



Project: GRAND VALLEY
Site: CASCADE CREEK 609-33 PAD
Well: CASCADE CREEK 697-09-56A
Wellbore: CASCADE CREEK 697-09-56A
Design: PLAN 2

OXY USA MID-CON

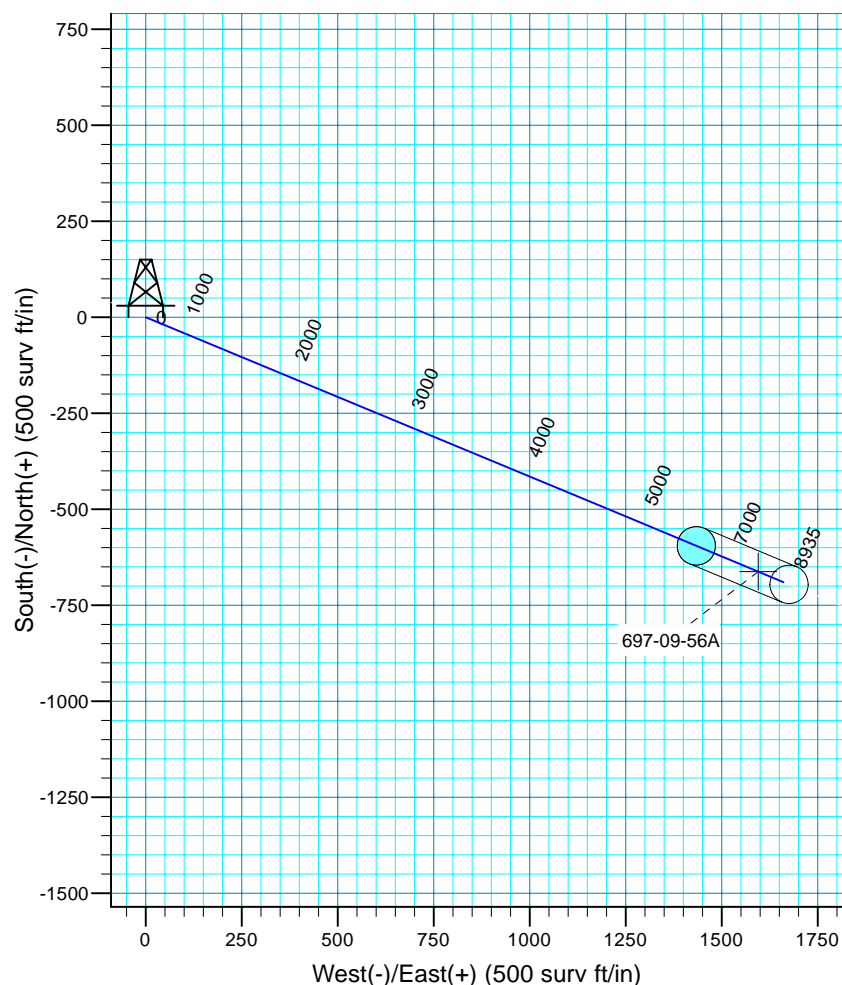
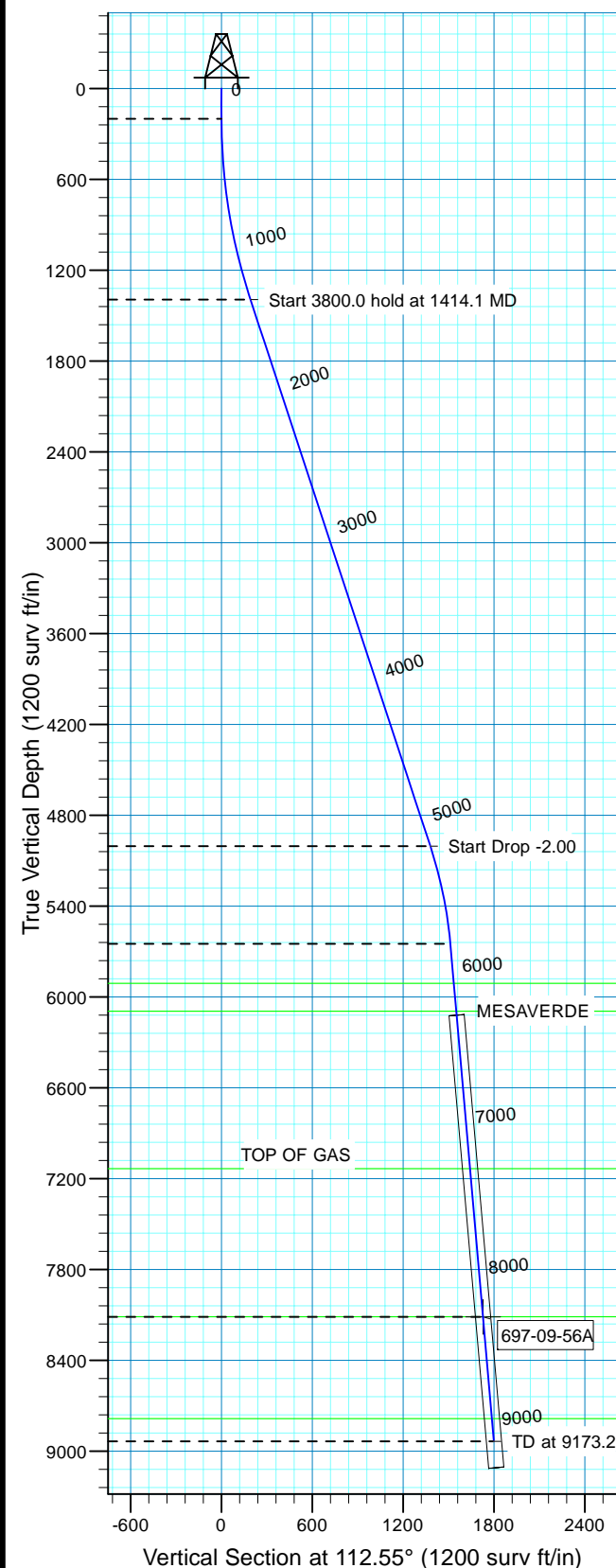


