

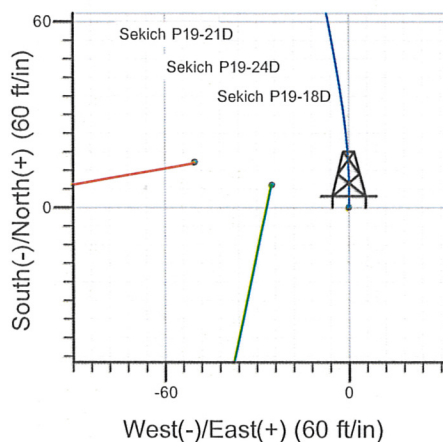
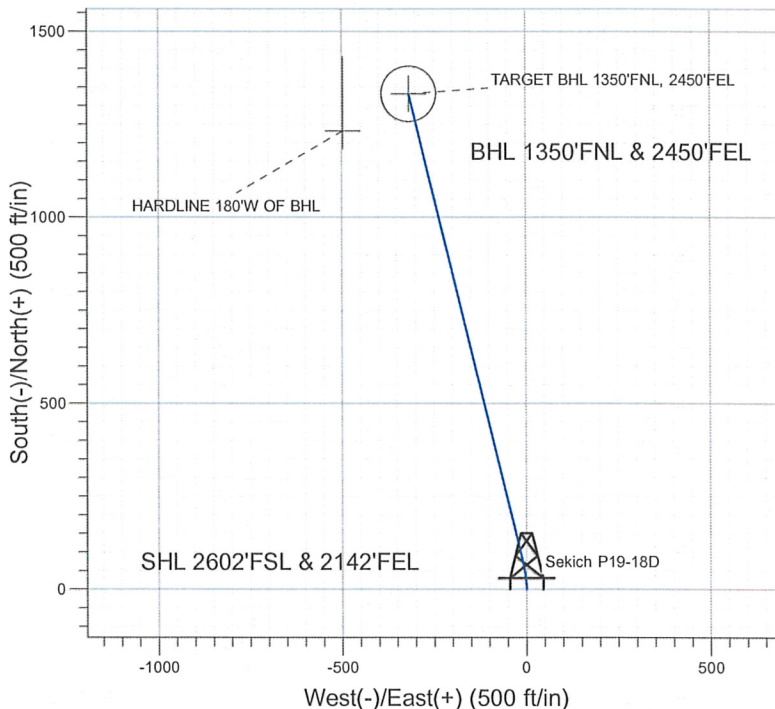
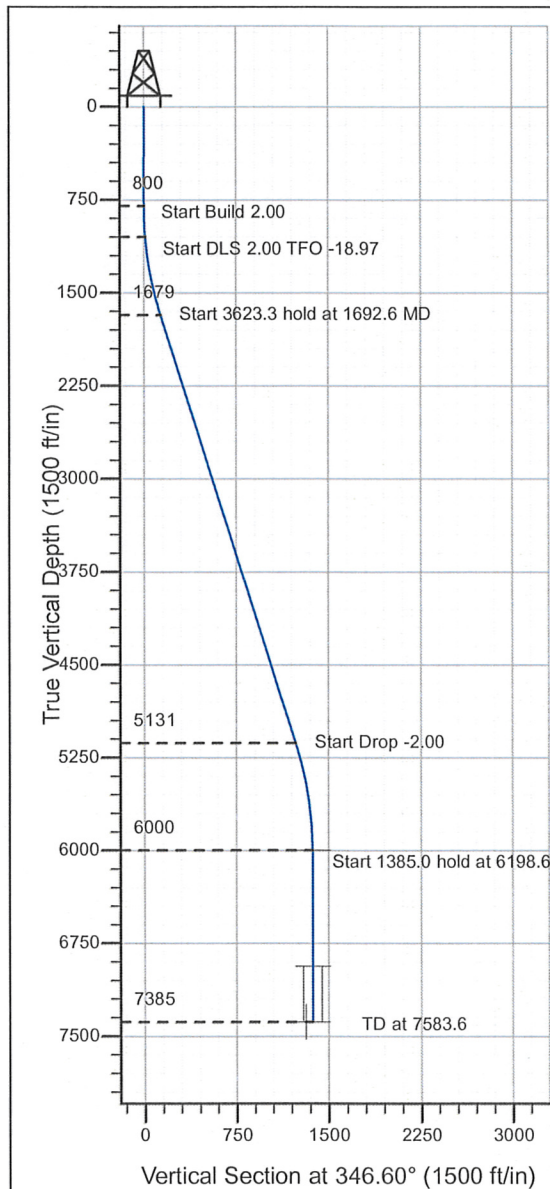
ENSIGN

