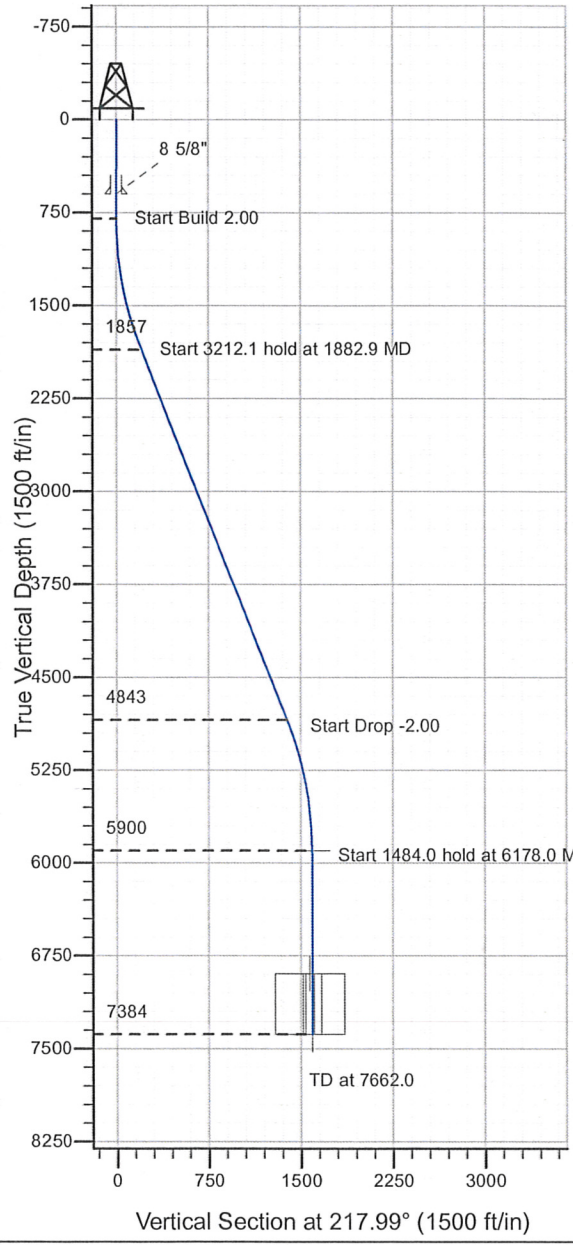
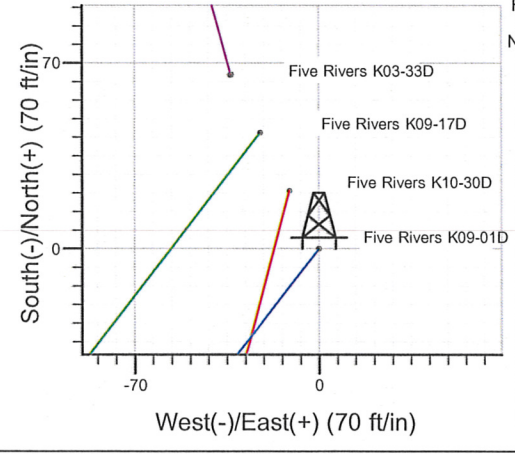
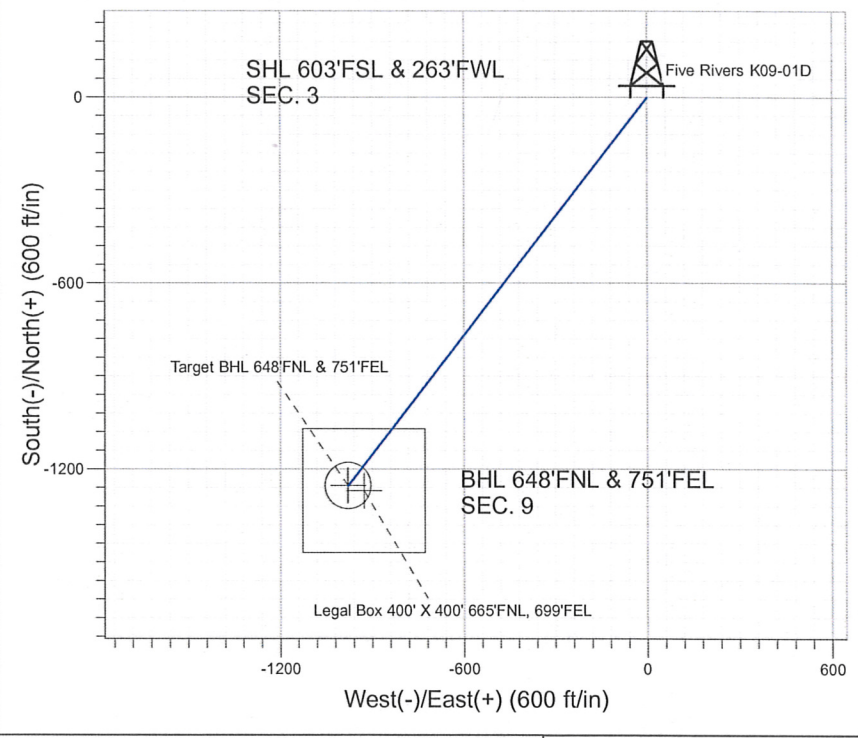