Azimuths to True North
Magnetic North: 10.53°

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

WELL DETAILS: CASCADE CREEK 697-09-56A

WELL @ 8410.0surv ft (Original Well Elev) 8380.0
Northing 631256.86 Easting 1232518.94 Latitude 39° 32' 6.204 N Longitude 108° 13' 17.317 W Slot
+N/-S 0.0 +E/-W 0.0 CC#697-09-56A



FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
5910.0	6136.6	MESAVERDE
6095.0	6322.3	WILLIAMSFORK
7134.0	7365.3	TOP OF GAS
8112.0	8347.0	L WILLIAMSFORK
8785.0	9022.6	ROLLINS

CASCADE CREEK 697-09-56A/CASCADE CREEK 697-09-56A

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	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.0	
1414.1	18.21	112.55	1393.7	-73.4	176.7	1.50	191.3	
5214.1	18.21	112.55	5003.4	-528.9	1273.4	0.00	1378.9	
5874.6	5.00	112.55	5649.0	-579.7	1395.9	2.00	1511.5	
8348.0	5.00	112.55	8113.0	-662.4	1595.0	0.00	1727.0	697-09-56A
9173.2	5.00	112.55	8935.0	-690.0	1661.4	0.00	1799.0	



OXY USA MID-CON

GRAND VALLEY

CASCADE CREEK 609-33 PAD

CASCADE CREEK 697-09-56A - Slot CC#697-09-56A

CASCADE CREEK 697-09-56A

Plan: PLAN 2

Standard Planning Report - Geographic

03 September, 2010



OXY
Planning Report - Geographic

Database:	HOPSPP	Local Co-ordinate Reference:	Well CASCADE CREEK 697-09-56A - Slot CC#697-09-56A
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 697-09-56A	Survey Calculation Method:	Minimum Curvature
Wellbore:	CASCADE CREEK 697-09-56A		
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 697-09-56A - Slot CC#697-09-56A		
Well Position	+N/-S	0.0 surv ft	Northing: 631,256.87 surv ft
	+E/-W	0.0 surv ft	Easting: 1,232,518.94 surv ft
Position Uncertainty	0.0 surv ft	Wellhead Elevation:	30.0 surv ft
		Latitude:	39° 32' 6.204 N
		Longitude:	108° 13' 17.317 W
		Ground Level:	8,380.0 surv ft

