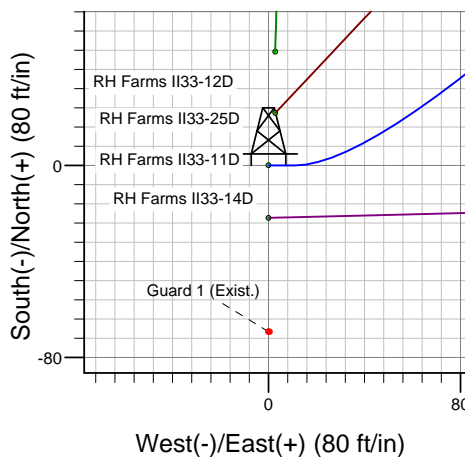
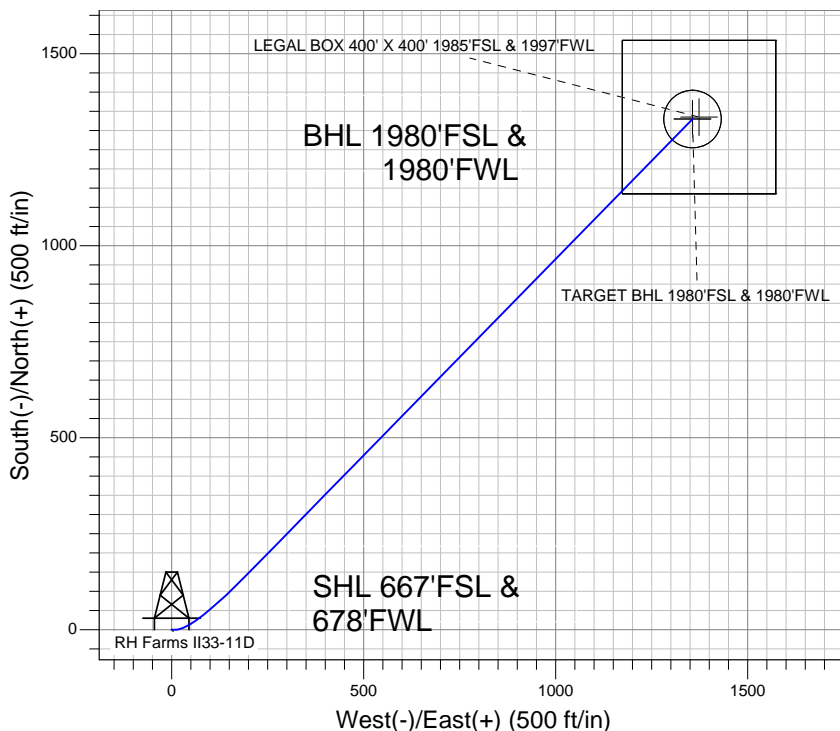
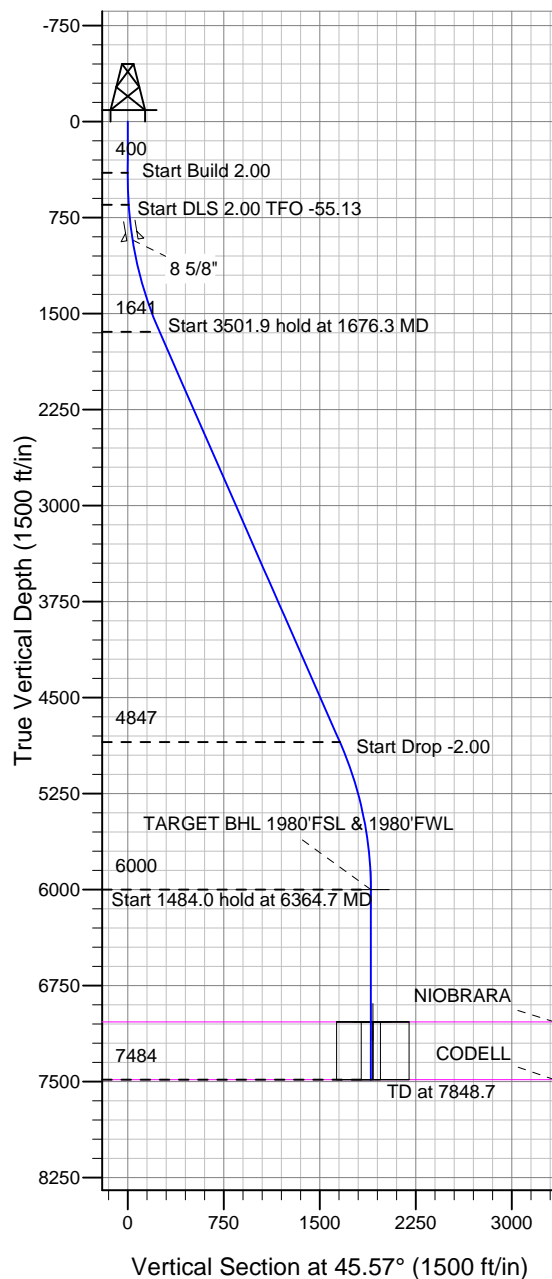