Well Name: Five Rivers K09-01D
 Surface Location: Five Rivers K03-33D Pad Sec.3-T4N-R66W
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
 Ground Elevation: 4721.0
 +N/-S+E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1365786.04 3202807.68 40° 20' 6.720 N 104° 46' 21.000 W
 Original Well Elev WELL @ 4734.0ft (Original Well Elev)



NOBLE ENERGY INC WELD COUNTY CO



Five Rivers K03-33D Pad Sec.3-T4N-R66W
 Five Rivers K09-01D
 Noble Five Rivers K09-01D Plan#1 (6-29-10)
 15:37, July 07 2010

Azimuths to True North
 Magnetic North: 8.99°
 Magnetic Field
 Strength: 53200.4snT
 Dip Angle: 67.03°
 Date: 6/24/2010
 Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Target BHL 648'FNL & 751'FEL	5900.0	-1253.2	-978.6	40° 19' 54.336 N	104° 46' 33.636 W	Point
Legal Box 400' X 400' 665'FNL, 699'FEL	6894.0	-1270.1	-926.6	40° 19' 54.169 N	104° 46' 32.965 W	Rectangle (Sides: L400.0 W400.0)
Target Circle 648'FNL & 751'FEL	7384.0	-1253.1	-978.6	40° 19' 54.337 N	104° 46' 33.636 W	Circle (Radius: 75.0)

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	1882.9	21.66	217.99	1857.3	-159.4	-124.5	2.00	217.99	202.3	
4	5095.1	21.66	217.99	4842.7	-1093.8	-854.1	0.00	0.00	1387.8	
5	6178.0	0.00	0.00	5900.0	-1253.2	-978.6	2.00	180.00	1590.0	Target BHL 648'FNL & 751'FEL
6	7662.0	0.00	0.00	7384.0	-1253.2	-978.6	0.00	0.00	1590.0	



Directional

NOBLE ENERGY INC WELD COUNTY CO

SEC.3-T4N-R66W

Five Rivers K03-33D Pad Sec.3-T4N-R66W

Five Rivers K09-01D

Wellbore #1

Plan: Noble Five Rivers K09-01D Plan#1 (6-29-10)

Standard Planning Report

07 July, 2010



Database: EDM den0-adp01 Server Data
 Company: NOBLE ENERGY INC WELD COUNTY CO
 Project: SEC.3-T4N-R66W
 Site: Five Rivers K03-33D Pad Sec.3-T4N-R66W
 Well: Five Rivers K09-01D
 Wellbore: Wellbore #1
 Design: Noble Five Rivers K09-01D Plan#1 (6-29-10)

Local Co-ordinate Reference: Well Five Rivers K09-01D
 TVD Reference: WELL @ 4734.0ft (Original Well Elev)
 MD Reference: WELL @ 4734.0ft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

Project	SEC.3-T4N-R66W, 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	Five Rivers K03-33D Pad Sec.3-T4N-R66W				
Site Position:		Northing:	1,365,851.35ft	Latitude:	40° 20' 7.368 N
From:	Lat/Long	Easting:	3,202,773.69ft	Longitude:	104° 46' 21.432 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.47 °

Well	Five Rivers K09-01D					
Well Position	+N/-S	-65.6 ft	Northing:	1,365,786.04 ft	Latitude:	40° 20' 6.720 N
	+E/-W	33.5 ft	Easting:	3,202,807.68 ft	Longitude:	104° 46' 21.000 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,721.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/24/2010	8.99	67.03	53,200

