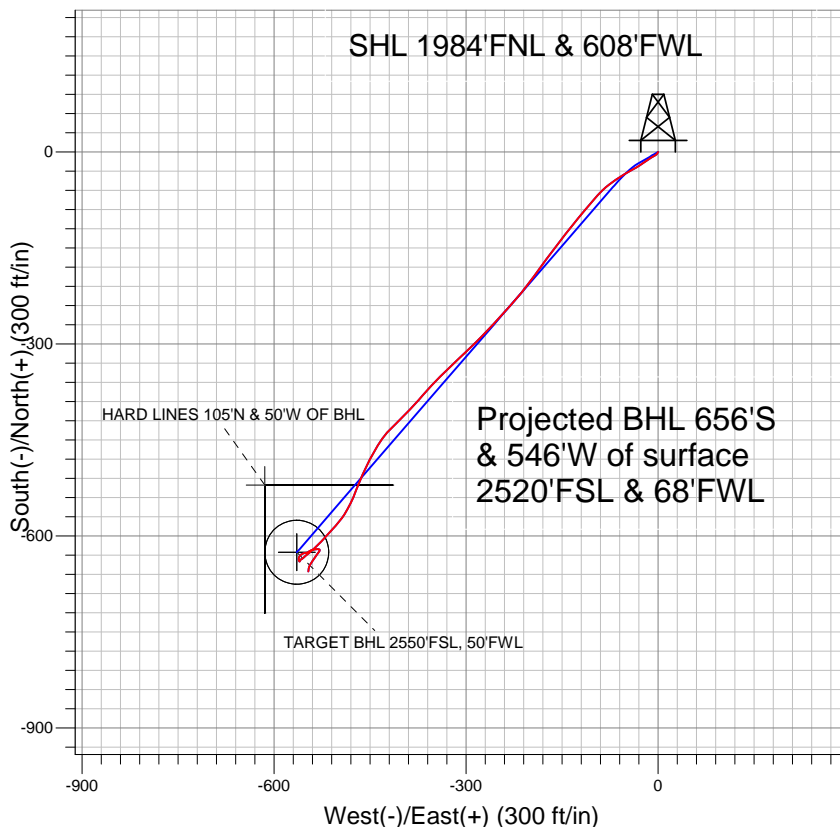


Anadarko, Weld County CO

SHL 1984'FNL & 608'FWL



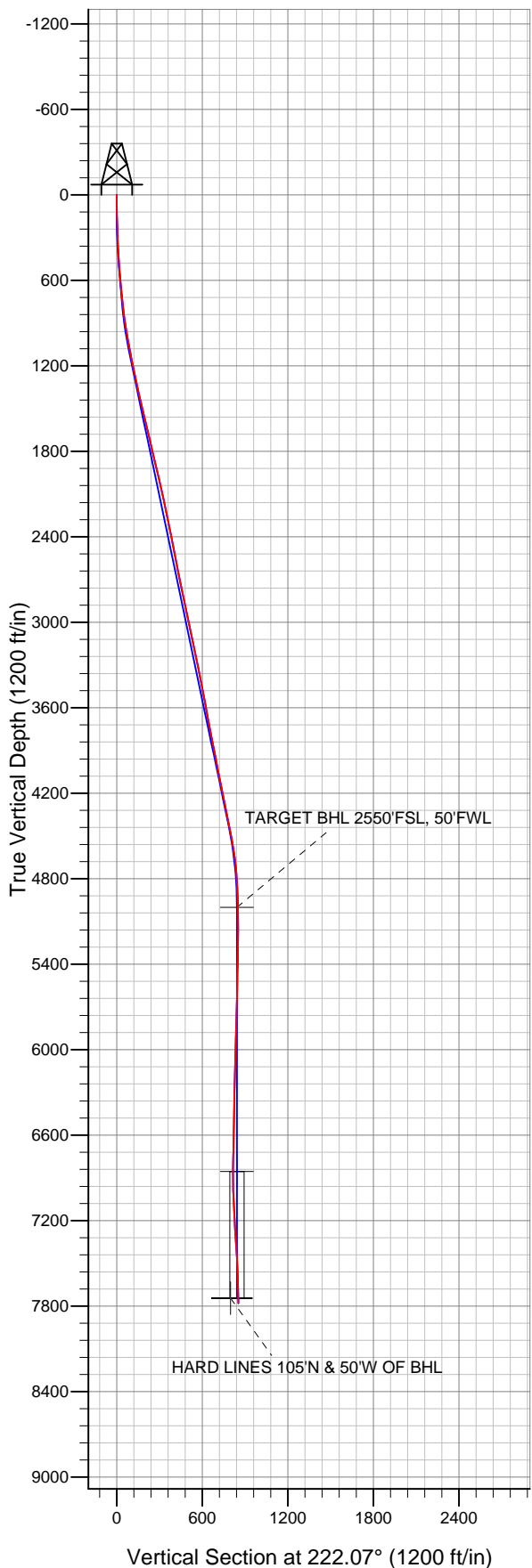
LEGEND

- Cannon 32-3, Wellbore #1, Plan #2 (6-24-11) V0
- Wellbore #1
- Survey #1

Final Survey Plot

Projected Final Survey -
7865'MD & 7780'TVD @ 853'VS
1.6 deg Inc 186.3 deg AZ

Project: SEC.3-T2N-R65W
Site: Cannon 5-3 Pad Sec.3-T2N-R65W
Well: Cannon 32-3
Plan: Wellbore #1





Directional

Anadarko, Weld County CO

SEC.3-T2N-R65W

Cannon 5-3 Pad Sec.3-T2N-R65W

Cannon 32-3

Wellbore #1

Survey: Survey #1

Standard Survey Report

25 July, 2011

Company:	Anadarko, Weld County CO	Local Co-ordinate Reference:	Well Cannon 32-3
Project:	SEC.3-T2N-R65W	TVD Reference:	WELL @ 4862.0ft (Original Well Elev)
Site:	Cannon 5-3 Pad Sec.3-T2N-R65W	MD Reference:	WELL @ 4862.0ft (Original Well Elev)
Well:	Cannon 32-3	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.3-T2N-R65W, 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	Cannon 5-3 Pad Sec.3-T2N-R65W		
Site Position:		Northing:	1,305,581.72 ft
From:	Lat/Long	Easting:	3,235,593.03 ft
Position Uncertainty:	0.0 ft	Slot Radius:	"
		Latitude:	40.169143
		Longitude:	-104.656954
		Grid Convergence:	0.54 °

Well	Cannon 32-3		
