



Noble Energy, Inc

Weld County, CO (NAD 83)

Sec 29, T6N-R62W (Wells Ranch AE30 Pad)

Wells Ranch AE30-63 -1HNC

Wellbore #1

Design: OH

Standard Survey Report

20 May, 2014





IDS Survey Report



Company:	Noble Energy, Inc	Local Co-ordinate Reference:	Well Wells Ranch AE30-63 -1HNC
Project:	Weld County, CO (NAD 83)	TVD Reference:	Well @ 4776.0usft (H&P 277)
Site:	Sec 29, T6N-R62W (Wells Ranch AE30 Pad)	MD Reference:	Well @ 4776.0usft (H&P 277)
Well:	Wells Ranch AE30-63 -1HNC	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Project	Weld County, CO (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	Sec 29, T6N-R62W (Wells Ranch AE30 Pad)				
Site Position:		Northing:	1,410,139.62 usft	Latitude:	40° 27' 12.960 N
From:	Lat/Long	Easting:	3,318,293.89 usft	Longitude:	104° 21' 22.392 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.74 °

Well	Wells Ranch AE30-63 -1HNC					
Well Position	+N/-S	0.0 usft	Northing:	1,409,950.16 usft	Latitude:	40° 27' 11.088 N
	+E/-W	0.0 usft	Easting:	3,318,293.55 usft	Longitude:	104° 21' 22.428 W
Position Uncertainty	0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	4,752.0 usft	

Wellbore	Wellbore #1
-----------------	-------------

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/11/2014	8.27	67.06	52,904

Design	OH
---------------	----

Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	268.51

Survey Program		Date	5/20/2014	
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
305.0	630.0	Surface MSS (Wellbore #1)	EMS	EMS - Standard
733.0	6,833.0	Intermediate (Wellbore #1)	MWD	MWD - Standard
6,920.0	12,033.0	Lateral (Wellbore #1)	Sperry - MWD+IFR1+MS	Fixed:v2:Rockies, crustal dec + 3-axis correction

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
305.0	0.50	159.82	305.0	-1.2	0.5	-0.4	0.16	0.16	0.00
630.0	0.60	232.82	630.0	-3.6	-0.4	0.5	0.20	0.03	22.46
733.0	0.18	69.73	733.0	-3.9	-0.7	0.8	0.75	-0.41	-158.34
First MWD									
827.0	0.53	120.54	827.0	-4.0	-0.2	0.3	0.47	0.37	54.05
921.0	0.44	128.97	921.0	-4.5	0.5	-0.4	0.12	-0.10	8.97
1,014.0	0.35	148.13	1,014.0	-5.0	0.9	-0.8	0.17	-0.10	20.60
1,109.0	0.18	30.71	1,109.0	-5.1	1.1	-1.0	0.49	-0.18	-123.60



IDS Survey Report



Company: Noble Energy, Inc
Project: Weld County, CO (NAD 83)
Site: Sec 29, T6N-R62W (Wells Ranch AE30 Pad)
Well: Wells Ranch AE30-63 -1HNC
Wellbore: Wellbore #1
Design: OH