Design	Noble Five Rivers K09-01D Plan#1 (6-29-10)				
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	217.99	

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	
1,882.9	21.66	217.99	1,857.3	-159.4	-124.5	2.00	2.00	0.00	217.99	
5,095.1	21.66	217.99	4,842.7	-1,093.8	-854.1	0.00	0.00	0.00	0.00	
6,178.0	0.00	0.00	5,900.0	-1,253.2	-978.6	2.00	-2.00	0.00	180.00	Target BHL 648'FN
7,662.0	0.00	0.00	7,384.0	-1,253.2	-978.6	0.00	0.00	0.00	0.00	

Database: EDM den0-adp01 Server Data
 Company: NOBLE ENERGY INC WELD COUNTY CO
 Project: SEC.3-T4N-R66W
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 Well: Five Rivers K09-01D
 Wellbore: Wellbore #1
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Local Co-ordinate Reference: Well Five Rivers K09-01D
 TVD Reference: WELL @ 4734.0ft (Original Well Elev)
 MD Reference: WELL @ 4734.0ft (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
8 5/8"									
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	217.99	840.0	-0.2	-0.2	0.3	2.00	2.00	0.00
880.0	1.60	217.99	880.0	-0.9	-0.7	1.1	2.00	2.00	0.00
920.0	2.40	217.99	920.0	-2.0	-1.5	2.5	2.00	2.00	0.00
960.0	3.20	217.99	959.9	-3.5	-2.7	4.5	2.00	2.00	0.00
1,000.0	4.00	217.99	999.8	-5.5	-4.3	7.0	2.00	2.00	0.00
1,040.0	4.80	217.99	1,039.7	-7.9	-6.2	10.0	2.00	2.00	0.00
1,080.0	5.60	217.99	1,079.6	-10.8	-8.4	13.7	2.00	2.00	0.00
1,120.0	6.40	217.99	1,119.3	-14.1	-11.0	17.9	2.00	2.00	0.00
1,160.0	7.20	217.99	1,159.1	-17.8	-13.9	22.6	2.00	2.00	0.00
1,200.0	8.00	217.99	1,198.7	-22.0	-17.2	27.9	2.00	2.00	0.00
1,240.0	8.80	217.99	1,238.3	-26.6	-20.8	33.7	2.00	2.00	0.00
1,280.0	9.60	217.99	1,277.8	-31.6	-24.7	40.1	2.00	2.00	0.00
1,320.0	10.40	217.99	1,317.1	-37.1	-29.0	47.1	2.00	2.00	0.00
1,360.0	11.20	217.99	1,356.4	-43.0	-33.6	54.6	2.00	2.00	0.00
1,400.0	12.00	217.99	1,395.6	-49.3	-38.5	62.6	2.00	2.00	0.00
1,440.0	12.80	217.99	1,434.7	-56.1	-43.8	71.2	2.00	2.00	0.00
1,480.0	13.60	217.99	1,473.6	-63.3	-49.4	80.3	2.00	2.00	0.00
1,520.0	14.40	217.99	1,512.4	-70.9	-55.4	90.0	2.00	2.00	0.00
1,560.0	15.20	217.99	1,551.1	-79.0	-61.7	100.2	2.00	2.00	0.00
1,600.0	16.00	217.99	1,589.6	-87.5	-68.3	111.0	2.00	2.00	0.00
1,640.0	16.80	217.99	1,628.0	-96.4	-75.3	122.3	2.00	2.00	0.00
1,680.0	17.60	217.99	1,666.2	-105.7	-82.5	134.1	2.00	2.00	0.00
1,720.0	18.40	217.99	1,704.3	-115.4	-90.1	146.5	2.00	2.00	0.00
1,760.0	19.20	217.99	1,742.1	-125.6	-98.1	159.3	2.00	2.00	0.00
1,800.0	20.00	217.99	1,779.8	-136.2	-106.3	172.8	2.00	2.00	0.00
1,840.0	20.80	217.99	1,817.3	-147.2	-114.9	186.7	2.00	2.00	0.00
1,880.0	21.60	217.99	1,854.6	-158.6	-123.8	201.2	2.00	2.00	0.00
1,882.9	21.66	217.99	1,857.3	-159.4	-124.5	202.3	2.00	2.00	0.00
1,920.0	21.66	217.99	1,891.8	-170.2	-132.9	215.9	0.00	0.00	0.00
1,960.0	21.66	217.99	1,929.0	-181.8	-142.0	230.7	0.00	0.00	0.00
2,000.0	21.66	217.99	1,966.1	-193.5	-151.1	245.5	0.00	0.00	0.00
2,040.0	21.66	217.99	2,003.3	-205.1	-160.2	260.2	0.00	0.00	0.00

