



Project: GRAND VALLEY
Site: CASCADE CREEK 609-33 PAD
Well: CASCADE CREEK 697-09-35A
Wellbore: CASCADE CREEK 697-09-35A
Design: PLAN 2

OXY USA MID-CON

WELL DETAILS: CASCADE CREEK 697-09-35A

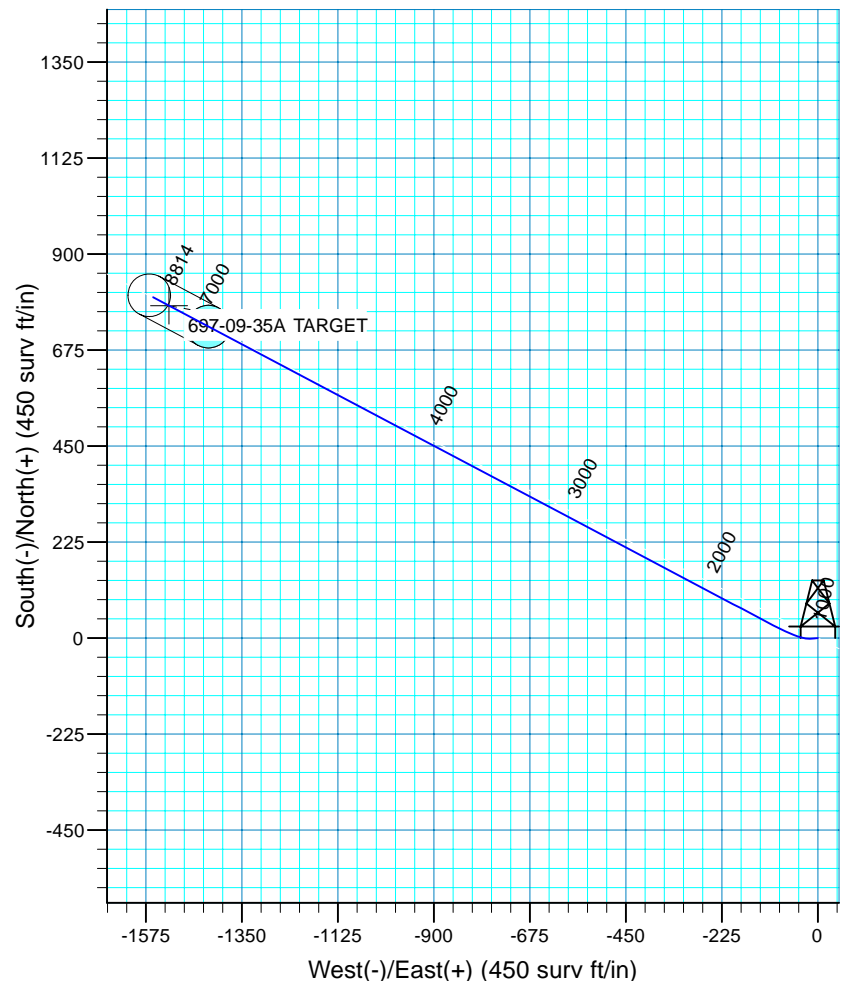
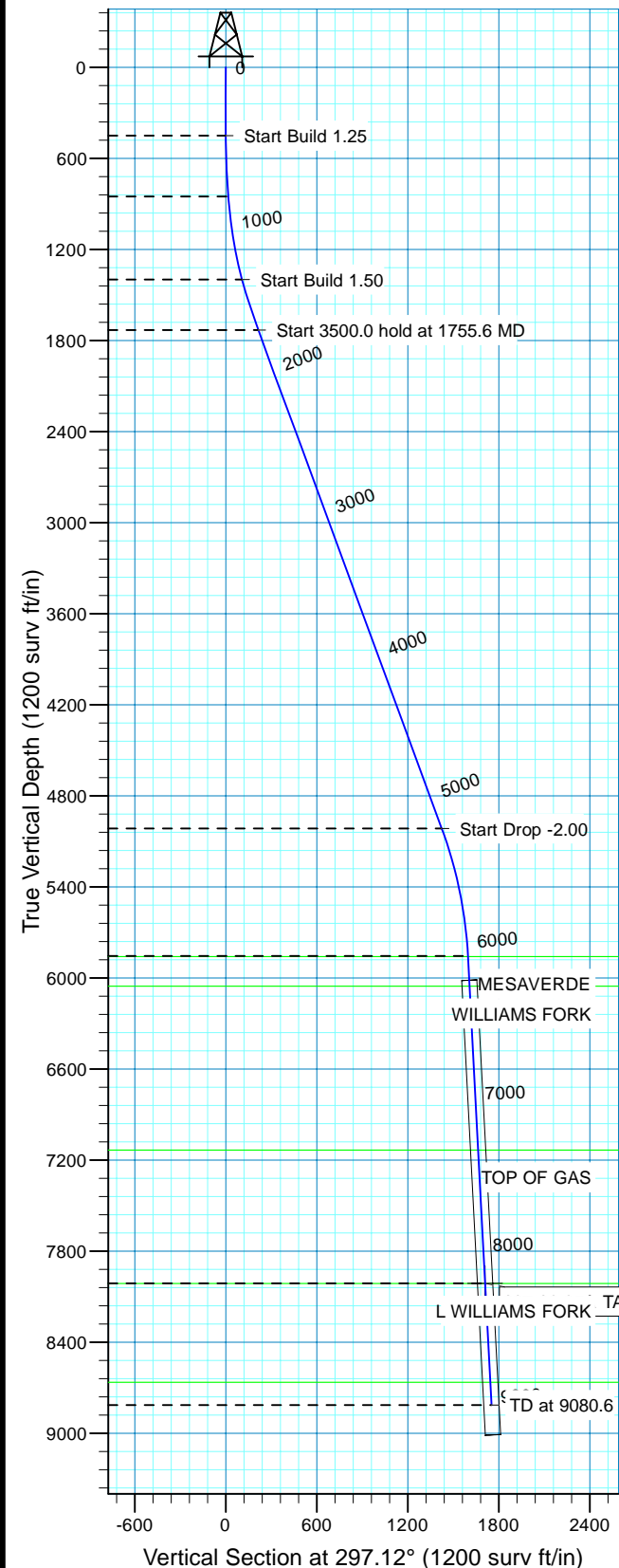
WELL @ 8410.0surv ft (Original Well Elev) 8380.0

