

Well Name: **Wildflower 12-27**

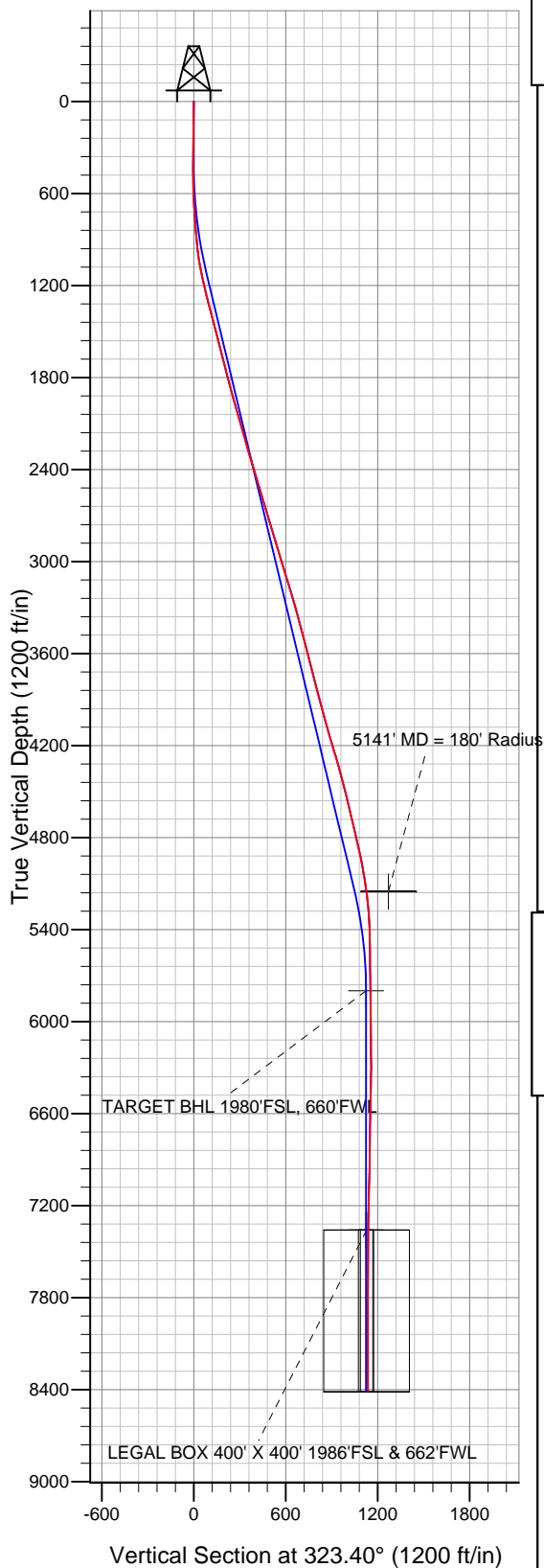
Surface Location: Wildflower 19-27 Pad Sec.27-T2N-R68W  
North American Datum 1983 US State Plane 1983 Colorado Northern Zone