Well Name: RH Farms II33-11D

Surface Location: RH Farms II33-12D Pad Sec.33-T7N-R66W
 North American Datum 1983, US State Plane 1983 Colorado Northern Zone
 Ground Elevation: 4865.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1435132.69	3196953.89	40.525680	-104.791510	
Original Well EleWELL @ 4878.0ft (Original Well Elev)						

NOBLE ENERGY INC WELD COUNTY CO



RH Farms II33-12D Pad Sec.33-T7N-R66W
 RH Farms II33-11D
 Noble RH Farms II33-11D Plan #1 (9-06-11)
 9:02, September 12 2011



Azimuths to True North
 Magnetic North: 8.86°
 Magnetic Field
 Strength: 53170.0snT
 Dip Angle: 67.14°
 Date: 9/6/2011
 Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 1980'FSL & 1980'FWL	6000.0	1329.8	1356.6	40.529330	-104.786630	Point
LEGAL BOX 400' X 400' 1985'FSL & 1997'FWL	7033.0	1334.8	1373.6	40.529344	-104.786569	Rectangle (Sides: L400.0 W400.0)
TARGET CIRCLE 1980'FSL & 1980'FWL	7033.0	1329.8	1356.6	40.529330	-104.786630	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	400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.0	
3	650.0	5.00	90.00	649.7	0.0	10.9	2.00	90.00	7.8	
4	1676.3	23.73	44.36	1641.3	149.2	202.1	2.00	-55.13	248.8	
5	5178.3	23.73	44.36	4847.3	1156.7	1187.3	0.00	0.00	1657.6	
6	6364.7	0.00	0.00	6000.0	1329.8	1356.6	2.00	180.00	1899.7	TARGET BHL 1980'FSL & 1980'FWL
7	7848.7	0.00	0.00	7484.0	1329.8	1356.6	0.00	0.00	1899.7	



Directional

NOBLE ENERGY INC WELD COUNTY CO

SEC.33-T7N-R66W

RH Farms II33-12D Pad Sec.33-T7N-R66W

RH Farms II33-11D

Wellbore #1

Plan: Noble RH Farms II33-11D Plan #1 (9-06-11)

Standard Planning Report

12 September, 2011



Database:	Landmark	Local Co-ordinate Reference:	Well RH Farms II33-11D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4878.0ft (Original Well Elev)
Project:	SEC.33-T7N-R66W	MD Reference:	WELL @ 4878.0ft (Original Well Elev)
Site:	RH Farms II33-12D Pad Sec.33-T7N-R66W	North Reference:	True
Well:	RH Farms II33-11D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble RH Farms II33-11D Plan #1 (9-06-11)		

Project	SEC.33-T7N-R66W, Weld County, CO		
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						RH Farms II33-12D Pad Sec.33-T7N-R66W											
Site Position:						Northing:			1,435,180.08 ft			Latitude:			40.525810		
From:			Lat/Long			Easting:			3,196,956.29 ft			Longitude:			-104.791500		
Position Uncertainty:			0.0 ft			Slot Radius:			"			Grid Convergence:			0.46 °		