+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.0 0.0 631290.22 1232460.29 39° 32' 6.516 N 08° 13' 18.078 W CC#697-09-35A



Azimuths to True North
Magnetic North: 10.53°

Magnetic Field
Strength: 52332.0snT
Dip Angle: 65.76°
Date: 9/2/2010
Model: IGRF200510



FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
5858.0	6120.5	MESAVERDE
6053.0	6315.8	WILLIAMS FORK
7133.0	7397.3	TOP OF GAS
8012.0	8277.5	L WILLIAMS FORK
8664.0	8930.4	ROLLINS

CASCADE CREEK 697-09-35A/CASCADE CREEK 697-09-35A

Created By: Ron Bevans Date: 2010-07-09

PROJECT DETAILS: GRAND VALLEY

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: True

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSect	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.0	
450.0	0.00	0.00	450.0	0.0	0.0	0.00	0.0	
850.5	5.00	265.00	850.0	-1.5	-17.4	1.25	14.8	
1407.0	15.00	297.88	1397.6	30.1	-105.5	2.00	107.6	
1755.6	20.23	297.88	1729.8	79.4	-198.7	1.50	213.1	
5255.6	20.23	297.88	5013.9	645.3	-1268.5	0.00	1423.2	
6117.1	3.00	297.88	5854.6	726.1	-1421.2	2.00	1596.0	
8276.5	3.00	297.88	8011.0	779.0	-1521.1	0.00	1709.0	697-09-35A TARGET
9080.6	3.00	297.88	8814.0	798.6	-1558.3	0.00	1751.1	