Ground Elevation: 5008.0

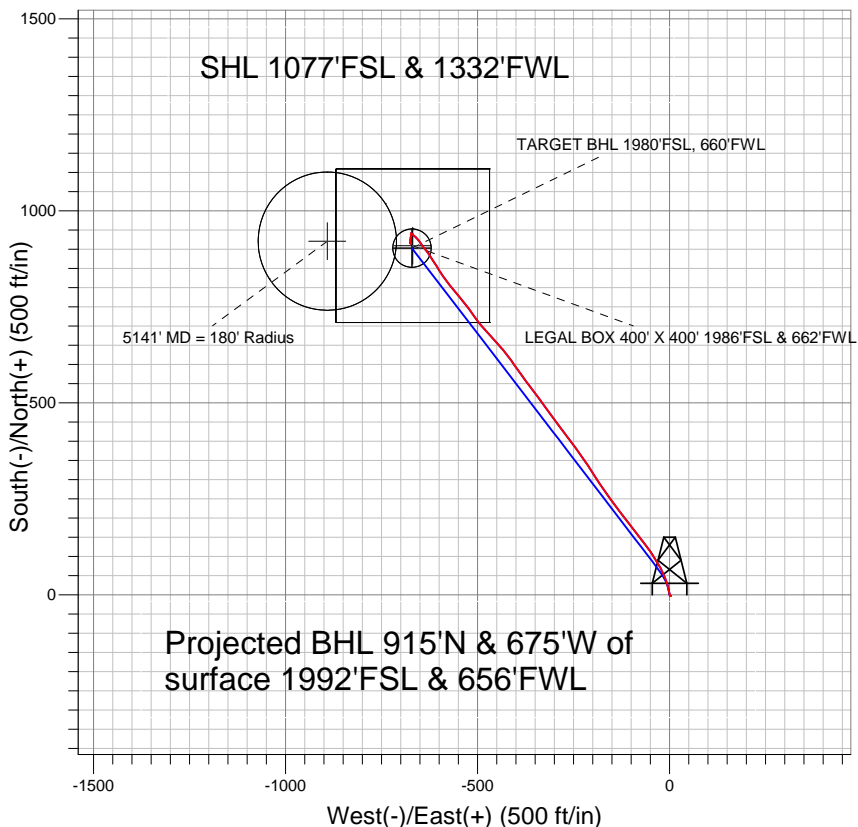
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1281582.59	3141524.23	40.105228	-104.994050

Original Well Elev WELL @ 5023.0ft (Original Well Elev)

Slot



## Anadarko, Weld County CO



### LEGEND

- △ Wildflower 12-27, Wellbore #1, Plan #1 (1-17-11) V0
- Wellbore #1
- Survey #1

## Final Survey Plot

Projected Final Survey -  
8555'MD & 8406'TVD @ 1137'VS  
0.4 deg Inc 255.5 deg AZ

Project: SEC.27-T2N-R68W  
Site: Wildflower 19-27 Pad Sec.27-T2N-R68W  
Well: Wildflower 12-27  
Plan: Wellbore #1



## **Directional**

### **Anadarko, Weld County CO**

**SEC.27-T2N-R68W**

**Wildflower 19-27 Pad Sec.27-T2N-R68W**

**Wildflower 12-27**

**Wellbore #1**

**Survey: Survey #1**

### **Standard Survey Report**

**24 March, 2011**

<b>Company:</b>	Anadarko, Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Wildflower 12-27
<b>Project:</b>	SEC.27-T2N-R68W	<b>TVD Reference:</b>	WELL @ 5023.0ft (Original Well Elev)
<b>Site:</b>	Wildflower 19-27 Pad Sec.27-T2N-R68W	<b>MD Reference:</b>	WELL @ 5023.0ft (Original Well Elev)
<b>Well:</b>	Wildflower 12-27	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Landmark

<b>Project</b>	SEC.27-T2N-R68W, Weld County, Colorado		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		Using Well Reference Point
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

Site	Wildflower 19-27 Pad Sec.27-T2N-R68W				
Site Position:		Northing:	1,281,592.81 ft	Latitude:	40.105256
From:	Lat/Long	Easting:	3,141,524.17 ft	Longitude:	-104.994050
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.33 °

Well	Wildflower 12-27					
Well Position	+N-S	0.0 ft	Northing:	1,281,582.59 ft	Latitude:	40.105228
	+E-W	0.0 ft	Easting:	3,141,524.23 ft	Longitude:	-104.994050
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,008.0 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	1/5/2011	9.02	66.79	52,996

<b>Design</b>	Wellbore #1				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	323.40	

<b>Survey Program</b>	<b>Date</b>	3/24/2011			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
171.0	8,555.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

