

Project: Lincoln County, CO (NAD 27)
Site: Sec. 18-T16S-R53W
Well: Long View Farm 44-18-16-53 HZ
Wellbore: Cherokee Plan
Design: Cherokee Rev A0

Pioneer Natural Resources

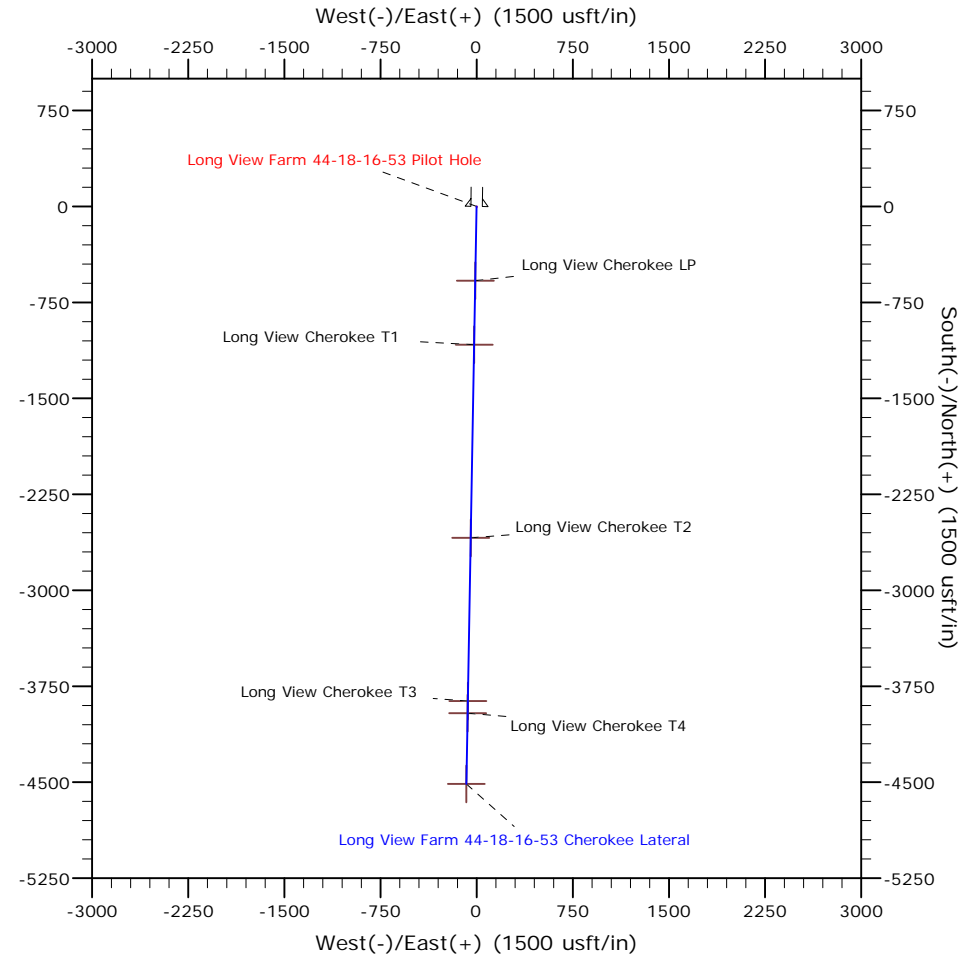
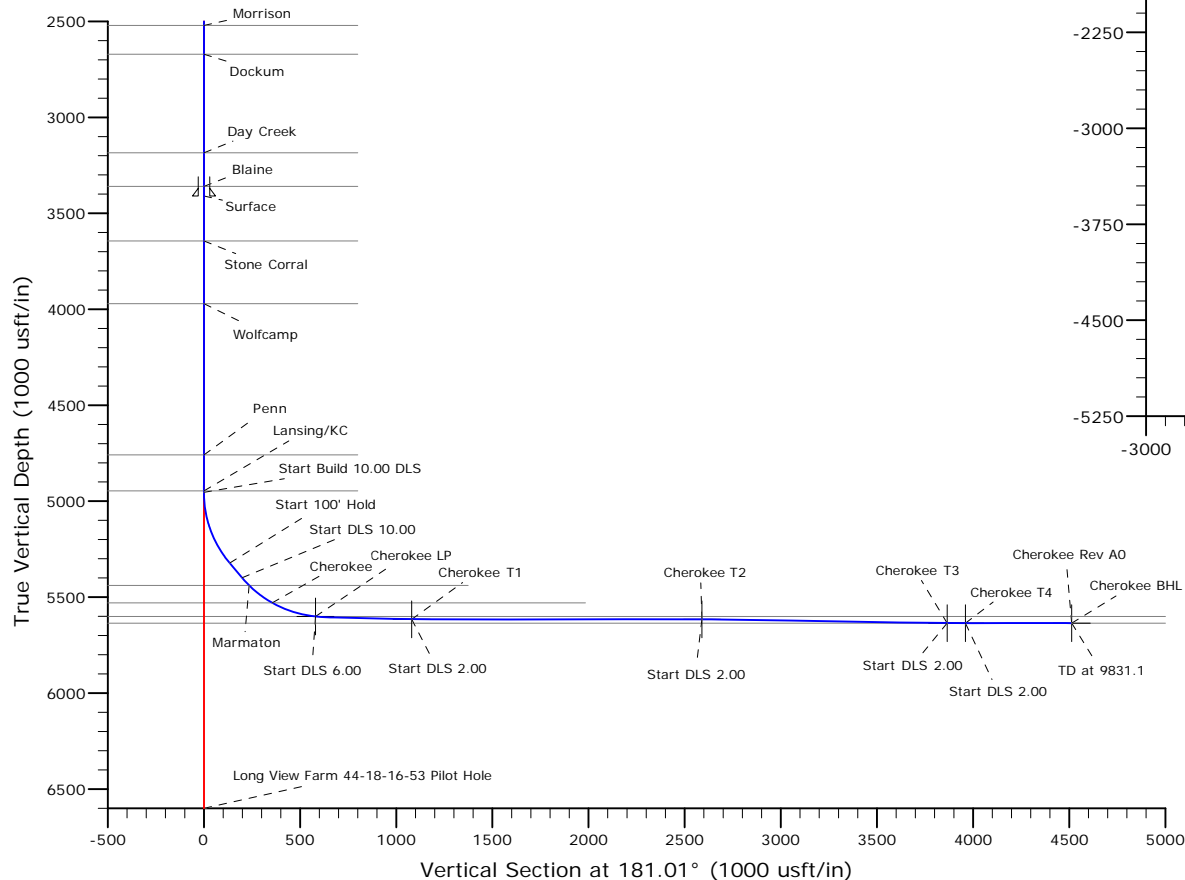
HALLIBURTON
Sperry Drilling