OXY USA MID-CON

GRAND VALLEY

CASCADE CREEK 609-33 PAD

CASCADE CREEK 697-09-35A - Slot CC#697-09-35A

CASCADE CREEK 697-09-35A

Plan: PLAN 2

Standard Planning Report - Geographic

03 September, 2010



OXY
Planning Report - Geographic

Database:	HOPSPP	Local Co-ordinate Reference:	Well CASCADE CREEK 697-09-35A - Slot CC#697-09-35A
Company:	OXY USA MID-CON	TVD Reference:	WELL @ 8410.0surv ft (Original Well Elev)
Project:	GRAND VALLEY	MD Reference:	WELL @ 8410.0surv ft (Original Well Elev)
Site:	CASCADE CREEK 609-33 PAD	North Reference:	True
Well:	CASCADE CREEK 697-09-35A	Survey Calculation Method:	Minimum Curvature
Wellbore:	CASCADE CREEK 697-09-35A		
Design:	PLAN 2		

Project	GRAND VALLEY, NORTH AMERICA		
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 609-33 PAD		
Site Position:		Northing:	0.00 surv ft
From:	None	Easting:	0.00 surv ft
Position Uncertainty:	0.0 surv ft	Slot Radius:	0.000 in
		Latitude:	0° 0' 0.000 N
		Longitude:	0° 0' 0.000 E
		Grid Convergence:	0.00 °

Well	CASCADE CREEK 697-09-35A - Slot CC#697-09-35A		
Well Position	+N/-S	0.0 surv ft	Northing: 631,290.22 surv ft
	+E/-W	0.0 surv ft	Easting: 1,232,460.29 surv ft
Position Uncertainty	0.0 surv ft	Wellhead Elevation:	30.0 surv ft
		Latitude:	39° 32' 6.516 N
		Longitude:	108° 13' 18.078 W
		Ground Level:	8,380.0 surv ft

Wellbore	CASCADE CREEK 697-09-35A				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	User Defined	9/2/2010	0.00	0.00	0

Design	PLAN 2				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD) (surv ft)	+N/-S (surv ft)	+E/-W (surv ft)	Direction (°)	
	0.0	0.0	0.0	297.12	

Plan Sections										
Measured Depth (surv ft)	Inclination (°)	Azimuth (°)	Vertical Depth (surv ft)	+N/-S (surv ft)	+E/-W (surv ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
450.0	0.00	0.00	450.0	0.0	0.0	0.00	0.00	0.00	0.00	
850.5	5.00	265.00	850.0	-1.5	-17.4	1.25	1.25	0.00	265.00	
1,407.0	15.00	297.88	1,397.6	30.1	-105.5	2.00	1.80	5.91	46.71	697-09-35A TARGET
1,755.6	20.23	297.88	1,729.8	79.4	-198.7	1.50	1.50	0.00	0.00	
5,255.6	20.23	297.88	5,013.9	645.3	-1,268.5	0.00	0.00	0.00	0.00	
6,117.1	3.00	297.88	5,854.6	726.1	-1,421.2	2.00	-2.00	0.00	180.00	
8,276.5	3.00	297.88	8,011.0	779.0	-1,521.1	0.00	0.00	0.00	0.00	697-09-35A TARGET
9,080.6	3.00	297.88	8,814.0	798.6	-1,558.3	0.00	0.00	0.00	0.00	



OXY

Planning Report - Geographic

Database:	HOPSP	Local Co-ordinate Reference:	Well CASCADE CREEK 697-09-35A - Slot CC#697-09-35A
Company:	OXY USA MID-CON	TVD Reference:	WELL @ 8410.0surv ft (Original Well Elev)
Project:	GRAND VALLEY	MD Reference:	WELL @ 8410.0surv ft (Original Well Elev)
Site:	CASCADE CREEK 609-33 PAD	North Reference:	True
Well:	CASCADE CREEK 697-09-35A	Survey Calculation Method:	Minimum Curvature
Wellbore:	CASCADE CREEK 697-09-35A		
Design:	PLAN 2		

