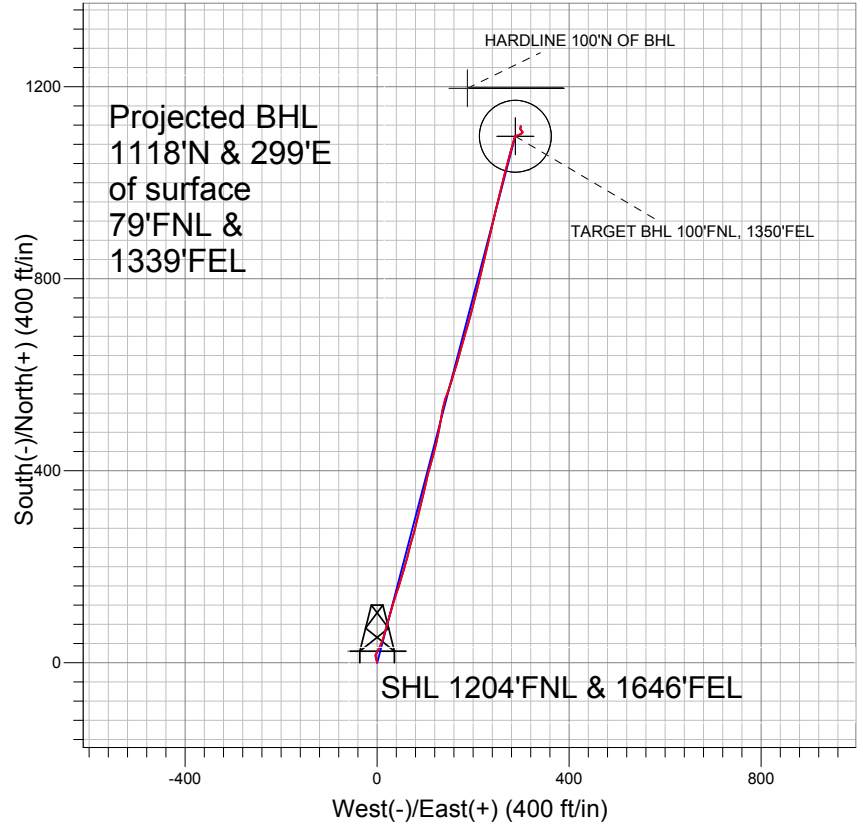


NOBLE ENERGY INC WELD COUNTY CO

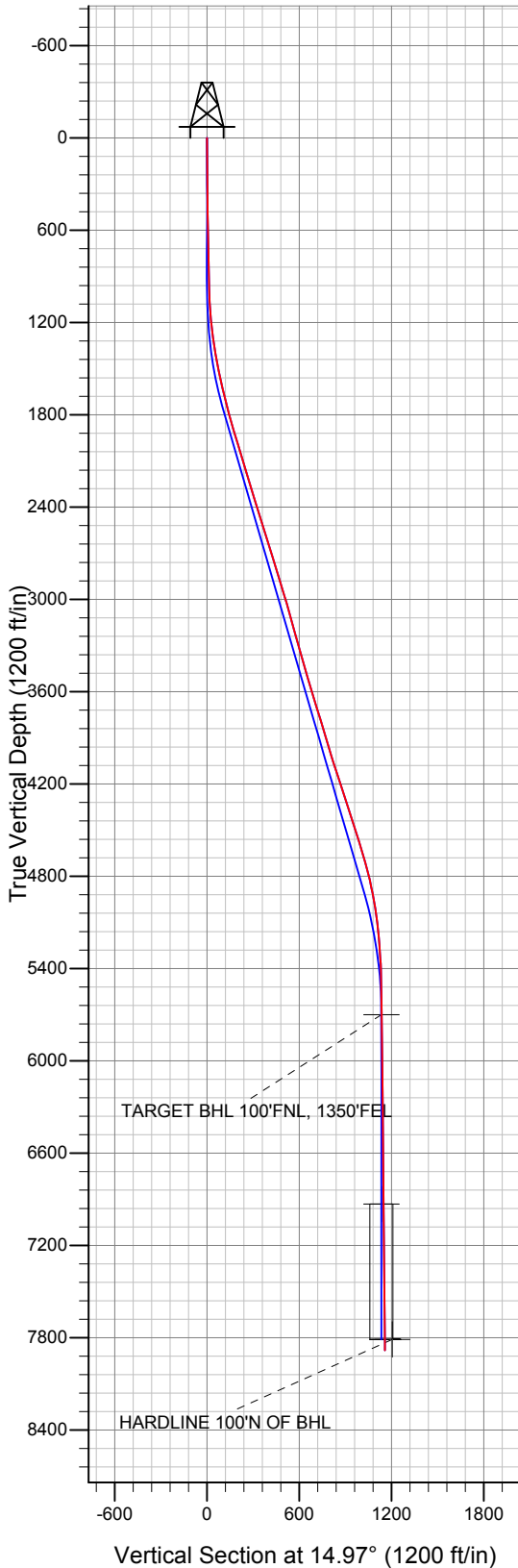


LEGEND

- △ Sekich P19-27D, Wellbore #1, Noble Sekich P19-27D Plan #1 (03-30-10) V0
- Wellbore #1
- Survey #1

Final Survey Plot

Projected Final Survey -
 8036'MD & 7882'TVD @ 1157' VS
 0.7 deg Inc 4.7 deg AZ



Project: SEC.19-T3N-R67W
 Site: Sekich P19-27D Sec. 19-T3N-R67W
 Well: Sekich P19-27D
 Plan: Wellbore #1



Directional

NOBLE ENERGY INC WELD COUNTY CO

SEC.19-T3N-R67W

Sekich P19-27D Sec. 19-T3N-R67W

Sekich P19-27D

Wellbore #1

Survey: Survey #1

Standard Survey Report

24 January, 2011



Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Site Sekich P19-27D Sec. 19-T3N-R67W
Project:	SEC.19-T3N-R67W	TVD Reference:	WELL @ 4911.0ft (Original Well Elev)
Site:	Sekich P19-27D Sec. 19-T3N-R67W	MD Reference:	WELL @ 4911.0ft (Original Well Elev)
Well:	Sekich P19-27D	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.19-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	Sekich P19-27D Sec. 19-T3N-R67W		
Site Position:		Northing:	1,321,851.03ft
From:	Lat/Long	Easting:	3,159,413.70ft
Position Uncertainty:	0.0 ft	Slot Radius:	"
		Latitude:	40° 12' 55.692 N
		Longitude:	104° 55' 45.012 W
		Grid Convergence:	0.37 °

