

Project: Weld County, CO (NAD 83)

Site: Sec. 11-T5N-R64W

Well: Leeroy B11-79HNM (B11 PAD)

Wellbore: Plan A Rev 0

Design: Actual Field Surveys

Noble Energy



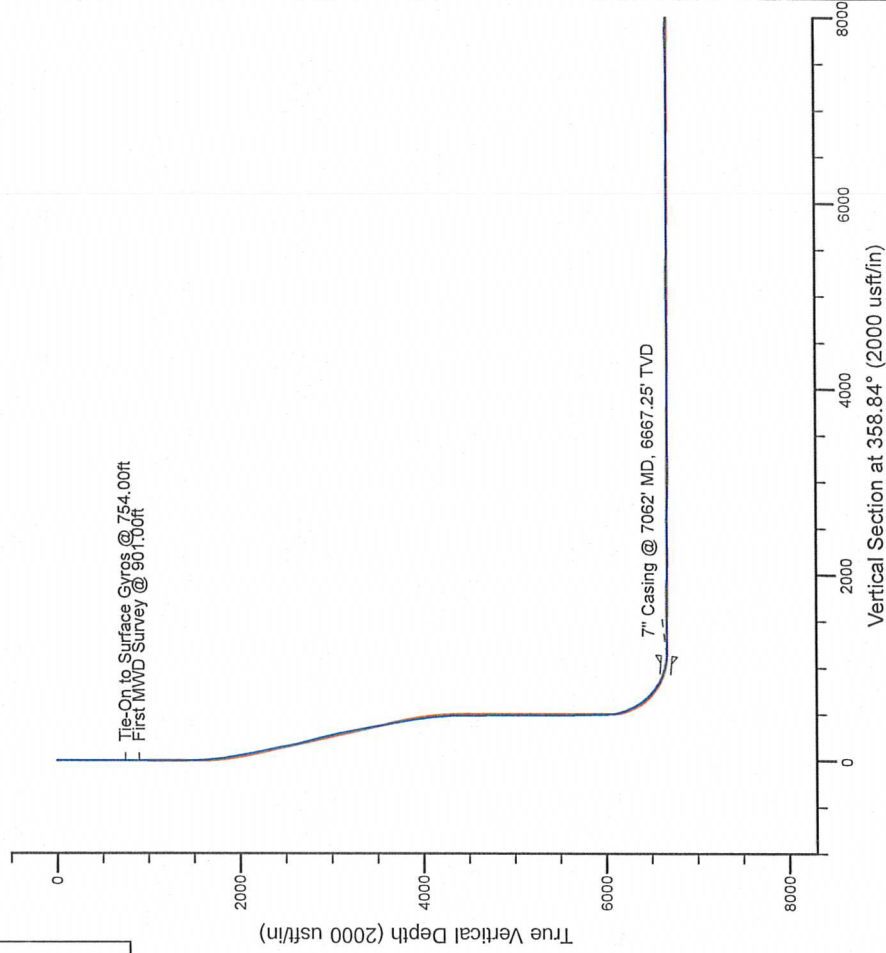
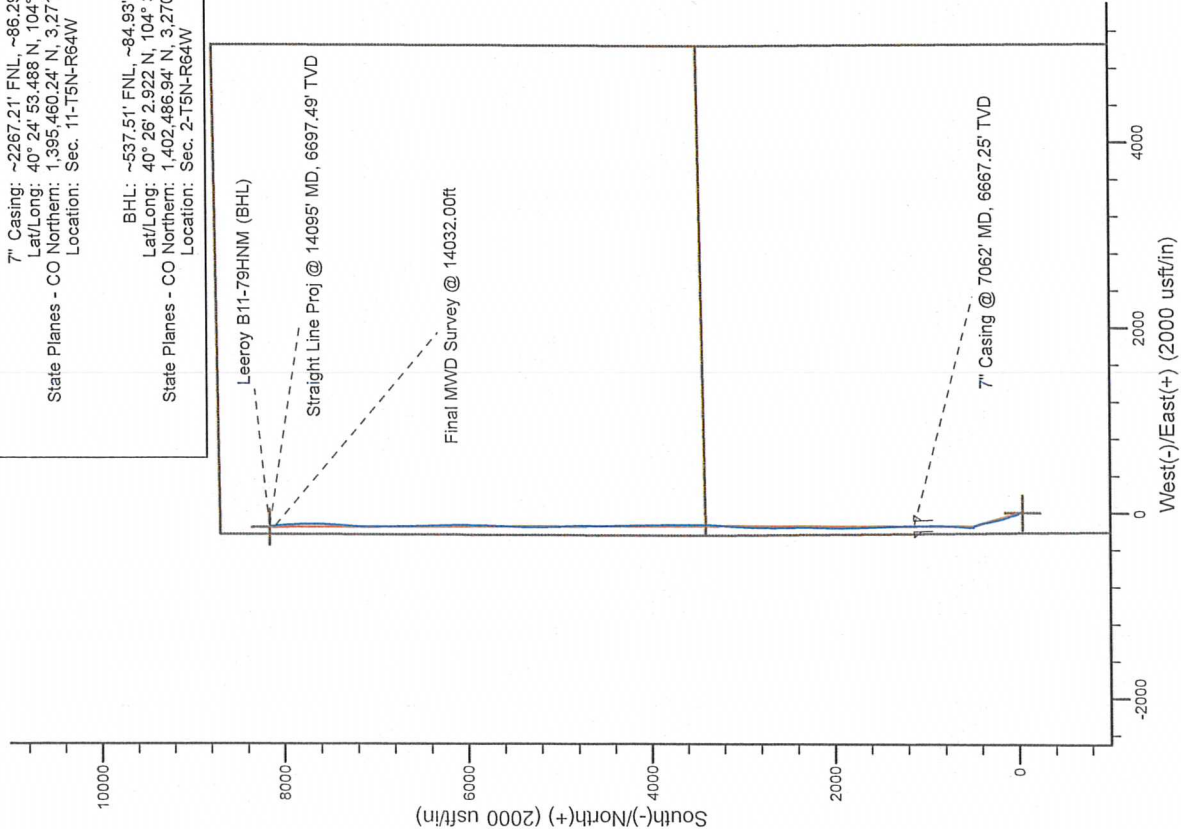
Platted SHL: 1928' FSL, 220' FWL
Platted Lat/Long: 40.41175° N, 104.52626° W
Location: Sec. 11-T5N-R64W

