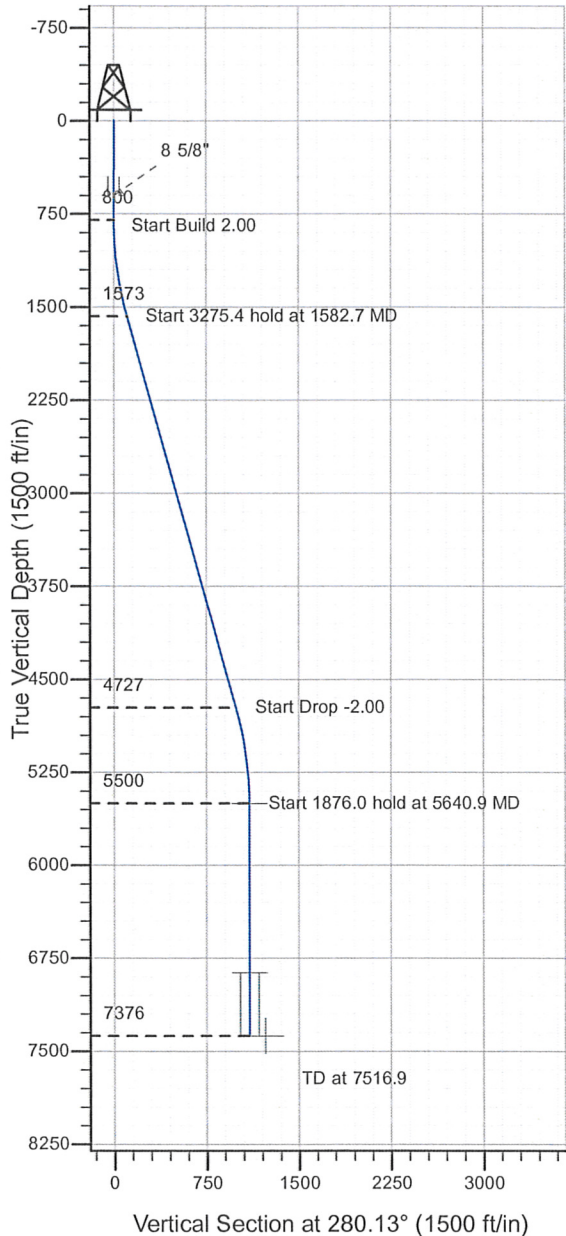
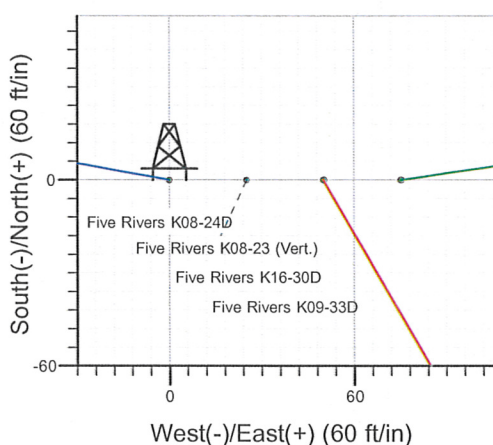
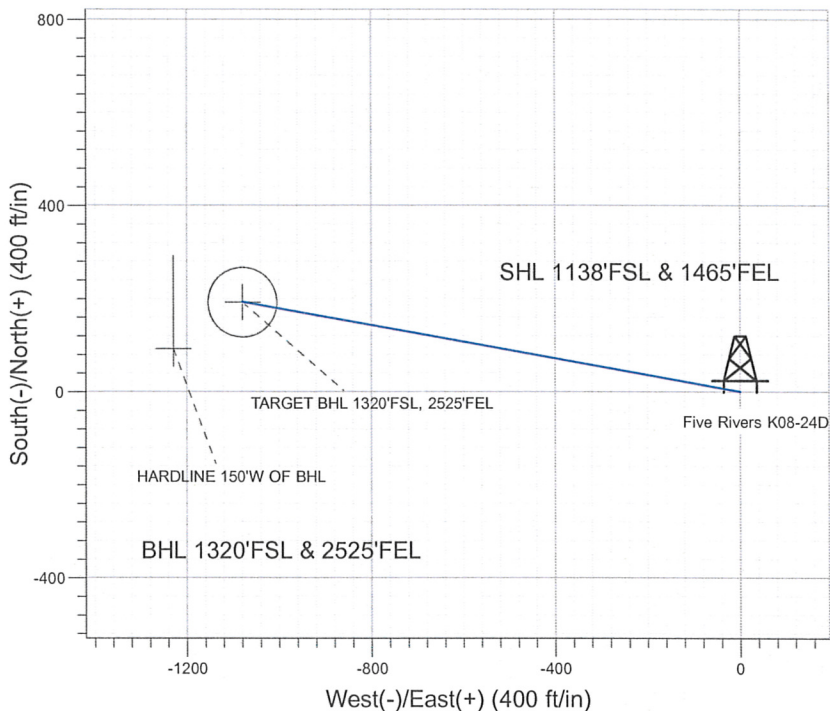


Well Name: Five Rivers K08-24D

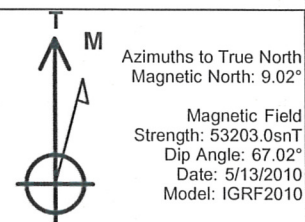
Surface Location: Five Rivers K08-24D Pad Sec.8-T4N-R66W
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
 Ground Elevation: 4703.0
 +N/-S+E/-W Northing Easting Latitude Longitude Slot
 0.0 0.01360961.31 3195862.33 40° 19' 19.596 N 104° 47' 51.180 W
 Original Well Elev WELL @ 4716.0ft (Original Well Elev)



NOBLE ENERGY INC WELD COUNTY CO



Five Rivers K08-24D Pad Sec.8-T4N-R66W
 Five Rivers K08-24D
 Noble Five Rivers K08-24D Plan #1 (05-13-10)
 11:36, May 15 2010



WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 1320'FSL, 2525'FEL	5500.0	192.8	-1079.3	40° 19' 21.501 N	104° 48' 5.114 W	Point
TARGET CIRCLE 1320'FSL, 2525'FEL	6866.0	192.8	-1079.3	40° 19' 21.501 N	104° 48' 5.114 W	Circle (Radius: 75.0)
HARDLINE 150°W OF BHL	7376.0	92.8	-1229.3	40° 19' 20.513 N	104° 48' 7.051 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	1582.7	15.65	280.13	1573.0	18.7	-104.6	2.00	280.13	106.3	
4	4858.2	15.65	280.13	4727.0	174.1	-974.7	0.00	0.00	990.1	
5	5640.9	0.00	0.00	5500.0	192.8	-1079.3	2.00	180.00	1096.4	TARGET BHL 1320'FSL, 2525'FEL
6	7516.9	0.00	0.00	7376.0	192.8	-1079.3	0.00	0.00	1096.4	

