11	1,111.53	185.91	1,126.97	0.00	0.00	0.00

Scientific Drilling International

Planning Report

Database:	EDM 2003.16 Multi-User Db	Local Co-ordinate Reference:	Well CC 697-09-33B - Slot D
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 697-09-33B	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	21.26	9.49	4,618.30	1,147.30	191.89	1,163.24	0.00	0.00	0.00
4,900.00	21.26	9.49	4,711.49	1,183.07	197.87	1,199.50	0.00	0.00	0.00
5,000.00	21.26	9.49	4,804.68	1,218.84	203.85	1,235.77	0.00	0.00	0.00
5,100.00	21.26	9.49	4,897.88	1,254.61	209.84	1,272.04	0.00	0.00	0.00
5,200.00	21.26	9.49	4,991.07	1,290.38	215.82	1,308.31	0.00	0.00	0.00
5,300.00	21.26	9.49	5,084.26	1,326.16	221.80	1,344.58	0.00	0.00	0.00
5,400.00	21.26	9.49	5,177.45	1,361.93	227.79	1,380.84	0.00	0.00	0.00
5,500.00	21.26	9.49	5,270.64	1,397.70	233.77	1,417.11	0.00	0.00	0.00
5,600.00	21.26	9.49	5,363.83	1,433.47	239.75	1,453.38	0.00	0.00	0.00
5,624.54	21.26	9.49	5,386.70	1,442.25	241.22	1,462.28	0.00	0.00	0.00
Start Drop -2.00									
5,700.00	19.76	9.49	5,457.38	1,468.32	245.58	1,488.72	2.00	-2.00	0.00
5,800.00	17.76	9.49	5,552.06	1,500.03	250.88	1,520.87	2.00	-2.00	0.00
5,900.00	15.76	9.49	5,647.81	1,528.47	255.64	1,549.70	2.00	-2.00	0.00
6,000.00	13.76	9.49	5,744.51	1,553.59	259.84	1,575.16	2.00	-2.00	0.00
6,067.24	12.41	9.49	5,810.00	1,568.60	262.35	1,590.38	2.00	-2.00	0.00
Mesaverde									
6,100.00	11.76	9.49	5,842.04	1,575.36	263.48	1,597.24	2.00	-2.00	0.00
6,200.00	9.76	9.49	5,940.27	1,593.77	266.56	1,615.90	2.00	-2.00	0.00
6,287.78	8.00	9.49	6,027.00	1,607.13	268.80	1,629.45	2.00	-2.00	0.00
Start 8.00° Hold At 6287.78' MD - Williams Fork									
6,300.00	8.00	9.49	6,039.10	1,608.80	269.08	1,631.15	0.00	0.00	0.00
6,400.00	8.00	9.49	6,138.13	1,622.53	271.37	1,645.07	0.00	0.00	0.00
6,500.00	8.00	9.49	6,237.15	1,636.26	273.67	1,658.99	0.00	0.00	0.00
6,600.00	8.00	9.49	6,336.18	1,649.98	275.96	1,672.90	0.00	0.00	0.00
6,700.00	8.00	9.49	6,435.21	1,663.71	278.26	1,686.82	0.00	0.00	0.00
6,800.00	8.00	9.49	6,534.23	1,677.44	280.56	1,700.74	0.00	0.00	0.00
6,900.00	8.00	9.49	6,633.26	1,691.16	282.85	1,714.65	0.00	0.00	0.00
7,000.00	8.00	9.49	6,732.29	1,704.89	285.15	1,728.57	0.00	0.00	0.00
7,100.00	8.00	9.49	6,831.31	1,718.62	287.44	1,742.49	0.00	0.00	0.00
7,200.00	8.00	9.49	6,930.34	1,732.34	289.74	1,756.41	0.00	0.00	0.00
7,300.00	8.00	9.49	7,029.37	1,746.07	292.04	1,770.32	0.00	0.00	0.00
7,400.00	8.00	9.49	7,128.40	1,759.80	294.33	1,784.24	0.00	0.00	0.00
7,500.00	8.00	9.49	7,227.42	1,773.52	296.63	1,798.16	0.00	0.00	0.00
7,600.00	8.00	9.49	7,326.45	1,787.25	298.92	1,812.08	0.00	0.00	0.00
7,700.00	8.00	9.49	7,425.48	1,800.98	301.22	1,825.99	0.00	0.00	0.00
7,800.00	8.00	9.49	7,524.50	1,814.70	303.51	1,839.91	0.00	0.00	0.00
7,900.00	8.00	9.49	7,623.53	1,828.43	305.81	1,853.83	0.00	0.00	0.00
8,000.00	8.00	9.49	7,722.56	1,842.16	308.11	1,867.75	0.00	0.00	0.00
8,100.00	8.00	9.49	7,821.58	1,855.88	310.40	1,881.66	0.00	0.00	0.00
8,200.00	8.00	9.49	7,920.61	1,869.61	312.70	1,895.58	0.00	0.00	0.00
8,244.83	8.00	9.49	7,965.00	1,875.76	313.73	1,901.82	0.00	0.00	0.00
Target = 631630.63, 1229723.64 - CC 697-09-33B 8° - CC 697-09-33B 8°									
8,300.00	8.00	9.49	8,019.64	1,883.34	314.99	1,909.50	0.00	0.00	0.00
8,400.00	8.00	9.49	8,118.66	1,897.06	317.29	1,923.41	0.00	0.00	0.00
8,500.00	8.00	9.49	8,217.69	1,910.79	319.59	1,937.33	0.00	0.00	0.00
8,600.00	8.00	9.49	8,316.72	1,924.52	321.88	1,951.25	0.00	0.00	0.00
8,700.00	8.00	9.49	8,415.74	1,938.24	324.18	1,965.17	0.00	0.00	0.00
8,800.00	8.00	9.49	8,514.77	1,951.97	326.47	1,979.08	0.00	0.00	0.00
8,897.18	8.00	9.49	8,611.00	1,965.31	328.70	1,992.61	0.00	0.00	0.00
Rollins									
8,900.00	8.00	9.49	8,613.80	1,965.70	328.77	1,993.00	0.00	0.00	0.00
9,000.00	8.00	9.49	8,712.82	1,979.42	331.06	2,006.92	0.00	0.00	0.00