Well Position	+N/-S	0.0 ft	Northing: 1,305,604.44 ft
	+E/-W	0.0 ft	Easting: 3,235,570.46 ft
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft
		Latitude:	40.169206
		Longitude:	-104.657034
		Ground Level:	4,847.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/28/2011	8.78	66.88	53,018

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	222.07	

Survey Program	Date 7/25/2011				
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
144.0	7,865.0	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	
144.0	1.10	206.60	144.0	-1.2	-0.6	1.3	0.76	0.76	0.00	
233.0	1.40	221.80	233.0	-2.8	-1.7	3.2	0.50	0.34	17.08	
324.0	2.60	231.60	323.9	-4.9	-4.1	6.4	1.37	1.32	10.77	
415.0	3.60	242.80	414.8	-7.5	-8.2	11.1	1.28	1.10	12.31	
507.0	4.50	235.60	506.5	-10.9	-13.8	17.3	1.12	0.98	-7.83	
599.0	5.20	235.50	598.2	-15.3	-20.2	24.9	0.76	0.76	-0.11	
715.0	6.00	237.20	713.7	-21.5	-29.6	35.8	0.70	0.69	1.47	
881.0	8.00	241.40	878.4	-31.8	-47.1	55.1	1.24	1.20	2.53	
976.0	10.00	237.80	972.2	-39.3	-59.9	69.3	2.19	2.11	-3.79	
1,071.0	11.30	232.60	1,065.6	-49.4	-74.2	86.4	1.70	1.37	-5.47	
1,166.0	10.90	225.70	1,158.8	-61.3	-88.1	104.5	1.46	-0.42	-7.26	
1,261.0	11.80	220.50	1,252.0	-75.0	-100.8	123.2	1.43	0.95	-5.47	