7" Casing: ~2267.21' FNL, ~86.29' FWL
Lat/Long: 40° 24' 53.488" N, 104° 31' 36.223" W
State Planes - CO Northern: 1,395,480.24' N, 3,271,001.31' E
Location: Sec. 11-T5N-R64W

BHL: ~537.51' FNL, ~84.93' FWL
Lat/Long: 40° 26' 2.922" N, 104° 31' 35.368" W
State Planes - CO Northern: 1,402,486.94' N, 3,270,990.27' E
Location: Sec. 2-T5N-R64W

LEGEND

- Leeroy B11-79HNM (B11 PAD), Plan A Rev 0, PAR0 Proposal V0
- Actual Field Surveys



WELL DETAILS: Leeroy B11-79HNM (B11 PAD)

Ground Level: 4603.00
RKB 26 ft. @ 4629.00usft (H&P 315)

Created By: Fred Hartmann
Created On: 11/14/2013

Noble Energy

Weld County, CO (NAD 83)

Sec. 11-T5N-R64W

Leeroy B11-79HNM (B11 PAD) - A3

Design: Actual Field Surveys

Sperry Drilling Services

Final Survey Report

14 November, 2013

Well Coordinates: 1,394,329.62 N, 3,271,144.22 E (40° 24' 42.30" N, 104° 31' 34.54" W)

Ground Level: 4,603.00 usft

Local Coordinate Origin:

Centered on Well Leeroy B11-79HNM (B11 PAD) - Slot A3

Viewing Datum:

RKB 26 ft. @ 4629.00usft (H&P 315)

TVDs to System:

N

North Reference:

Grid

Unit System:

