

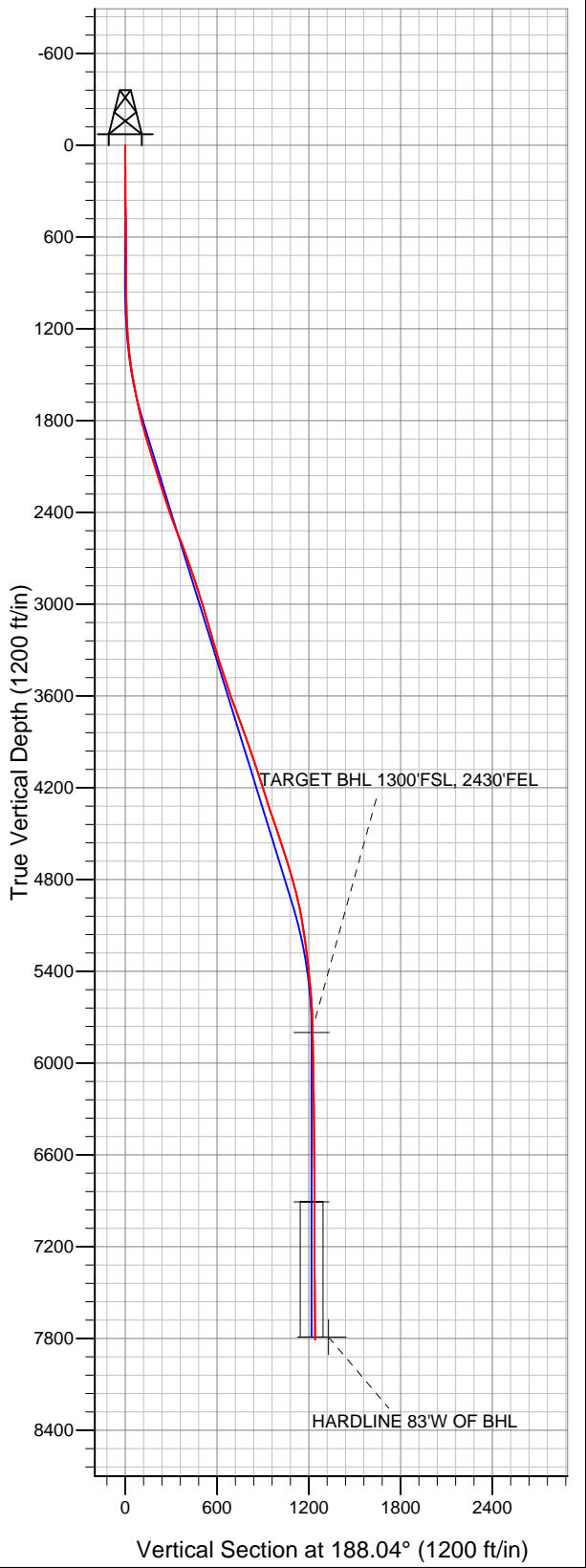
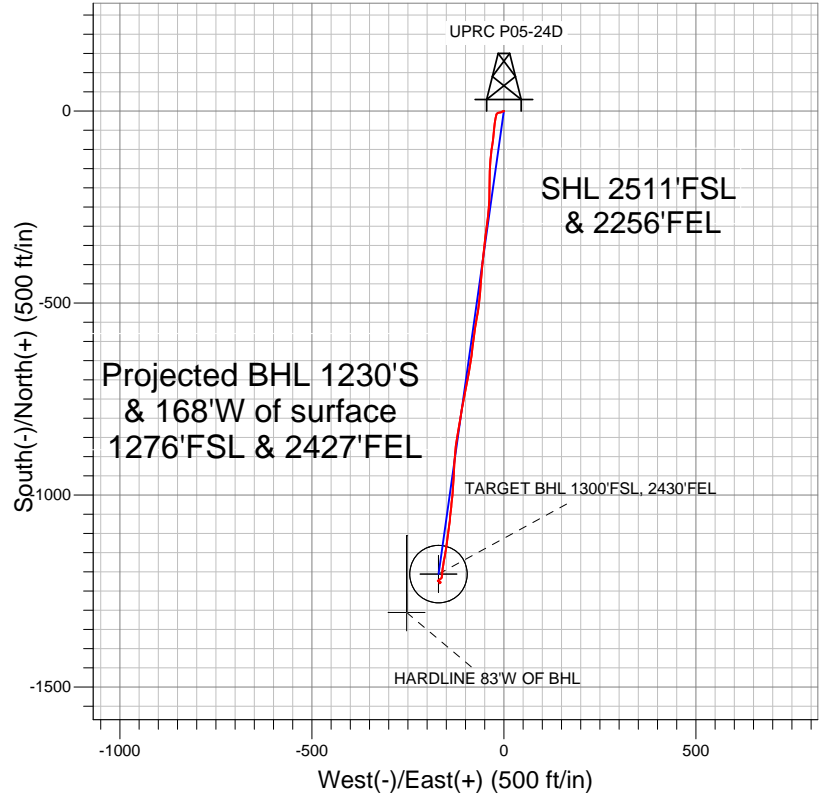