Well	RH Farms II33-11D					
Well Position	+N/-S	-47.4 ft	Northing:	1,435,132.69 ft	Latitude:	40.525680
	+E/-W	-2.8 ft	Easting:	3,196,953.89 ft	Longitude:	-104.791510
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,865.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/6/2011	8.86	67.14	53,170

Design	Noble RH Farms II33-11D Plan #1 (9-06-11)			
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	45.57

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	
400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.00	0.00	
650.0	5.00	90.00	649.7	0.0	10.9	2.00	2.00	0.00	90.00	
1,676.3	23.73	44.36	1,641.3	149.2	202.1	2.00	1.82	-4.45	-55.13	
5,178.3	23.73	44.36	4,847.3	1,156.7	1,187.3	0.00	0.00	0.00	0.00	
6,364.7	0.00	0.00	6,000.0	1,329.8	1,356.6	2.00	-2.00	0.00	180.00	TARGET BHL 198C
7,848.7	0.00	0.00	7,484.0	1,329.8	1,356.6	0.00	0.00	0.00	0.00	

Database:	Landmark	Local Co-ordinate Reference:	Well RH Farms II33-11D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4878.0ft (Original Well Elev)
Project:	SEC.33-T7N-R66W	MD Reference:	WELL @ 4878.0ft (Original Well Elev)
Site:	RH Farms II33-12D Pad Sec.33-T7N-R66W	North Reference:	True
Well:	RH Farms II33-11D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble RH Farms II33-11D Plan #1 (9-06-11)		

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	0.80	90.00	440.0	0.0	0.3	0.2	2.00	2.00	0.00
480.0	1.60	90.00	480.0	0.0	1.1	0.8	2.00	2.00	0.00
520.0	2.40	90.00	520.0	0.0	2.5	1.8	2.00	2.00	0.00
560.0	3.20	90.00	559.9	0.0	4.5	3.2	2.00	2.00	0.00
600.0	4.00	90.00	599.8	0.0	7.0	5.0	2.00	2.00	0.00
640.0	4.80	90.00	639.7	0.0	10.0	7.2	2.00	2.00	0.00
650.0	5.00	90.00	649.7	0.0	10.9	7.8	2.00	2.00	0.00
680.0	5.37	84.73	679.6	0.1	13.6	9.8	2.00	1.22	-17.57
720.0	5.91	78.78	719.4	0.7	17.5	13.0	2.00	1.37	-14.87
760.0	6.51	73.88	759.1	1.7	21.7	16.7	2.00	1.50	-12.26
800.0	7.15	69.82	798.8	3.2	26.2	21.0	2.00	1.60	-10.14
840.0	7.82	66.44	838.5	5.2	31.0	25.8	2.00	1.67	-8.45
880.0	8.51	63.60	878.1	7.6	36.2	31.1	2.00	1.73	-7.11
920.0	9.22	61.19	917.6	10.4	41.6	37.0	2.00	1.77	-6.03
927.5	9.35	60.78	925.0	11.0	42.7	38.2	2.00	1.79	-5.49
8 5/8"									
960.0	9.94	59.12	957.1	13.7	47.4	43.5	2.00	1.81	-5.10
1,000.0	10.67	57.33	996.4	17.5	53.5	50.5	2.00	1.83	-4.47
1,040.0	11.42	55.77	1,035.7	21.7	59.9	58.0	2.00	1.86	-3.90
1,080.0	12.17	54.40	1,074.8	26.4	66.6	66.0	2.00	1.87	-3.43
1,120.0	12.92	53.18	1,113.9	31.6	73.6	74.6	2.00	1.89	-3.04
1,160.0	13.68	52.10	1,152.8	37.1	80.9	83.8	2.00	1.90	-2.70
1,200.0	14.45	51.13	1,191.6	43.2	88.5	93.4	2.00	1.91	-2.42
1,240.0	15.21	50.26	1,230.3	49.7	96.4	103.6	2.00	1.92	-2.18
1,280.0	15.99	49.47	1,268.8	56.6	104.7	114.4	2.00	1.93	-1.98
1,320.0	16.76	48.75	1,307.2	64.0	113.2	125.6	2.00	1.93	-1.80
1,360.0	17.54	48.09	1,345.4	71.8	122.0	137.4	2.00	1.94	-1.65
1,400.0	18.31	47.48	1,383.5	80.1	131.1	149.7	2.00	1.95	-1.51
1,440.0	19.09	46.93	1,421.3	88.8	140.5	162.5	2.00	1.95	-1.39
1,480.0	19.87	46.41	1,459.1	98.0	150.2	175.9	2.00	1.95	-1.29
1,520.0	20.66	45.94	1,496.6	107.6	160.2	189.7	2.00	1.96	-1.19
1,560.0	21.44	45.49	1,533.9	117.6	170.5	204.1	2.00	1.96	-1.11
1,600.0	22.23	45.08	1,571.0	128.1	181.1	219.0	2.00	1.96	-1.03
1,640.0	23.01	44.69	1,608.0	139.0	191.9	234.3	2.00	1.97	-0.97
1,676.3	23.73	44.36	1,641.3	149.2	202.1	248.8	2.00	1.97	-0.91
1,680.0	23.73	44.36	1,644.7	150.3	203.1	250.2	0.00	0.00	0.00
1,720.0	23.73	44.36	1,681.3	161.8	214.3	266.3	0.00	0.00	0.00
1,760.0	23.73	44.36	1,717.9	173.3	225.6	282.4	0.00	0.00	0.00
1,800.0	23.73	44.36	1,754.5	184.8	236.8	298.5	0.00	0.00	0.00
1,840.0	23.73	44.36	1,791.1	196.3	248.1	314.6	0.00	0.00	0.00
1,880.0	23.73	44.36	1,827.8	207.8	259.3	330.7	0.00	0.00	0.00
1,920.0	23.73	44.36	1,864.4	219.3	270.6	346.8	0.00	0.00	0.00
1,960.0	23.73	44.36	1,901.0	230.8	281.9	362.9	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well RH Farms II33-11D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4878.0ft (Original Well Elev)
Project:	SEC.33-T7N-R66W	MD Reference:	WELL @ 4878.0ft (Original Well Elev)
Site:	RH Farms II33-12D Pad Sec.33-T7N-R66W	North Reference:	True
Well:	RH Farms II33-11D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble RH Farms II33-11D Plan #1 (9-06-11)		