Planned Survey										
Measured Depth (surv ft)	Inclination (°)	Azimuth (°)	Vertical Depth (surv ft)	+N/-S (surv ft)	+E/-W (surv ft)	Map Northing (surv ft)	Map Easting (surv ft)	Latitude	Longitude	
0.0	0.00	0.00	0.0	0.0	0.0	631,290.22	1,232,460.29	39° 32' 6.516 N	108° 13' 18.078 W	
100.0	0.00	0.00	100.0	0.0	0.0	631,290.22	1,232,460.29	39° 32' 6.516 N	108° 13' 18.078 W	
200.0	0.00	0.00	200.0	0.0	0.0	631,290.22	1,232,460.29	39° 32' 6.516 N	108° 13' 18.078 W	
300.0	0.00	0.00	300.0	0.0	0.0	631,290.22	1,232,460.29	39° 32' 6.516 N	108° 13' 18.078 W	
400.0	0.00	0.00	400.0	0.0	0.0	631,290.22	1,232,460.29	39° 32' 6.516 N	108° 13' 18.078 W	
450.0	0.00	0.00	450.0	0.0	0.0	631,290.22	1,232,460.29	39° 32' 6.516 N	108° 13' 18.078 W	
500.0	0.62	265.00	500.0	0.0	-0.3	631,290.20	1,232,460.02	39° 32' 6.515 N	108° 13' 18.082 W	
600.0	1.87	265.00	600.0	-0.2	-2.4	631,290.08	1,232,457.84	39° 32' 6.514 N	108° 13' 18.109 W	
700.0	3.12	265.00	699.9	-0.6	-6.8	631,289.83	1,232,453.49	39° 32' 6.510 N	108° 13' 18.165 W	
800.0	4.37	265.00	799.7	-1.2	-13.3	631,289.46	1,232,446.97	39° 32' 6.504 N	108° 13' 18.248 W	
850.5	5.00	265.00	850.0	-1.5	-17.4	631,289.22	1,232,442.85	39° 32' 6.501 N	108° 13' 18.300 W	
900.0	5.72	272.24	899.3	-1.6	-22.0	631,289.27	1,232,438.24	39° 32' 6.500 N	108° 13' 18.359 W	
1,000.0	7.38	282.20	998.6	-0.1	-33.3	631,291.16	1,232,427.03	39° 32' 6.515 N	108° 13' 18.503 W	
1,100.0	9.17	288.41	1,097.6	3.8	-47.1	631,295.44	1,232,413.31	39° 32' 6.553 N	108° 13' 18.680 W	
1,200.0	11.03	292.57	1,196.0	10.0	-63.5	631,302.12	1,232,397.11	39° 32' 6.614 N	108° 13' 18.889 W	
1,300.0	12.94	295.53	1,293.8	18.5	-82.4	631,311.18	1,232,378.43	39° 32' 6.698 N	108° 13' 19.131 W	
1,407.0	15.00	297.88	1,397.6	30.1	-105.5	631,323.50	1,232,355.75	39° 32' 6.813 N	108° 13' 19.425 W	
1,500.0	16.40	297.88	1,487.2	41.9	-127.7	631,335.93	1,232,333.86	39° 32' 6.930 N	108° 13' 19.709 W	
1,600.0	17.90	297.88	1,582.8	55.7	-153.8	631,350.49	1,232,308.23	39° 32' 7.066 N	108° 13' 20.041 W	
1,700.0	19.40	297.88	1,677.5	70.6	-182.1	631,366.28	1,232,280.43	39° 32' 7.214 N	108° 13' 20.402 W	
1,755.6	20.23	297.88	1,729.8	79.4	-198.7	631,375.58	1,232,264.05	39° 32' 7.301 N	108° 13' 20.615 W	
1,800.0	20.23	297.88	1,771.5	86.6	-212.3	631,383.17	1,232,250.69	39° 32' 7.372 N	108° 13' 20.788 W	
1,900.0	20.23	297.88	1,865.3	102.8	-242.8	631,400.24	1,232,220.63	39° 32' 7.532 N	108° 13' 21.178 W	
2,000.0	20.23	297.88	1,959.1	119.0	-273.4	631,417.32	1,232,190.56	39° 32' 7.691 N	108° 13' 21.568 W	
2,100.0	20.23	297.88	2,053.0	135.1	-304.0	631,434.40	1,232,160.49	39° 32' 7.851 N	108° 13' 21.958 W	
2,200.0	20.23	297.88	2,146.8	151.3	-334.5	631,451.47	1,232,130.42	39° 32' 8.011 N	108° 13' 22.348 W	
2,300.0	20.23	297.88	2,240.6	167.5	-365.1	631,468.55	1,232,100.36	39° 32' 8.171 N	108° 13' 22.738 W	