Well	Sekich P19-27D		
Well Position	+N/-S	0.0 ft	Northing: 1,321,851.02 ft
	+E/-W	0.0 ft	Easting: 3,159,413.70 ft
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft
		Latitude:	40° 12' 55.692 N
		Longitude:	104° 55' 45.012 W
		Ground Level:	4,898.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	1/14/2011	8.95	66.90	53,082

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	14.97

Survey Program	Date	1/24/2011		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
978.0	8,036.0	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
978.0	1.70	346.40	977.9	14.1	-3.4	12.7	0.17	0.17	0.00
1,072.0	3.30	25.40	1,071.8	17.9	-2.6	16.6	2.39	1.70	41.49
1,166.0	5.50	31.20	1,165.5	24.2	0.9	23.6	2.38	2.34	6.17
1,260.0	7.10	25.30	1,258.9	33.3	5.7	33.7	1.83	1.70	-6.28
1,354.0	9.00	19.80	1,352.0	45.5	10.7	46.7	2.18	2.02	-5.85
1,448.0	10.30	15.30	1,444.7	60.5	15.4	62.4	1.60	1.38	-4.79
1,542.0	11.40	16.80	1,537.0	77.5	20.3	80.1	1.21	1.17	1.60
1,636.0	13.60	14.50	1,628.7	97.1	25.8	100.5	2.40	2.34	-2.45
1,730.0	14.90	17.30	1,719.8	119.3	32.1	123.6	1.56	1.38	2.98
1,824.0	14.80	18.90	1,810.7	142.2	39.6	147.6	0.45	-0.11	1.70
1,918.0	16.90	15.90	1,901.1	166.7	47.2	173.3	2.40	2.23	-3.19
2,012.0	16.90	17.60	1,991.1	192.9	55.1	200.6	0.53	0.00	1.81