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)
2,000.0	23.73	44.36	1,937.6	242.3	293.1	379.0	0.00	0.00	0.00
2,040.0	23.73	44.36	1,974.2	253.8	304.4	395.0	0.00	0.00	0.00
2,080.0	23.73	44.36	2,010.9	265.4	315.6	411.1	0.00	0.00	0.00
2,120.0	23.73	44.36	2,047.5	276.9	326.9	427.2	0.00	0.00	0.00
2,160.0	23.73	44.36	2,084.1	288.4	338.1	443.3	0.00	0.00	0.00
2,200.0	23.73	44.36	2,120.7	299.9	349.4	459.4	0.00	0.00	0.00
2,240.0	23.73	44.36	2,157.3	311.4	360.6	475.5	0.00	0.00	0.00
2,280.0	23.73	44.36	2,194.0	322.9	371.9	491.6	0.00	0.00	0.00
2,320.0	23.73	44.36	2,230.6	334.4	383.1	507.7	0.00	0.00	0.00
2,360.0	23.73	44.36	2,267.2	345.9	394.4	523.8	0.00	0.00	0.00
2,400.0	23.73	44.36	2,303.8	357.4	405.6	539.9	0.00	0.00	0.00
2,440.0	23.73	44.36	2,340.4	368.9	416.9	556.0	0.00	0.00	0.00
2,480.0	23.73	44.36	2,377.0	380.4	428.1	572.1	0.00	0.00	0.00
2,520.0	23.73	44.36	2,413.7	391.9	439.4	588.2	0.00	0.00	0.00
2,560.0	23.73	44.36	2,450.3	403.4	450.7	604.2	0.00	0.00	0.00
2,600.0	23.73	44.36	2,486.9	415.0	461.9	620.3	0.00	0.00	0.00
2,640.0	23.73	44.36	2,523.5	426.5	473.2	636.4	0.00	0.00	0.00
2,680.0	23.73	44.36	2,560.1	438.0	484.4	652.5	0.00	0.00	0.00
2,720.0	23.73	44.36	2,596.8	449.5	495.7	668.6	0.00	0.00	0.00
2,760.0	23.73	44.36	2,633.4	461.0	506.9	684.7	0.00	0.00	0.00
2,800.0	23.73	44.36	2,670.0	472.5	518.2	700.8	0.00	0.00	0.00
2,840.0	23.73	44.36	2,706.6	484.0	529.4	716.9	0.00	0.00	0.00
2,880.0	23.73	44.36	2,743.2	495.5	540.7	733.0	0.00	0.00	0.00
2,920.0	23.73	44.36	2,779.9	507.0	551.9	749.1	0.00	0.00	0.00
2,960.0	23.73	44.36	2,816.5	518.5	563.2	765.2	0.00	0.00	0.00
3,000.0	23.73	44.36	2,853.1	530.0	574.4	781.3	0.00	0.00	0.00
3,040.0	23.73	44.36	2,889.7	541.5	585.7	797.3	0.00	0.00	0.00
3,080.0	23.73	44.36	2,926.3	553.0	596.9	813.4	0.00	0.00	0.00
3,120.0	23.73	44.36	2,963.0	564.5	608.2	829.5	0.00	0.00	0.00
3,160.0	23.73	44.36	2,999.6	576.1	619.5	845.6	0.00	0.00	0.00
3,200.0	23.73	44.36	3,036.2	587.6	630.7	861.7	0.00	0.00	0.00
3,240.0	23.73	44.36	3,072.8	599.1	642.0	877.8	0.00	0.00	0.00
3,280.0	23.73	44.36	3,109.4	610.6	653.2	893.9	0.00	0.00	0.00
3,320.0	23.73	44.36	3,146.0	622.1	664.5	910.0	0.00	0.00	0.00
3,360.0	23.73	44.36	3,182.7	633.6	675.7	926.1	0.00	0.00	0.00
3,400.0	23.73	44.36	3,219.3	645.1	687.0	942.2	0.00	0.00	0.00
3,440.0	23.73	44.36	3,255.9	656.6	698.2	958.3	0.00	0.00	0.00
3,480.0	23.73	44.36	3,292.5	668.1	709.5	974.4	0.00	0.00	0.00
3,520.0	23.73	44.36	3,329.1	679.6	720.7	990.4	0.00	0.00	0.00
3,560.0	23.73	44.36	3,365.8	691.1	732.0	1,006.5	0.00	0.00	0.00
3,600.0	23.73	44.36	3,402.4	702.6	743.2	1,022.6	0.00	0.00	0.00
3,640.0	23.73	44.36	3,439.0	714.1	754.5	1,038.7	0.00	0.00	0.00
3,680.0	23.73	44.36	3,475.6	725.7	765.8	1,054.8	0.00	0.00	0.00
3,720.0	23.73	44.36	3,512.2	737.2	777.0	1,070.9	0.00	0.00	0.00
3,760.0	23.73	44.36	3,548.9	748.7	788.3	1,087.0	0.00	0.00	0.00
3,800.0	23.73	44.36	3,585.5	760.2	799.5	1,103.1	0.00	0.00	0.00
3,840.0	23.73	44.36	3,622.1	771.7	810.8	1,119.2	0.00	0.00	0.00
3,880.0	23.73	44.36	3,658.7	783.2	822.0	1,135.3	0.00	0.00	0.00
3,920.0	23.73	44.36	3,695.3	794.7	833.3	1,151.4	0.00	0.00	0.00
3,960.0	23.73	44.36	3,731.9	806.2	844.5	1,167.5	0.00	0.00	0.00
4,000.0	23.73	44.36	3,768.6	817.7	855.8	1,183.5	0.00	0.00	0.00
4,040.0	23.73	44.36	3,805.2	829.2	867.0	1,199.6	0.00	0.00	0.00
4,080.0	23.73	44.36	3,841.8	840.7	878.3	1,215.7	0.00	0.00	0.00
4,120.0	23.73	44.36	3,878.4	852.2	889.5	1,231.8	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well RH Farms II33-11D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4878.0ft (Original Well Elev)
Project:	SEC.33-T7N-R66W	MD Reference:	WELL @ 4878.0ft (Original Well Elev)
Site:	RH Farms II33-12D Pad Sec.33-T7N-R66W	North Reference:	True
Well:	RH Farms II33-11D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble RH Farms II33-11D Plan #1 (9-06-11)		