Directional

Well Name: Sekich P19-18D

Surface Location: Sekich P19-18D Pad Sec.19-T3N-R67W
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
 Ground Elevation: 4902.0
 +N/-S+E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1320394.38 3158928.73 40° 12' 41.328 N 104° 55' 51.384 W
 Original Well Elev WELL @ 4915.0ft (Original Well Elev)

NOBLE ENERGY INC WELD COUNTY CO



Sekich P19-18D Pad Sec.19-T3N-R67W
 Sekich P19-18D
 Noble Sekich P19-18D Plan #1 (03-25-10)
 16:49, March 25 2010



Azimuths to True North
 Magnetic North: 9.09°
 Magnetic Field
 Strength: 53186.4snT
 Dip Angle: 66.93°
 Date: 12/31/2009
 Model: IGRF200510

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 1350'FNL, 2450'FEL	6000.0	1332.2	-317.4	40° 12' 54.493 N	104° 55' 55.476 W	Point
TARGET CIRCLE 1350'FNL, 2450'FEL	6935.0	1332.2	-317.4	40° 12' 54.493 N	104° 55' 55.475 W	Circle (Radius: 75.0)
HARDLINE 180°W OF BHL	7385.0	1232.2	-497.4	40° 12' 53.504 N	104° 55' 57.796 W	Polygon

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	800.0	0.00	0.00	800.0	0.0	0.0	0.00	0.00	0.0	
3	1050.0	5.00	0.00	1049.7	10.9	0.0	2.00	0.00	10.6	
4	1692.6	17.65	346.21	1678.6	134.0	-23.3	2.00	-18.97	135.8	
5	5315.9	17.65	346.21	5131.2	1201.2	-285.3	0.00	0.00	1234.6	
6	6198.6	0.00	0.00	6000.0	1332.2	-317.4	2.00	180.00	1369.5	TARGET BHL 1350'FNL, 2450'FEL
7	7583.6	0.00	0.00	7385.0	1332.2	-317.4	0.00	0.00	1369.5	



Directional

NOBLE ENERGY INC WELD COUNTY CO

SEC.19-T3N-R67W

Sekich P19-18D Pad Sec.19-T3N-R67W

Sekich P19-18D

Wellbore #1

Plan: Noble Sekich P19-18D Plan #1 (03-25-10)

Standard Planning Report

25 March, 2010



Database: EDM den0-adp01 Server Data
Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.19-T3N-R67W
Site: Sekich P19-18D Pad Sec.19-T3N-R67W
Well: Sekich P19-18D
Wellbore: Wellbore #1
Design: Noble Sekich P19-18D Plan #1 (03-25-10)

Local Co-ordinate Reference: Well Sekich P19-18D
TVD Reference: WELL @ 4915.0ft (Original Well Elev)
MD Reference: WELL @ 4915.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

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 P19-18D Pad Sec.19-T3N-R67W				
Site Position:		Northing:	1,320,394.39ft	Latitude:	40° 12' 41.328 N
From:	Lat/Long	Easting:	3,158,928.73ft	Longitude:	104° 55' 51.384 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.37 °

Well	Sekich P19-18D					
Well Position	+N/-S	0.0 ft	Northing:	1,320,394.38 ft	Latitude:	40° 12' 41.328 N
	+E/-W	0.0 ft	Easting:	3,158,928.73 ft	Longitude:	104° 55' 51.384 W
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,902.0 ft	