Company:	Anadarko, Weld County CO	Local Co-ordinate Reference:	Well Cannon 32-3
Project:	SEC.3-T2N-R65W	TVD Reference:	WELL @ 4862.0ft (Original Well Elev)
Site:	Cannon 5-3 Pad Sec.3-T2N-R65W	MD Reference:	WELL @ 4862.0ft (Original Well Elev)
Well:	Cannon 32-3	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)
1,356.0	13.00	220.00	1,344.8	-90.5	-114.0	143.6	1.27	1.26	-0.53
1,451.0	12.80	218.60	1,437.4	-106.9	-127.4	164.7	0.39	-0.21	-1.47
1,547.0	13.80	218.80	1,530.8	-124.2	-141.2	186.8	1.04	1.04	0.21
1,642.0	13.10	217.70	1,623.2	-141.5	-154.9	208.8	0.78	-0.74	-1.16
1,737.0	13.40	216.10	1,715.7	-158.9	-168.0	230.5	0.50	0.32	-1.68
1,832.0	13.00	215.80	1,808.1	-176.5	-180.7	252.1	0.43	-0.42	-0.32
1,927.0	13.20	217.20	1,900.7	-193.8	-193.5	273.5	0.39	0.21	1.47
2,022.0	13.70	216.90	1,993.1	-211.4	-206.8	295.5	0.53	0.53	-0.32
2,118.0	12.60	221.00	2,086.6	-228.4	-220.5	317.3	1.50	-1.15	4.27
2,213.0	11.60	223.20	2,179.4	-243.2	-233.9	337.2	1.16	-1.05	2.32
2,309.0	11.30	220.80	2,273.5	-257.4	-246.6	356.3	0.59	-0.31	-2.50
2,405.0	11.50	224.30	2,367.6	-271.3	-259.4	375.3	0.75	0.21	3.65
2,500.0	11.30	223.20	2,460.8	-284.9	-272.4	394.0	0.31	-0.21	-1.16
2,596.0	10.90	224.80	2,555.0	-298.2	-285.3	412.5	0.53	-0.42	1.67
2,691.0	11.20	227.20	2,648.2	-310.8	-298.4	430.7	0.58	0.32	2.53
2,786.0	11.60	226.50	2,741.3	-323.7	-312.1	449.4	0.45	0.42	-0.74
2,881.0	12.00	226.10	2,834.3	-337.1	-326.1	468.7	0.43	0.42	-0.42
2,977.0	11.90	225.30	2,928.2	-351.0	-340.3	488.6	0.20	-0.10	-0.83
3,072.0	12.40	223.10	3,021.1	-365.3	-354.3	508.6	0.72	0.53	-2.32
3,167.0	12.10	220.20	3,114.0	-380.4	-367.6	528.7	0.72	-0.32	-3.05
3,262.0	11.40	224.80	3,207.0	-394.6	-380.7	548.0	1.23	-0.74	4.84
3,357.0	11.60	222.40	3,300.1	-408.4	-393.7	567.0	0.55	0.21	-2.53
3,453.0	10.80	224.60	3,394.2	-421.9	-406.6	585.6	0.94	-0.83	2.29
3,548.0	10.80	226.20	3,487.5	-434.4	-419.2	603.4	0.32	0.00	1.68
3,643.0	10.70	215.40	3,580.9	-447.7	-430.8	621.0	2.12	-0.11	-11.37
3,738.0	10.70	211.20	3,674.2	-462.5	-440.5	638.4	0.82	0.00	-4.42
3,833.0	11.30	206.80	3,767.5	-478.3	-449.2	656.1	1.09	0.63	-4.63
3,928.0	12.00	205.80	3,860.5	-495.5	-457.7	674.5	0.77	0.74	-1.05
4,023.0	11.40	202.40	3,953.6	-513.1	-465.6	692.9	0.96	-0.63	-3.58
4,118.0	11.80	201.30	4,046.6	-530.8	-472.7	710.8	0.48	0.42	-1.16
4,213.0	12.40	205.60	4,139.5	-549.1	-480.6	729.6	1.14	0.63	4.53
4,309.0	11.50	211.90	4,233.4	-566.5	-490.1	748.9	1.65	-0.94	6.56
4,404.0	11.30	222.70	4,326.6	-581.4	-501.5	767.6	2.25	-0.21	11.37
4,499.0	11.10	220.80	4,419.8	-595.1	-513.8	786.0	0.44	-0.21	-2.00
4,594.0	11.20	224.70	4,513.0	-608.6	-526.2	804.4	0.80	0.11	4.11
4,689.0	8.60	227.60	4,606.5	-620.0	-538.0	820.7	2.79	-2.74	3.05
4,784.0	5.80	230.40	4,700.8	-627.8	-546.9	832.5	2.97	-2.95	2.95
4,880.0	4.50	227.50	4,796.4	-633.5	-553.4	841.0	1.38	-1.35	-3.02
4,975.0	1.80	252.90	4,891.3	-636.4	-557.6	846.0	3.13	-2.84	26.74
5,070.0	2.30	194.40	4,986.2	-638.7	-559.5	849.0	2.16	0.53	-61.58
5,083.7	1.91	197.24	4,999.9	-639.2	-559.6	849.5	2.98	-2.89	20.76
TARGET BHL 2550'FSL, 50'FWL									
5,165.0	0.80	319.40	5,081.2	-640.0	-560.4	850.6	2.98	-1.36	150.19
5,259.0	0.90	340.70	5,175.2	-638.9	-561.1	850.2	0.35	0.11	22.66
5,355.0	1.00	351.70	5,271.2	-637.3	-561.4	849.3	0.22	0.10	11.46
5,450.0	1.20	3.30	5,366.1	-635.5	-561.5	848.0	0.31	0.21	12.21
5,545.0	1.40	17.30	5,461.1	-633.4	-561.1	846.1	0.39	0.21	14.74
5,640.0	1.30	41.50	5,556.1	-631.5	-560.0	844.0	0.60	-0.11	25.47
5,735.0	1.30	39.70	5,651.1	-629.8	-558.6	841.9	0.04	0.00	-1.89
5,831.0	1.40	56.10	5,747.0	-628.4	-557.0	839.6	0.41	0.10	17.08
5,926.0	1.70	70.00	5,842.0	-627.2	-554.7	837.3	0.50	0.32	14.63
6,021.0	2.40	89.60	5,936.9	-626.7	-551.4	834.7	1.03	0.74	20.63
6,116.0	1.70	55.60	6,031.9	-625.9	-548.2	832.0	1.45	-0.74	-35.79
6,211.0	1.50	58.10	6,126.8	-624.5	-546.0	829.4	0.22	-0.21	2.63