Well Name: Five Rivers K08-24D

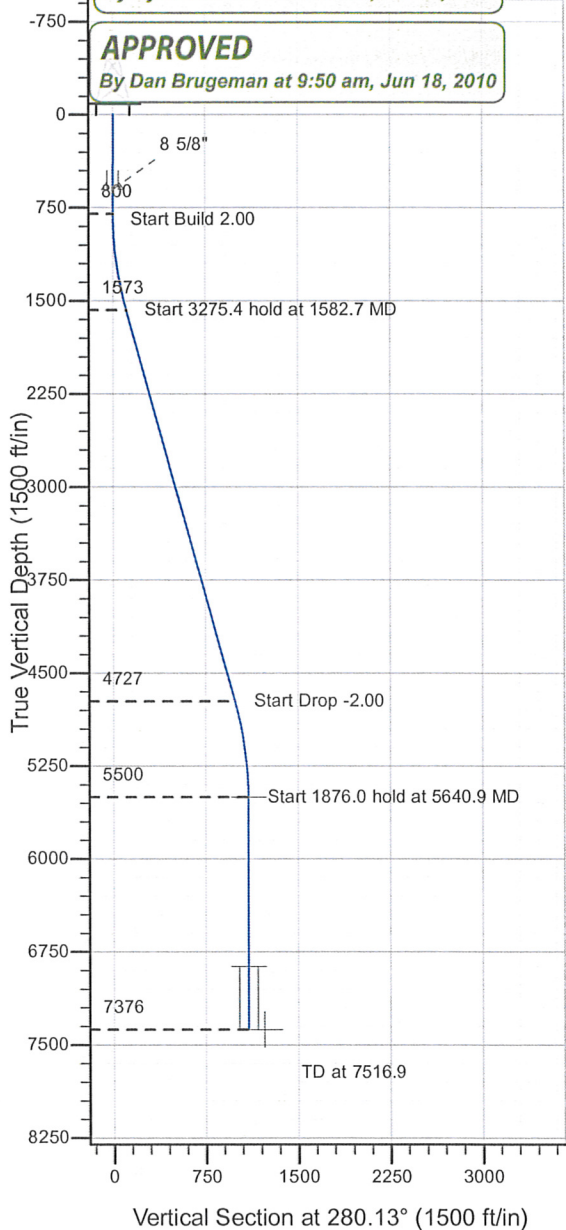
Surface Location: Five Rivers K08-24D Pad Sec.8-T4N-R66W
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
 Ground Elevation: 4703.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.01360961.31 3195862.33 40° 19' 19.596 N 104° 47' 51.180 W
 Original Well Elev WELL @ 4716.0ft (Original Well Elev)

APPROVED

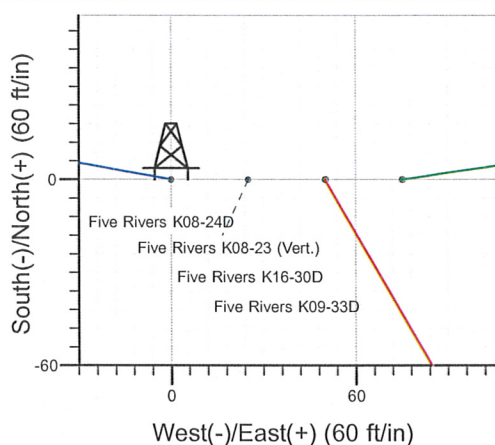
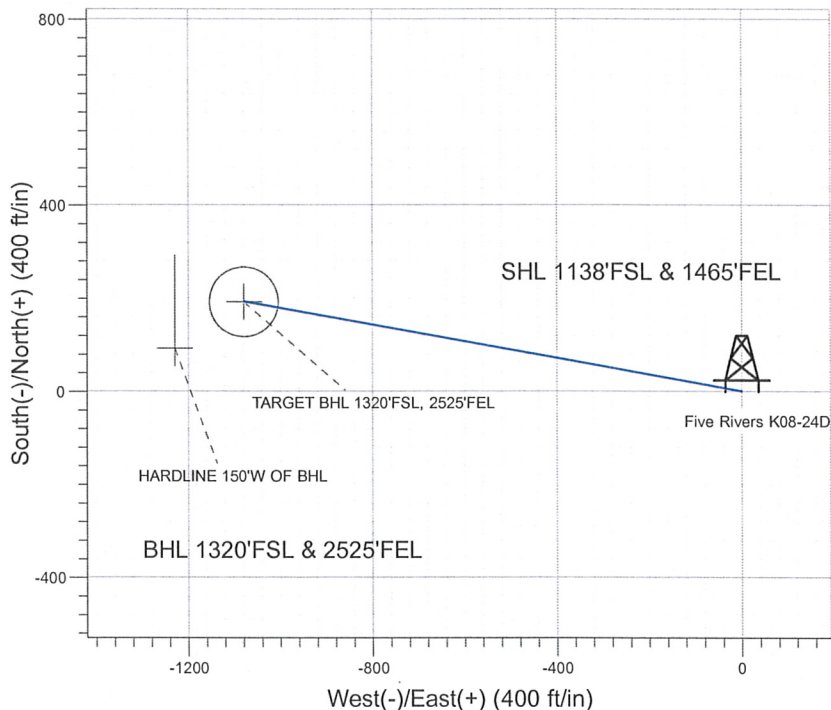
By Ryan Calhoun at 10:18 am, Jun 11, 2010

APPROVED

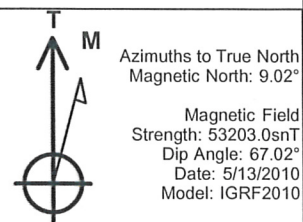
By Dan Brugeman at 9:50 am, Jun 18, 2010



NOBLE ENERGY INC WELD COUNTY CO



Five Rivers K08-24D Pad Sec.8-T4N-R66W
 Five Rivers K08-24D
 Noble Five Rivers K08-24D Plan #1 (05-13-10)
 11:36, May 15 2010



WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 1320'FSL, 2525'FEL	5500.0	192.8	-1079.3	40° 19' 21.501 N	104° 48' 5.114 W	Point
TARGET CIRCLE 1320'FSL, 2525'FEL	6866.0	192.8	-1079.3	40° 19' 21.501 N	104° 48' 5.114 W	Circle (Radius: 75.0)
HARDLINE 150°W OF BHL	7376.0	92.8	-1229.3	40° 19' 20.513 N	104° 48' 7.051 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	1582.7	15.65	280.13	1573.0	18.7	-104.6	2.00	280.13	106.3	
4	4858.2	15.65	280.13	4727.0	174.1	-974.7	0.00	0.00	990.1	
5	5640.9	0.00	0.00	5500.0	192.8	-1079.3	2.00	180.00	1096.4	TARGET BHL 1320'FSL, 2525'FEL
6	7516.9	0.00	0.00	7376.0	192.8	-1079.3	0.00	0.00	1096.4	



Directional

NOBLE ENERGY INC WELD COUNTY CO

SEC.8-T4N-R66W

Five Rivers K08-24D Pad Sec.8-T4N-R66W

Five Rivers K08-24D

Wellbore #1

Plan: Noble Five Rivers K08-24D Plan #1 (05-13-10)

Standard Planning Report

15 May, 2010



Database: EDM den0-adp01 Server Data
 Company: NOBLE ENERGY INC WELD COUNTY CO
 Project: SEC.8-T4N-R66W
 Site: Five Rivers K08-24D Pad Sec.8-T4N-R66W
 Well: Five Rivers K08-24D
 Wellbore: Wellbore #1
 Design: Noble Five Rivers K08-24D Plan #1 (05-13-10)

Local Co-ordinate Reference: Well Five Rivers K08-24D
 TVD Reference: WELL @ 4716.0ft (Original Well Elev)
 MD Reference: WELL @ 4716.0ft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

