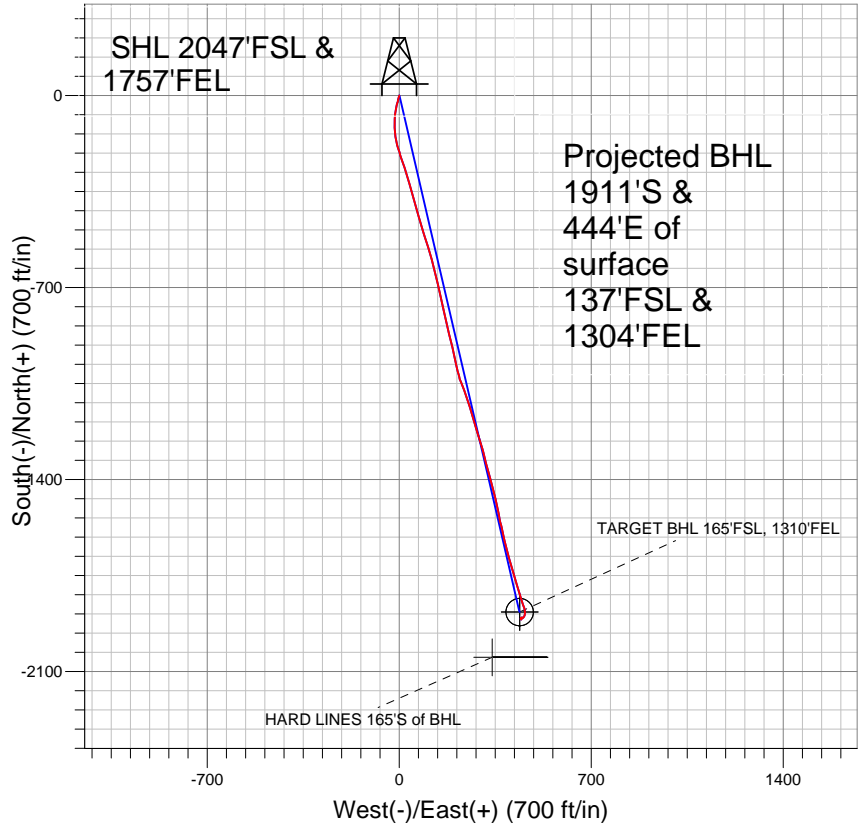


Anadarko, Weld County CO

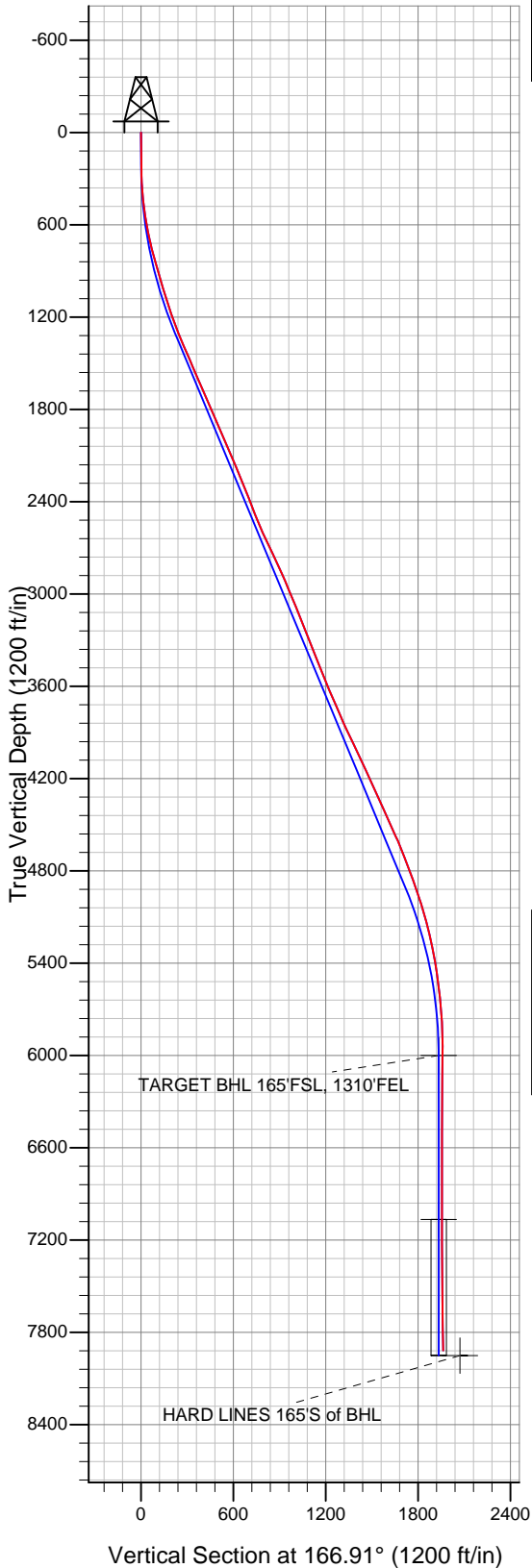


LEGEND

- + Barron Federal 37-18, Wellbore #1, Plan #2 (10-14-10) V0
- Wellbore #1
- Survey #1

