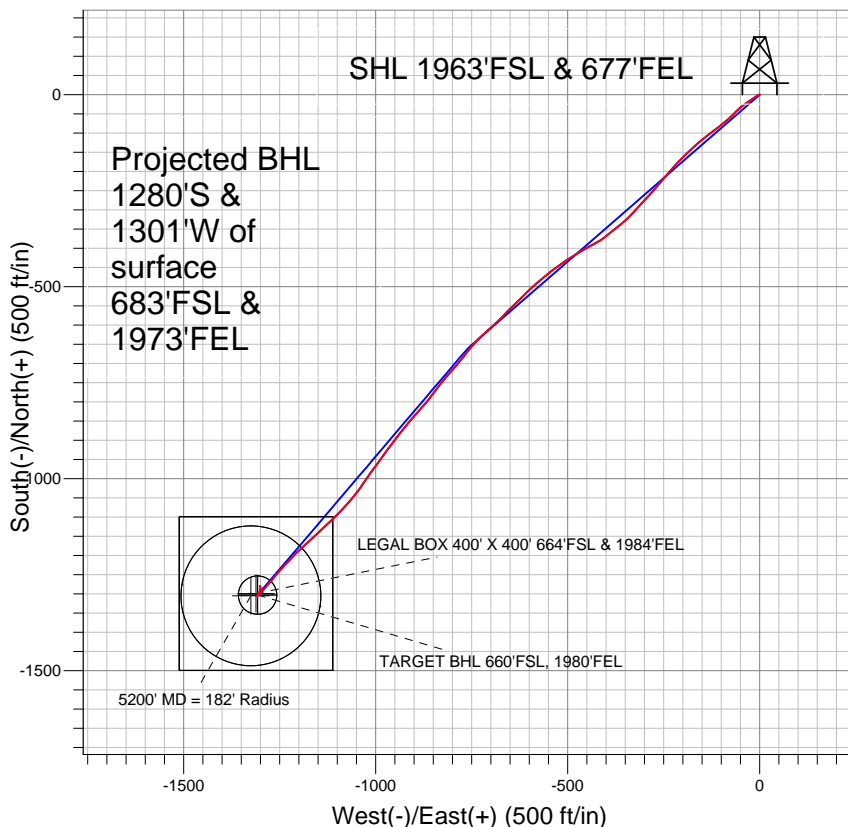


## Anadarko, Weld County CO



### LEGEND

- Wildflower 15-27, Wellbore #1, Plan #2 (2-10-11) V0
- Wellbore #1
- Survey #1

## Final Survey Plot

Projected Final Survey -  
8720' MD & 8451' TVD @ 1825' VS  
1.5 deg Inc 357.2 deg AZ

Project: SEC.27-T2N-R68W  
Site: Wildflower 9-27 Pad Sec.27-T2N-R68W  
Well: Wildflower 15-27  
Plan: Wellbore #1



## **Anadarko, Weld County CO**

**SEC.27-T2N-R68W**

**Wildflower 9-27 Pad Sec.27-T2N-R68W**

**Wildflower 15-27**

**Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**08 March, 2011**



<b>Company:</b>	Anadarko, Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Wildflower 15-27
<b>Project:</b>	SEC.27-T2N-R68W	<b>TVD Reference:</b>	WELL @ 4985.0ft (Original Well Elev)
<b>Site:</b>	Wildflower 9-27 Pad Sec.27-T2N-R68W	<b>MD Reference:</b>	WELL @ 4985.0ft (Original Well Elev)
<b>Well:</b>	Wildflower 15-27	<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 9-27 Pad Sec.27-T2N-R68W				
Site Position:		Northing:	1,282,487.63 ft	Latitude:	40.107660	
From:	Lat/Long	Easting:	3,144,830.06 ft	Longitude:	-104.982213	
Position Uncertainty:		0.0 ft	Slot Radius:	"	Grid Convergence:	0.33 °

Well	Wildflower 15-27					
Well Position	+N-S	0.0 ft	Northing:	1,282,487.50 ft	Latitude:	40.107660
	+E-W	0.0 ft	Easting:	3,144,809.93 ft	Longitude:	-104.982285
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,970.0 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	2/4/2011	9.00	66.79	52,990