Wellbore	CASCADE CREEK 697-09-56A				
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	112.55

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	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,414.1	18.21	112.55	1,393.7	-73.4	176.7	1.50	1.50	0.00	112.55	
5,214.1	18.21	112.55	5,003.4	-528.9	1,273.4	0.00	0.00	0.00	0.00	
5,874.6	5.00	112.55	5,649.0	-579.7	1,395.9	2.00	-2.00	0.00	180.00	
8,348.0	5.00	112.55	8,113.0	-662.4	1,595.0	0.00	0.00	0.00	0.00	697-09-56A
9,173.2	5.00	112.55	8,935.0	-690.0	1,661.4	0.00	0.00	0.00	0.00	



OXY

Planning Report - Geographic

Database:	HOPSP	Local Co-ordinate Reference:	Well CASCADE CREEK 697-09-56A - Slot CC#697-09-56A
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 697-09-56A	Survey Calculation Method:	Minimum Curvature
Wellbore:	CASCADE CREEK 697-09-56A		
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	631,256.87	1,232,518.94	39° 32' 6.204 N	108° 13' 17.317 W	
100.0	0.00	0.00	100.0	0.0	0.0	631,256.87	1,232,518.94	39° 32' 6.204 N	108° 13' 17.317 W	
200.0	0.00	0.00	200.0	0.0	0.0	631,256.87	1,232,518.94	39° 32' 6.204 N	108° 13' 17.317 W	
300.0	1.50	112.55	300.0	-0.5	1.2	631,256.33	1,232,520.13	39° 32' 6.199 N	108° 13' 17.302 W	
400.0	3.00	112.55	399.9	-2.0	4.8	631,254.72	1,232,523.71	39° 32' 6.184 N	108° 13' 17.256 W	
500.0	4.50	112.55	499.7	-4.5	10.9	631,252.03	1,232,529.67	39° 32' 6.159 N	108° 13' 17.178 W	
600.0	6.00	112.55	599.3	-8.0	19.3	631,248.27	1,232,538.02	39° 32' 6.124 N	108° 13' 17.071 W	
700.0	7.50	112.55	698.6	-12.5	30.2	631,243.44	1,232,548.73	39° 32' 6.080 N	108° 13' 16.932 W	
800.0	9.00	112.55	797.5	-18.0	43.4	631,237.54	1,232,561.81	39° 32' 6.025 N	108° 13' 16.763 W	
900.0	10.50	112.55	896.1	-24.5	59.1	631,230.58	1,232,577.25	39° 32' 5.961 N	108° 13' 16.563 W	
1,000.0	12.00	112.55	994.2	-32.0	77.1	631,222.56	1,232,595.03	39° 32' 5.887 N	108° 13' 16.333 W	
1,100.0	13.50	112.55	1,091.7	-40.5	97.5	631,213.49	1,232,615.15	39° 32' 5.803 N	108° 13' 16.073 W	
1,200.0	15.00	112.55	1,188.6	-49.9	120.2	631,203.37	1,232,637.59	39° 32' 5.710 N	108° 13' 15.783 W	
1,300.0	16.50	112.55	1,284.9	-60.3	145.3	631,192.21	1,232,662.34	39° 32' 5.607 N	108° 13' 15.463 W	
1,400.0	18.00	112.55	1,380.4	-71.7	172.7	631,180.02	1,232,689.37	39° 32' 5.495 N	108° 13' 15.114 W	
1,414.1	18.21	112.55	1,393.7	-73.4	176.7	631,178.23	1,232,693.35	39° 32' 5.478 N	108° 13' 15.062 W	
1,500.0	18.21	112.55	1,475.4	-83.7	201.5	631,167.19	1,232,717.83	39° 32' 5.376 N	108° 13' 14.745 W	
1,600.0	18.21	112.55	1,570.3	-95.7	230.4	631,154.34	1,232,746.32	39° 32' 5.258 N	108° 13' 14.377 W	
1,700.0	18.21	112.55	1,665.3	-107.7	259.2	631,141.50	1,232,774.81	39° 32' 5.139 N	108° 13' 14.009 W	
1,800.0	18.21	112.55	1,760.3	-119.6	288.1	631,128.65	1,232,803.30	39° 32' 5.021 N	108° 13' 13.640 W	
1,900.0	18.21	112.55	1,855.3	-131.6	316.9	631,115.81	1,232,831.79	39° 32' 4.903 N	108° 13' 13.272 W	
2,000.0	18.21	112.55	1,950.3	-143.6	345.8	631,102.96	1,232,860.28	39° 32' 4.784 N	108° 13' 12.904 W	
2,100.0	18.21	112.55	2,045.3	-155.6	374.7	631,090.11	1,232,888.77	39° 32' 4.666 N	108° 13' 12.535 W	