Final Survey Plot

Projected Final Survey -
8290'MD & 7918'TVD @ 1962' VS
0.8 deg Inc 163.0 deg AZ



Project: SEC.18-T3N-R66W
Site: Barron Federal 10-18 Pad Sec.18-T3N-R66W
Well: Barron Federal 37-18
Plan: Wellbore #1



Directional

Anadarko, Weld County CO

SEC.18-T3N-R66W

Barron Federal 10-18 Pad Sec.18-T3N-R66W

Barron Federal 37-18

Wellbore #1

Survey: Survey #1

Standard Survey Report

09 November, 2010

Company:	Anadarko, Weld County CO	Local Co-ordinate Reference:	Well Barron Federal 37-18
Project:	SEC.18-T3N-R66W	TVD Reference:	WELL @ 4840.0ft (Original Well Elev)
Site:	Barron Federal 10-18 Pad Sec.18-T3N-R66W	MD Reference:	WELL @ 4840.0ft (Original Well Elev)
Well:	Barron Federal 37-18	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.18-T3N-R66W, Weld County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	Barron Federal 10-18 Pad Sec.18-T3N-R66W		
Site Position:		Northing:	1,324,804.29 ft
From:	Lat/Long	Easting:	3,190,683.90 ft
Position Uncertainty:	0.0 ft	Slot Radius:	"
		Latitude:	40° 13' 22.692 N
		Longitude:	104° 49' 1.632 W
		Grid Convergence:	0.44 °

Well	Barron Federal 37-18		
Well Position	+N-S	0.0 ft	Northing: 1,324,804.40 ft
	+E-W	0.0 ft	Easting: 3,190,700.66 ft
Position Uncertainty		0.0 ft	Wellhead Elevation: ft
			Latitude: 40° 13' 22.692 N
			Longitude: 104° 49' 1.416 W
			Ground Level: 4,826.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/12/2010	8.97	66.92	53,104

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	
Vertical Section:	Depth From (TVD) (ft)	+N-S (ft)	+E-W (ft)	Direction (°)	
	0.0	0.0	0.0	166.91	

Survey Program	Date	11/9/2010			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
157.0	8,290.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

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)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
157.0	1.20	199.00	157.0	-1.6	-0.5	1.4	0.76	0.76	0.00	
248.0	1.20	205.00	248.0	-3.3	-1.2	3.0	0.14	0.00	6.59	
340.0	3.30	196.10	339.9	-6.7	-2.4	6.0	2.31	2.28	-9.67	
432.0	6.70	192.20	431.5	-14.5	-4.3	13.2	3.71	3.70	-4.24	
524.0	9.00	195.90	522.7	-26.7	-7.4	24.3	2.56	2.50	4.02	
609.0	11.60	191.40	606.3	-41.5	-10.9	37.9	3.20	3.06	-5.29	
701.0	13.40	189.30	696.1	-61.1	-14.4	56.2	2.02	1.96	-2.28	
819.0	16.60	182.00	810.1	-91.4	-17.2	85.1	3.14	2.71	-6.19	
906.0	16.30	177.90	893.5	-116.0	-17.2	109.1	1.38	-0.34	-4.71	
1,001.0	16.10	173.60	984.7	-142.4	-15.3	135.3	1.28	-0.21	-4.53	
1,096.0	17.00	167.20	1,075.8	-169.1	-10.7	162.3	2.14	0.95	-6.74	
1,191.0	18.90	162.60	1,166.2	-197.3	-3.0	191.5	2.49	2.00	-4.84	