API - US Survey Feet - Custom

Geodetic Scale Factor Applied

Version: 5000.1 Build: 70

HALLIBURTON

Design Report for Leeroy B11-79HNM (B11 PAD) - Actual Field Surveys

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
260.00	0.30	315.00	260.00	0.48	-0.48	0.49	0.12
508.00	0.20	329.80	508.00	1.31	-1.16	1.34	0.05
754.00	0.20	359.60	754.00	2.11	-1.38	2.14	0.04
Tie-On to Surface Gyros @ 754.00ft							
901.00	0.21	82.68	900.99	2.41	-1.11	2.43	0.19
First MWD Survey @ 901.00ft							
994.00	0.03	267.19	993.99	2.43	-0.97	2.45	0.26
1,086.00	0.25	239.87	1,085.99	2.32	-1.16	2.35	0.24
1,178.00	0.54	302.39	1,177.99	2.46	-1.70	2.49	0.52
1,270.00	1.05	278.71	1,269.98	2.82	-2.90	2.87	0.65
1,362.00	1.39	277.53	1,361.96	3.09	-4.84	3.19	0.37
1,457.00	1.25	288.71	1,456.94	3.57	-6.97	3.71	0.31
1,552.00	1.23	319.38	1,551.92	4.68	-8.61	4.85	0.69
1,647.00	4.76	340.15	1,646.77	9.16	-10.62	9.37	3.83
1,742.00	6.39	343.57	1,741.32	17.94	-13.45	18.21	1.75
1,837.00	8.74	345.72	1,835.49	30.01	-16.72	30.34	2.49
1,932.00	10.74	342.30	1,929.11	45.44	-21.20	45.86	2.19
2,027.00	9.83	341.60	2,022.59	61.57	-26.45	62.09	0.97
2,122.00	12.30	343.74	2,115.81	78.98	-31.84	79.60	2.64
2,217.00	10.64	342.32	2,208.91	97.05	-37.34	97.78	1.77
2,312.00	13.30	339.43	2,301.84	115.64	-43.84	116.50	2.87
2,407.00	13.30	340.18	2,394.29	136.15	-51.39	137.16	0.18
2,501.00	11.12	338.48	2,486.16	154.76	-58.38	155.90	2.35
2,596.00	11.71	344.99	2,579.28	172.59	-64.24	173.85	1.49
2,691.00	14.63	347.35	2,671.78	193.61	-69.36	194.97	3.12
2,786.00	15.86	347.43	2,763.43	217.99	-74.82	219.46	1.29
2,881.00	13.70	349.87	2,855.28	241.74	-79.62	243.30	2.37
2,976.00	14.23	349.25	2,947.48	264.28	-83.78	265.92	0.58
3,071.00	13.44	349.48	3,039.72	286.61	-87.97	288.33	0.83
3,166.00	11.44	351.10	3,132.48	306.78	-91.44	308.56	2.14
3,261.00	10.09	342.65	3,225.82	324.03	-95.38	325.89	2.18
3,356.00	10.70	348.14	3,319.26	340.60	-99.68	342.55	1.22
3,451.00	10.61	349.60	3,412.62	357.84	-103.07	359.84	0.30
3,546.00	9.38	354.07	3,506.18	374.14	-105.45	376.19	1.53
3,641.00	9.78	341.00	3,599.87	389.47	-108.87	391.59	2.32
3,736.00	11.43	342.14	3,693.24	406.06	-114.39	408.29	1.75
3,831.00	10.87	343.36	3,786.45	423.60	-119.84	425.93	0.64
3,926.00	9.74	338.85	3,879.91	439.68	-125.31	442.12	1.46
4,020.00	8.09	331.67	3,972.78	452.92	-131.31	455.48	2.11
4,115.00	7.08	334.66	4,066.95	464.09	-136.99	466.77	1.14
4,210.00	5.56	338.91	4,161.37	473.68	-141.15	476.43	1.67
4,305.00	3.79	2.29	4,256.05	481.11	-142.68	483.90	2.70
4,400.00	1.55	53.08	4,350.96	485.02	-141.53	487.78	3.22
4,495.00	1.34	81.71	4,445.93	485.95	-139.41	488.67	0.78
4,780.00	1.65	280.24	4,730.89	487.16	-140.15	489.89	1.04
4,875.00	1.98	281.14	4,825.84	487.72	-143.10	490.51	0.35
4,970.00	2.10	279.61	4,920.78	488.33	-146.43	491.19	0.14
5,065.00	2.16	253.87	5,015.72	488.13	-149.86	491.05	1.00
5,160.00	1.18	260.87	5,110.68	487.47	-152.55	490.45	1.05