Project	SEC.8-T4N-R66W, 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		Five Rivers K08-24D Pad Sec.8-T4N-R66W			
Site Position:		Northing:	1,360,961.32 ft	Latitude:	40° 19' 19.596 N
From:	Lat/Long	Easting:	3,195,862.33 ft	Longitude:	104° 47' 51.180 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.45 °

Well	Five Rivers K08-24D					
Well Position	+N/-S	0.0 ft	Northing:	1,360,961.31 ft	Latitude:	40° 19' 19.596 N
	+E/-W	0.0 ft	Easting:	3,195,862.33 ft	Longitude:	104° 47' 51.180 W
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,703.0 ft	

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	5/13/2010	9.02	67.02	53,203

Design	Noble Five Rivers K08-24D Plan #1 (05-13-10)			
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	280.13

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	
1,582.7	15.65	280.13	1,573.0	18.7	-104.6	2.00	2.00	0.00	280.13	
4,858.2	15.65	280.13	4,727.0	174.1	-974.7	0.00	0.00	0.00	0.00	
5,640.9	0.00	0.00	5,500.0	192.8	-1,079.3	2.00	-2.00	0.00	180.00	TARGET BHL 132C
7,516.9	0.00	0.00	7,376.0	192.8	-1,079.3	0.00	0.00	0.00	0.00	

Database: EDM den0-adp01 Server Data
Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.8-T4N-R66W
Site: Five Rivers K08-24D Pad Sec.8-T4N-R66W
Well: Five Rivers K08-24D
Wellbore: Wellbore #1
Design: Noble Five Rivers K08-24D Plan #1 (05-13-10)

Local Co-ordinate Reference: Well Five Rivers K08-24D
TVD Reference: WELL @ 4716.0ft (Original Well Elev)
MD Reference: WELL @ 4716.0ft (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	280.13	840.0	0.0	-0.3	0.3	2.00	2.00	0.00
880.0	1.60	280.13	880.0	0.2	-1.1	1.1	2.00	2.00	0.00
920.0	2.40	280.13	920.0	0.4	-2.5	2.5	2.00	2.00	0.00
960.0	3.20	280.13	959.9	0.8	-4.4	4.5	2.00	2.00	0.00
1,000.0	4.00	280.13	999.8	1.2	-6.9	7.0	2.00	2.00	0.00
1,040.0	4.80	280.13	1,039.7	1.8	-9.9	10.0	2.00	2.00	0.00
1,080.0	5.60	280.13	1,079.6	2.4	-13.5	13.7	2.00	2.00	0.00
1,120.0	6.40	280.13	1,119.3	3.1	-17.6	17.9	2.00	2.00	0.00
1,160.0	7.20	280.13	1,159.1	4.0	-22.2	22.6	2.00	2.00	0.00
1,200.0	8.00	280.13	1,198.7	4.9	-27.4	27.9	2.00	2.00	0.00
1,240.0	8.80	280.13	1,238.3	5.9	-33.2	33.7	2.00	2.00	0.00
1,280.0	9.60	280.13	1,277.8	7.1	-39.5	40.1	2.00	2.00	0.00
1,320.0	10.40	280.13	1,317.1	8.3	-46.3	47.1	2.00	2.00	0.00
1,360.0	11.20	280.13	1,356.4	9.6	-53.7	54.6	2.00	2.00	0.00
1,400.0	12.00	280.13	1,395.6	11.0	-61.6	62.6	2.00	2.00	0.00
1,440.0	12.80	280.13	1,434.7	12.5	-70.1	71.2	2.00	2.00	0.00
1,480.0	13.60	280.13	1,473.6	14.1	-79.1	80.3	2.00	2.00	0.00
1,520.0	14.40	280.13	1,512.4	15.8	-88.6	90.0	2.00	2.00	0.00
1,560.0	15.20	280.13	1,551.1	17.6	-98.7	100.2	2.00	2.00	0.00
1,582.7	15.65	280.13	1,573.0	18.7	-104.6	106.3	2.00	2.00	0.00
1,600.0	15.65	280.13	1,589.7	19.5	-109.2	110.9	0.00	0.00	0.00
1,640.0	15.65	280.13	1,628.2	21.4	-119.8	121.7	0.00	0.00	0.00
1,680.0	15.65	280.13	1,666.7	23.3	-130.4	132.5	0.00	0.00	0.00
1,720.0	15.65	280.13	1,705.2	25.2	-141.1	143.3	0.00	0.00	0.00
1,760.0	15.65	280.13	1,743.7	27.1	-151.7	154.1	0.00	0.00	0.00
1,800.0	15.65	280.13	1,782.2	29.0	-162.3	164.9	0.00	0.00	0.00
1,840.0	15.65	280.13	1,820.8	30.9	-172.9	175.7	0.00	0.00	0.00
1,880.0	15.65	280.13	1,859.3	32.8	-183.6	186.5	0.00	0.00	0.00
1,920.0	15.65	280.13	1,897.8	34.7	-194.2	197.3	0.00	0.00	0.00
1,960.0	15.65	280.13	1,936.3	36.6	-204.8	208.1	0.00	0.00	0.00
2,000.0	15.65	280.13	1,974.8	38.5	-215.4	218.9	0.00	0.00	0.00
2,040.0	15.65	280.13	2,013.3	40.4	-226.1	229.7	0.00	0.00	0.00

Database: EDM den0-adp01 Server Data
Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.8-T4N-R66W
Site: Five Rivers K08-24D Pad Sec.8-T4N-R66W
Well: Five Rivers K08-24D
Wellbore: Wellbore #1
Design: Noble Five Rivers K08-24D Plan #1 (05-13-10)