Well Name: UPRC P05-24D

Surface Location: UPV P05-21D Pad Sec.5-T3N-R67W
 North American Datum 1983 US State Plane 1983Colorado Northern Zone
 Ground Elevation: 4875.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1336120.17	3163846.28	40.254560	-104.912960	
		Original Well Elev WELL @ 4888.0ft (Original Well Elev)				

NOBLE ENERGY INC WELD COUNTY CO



LEGEND

- Survey #1
- UPRC P05-24D, Wellbore #1, Noble UPRC P05-24D Plan #3 (1-30-12) R V0
- Wellbore #1

Final Survey Plot

Projected Final Survey -
 7986'MD & 7806'TVD @ 1241'VS
 0.80 deg Inc 237.50 deg AZ

Project: SEC.5-T3N-R67W
 Site: UPV P05-21D Pad Sec.5-T3N-R67W
 Well: UPRC P05-24D
 Plan: Wellbore #1



NOBLE ENERGY INC WELD COUNTY CO

SEC.5-T3N-R67W

UPV P05-21D Pad Sec.5-T3N-R67W

UPRC P05-24D

Wellbore #1

Survey: Survey #1

Standard Survey Report

14 February, 2012



Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well UPRC P05-24D
Project:	SEC.5-T3N-R67W	TVD Reference:	WELL @ 4888.0ft (Original Well Elev)
Site:	UPV P05-21D Pad Sec.5-T3N-R67W	MD Reference:	WELL @ 4888.0ft (Original Well Elev)
Well:	UPRC P05-24D	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.5-T3N-R67W, Weld County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	UPV P05-21D Pad Sec.5-T3N-R67W				
Site Position:		Northing:	1,336,119.85ft	Latitude:	40.254560
From:	Lat/Long	Easting:	3,163,796.04ft	Longitude:	-104.913140
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.38 °

Well	UPRC P05-24D					
Well Position	+N/-S	0.0 ft	Northing:	1,336,120.17 ft	Latitude:	40.254560
	+E/-W	0.0 ft	Easting:	3,163,846.28 ft	Longitude:	-104.912960
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,875.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	1/30/2012	8.80	66.90	52,997

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	188.04

Survey Program	Date	2/14/2012			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
113.0	7,986.0	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	
113.0	0.30	215.90	113.0	-0.2	-0.2	0.3	0.27	0.27	0.00	
205.0	0.40	254.90	205.0	-0.5	-0.6	0.6	0.27	0.11	42.39	
298.0	0.70	273.40	298.0	-0.6	-1.5	0.8	0.37	0.32	19.89	
389.0	0.70	253.20	389.0	-0.7	-2.6	1.1	0.27	0.00	-22.20	
482.0	1.10	237.50	482.0	-1.3	-3.9	1.9	0.50	0.43	-16.88	
575.0	1.00	241.80	575.0	-2.2	-5.4	2.9	0.14	-0.11	4.62	
699.0	1.00	251.90	698.9	-3.1	-7.3	4.0	0.14	0.00	8.15	
781.0	1.20	259.30	780.9	-3.4	-8.9	4.6	0.30	0.24	9.02	
862.0	1.20	258.30	861.9	-3.8	-10.5	5.2	0.03	0.00	-1.23	
944.0	1.30	253.70	943.9	-4.2	-12.3	5.9	0.17	0.12	-5.61	
1,026.0	1.50	266.40	1,025.9	-4.5	-14.2	6.5	0.45	0.24	15.49	
1,107.0	2.70	237.40	1,106.8	-5.6	-16.9	7.9	1.93	1.48	-35.80	