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)
4,160.0	23.73	44.36	3,915.0	863.7	900.8	1,247.9	0.00	0.00	0.00
4,200.0	23.73	44.36	3,951.7	875.2	912.0	1,264.0	0.00	0.00	0.00
4,240.0	23.73	44.36	3,988.3	886.8	923.3	1,280.1	0.00	0.00	0.00
4,280.0	23.73	44.36	4,024.9	898.3	934.6	1,296.2	0.00	0.00	0.00
4,320.0	23.73	44.36	4,061.5	909.8	945.8	1,312.3	0.00	0.00	0.00
4,360.0	23.73	44.36	4,098.1	921.3	957.1	1,328.4	0.00	0.00	0.00
4,400.0	23.73	44.36	4,134.8	932.8	968.3	1,344.5	0.00	0.00	0.00
4,440.0	23.73	44.36	4,171.4	944.3	979.6	1,360.6	0.00	0.00	0.00
4,480.0	23.73	44.36	4,208.0	955.8	990.8	1,376.6	0.00	0.00	0.00
4,520.0	23.73	44.36	4,244.6	967.3	1,002.1	1,392.7	0.00	0.00	0.00
4,560.0	23.73	44.36	4,281.2	978.8	1,013.3	1,408.8	0.00	0.00	0.00
4,600.0	23.73	44.36	4,317.8	990.3	1,024.6	1,424.9	0.00	0.00	0.00
4,640.0	23.73	44.36	4,354.5	1,001.8	1,035.8	1,441.0	0.00	0.00	0.00
4,680.0	23.73	44.36	4,391.1	1,013.3	1,047.1	1,457.1	0.00	0.00	0.00
4,720.0	23.73	44.36	4,427.7	1,024.8	1,058.3	1,473.2	0.00	0.00	0.00
4,760.0	23.73	44.36	4,464.3	1,036.4	1,069.6	1,489.3	0.00	0.00	0.00
4,800.0	23.73	44.36	4,500.9	1,047.9	1,080.8	1,505.4	0.00	0.00	0.00
4,840.0	23.73	44.36	4,537.6	1,059.4	1,092.1	1,521.5	0.00	0.00	0.00
4,880.0	23.73	44.36	4,574.2	1,070.9	1,103.4	1,537.6	0.00	0.00	0.00
4,920.0	23.73	44.36	4,610.8	1,082.4	1,114.6	1,553.7	0.00	0.00	0.00
4,960.0	23.73	44.36	4,647.4	1,093.9	1,125.9	1,569.7	0.00	0.00	0.00
5,000.0	23.73	44.36	4,684.0	1,105.4	1,137.1	1,585.8	0.00	0.00	0.00
5,040.0	23.73	44.36	4,720.7	1,116.9	1,148.4	1,601.9	0.00	0.00	0.00
5,080.0	23.73	44.36	4,757.3	1,128.4	1,159.6	1,618.0	0.00	0.00	0.00
5,120.0	23.73	44.36	4,793.9	1,139.9	1,170.9	1,634.1	0.00	0.00	0.00
5,160.0	23.73	44.36	4,830.5	1,151.4	1,182.1	1,650.2	0.00	0.00	0.00
5,178.3	23.73	44.36	4,847.3	1,156.7	1,187.3	1,657.6	0.00	0.00	0.00