Local Co-ordinate Reference: Well Wells Ranch AE30-63 -1HNC
TVD Reference: Well @ 4776.0usft (H&P 277)
MD Reference: Well @ 4776.0usft (H&P 277)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,204.0	0.18	110.34	1,204.0	-5.0	1.4	-1.2	0.24	0.00	83.82
1,297.0	0.18	40.12	1,297.0	-4.9	1.6	-1.5	0.22	0.00	-75.51
1,392.0	0.35	145.14	1,392.0	-5.1	1.8	-1.7	0.46	0.18	110.55
1,486.0	0.18	182.59	1,486.0	-5.4	2.0	-1.9	0.25	-0.18	39.84
1,581.0	0.09	193.22	1,581.0	-5.7	2.0	-1.8	0.10	-0.09	11.19
1,675.0	0.26	108.85	1,675.0	-5.8	2.2	-2.0	0.28	0.18	-89.76
1,770.0	0.53	82.65	1,770.0	-5.8	2.8	-2.7	0.33	0.28	-27.58
1,864.0	0.97	112.89	1,864.0	-6.1	4.0	-3.8	0.61	0.47	32.17
1,959.0	0.97	119.39	1,958.9	-6.8	5.4	-5.2	0.12	0.00	6.84
2,053.0	0.88	117.90	2,052.9	-7.5	6.7	-6.5	0.10	-0.10	-1.59
2,148.0	1.23	140.40	2,147.9	-8.6	8.0	-7.8	0.56	0.37	23.68
2,242.0	1.32	132.66	2,241.9	-10.2	9.5	-9.2	0.21	0.10	-8.23
2,337.0	1.23	141.28	2,336.9	-11.7	10.9	-10.6	0.22	-0.09	9.07
2,431.0	1.06	160.70	2,430.9	-13.3	11.8	-11.5	0.45	-0.18	20.66
2,525.0	1.49	156.22	2,524.8	-15.2	12.6	-12.2	0.47	0.46	-4.77
2,620.0	0.26	99.53	2,619.8	-16.4	13.3	-12.9	1.44	-1.29	-59.67
2,714.0	0.35	110.34	2,713.8	-16.5	13.8	-13.4	0.11	0.10	11.50
2,809.0	0.79	20.25	2,808.8	-16.0	14.3	-13.9	0.91	0.46	-94.83
2,903.0	0.70	17.97	2,902.8	-14.9	14.7	-14.3	0.10	-0.10	-2.43
2,998.0	0.97	299.48	2,997.8	-13.9	14.2	-13.8	1.13	0.28	-82.62
3,093.0	1.06	285.51	3,092.8	-13.3	12.6	-12.3	0.28	0.09	-14.71
3,187.0	0.62	297.63	3,186.8	-12.8	11.4	-11.0	0.50	-0.47	12.89
3,282.0	1.06	275.49	3,281.8	-12.5	10.0	-9.7	0.57	0.46	-23.31
3,377.0	1.23	265.99	3,376.7	-12.5	8.1	-7.8	0.27	0.18	-10.00
3,472.0	1.32	265.47	3,471.7	-12.6	6.0	-5.7	0.10	0.09	-0.55
3,566.0	1.41	282.25	3,565.7	-12.5	3.8	-3.5	0.43	0.10	17.85
3,661.0	1.06	259.93	3,660.7	-12.4	1.8	-1.5	0.62	-0.37	-23.49
3,756.0	0.53	274.34	3,755.7	-12.5	0.5	-0.2	0.59	-0.56	15.17
3,851.0	1.41	318.73	3,850.7	-11.6	-0.7	1.0	1.15	0.93	46.73
3,946.0	1.58	317.50	3,945.6	-9.8	-2.4	2.6	0.18	0.18	-1.29
4,041.0	1.41	310.47	4,040.6	-8.0	-4.1	4.3	0.26	-0.18	-7.40
4,135.0	0.79	356.70	4,134.6	-6.6	-5.1	5.2	1.10	-0.66	49.18
4,230.0	1.06	347.73	4,229.6	-5.1	-5.3	5.4	0.32	0.28	-9.44
4,325.0	1.58	354.32	4,324.5	-3.0	-5.6	5.7	0.57	0.55	6.94
4,420.0	1.49	348.70	4,419.5	-0.4	-6.0	6.0	0.18	-0.09	-5.92
4,515.0	1.41	9.53	4,514.5	1.9	-6.0	6.0	0.56	-0.08	21.93
4,610.0	1.06	16.21	4,609.4	3.9	-5.6	5.5	0.40	-0.37	7.03
4,705.0	0.44	353.62	4,704.4	5.1	-5.4	5.2	0.71	-0.65	-23.78
4,799.0	1.14	236.40	4,798.4	5.0	-6.2	6.1	1.49	0.74	-124.70
4,894.0	1.06	222.93	4,893.4	3.8	-7.6	7.5	0.28	-0.08	-14.18
4,989.0	1.23	217.65	4,988.4	2.3	-8.8	8.7	0.21	0.18	-5.56
5,084.0	1.32	207.20	5,083.4	0.6	-9.9	9.9	0.26	0.09	-11.00
5,178.0	1.06	199.29	5,177.4	-1.2	-10.7	10.7	0.33	-0.28	-8.41