2,400.0	20.23	297.88	2,334.5	183.6	-395.7	631,485.62	1,232,070.29	39° 32' 8.331 N	108° 13' 23.129 W	
2,500.0	20.23	297.88	2,428.3	199.8	-426.2	631,502.70	1,232,040.22	39° 32' 8.490 N	108° 13' 23.519 W	
2,600.0	20.23	297.88	2,522.1	216.0	-456.8	631,519.78	1,232,010.16	39° 32' 8.650 N	108° 13' 23.909 W	
2,700.0	20.23	297.88	2,616.0	232.1	-487.4	631,536.85	1,231,980.09	39° 32' 8.810 N	108° 13' 24.299 W	
2,800.0	20.23	297.88	2,709.8	248.3	-517.9	631,553.93	1,231,950.02	39° 32' 8.970 N	108° 13' 24.689 W	
2,900.0	20.23	297.88	2,803.6	264.5	-548.5	631,571.01	1,231,919.95	39° 32' 9.130 N	108° 13' 25.079 W	
3,000.0	20.23	297.88	2,897.5	280.6	-579.1	631,588.08	1,231,889.89	39° 32' 9.289 N	108° 13' 25.469 W	
3,100.0	20.23	297.88	2,991.3	296.8	-609.6	631,605.16	1,231,859.82	39° 32' 9.449 N	108° 13' 25.859 W	
3,200.0	20.23	297.88	3,085.1	313.0	-640.2	631,622.23	1,231,829.75	39° 32' 9.609 N	108° 13' 26.250 W	
3,300.0	20.23	297.88	3,178.9	329.1	-670.8	631,639.31	1,231,799.69	39° 32' 9.769 N	108° 13' 26.640 W	
3,400.0	20.23	297.88	3,272.8	345.3	-701.3	631,656.39	1,231,769.62	39° 32' 9.929 N	108° 13' 27.030 W	
3,500.0	20.23	297.88	3,366.6	361.5	-731.9	631,673.46	1,231,739.55	39° 32' 10.088 N	108° 13' 27.420 W	
3,600.0	20.23	297.88	3,460.4	377.6	-762.5	631,690.54	1,231,709.48	39° 32' 10.248 N	108° 13' 27.810 W	
3,700.0	20.23	297.88	3,554.3	393.8	-793.0	631,707.62	1,231,679.42	39° 32' 10.408 N	108° 13' 28.200 W	
3,800.0	20.23	297.88	3,648.1	410.0	-823.6	631,724.69	1,231,649.35	39° 32' 10.568 N	108° 13' 28.590 W	
3,900.0	20.23	297.88	3,741.9	426.2	-854.2	631,741.77	1,231,619.28	39° 32' 10.727 N	108° 13' 28.981 W	
4,000.0	20.23	297.88	3,835.8	442.3	-884.7	631,758.84	1,231,589.22	39° 32' 10.887 N	108° 13' 29.371 W	
4,100.0	20.23	297.88	3,929.6	458.5	-915.3	631,775.92	1,231,559.15	39° 32' 11.047 N	108° 13' 29.761 W	
4,200.0	20.23	297.88	4,023.4	474.7	-945.8	631,793.00	1,231,529.08	39° 32' 11.207 N	108° 13' 30.151 W	
4,300.0	20.23	297.88	4,117.3	490.8	-976.4	631,810.07	1,231,499.01	39° 32' 11.367 N	108° 13' 30.541 W	
4,400.0	20.23	297.88	4,211.1	507.0	-1,007.0	631,827.15	1,231,468.95	39° 32' 11.526 N	108° 13' 30.931 W	
4,500.0	20.23	297.88	4,304.9	523.2	-1,037.5	631,844.23	1,231,438.88	39° 32' 11.686 N	108° 13' 31.321 W	
4,600.0	20.23	297.88	4,398.8	539.3	-1,068.1	631,861.30	1,231,408.81	39° 32' 11.846 N	108° 13' 31.712 W	
4,700.0	20.23	297.88	4,492.6	555.5	-1,098.7	631,878.38	1,231,378.74	39° 32' 12.006 N	108° 13' 32.102 W	
4,800.0	20.23	297.88	4,586.4	571.7	-1,129.2	631,895.45	1,231,348.68	39° 32' 12.166 N	108° 13' 32.492 W	
4,900.0	20.23	297.88	4,680.3	587.8	-1,159.8	631,912.53	1,231,318.61	39° 32' 12.325 N	108° 13' 32.882 W	
5,000.0	20.23	297.88	4,774.1	604.0	-1,190.4	631,929.61	1,231,288.54	39° 32' 12.485 N	108° 13' 33.272 W	