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	9.10	66.93	53,186

Design	Noble Sekich P19-18D Plan #1 (03-25-10)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	346.60

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,050.0	5.00	0.00	1,049.7	10.9	0.0	2.00	2.00	0.00	0.00	
1,692.6	17.65	346.21	1,678.6	134.0	-23.3	2.00	1.97	-2.15	-18.97	
5,315.9	17.65	346.21	5,131.2	1,201.2	-285.3	0.00	0.00	0.00	0.00	
6,198.6	0.00	0.00	6,000.0	1,332.2	-317.4	2.00	-2.00	0.00	180.00	TARGET BHL 135C
7,583.6	0.00	0.00	7,385.0	1,332.2	-317.4	0.00	0.00	0.00	0.00	

Database: EDM den0-adp01 Server Data
Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.19-T3N-R67W
Site: Sekich P19-18D Pad Sec.19-T3N-R67W
Well: Sekich P19-18D
Wellbore: Wellbore #1
Design: Noble Sekich P19-18D Plan #1 (03-25-10)

Local Co-ordinate Reference: Well Sekich P19-18D
TVD Reference: WELL @ 4915.0ft (Original Well Elev)
MD Reference: WELL @ 4915.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned 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
40.0	0.00	0.00	40.0	0.0	0.0	0.0	0.00	0.00	0.00
80.0	0.00	0.00	80.0	0.0	0.0	0.0	0.00	0.00	0.00
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00
160.0	0.00	0.00	160.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
240.0	0.00	0.00	240.0	0.0	0.0	0.0	0.00	0.00	0.00
280.0	0.00	0.00	280.0	0.0	0.0	0.0	0.00	0.00	0.00
320.0	0.00	0.00	320.0	0.0	0.0	0.0	0.00	0.00	0.00
360.0	0.00	0.00	360.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
440.0	0.00	0.00	440.0	0.0	0.0	0.0	0.00	0.00	0.00
480.0	0.00	0.00	480.0	0.0	0.0	0.0	0.00	0.00	0.00
520.0	0.00	0.00	520.0	0.0	0.0	0.0	0.00	0.00	0.00
560.0	0.00	0.00	560.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
640.0	0.00	0.00	640.0	0.0	0.0	0.0	0.00	0.00	0.00
680.0	0.00	0.00	680.0	0.0	0.0	0.0	0.00	0.00	0.00
720.0	0.00	0.00	720.0	0.0	0.0	0.0	0.00	0.00	0.00
760.0	0.00	0.00	760.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
840.0	0.80	0.00	840.0	0.3	0.0	0.3	2.00	2.00	0.00
880.0	1.60	0.00	880.0	1.1	0.0	1.1	2.00	2.00	0.00
920.0	2.40	0.00	920.0	2.5	0.0	2.4	2.00	2.00	0.00
960.0	3.20	0.00	959.9	4.5	0.0	4.3	2.00	2.00	0.00
1,000.0	4.00	0.00	999.8	7.0	0.0	6.8	2.00	2.00	0.00
1,040.0	4.80	0.00	1,039.7	10.0	0.0	9.8	2.00	2.00	0.00
1,080.0	5.00	0.00	1,049.7	10.9	0.0	10.6	2.00	2.00	0.00
1,120.0	5.57	357.99	1,079.6	13.7	-0.1	13.3	2.00	1.90	-6.70
1,160.0	6.34	355.88	1,119.3	17.8	-0.3	17.4	2.00	1.92	-5.29
1,200.0	7.12	354.22	1,159.1	22.5	-0.7	22.0	2.00	1.94	-4.14
1,240.0	7.90	352.89	1,198.7	27.7	-1.3	27.2	2.00	1.95	-3.33
1,280.0	8.68	351.80	1,238.3	33.4	-2.0	32.9	2.00	1.96	-2.73
1,320.0	9.47	350.88	1,277.8	39.6	-3.0	39.2	2.00	1.97	-2.28
1,360.0	10.26	350.11	1,317.2	46.4	-4.1	46.1	2.00	1.97	-1.93
1,400.0	11.05	349.44	1,356.5	53.7	-5.4	53.5	2.00	1.98	-1.66
1,440.0	11.84	348.87	1,395.7	61.4	-6.9	61.4	2.00	1.98	-1.44
1,480.0	12.63	348.36	1,434.8	69.8	-8.6	69.9	2.00	1.98	-1.26
1,520.0	13.43	347.92	1,473.8	78.6	-10.5	78.9	2.00	1.98	-1.12
1,560.0	14.22	347.52	1,512.6	87.9	-12.5	88.4	2.00	1.99	-0.99
1,600.0	15.02	347.16	1,551.3	97.8	-14.7	98.5	2.00	1.99	-0.89
1,640.0	15.81	346.84	1,589.9	108.1	-17.1	109.2	2.00	1.99	-0.80
1,680.0	16.61	346.55	1,628.3	119.0	-19.7	120.3	2.00	1.99	-0.73
1,720.0	17.40	346.29	1,666.6	130.4	-22.4	132.0	2.00	1.99	-0.66
1,760.0	17.65	346.21	1,678.6	134.0	-23.3	135.8	2.00	1.99	-0.62
1,800.0	17.65	346.21	1,704.7	142.1	-25.3	144.1	0.00	0.00	0.00
1,840.0	17.65	346.21	1,742.8	153.9	-28.2	156.2	0.00	0.00	0.00
1,880.0	17.65	346.21	1,780.9	165.7	-31.1	168.4	0.00	0.00	0.00
1,920.0	17.65	346.21	1,819.0	177.5	-34.0	180.5	0.00	0.00	0.00
1,960.0	17.65	346.21	1,857.1	189.2	-36.9	192.6	0.00	0.00	0.00
2,000.0	17.65	346.21	1,895.3	201.0	-39.8	204.8	0.00	0.00	0.00
2,040.0	17.65	346.21	1,933.4	212.8	-42.7	216.9	0.00	0.00	0.00
2,080.0	17.65	346.21	1,971.5	224.6	-45.6	229.0	0.00	0.00	0.00
2,120.0	17.65	346.21	2,009.6	236.4	-48.4	241.2	0.00	0.00	0.00