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Site Sekich P19-27D Sec. 19-T3N-R67W
Project:	SEC.19-T3N-R67W	TVD Reference:	WELL @ 4911.0ft (Original Well Elev)
Site:	Sekich P19-27D Sec. 19-T3N-R67W	MD Reference:	WELL @ 4911.0ft (Original Well Elev)
Well:	Sekich P19-27D	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)	
2,106.0	16.30	13.40	2,081.2	218.7	62.3	227.4	1.43	-0.64	-4.47	
2,200.0	16.80	15.20	2,171.3	244.7	68.9	254.2	0.76	0.53	1.91	
2,294.0	16.80	16.10	2,261.3	270.8	76.3	281.4	0.28	0.00	0.96	
2,388.0	17.50	13.00	2,351.1	297.7	83.2	309.1	1.22	0.74	-3.30	
2,482.0	17.40	14.30	2,440.7	325.1	89.9	337.3	0.43	-0.11	1.38	
2,576.0	17.30	12.30	2,530.5	352.3	96.3	365.3	0.64	-0.11	-2.13	
2,670.0	17.70	13.70	2,620.1	379.9	102.7	393.5	0.62	0.43	1.49	
2,764.0	16.40	15.60	2,710.0	406.5	109.6	421.1	1.50	-1.38	2.02	
2,858.0	17.10	15.00	2,800.0	432.7	116.8	448.2	0.77	0.74	-0.64	
2,952.0	17.10	13.40	2,889.8	459.5	123.5	475.8	0.50	0.00	-1.70	
3,046.0	17.40	10.70	2,979.6	486.7	129.4	503.6	0.91	0.32	-2.87	
3,140.0	15.80	8.40	3,069.7	513.2	133.8	530.4	1.84	-1.70	-2.45	
3,234.0	14.90	14.70	3,160.4	537.5	138.8	555.2	2.01	-0.96	6.70	
3,328.0	16.10	19.90	3,250.9	561.5	146.3	580.2	1.95	1.28	5.53	
3,422.0	15.50	17.20	3,341.4	585.7	154.4	605.8	1.01	-0.64	-2.87	
3,516.0	16.00	18.10	3,431.9	610.1	162.2	631.3	0.59	0.53	0.96	
3,610.0	17.00	14.50	3,522.0	635.7	169.6	657.9	1.52	1.06	-3.83	
3,704.0	17.00	15.50	3,611.9	662.2	176.7	685.4	0.31	0.00	1.06	
3,798.0	17.40	17.10	3,701.7	688.9	184.6	713.2	0.66	0.43	1.70	
3,892.0	16.60	14.50	3,791.6	715.3	192.0	740.7	1.17	-0.85	-2.77	
3,986.0	16.70	14.50	3,881.6	741.4	198.8	767.6	0.11	0.11	0.00	
4,080.0	16.40	14.50	3,971.7	767.3	205.5	794.4	0.32	-0.32	0.00	
4,174.0	18.10	14.40	4,061.5	794.3	212.4	822.3	1.81	1.81	-0.11	
4,268.0	18.20	12.60	4,150.8	822.8	219.3	851.5	0.61	0.11	-1.91	
4,362.0	17.70	13.10	4,240.3	851.0	225.7	880.5	0.56	-0.53	0.53	
4,456.0	17.80	12.30	4,329.8	879.0	232.0	909.1	0.28	0.11	-0.85	
4,550.0	18.30	14.40	4,419.2	907.3	238.8	938.2	0.87	0.53	2.23	
4,644.0	17.70	13.10	4,508.6	935.5	245.7	967.3	0.77	-0.64	-1.38	
4,738.0	16.70	12.90	4,598.3	962.6	251.9	995.0	1.07	-1.06	-0.21	
4,832.0	16.60	14.40	4,688.4	988.8	258.3	1,022.0	0.47	-0.11	1.60	
4,926.0	14.00	14.40	4,779.1	1,012.8	264.4	1,046.8	2.77	-2.77	0.00	
5,020.0	12.40	13.70	4,870.6	1,033.6	269.7	1,068.2	1.71	-1.70	-0.74	
5,114.0	9.50	14.70	4,962.9	1,050.9	274.0	1,086.1	3.09	-3.09	1.06	
5,208.0	8.00	14.80	5,055.8	1,064.8	277.7	1,100.4	1.60	-1.60	0.11	
5,302.0	6.50	19.20	5,149.0	1,076.1	281.1	1,112.2	1.70	-1.60	4.68	
5,396.0	4.10	14.50	5,242.6	1,084.4	283.7	1,120.9	2.59	-2.55	-5.00	
5,490.0	3.60	20.30	5,336.4	1,090.4	285.5	1,127.2	0.67	-0.53	6.17	
5,584.0	1.80	358.30	5,430.3	1,094.7	286.5	1,131.5	2.18	-1.91	-23.40	
5,678.0	0.70	28.80	5,524.3	1,096.6	286.7	1,133.5	1.33	-1.17	32.45	
5,804.0	0.70	72.80	5,650.2	1,097.6	287.9	1,134.7	0.42	0.00	34.92	
5,853.7	0.73	88.13	5,700.0	1,097.7	288.5	1,134.9	0.39	0.06	30.81	
TARGET BHL 100'FNL, 1350'FEL										
5,898.0	0.80	100.00	5,744.2	1,097.6	289.0	1,135.0	0.39	0.15	26.83	
5,991.0	1.40	72.30	5,837.2	1,097.8	290.8	1,135.7	0.84	0.65	-29.79	
6,189.0	1.70	68.40	6,035.2	1,099.7	295.8	1,138.8	0.16	0.15	-1.97	
6,273.0	1.60	65.40	6,119.1	1,100.6	298.0	1,140.2	0.16	-0.12	-3.57	
6,367.0	1.20	52.20	6,213.1	1,101.8	300.0	1,141.9	0.54	-0.43	-14.04	
6,565.0	0.50	32.60	6,411.1	1,103.8	302.1	1,144.3	0.38	-0.35	-9.90	
6,649.0	0.60	34.20	6,495.1	1,104.4	302.5	1,145.1	0.12	0.12	1.90	
6,743.0	0.10	312.80	6,589.1	1,104.9	302.8	1,145.6	0.63	-0.53	-86.60	
6,837.0	0.50	353.80	6,683.1	1,105.4	302.7	1,146.0	0.46	0.43	43.62	
6,931.0	0.50	316.90	6,777.1	1,106.1	302.3	1,146.6	0.34	0.00	-39.26	
7,025.0	0.40	346.20	6,871.1	1,106.7	302.0	1,147.1	0.26	-0.11	31.17	
7,084.9	0.59	337.79	6,931.0	1,107.2	301.8	1,147.6	0.33	0.31	-14.04	