2,200.0	18.21	112.55	2,140.3	-167.6	403.5	631,077.27	1,232,917.26	39° 32' 4.547 N	108° 13' 12.167 W	
2,300.0	18.21	112.55	2,235.3	-179.6	432.4	631,064.42	1,232,945.75	39° 32' 4.429 N	108° 13' 11.798 W	
2,400.0	18.21	112.55	2,330.3	-191.6	461.2	631,051.58	1,232,974.24	39° 32' 4.310 N	108° 13' 11.430 W	
2,500.0	18.21	112.55	2,425.3	-203.5	490.1	631,038.73	1,233,002.73	39° 32' 4.192 N	108° 13' 11.062 W	
2,600.0	18.21	112.55	2,520.3	-215.5	519.0	631,025.89	1,233,031.22	39° 32' 4.073 N	108° 13' 10.693 W	
2,700.0	18.21	112.55	2,615.3	-227.5	547.8	631,013.04	1,233,059.71	39° 32' 3.955 N	108° 13' 10.325 W	
2,800.0	18.21	112.55	2,710.2	-239.5	576.7	631,000.20	1,233,088.20	39° 32' 3.836 N	108° 13' 9.957 W	
2,900.0	18.21	112.55	2,805.2	-251.5	605.6	630,987.35	1,233,116.69	39° 32' 3.718 N	108° 13' 9.588 W	
3,000.0	18.21	112.55	2,900.2	-263.5	634.4	630,974.50	1,233,145.18	39° 32' 3.599 N	108° 13' 9.220 W	
3,100.0	18.21	112.55	2,995.2	-275.5	663.3	630,961.66	1,233,173.67	39° 32' 3.481 N	108° 13' 8.852 W	
3,200.0	18.21	112.55	3,090.2	-287.5	692.1	630,948.81	1,233,202.15	39° 32' 3.362 N	108° 13' 8.483 W	
3,300.0	18.21	112.55	3,185.2	-299.4	721.0	630,935.97	1,233,230.64	39° 32' 3.244 N	108° 13' 8.115 W	
3,400.0	18.21	112.55	3,280.2	-311.4	749.9	630,923.12	1,233,259.13	39° 32' 3.125 N	108° 13' 7.746 W	
3,500.0	18.21	112.55	3,375.2	-323.4	778.7	630,910.28	1,233,287.62	39° 32' 3.007 N	108° 13' 7.378 W	
3,600.0	18.21	112.55	3,470.2	-335.4	807.6	630,897.43	1,233,316.11	39° 32' 2.888 N	108° 13' 7.010 W	
3,700.0	18.21	112.55	3,565.2	-347.4	836.4	630,884.58	1,233,344.60	39° 32' 2.770 N	108° 13' 6.641 W	
3,800.0	18.21	112.55	3,660.2	-359.4	865.3	630,871.74	1,233,373.09	39° 32' 2.651 N	108° 13' 6.273 W	
3,900.0	18.21	112.55	3,755.1	-371.4	894.2	630,858.89	1,233,401.58	39° 32' 2.533 N	108° 13' 5.905 W	
4,000.0	18.21	112.55	3,850.1	-383.3	923.0	630,846.05	1,233,430.07	39° 32' 2.414 N	108° 13' 5.536 W	
4,100.0	18.21	112.55	3,945.1	-395.3	951.9	630,833.20	1,233,458.56	39° 32' 2.296 N	108° 13' 5.168 W	
4,200.0	18.21	112.55	4,040.1	-407.3	980.7	630,820.36	1,233,487.05	39° 32' 2.178 N	108° 13' 4.799 W	
4,300.0	18.21	112.55	4,135.1	-419.3	1,009.6	630,807.51	1,233,515.54	39° 32' 2.059 N	108° 13' 4.431 W	
4,400.0	18.21	112.55	4,230.1	-431.3	1,038.5	630,794.66	1,233,544.03	39° 32' 1.941 N	108° 13' 4.063 W	
4,500.0	18.21	112.55	4,325.1	-443.3	1,067.3	630,781.82	1,233,572.52	39° 32' 1.822 N	108° 13' 3.694 W	
4,600.0	18.21	112.55	4,420.1	-455.3	1,096.2	630,768.97	1,233,601.01	39° 32' 1.704 N	108° 13' 3.326 W	
4,700.0	18.21	112.55	4,515.1	-467.3	1,125.1	630,756.13	1,233,629.50	39° 32' 1.585 N	108° 13' 2.958 W	
4,800.0	18.21	112.55	4,610.1	-479.2	1,153.9	630,743.28	1,233,657.99	39° 32' 1.467 N	108° 13' 2.589 W	
4,900.0	18.21	112.55	4,705.1	-491.2	1,182.8	630,730.44	1,233,686.48	39° 32' 1.348 N	108° 13' 2.221 W	
5,000.0	18.21	112.55	4,800.1	-503.2	1,211.6	630,717.59	1,233,714.96	39° 32' 1.230 N	108° 13' 1.853 W	
5,100.0	18.21	112.55	4,895.0	-515.2	1,240.5	630,704.74	1,233,743.45	39° 32' 1.111 N	108° 13' 1.484 W	
5,200.0	18.21	112.55	4,990.0	-527.2	1,269.4	630,691.90	1,233,771.94	39° 32' 0.993 N	108° 13' 1.116 W	