<b>Survey</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
171.0	0.70	124.00	171.0	-0.6	0.9	-1.0	0.41	0.41	0.00	
354.0	0.80	136.80	354.0	-2.1	2.7	-3.3	0.11	0.05	6.99	
445.0	0.20	266.60	445.0	-2.6	2.9	-3.9	1.03	-0.66	142.64	
538.0	1.20	321.40	538.0	-1.9	2.2	-2.8	1.18	1.08	58.92	
630.0	2.80	334.10	629.9	0.9	0.6	0.4	1.79	1.74	13.80	
722.0	3.80	349.20	721.8	5.9	-1.0	5.3	1.43	1.09	16.41	
754.0	4.30	349.20	753.7	8.1	-1.4	7.4	1.56	1.56	0.00	
836.0	4.80	347.70	835.4	14.5	-2.7	13.3	0.63	0.61	-1.83	
931.0	6.20	345.60	930.0	23.4	-4.8	21.6	1.49	1.47	-2.21	
1,026.0	9.10	341.30	1,024.1	35.5	-8.5	33.5	3.11	3.05	-4.53	
1,121.0	11.60	337.10	1,117.6	51.4	-14.6	50.0	2.75	2.63	-4.42	
1,217.0	13.80	331.20	1,211.2	70.3	-23.9	70.7	2.66	2.29	-6.15	

<b>Company:</b>	Anadarko, Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Wildflower 12-27
<b>Project:</b>	SEC.27-T2N-R68W	<b>TVD Reference:</b>	WELL @ 5023.0ft (Original Well Elev)
<b>Site:</b>	Wildflower 19-27 Pad Sec.27-T2N-R68W	<b>MD Reference:</b>	WELL @ 5023.0ft (Original Well Elev)
<b>Well:</b>	Wildflower 12-27	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Landmark