Database: EDM den0-adp01 Server Data
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 MD Reference: WELL @ 4734.0ft (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	21.66	217.99	2,040.5	-216.7	-169.2	275.0	0.00	0.00	0.00
2,120.0	21.66	217.99	2,077.7	-228.4	-178.3	289.8	0.00	0.00	0.00
2,160.0	21.66	217.99	2,114.8	-240.0	-187.4	304.5	0.00	0.00	0.00
2,200.0	21.66	217.99	2,152.0	-251.6	-196.5	319.3	0.00	0.00	0.00
2,240.0	21.66	217.99	2,189.2	-263.3	-205.6	334.0	0.00	0.00	0.00
2,280.0	21.66	217.99	2,226.4	-274.9	-214.7	348.8	0.00	0.00	0.00
2,320.0	21.66	217.99	2,263.5	-286.5	-223.8	363.6	0.00	0.00	0.00
2,360.0	21.66	217.99	2,300.7	-298.2	-232.8	378.3	0.00	0.00	0.00
2,400.0	21.66	217.99	2,337.9	-309.8	-241.9	393.1	0.00	0.00	0.00
2,440.0	21.66	217.99	2,375.1	-321.5	-251.0	407.9	0.00	0.00	0.00
2,480.0	21.66	217.99	2,412.2	-333.1	-260.1	422.6	0.00	0.00	0.00
2,520.0	21.66	217.99	2,449.4	-344.7	-269.2	437.4	0.00	0.00	0.00
2,560.0	21.66	217.99	2,486.6	-356.4	-278.3	452.1	0.00	0.00	0.00
2,600.0	21.66	217.99	2,523.8	-368.0	-287.4	466.9	0.00	0.00	0.00
2,640.0	21.66	217.99	2,560.9	-379.6	-296.4	481.7	0.00	0.00	0.00
2,680.0	21.66	217.99	2,598.1	-391.3	-305.5	496.4	0.00	0.00	0.00
2,720.0	21.66	217.99	2,635.3	-402.9	-314.6	511.2	0.00	0.00	0.00
2,760.0	21.66	217.99	2,672.5	-414.5	-323.7	526.0	0.00	0.00	0.00
2,800.0	21.66	217.99	2,709.6	-426.2	-332.8	540.7	0.00	0.00	0.00
2,840.0	21.66	217.99	2,746.8	-437.8	-341.9	555.5	0.00	0.00	0.00
2,880.0	21.66	217.99	2,784.0	-449.4	-351.0	570.2	0.00	0.00	0.00
2,920.0	21.66	217.99	2,821.2	-461.1	-360.1	585.0	0.00	0.00	0.00
2,960.0	21.66	217.99	2,858.4	-472.7	-369.1	599.8	0.00	0.00	0.00
3,000.0	21.66	217.99	2,895.5	-484.4	-378.2	614.5	0.00	0.00	0.00
3,040.0	21.66	217.99	2,932.7	-496.0	-387.3	629.3	0.00	0.00	0.00
3,080.0	21.66	217.99	2,969.9	-507.6	-396.4	644.1	0.00	0.00	0.00
3,120.0	21.66	217.99	3,007.1	-519.3	-405.5	658.8	0.00	0.00	0.00
3,160.0	21.66	217.99	3,044.2	-530.9	-414.6	673.6	0.00	0.00	0.00
3,200.0	21.66	217.99	3,081.4	-542.5	-423.7	688.3	0.00	0.00	0.00
3,240.0	21.66	217.99	3,118.6	-554.2	-432.7	703.1	0.00	0.00	0.00
3,280.0	21.66	217.99	3,155.8	-565.8	-441.8	717.9	0.00	0.00	0.00
3,320.0	21.66	217.99	3,192.9	-577.4	-450.9	732.6	0.00	0.00	0.00
3,360.0	21.66	217.99	3,230.1	-589.1	-460.0	747.4	0.00	0.00	0.00
3,400.0	21.66	217.99	3,267.3	-600.7	-469.1	762.2	0.00	0.00	0.00
3,440.0	21.66	217.99	3,304.5	-612.3	-478.2	776.9	0.00	0.00	0.00
3,480.0	21.66	217.99	3,341.6	-624.0	-487.3	791.7	0.00	0.00	0.00
3,520.0	21.66	217.99	3,378.8	-635.6	-496.3	806.5	0.00	0.00	0.00
3,560.0	21.66	217.99	3,416.0	-647.3	-505.4	821.2	0.00	0.00	0.00
3,600.0	21.66	217.99	3,453.2	-658.9	-514.5	836.0	0.00	0.00	0.00
3,640.0	21.66	217.99	3,490.3	-670.5	-523.6	850.7	0.00	0.00	0.00
3,680.0	21.66	217.99	3,527.5	-682.2	-532.7	865.5	0.00	0.00	0.00
3,720.0	21.66	217.99	3,564.7	-693.8	-541.8	880.3	0.00	0.00	0.00
3,760.0	21.66	217.99	3,601.9	-705.4	-550.9	895.0	0.00	0.00	0.00
3,800.0	21.66	217.99	3,639.0	-717.1	-559.9	909.8	0.00	0.00	0.00
3,840.0	21.66	217.99	3,676.2	-728.7	-569.0	924.6	0.00	0.00	0.00
3,880.0	21.66	217.99	3,713.4	-740.3	-578.1	939.3	0.00	0.00	0.00
3,920.0	21.66	217.99	3,750.6	-752.0	-587.2	954.1	0.00	0.00	0.00
3,960.0	21.66	217.99	3,787.8	-763.6	-596.3	968.8	0.00	0.00	0.00
4,000.0	21.66	217.99	3,824.9	-775.2	-605.4	983.6	0.00	0.00	0.00
4,040.0	21.66	217.99	3,862.1	-786.9	-614.5	998.4	0.00	0.00	0.00
4,080.0	21.66	217.99	3,899.3	-798.5	-623.5	1,013.1	0.00	0.00	0.00
4,120.0	21.66	217.99	3,936.5	-810.1	-632.6	1,027.9	0.00	0.00	0.00
4,160.0	21.66	217.99	3,973.6	-821.8	-641.7	1,042.7	0.00	0.00	0.00
4,200.0	21.66	217.99	4,010.8	-833.4	-650.8	1,057.4	0.00	0.00	0.00