Local Co-ordinate Reference: Well Five Rivers K08-24D
TVD Reference: WELL @ 4716.0ft (Original Well Elev)
MD Reference: WELL @ 4716.0ft (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	15.65	280.13	2,051.9	42.3	-236.7	240.4	0.00	0.00	0.00
2,120.0	15.65	280.13	2,090.4	44.2	-247.3	251.2	0.00	0.00	0.00
2,160.0	15.65	280.13	2,128.9	46.1	-258.0	262.0	0.00	0.00	0.00
2,200.0	15.65	280.13	2,167.4	48.0	-268.6	272.8	0.00	0.00	0.00
2,240.0	15.65	280.13	2,205.9	49.9	-279.2	283.6	0.00	0.00	0.00
2,280.0	15.65	280.13	2,244.4	51.8	-289.8	294.4	0.00	0.00	0.00
2,320.0	15.65	280.13	2,282.9	53.7	-300.5	305.2	0.00	0.00	0.00
2,360.0	15.65	280.13	2,321.5	55.6	-311.1	316.0	0.00	0.00	0.00
2,400.0	15.65	280.13	2,360.0	57.5	-321.7	326.8	0.00	0.00	0.00
2,440.0	15.65	280.13	2,398.5	59.4	-332.3	337.6	0.00	0.00	0.00
2,480.0	15.65	280.13	2,437.0	61.3	-343.0	348.4	0.00	0.00	0.00
2,520.0	15.65	280.13	2,475.5	63.2	-353.6	359.2	0.00	0.00	0.00
2,560.0	15.65	280.13	2,514.0	65.1	-364.2	370.0	0.00	0.00	0.00
2,600.0	15.65	280.13	2,552.6	67.0	-374.8	380.8	0.00	0.00	0.00
2,640.0	15.65	280.13	2,591.1	68.9	-385.5	391.6	0.00	0.00	0.00
2,680.0	15.65	280.13	2,629.6	70.8	-396.1	402.4	0.00	0.00	0.00
2,720.0	15.65	280.13	2,668.1	72.7	-406.7	413.1	0.00	0.00	0.00
2,760.0	15.65	280.13	2,706.6	74.6	-417.3	423.9	0.00	0.00	0.00
2,800.0	15.65	280.13	2,745.1	76.5	-428.0	434.7	0.00	0.00	0.00
2,840.0	15.65	280.13	2,783.7	78.4	-438.6	445.5	0.00	0.00	0.00
2,880.0	15.65	280.13	2,822.2	80.3	-449.2	456.3	0.00	0.00	0.00
2,920.0	15.65	280.13	2,860.7	82.2	-459.8	467.1	0.00	0.00	0.00
2,960.0	15.65	280.13	2,899.2	84.1	-470.5	477.9	0.00	0.00	0.00
3,000.0	15.65	280.13	2,937.7	86.0	-481.1	488.7	0.00	0.00	0.00
3,040.0	15.65	280.13	2,976.2	87.9	-491.7	499.5	0.00	0.00	0.00
3,080.0	15.65	280.13	3,014.8	89.8	-502.3	510.3	0.00	0.00	0.00
3,120.0	15.65	280.13	3,053.3	91.6	-513.0	521.1	0.00	0.00	0.00
3,160.0	15.65	280.13	3,091.8	93.5	-523.6	531.9	0.00	0.00	0.00
3,200.0	15.65	280.13	3,130.3	95.4	-534.2	542.7	0.00	0.00	0.00
3,240.0	15.65	280.13	3,168.8	97.3	-544.8	553.5	0.00	0.00	0.00
3,280.0	15.65	280.13	3,207.3	99.2	-555.5	564.3	0.00	0.00	0.00
3,320.0	15.65	280.13	3,245.9	101.1	-566.1	575.0	0.00	0.00	0.00
3,360.0	15.65	280.13	3,284.4	103.0	-576.7	585.8	0.00	0.00	0.00
3,400.0	15.65	280.13	3,322.9	104.9	-587.3	596.6	0.00	0.00	0.00
3,440.0	15.65	280.13	3,361.4	106.8	-598.0	607.4	0.00	0.00	0.00
3,480.0	15.65	280.13	3,399.9	108.7	-608.6	618.2	0.00	0.00	0.00
3,520.0	15.65	280.13	3,438.4	110.6	-619.2	629.0	0.00	0.00	0.00
3,560.0	15.65	280.13	3,477.0	112.5	-629.8	639.8	0.00	0.00	0.00
3,600.0	15.65	280.13	3,515.5	114.4	-640.5	650.6	0.00	0.00	0.00
3,640.0	15.65	280.13	3,554.0	116.3	-651.1	661.4	0.00	0.00	0.00
3,680.0	15.65	280.13	3,592.5	118.2	-661.7	672.2	0.00	0.00	0.00
3,720.0	15.65	280.13	3,631.0	120.1	-672.3	683.0	0.00	0.00	0.00
3,760.0	15.65	280.13	3,669.5	122.0	-683.0	693.8	0.00	0.00	0.00
3,800.0	15.65	280.13	3,708.1	123.9	-693.6	704.6	0.00	0.00	0.00
3,840.0	15.65	280.13	3,746.6	125.8	-704.2	715.4	0.00	0.00	0.00
3,880.0	15.65	280.13	3,785.1	127.7	-714.8	726.2	0.00	0.00	0.00
3,920.0	15.65	280.13	3,823.6	129.6	-725.5	736.9	0.00	0.00	0.00
3,960.0	15.65	280.13	3,862.1	131.5	-736.1	747.7	0.00	0.00	0.00
4,000.0	15.65	280.13	3,900.6	133.4	-746.7	758.5	0.00	0.00	0.00
4,040.0	15.65	280.13	3,939.1	135.3	-757.3	769.3	0.00	0.00	0.00
4,080.0	15.65	280.13	3,977.7	137.2	-768.0	780.1	0.00	0.00	0.00
4,120.0	15.65	280.13	4,016.2	139.1	-778.6	790.9	0.00	0.00	0.00
4,160.0	15.65	280.13	4,054.7	141.0	-789.2	801.7	0.00	0.00	0.00
4,200.0	15.65	280.13	4,093.2	142.9	-799.8	812.5	0.00	0.00	0.00

Database: EDM den0-adp01 Server Data
Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.8-T4N-R66W
Site: Five Rivers K08-24D Pad Sec.8-T4N-R66W
Well: Five Rivers K08-24D
Wellbore: Wellbore #1
Design: Noble Five Rivers K08-24D Plan #1 (05-13-10)