IDS Survey Report



Company: Noble Energy, Inc
Project: Weld County, CO (NAD 83)
Site: Sec 29, T6N-R62W (Wells Ranch AE30 Pad)
Well: Wells Ranch AE30-63 -1HNC
Wellbore: Wellbore #1
Design: OH

Local Co-ordinate Reference: Well Wells Ranch AE30-63 -1HNC
TVD Reference: Well @ 4776.0usft (H&P 277)
MD Reference: Well @ 4776.0usft (H&P 277)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,273.0	2.02	198.05	5,272.3	-3.6	-11.5	11.6	1.01	1.01	-1.31
5,367.0	0.97	200.87	5,366.3	-6.0	-12.3	12.5	1.12	-1.12	3.00
5,462.0	1.06	193.04	5,461.3	-7.6	-12.8	13.0	0.17	0.09	-8.24
5,556.0	0.18	217.21	5,555.3	-8.5	-13.1	13.3	0.96	-0.94	25.71
5,651.0	0.44	208.34	5,650.3	-9.0	-13.3	13.6	0.28	0.27	-9.34
5,745.0	3.34	270.56	5,744.2	-9.3	-16.3	16.5	3.36	3.09	66.19
5,839.0	3.08	280.94	5,838.1	-8.8	-21.5	21.7	0.68	-0.28	11.04
5,934.0	5.01	275.05	5,932.8	-7.9	-28.1	28.3	2.08	2.03	-6.20
5,981.0	13.01	281.90	5,979.2	-6.6	-35.3	35.5	17.14	17.02	14.57
6,029.0	19.70	284.10	6,025.2	-3.5	-48.5	48.6	13.99	13.94	4.58
6,076.0	21.72	274.08	6,069.2	-1.0	-64.9	64.9	8.66	4.30	-21.32
6,123.0	22.95	266.61	6,112.7	-0.9	-82.7	82.7	6.58	2.62	-15.89
6,171.0	22.42	263.36	6,157.0	-2.5	-101.1	101.1	2.83	-1.10	-6.77
6,218.0	27.70	265.82	6,199.5	-4.4	-120.9	121.0	11.45	11.23	5.23
6,265.0	32.71	270.21	6,240.1	-5.1	-144.5	144.6	11.64	10.66	9.34
6,313.0	36.67	271.00	6,279.6	-4.8	-171.8	171.9	8.30	8.25	1.65
6,360.0	39.48	270.74	6,316.6	-4.4	-200.8	200.9	5.99	5.98	-0.55
6,407.0	43.26	268.63	6,351.9	-4.6	-231.9	231.9	8.57	8.04	-4.49
6,455.0	48.80	267.31	6,385.2	-5.8	-266.4	266.4	11.71	11.54	-2.75
6,502.0	53.46	267.31	6,414.7	-7.5	-302.9	303.0	9.91	9.91	0.00
6,549.0	56.54	268.19	6,441.6	-9.0	-341.4	341.5	6.73	6.55	1.87
6,597.0	61.47	268.72	6,466.3	-10.1	-382.5	382.6	10.31	10.27	1.10
6,644.0	67.09	268.63	6,486.7	-11.1	-424.8	425.0	11.96	11.96	-0.19
6,691.0	70.87	268.37	6,503.6	-12.3	-468.7	468.8	8.06	8.04	-0.55
6,738.0	75.01	268.10	6,517.4	-13.7	-513.6	513.8	8.83	8.81	-0.57
6,786.0	79.32	268.98	6,528.0	-14.8	-560.4	560.6	9.16	8.98	1.83
6,833.0	81.07	270.21	6,536.0	-15.2	-606.7	606.9	4.53	3.72	2.62
Last MWD									
6,901.0	83.44	269.54	6,545.2	-15.3	-674.0	674.2	3.62	3.48	-0.99
Actual 7" Csg / 6901' MD / 6545' TVD / 978' FSL & 609' FEL Sec 30 - 7"									
6,920.0	84.10	269.35	6,547.3	-15.5	-692.9	693.1	3.62	3.48	-0.98
7,015.0	88.45	268.73	6,553.4	-17.1	-787.7	787.9	4.63	4.58	-0.65
7,109.0	89.83	268.51	6,554.8	-19.4	-881.6	881.9	1.49	1.47	-0.23
7,204.0	88.32	267.41	6,556.4	-22.7	-976.6	976.8	1.97	-1.59	-1.16
7,299.0	89.87	267.51	6,557.9	-26.9	-1,071.5	1,071.8	1.63	1.63	0.11
7,393.0	89.89	266.12	6,558.1	-32.2	-1,165.3	1,165.8	1.48	0.02	-1.48
7,488.0	89.16	266.21	6,558.9	-38.5	-1,260.1	1,260.7	0.77	-0.77	0.09
7,582.0	88.27	269.11	6,561.0	-42.4	-1,354.0	1,354.6	3.23	-0.95	3.09
7,677.0	87.66	269.45	6,564.3	-43.6	-1,448.9	1,449.6	0.74	-0.64	0.36
7,771.0	87.63	268.28	6,568.2	-45.4	-1,542.8	1,543.5	1.24	-0.03	-1.24
7,866.0	89.76	267.87	6,570.4	-48.6	-1,637.7	1,638.4	2.28	2.24	-0.43
7,960.0	92.68	268.23	6,568.4	-51.8	-1,731.6	1,732.4	3.13	3.11	0.38
8,055.0	91.93	269.79	6,564.5	-53.4	-1,826.6	1,827.3	1.82	-0.79	1.64
8,150.0	91.02	269.80	6,562.1	-53.8	-1,921.5	1,922.3	0.96	-0.96	0.01