Database: EDM den0-adp01 Server Data
Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.19-T3N-R67W
Site: Sekich P19-18D Pad Sec.19-T3N-R67W
Well: Sekich P19-18D
Wellbore: Wellbore #1
Design: Noble Sekich P19-18D Plan #1 (03-25-10)

Local Co-ordinate Reference: Well Sekich P19-18D
TVD Reference: WELL @ 4915.0ft (Original Well Elev)
MD Reference: WELL @ 4915.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned 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)
2,080.0	17.65	346.21	2,047.7	248.2	-51.3	253.3	0.00	0.00	0.00
2,120.0	17.65	346.21	2,085.8	259.9	-54.2	265.4	0.00	0.00	0.00
2,160.0	17.65	346.21	2,124.0	271.7	-57.1	277.6	0.00	0.00	0.00
2,200.0	17.65	346.21	2,162.1	283.5	-60.0	289.7	0.00	0.00	0.00
2,240.0	17.65	346.21	2,200.2	295.3	-62.9	301.8	0.00	0.00	0.00
2,280.0	17.65	346.21	2,238.3	307.1	-65.8	313.9	0.00	0.00	0.00
2,320.0	17.65	346.21	2,276.4	318.8	-68.7	326.1	0.00	0.00	0.00
2,360.0	17.65	346.21	2,314.5	330.6	-71.6	338.2	0.00	0.00	0.00
2,400.0	17.65	346.21	2,352.7	342.4	-74.5	350.3	0.00	0.00	0.00
2,440.0	17.65	346.21	2,390.8	354.2	-77.4	362.5	0.00	0.00	0.00
2,480.0	17.65	346.21	2,428.9	366.0	-80.3	374.6	0.00	0.00	0.00
2,520.0	17.65	346.21	2,467.0	377.7	-83.1	386.7	0.00	0.00	0.00
2,560.0	17.65	346.21	2,505.1	389.5	-86.0	398.9	0.00	0.00	0.00
2,600.0	17.65	346.21	2,543.2	401.3	-88.9	411.0	0.00	0.00	0.00
2,640.0	17.65	346.21	2,581.4	413.1	-91.8	423.1	0.00	0.00	0.00
2,680.0	17.65	346.21	2,619.5	424.9	-94.7	435.2	0.00	0.00	0.00
2,720.0	17.65	346.21	2,657.6	436.6	-97.6	447.4	0.00	0.00	0.00
2,760.0	17.65	346.21	2,695.7	448.4	-100.5	459.5	0.00	0.00	0.00
2,800.0	17.65	346.21	2,733.8	460.2	-103.4	471.6	0.00	0.00	0.00
2,840.0	17.65	346.21	2,771.9	472.0	-106.3	483.8	0.00	0.00	0.00
2,880.0	17.65	346.21	2,810.0	483.8	-109.2	495.9	0.00	0.00	0.00
2,920.0	17.65	346.21	2,848.2	495.5	-112.1	508.0	0.00	0.00	0.00
2,960.0	17.65	346.21	2,886.3	507.3	-115.0	520.2	0.00	0.00	0.00