<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>	
	7,175.0	0.0	0.0	225.10	

<b>Survey Program</b>	<b>Date</b>	3/8/2011			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
143.0	8,720.0	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	
143.0	0.50	261.20	143.0	-0.1	-0.6	0.5	0.35	0.35	0.00	
232.0	1.50	253.50	232.0	-0.5	-2.1	1.8	1.13	1.12	-8.65	
323.0	2.90	242.60	322.9	-1.9	-5.3	5.1	1.60	1.54	-11.98	
416.0	5.00	232.20	415.7	-5.5	-10.6	11.4	2.38	2.26	-11.18	
507.0	6.90	237.80	506.2	-10.8	-18.4	20.6	2.18	2.09	6.15	
600.0	8.60	235.10	598.3	-17.8	-28.8	32.9	1.87	1.83	-2.90	
692.0	9.80	234.00	689.2	-26.3	-40.8	47.4	1.32	1.30	-1.20	
786.0	11.40	228.60	781.6	-37.1	-54.2	64.6	2.00	1.70	-5.74	
840.0	11.70	226.00	834.5	-44.5	-62.1	75.4	1.11	0.56	-4.81	
897.0	11.90	224.00	890.3	-52.7	-70.4	87.1	0.80	0.35	-3.51	
992.0	13.60	229.50	982.9	-67.0	-85.7	108.0	2.20	1.79	5.79	
1,087.0	15.80	231.80	1,074.8	-82.3	-104.3	132.0	2.40	2.32	2.42	