Design Report for Leeroy B11-79HNM (B11 PAD) - Actual Field Surveys

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)
5,444.00	0.85	310.49	5,394.64	488.38	-157.04	491.45	0.32
5,729.00	0.91	356.97	5,679.61	492.01	-158.77	495.11	0.24
5,919.00	0.83	19.07	5,869.59	494.82	-158.40	497.91	0.18
6,032.00	1.29	351.74	5,982.57	496.85	-158.31	499.94	0.59
6,157.00	9.93	8.45	6,106.86	508.93	-156.93	511.99	6.96
6,204.00	14.16	7.01	6,152.81	518.64	-155.63	521.68	9.02
6,252.00	17.53	7.09	6,198.98	531.65	-154.02	534.65	7.02
6,299.00	21.00	5.19	6,243.34	547.07	-152.39	550.03	7.50
6,347.00	25.32	3.52	6,287.46	565.88	-150.98	568.82	9.10
6,394.00	29.80	3.89	6,329.12	587.58	-149.57	590.48	9.54
6,442.00	34.08	3.30	6,369.84	612.92	-147.98	615.78	8.94
6,488.00	37.55	2.90	6,407.14	639.79	-146.53	642.62	7.56
6,536.00	41.52	2.77	6,444.15	670.30	-145.02	673.09	8.27
6,583.00	45.49	0.45	6,478.24	702.63	-144.14	705.40	9.10
6,631.00	49.08	1.51	6,510.79	737.89	-143.52	740.64	7.65
6,678.00	53.38	2.17	6,540.22	774.51	-142.34	777.22	9.21
6,726.00	56.40	2.09	6,567.82	813.74	-140.88	816.42	6.29
6,773.00	62.15	2.53	6,591.82	854.09	-139.25	856.73	12.26
6,821.00	66.90	1.92	6,612.46	897.38	-137.57	899.98	9.96
6,868.00	71.34	359.97	6,629.21	941.28	-136.86	943.85	10.21
6,916.00	73.64	358.14	6,643.65	987.04	-137.62	989.62	6.01
6,963.00	77.98	357.15	6,655.17	1,032.56	-139.49	1,035.16	9.46
7,013.00	84.00	358.22	6,663.00	1,081.88	-141.48	1,084.51	12.22
7,062.00	86.04	358.42	6,667.25	1,130.67	-142.92	1,133.32	4.19
7" Casing @ 7062' MD, 6667.25' TVD							
7,126.00	88.71	358.67	6,670.18	1,194.57	-144.54	1,197.25	4.19
7,221.00	88.12	357.58	6,672.81	1,289.48	-147.65	1,292.20	1.30
7,316.00	91.02	358.78	6,673.52	1,384.42	-150.67	1,387.18	3.30
7,410.00	91.20	358.01	6,671.70	1,478.37	-153.30	1,481.16	0.84
7,505.00	91.30	357.87	6,669.63	1,573.28	-156.71	1,576.13	0.18
7,600.00	91.17	357.86	6,667.58	1,668.19	-160.25	1,671.09	0.14
7,695.00	90.55	358.60	6,666.16	1,763.14	-163.19	1,766.07	1.02
7,790.00	87.44	358.52	6,667.82	1,858.08	-165.57	1,861.04	3.27
7,885.00	87.13	359.58	6,672.32	1,952.96	-167.15	1,955.94	1.16
7,980.00	87.44	0.56	6,676.82	2,047.85	-167.03	2,050.81	1.08
8,075.00	89.41	1.41	6,679.43	2,142.80	-165.40	2,145.70	2.26
8,167.00	90.80	0.71	6,679.26	2,234.78	-163.69	2,237.63	1.69
8,261.00	92.28	0.29	6,676.74	2,328.74	-162.87	2,331.55	1.64
8,353.00	90.62	0.22	6,674.41	2,420.70	-162.47	2,423.49	1.81
8,446.00	91.20	358.32	6,672.93	2,513.68	-163.65	2,516.47	2.14
8,538.00	89.26	359.73	6,672.56	2,605.66	-165.21	2,608.46	2.61
8,630.00	88.49	1.01	6,674.37	2,697.64	-164.62	2,700.41	1.62
8,723.00	86.94	359.70	6,678.08	2,790.56	-164.04	2,793.30	2.18
8,815.00	88.67	1.01	6,681.60	2,882.48	-163.47	2,885.19	2.36
8,907.00	88.12	2.11	6,684.18	2,974.41	-160.97	2,977.05	1.34
9,000.00	89.66	4.17	6,685.98	3,067.24	-155.88	3,069.77	2.77
9,092.00	89.69	3.41	6,686.50	3,159.04	-149.80	3,161.42	0.83
9,184.00	91.97	3.46	6,685.17	3,250.86	-144.29	3,253.11	2.48
9,276.00	92.41	2.83	6,681.65	3,342.65	-139.24	3,344.78	0.83
9,368.00	90.62	0.90	6,679.22	3,434.56	-136.25	3,436.62	2.86
9,460.00	89.72	359.97	6,678.95	3,526.56	-135.55	3,528.58	1.41