3,000.0	17.65	346.21	2,924.4	519.1	-117.9	532.3	0.00	0.00	0.00
3,040.0	17.65	346.21	2,962.5	530.9	-120.7	544.4	0.00	0.00	0.00
3,080.0	17.65	346.21	3,000.6	542.7	-123.6	556.5	0.00	0.00	0.00
3,120.0	17.65	346.21	3,038.7	554.5	-126.5	568.7	0.00	0.00	0.00
3,160.0	17.65	346.21	3,076.9	566.2	-129.4	580.8	0.00	0.00	0.00
3,200.0	17.65	346.21	3,115.0	578.0	-132.3	592.9	0.00	0.00	0.00
3,240.0	17.65	346.21	3,153.1	589.8	-135.2	605.1	0.00	0.00	0.00
3,280.0	17.65	346.21	3,191.2	601.6	-138.1	617.2	0.00	0.00	0.00
3,320.0	17.65	346.21	3,229.3	613.4	-141.0	629.3	0.00	0.00	0.00
3,360.0	17.65	346.21	3,267.4	625.1	-143.9	641.5	0.00	0.00	0.00
3,400.0	17.65	346.21	3,305.6	636.9	-146.8	653.6	0.00	0.00	0.00
3,440.0	17.65	346.21	3,343.7	648.7	-149.7	665.7	0.00	0.00	0.00
3,480.0	17.65	346.21	3,381.8	660.5	-152.6	677.9	0.00	0.00	0.00
3,520.0	17.65	346.21	3,419.9	672.3	-155.4	690.0	0.00	0.00	0.00
3,560.0	17.65	346.21	3,458.0	684.0	-158.3	702.1	0.00	0.00	0.00
3,600.0	17.65	346.21	3,496.1	695.8	-161.2	714.2	0.00	0.00	0.00
3,640.0	17.65	346.21	3,534.3	707.6	-164.1	726.4	0.00	0.00	0.00
3,680.0	17.65	346.21	3,572.4	719.4	-167.0	738.5	0.00	0.00	0.00
3,720.0	17.65	346.21	3,610.5	731.2	-169.9	750.6	0.00	0.00	0.00
3,760.0	17.65	346.21	3,648.6	742.9	-172.8	762.8	0.00	0.00	0.00
3,800.0	17.65	346.21	3,686.7	754.7	-175.7	774.9	0.00	0.00	0.00
3,840.0	17.65	346.21	3,724.8	766.5	-178.6	787.0	0.00	0.00	0.00
3,880.0	17.65	346.21	3,763.0	778.3	-181.5	799.2	0.00	0.00	0.00
3,920.0	17.65	346.21	3,801.1	790.1	-184.4	811.3	0.00	0.00	0.00
3,960.0	17.65	346.21	3,839.2	801.9	-187.3	823.4	0.00	0.00	0.00
4,000.0	17.65	346.21	3,877.3	813.6	-190.1	835.5	0.00	0.00	0.00
4,040.0	17.65	346.21	3,915.4	825.4	-193.0	847.7	0.00	0.00	0.00
4,080.0	17.65	346.21	3,953.5	837.2	-195.9	859.8	0.00	0.00	0.00
4,120.0	17.65	346.21	3,991.7	849.0	-198.8	871.9	0.00	0.00	0.00
4,160.0	17.65	346.21	4,029.8	860.8	-201.7	884.1	0.00	0.00	0.00
4,200.0	17.65	346.21	4,067.9	872.5	-204.6	896.2	0.00	0.00	0.00