5,200.0	23.29	44.36	4,867.2	1,162.9	1,193.3	1,666.2	2.00	-2.00	0.00
5,240.0	22.49	44.36	4,904.0	1,174.0	1,204.2	1,681.8	2.00	-2.00	0.00
5,280.0	21.69	44.36	4,941.1	1,184.8	1,214.7	1,696.8	2.00	-2.00	0.00
5,320.0	20.89	44.36	4,978.3	1,195.1	1,224.9	1,711.3	2.00	-2.00	0.00
5,360.0	20.09	44.36	5,015.8	1,205.2	1,234.7	1,725.3	2.00	-2.00	0.00
5,400.0	19.29	44.36	5,053.5	1,214.8	1,244.1	1,738.8	2.00	-2.00	0.00
5,440.0	18.49	44.36	5,091.3	1,224.1	1,253.2	1,751.8	2.00	-2.00	0.00
5,480.0	17.69	44.36	5,129.3	1,232.9	1,261.8	1,764.2	2.00	-2.00	0.00
5,520.0	16.89	44.36	5,167.5	1,241.4	1,270.2	1,776.1	2.00	-2.00	0.00
5,560.0	16.09	44.36	5,205.9	1,249.6	1,278.1	1,787.4	2.00	-2.00	0.00
5,600.0	15.29	44.36	5,244.4	1,257.3	1,285.7	1,798.2	2.00	-2.00	0.00
5,640.0	14.49	44.36	5,283.0	1,264.6	1,292.8	1,808.5	2.00	-2.00	0.00
5,680.0	13.69	44.36	5,321.8	1,271.6	1,299.7	1,818.3	2.00	-2.00	0.00
5,720.0	12.89	44.36	5,360.8	1,278.2	1,306.1	1,827.5	2.00	-2.00	0.00
5,760.0	12.09	44.36	5,399.8	1,284.4	1,312.1	1,836.1	2.00	-2.00	0.00
5,800.0	11.29	44.36	5,439.0	1,290.2	1,317.8	1,844.2	2.00	-2.00	0.00
5,840.0	10.49	44.36	5,478.3	1,295.6	1,323.1	1,851.8	2.00	-2.00	0.00
5,880.0	9.69	44.36	5,517.7	1,300.6	1,328.0	1,858.8	2.00	-2.00	0.00
5,920.0	8.89	44.36	5,557.1	1,305.2	1,332.5	1,865.2	2.00	-2.00	0.00
5,960.0	8.09	44.36	5,596.7	1,309.4	1,336.6	1,871.1	2.00	-2.00	0.00
6,000.0	7.29	44.36	5,636.3	1,313.2	1,340.4	1,876.5	2.00	-2.00	0.00
6,040.0	6.49	44.36	5,676.0	1,316.7	1,343.7	1,881.3	2.00	-2.00	0.00
6,080.0	5.69	44.36	5,715.8	1,319.7	1,346.7	1,885.5	2.00	-2.00	0.00
6,120.0	4.89	44.36	5,755.6	1,322.4	1,349.3	1,889.2	2.00	-2.00	0.00
6,160.0	4.09	44.36	5,795.5	1,324.6	1,351.5	1,892.4	2.00	-2.00	0.00
6,200.0	3.29	44.36	5,835.4	1,326.4	1,353.3	1,894.9	2.00	-2.00	0.00
6,240.0	2.49	44.36	5,875.4	1,327.9	1,354.7	1,897.0	2.00	-2.00	0.00