<b>Company:</b>	Anadarko, Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Wildflower 15-27
<b>Project:</b>	SEC.27-T2N-R68W	<b>TVD Reference:</b>	WELL @ 4985.0ft (Original Well Elev)
<b>Site:</b>	Wildflower 9-27 Pad Sec.27-T2N-R68W	<b>MD Reference:</b>	WELL @ 4985.0ft (Original Well Elev)
<b>Well:</b>	Wildflower 15-27	<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)
1,182.0	18.50	232.90	1,165.6	-99.4	-126.5	159.8	2.86	2.84	1.16
1,277.0	19.10	231.50	1,255.5	-118.1	-150.7	190.1	0.79	0.63	-1.47
1,372.0	17.60	226.90	1,345.7	-137.6	-173.4	219.9	2.19	-1.58	-4.84
1,467.0	17.10	225.90	1,436.3	-157.1	-193.9	248.3	0.61	-0.53	-1.05
1,563.0	17.00	224.60	1,528.1	-177.0	-213.9	276.4	0.41	-0.10	-1.35
1,658.0	16.90	219.30	1,619.0	-197.5	-232.4	304.0	1.63	-0.11	-5.58
1,753.0	17.00	219.60	1,709.9	-218.9	-250.0	331.6	0.14	0.11	0.32
1,848.0	17.80	221.30	1,800.5	-240.5	-268.4	359.9	1.00	0.84	1.79
1,943.0	16.90	223.40	1,891.2	-261.5	-287.5	388.2	1.15	-0.95	2.21
2,041.0	17.30	223.10	1,984.9	-282.5	-307.2	417.0	0.42	0.41	-0.31
2,136.0	16.70	221.30	2,075.7	-303.0	-325.9	444.7	0.84	-0.63	-1.89
2,231.0	17.30	226.40	2,166.6	-323.0	-345.1	472.5	1.69	0.63	5.37
2,326.0	16.60	230.90	2,257.5	-341.3	-365.9	500.1	1.56	-0.74	4.74
2,422.0	16.10	232.30	2,349.6	-358.1	-387.1	527.0	0.66	-0.52	1.46
2,517.0	15.80	232.90	2,440.9	-374.0	-407.8	552.8	0.36	-0.32	0.63
2,612.0	16.80	241.30	2,532.1	-388.4	-430.2	578.8	2.69	1.05	8.84
2,707.0	16.90	240.40	2,623.0	-401.8	-454.2	605.3	0.29	0.11	-0.95
2,803.0	18.50	238.60	2,714.5	-416.6	-479.3	633.6	1.76	1.67	-1.88
2,898.0	18.10	237.30	2,804.7	-432.4	-504.6	662.7	0.60	-0.42	-1.37
2,993.0	17.10	233.80	2,895.2	-448.7	-528.3	690.9	1.53	-1.05	-3.68
3,088.0	16.00	230.50	2,986.3	-465.2	-549.7	717.8	1.52	-1.16	-3.47
3,183.0	17.10	228.00	3,077.4	-482.9	-570.2	744.8	1.38	1.16	-2.63
3,278.0	17.00	229.20	3,168.2	-501.3	-591.1	772.6	0.39	-0.11	1.26
3,374.0	15.10	225.30	3,260.4	-519.3	-610.6	799.1	2.27	-1.98	-4.06
3,468.0	14.50	224.90	3,351.3	-536.3	-627.6	823.1	0.65	-0.64	-0.43
3,563.0	14.50	227.80	3,443.3	-552.7	-644.8	846.8	0.76	0.00	3.05
3,659.0	16.20	221.50	3,535.9	-570.8	-662.6	872.2	2.48	1.77	-6.56
3,754.0	16.50	227.70	3,627.0	-589.8	-681.3	898.9	1.86	0.32	6.53
3,849.0	17.70	227.00	3,717.8	-608.7	-701.9	926.8	1.28	1.26	-0.74
3,944.0	17.20	228.50	3,808.5	-627.9	-723.0	955.3	0.71	-0.53	1.58
4,039.0	16.60	222.00	3,899.4	-647.3	-742.6	982.9	2.09	-0.63	-6.84
4,134.0	17.50	218.90	3,990.2	-668.5	-760.6	1,010.6	1.35	0.95	-3.26
4,230.0	19.00	217.90	4,081.4	-692.0	-779.3	1,040.5	1.60	1.56	-1.04
4,325.0	19.30	222.30	4,171.1	-715.8	-799.3	1,071.5	1.55	0.32	4.63
4,420.0	19.80	220.40	4,260.6	-739.7	-820.3	1,103.2	0.85	0.53	-2.00
4,515.0	18.50	216.40	4,350.4	-764.1	-839.7	1,134.1	1.94	-1.37	-4.21
4,610.0	19.30	217.00	4,440.3	-788.8	-858.1	1,164.6	0.87	0.84	0.63
4,705.0	19.20	222.70	4,530.0	-812.8	-878.1	1,195.7	1.98	-0.11	6.00
4,801.0	21.50	220.20	4,620.0	-837.8	-900.2	1,229.0	2.56	2.40	-2.60
4,896.0	20.20	219.50	4,708.7	-863.8	-921.9	1,262.7	1.39	-1.37	-0.74
4,990.0	18.30	218.70	4,797.5	-887.8	-941.4	1,293.5	2.04	-2.02	-0.85
5,085.0	18.50	216.90	4,887.6	-911.5	-959.8	1,323.3	0.63	0.21	-1.89
5,181.0	18.50	215.30	4,978.7	-936.1	-977.8	1,353.4	0.53	0.00	-1.67
5,276.0	19.50	215.60	5,068.5	-961.3	-995.7	1,383.9	1.06	1.05	0.32
5,371.0	18.80	217.40	5,158.2	-986.4	-1,014.2	1,414.7	0.96	-0.74	1.89
5,466.0	17.40	212.50	5,248.5	-1,010.5	-1,031.2	1,443.7	2.18	-1.47	-5.16
5,507.4	16.78	214.37	5,288.1	-1,020.7	-1,037.9	1,455.6	2.01	-1.50	4.52
<b>5200' MD = 182' Radius</b>									
5,561.0	16.00	217.00	5,339.5	-1,033.0	-1,046.7	1,470.5	2.01	-1.45	4.90
5,656.0	15.80	218.50	5,430.9	-1,053.5	-1,062.6	1,496.3	0.48	-0.21	1.58
5,752.0	16.40	224.30	5,523.1	-1,073.5	-1,080.2	1,522.9	1.79	0.63	6.04
5,847.0	16.90	225.60	5,614.2	-1,092.7	-1,099.4	1,550.1	0.66	0.53	1.37
5,942.0	18.10	227.00	5,704.8	-1,112.4	-1,120.1	1,578.6	1.34	1.26	1.47
6,037.0	17.80	225.50	5,795.1	-1,132.7	-1,141.2	1,607.9	0.58	-0.32	-1.58