OXY

Planning Report - Geographic

Database:	HOPSP	Local Co-ordinate Reference:	Well CASCADE CREEK 697-09-56A - Slot CC#697-09-56A
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 697-09-56A	Survey Calculation Method:	Minimum Curvature
Wellbore:	CASCADE CREEK 697-09-56A		
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	
5,214.1	18.21	112.55	5,003.4	-528.9	1,273.4	630,690.09	1,233,775.95	39° 32' 0.976 N	108° 13' 1.064 W	
5,300.0	16.49	112.55	5,085.4	-538.7	1,297.1	630,679.56	1,233,799.31	39° 32' 0.879 N	108° 13' 0.762 W	
5,400.0	14.49	112.55	5,181.8	-548.9	1,321.8	630,668.58	1,233,823.66	39° 32' 0.778 N	108° 13' 0.447 W	
5,500.0	12.49	112.55	5,279.0	-557.9	1,343.3	630,658.99	1,233,844.93	39° 32' 0.689 N	108° 13' 0.172 W	
5,600.0	10.49	112.55	5,377.0	-565.5	1,361.7	630,650.80	1,233,863.09	39° 32' 0.614 N	108° 12' 59.937 W	
5,700.0	8.49	112.55	5,475.6	-571.9	1,376.9	630,644.02	1,233,878.12	39° 32' 0.551 N	108° 12' 59.743 W	
5,800.0	6.49	112.55	5,574.8	-576.9	1,389.0	630,638.66	1,233,890.01	39° 32' 0.502 N	108° 12' 59.589 W	
5,874.6	5.00	112.55	5,649.0	-579.7	1,395.9	630,635.59	1,233,896.82	39° 32' 0.473 N	108° 12' 59.501 W	
5,900.0	5.00	112.55	5,674.3	-580.6	1,397.9	630,634.68	1,233,898.84	39° 32' 0.465 N	108° 12' 59.475 W	
6,000.0	5.00	112.55	5,773.9	-583.9	1,406.0	630,631.10	1,233,906.78	39° 32' 0.432 N	108° 12' 59.372 W	
6,100.0	5.00	112.55	5,873.5	-587.3	1,414.0	630,627.52	1,233,914.73	39° 32' 0.399 N	108° 12' 59.270 W	
6,136.6	5.00	112.55	5,910.0	-588.5	1,417.0	630,626.21	1,233,917.63	39° 32' 0.387 N	108° 12' 59.232 W	
MESAVERDE										
6,200.0	5.00	112.55	5,973.2	-590.6	1,422.1	630,623.94	1,233,922.67	39° 32' 0.366 N	108° 12' 59.167 W	
6,300.0	5.00	112.55	6,072.8	-593.9	1,430.1	630,620.35	1,233,930.62	39° 32' 0.333 N	108° 12' 59.064 W	
6,322.3	5.00	112.55	6,095.0	-594.7	1,431.9	630,619.55	1,233,932.39	39° 32' 0.325 N	108° 12' 59.041 W	
WILLIAMSFORK										
6,400.0	5.00	112.55	6,172.4	-597.3	1,438.2	630,616.77	1,233,938.56	39° 32' 0.300 N	108° 12' 58.962 W	
6,500.0	5.00	112.55	6,272.0	-600.6	1,446.2	630,613.19	1,233,946.51	39° 32' 0.267 N	108° 12' 58.859 W	
6,600.0	5.00	112.55	6,371.6	-604.0	1,454.3	630,609.61	1,233,954.45	39° 32' 0.234 N	108° 12' 58.756 W	
6,700.0	5.00	112.55	6,471.3	-607.3	1,462.3	630,606.02	1,233,962.40	39° 32' 0.201 N	108° 12' 58.653 W	
6,800.0	5.00	112.55	6,570.9	-610.7	1,470.4	630,602.44	1,233,970.34	39° 32' 0.168 N	108° 12' 58.551 W	
6,900.0	5.00	112.55	6,670.5	-614.0	1,478.4	630,598.86	1,233,978.29	39° 32' 0.134 N	108° 12' 58.448 W	
7,000.0	5.00	112.55	6,770.1	-617.3	1,486.5	630,595.28	1,233,986.23	39° 32' 0.101 N	108° 12' 58.345 W	
7,100.0	5.00	112.55	6,869.7	-620.7	1,494.5	630,591.69	1,233,994.18	39° 32' 0.068 N	108° 12' 58.242 W	
7,200.0	5.00	112.55	6,969.3	-624.0	1,502.5	630,588.11	1,234,002.12	39° 32' 0.035 N	108° 12' 58.140 W	
7,300.0	5.00	112.55	7,069.0	-627.4	1,510.6	630,584.53	1,234,010.07	39° 32' 0.002 N	108° 12' 58.037 W	
7,365.3	5.00	112.55	7,134.0	-629.6	1,515.9	630,582.19	1,234,015.26	39° 31' 59.981 N	108° 12' 57.970 W	
TOP OF GAS										