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 MD Reference: WELL @ 4734.0ft (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	21.66	217.99	4,048.0	-845.1	-659.9	1,072.2	0.00	0.00	0.00
4,280.0	21.66	217.99	4,085.2	-856.7	-669.0	1,086.9	0.00	0.00	0.00
4,320.0	21.66	217.99	4,122.3	-868.3	-678.1	1,101.7	0.00	0.00	0.00
4,360.0	21.66	217.99	4,159.5	-880.0	-687.1	1,116.5	0.00	0.00	0.00
4,400.0	21.66	217.99	4,196.7	-891.6	-696.2	1,131.2	0.00	0.00	0.00
4,440.0	21.66	217.99	4,233.9	-903.2	-705.3	1,146.0	0.00	0.00	0.00
4,480.0	21.66	217.99	4,271.0	-914.9	-714.4	1,160.8	0.00	0.00	0.00
4,520.0	21.66	217.99	4,308.2	-926.5	-723.5	1,175.5	0.00	0.00	0.00
4,560.0	21.66	217.99	4,345.4	-938.1	-732.6	1,190.3	0.00	0.00	0.00
4,600.0	21.66	217.99	4,382.6	-949.8	-741.7	1,205.0	0.00	0.00	0.00
4,640.0	21.66	217.99	4,419.7	-961.4	-750.8	1,219.8	0.00	0.00	0.00
4,680.0	21.66	217.99	4,456.9	-973.0	-759.8	1,234.6	0.00	0.00	0.00
4,720.0	21.66	217.99	4,494.1	-984.7	-768.9	1,249.3	0.00	0.00	0.00
4,760.0	21.66	217.99	4,531.3	-996.3	-778.0	1,264.1	0.00	0.00	0.00
4,800.0	21.66	217.99	4,568.5	-1,008.0	-787.1	1,278.9	0.00	0.00	0.00
4,840.0	21.66	217.99	4,605.6	-1,019.6	-796.2	1,293.6	0.00	0.00	0.00
4,880.0	21.66	217.99	4,642.8	-1,031.2	-805.3	1,308.4	0.00	0.00	0.00
4,920.0	21.66	217.99	4,680.0	-1,042.9	-814.4	1,323.2	0.00	0.00	0.00
4,960.0	21.66	217.99	4,717.2	-1,054.5	-823.4	1,337.9	0.00	0.00	0.00
5,000.0	21.66	217.99	4,754.3	-1,066.1	-832.5	1,352.7	0.00	0.00	0.00
5,040.0	21.66	217.99	4,791.5	-1,077.8	-841.6	1,367.4	0.00	0.00	0.00
5,080.0	21.66	217.99	4,828.7	-1,089.4	-850.7	1,382.2	0.00	0.00	0.00
5,095.1	21.66	217.99	4,842.7	-1,093.8	-854.1	1,387.8	0.00	0.00	0.00
5,120.0	21.16	217.99	4,865.9	-1,101.0	-859.7	1,396.9	2.00	-2.00	0.00
5,160.0	20.36	217.99	4,903.3	-1,112.1	-868.4	1,411.0	2.00	-2.00	0.00
5,200.0	19.56	217.99	4,940.9	-1,122.9	-876.9	1,424.7	2.00	-2.00	0.00