<b>Company:</b>	Anadarko, Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Wildflower 15-27
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<b>Site:</b>	Wildflower 9-27 Pad Sec.27-T2N-R68W	<b>MD Reference:</b>	WELL @ 4985.0ft (Original Well Elev)
<b>Well:</b>	Wildflower 15-27	<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)
6,132.0	16.20	225.90	5,886.0	-1,152.1	-1,161.1	1,635.7	1.69	-1.68	0.42
6,227.0	15.80	229.90	5,977.3	-1,169.6	-1,180.5	1,661.8	1.23	-0.42	4.21
6,323.0	16.00	226.40	6,069.6	-1,187.2	-1,200.1	1,688.1	1.02	0.21	-3.65
6,418.0	14.90	222.10	6,161.2	-1,205.3	-1,217.8	1,713.4	1.67	-1.16	-4.53
6,513.0	14.00	224.20	6,253.2	-1,222.6	-1,234.0	1,737.1	1.10	-0.95	2.21
6,608.0	12.30	222.80	6,345.7	-1,238.2	-1,248.9	1,758.7	1.82	-1.79	-1.47
6,703.0	10.60	219.10	6,438.8	-1,252.4	-1,261.3	1,777.5	1.95	-1.79	-3.89
6,798.0	10.10	219.50	6,532.3	-1,265.7	-1,272.1	1,794.4	0.53	-0.53	0.42
6,893.0	8.80	219.40	6,626.0	-1,277.7	-1,282.0	1,810.0	1.37	-1.37	-0.11
6,989.0	6.90	222.70	6,721.1	-1,287.6	-1,290.5	1,823.0	2.03	-1.98	3.44
7,084.0	5.40	225.10	6,815.5	-1,295.0	-1,297.6	1,833.2	1.60	-1.58	2.53
7,179.0	4.00	225.60	6,910.2	-1,300.4	-1,303.1	1,841.0	1.47	-1.47	0.53
7,274.0	2.70	232.80	7,005.0	-1,304.1	-1,307.3	1,846.5	1.44	-1.37	7.58
7,369.0	0.20	333.60	7,100.0	-1,305.3	-1,309.1	1,848.7	2.89	-2.63	106.11
7,444.0	0.37	94.98	7,175.0	-1,305.2	-1,308.9	1,848.5	0.67	0.23	161.82
<b>TARGET BHL 660'FSL, 1980'FEL</b>									
7,464.0	0.50	100.20	7,195.0	-1,305.2	-1,308.8	1,848.4	0.67	0.64	26.12
7,560.0	0.90	19.80	7,291.0	-1,304.6	-1,308.1	1,847.5	0.99	0.42	-83.75
7,644.0	1.25	16.41	7,375.0	-1,303.1	-1,307.6	1,846.1	0.43	0.42	-4.04
<b>TARGET CIRCLE 660'FSL &amp; 1980'FEL</b>									
7,644.1	1.25	16.41	7,375.1	-1,303.1	-1,307.6	1,846.1	0.00	0.00	0.00
<b>LEGAL BOX 400' X 400' 664'FSL &amp; 1984'FEL</b>									
7,655.0	1.30	16.10	7,386.0	-1,302.9	-1,307.6	1,845.9	0.43	0.43	-2.81
7,750.0	1.20	31.10	7,480.9	-1,301.0	-1,306.8	1,844.0	0.36	-0.11	15.79
7,845.0	1.20	34.40	7,575.9	-1,299.3	-1,305.7	1,842.0	0.07	0.00	3.47
7,941.0	1.30	36.20	7,671.9	-1,297.6	-1,304.5	1,839.9	0.11	0.10	1.88
8,035.0	1.30	35.50	7,765.9	-1,295.9	-1,303.2	1,837.8	0.02	0.00	-0.74
8,131.0	1.30	23.10	7,861.9	-1,294.0	-1,302.2	1,835.8	0.29	0.00	-12.92
8,226.0	1.20	15.60	7,956.8	-1,292.0	-1,301.5	1,833.9	0.20	-0.11	-7.89
8,322.0	1.50	4.10	8,052.8	-1,289.8	-1,301.1	1,832.1	0.42	0.31	-11.98
8,417.0	1.30	10.90	8,147.8	-1,287.5	-1,300.8	1,830.2	0.27	-0.21	7.16
8,512.0	1.50	359.40	8,242.8	-1,285.2	-1,300.6	1,828.5	0.36	0.21	-12.11
8,606.0	1.40	355.20	8,336.7	-1,282.8	-1,300.7	1,826.9	0.16	-0.11	-4.47
8,670.0	1.50	357.20	8,400.7	-1,281.2	-1,300.8	1,825.8	0.18	0.16	3.13
8,720.0	1.50	357.20	8,450.7	-1,279.9	-1,300.9	1,824.9	0.00	0.00	0.00

Checked By: _____	Approved By: _____	Date: _____
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