IDS Survey Report



Company: Noble Energy, Inc
Project: Weld County, CO (NAD 83)
Site: Sec 29, T6N-R62W (Wells Ranch AE30 Pad)
Well: Wells Ranch AE30-63 -1HNC
Wellbore: Wellbore #1
Design: OH

Local Co-ordinate Reference: Well Wells Ranch AE30-63 -1HNC
TVD Reference: Well @ 4776.0usft (H&P 277)
MD Reference: Well @ 4776.0usft (H&P 277)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,244.0	89.60	269.51	6,561.6	-54.3	-2,015.5	2,016.2	1.54	-1.51	-0.31
8,339.0	89.52	269.28	6,562.3	-55.3	-2,110.5	2,111.2	0.26	-0.08	-0.24
8,433.0	90.86	269.10	6,562.0	-56.7	-2,204.5	2,205.2	1.44	1.43	-0.19
8,528.0	89.45	269.59	6,561.7	-57.8	-2,299.5	2,300.2	1.57	-1.48	0.52
8,623.0	90.43	269.79	6,561.8	-58.3	-2,394.5	2,395.2	1.05	1.03	0.21
8,718.0	89.92	266.91	6,561.6	-61.0	-2,489.4	2,490.2	3.08	-0.54	-3.03
8,812.0	88.46	269.22	6,562.9	-64.2	-2,583.4	2,584.2	2.91	-1.55	2.46
8,907.0	87.07	269.06	6,566.6	-65.6	-2,678.3	2,679.1	1.47	-1.46	-0.17
9,001.0	87.05	267.87	6,571.4	-68.1	-2,772.1	2,772.9	1.26	-0.02	-1.27
9,096.0	86.76	267.40	6,576.5	-72.0	-2,866.9	2,867.8	0.58	-0.31	-0.49
9,191.0	88.72	267.89	6,580.3	-75.9	-2,961.7	2,962.7	2.13	2.06	0.52
9,285.0	90.34	267.14	6,581.1	-80.0	-3,055.6	3,056.7	1.90	1.72	-0.80
9,380.0	89.92	264.71	6,580.8	-86.8	-3,150.4	3,151.6	2.60	-0.44	-2.56
9,475.0	88.83	264.28	6,581.9	-95.9	-3,244.9	3,246.3	1.23	-1.15	-0.45
9,569.0	90.79	269.56	6,582.2	-100.9	-3,338.8	3,340.3	5.99	2.09	5.62
9,664.0	90.59	269.05	6,581.0	-102.1	-3,433.8	3,435.3	0.58	-0.21	-0.54
9,758.0	91.32	268.64	6,579.5	-104.0	-3,527.7	3,529.2	0.89	0.78	-0.44
9,853.0	87.17	268.17	6,580.7	-106.6	-3,622.7	3,624.2	4.40	-4.37	-0.49
9,948.0	86.91	267.49	6,585.6	-110.2	-3,717.5	3,719.1	0.77	-0.27	-0.72
10,042.0	88.66	267.63	6,589.3	-114.2	-3,811.3	3,813.0	1.87	1.86	0.15
10,137.0	89.24	267.27	6,591.0	-118.4	-3,906.2	3,908.0	0.72	0.61	-0.38