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)
1,312.0	14.70	328.20	1,303.3	90.5	-35.7	93.9	1.23	0.95	-3.16
1,407.0	14.50	326.50	1,395.2	110.6	-48.6	117.8	0.50	-0.21	-1.79
1,502.0	14.40	322.20	1,487.2	129.9	-62.4	141.5	1.13	-0.11	-4.53
1,597.0	14.60	323.10	1,579.2	148.8	-76.9	165.3	0.32	0.21	0.95
1,692.0	14.20	321.60	1,671.2	167.5	-91.3	188.9	0.58	-0.42	-1.58
1,788.0	14.60	321.10	1,764.2	186.2	-106.2	212.8	0.44	0.42	-0.52
1,883.0	15.40	323.20	1,856.0	205.6	-121.3	237.3	1.02	0.84	2.21
1,978.0	15.50	323.60	1,947.5	225.9	-136.4	262.6	0.15	0.11	0.42
2,075.0	15.90	324.20	2,040.9	247.1	-151.8	288.9	0.45	0.41	0.62
2,170.0	15.80	324.50	2,132.3	268.2	-166.9	314.8	0.14	-0.11	0.32
2,266.0	16.50	326.00	2,224.5	290.1	-182.2	341.5	0.85	0.73	1.56
2,361.0	16.30	327.10	2,315.7	312.5	-196.9	368.3	0.39	-0.21	1.16
2,456.0	16.20	325.70	2,406.9	334.6	-211.7	394.9	0.43	-0.11	-1.47
2,551.0	16.50	326.80	2,498.0	356.9	-226.5	421.6	0.45	0.32	1.16
2,647.0	16.70	324.50	2,590.0	379.5	-242.0	449.0	0.72	0.21	-2.40
2,742.0	16.90	323.10	2,681.0	401.7	-258.2	476.4	0.48	0.21	-1.47
2,837.0	17.10	321.80	2,771.8	423.7	-275.1	504.2	0.45	0.21	-1.37
2,932.0	16.80	323.10	2,862.7	445.6	-292.0	531.9	0.51	-0.32	1.37
3,027.0	16.90	324.50	2,953.6	467.9	-308.3	559.4	0.44	0.11	1.47
3,122.0	16.90	324.40	3,044.5	490.3	-324.3	587.0	0.03	0.00	-0.11
3,218.0	16.90	322.90	3,136.4	512.8	-340.9	614.9	0.45	0.00	-1.56
3,313.0	16.60	322.40	3,227.3	534.6	-357.5	642.3	0.35	-0.32	-0.53
3,408.0	15.60	323.50	3,318.6	555.6	-373.4	668.6	1.10	-1.05	1.16
3,503.0	15.20	325.30	3,410.2	576.1	-388.0	693.9	0.66	-0.42	1.89
3,598.0	15.00	324.30	3,501.9	596.3	-402.3	718.6	0.35	-0.21	-1.05
3,693.0	14.90	323.40	3,593.7	616.1	-416.8	743.1	0.27	-0.11	-0.95
3,788.0	13.90	322.60	3,685.7	635.0	-431.0	766.7	1.07	-1.05	-0.84
3,884.0	14.10	316.70	3,778.9	652.7	-446.0	789.9	1.50	0.21	-6.15
3,978.0	14.90	317.50	3,869.9	669.9	-462.0	813.3	0.88	0.85	0.85
4,074.0	15.80	317.30	3,962.4	688.6	-479.2	838.5	0.94	0.94	-0.21
4,169.0	14.40	322.20	4,054.2	707.4	-495.2	863.2	1.99	-1.47	5.16
4,264.0	16.60	323.10	4,145.7	727.6	-510.6	888.6	2.33	2.32	0.95
4,359.0	17.80	323.10	4,236.4	750.1	-527.5	916.7	1.26	1.26	0.00
4,454.0	15.60	322.40	4,327.4	771.8	-544.0	944.0	2.33	-2.32	-0.74
4,550.0	14.80	321.00	4,420.1	791.6	-559.6	969.1	0.92	-0.83	-1.46
4,645.0	13.10	320.20	4,512.3	809.3	-574.1	992.0	1.80	-1.79	-0.84
4,740.0	13.50	323.30	4,604.7	826.5	-587.6	1,013.9	0.86	0.42	3.26
4,835.0	14.20	329.40	4,697.0	845.4	-600.2	1,036.5	1.70	0.74	6.42
4,930.0	13.00	328.10	4,789.3	864.5	-611.8	1,058.8	1.30	-1.26	-1.37
5,025.0	12.50	325.00	4,882.0	882.0	-623.3	1,079.7	0.89	-0.53	-3.26
5,120.0	10.80	323.30	4,975.0	897.5	-634.5	1,098.9	1.83	-1.79	-1.79
5,215.0	9.30	324.50	5,068.5	910.9	-644.3	1,115.5	1.59	-1.58	1.26
5,310.0	7.20	320.70	5,162.6	921.8	-652.5	1,129.1	2.28	-2.21	-4.00
5,317.5	7.05	320.48	5,170.0	922.5	-653.1	1,130.0	2.04	-2.01	-2.93
<b>5141' MD = 180' Radius</b>									
5,405.0	5.30	317.00	5,257.0	929.6	-659.3	1,139.4	2.04	-2.00	-3.98
5,500.0	3.00	305.90	5,351.7	934.3	-664.3	1,146.1	2.55	-2.42	-11.68
5,596.0	1.10	309.30	5,447.7	936.3	-667.1	1,149.4	1.98	-1.98	3.54
5,691.0	0.70	323.90	5,542.7	937.4	-668.1	1,150.9	0.48	-0.42	15.37
5,786.0	0.50	340.00	5,637.6	938.2	-668.6	1,151.9	0.27	-0.21	16.95
5,881.0	0.50	340.00	5,732.6	939.0	-668.9	1,152.6	0.00	0.00	0.00
5,948.1	0.56	322.57	5,799.7	939.5	-669.2	1,153.3	0.26	0.09	-25.99
<b>TARGET BHL 1980'FSL, 660'FWL</b>									
5,976.0	0.60	316.60	5,827.6	939.7	-669.4	1,153.5	0.26	0.14	-21.37