WELL DETAILS: Long View Farm 44-18-16-53 HZ

Ground Level:	Northing:	Easting:	Latitude:	Longitude:
4848.0	14040690.00	2103630.00	38° 39' 20.480 N	103° 22' 38.734 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	4954.3	0.00	0.00	4954.3	0.0	0.0	0.00	0.00	0.0	
3	5354.3	40.00	181.01	5322.6	-134.0	-2.4	10.00	181.01	134.0	
4	5454.3	40.00	181.01	5399.2	-198.3	-3.5	0.00	0.00	198.3	
5	5897.1	84.28	181.01	5601.0	-580.0	-10.3	10.00	0.00	580.1	Long View Cherokee LP
6	5969.0	88.59	181.01	5605.5	-651.7	-11.5	6.00	0.03	651.8	
7	6397.4	88.59	181.01	5616.0	-1080.0	-19.1	0.00	0.00	1080.2	Long View Cherokee T1
8	6469.5	90.03	181.01	5616.9	-1152.1	-20.4	2.00	-0.01	1152.3	
9	7907.7	90.03	181.01	5616.0	-2590.0	-45.8	0.00	0.00	2590.4	Long View Cherokee T2
10	7955.2	89.08	181.01	5616.4	-2637.5	-46.7	2.00	180.00	2637.9	
11	9183.0	89.08	181.01	5636.0	-3865.0	-68.4	0.00	0.00	3865.6	Long View Cherokee T3
12	9260.1	90.63	181.01	5636.2	-3942.0	-69.8	2.00	0.00	3942.7	
13	9278.0	90.63	181.01	5636.0	-3960.0	-70.1	0.00	0.00	3960.6	Long View Cherokee T4
14	9310.2	89.98	181.01	5635.8	-3992.2	-70.6	2.00	180.00	3992.8	
15	9831.1	89.98	181.01	5636.0	-4513.0	-79.9	0.00	0.00	4513.7	Long View Cherokee BHL