Local Co-ordinate Reference: Well Five Rivers K08-24D
TVD Reference: WELL @ 4716.0ft (Original Well Elev)
MD Reference: WELL @ 4716.0ft (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	15.65	280.13	4,131.7	144.8	-810.5	823.3	0.00	0.00	0.00
4,280.0	15.65	280.13	4,170.2	146.7	-821.1	834.1	0.00	0.00	0.00
4,320.0	15.65	280.13	4,208.8	148.6	-831.7	844.9	0.00	0.00	0.00
4,360.0	15.65	280.13	4,247.3	150.5	-842.3	855.7	0.00	0.00	0.00
4,400.0	15.65	280.13	4,285.8	152.4	-853.0	866.5	0.00	0.00	0.00
4,440.0	15.65	280.13	4,324.3	154.3	-863.6	877.3	0.00	0.00	0.00
4,480.0	15.65	280.13	4,362.8	156.2	-874.2	888.1	0.00	0.00	0.00
4,520.0	15.65	280.13	4,401.3	158.1	-884.8	898.9	0.00	0.00	0.00
4,560.0	15.65	280.13	4,439.9	160.0	-895.5	909.6	0.00	0.00	0.00
4,600.0	15.65	280.13	4,478.4	161.9	-906.1	920.4	0.00	0.00	0.00
4,640.0	15.65	280.13	4,516.9	163.8	-916.7	931.2	0.00	0.00	0.00
4,680.0	15.65	280.13	4,555.4	165.7	-927.3	942.0	0.00	0.00	0.00
4,720.0	15.65	280.13	4,593.9	167.6	-938.0	952.8	0.00	0.00	0.00
4,760.0	15.65	280.13	4,632.4	169.5	-948.6	963.6	0.00	0.00	0.00
4,800.0	15.65	280.13	4,671.0	171.4	-959.2	974.4	0.00	0.00	0.00
4,840.0	15.65	280.13	4,709.5	173.3	-969.8	985.2	0.00	0.00	0.00
4,858.2	15.65	280.13	4,727.0	174.1	-974.7	990.1	0.00	0.00	0.00
4,880.0	15.22	280.13	4,748.0	175.2	-980.4	995.9	2.00	-2.00	0.00
4,920.0	14.42	280.13	4,786.7	177.0	-990.5	1,006.1	2.00	-2.00	0.00
4,960.0	13.62	280.13	4,825.5	178.7	-1,000.0	1,015.8	2.00	-2.00	0.00
5,000.0	12.82	280.13	4,864.4	180.3	-1,009.0	1,025.0	2.00	-2.00	0.00
5,040.0	12.02	280.13	4,903.5	181.8	-1,017.5	1,033.6	2.00	-2.00	0.00
5,080.0	11.22	280.13	4,942.7	183.2	-1,025.4	1,041.6	2.00	-2.00	0.00
5,120.0	10.42	280.13	4,982.0	184.5	-1,032.8	1,049.1	2.00	-2.00	0.00
5,160.0	9.62	280.13	5,021.4	185.7	-1,039.6	1,056.1	2.00	-2.00	0.00
5,200.0	8.82	280.13	5,060.8	186.9	-1,045.9	1,062.5	2.00	-2.00	0.00
5,240.0	8.02	280.13	5,100.4	187.9	-1,051.7	1,068.4	2.00	-2.00	0.00
5,280.0	7.22	280.13	5,140.0	188.8	-1,056.9	1,073.7	2.00	-2.00	0.00
5,320.0	6.42	280.13	5,179.8	189.7	-1,061.6	1,078.4	2.00	-2.00	0.00
5,360.0	5.62	280.13	5,219.5	190.4	-1,065.7	1,082.6	2.00	-2.00	0.00
5,400.0	4.82	280.13	5,259.4	191.1	-1,069.3	1,086.2	2.00	-2.00	0.00
5,440.0	4.02	280.13	5,299.3	191.6	-1,072.3	1,089.3	2.00	-2.00	0.00
5,480.0	3.22	280.13	5,339.2	192.0	-1,074.8	1,091.9	2.00	-2.00	0.00
5,520.0	2.42	280.13	5,379.1	192.4	-1,076.8	1,093.8	2.00	-2.00	0.00
5,560.0	1.62	280.13	5,419.1	192.6	-1,078.2	1,095.2	2.00	-2.00	0.00
5,600.0	0.82	280.13	5,459.1	192.8	-1,079.0	1,096.1	2.00	-2.00	0.00
5,640.0	0.02	280.13	5,499.1	192.8	-1,079.3	1,096.4	2.00	-2.00	0.00
5,640.9	0.00	0.00	5,500.0	192.8	-1,079.3	1,096.4	2.00	-2.00	0.00
TARGET BHL 1320'FSL, 2525'FEL									
5,680.0	0.00	0.00	5,539.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
5,720.0	0.00	0.00	5,579.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
5,760.0	0.00	0.00	5,619.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
5,800.0	0.00	0.00	5,659.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
5,840.0	0.00	0.00	5,699.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
5,880.0	0.00	0.00	5,739.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
5,920.0	0.00	0.00	5,779.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
5,960.0	0.00	0.00	5,819.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
6,000.0	0.00	0.00	5,859.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
6,040.0	0.00	0.00	5,899.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
6,080.0	0.00	0.00	5,939.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
6,120.0	0.00	0.00	5,979.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
6,160.0	0.00	0.00	6,019.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
6,200.0	0.00	0.00	6,059.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
6,240.0	0.00	0.00	6,099.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00

Database: EDM den0-adp01 Server Data
Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.8-T4N-R66W
Site: Five Rivers K08-24D Pad Sec.8-T4N-R66W
Well: Five Rivers K08-24D
Wellbore: Wellbore #1
Design: Noble Five Rivers K08-24D Plan #1 (05-13-10)

Local Co-ordinate Reference: Well Five Rivers K08-24D
TVD Reference: WELL @ 4716.0ft (Original Well Elev)
MD Reference: WELL @ 4716.0ft (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	6,139.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
6,320.0	0.00	0.00	6,179.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
6,360.0	0.00	0.00	6,219.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
6,400.0	0.00	0.00	6,259.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
6,440.0	0.00	0.00	6,299.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
6,480.0	0.00	0.00	6,339.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
6,520.0	0.00	0.00	6,379.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
6,560.0	0.00	0.00	6,419.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
6,600.0	0.00	0.00	6,459.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
6,640.0	0.00	0.00	6,499.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
6,680.0	0.00	0.00	6,539.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
6,720.0	0.00	0.00	6,579.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
6,760.0	0.00	0.00	6,619.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
6,800.0	0.00	0.00	6,659.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
6,840.0	0.00	0.00	6,699.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
6,880.0	0.00	0.00	6,739.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
6,920.0	0.00	0.00	6,779.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
6,960.0	0.00	0.00	6,819.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
7,000.0	0.00	0.00	6,859.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
7,006.9	0.00	0.00	6,866.0	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
NIOBRARA - TARGET CIRCLE 1320'FSL, 2525'FEL									
7,040.0	0.00	0.00	6,899.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
7,080.0	0.00	0.00	6,939.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
7,120.0	0.00	0.00	6,979.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
7,160.0	0.00	0.00	7,019.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
7,200.0	0.00	0.00	7,059.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
7,240.0	0.00	0.00	7,099.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
7,280.0	0.00	0.00	7,139.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
7,320.0	0.00	0.00	7,179.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
7,360.0	0.00	0.00	7,219.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
7,366.9	0.00	0.00	7,226.0	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
CODELL									
7,400.0	0.00	0.00	7,259.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
7,440.0	0.00	0.00	7,299.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
7,480.0	0.00	0.00	7,339.1	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
7,516.9	0.00	0.00	7,376.0	192.8	-1,079.3	1,096.4	0.00	0.00	0.00
HARDLINE 150'W OF BHL									

Database: EDM den0-adp01 Server Data
Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.8-T4N-R66W
Site: Five Rivers K08-24D Pad Sec.8-T4N-R66W
Well: Five Rivers K08-24D
Wellbore: Wellbore #1
Design: Noble Five Rivers K08-24D Plan #1 (05-13-10)

Local Co-ordinate Reference: Well Five Rivers K08-24D
TVD Reference: WELL @ 4716.0ft (Original Well Elev)
MD Reference: WELL @ 4716.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
TARGET BHL 1320'F - plan hits target center - Point	0.00	0.00	5,500.0	192.8	-1,079.3	1,361,145.58	3,194,781.60	40° 19' 21.501 N	104° 48' 5.114 W
TARGET CIRCLE 132 - plan hits target center - Circle (radius 75.0)	0.00	0.00	6,866.0	192.8	-1,079.3	1,361,145.55	3,194,781.58	40° 19' 21.501 N	104° 48' 5.114 W
HARDLINE 150'W OF - plan misses target center by 180.3ft at 7516.9ft MD (7376.0 TVD, 192.8 N, -1079.3 E) - Polygon Point 1 Point 2	0.00	0.00	7,376.0 7,376.0	92.8 200.0	-1,229.3 0.0	1,361,044.37 1,361,244.35	3,194,632.39 3,194,630.80	40° 19' 20.513 N	104° 48' 7.051 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 (°)
7,006.9	6,866.0	NIOBRARA		0.00	
7,366.9	7,226.0	CODELL		0.00	



Directional

NOBLE ENERGY INC WELD COUNTY CO

SEC.8-T4N-R66W

Five Rivers K08-24D Pad Sec.8-T4N-R66W

Five Rivers K08-24D

Wellbore #1

Noble Five Rivers K08-24D Plan #1 (05-13-10)

Anticollision Report

15 May, 2010



Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Five Rivers K08-24D
Project:	SEC.8-T4N-R66W	TVD Reference:	WELL @ 4716.0ft (Original Well Elev)
Reference Site:	Five Rivers K08-24D Pad Sec.8-T4N-R66W	MD Reference:	WELL @ 4716.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Five Rivers K08-24D	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM den0-adp01 Server Data
Reference Design:	Noble Five Rivers K08-24D Plan #1 (05-13-10)	Offset TVD Reference:	Offset Datum