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<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Landmark

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)
6,072.0	1.00	291.10	5,923.6	940.4	-670.5	1,154.7	0.55	0.42	-26.56
6,167.0	0.70	307.00	6,018.6	941.1	-671.7	1,156.0	0.40	-0.32	16.74
6,262.0	0.50	315.40	6,113.6	941.7	-672.5	1,157.0	0.23	-0.21	8.84
6,357.0	0.30	296.00	6,208.6	942.1	-673.0	1,157.6	0.25	-0.21	-20.42
6,452.0	0.20	305.70	6,303.6	942.3	-673.4	1,158.0	0.11	-0.11	10.21
6,547.0	1.60	168.10	6,398.6	941.1	-673.2	1,156.9	1.85	1.47	-144.84
6,642.0	1.40	178.10	6,493.6	938.7	-672.9	1,154.8	0.35	-0.21	10.53
6,738.0	1.30	188.10	6,589.5	936.4	-673.0	1,153.0	0.27	-0.10	10.42
6,833.0	1.30	189.40	6,684.5	934.3	-673.3	1,151.5	0.03	0.00	1.37
6,928.0	1.20	195.70	6,779.5	932.3	-673.8	1,150.2	0.18	-0.11	6.63
7,023.0	1.20	189.80	6,874.5	930.3	-674.2	1,148.9	0.13	0.00	-6.21
7,118.0	1.50	188.10	6,969.4	928.1	-674.6	1,147.3	0.32	0.32	-1.79
7,213.0	1.80	187.90	7,064.4	925.4	-675.0	1,145.4	0.32	0.32	-0.21
7,308.0	2.20	176.70	7,159.3	922.1	-675.1	1,142.8	0.59	0.42	-11.79
7,404.0	1.30	184.90	7,255.3	919.2	-675.0	1,140.4	0.97	-0.94	8.54
7,499.0	1.10	180.30	7,350.3	917.2	-675.1	1,138.9	0.23	-0.21	-4.84
7,508.8	0.93	179.10	7,360.1	917.0	-675.1	1,138.7	1.77	-1.76	-12.31
<b>TARGET CIRCLE 1980'FSL &amp; 660'FWL - LEGAL BOX 400' X 400' 1986'FSL &amp; 662'FWL</b>									
7,594.0	0.60	18.70	7,445.3	916.8	-675.0	1,138.4	1.77	-0.39	-188.23
7,689.0	0.40	156.90	7,540.3	916.9	-674.7	1,138.4	0.99	-0.21	145.47
7,784.0	0.20	124.70	7,635.3	916.5	-674.4	1,137.9	0.27	-0.21	-33.89
7,880.0	0.30	153.00	7,731.3	916.2	-674.2	1,137.5	0.16	0.10	29.48
7,976.0	0.30	217.60	7,827.3	915.8	-674.2	1,137.2	0.33	0.00	67.29
8,070.0	0.20	93.40	7,921.3	915.6	-674.2	1,137.0	0.47	-0.11	-132.13
8,165.0	0.00	344.40	8,016.3	915.6	-674.0	1,136.9	0.21	-0.21	0.00
8,261.0	0.20	120.20	8,112.3	915.5	-673.9	1,136.8	0.21	0.21	0.00
8,381.0	0.10	196.10	8,232.3	915.3	-673.7	1,136.5	0.17	-0.08	63.25
8,505.0	0.40	255.50	8,356.3	915.1	-674.2	1,136.6	0.29	0.24	47.90
8,555.0	0.40	255.50	8,406.3	915.0	-674.5	1,136.7	0.00	0.00	0.00

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_