10,232.0	90.03	271.31	6,591.6	-119.6	-4,001.2	4,002.9	4.33	0.83	4.25
10,421.0	89.91	271.85	6,591.7	-114.4	-4,190.1	4,191.7	0.29	-0.06	0.29
10,515.0	89.27	268.62	6,592.4	-114.0	-4,284.1	4,285.6	3.50	-0.68	-3.44
10,610.0	92.45	267.94	6,591.0	-116.9	-4,379.0	4,380.6	3.42	3.35	-0.72
10,705.0	92.99	266.87	6,586.5	-121.2	-4,473.8	4,475.4	1.26	0.57	-1.13
10,799.0	94.04	265.70	6,580.7	-127.2	-4,567.4	4,569.2	1.67	1.12	-1.24
10,894.0	93.13	267.77	6,574.8	-132.6	-4,662.1	4,664.0	2.38	-0.96	2.18
10,988.0	89.66	268.19	6,572.5	-135.9	-4,756.0	4,757.9	3.72	-3.69	0.45
11,083.0	88.78	267.60	6,573.8	-139.4	-4,850.9	4,852.9	1.12	-0.93	-0.62
11,178.0	88.37	266.57	6,576.1	-144.3	-4,945.8	4,947.8	1.17	-0.43	-1.08
11,273.0	90.80	269.95	6,576.8	-147.1	-5,040.7	5,042.8	4.38	2.56	3.56
11,367.0	91.28	271.44	6,575.1	-146.0	-5,134.7	5,136.7	1.67	0.51	1.59
11,462.0	87.74	269.11	6,575.9	-145.6	-5,229.6	5,231.7	4.46	-3.73	-2.45
11,557.0	85.84	267.74	6,581.2	-148.2	-5,324.4	5,326.5	2.46	-2.00	-1.44
11,652.0	85.42	268.24	6,588.5	-151.5	-5,419.1	5,421.2	0.69	-0.44	0.53
11,746.0	91.62	271.21	6,590.9	-151.9	-5,513.0	5,515.1	7.31	6.60	3.16
11,841.0	92.33	269.87	6,587.6	-151.0	-5,608.0	5,610.0	1.60	0.75	-1.41
11,936.0	91.83	270.22	6,584.2	-151.0	-5,702.9	5,704.9	0.64	-0.53	0.37
Last MWD @ 11936' MD / 6584' TVD									
12,033.0	91.83	270.22	6,581.1	-150.6	-5,799.8	5,801.8	0.00	0.00	0.00
PTD @ 12033' MD / 6581' TVD / 993' FSL & 384' FEL Sec 25									



IDS
Survey Report



Company: Noble Energy, Inc
Project: Weld County, CO (NAD 83)
Site: Sec 29, T6N-R62W (Wells Ranch AE30 Pad)
Well: Wells Ranch AE30-63 -1HNC
Wellbore: Wellbore #1
Design: OH

Local Co-ordinate Reference: Well Wells Ranch AE30-63 -1HNC
TVD Reference: Well @ 4776.0usft (H&P 277)
MD Reference: Well @ 4776.0usft (H&P 277)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
6,901.0	6,545.2	7"	7	8-3/4