Company:	Anadarko, Weld County CO	Local Co-ordinate Reference:	Well Barron Federal 37-18
Project:	SEC.18-T3N-R66W	TVD Reference:	WELL @ 4840.0ft (Original Well Elev)
Site:	Barron Federal 10-18 Pad Sec.18-T3N-R66W	MD Reference:	WELL @ 4840.0ft (Original Well Elev)
Well:	Barron Federal 37-18	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	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)
1,286.0	21.00	161.00	1,255.5	-228.1	7.1	223.8	2.28	2.21	-1.68
1,382.0	23.40	161.60	1,344.4	-262.4	18.7	259.9	2.51	2.50	0.63
1,477.0	23.60	165.30	1,431.5	-298.7	29.5	297.7	1.57	0.21	3.89
1,572.0	22.60	161.50	1,518.9	-334.5	40.1	334.8	1.89	-1.05	-4.00
1,667.0	23.00	164.70	1,606.5	-369.7	50.8	371.6	1.37	0.42	3.37
1,762.0	24.40	166.10	1,693.4	-406.6	60.4	409.7	1.59	1.47	1.47
1,857.0	23.10	162.30	1,780.4	-443.4	70.8	447.9	2.11	-1.37	-4.00
1,953.0	23.30	164.10	1,868.6	-479.6	81.7	485.7	0.77	0.21	1.88
2,048.0	23.70	161.40	1,955.8	-515.8	93.0	523.4	1.21	0.42	-2.84
2,143.0	23.20	163.20	2,042.9	-551.8	104.5	561.1	0.92	-0.53	1.89
2,238.0	23.30	165.20	2,130.2	-587.9	114.7	598.6	0.84	0.11	2.11
2,333.0	22.90	163.70	2,217.6	-623.8	124.7	635.8	0.75	-0.42	-1.58
2,428.0	21.40	167.30	2,305.6	-658.4	133.7	671.6	2.13	-1.58	3.79
2,523.0	21.20	168.10	2,394.1	-692.2	141.0	706.1	0.37	-0.21	0.84
2,619.0	22.00	167.00	2,483.4	-726.7	148.6	741.4	0.93	0.83	-1.15
2,714.0	23.20	167.30	2,571.1	-762.3	156.8	777.9	1.27	1.26	0.32
2,809.0	25.60	167.30	2,657.6	-800.5	165.4	817.2	2.53	2.53	0.00
2,904.0	24.90	167.40	2,743.5	-840.1	174.3	857.7	0.74	-0.74	0.11
2,999.0	24.80	165.60	2,829.7	-878.9	183.6	897.6	0.80	-0.11	-1.89
3,095.0	23.30	167.40	2,917.4	-916.9	192.7	936.7	1.74	-1.56	1.88
3,190.0	22.10	167.60	3,005.0	-952.7	200.7	973.4	1.27	-1.26	0.21
3,285.0	22.50	167.40	3,092.9	-987.9	208.5	1,009.5	0.43	0.42	-0.21
3,380.0	21.80	164.20	3,180.9	-1,022.6	217.2	1,045.3	1.47	-0.74	-3.37
3,474.0	21.80	158.60	3,268.2	-1,055.7	228.4	1,080.0	2.21	0.00	-5.96
3,570.0	22.00	159.40	3,357.2	-1,089.1	241.2	1,115.4	0.37	0.21	0.83
3,665.0	21.60	162.50	3,445.5	-1,122.4	252.7	1,150.5	1.28	-0.42	3.26
3,760.0	22.50	162.20	3,533.5	-1,156.4	263.5	1,186.1	0.95	0.95	-0.32
3,856.0	22.50	165.30	3,622.2	-1,191.7	273.8	1,222.7	1.24	0.00	3.23
3,951.0	23.50	164.00	3,709.6	-1,227.5	283.6	1,259.8	1.18	1.05	-1.37
4,046.0	23.60	161.10	3,796.7	-1,263.7	295.0	1,297.6	1.22	0.11	-3.05
4,141.0	25.40	166.00	3,883.2	-1,301.4	306.1	1,336.9	2.86	1.89	5.16
4,236.0	25.10	166.50	3,969.1	-1,340.8	315.7	1,377.5	0.39	-0.32	0.53
4,331.0	25.80	164.40	4,054.9	-1,380.3	326.0	1,418.3	1.20	0.74	-2.21
4,426.0	24.90	162.30	4,140.7	-1,419.3	337.6	1,458.9	1.34	-0.95	-2.21
4,522.0	23.70	168.00	4,228.3	-1,457.4	347.8	1,498.3	2.74	-1.25	5.94
4,617.0	25.40	169.00	4,314.7	-1,496.1	355.7	1,537.8	1.84	1.79	1.05
4,712.0	23.20	167.90	4,401.2	-1,534.4	363.5	1,576.8	2.36	-2.32	-1.16
4,807.0	24.30	166.80	4,488.2	-1,571.7	371.9	1,615.1	1.25	1.16	-1.16
4,902.0	24.60	167.70	4,574.7	-1,610.1	380.5	1,654.4	0.50	0.32	0.95
4,997.0	21.80	165.90	4,662.0	-1,646.5	389.0	1,691.8	3.04	-2.95	-1.89
5,092.0	21.20	164.60	4,750.4	-1,680.2	397.9	1,726.6	0.81	-0.63	-1.37
5,187.0	19.20	163.80	4,839.5	-1,711.7	406.8	1,759.4	2.13	-2.11	-0.84
5,282.0	19.60	162.30	4,929.1	-1,741.9	416.0	1,790.9	0.67	0.42	-1.58
5,377.0	17.70	164.70	5,019.1	-1,771.0	424.7	1,821.2	2.16	-2.00	2.53
5,472.0	14.50	163.50	5,110.4	-1,796.4	431.9	1,847.5	3.39	-3.37	-1.26
5,568.0	13.80	162.20	5,203.5	-1,818.8	438.8	1,870.9	0.80	-0.73	-1.35
5,663.0	12.00	161.90	5,296.1	-1,839.0	445.3	1,892.0	1.90	-1.89	-0.32
5,758.0	9.60	161.80	5,389.4	-1,855.9	450.9	1,909.8	2.53	-2.53	-0.11
5,853.0	8.30	161.30	5,483.2	-1,869.9	455.5	1,924.5	1.37	-1.37	-0.53
5,948.0	6.80	176.30	5,577.4	-1,882.0	458.1	1,936.9	2.59	-1.58	15.79
6,044.0	6.10	193.50	5,672.8	-1,892.6	457.3	1,947.0	2.13	-0.73	17.92
6,139.0	4.30	218.10	5,767.4	-1,900.4	453.9	1,953.8	2.98	-1.89	25.89
6,234.0	3.10	222.20	5,862.2	-1,905.1	450.0	1,957.5	1.29	-1.26	4.32
6,329.0	2.80	261.70	5,957.1	-1,907.3	446.0	1,958.7	2.12	-0.32	41.58