7,400.0	5.00	112.55	7,168.6	-630.7	1,518.6	630,580.95	1,234,018.02	39° 31' 59.969 N	108° 12' 57.934 W	
7,500.0	5.00	112.55	7,268.2	-634.1	1,526.7	630,577.36	1,234,025.96	39° 31' 59.936 N	108° 12' 57.831 W	
7,600.0	5.00	112.55	7,367.8	-637.4	1,534.7	630,573.78	1,234,033.91	39° 31' 59.903 N	108° 12' 57.729 W	
7,700.0	5.00	112.55	7,467.4	-640.7	1,542.8	630,570.20	1,234,041.85	39° 31' 59.870 N	108° 12' 57.626 W	
7,800.0	5.00	112.55	7,567.1	-644.1	1,550.8	630,566.62	1,234,049.80	39° 31' 59.837 N	108° 12' 57.523 W	
7,900.0	5.00	112.55	7,666.7	-647.4	1,558.9	630,563.03	1,234,057.74	39° 31' 59.804 N	108° 12' 57.421 W	
8,000.0	5.00	112.55	7,766.3	-650.8	1,566.9	630,559.45	1,234,065.69	39° 31' 59.771 N	108° 12' 57.318 W	
8,100.0	5.00	112.55	7,865.9	-654.1	1,575.0	630,555.87	1,234,073.63	39° 31' 59.738 N	108° 12' 57.215 W	
8,200.0	5.00	112.55	7,965.5	-657.5	1,583.0	630,552.29	1,234,081.58	39° 31' 59.705 N	108° 12' 57.112 W	
8,300.0	5.00	112.55	8,065.2	-660.8	1,591.1	630,548.70	1,234,089.52	39° 31' 59.672 N	108° 12' 57.010 W	
8,347.0	5.00	112.55	8,112.0	-662.4	1,594.9	630,547.02	1,234,093.26	39° 31' 59.656 N	108° 12' 56.961 W	
L WILLIAMSFORK										
8,348.0	5.00	112.55	8,113.0	-662.4	1,595.0	630,546.98	1,234,093.34	39° 31' 59.656 N	108° 12' 56.960 W	
8,400.0	5.00	112.55	8,164.8	-664.1	1,599.1	630,545.12	1,234,097.47	39° 31' 59.639 N	108° 12' 56.907 W	
8,500.0	5.00	112.55	8,264.4	-667.5	1,607.2	630,541.54	1,234,105.41	39° 31' 59.606 N	108° 12' 56.804 W	
8,600.0	5.00	112.55	8,364.0	-670.8	1,615.2	630,537.96	1,234,113.36	39° 31' 59.573 N	108° 12' 56.701 W	
8,700.0	5.00	112.55	8,463.6	-674.2	1,623.3	630,534.37	1,234,121.30	39° 31' 59.540 N	108° 12' 56.599 W	
8,800.0	5.00	112.55	8,563.3	-677.5	1,631.3	630,530.79	1,234,129.25	39° 31' 59.507 N	108° 12' 56.496 W	
8,900.0	5.00	112.55	8,662.9	-680.9	1,639.4	630,527.21	1,234,137.19	39° 31' 59.474 N	108° 12' 56.393 W	
9,000.0	5.00	112.55	8,762.5	-684.2	1,647.4	630,523.63	1,234,145.14	39° 31' 59.441 N	108° 12' 56.291 W	
9,022.6	5.00	112.55	8,785.0	-685.0	1,649.2	630,522.82	1,234,146.93	39° 31' 59.433 N	108° 12' 56.267 W	
ROLLINS										
9,100.0	5.00	112.55	8,862.1	-687.5	1,655.5	630,520.04	1,234,153.08	39° 31' 59.407 N	108° 12' 56.188 W	
9,173.2	5.00	112.55	8,935.0	-690.0	1,661.4	630,517.42	1,234,158.90	39° 31' 59.383 N	108° 12' 56.113 W	



OXY
Planning Report - Geographic

Database:	HOPSPP	Local Co-ordinate Reference:	Well CASCADE CREEK 697-09-56A - Slot CC#697-09-56A
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 697-09-56A	Survey Calculation Method:	Minimum Curvature
Wellbore:	CASCADE CREEK 697-09-56A		
Design:	PLAN 2		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(surv ft)	(surv ft)	(surv ft)	(surv ft)	(surv ft)		
697-09-56A	355.00	112.55	8,113.0	-662.4	1,595.0	630,546.98	1,234,093.34	39° 31' 59.656 N	108° 12' 56.960 W
- plan hits target center									
- Circle (radius 50.0)									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(surv ft)	(surv ft)			(°)	(°)	
6,136.6	5,910.0	MESAVERDE		0.00		
6,322.3	6,095.0	WILLIAMSFORK		0.00		
7,365.3	7,134.0	TOP OF GAS		0.00		
8,347.0	8,112.0	L WILLIAMSFORK		0.00		
9,022.6	8,785.0	ROLLINS		0.00		