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
733.0	733.0	-3.9	-0.7	First MWD
6,833.0	6,536.0	-15.2	-606.7	Last MWD
6,901.0	6,545.2	-15.3	-674.0	Actual 7" Csg / 6901' MD / 6545' TVD / 978' FSL & 609' FEL Sec 30
11,936.0	6,584.2	-151.0	-5,702.9	Last MWD @ 11936' MD / 6584' TVD
12,033.0	6,581.1	-150.6	-5,799.8	PTD @ 12033' MD / 6581' TVD / 993' FSL & 384' FEL Sec 25

Checked By: _____ Approved By: _____ Date: _____



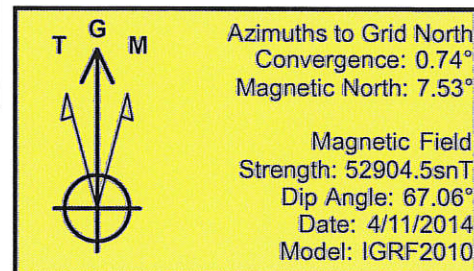
**Weld County, CO (NAD 83)
Wells Ranch AE30-63 -1HNC
H&P 277
Plan #1**

SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
5918.0	0.00	0.00	5918.0	0.0	0.0	0.00	0.00	0.0	
6862.4	85.00	268.51	6552.2	-15.1	-580.9	9.00	268.51	581.1	
6912.4	85.00	268.51	6556.6	-16.4	-630.7	0.00	0.00	630.9	
7030.0	89.70	268.51	6562.0	-19.5	-748.0	4.00	0.03	748.3	
12084.6	89.70	268.51	6588.4	-150.6	-5801.0	0.00	0.00	5802.9	PBHL WR AE-30-63-1HNC

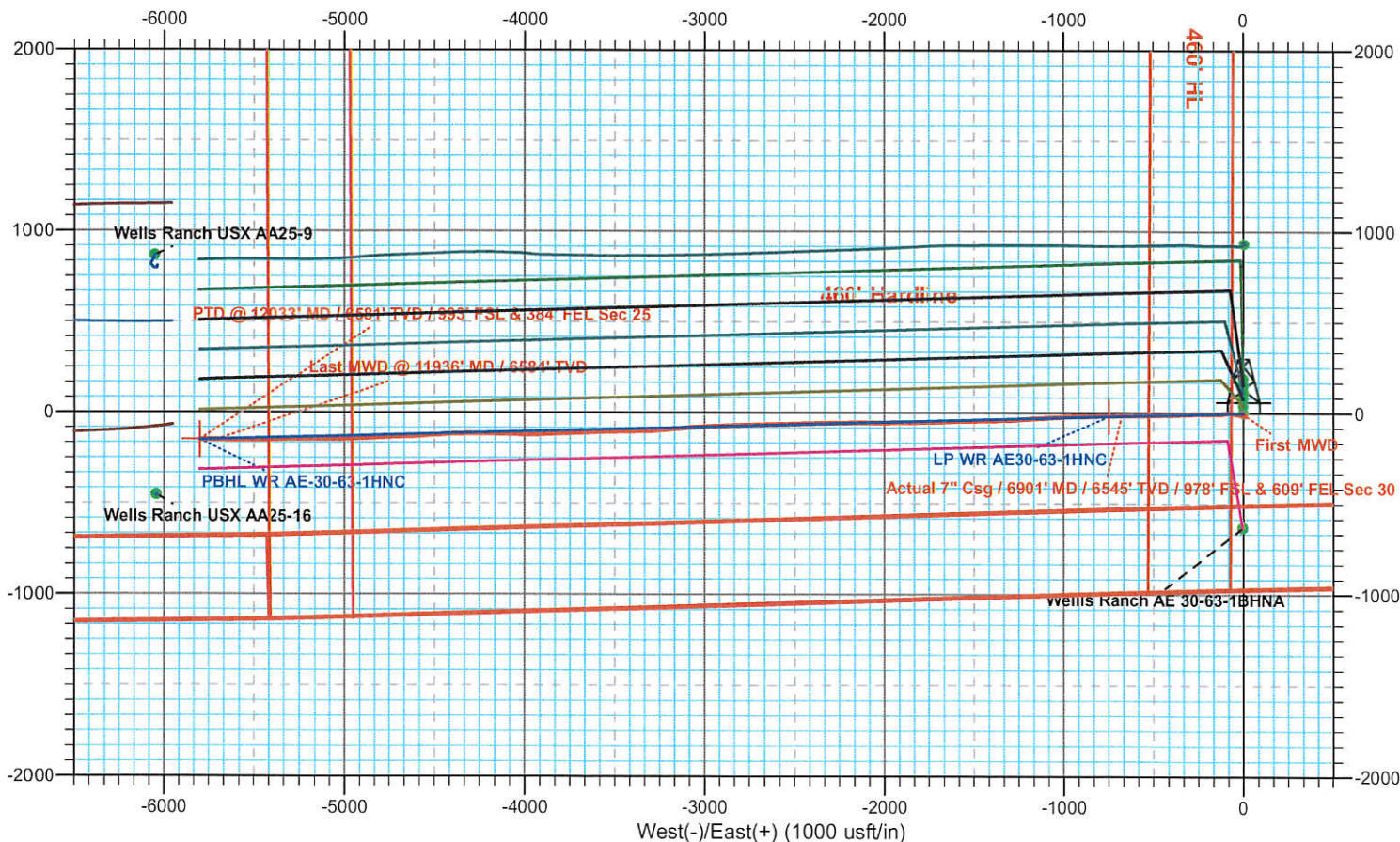
WELL DETAILS: Wells Ranch AE30-63 -1HNC						
		Ground Level: 4752.0				
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.0	0.0	1409950.16	3318293.55	40° 27' 11.088 N	104° 21' 22.428 W	