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Survey									
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6,306.0	1.40	65.30	6,221.8	-623.3	-543.9	827.1	0.22	-0.11	7.58
6,402.0	1.30	62.80	6,317.8	-622.3	-541.9	825.0	0.12	-0.10	-2.60
6,497.0	1.30	77.90	6,412.8	-621.6	-539.8	823.2	0.36	0.00	15.89
6,592.0	1.30	81.80	6,507.7	-621.2	-537.7	821.5	0.09	0.00	4.11
6,687.0	1.10	84.70	6,602.7	-621.0	-535.7	820.0	0.22	-0.21	3.05
6,782.0	1.10	85.90	6,697.7	-620.9	-533.9	818.6	0.02	0.00	1.26
6,877.0	1.70	85.30	6,792.7	-620.7	-531.6	816.9	0.63	0.63	-0.63
6,937.5	1.32	104.48	6,853.2	-620.8	-530.0	816.0	1.04	-0.63	31.68
TARGET CIRCLE 2550'FSL & 50'FWL									
6,973.0	1.20	120.30	6,888.6	-621.1	-529.3	815.7	1.04	-0.34	44.61
7,068.0	1.20	194.60	6,983.6	-622.5	-528.7	816.4	1.53	0.00	78.21
7,163.0	2.50	215.00	7,078.6	-625.2	-530.2	819.3	1.51	1.37	21.47
7,258.0	3.30	214.60	7,173.5	-629.1	-532.9	824.1	0.84	0.84	-0.42
7,353.0	3.90	216.10	7,268.3	-634.0	-536.4	830.0	0.64	0.63	1.58
7,448.0	4.10	213.50	7,363.0	-639.4	-540.1	836.6	0.28	0.21	-2.74
7,543.0	3.00	211.90	7,457.9	-644.4	-543.3	842.4	1.16	-1.16	-1.68
7,638.0	2.20	200.40	7,552.8	-648.2	-545.3	846.5	1.00	-0.84	-12.11
7,734.0	2.00	183.90	7,648.7	-651.6	-546.0	849.6	0.66	-0.21	-17.19
7,815.0	1.60	186.30	7,729.7	-654.1	-546.2	851.6	0.50	-0.49	2.96
HARD LINES 105'N & 50'W OF BHL									
7,865.0	1.60	186.30	7,779.6	-655.5	-546.4	852.7	0.00	0.00	0.00

Checked By: _____	Approved By: _____	Date: _____
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