Scientific Drilling International

Planning Report

Database:	EDM 2003.16 Multi-User Db	Local Co-ordinate Reference:	Well CC 697-09-33B - Slot D
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 697-09-33B	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)
9,099.14	8.00	9.49	8,811.00	1,993.03	333.34	2,020.72	0.00	0.00	0.00
PBHL = 631747.25, 1229746.77									

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
CC 697-09-33B 8° - hit/miss target - Shape - plan hits target center - Circle (radius 50.00)	-8.00	9.49	7,965.00	1,875.76	313.73	631,630.63	1,229,723.64	39° 32' 9.067 N	108° 13' 53.123 W

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
6,067.24	5,810.00	Mesaverde		0.00		
6,287.78	6,027.00	Williams Fork		0.00		
8,897.18	8,611.00	Rollins		0.00		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
300.00	300.00	0.00	0.00	Start Build 1.00
1,800.00	1,782.92	192.56	32.21	Start 15.00° Hold At 1800.00' MD
2,800.00	2,748.85	447.83	74.90	Start Build 2.00
3,113.24	3,046.38	543.93	90.97	Start 21.26° Hold At 3113.24' MD
5,624.54	5,386.70	1,442.25	241.22	Start Drop -2.00
6,287.78	6,027.00	1,607.13	268.80	Start 8.00° Hold At 6287.78' MD
8,244.83	7,965.00	1,875.76	313.73	Target = 631630.63, 1229723.64
9,099.14	8,811.00	1,993.03	333.34	PBHL = 631747.25, 1229746.77