PIONEER
NATURAL RESOURCES

Plan: Cherokee Rev A0 (Long View Farm 44-18-16-53 HZ/Cherokee Plan)

Created By:	Troy Stoute	Date:	14:03, April 24 2014
Checked:		Date:	
Reviewed:		Date:	
Approved:		Date:	

Pioneer Natural Resources

Lincoln County, CO (NAD 27)

Sec. 18-T16S-R53W

Long View Farm 44-18-16-53 HZ

Cherokee Plan

Plan: Cherokee Rev A0

Sperry Drilling Services

Proposal Report

24 April, 2014

Well Coordinates: 14,040,690.00 N, 2,103,630.00 E (38° 39' 20.48" N, 103° 22' 38.73" W)

Ground Level: 4,848.00 usft

Local Coordinate Origin:

Viewing Datum:

TVDs to System:

North Reference:

Unit System:

Geodetic Scale Factor Applied

Version: 5000.1 Build: 70

Centered on Well Long View Farm 44-18-16-53 HZ

KB 23' @ 4871.0usft (Original Well Elev)

N

True

API - US Survey Feet

HALLIBURTON

Plan Report for Long View Farm 44-18-16-53 HZ - Cherokee Rev A0

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	Toolface Azimuth (°)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	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	0.00
300.0	0.00	0.00	300.0	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	0.0	0.00	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	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	0.00
700.0	0.00	0.00	700.0	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	0.0	0.00	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
1,093.0	0.00	0.00	1,093.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Niobrara										
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
1,669.0	0.00	0.00	1,669.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Ft Hayes										
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
2,167.0	0.00	0.00	2,167.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Dakota										
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
2,521.0	0.00	0.00	2,521.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Morrison										
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
2,671.0	0.00	0.00	2,671.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Dockum										
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
3,185.0	0.00	0.00	3,185.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Day Creek										
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
3,360.0	0.00	0.00	3,360.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Blaine										
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
3,410.0	0.00	0.00	3,410.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Surface										
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
3,644.0	0.00	0.00	3,644.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Stone Corral										
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00