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well UPRC P05-24D
Project:	SEC.5-T3N-R67W	TVD Reference:	WELL @ 4888.0ft (Original Well Elev)
Site:	UPV P05-21D Pad Sec.5-T3N-R67W	MD Reference:	WELL @ 4888.0ft (Original Well Elev)
Well:	UPRC P05-24D	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)	
1,189.0	3.10	199.00	1,188.7	-8.8	-19.2	11.4	2.37	0.49	-46.83	
1,271.0	4.90	191.50	1,270.5	-14.3	-20.7	17.0	2.28	2.20	-9.15	
1,353.0	6.70	189.90	1,352.1	-22.4	-22.2	25.3	2.20	2.20	-1.95	
1,434.0	7.70	187.30	1,432.4	-32.5	-23.7	35.5	1.30	1.23	-3.21	
1,516.0	9.80	186.70	1,513.5	-44.9	-25.2	47.9	2.56	2.56	-0.73	
1,598.0	10.70	184.60	1,594.2	-59.4	-26.6	62.5	1.19	1.10	-2.56	
1,680.0	11.80	188.80	1,674.6	-75.2	-28.5	78.5	1.67	1.34	5.12	
1,761.0	13.20	188.50	1,753.7	-92.6	-31.1	96.0	1.73	1.73	-0.37	
1,843.0	14.10	186.20	1,833.4	-111.8	-33.6	115.4	1.28	1.10	-2.80	
1,925.0	16.00	183.70	1,912.6	-133.0	-35.4	136.6	2.45	2.32	-3.05	
2,006.0	17.10	182.50	1,990.2	-156.0	-36.7	159.6	1.42	1.36	-1.48	
2,088.0	17.70	180.40	2,068.4	-180.5	-37.3	184.0	1.06	0.73	-2.56	
2,170.0	17.60	180.40	2,146.6	-205.4	-37.4	208.6	0.12	-0.12	0.00	
2,252.0	17.50	182.50	2,224.8	-230.1	-38.1	233.2	0.78	-0.12	2.56	
2,333.0	18.00	183.90	2,301.9	-254.8	-39.5	257.8	0.81	0.62	1.73	
2,415.0	18.60	186.40	2,379.8	-280.4	-41.8	283.5	1.20	0.73	3.05	
2,497.0	20.20	188.50	2,457.1	-307.4	-45.3	310.7	2.13	1.95	2.56	
2,578.0	21.80	186.70	2,532.7	-336.2	-49.1	339.7	2.13	1.98	-2.22	
2,660.0	21.70	186.60	2,608.9	-366.3	-52.7	370.1	0.13	-0.12	-0.12	
2,742.0	19.70	185.70	2,685.6	-395.2	-55.8	399.1	2.47	-2.44	-1.10	
2,824.0	19.30	183.40	2,762.9	-422.4	-58.0	426.4	1.06	-0.49	-2.80	
2,905.0	18.30	184.10	2,839.6	-448.5	-59.7	452.4	1.27	-1.23	0.86	
2,987.0	18.10	186.00	2,917.5	-474.0	-61.9	478.0	0.76	-0.24	2.32	
3,069.0	16.60	186.60	2,995.7	-498.3	-64.6	502.4	1.84	-1.83	0.73	
3,150.0	16.60	188.10	3,073.4	-521.2	-67.5	525.6	0.53	0.00	1.85	
3,232.0	16.20	190.40	3,152.0	-544.1	-71.3	548.7	0.93	-0.49	2.80	
3,314.0	16.10	189.50	3,230.8	-566.6	-75.2	571.5	0.33	-0.12	-1.10	
3,396.0	16.60	186.60	3,309.5	-589.4	-78.4	594.6	1.17	0.61	-3.54	
3,477.0	17.70	187.60	3,386.9	-613.1	-81.4	618.5	1.41	1.36	1.23	
3,559.0	18.30	186.90	3,464.9	-638.2	-84.6	643.8	0.78	0.73	-0.85	
3,641.0	18.50	189.20	3,542.7	-663.9	-88.2	669.7	0.92	0.24	2.80	
3,723.0	18.70	190.60	3,620.4	-689.6	-92.7	695.8	0.60	0.24	1.71	
3,804.0	20.60	191.70	3,696.7	-716.3	-98.0	723.0	2.39	2.35	1.36	
3,886.0	20.40	190.80	3,773.5	-744.5	-103.6	751.7	0.46	-0.24	-1.10	
3,968.0	20.70	189.90	3,850.2	-772.8	-108.8	780.4	0.53	0.37	-1.10	
4,049.0	19.40	189.20	3,926.3	-800.2	-113.4	808.2	1.63	-1.60	-0.86	
4,131.0	18.40	189.40	4,003.9	-826.4	-117.7	834.8	1.22	-1.22	0.24	
4,213.0	17.70	190.20	4,081.9	-851.5	-122.0	860.2	0.91	-0.85	0.98	
4,295.0	18.10	186.20	4,159.9	-876.4	-125.6	885.3	1.58	0.49	-4.88	
4,376.0	17.70	184.60	4,237.0	-901.2	-127.9	910.2	0.78	-0.49	-1.98	
4,458.0	18.20	182.70	4,315.0	-926.4	-129.5	935.4	0.94	0.61	-2.32	
4,540.0	19.50	183.40	4,392.6	-952.8	-130.9	961.8	1.61	1.59	0.85	
4,621.0	18.60	183.70	4,469.2	-979.2	-132.6	988.2	1.12	-1.11	0.37	
4,703.0	18.90	185.10	4,546.8	-1,005.5	-134.6	1,014.5	0.66	0.37	1.71	
4,785.0	16.80	186.40	4,624.9	-1,030.5	-137.1	1,039.6	2.61	-2.56	1.59	
4,867.0	17.90	186.00	4,703.1	-1,054.8	-139.7	1,064.0	1.35	1.34	-0.49	
4,948.0	16.60	187.60	4,780.5	-1,078.7	-142.6	1,088.0	1.71	-1.60	1.98	
5,030.0	14.70	187.40	4,859.4	-1,100.6	-145.4	1,110.1	2.32	-2.32	-0.24	
5,112.0	12.30	186.70	4,939.2	-1,119.6	-147.8	1,129.3	2.93	-2.93	-0.85	
5,193.0	10.70	188.70	5,018.5	-1,135.6	-150.0	1,145.4	2.04	-1.98	2.47	
5,275.0	9.50	190.10	5,099.3	-1,149.8	-152.3	1,159.8	1.49	-1.46	1.71	
5,357.0	7.70	190.60	5,180.3	-1,161.9	-154.5	1,172.0	2.20	-2.20	0.61	
5,439.0	7.40	189.00	5,261.6	-1,172.5	-156.3	1,182.8	0.45	-0.37	-1.95	
5,520.0	6.80	189.00	5,342.0	-1,182.4	-157.9	1,192.8	0.74	-0.74	0.00	