Company:	Anadarko, Weld County CO	Local Co-ordinate Reference:	Well Barron Federal 37-18
Project:	SEC.18-T3N-R66W	TVD Reference:	WELL @ 4840.0ft (Original Well Elev)
Site:	Barron Federal 10-18 Pad Sec.18-T3N-R66W	MD Reference:	WELL @ 4840.0ft (Original Well Elev)
Well:	Barron Federal 37-18	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	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)
6,372.2	1.83	279.17	6,000.3	-1,907.3	444.2	1,958.4	2.75	-2.24	40.42
TARGET BHL 165'FSL, 1310'FEL									
6,424.0	1.30	329.90	6,052.1	-1,906.7	443.1	1,957.5	2.75	-1.02	97.99
6,519.0	1.60	86.80	6,147.1	-1,905.7	443.9	1,956.7	2.61	0.32	123.05
6,615.0	1.10	67.00	6,243.0	-1,905.3	446.1	1,956.8	0.71	-0.52	-20.63
6,710.0	0.50	54.50	6,338.0	-1,904.7	447.3	1,956.5	0.65	-0.63	-13.16
6,805.0	0.50	32.30	6,433.0	-1,904.1	447.8	1,956.0	0.20	0.00	-23.37
6,900.0	0.50	279.00	6,528.0	-1,903.7	447.6	1,955.6	0.88	0.00	-119.26
6,995.0	0.50	35.30	6,623.0	-1,903.3	447.5	1,955.1	0.89	0.00	122.42
7,090.0	0.40	279.00	6,718.0	-1,902.9	447.4	1,954.7	0.81	-0.11	-122.42
7,186.0	0.60	279.00	6,814.0	-1,902.7	446.6	1,954.4	0.21	0.21	0.00
7,281.0	0.40	175.20	6,909.0	-1,903.0	446.1	1,954.6	0.84	-0.21	-109.26
7,376.0	0.50	266.20	7,004.0	-1,903.3	445.7	1,954.8	0.68	0.11	95.79
7,437.0	0.59	235.54	7,065.0	-1,903.5	445.2	1,954.9	0.50	0.15	-50.30
TARGET CIRCLE 165'FSL, 1310'FEL									
7,471.0	0.70	223.80	7,099.0	-1,903.8	444.9	1,955.1	0.50	0.31	-34.48
7,566.0	0.80	246.40	7,194.0	-1,904.5	443.9	1,955.5	0.33	0.11	23.79
7,661.0	0.50	159.50	7,289.0	-1,905.1	443.4	1,956.0	0.97	-0.32	-91.47
7,757.0	0.50	189.30	7,385.0	-1,905.9	443.5	1,956.8	0.27	0.00	31.04
7,852.0	0.60	216.50	7,480.0	-1,906.7	443.1	1,957.6	0.29	0.11	28.63
7,948.0	0.60	216.00	7,576.0	-1,907.6	442.5	1,958.2	0.01	0.00	-0.52
8,042.0	0.50	165.60	7,670.0	-1,908.3	442.3	1,958.9	0.51	-0.11	-53.62
8,138.0	1.20	127.30	7,766.0	-1,909.4	443.3	1,960.1	0.90	0.73	-39.90
8,233.0	0.80	163.00	7,860.9	-1,910.6	444.2	1,961.6	0.76	-0.42	37.58
8,290.0	0.80	163.00	7,917.9	-1,911.4	444.5	1,962.4	0.00	0.00	0.00
HARD LINES 165'S of BHL									

Checked By: _____ Approved By: _____ Date: _____