Plan Report for Long View Farm 44-18-16-53 HZ - Cherokee Rev A0

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	Toolface Azimuth (°)
3,971.0	0.00	0.00	3,971.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Wolfcamp										
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
4,759.0	0.00	0.00	4,759.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Penn										
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
4,946.0	0.00	0.00	4,946.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Lansing/KC										
4,954.3	0.00	0.00	4,954.3	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Start Build 10.00										
5,000.0	4.57	181.01	5,000.0	-1.8	0.0	1.8	10.00	10.00	0.00	181.01
5,100.0	14.57	181.01	5,098.4	-18.4	-0.3	18.4	10.00	10.00	0.00	0.00
5,200.0	24.57	181.01	5,192.5	-51.9	-0.9	51.9	10.00	10.00	0.00	0.00
5,300.0	34.57	181.01	5,279.4	-101.1	-1.8	101.2	10.00	10.00	0.00	0.00
5,354.3	40.00	181.01	5,322.6	-134.0	-2.4	134.0	10.00	10.00	0.00	0.00
Start 100.0 hold at 5354.3 MD										
5,400.0	40.00	181.01	5,357.6	-163.4	-2.9	163.4	0.00	0.00	0.00	0.00
5,454.3	40.00	181.01	5,399.2	-198.3	-3.5	198.3	0.00	0.00	0.00	0.00
Start DLS 10.00 TFO 0.00										
5,500.0	44.57	181.01	5,433.0	-229.0	-4.1	229.1	10.00	10.00	0.00	0.00
5,508.5	45.42	181.01	5,439.0	-235.0	-4.2	235.1	10.00	10.00	0.00	0.00
Marmaton										
5,600.0	54.57	181.01	5,497.8	-305.0	-5.4	305.1	10.00	10.00	0.00	0.00
5,660.2	60.59	181.01	5,530.0	-355.8	-6.3	355.8	10.00	10.00	0.00	0.00
Cherokee										
5,700.0	64.57	181.01	5,548.3	-391.1	-6.9	391.2	10.00	10.00	0.00	0.00
5,800.0	74.57	181.01	5,583.2	-484.7	-8.6	484.8	10.00	10.00	0.00	0.00
5,897.1	84.28	181.01	5,601.0	-580.0	-10.3	580.1	10.00	10.00	0.00	0.00
Start DLS 6.00 TFO 0.03 - Cherokee Landing - Long View Cherokee LP										
5,900.0	84.45	181.01	5,601.3	-582.9	-10.3	583.0	6.00	6.00	0.00	0.03
5,969.0	88.59	181.01	5,605.5	-651.7	-11.5	651.8	6.00	6.00	0.00	0.03
6,000.0	88.59	181.01	5,606.2	-682.8	-12.1	682.9	0.00	0.00	0.00	0.00
6,100.0	88.59	181.01	5,608.7	-782.7	-13.8	782.8	0.00	0.00	0.00	0.00
6,200.0	88.59	181.01	5,611.1	-882.7	-15.6	882.8	0.00	0.00	0.00	0.00
6,300.0	88.59	181.01	5,613.6	-982.6	-17.4	982.8	0.00	0.00	0.00	0.00
6,397.4	88.59	181.01	5,616.0	-1,080.0	-19.1	1,080.2	0.00	0.00	0.00	0.00
Start DLS 2.00 TFO -0.01 - Long View Cherokee T1										
6,400.0	88.64	181.01	5,616.1	-1,082.6	-19.2	1,082.7	2.00	2.00	0.00	-0.01
6,469.5	90.03	181.01	5,616.9	-1,152.1	-20.4	1,152.3	2.00	2.00	0.00	-0.01
6,500.0	90.03	181.01	5,616.8	-1,182.6	-20.9	1,182.7	0.00	0.00	0.00	0.00
6,600.0	90.03	181.01	5,616.8	-1,282.5	-22.7	1,282.7	0.00	0.00	0.00	0.00
6,700.0	90.03	181.01	5,616.7	-1,382.5	-24.5	1,382.7	0.00	0.00	0.00	0.00
6,800.0	90.03	181.01	5,616.7	-1,482.5	-26.2	1,482.7	0.00	0.00	0.00	0.00
6,900.0	90.03	181.01	5,616.6	-1,582.5	-28.0	1,582.7	0.00	0.00	0.00	0.00
7,000.0	90.03	181.01	5,616.5	-1,682.5	-29.8	1,682.7	0.00	0.00	0.00	0.00
7,100.0	90.03	181.01	5,616.5	-1,782.5	-31.5	1,782.7	0.00	0.00	0.00	0.00
7,200.0	90.03	181.01	5,616.4	-1,882.4	-33.3	1,882.7	0.00	0.00	0.00	0.00
7,300.0	90.03	181.01	5,616.4	-1,982.4	-35.1	1,982.7	0.00	0.00	0.00	0.00
7,400.0	90.03	181.01	5,616.3	-2,082.4	-36.8	2,082.7	0.00	0.00	0.00	0.00
7,500.0	90.03	181.01	5,616.2	-2,182.4	-38.6	2,182.7	0.00	0.00	0.00	0.00