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Site:	UPV P05-21D Pad Sec.5-T3N-R67W	MD Reference:	WELL @ 4888.0ft (Original Well Elev)
Well:	UPRC P05-24D	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)
5,602.0	6.20	189.20	5,423.5	-1,191.5	-159.4	1,202.1	0.73	-0.73	0.24
5,684.0	4.80	186.70	5,505.1	-1,199.3	-160.5	1,210.0	1.73	-1.71	-3.05
5,766.0	3.90	182.20	5,586.9	-1,205.5	-161.0	1,216.2	1.17	-1.10	-5.49
5,847.0	2.80	187.10	5,667.7	-1,210.2	-161.3	1,220.9	1.40	-1.36	6.05
5,929.0	1.10	165.10	5,749.7	-1,213.0	-161.4	1,223.6	2.23	-2.07	-26.83
5,979.2	0.84	174.87	5,799.9	-1,213.8	-161.2	1,224.4	0.61	-0.51	19.47
TARGET BHL 1300'FSL, 2430'FEL									
6,011.0	0.70	184.60	5,831.7	-1,214.2	-161.2	1,224.8	0.61	-0.45	30.59
6,174.0	1.50	225.80	5,994.6	-1,216.7	-162.8	1,227.5	0.66	0.49	25.28
6,338.0	2.00	233.60	6,158.6	-1,219.9	-166.7	1,231.2	0.34	0.30	4.76
6,501.0	1.30	243.50	6,321.5	-1,222.4	-170.6	1,234.3	0.46	-0.43	6.07
6,664.0	0.50	137.00	6,484.5	-1,223.8	-171.8	1,235.8	0.93	-0.49	-65.34
6,828.0	0.40	87.60	6,648.5	-1,224.3	-170.7	1,236.1	0.24	-0.06	-30.12
6,991.0	0.30	134.20	6,811.5	-1,224.5	-169.8	1,236.2	0.18	-0.06	28.59
7,086.4	0.76	114.83	6,906.9	-1,225.0	-169.1	1,236.6	0.51	0.48	-20.30
TARGET CIRCLE 1300'FSL, 2430'FEL									
7,155.0	1.10	111.10	6,975.5	-1,225.4	-168.1	1,236.9	0.51	0.50	-5.44
7,318.0	0.50	96.40	7,138.4	-1,226.0	-165.9	1,237.2	0.39	-0.37	-9.02
7,482.0	0.30	161.20	7,302.4	-1,226.5	-165.0	1,237.6	0.28	-0.12	39.51
7,645.0	0.40	188.50	7,465.4	-1,227.5	-165.0	1,238.5	0.12	0.06	16.75
7,809.0	0.60	234.70	7,629.4	-1,228.6	-165.8	1,239.7	0.26	0.12	28.17
7,936.0	0.80	237.50	7,756.4	-1,229.4	-167.1	1,240.7	0.16	0.16	2.20
7,972.2	0.80	237.50	7,792.6	-1,229.7	-167.5	1,241.0	0.00	0.00	0.00
HARDLINE 83'W OF BHL									
7,986.0	0.80	237.50	7,806.4	-1,229.8	-167.7	1,241.2	0.00	0.00	0.00

Checked By: _____ Approved By: _____ Date: _____