OXY

Planning Report - Geographic

Database:	HOPSP	Local Co-ordinate Reference:	Well CASCADE CREEK 697-09-35A - Slot CC#697-09-35A
Company:	OXY USA MID-CON	TVD Reference:	WELL @ 8410.0surv ft (Original Well Elev)
Project:	GRAND VALLEY	MD Reference:	WELL @ 8410.0surv ft (Original Well Elev)
Site:	CASCADE CREEK 609-33 PAD	North Reference:	True
Well:	CASCADE CREEK 697-09-35A	Survey Calculation Method:	Minimum Curvature
Wellbore:	CASCADE CREEK 697-09-35A		
Design:	PLAN 2		

Planned Survey										
Measured Depth (surv ft)	Inclination (°)	Azimuth (°)	Vertical Depth (surv ft)	+N/-S (surv ft)	+E/-W (surv ft)	Map Northing (surv ft)	Map Easting (surv ft)	Latitude	Longitude	
5,100.0	20.23	297.88	4,867.9	620.2	-1,220.9	631,946.68	1,231,258.48	39° 32' 12.645 N	108° 13' 33.662 W	
5,200.0	20.23	297.88	4,961.7	636.3	-1,251.5	631,963.76	1,231,228.41	39° 32' 12.805 N	108° 13' 34.052 W	
5,255.6	20.23	297.88	5,013.9	645.3	-1,268.5	631,973.25	1,231,211.69	39° 32' 12.893 N	108° 13' 34.269 W	
5,300.0	19.34	297.88	5,055.7	652.4	-1,281.8	631,980.68	1,231,198.62	39° 32' 12.963 N	108° 13' 34.439 W	
5,400.0	17.34	297.88	5,150.6	667.1	-1,309.6	631,996.22	1,231,171.26	39° 32' 13.108 N	108° 13' 34.794 W	
5,500.0	15.34	297.88	5,246.6	680.2	-1,334.5	632,010.11	1,231,146.80	39° 32' 13.238 N	108° 13' 35.111 W	
5,600.0	13.34	297.88	5,343.4	691.8	-1,356.4	632,022.34	1,231,125.26	39° 32' 13.353 N	108° 13' 35.391 W	
5,700.0	11.34	297.88	5,441.1	701.8	-1,375.3	632,032.90	1,231,106.68	39° 32' 13.452 N	108° 13' 35.632 W	
5,800.0	9.34	297.88	5,539.5	710.2	-1,391.1	632,041.76	1,231,091.07	39° 32' 13.535 N	108° 13' 35.834 W	
5,900.0	7.34	297.88	5,638.4	717.0	-1,403.9	632,048.92	1,231,078.45	39° 32' 13.602 N	108° 13' 35.998 W	
6,000.0	5.34	297.88	5,737.8	722.1	-1,413.7	632,054.38	1,231,068.85	39° 32' 13.653 N	108° 13' 36.123 W	
6,100.0	3.34	297.88	5,837.5	725.7	-1,420.4	632,058.12	1,231,062.27	39° 32' 13.688 N	108° 13' 36.208 W	
6,117.1	3.00	297.88	5,854.6	726.1	-1,421.2	632,058.58	1,231,061.45	39° 32' 13.692 N	108° 13' 36.219 W	
6,120.5	3.00	297.88	5,858.0	726.2	-1,421.4	632,058.67	1,231,061.29	39° 32' 13.693 N	108° 13' 36.221 W	
MESAVERDE										
6,200.0	3.00	297.88	5,937.4	728.1	-1,425.1	632,060.73	1,231,057.67	39° 32' 13.712 N	108° 13' 36.268 W	
6,300.0	3.00	297.88	6,037.3	730.6	-1,429.7	632,063.31	1,231,053.12	39° 32' 13.736 N	108° 13' 36.327 W	
6,315.8	3.00	297.88	6,053.0	731.0	-1,430.4	632,063.72	1,231,052.41	39° 32' 13.740 N	108° 13' 36.336 W	
WILLIAMS FORK										
6,400.0	3.00	297.88	6,137.1	733.0	-1,434.3	632,065.90	1,231,048.57	39° 32' 13.760 N	108° 13' 36.386 W	
6,500.0	3.00	297.88	6,237.0	735.5	-1,438.9	632,068.48	1,231,044.02	39° 32' 13.785 N	108° 13' 36.445 W	
6,600.0	3.00	297.88	6,336.8	737.9	-1,443.6	632,071.06	1,231,039.47	39° 32' 13.809 N	108° 13' 36.504 W	
6,700.0	3.00	297.88	6,436.7	740.4	-1,448.2	632,073.65	1,231,034.92	39° 32' 13.833 N	108° 13' 36.563 W	