Reference	Noble Five Rivers K08-24D Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 2,000.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date 5/15/2010			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	7,516.9	Noble Five Rivers K08-24D Plan #1 (05-13-10)	MWD	MWD - Standard

Summary		Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Site Name							
Offset Well - Wellbore - Design							
Five Rivers K08-24D Pad Sec.8-T4N-R66W							
Five Rivers K08-23 (Vert.) - Wellbore #1 - Design #1		800.0	800.0	25.1	21.8	7.509 CC, ES	
Five Rivers K08-23 (Vert.) - Wellbore #1 - Design #1		900.0	900.0	26.8	23.0	7.093 SF	

Offset Design Five Rivers K08-24D Pad Sec.8-T4N-R66W - Five Rivers K08-23 (Vert.) - Wellbore #1 - Design #1												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference Measured Depth (ft)	Vertical Depth (ft)	Offset Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	90.00	0.0	25.1	25.1				
100.0	100.0	100.0	100.0	0.1	0.1	90.00	0.0	25.1	25.1	24.9	0.20	128.337	
200.0	200.0	200.0	200.0	0.3	0.3	90.00	0.0	25.1	25.1	24.5	0.65	38.904	
300.0	300.0	300.0	300.0	0.5	0.5	90.00	0.0	25.1	25.1	24.0	1.09	22.927	
400.0	400.0	400.0	400.0	0.8	0.8	90.00	0.0	25.1	25.1	23.6	1.54	16.252	
500.0	500.0	500.0	500.0	1.0	1.0	90.00	0.0	25.1	25.1	23.1	1.99	12.588	
600.0	600.0	600.0	600.0	1.2	1.2	90.00	0.0	25.1	25.1	22.7	2.44	10.272	
700.0	700.0	700.0	700.0	1.4	1.4	90.00	0.0	25.1	25.1	22.2	2.89	8.675	
800.0	800.0	800.0	800.0	1.7	1.7	90.00	0.0	25.1	25.1	21.8	3.34	7.509 CC, ES	
900.0	900.0	900.0	900.0	1.9	1.9	170.52	0.0	25.1	26.8	23.0	3.78	7.093 SF	
1,000.0	999.8	999.8	999.8	2.1	2.1	172.05	0.0	25.1	32.0	27.8	4.21	7.599	
1,100.0	1,099.5	1,099.5	1,099.5	2.3	2.3	173.73	0.0	25.1	40.6	36.0	4.64	8.762	
1,200.0	1,198.7	1,198.7	1,198.7	2.6	2.6	175.15	0.0	25.1	52.8	47.7	5.07	10.416	
1,300.0	1,297.5	1,297.5	1,297.5	2.9	2.8	176.24	0.0	25.1	68.4	62.9	5.49	12.449	
1,400.0	1,395.6	1,395.6	1,395.6	3.2	3.0	177.04	0.0	25.1	87.4	81.5	5.92	14.777	
1,500.0	1,493.1	1,493.1	1,493.1	3.6	3.2	177.63	0.0	25.1	109.9	103.6	6.34	17.339	
1,600.0	1,589.7	1,589.7	1,589.7	4.0	3.4	178.06	0.0	25.1	135.7	128.9	6.76	20.061	
1,700.0	1,685.9	1,685.9	1,685.9	4.5	3.7	178.39	0.0	25.1	162.7	155.4	7.23	22.514	
1,800.0	1,782.2	1,782.2	1,782.2	5.0	3.9	178.62	0.0	25.1	189.7	182.0	7.69	24.654	
1,900.0	1,878.5	1,878.5	1,878.5	5.5	4.1	178.79	0.0	25.1	216.6	208.5	8.16	26.533	
2,000.0	1,974.8	1,974.8	1,974.8	6.1	4.3	178.92	0.0	25.1	243.6	235.0	8.64	28.193	
2,100.0	2,071.1	2,071.1	2,071.1	6.6	4.5	179.03	0.0	25.1	270.6	261.5	9.12	29.669	
2,200.0	2,167.4	2,167.4	2,167.4	7.1	4.7	179.12	0.0	25.1	297.6	288.0	9.60	30.989	
2,300.0	2,263.7	2,263.7	2,263.7	7.7	5.0	179.19	0.0	25.1	324.5	314.5	10.09	32.174	
2,400.0	2,360.0	2,360.0	2,360.0	8.2	5.2	179.25	0.0	25.1	351.5	341.0	10.57	33.245	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Five Rivers K08-24D
Project:	SEC.8-T4N-R66W	TVD Reference:	WELL @ 4716.0ft (Original Well Elev)
Reference Site:	Five Rivers K08-24D Pad Sec.8-T4N-R66W	MD Reference:	WELL @ 4716.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Five Rivers K08-24D	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM den0-adp01 Server Data
Reference Design:	Noble Five Rivers K08-24D Plan #1 (05-13-10)	Offset TVD Reference:	Offset Datum