Plan Report for Long View Farm 44-18-16-53 HZ - Cherokee Rev A0

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	Toolface Azimuth (°)
7,600.0	90.03	181.01	5,616.2	-2,282.4	-40.4	2,282.7	0.00	0.00	0.00	0.00
7,700.0	90.03	181.01	5,616.1	-2,382.4	-42.2	2,382.7	0.00	0.00	0.00	0.00
7,800.0	90.03	181.01	5,616.1	-2,482.4	-43.9	2,482.7	0.00	0.00	0.00	0.00
7,900.0	90.03	181.01	5,616.0	-2,582.3	-45.7	2,582.7	0.00	0.00	0.00	0.00
7,907.7	90.03	181.01	5,616.0	-2,590.0	-45.8	2,590.4	0.00	0.00	0.00	0.00
Start DLS 2.00 TFO 180.00 - Long View Cherokee T2										
7,955.2	89.08	181.01	5,616.4	-2,637.5	-46.7	2,637.9	2.00	-2.00	0.00	180.00
8,000.0	89.08	181.01	5,617.1	-2,682.3	-47.5	2,682.7	0.00	0.00	0.00	0.00
8,100.0	89.08	181.01	5,618.7	-2,782.3	-49.2	2,782.7	0.00	0.00	0.00	0.00
8,200.0	89.08	181.01	5,620.3	-2,882.3	-51.0	2,882.7	0.00	0.00	0.00	0.00
8,300.0	89.08	181.01	5,621.9	-2,982.2	-52.8	2,982.7	0.00	0.00	0.00	0.00
8,400.0	89.08	181.01	5,623.5	-3,082.2	-54.5	3,082.7	0.00	0.00	0.00	0.00
8,500.0	89.08	181.01	5,625.1	-3,182.2	-56.3	3,182.7	0.00	0.00	0.00	0.00
8,600.0	89.08	181.01	5,626.7	-3,282.1	-58.1	3,282.7	0.00	0.00	0.00	0.00
8,700.0	89.08	181.01	5,628.3	-3,382.1	-59.8	3,382.6	0.00	0.00	0.00	0.00
8,800.0	89.08	181.01	5,629.9	-3,482.1	-61.6	3,482.6	0.00	0.00	0.00	0.00
8,900.0	89.08	181.01	5,631.5	-3,582.1	-63.4	3,582.6	0.00	0.00	0.00	0.00
9,000.0	89.08	181.01	5,633.1	-3,682.0	-65.2	3,682.6	0.00	0.00	0.00	0.00
9,100.0	89.08	181.01	5,634.7	-3,782.0	-66.9	3,782.6	0.00	0.00	0.00	0.00
9,183.0	89.08	181.01	5,636.0	-3,865.0	-68.4	3,865.6	0.00	0.00	0.00	0.00
Start DLS 2.00 TFO 0.00 - Cherokee BHL - Long View Cherokee T3										
9,200.0	89.42	181.01	5,636.2	-3,882.0	-68.7	3,882.6	2.00	2.00	0.00	0.00
9,260.1	90.63	181.01	5,636.2	-3,942.0	-69.8	3,942.7	2.00	2.00	0.00	0.00
9,278.0	90.63	181.01	5,636.0	-3,960.0	-70.1	3,960.6	0.00	0.00	0.00	0.00
Start DLS 2.00 TFO 180.00 - Long View Cherokee T4										
9,300.0	90.19	181.01	5,635.8	-3,982.0	-70.5	3,982.6	2.00	-2.00	0.00	180.00
9,310.2	89.98	181.01	5,635.8	-3,992.2	-70.6	3,992.8	2.00	-2.00	0.00	180.00
9,400.0	89.98	181.01	5,635.9	-4,081.9	-72.2	4,082.6	0.00	0.00	0.00	0.00
9,500.0	89.98	181.01	5,635.9	-4,181.9	-74.0	4,182.6	0.00	0.00	0.00	0.00
9,600.0	89.98	181.01	5,635.9	-4,281.9	-75.8	4,282.6	0.00	0.00	0.00	0.00
9,700.0	89.98	181.01	5,636.0	-4,381.9	-77.5	4,382.6	0.00	0.00	0.00	0.00
9,800.0	89.98	181.01	5,636.0	-4,481.9	-79.3	4,482.6	0.00	0.00	0.00	0.00
9,831.1	89.98	181.01	5,636.0	-4,513.0	-79.9	4,513.7	0.00	0.00	0.00	0.00
TD at 9831.1 - Long View Cherokee BHL										