6,800.0	3.00	297.88	6,536.6	742.8	-1,452.8	632,076.23	1,231,030.37	39° 32' 13.857 N	108° 13' 36.622 W	
6,900.0	3.00	297.88	6,636.4	745.3	-1,457.4	632,078.82	1,231,025.82	39° 32' 13.881 N	108° 13' 36.681 W	
7,000.0	3.00	297.88	6,736.3	747.7	-1,462.1	632,081.40	1,231,021.27	39° 32' 13.905 N	108° 13' 36.740 W	
7,100.0	3.00	297.88	6,836.2	750.2	-1,466.7	632,083.99	1,231,016.72	39° 32' 13.930 N	108° 13' 36.799 W	
7,200.0	3.00	297.88	6,936.0	752.6	-1,471.3	632,086.57	1,231,012.17	39° 32' 13.954 N	108° 13' 36.858 W	
7,300.0	3.00	297.88	7,035.9	755.1	-1,476.0	632,089.16	1,231,007.61	39° 32' 13.978 N	108° 13' 36.917 W	
7,397.3	3.00	297.88	7,133.0	757.4	-1,480.5	632,091.67	1,231,003.19	39° 32' 14.002 N	108° 13' 36.975 W	
TOP OF GAS										
7,400.0	3.00	297.88	7,135.7	757.5	-1,480.6	632,091.74	1,231,003.06	39° 32' 14.002 N	108° 13' 36.976 W	
7,500.0	3.00	297.88	7,235.6	760.0	-1,485.2	632,094.33	1,230,998.51	39° 32' 14.026 N	108° 13' 37.035 W	
7,600.0	3.00	297.88	7,335.5	762.4	-1,489.8	632,096.91	1,230,993.96	39° 32' 14.051 N	108° 13' 37.095 W	
7,700.0	3.00	297.88	7,435.3	764.9	-1,494.5	632,099.50	1,230,989.41	39° 32' 14.075 N	108° 13' 37.154 W	
7,800.0	3.00	297.88	7,535.2	767.3	-1,499.1	632,102.08	1,230,984.86	39° 32' 14.099 N	108° 13' 37.213 W	
7,900.0	3.00	297.88	7,635.1	769.7	-1,503.7	632,104.66	1,230,980.31	39° 32' 14.123 N	108° 13' 37.272 W	
8,000.0	3.00	297.88	7,734.9	772.2	-1,508.3	632,107.25	1,230,975.76	39° 32' 14.147 N	108° 13' 37.331 W	
8,100.0	3.00	297.88	7,834.8	774.6	-1,513.0	632,109.83	1,230,971.21	39° 32' 14.171 N	108° 13' 37.390 W	
8,200.0	3.00	297.88	7,934.6	777.1	-1,517.6	632,112.42	1,230,966.66	39° 32' 14.196 N	108° 13' 37.449 W	
8,276.5	3.00	297.88	8,011.0	779.0	-1,521.1	632,114.39	1,230,963.18	39° 32' 14.214 N	108° 13' 37.494 W	
8,277.5	3.00	297.88	8,012.0	779.0	-1,521.2	632,114.42	1,230,963.13	39° 32' 14.214 N	108° 13' 37.495 W	
L WILLIAMS FORK										
8,300.0	3.00	297.88	8,034.5	779.5	-1,522.2	632,115.00	1,230,962.11	39° 32' 14.220 N	108° 13' 37.508 W	
8,400.0	3.00	297.88	8,134.4	782.0	-1,526.8	632,117.59	1,230,957.56	39° 32' 14.244 N	108° 13' 37.567 W	
8,500.0	3.00	297.88	8,234.2	784.4	-1,531.5	632,120.17	1,230,953.00	39° 32' 14.268 N	108° 13' 37.626 W	
8,600.0	3.00	297.88	8,334.1	786.9	-1,536.1	632,122.76	1,230,948.45	39° 32' 14.292 N	108° 13' 37.685 W	
8,700.0	3.00	297.88	8,434.0	789.3	-1,540.7	632,125.34	1,230,943.90	39° 32' 14.317 N	108° 13' 37.744 W	
8,800.0	3.00	297.88	8,533.8	791.8	-1,545.3	632,127.93	1,230,939.35	39° 32' 14.341 N	108° 13' 37.803 W	
8,900.0	3.00	297.88	8,633.7	794.2	-1,550.0	632,130.51	1,230,934.80	39° 32' 14.365 N	108° 13' 37.862 W	
8,930.4	3.00	297.88	8,664.0	795.0	-1,551.4	632,131.29	1,230,933.42	39° 32' 14.372 N	108° 13' 37.880 W	
ROLLINS										
9,000.0	3.00	297.88	8,733.6	796.7	-1,554.6	632,133.09	1,230,930.25	39° 32' 14.389 N	108° 13' 37.921 W	