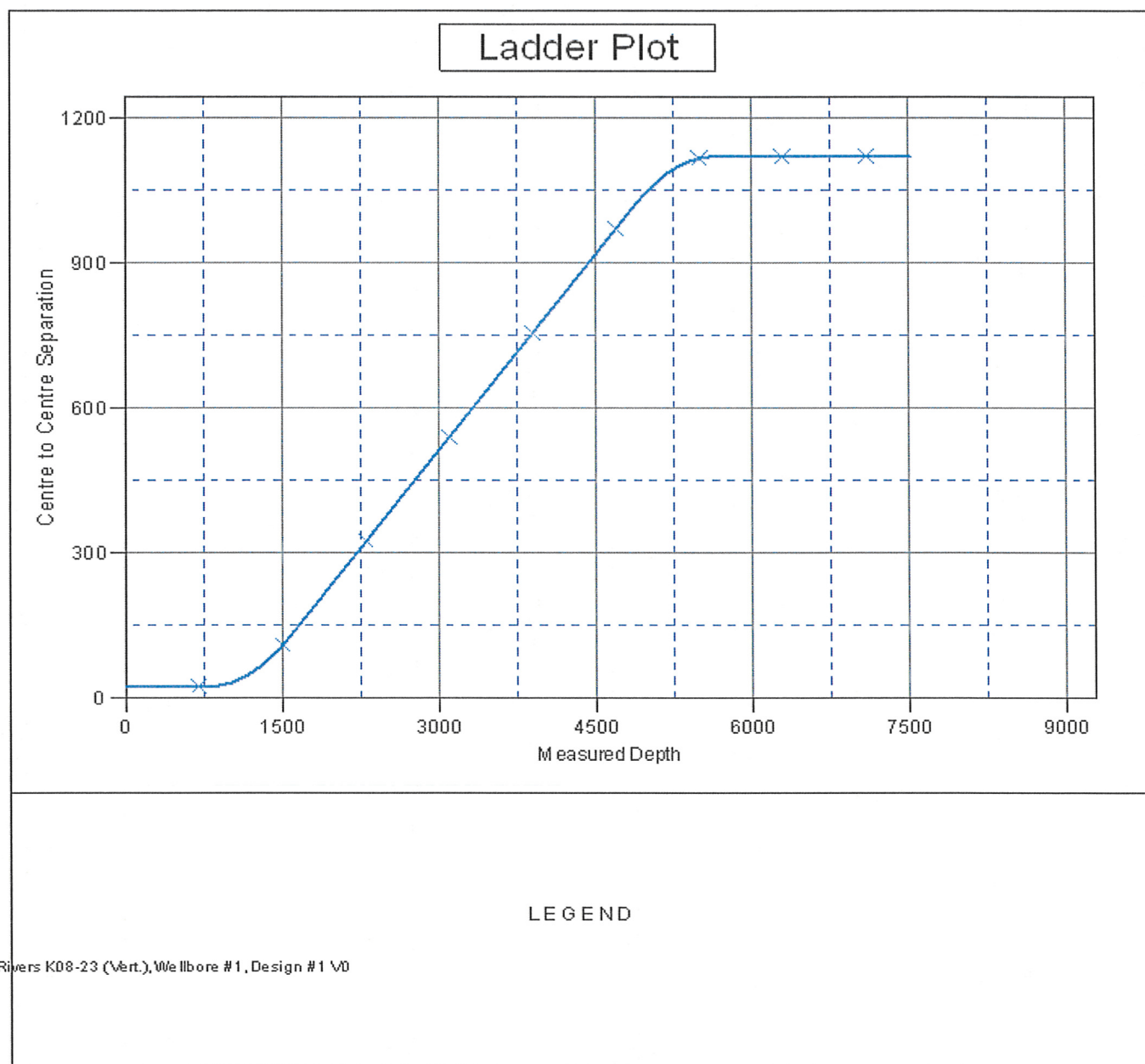
Offset Design Five Rivers K08-24D Pad Sec.8-T4N-R66W - Five Rivers K08-23 (Vert.) - Wellbore #1 - Design #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
2,500.0	2,456.3	2,456.3	2,456.3	8.8	5.4	179.31	0.0	25.1	378.5	367.4	11.06	34.215		
2,600.0	2,552.6	2,552.6	2,552.6	9.4	5.6	179.35	0.0	25.1	405.5	393.9	11.55	35.099		
2,700.0	2,648.9	2,648.9	2,648.9	9.9	5.8	179.39	0.0	25.1	432.5	420.4	12.04	35.907		
2,800.0	2,745.1	2,745.1	2,745.1	10.5	6.0	179.43	0.0	25.1	459.5	446.9	12.54	36.648		
2,900.0	2,841.4	2,841.4	2,841.4	11.1	6.3	179.46	0.0	25.1	486.4	473.4	13.03	37.330		
3,000.0	2,937.7	2,937.7	2,937.7	11.6	6.5	179.49	0.0	25.1	513.4	499.9	13.53	37.959		
3,100.0	3,034.0	3,034.0	3,034.0	12.2	6.7	179.51	0.0	25.1	540.4	526.4	14.02	38.542		
3,200.0	3,130.3	3,130.3	3,130.3	12.8	6.9	179.54	0.0	25.1	567.4	552.9	14.52	39.083		
3,300.0	3,226.6	3,226.6	3,226.6	13.3	7.1	179.56	0.0	25.1	594.4	579.4	15.01	39.587		
3,400.0	3,322.9	3,322.9	3,322.9	13.9	7.3	179.58	0.0	25.1	621.4	605.8	15.51	40.056		
3,500.0	3,419.2	3,419.2	3,419.2	14.5	7.6	179.59	0.0	25.1	648.3	632.3	16.01	40.495		
3,600.0	3,515.5	3,515.5	3,515.5	15.0	7.8	179.61	0.0	25.1	675.3	658.8	16.51	40.907		
3,700.0	3,611.8	3,611.8	3,611.8	15.6	8.0	179.63	0.0	25.1	702.3	685.3	17.01	41.293		
3,800.0	3,708.1	3,708.1	3,708.1	16.2	8.2	179.64	0.0	25.1	729.3	711.8	17.51	41.656		
3,900.0	3,804.3	3,804.3	3,804.3	16.8	8.4	179.65	0.0	25.1	756.3	738.3	18.01	41.997		
4,000.0	3,900.6	3,900.6	3,900.6	17.3	8.6	179.66	0.0	25.1	783.3	764.7	18.51	42.320		
4,100.0	3,996.9	3,996.9	3,996.9	17.9	8.9	179.68	0.0	25.1	810.2	791.2	19.01	42.625		
4,200.0	4,093.2	4,093.2	4,093.2	18.5	9.1	179.69	0.0	25.1	837.2	817.7	19.51	42.913		
4,300.0	4,189.5	4,189.5	4,189.5	19.1	9.3	179.70	0.0	25.1	864.2	844.2	20.01	43.186		
4,400.0	4,285.8	4,285.8	4,285.8	19.6	9.5	179.71	0.0	25.1	891.2	870.7	20.51	43.445		
4,500.0	4,382.1	4,382.1	4,382.1	20.2	9.7	179.71	0.0	25.1	918.2	897.2	21.01	43.692		
4,600.0	4,478.4	4,478.4	4,478.4	20.8	9.9	179.72	0.0	25.1	945.2	923.6	21.52	43.926		
4,700.0	4,574.7	4,574.7	4,574.7	21.4	10.2	179.73	0.0	25.1	972.1	950.1	22.02	44.149		
4,800.0	4,671.0	4,671.0	4,671.0	22.0	10.4	179.74	0.0	25.1	999.1	976.6	22.52	44.361		
4,900.0	4,767.3	4,767.3	4,767.3	22.5	10.6	179.74	0.0	25.1	1,025.8	1,002.8	23.06	44.493		
5,000.0	4,864.4	4,864.4	4,864.4	22.9	10.8	179.75	0.0	25.1	1,049.7	1,026.1	23.59	44.499		
5,100.0	4,962.3	4,962.3	4,962.3	23.2	11.0	179.76	0.0	25.1	1,070.2	1,046.1	24.09	44.425		
5,200.0	5,060.8	5,060.8	5,060.8	23.6	11.2	179.76	0.0	25.1	1,087.2	1,062.7	24.56	44.275		
5,300.0	5,159.9	5,159.9	5,159.9	23.8	11.5	179.77	0.0	25.1	1,100.8	1,075.8	24.99	44.056		
5,400.0	5,259.4	5,259.4	5,259.4	24.0	11.7	179.77	0.0	25.1	1,111.0	1,085.6	25.38	43.772		
5,500.0	5,359.2	5,359.2	5,359.2	24.2	11.9	179.77	0.0	25.1	1,117.6	1,091.9	25.74	43.424		
5,600.0	5,459.1	5,459.1	5,459.1	24.3	12.1	179.77	0.0	25.1	1,120.8	1,094.7	26.06	43.016		
5,700.0	5,559.1	5,559.1	5,559.1	24.4	12.4	99.90	0.0	25.1	1,121.1	1,094.7	26.41	42.453		
5,800.0	5,659.1	5,659.1	5,659.1	24.5	12.6	99.90	0.0	25.1	1,121.1	1,094.3	26.81	41.821		
5,900.0	5,759.1	5,759.1	5,759.1	24.6	12.8	99.90	0.0	25.1	1,121.1	1,093.9	27.21	41.205		
6,000.0	5,859.1	5,859.1	5,859.1	24.8	13.0	99.90	0.0	25.1	1,121.1	1,093.5	27.61	40.605		
6,100.0	5,959.1	5,959.1	5,959.1	24.9	13.3	99.90	0.0	25.1	1,121.1	1,093.1	28.01	40.020		
6,200.0	6,059.1	6,059.1	6,059.1	25.0	13.5	99.90	0.0	25.1	1,121.1	1,092.7	28.42	39.450		
6,300.0	6,159.1	6,159.1	6,159.1	25.1	13.7	99.90	0.0	25.1	1,121.1	1,092.3	28.82	38.895		
6,400.0	6,259.1	6,259.1	6,259.1	25.2	13.9	99.90	0.0	25.1	1,121.1	1,091.9	29.23	38.353		
6,500.0	6,359.1	6,359.1	6,359.1	25.3	14.2	99.90	0.0	25.1	1,121.1	1,091.4	29.64	37.825		
6,600.0	6,459.1	6,459.1	6,459.1	25.5	14.4	99.90	0.0	25.1	1,121.1	1,091.0	30.05	37.310		
6,700.0	6,559.1	6,559.1	6,559.1	25.6	14.6	99.90	0.0	25.1	1,121.1	1,090.6	30.46	36.808		
6,800.0	6,659.1	6,659.1	6,659.1	25.7	14.8	99.90	0.0	25.1	1,121.1	1,090.2	30.87	36.317		
6,900.0	6,759.1	6,759.1	6,759.1	25.8	15.1	99.90	0.0	25.1	1,121.1	1,089.8	31.28	35.839		
7,000.0	6,859.1	6,859.1	6,859.1	26.0	15.3	99.90	0.0	25.1	1,121.1	1,089.4	31.69	35.372		
7,100.0	6,959.1	6,959.1	6,959.1	26.1	15.5	99.90	0.0	25.1	1,121.1	1,089.0	32.11	34.915		
7,200.0	7,059.1	7,059.1	7,059.1	26.2	15.7	99.90	0.0	25.1	1,121.1	1,088.6	32.52	34.470		
7,300.0	7,159.1	7,159.1	7,159.1	26.3	16.0	99.90	0.0	25.1	1,121.1	1,088.1	32.94	34.035		
7,400.0	7,259.1	7,259.1	7,259.1	26.5	16.2	99.90	0.0	25.1	1,121.1	1,087.7	33.36	33.610		
7,500.0	7,359.1	7,359.1	7,359.1	26.6	16.4	99.90	0.0	25.1	1,121.1	1,087.3	33.77	33.195		
7,516.9	7,376.0	7,376.0	7,376.0	26.6	16.5	99.90	0.0	25.1	1,121.1	1,087.2	33.84	33.125		