5,240.0	18.76	217.99	4,978.7	-1,133.2	-884.9	1,437.8	2.00	-2.00	0.00
5,280.0	17.96	217.99	5,016.6	-1,143.2	-892.7	1,450.4	2.00	-2.00	0.00
5,320.0	17.16	217.99	5,054.8	-1,152.7	-900.1	1,462.5	2.00	-2.00	0.00
5,360.0	16.36	217.99	5,093.1	-1,161.8	-907.2	1,474.0	2.00	-2.00	0.00
5,400.0	15.56	217.99	5,131.5	-1,170.4	-914.0	1,485.0	2.00	-2.00	0.00
5,440.0	14.76	217.99	5,170.1	-1,178.7	-920.4	1,495.5	2.00	-2.00	0.00
5,480.0	13.96	217.99	5,208.9	-1,186.5	-926.5	1,505.4	2.00	-2.00	0.00
5,520.0	13.16	217.99	5,247.8	-1,193.9	-932.3	1,514.8	2.00	-2.00	0.00
5,560.0	12.36	217.99	5,286.8	-1,200.9	-937.7	1,523.6	2.00	-2.00	0.00
5,600.0	11.56	217.99	5,325.9	-1,207.4	-942.8	1,531.9	2.00	-2.00	0.00
5,640.0	10.76	217.99	5,365.2	-1,213.5	-947.6	1,539.6	2.00	-2.00	0.00
5,680.0	9.96	217.99	5,404.5	-1,219.2	-952.0	1,546.8	2.00	-2.00	0.00
5,720.0	9.16	217.99	5,444.0	-1,224.4	-956.1	1,553.5	2.00	-2.00	0.00
5,760.0	8.36	217.99	5,483.5	-1,229.2	-959.9	1,559.6	2.00	-2.00	0.00
5,800.0	7.56	217.99	5,523.1	-1,233.6	-963.3	1,565.1	2.00	-2.00	0.00
5,840.0	6.76	217.99	5,562.8	-1,237.5	-966.3	1,570.1	2.00	-2.00	0.00
5,880.0	5.96	217.99	5,602.6	-1,241.0	-969.1	1,574.5	2.00	-2.00	0.00
5,920.0	5.16	217.99	5,642.4	-1,244.0	-971.5	1,578.4	2.00	-2.00	0.00
5,960.0	4.36	217.99	5,682.2	-1,246.7	-973.5	1,581.7	2.00	-2.00	0.00
6,000.0	3.56	217.99	5,722.1	-1,248.8	-975.2	1,584.5	2.00	-2.00	0.00
6,040.0	2.76	217.99	5,762.1	-1,250.6	-976.6	1,586.7	2.00	-2.00	0.00
6,080.0	1.96	217.99	5,802.0	-1,251.9	-977.6	1,588.3	2.00	-2.00	0.00
6,120.0	1.16	217.99	5,842.0	-1,252.7	-978.2	1,589.4	2.00	-2.00	0.00
6,160.0	0.36	217.99	5,882.0	-1,253.1	-978.6	1,590.0	2.00	-2.00	0.00
6,178.0	0.00	0.00	5,900.0	-1,253.2	-978.6	1,590.0	2.00	-2.00	789.55
Target BHL 648°FNL & 751°FEL									
6,200.0	0.00	0.00	5,922.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
6,240.0	0.00	0.00	5,962.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00