Database: Landmark
Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.33-T7N-R66W
Site: RH Farms II33-12D Pad Sec.33-T7N-R66W
Well: RH Farms II33-11D
Wellbore: Wellbore #1
Design: Noble RH Farms II33-11D Plan #1 (9-06-11)

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Well RH Farms II33-11D
WELL @ 4878.0ft (Original Well Elev)
WELL @ 4878.0ft (Original Well Elev)
True
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	1.69	44.36	5,915.4	1,328.9	1,355.7	1,898.4	2.00	-2.00	0.00
6,320.0	0.89	44.36	5,955.3	1,329.6	1,356.3	1,899.3	2.00	-2.00	0.00
6,360.0	0.09	44.36	5,995.3	1,329.8	1,356.6	1,899.7	2.00	-2.00	0.00
6,364.7	0.00	0.00	6,000.0	1,329.8	1,356.6	1,899.7	2.00	-2.00	0.00
TARGET BHL 1980'FSL & 1980'FWL									
6,400.0	0.00	0.00	6,035.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
6,440.0	0.00	0.00	6,075.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
6,480.0	0.00	0.00	6,115.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
6,520.0	0.00	0.00	6,155.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
6,560.0	0.00	0.00	6,195.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
6,600.0	0.00	0.00	6,235.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
6,640.0	0.00	0.00	6,275.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
6,680.0	0.00	0.00	6,315.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
6,720.0	0.00	0.00	6,355.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
6,760.0	0.00	0.00	6,395.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
6,800.0	0.00	0.00	6,435.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
6,840.0	0.00	0.00	6,475.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
6,880.0	0.00	0.00	6,515.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
6,920.0	0.00	0.00	6,555.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
6,960.0	0.00	0.00	6,595.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
7,000.0	0.00	0.00	6,635.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
7,040.0	0.00	0.00	6,675.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
7,080.0	0.00	0.00	6,715.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
7,120.0	0.00	0.00	6,755.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
7,160.0	0.00	0.00	6,795.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
7,200.0	0.00	0.00	6,835.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
7,240.0	0.00	0.00	6,875.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
7,280.0	0.00	0.00	6,915.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
7,320.0	0.00	0.00	6,955.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
7,360.0	0.00	0.00	6,995.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
7,397.7	0.00	0.00	7,033.0	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
NIOBRARA - TARGET CIRCLE 1980'FSL & 1980'FWL - LEGAL BOX 400' X 400' 1985'FSL & 1997'FWL									
7,400.0	0.00	0.00	7,035.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
7,440.0	0.00	0.00	7,075.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
7,480.0	0.00	0.00	7,115.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
7,520.0	0.00	0.00	7,155.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
7,560.0	0.00	0.00	7,195.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
7,600.0	0.00	0.00	7,235.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
7,640.0	0.00	0.00	7,275.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
7,680.0	0.00	0.00	7,315.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
7,720.0	0.00	0.00	7,355.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
7,760.0	0.00	0.00	7,395.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
7,800.0	0.00	0.00	7,435.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
7,840.0	0.00	0.00	7,475.3	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
7,848.7	0.00	0.00	7,484.0	1,329.8	1,356.6	1,899.7	0.00	0.00	0.00
CODELL									