Database: EDM den0-adp01 Server Data
Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.19-T3N-R67W
Site: Sekich P19-18D Pad Sec.19-T3N-R67W
Well: Sekich P19-18D
Wellbore: Wellbore #1
Design: Noble Sekich P19-18D Plan #1 (03-25-10)

Local Co-ordinate Reference: Well Sekich P19-18D
TVD Reference: WELL @ 4915.0ft (Original Well Elev)
MD Reference: WELL @ 4915.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned 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)
4,240.0	17.65	346.21	4,106.0	884.3	-207.5	908.3	0.00	0.00	0.00
4,280.0	17.65	346.21	4,144.1	896.1	-210.4	920.5	0.00	0.00	0.00
4,320.0	17.65	346.21	4,182.2	907.9	-213.3	932.6	0.00	0.00	0.00
4,360.0	17.65	346.21	4,220.3	919.7	-216.2	944.7	0.00	0.00	0.00
4,400.0	17.65	346.21	4,258.5	931.4	-219.1	956.9	0.00	0.00	0.00
4,440.0	17.65	346.21	4,296.6	943.2	-222.0	969.0	0.00	0.00	0.00
4,480.0	17.65	346.21	4,334.7	955.0	-224.9	981.1	0.00	0.00	0.00
4,520.0	17.65	346.21	4,372.8	966.8	-227.7	993.2	0.00	0.00	0.00
4,560.0	17.65	346.21	4,410.9	978.6	-230.6	1,005.4	0.00	0.00	0.00
4,600.0	17.65	346.21	4,449.0	990.3	-233.5	1,017.5	0.00	0.00	0.00
4,640.0	17.65	346.21	4,487.2	1,002.1	-236.4	1,029.6	0.00	0.00	0.00
4,680.0	17.65	346.21	4,525.3	1,013.9	-239.3	1,041.8	0.00	0.00	0.00
4,720.0	17.65	346.21	4,563.4	1,025.7	-242.2	1,053.9	0.00	0.00	0.00
4,760.0	17.65	346.21	4,601.5	1,037.5	-245.1	1,066.0	0.00	0.00	0.00
4,800.0	17.65	346.21	4,639.6	1,049.2	-248.0	1,078.2	0.00	0.00	0.00
4,840.0	17.65	346.21	4,677.7	1,061.0	-250.9	1,090.3	0.00	0.00	0.00
4,880.0	17.65	346.21	4,715.9	1,072.8	-253.8	1,102.4	0.00	0.00	0.00
4,920.0	17.65	346.21	4,754.0	1,084.6	-256.7	1,114.5	0.00	0.00	0.00
4,960.0	17.65	346.21	4,792.1	1,096.4	-259.6	1,126.7	0.00	0.00	0.00
5,000.0	17.65	346.21	4,830.2	1,108.2	-262.4	1,138.8	0.00	0.00	0.00
5,040.0	17.65	346.21	4,868.3	1,119.9	-265.3	1,150.9	0.00	0.00	0.00
5,080.0	17.65	346.21	4,906.4	1,131.7	-268.2	1,163.1	0.00	0.00	0.00
5,120.0	17.65	346.21	4,944.6	1,143.5	-271.1	1,175.2	0.00	0.00	0.00
5,160.0	17.65	346.21	4,982.7	1,155.3	-274.0	1,187.3	0.00	0.00	0.00
5,200.0	17.65	346.21	5,020.8	1,167.1	-276.9	1,199.5	0.00	0.00	0.00