OXY
Planning Report - Geographic

Database:	HOPSP	Local Co-ordinate Reference:	Well CASCADE CREEK 697-09-35A - Slot CC#697-09-35A
Company:	OXY USA MID-CON	TVD Reference:	WELL @ 8410.0surv ft (Original Well Elev)
Project:	GRAND VALLEY	MD Reference:	WELL @ 8410.0surv ft (Original Well Elev)
Site:	CASCADE CREEK 609-33 PAD	North Reference:	True
Well:	CASCADE CREEK 697-09-35A	Survey Calculation Method:	Minimum Curvature
Wellbore:	CASCADE CREEK 697-09-35A		
Design:	PLAN 2		

Planned Survey									
Measured Depth (surv ft)	Inclination (°)	Azimuth (°)	Vertical Depth (surv ft)	+N/-S (surv ft)	+E/-W (surv ft)	Map Northing (surv ft)	Map Easting (surv ft)	Latitude	Longitude
9,080.6	3.00	297.88	8,814.0	798.6	-1,558.3	632,135.18	1,230,926.58	39° 32' 14.409 N	108° 13' 37.969 W

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (surv ft)	+N/-S (surv ft)	+E/-W (surv ft)	Northing (surv ft)	Easting (surv ft)	Latitude	Longitude
697-09-35A TARGET - plan hits target center - Circle (radius 50.0)	357.00	298.00	8,011.0	779.0	-1,521.1	632,114.39	1,230,963.18	39° 32' 14.214 N	108° 13' 37.494 W

Formations						
Measured Depth (surv ft)	Vertical Depth (surv ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
6,120.5	5,858.0	MESAVERDE		0.00		
6,315.8	6,053.0	WILLIAMS FORK		0.00		
7,397.3	7,133.0	TOP OF GAS		0.00		
8,277.5	8,012.0	L WILLIAMS FORK		0.00		
8,930.4	8,664.0	ROLLINS		0.00		