Database:	Landmark	Local Co-ordinate Reference:	Well RH Farms II33-11D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4878.0ft (Original Well Elev)
Project:	SEC.33-T7N-R66W	MD Reference:	WELL @ 4878.0ft (Original Well Elev)
Site:	RH Farms II33-12D Pad Sec.33-T7N-R66W	North Reference:	True
Well:	RH Farms II33-11D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble RH Farms II33-11D Plan #1 (9-06-11)		

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
TARGET CIRCLE 198'	0.00	0.00	7,033.0	1,329.8	1,356.6	1,436,473.26	3,198,299.76	40.529330	-104.786630
- plan hits target center									
- Circle (radius 75.0)									
TARGET BHL 1980'F	0.00	0.00	6,000.0	1,329.8	1,356.6	1,436,473.26	3,198,299.76	40.529330	-104.786630
- plan hits target center									
- Point									
LEGAL BOX 400' X 400'	0.00	0.00	7,033.0	1,334.8	1,373.6	1,436,478.38	3,198,316.74	40.529344	-104.786569
- plan misses target center by 17.7ft at 7397.7ft MD (7033.0 TVD, 1329.8 N, 1356.6 E)									
- Rectangle (sides W400.0 H400.0 D451.0)									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
927.5	925.0	8 5/8"	8-5/8	12-1/4	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
7,397.7	7,033.0	NIOBRARA		0.00	
7,848.7	7,484.0	CODELL		0.00	