5,240.0	17.65	346.21	5,058.9	1,178.8	-279.8	1,211.6	0.00	0.00	0.00
5,280.0	17.65	346.21	5,097.0	1,190.6	-282.7	1,223.7	0.00	0.00	0.00
5,315.9	17.65	346.21	5,131.2	1,201.2	-285.3	1,234.6	0.00	0.00	0.00
5,320.0	17.57	346.21	5,135.1	1,202.4	-285.6	1,235.8	2.00	-2.00	0.00
5,360.0	16.77	346.21	5,173.4	1,213.9	-288.4	1,247.7	2.00	-2.00	0.00
5,400.0	15.97	346.21	5,211.7	1,224.8	-291.1	1,258.9	2.00	-2.00	0.00
5,440.0	15.17	346.21	5,250.3	1,235.2	-293.6	1,269.7	2.00	-2.00	0.00
5,480.0	14.37	346.21	5,288.9	1,245.1	-296.1	1,279.9	2.00	-2.00	0.00
5,520.0	13.57	346.21	5,327.8	1,254.5	-298.4	1,289.5	2.00	-2.00	0.00
5,560.0	12.77	346.21	5,366.7	1,263.4	-300.6	1,298.6	2.00	-2.00	0.00
5,600.0	11.97	346.21	5,405.8	1,271.7	-302.6	1,307.2	2.00	-2.00	0.00
5,640.0	11.17	346.21	5,445.0	1,279.5	-304.5	1,315.2	2.00	-2.00	0.00
5,680.0	10.37	346.21	5,484.3	1,286.8	-306.3	1,322.7	2.00	-2.00	0.00
5,720.0	9.57	346.21	5,523.7	1,293.5	-307.9	1,329.6	2.00	-2.00	0.00
5,760.0	8.77	346.21	5,563.1	1,299.7	-309.5	1,336.0	2.00	-2.00	0.00
5,800.0	7.97	346.21	5,602.7	1,305.3	-310.8	1,341.8	2.00	-2.00	0.00
5,840.0	7.17	346.21	5,642.4	1,310.4	-312.1	1,347.1	2.00	-2.00	0.00
5,880.0	6.37	346.21	5,682.1	1,315.0	-313.2	1,351.8	2.00	-2.00	0.00
5,920.0	5.57	346.21	5,721.9	1,319.1	-314.2	1,356.0	2.00	-2.00	0.00
5,960.0	4.77	346.21	5,761.7	1,322.6	-315.1	1,359.6	2.00	-2.00	0.00
6,000.0	3.97	346.21	5,801.6	1,325.5	-315.8	1,362.6	2.00	-2.00	0.00
6,040.0	3.17	346.21	5,841.5	1,327.9	-316.4	1,365.1	2.00	-2.00	0.00
6,080.0	2.37	346.21	5,881.5	1,329.8	-316.9	1,367.1	2.00	-2.00	0.00
6,120.0	1.57	346.21	5,921.4	1,331.2	-317.2	1,368.4	2.00	-2.00	0.00
6,160.0	0.77	346.21	5,961.4	1,332.0	-317.4	1,369.2	2.00	-2.00	0.00
6,198.6	0.00	0.00	6,000.0	1,332.2	-317.4	1,369.5	2.00	-2.00	0.00
TARGET BHL 1350'FNL, 2450'FEL									
6,200.0	0.00	0.00	6,001.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00

Database: EDM den0-adp01 Server Data
Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.19-T3N-R67W
Site: Sekich P19-18D Pad Sec.19-T3N-R67W
Well: Sekich P19-18D
Wellbore: Wellbore #1
Design: Noble Sekich P19-18D Plan #1 (03-25-10)