SITE DETAILS: Sec 29, T6N-R62W (Wells Ranch AE30 Pad)	
Site Centre Northing:	1410139.62
Easting:	3318293.89
Positional Uncertainty:	0.0
Convergence:	0.74
Local North:	Grid

CASING DETAILS			
MD	TVD	Name	Size
6901.0	6545.2	7"	7



SHL @ 973' FSL & 65' FWL Sec 29
Actual 7" Csg @ 978' FSL & 609' FEL Sec 30
Actual BHL @ 993' FSL & 384' FEL Sec 25





**Weld County, CO (NAD 83)
Wells Ranch AE30-63 -1HNC
H&P 277
Plan #1**

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
5918.0	0.00	0.00	5918.0	0.0	0.0	0.00	0.00	0.0	
6862.4	85.00	268.51	6552.2	-15.1	-580.9	9.00	268.51	581.1	
6912.4	85.00	268.51	6556.6	-16.4	-630.7	0.00	0.00	630.9	
7030.0	89.70	268.51	6562.0	-19.5	-748.0	4.00	0.03	748.3	
12084.6	89.70	268.51	6588.4	-150.6	-5801.0	0.00	0.00	5802.9	PBHL WR AE-30-63-1HNC

WELL DETAILS: Wells Ranch AE30-63 -1HNC

+N/-S	+E/-W	Northing	Ground Level:	Easting	Latitude	Longitude
0.0	0.0	1409950.16	4752.0	3318293.55	40° 27' 11.088 N	104° 21' 22.428 W

SITE DETAILS: Sec 29, T6N-R62W (Wells Ranch AE30 Pad)

Site Centre Northing: 1410139.62
Easting: 3318293.89
Positional Uncertainty: 0.0
Convergence: 0.74
Local North: Grid

CASING DETAILS

MD	TVD	Name	Size
6901.0	6545.2	7"	7



Azimuths to Grid North
Convergence: 0.74°
Magnetic North: 7.53°

Magnetic Field
Strength: 52904.5snT
Dip Angle: 67.06°
Date: 4/11/2014
Model: IGRF2010

SHL @ 973' FSL & 65' FWL Sec 29

Actual 7" Csg @ 978' FSL & 609' FEL Sec 30

Actual BHL @ 993' FSL & 384' FEL Sec 25