Design Report for Leeroy B11-79HNM (B11 PAD) - Actual Field Surveys

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)
9,555.00	88.43	359.36	6,680.48	3,621.54	-136.11	3,623.55	1.50
9,648.00	89.91	0.35	6,681.83	3,714.53	-136.34	3,716.52	1.91
9,740.00	90.43	359.57	6,681.56	3,806.53	-136.41	3,808.51	1.02
9,833.00	89.69	0.17	6,681.46	3,899.53	-136.62	3,901.49	1.02
9,925.00	90.46	359.40	6,681.34	3,991.52	-136.96	3,993.48	1.18
10,020.00	88.43	357.30	6,682.26	4,086.47	-139.70	4,088.46	3.07
10,115.00	87.94	358.51	6,685.27	4,181.36	-143.17	4,183.40	1.37
10,210.00	88.89	359.28	6,687.90	4,276.30	-145.00	4,278.36	1.29
10,305.00	90.31	359.43	6,688.56	4,371.29	-146.07	4,373.35	1.50
10,400.00	90.56	359.51	6,687.84	4,466.28	-146.95	4,468.34	0.28
10,495.00	90.62	0.14	6,686.86	4,561.28	-147.24	4,563.32	0.67
10,590.00	91.05	0.17	6,685.48	4,656.27	-146.98	4,658.29	0.45
10,685.00	91.29	358.87	6,683.54	4,751.24	-147.78	4,753.26	1.39
10,780.00	89.94	358.72	6,682.52	4,846.21	-149.77	4,848.25	1.43
10,875.00	90.80	357.40	6,681.90	4,941.15	-152.99	4,943.24	1.66
10,969.00	91.05	358.09	6,680.38	5,035.07	-156.69	5,037.21	0.78
11,064.00	90.52	358.08	6,679.08	5,130.01	-159.86	5,132.19	0.56
11,159.00	88.98	359.06	6,679.50	5,224.97	-162.23	5,227.18	1.92
11,254.00	88.21	1.12	6,681.83	5,319.94	-162.08	5,322.12	2.31
11,349.00	87.78	1.44	6,685.15	5,414.85	-159.96	5,416.98	0.56
11,444.00	89.63	2.79	6,687.30	5,509.76	-156.46	5,511.79	2.41
11,538.00	89.75	2.08	6,687.81	5,603.67	-152.46	5,605.61	0.77
11,633.00	90.80	2.40	6,687.35	5,698.60	-148.75	5,700.44	1.16
11,728.00	90.65	1.25	6,686.15	5,793.54	-145.73	5,795.30	1.22
11,823.00	89.78	0.31	6,685.79	5,888.53	-144.43	5,890.24	1.35
11,918.00	90.80	0.78	6,685.31	5,983.52	-143.53	5,985.20	1.18
12,013.00	90.59	0.08	6,684.16	6,078.51	-142.82	6,080.16	0.77
12,107.00	90.56	359.02	6,683.22	6,172.50	-143.55	6,174.14	1.13
12,202.00	87.77	359.28	6,684.60	6,267.47	-144.96	6,269.12	2.95
12,297.00	89.88	359.18	6,686.55	6,362.44	-146.24	6,364.09	2.22
12,392.00	89.20	357.92	6,687.31	6,457.40	-148.64	6,459.09	1.51
12,487.00	89.41	358.96	6,688.46	6,552.36	-151.23	6,554.08	1.12
12,582.00	89.23	359.48	6,689.59	6,647.34	-152.52	6,649.07	0.58
12,677.00	90.40	358.79	6,689.90	6,742.33	-153.96	6,744.06	1.43
12,771.00	89.91	358.51	6,689.64	6,836.30	-156.17	6,838.06	0.60
12,866.00	90.18	359.68	6,689.57	6,931.29	-157.67	6,933.06	1.26
12,961.00	89.26	359.59	6,690.03	7,026.28	-158.28	7,028.05	0.97
13,056.00	91.05	0.79	6,689.78	7,121.28	-157.96	7,123.02	2.27
13,151.00	89.29	2.14	6,689.49	7,216.24	-155.53	7,217.91	2.33
13,246.00	88.98	5.27	6,690.93	7,311.02	-149.40	7,312.55	3.31
13,341.00	90.68	5.55	6,691.21	7,405.59	-140.44	7,406.92	1.81
13,436.00	89.69	3.85	6,690.90	7,500.27	-132.66	7,501.42	2.07
13,531.00	91.36	0.95	6,690.03	7,595.17	-128.68	7,596.22	3.52
13,626.00	92.07	0.87	6,687.19	7,690.11	-127.17	7,691.11	0.75
13,721.00	91.11	359.06	6,684.55	7,785.07	-127.23	7,786.05	2.16
13,816.00	89.66	356.79	6,683.91	7,880.00	-130.67	7,881.03	2.84
13,911.00	85.40	354.90	6,688.01	7,974.63	-137.54	7,975.78	4.90
14,006.00	87.53	355.14	6,693.87	8,069.09	-145.77	8,070.39	2.26
14,032.00	87.69	354.65	6,694.95	8,094.96	-148.08	8,096.30	1.98
Final MWD Survey @ 14032.00ft							
14,095.00	87.69	354.65	6,697.49	8,157.64	-153.95	8,159.08	0.00