Local Co-ordinate Reference: Well Sekich P19-18D
TVD Reference: WELL @ 4915.0ft (Original Well Elev)
MD Reference: WELL @ 4915.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned 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)
6,240.0	0.00	0.00	6,041.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
6,280.0	0.00	0.00	6,081.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
6,320.0	0.00	0.00	6,121.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
6,360.0	0.00	0.00	6,161.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
6,400.0	0.00	0.00	6,201.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
6,440.0	0.00	0.00	6,241.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
6,480.0	0.00	0.00	6,281.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
6,520.0	0.00	0.00	6,321.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
6,560.0	0.00	0.00	6,361.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
6,600.0	0.00	0.00	6,401.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
6,640.0	0.00	0.00	6,441.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
6,680.0	0.00	0.00	6,481.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
6,720.0	0.00	0.00	6,521.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
6,760.0	0.00	0.00	6,561.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
6,800.0	0.00	0.00	6,601.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
6,840.0	0.00	0.00	6,641.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
6,880.0	0.00	0.00	6,681.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
6,920.0	0.00	0.00	6,721.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
6,960.0	0.00	0.00	6,761.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
7,000.0	0.00	0.00	6,801.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
7,040.0	0.00	0.00	6,841.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
7,080.0	0.00	0.00	6,881.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
7,120.0	0.00	0.00	6,921.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
7,133.6	0.00	0.00	6,935.0	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
NIOBRARA - TARGET CIRCLE 1350'FNL, 2450'FEL									
7,160.0	0.00	0.00	6,961.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
7,200.0	0.00	0.00	7,001.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
7,240.0	0.00	0.00	7,041.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
7,280.0	0.00	0.00	7,081.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
7,320.0	0.00	0.00	7,121.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
7,360.0	0.00	0.00	7,161.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
7,400.0	0.00	0.00	7,201.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
7,433.6	0.00	0.00	7,235.0	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
CODELL									
7,440.0	0.00	0.00	7,241.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
7,480.0	0.00	0.00	7,281.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
7,520.0	0.00	0.00	7,321.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
7,560.0	0.00	0.00	7,361.4	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
7,583.6	0.00	0.00	7,385.0	1,332.2	-317.4	1,369.5	0.00	0.00	0.00
HARDLINE 180°W OF BHL									

Database: EDM den0-adp01 Server Data
Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.19-T3N-R67W
Site: Sekich P19-18D Pad Sec.19-T3N-R67W
Well: Sekich P19-18D
Wellbore: Wellbore #1
Design: Noble Sekich P19-18D Plan #1 (03-25-10)

Local Co-ordinate Reference: Well Sekich P19-18D
TVD Reference: WELL @ 4915.0ft (Original Well Elev)
MD Reference: WELL @ 4915.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Targets

Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
- Shape									
HARDLINE 180'W OF	0.00	0.00	7,385.0	1,232.2	-497.4	1,321,623.32	3,158,423.46	40° 12' 53.504 N	104° 55' 57.796 W
- plan misses target center by 205.9ft at 7583.6ft MD (7385.0 TVD, 1332.2 N, -317.4 E)									
- Polygon									
Point 1			7,385.0	0.0	0.0	1,321,623.32	3,158,423.46		
Point 2			7,385.0	200.0	0.0	1,321,823.30	3,158,422.17		
TARGET BHL 1350'F	0.00	0.00	6,000.0	1,332.2	-317.4	1,321,724.47	3,158,602.76	40° 12' 54.493 N	104° 55' 55.476 W
- plan hits target center									
- Point									
TARGET CIRCLE 135'	0.00	0.00	6,935.0	1,332.2	-317.4	1,321,724.47	3,158,602.80	40° 12' 54.493 N	104° 55' 55.475 W
- plan hits target center									
- Circle (radius 75.0)									

Formations

Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(ft)	(ft)			(°)	(°)
7,133.6	6,935.0	NIOBRARA		0.00	
7,433.6	7,235.0	CODELL		0.00	