Database: EDM den0-adp01 Server Data
 Company: NOBLE ENERGY INC WELD COUNTY CO
 Project: SEC.3-T4N-R66W
 Site: Five Rivers K03-33D Pad Sec.3-T4N-R66W
 Well: Five Rivers K09-01D
 Wellbore: Wellbore #1
 Design: Noble Five Rivers K09-01D Plan#1 (6-29-10)

Local Co-ordinate Reference: Well Five Rivers K09-01D
 TVD Reference: WELL @ 4734.0ft (Original Well Elev)
 MD Reference: WELL @ 4734.0ft (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)
6,280.0	0.00	0.00	6,002.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
6,320.0	0.00	0.00	6,042.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
6,360.0	0.00	0.00	6,082.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,122.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
6,440.0	0.00	0.00	6,162.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
6,480.0	0.00	0.00	6,202.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
6,520.0	0.00	0.00	6,242.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
6,560.0	0.00	0.00	6,282.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,322.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
6,640.0	0.00	0.00	6,362.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
6,680.0	0.00	0.00	6,402.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
6,720.0	0.00	0.00	6,442.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
6,760.0	0.00	0.00	6,482.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,522.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
6,840.0	0.00	0.00	6,562.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
6,880.0	0.00	0.00	6,602.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
6,920.0	0.00	0.00	6,642.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
6,960.0	0.00	0.00	6,682.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
7,000.0	0.00	0.00	6,722.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
7,040.0	0.00	0.00	6,762.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
7,080.0	0.00	0.00	6,802.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
7,120.0	0.00	0.00	6,842.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
7,160.0	0.00	0.00	6,882.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
7,172.0	0.00	0.00	6,894.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
Niobrara - Legal Box 400' X 400' 665'FNL, 699'FEL									
7,200.0	0.00	0.00	6,922.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
7,240.0	0.00	0.00	6,962.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
7,280.0	0.00	0.00	7,002.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
7,320.0	0.00	0.00	7,042.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
7,360.0	0.00	0.00	7,082.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,122.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
7,440.0	0.00	0.00	7,162.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
7,480.0	0.00	0.00	7,202.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
7,512.0	0.00	0.00	7,234.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
Codell									
7,520.0	0.00	0.00	7,242.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
7,560.0	0.00	0.00	7,282.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,322.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
7,640.0	0.00	0.00	7,362.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
7,662.0	0.00	0.00	7,384.0	-1,253.2	-978.6	1,590.0	0.00	0.00	0.00
Target Circle 648'FNL & 751'FEL									

Database: EDM den0-adp01 Server Data
 Company: NOBLE ENERGY INC WELD COUNTY CO
 Project: SEC.3-T4N-R66W
 Site: Five Rivers K03-33D Pad Sec.3-T4N-R66W
 Well: Five Rivers K09-01D
 Wellbore: Wellbore #1
 Design: Noble Five Rivers K09-01D Plan#1 (6-29-10)

Local Co-ordinate Reference: Well Five Rivers K09-01D
 TVD Reference: WELL @ 4734.0ft (Original Well Elev)
 MD Reference: WELL @ 4734.0ft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Legal Box 400' X 400' - hit/miss target - Shape	0.00	0.00	6,894.0	-1,270.1	-926.6	1,364,508.44	3,201,891.57	40° 19' 54.169 N	104° 46' 32.965 W
- plan misses target center by 54.7ft at 7172.0ft MD (6894.0 TVD, -1253.2 N, -978.6 E) - Rectangle (sides W400.0 H400.0 D490.0)									
Target BHL 648'FNL - plan hits target center - Point	0.00	0.00	5,900.0	-1,253.2	-978.6	1,364,524.92	3,201,839.44	40° 19' 54.336 N	104° 46' 33.636 W
Target Circle 648'FNL - plan misses target center by 0.1ft at 7662.0ft MD (7384.0 TVD, -1253.2 N, -978.6 E) - Circle (radius 75.0)	0.00	0.00	7,384.0	-1,253.1	-978.6	1,364,525.01	3,201,839.43	40° 19' 54.337 N	104° 46' 33.636 W

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
600.0	600.0	8 5/8"	8-5/8	12-1/4

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
7,172.0	6,894.0	Niobrara		0.00	
7,512.0	7,234.0	Codell		0.00	