Design Report for Leeroy B11-79HNM (B11 PAD) - Actual Field Surveys

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)
Straight Line Proj @ 14095' MD, 6697.49' TVD							

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
14,032.00	6,694.95	8,094.96	-148.08	Final MWD Survey @ 14032.00ft
14,095.00	6,697.49	8,157.64	-153.95	Straight Line Proj @ 14095' MD, 6697.49' TVD

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin		Start TVD (usft)
				+N/-S (usft)	+E/-W (usft)	
Target	Leeroy B11-79HNM (BHL)	358.84	Slot	0.00	0.00	0.00

Survey tool program

From (usft)	To (usft)	Survey/Plan	Survey Tool
260.00	754.00	Surface Gyros	Flexi-Shot
901.00	7,013.00	Sperry MWD Surveys - Vert/Build	MWD+IFR1+MS_WY
7,126.00	14,032.00	Sperry MWD Surveys - Lateral	MWD+IFR1+MS_WY

Casing Details

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
7,062.00	6,667.25	7" Casing @ 7062' MD, 6667.25' TVD	7	8-3/4

Design Report for Leeroy B11-79HNM (B11 PAD) - Actual Field Surveys

Wellbore Targets

Target Name	Dip	Dip							
- hit/miss target	Angle	Dir.		+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	TVD (usft)	(usft)	(usft)	(usft)	(usft)		
(B11 PAD) Sec. 11-T5	0.00	0.00	2.00	-43.71	0.48	1,394,285.91	3,271,144.70	40° 24' 41.868 N	104° 31' 34.536 W
- actual wellpath misses target center by 43.72usft at 1.92usft MD (1.92 TVD, 0.00 N, 0.00 E)									
- Polygon									
Point 1			2.00	-1,885.79	-199.32	1,392,400.19	3,270,945.39		
Point 2			2.00	-1,809.21	5,069.28	1,392,476.77	3,276,213.78		
Point 3			2.00	3,527.76	5,020.72	1,397,813.53	3,276,165.22		
Point 4			2.00	3,440.19	-252.19	1,397,725.96	3,270,892.52		
Leeroy B11-79HNM (S	0.00	0.00	2.00	0.00	0.00	1,394,329.62	3,271,144.22	40° 24' 42.300 N	104° 31' 34.536 W
- actual wellpath hits target center									
- Point									
(B11 PAD) Sec. 11-T5†	0.00	0.00	2.00	-43.71	0.48	1,394,285.91	3,271,144.70	40° 24' 41.868 N	104° 31' 34.536 W
- actual wellpath misses target center by 43.72usft at 1.92usft MD (1.92 TVD, 0.00 N, 0.00 E)									
- Polygon									
Point 1			2.00	-1,419.79	255.68	1,392,866.17	3,271,400.37		
Point 2			2.00	-1,357.21	4,606.28	1,392,928.75	3,275,750.80		
Point 3			2.00	3,059.76	4,564.72	1,397,345.55	3,275,709.24		
Point 4			2.00	2,988.19	212.81	1,397,273.98	3,271,357.50		
(B11 PAD) Sec. 2-T5N	0.00	0.00	2.00	-43.71	0.48	1,394,285.91	3,271,144.70	40° 24' 41.868 N	104° 31' 34.536 W
- actual wellpath misses target center by 43.72usft at 1.92usft MD (1.92 TVD, 0.00 N, 0.00 E)									
- Polygon									
Point 1			2.00	3,908.19	212.81	1,398,193.94	3,271,357.50		
Point 2			2.00	3,979.76	4,564.72	1,398,265.51	3,275,709.24		