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Site Sekich P19-27D Sec. 19-T3N-R67W
Project:	SEC.19-T3N-R67W	TVD Reference:	WELL @ 4911.0ft (Original Well Elev)
Site:	Sekich P19-27D Sec. 19-T3N-R67W	MD Reference:	WELL @ 4911.0ft (Original Well Elev)
Well:	Sekich P19-27D	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)
TARGET CIRCLE 100'FNL, 1350'FEL									
7,121.0	0.70	334.90	6,967.0	1,107.5	301.6	1,147.9	0.33	0.32	-8.00
7,216.0	0.60	296.40	7,062.0	1,108.3	301.0	1,148.4	0.46	-0.11	-40.53
7,311.0	1.60	326.20	7,157.0	1,109.6	299.8	1,149.4	1.18	1.05	31.37
7,407.0	0.80	313.70	7,253.0	1,111.2	298.5	1,150.6	0.87	-0.83	-13.02
7,502.0	0.90	347.30	7,348.0	1,112.4	297.9	1,151.6	0.53	0.11	35.37
7,597.0	0.20	70.10	7,443.0	1,113.1	297.9	1,152.3	0.94	-0.74	87.16
7,692.0	0.80	38.60	7,538.0	1,113.7	298.5	1,153.0	0.67	0.63	-33.16
7,787.0	0.70	354.10	7,633.0	1,114.8	298.8	1,154.2	0.61	-0.11	-46.84
7,966.0	0.70	3.84	7,812.0	1,117.0	298.8	1,156.3	0.07	0.00	5.44
HARDLINE 100'N OF BHL									
7,982.0	0.70	4.70	7,828.0	1,117.2	298.8	1,156.5	0.07	0.01	5.41
8,036.0	0.70	4.70	7,882.0	1,117.8	298.8	1,157.1	0.00	0.00	0.00

Checked By: _____ Approved By: _____ Date: _____