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.8-T4N-R66W
Reference Site: Five Rivers K08-24D Pad Sec.8-T4N-R66W
Site Error: 0.0ft
Reference Well: Five Rivers K08-24D
Well Error: 0.0ft
Reference Wellbore: Wellbore #1
Reference Design: Noble Five Rivers K08-24D Plan #1 (05-13-10)

Local Co-ordinate Reference: Well Five Rivers K08-24D
TVD Reference: WELL @ 4716.0ft (Original Well Elev)
MD Reference: WELL @ 4716.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM den0-adp01 Server Data
Offset TVD Reference: Offset Datum

Reference Depths are relative to WELL @ 4716.0ft (Original Well Elev) Coordinates are relative to: Five Rivers K08-24D
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is 105° 30' 0.000 W ° Grid Convergence at Surface is: 0.45°



Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.8-T4N-R66W
Reference Site: Five Rivers K08-24D Pad Sec.8-T4N-R66W
Site Error: 0.0ft
Reference Well: Five Rivers K08-24D
Well Error: 0.0ft
Reference Wellbore: Wellbore #1
Reference Design: Noble Five Rivers K08-24D Plan #1 (05-13-10)

Local Co-ordinate Reference: Well Five Rivers K08-24D
TVD Reference: WELL @ 4716.0ft (Original Well Elev)
MD Reference: WELL @ 4716.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM den0-adp01 Server Data
Offset TVD Reference: Offset Datum

Reference Depths are relative to WELL @ 4716.0ft (Original Well Elev) Coordinates are relative to: Five Rivers K08-24D

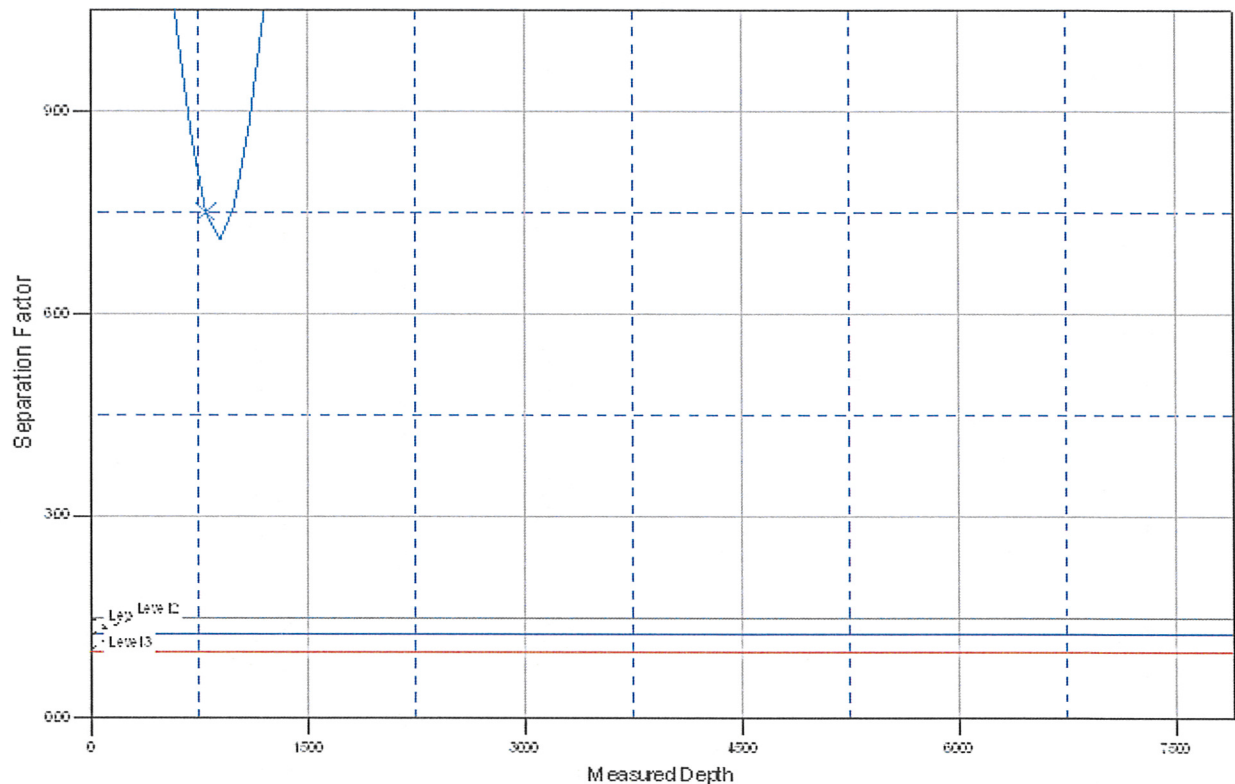
Offset Depths are relative to Offset Datum

Central Meridian is 105° 30' 0.000 W °

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.45°

Separation Factor Plot



LEGEND

Rivers K08-23 (Vert.), Wellbore #1, Design #1 VD