Point 3			2.00	8,350.82	4,576.78	1,402,636.40	3,275,721.30		
Point 4			2.00	8,277.79	222.07	1,402,563.37	3,271,366.76		
Leeroy B11-79HNM (B	0.00	0.00	2.00	8,159.29	-164.77	1,402,488.59	3,270,979.46	40° 26' 2.940 N	104° 31' 35.508 W
- actual wellpath misses target center by 6687.84usft at 13816.00usft MD (6683.91 TVD, 7880.00 N, -130.67 E)									
- Point									
(B11 PAD) Sec. 2-T5N	0.00	0.00	2.00	-43.71	0.48	1,394,285.91	3,271,144.70	40° 24' 41.868 N	104° 31' 34.536 W
- actual wellpath misses target center by 43.72usft at 1.92usft MD (1.92 TVD, 0.00 N, 0.00 E)									
- Polygon									
Point 1			2.00	3,440.19	-252.19	1,397,725.96	3,270,892.52		
Point 2			2.00	3,527.76	5,020.72	1,397,813.53	3,276,165.22		
Point 3			2.00	8,810.82	5,036.78	1,403,096.38	3,276,181.28		
Point 4			2.00	8,737.79	-237.93	1,403,023.35	3,270,906.78		
Leeroy B11-79HNM (P	0.00	0.00	4,409.76	500.00	-145.00	1,394,829.60	3,270,999.22	40° 24' 47.256 N	104° 31' 36.340 W
- actual wellpath misses target center by 15.03usft at 4458.86usft MD (4409.79 TVD, 485.74 N, -140.23 E)									
- Point									
Leeroy B11-79HNM (P	0.00	0.00	6,668.52	1,114.40	-145.00	1,395,443.98	3,270,999.22	40° 24' 53.327 N	104° 31' 36.252 W
- actual wellpath misses target center by 3.55usft at 7045.97usft MD (6666.05 TVD, 1114.69 N, -142.47 E)									
- Point									

Directional Difficulty Index

Average Dogleg over Survey:	1.90 °/100usft	Maximum Dogleg over Survey:	12.26 °/100usft at 6,773.00 usft
Net Tortosity applicable to Plans:	1.07 °/100usft	Directional Difficulty Index:	6.665

Audit Info

North Reference Sheet for Sec. 11-T5N-R64W - Leeroy B11-79HNM (B11 PAD) -

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to Grid North Reference.

Vertical Depths are relative to RKB 26 ft. @ 4629.00usft (H&P 315). Northing and Easting are relative to Leeroy B 11-79HNM (B11 PAD) - Slot A3

Coordinate System is US State Plane 1983, Colorado Northern Zone using datum North American Datum 1983, ellipsoid GRS 1980

Projection method is Lambert Conformal Conic (2 parallel)

Central Meridian is 105° 30' 0.000 W°, Longitude Origin: 0° 0' 0.000 E°, Latitude Origin: 40° 47' 0.000 N°

False Easting: 3,000,000.00usft, False Northing: 1,000,000.00usft, Scale Reduction: 0.99996078

Grid Coordinates of Well: 1,394,329.62 usft N, 3,271,144.22 usft E

Geographical Coordinates of Well: 40° 24' 42.30" N, 104° 31' 34.54" W

Grid Convergence at Surface is: 0.63°

Based upon Minimum Curvature type calculations, at a Measured Depth of 14,095.00usft
the Bottom Hole Displacement is 8,159.09usft in the Direction of 358.92° (Grid).

Magnetic Convergence at surface is: -7.87° (31 May 2013, BGGM2013)