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Comment
4,954.3	4,954.3	0.0	0.0	Start Build 10.00
5,354.3	5,322.6	-134.0	-2.4	Start 100.0 hold at 5354.3 MD
5,454.3	5,399.2	-198.3	-3.5	Start DLS 10.00 TFO 0.00
5,897.1	5,601.0	-580.0	-10.3	Start DLS 6.00 TFO 0.03
6,397.4	5,616.0	-1,080.0	-19.1	Start DLS 2.00 TFO -0.01
7,907.7	5,616.0	-2,590.0	-45.8	Start DLS 2.00 TFO 180.00
9,183.0	5,636.0	-3,865.0	-68.4	Start DLS 2.00 TFO 0.00
9,278.0	5,636.0	-3,960.0	-70.1	Start DLS 2.00 TFO 180.00
9,831.1	5,636.0	-4,513.0	-79.9	TD at 9831.1

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/-S (usft)	+E/-W (usft)	Start TVD (usft)
Target	Long View Cherokee BHL	181.01	Slot	0.0	0.0	0.0

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Survey tool program

From (usft)	To (usft)	Survey/Plan	Survey Tool
0.0	9,831.1	Cherokee Rev A0	MWD

Casing Details

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
3,410.0	3,410.0	Surface	8-5/8	12-1/4

Formation Details

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,093.0	1,093.0	Niobrara		0.00	
1,669.0	1,669.0	Ft Hayes		0.00	
2,167.0	2,167.0	Dakota		0.00	
2,521.0	2,521.0	Morrison		0.00	
2,671.0	2,671.0	Dockum		0.00	
3,185.0	3,185.0	Day Creek		0.00	
3,360.0	3,360.0	Blaine		0.00	
3,644.0	3,644.0	Stone Corral		0.00	
3,971.0	3,971.0	Wolfcamp		0.00	
4,759.0	4,759.0	Penn		0.00	
4,946.0	4,946.0	Lansing/KC		0.00	
5,508.5	5,439.0	Marmaton		0.00	
5,660.2	5,530.0	Cherokee		0.00	
5,897.1	5,601.0	Cherokee Landing		0.00	
9,183.0	5,636.0	Cherokee BHL		0.00	

Targets associated with this wellbore

Target Name	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Shape
Long View Cherokee LP	5,601.0	-580.0	-10.3	Point
Long View Cherokee T1	5,616.0	-1,080.0	-19.1	Point
Long View Cherokee T2	5,616.0	-2,590.0	-45.8	Point
Long View Cherokee T3	5,636.0	-3,865.0	-68.4	Point
Long View Cherokee BHL	5,636.0	-4,513.0	-79.9	Point
Long View Cherokee T4	5,636.0	-3,960.0	-70.1	Point

Directional Difficulty Index

Average Dogleg over Survey:	0.95 °/100usft	Maximum Dogleg over Survey:	10.00 °/100usft at 5,897.1 usft
Net Tortousity applicable to Plans:	0.95 °/100usft	Directional Difficulty Index:	6.001

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Audit Info

North Reference Sheet for Sec. 18-T16S-R53W - Long View Farm 44-18-16-53 HZ - Cherokee Plan

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to True North Reference.
Vertical Depths are relative to KB 23' @ 4871.0usft (Original Well Elev). Northing and Easting are relative to Long View Farm 44-18-16-53 HZ
Coordinate System is Universal Transverse Mercator (US Survey Feet), Zone 13N (108 W to 102 W) using datum NAD 1927 - Western US, ellipsoid Clarke 1866
Projection method is Transverse Mercator (Gauss-Kruger)
Central Meridian is -105.00°, Longitude Origin:0° 0' 0.000 E°, Latitude Origin:0° 0' 0.000 N°
False Easting: 1,640,416.67usft, False Northing: 0.00usft, Scale Reduction: 0.99984548

Grid Coordinates of Well: 14,040,690.00 usft N, 2,103,630.00 usft E
Geographical Coordinates of Well: 38° 39' 20.48" N, 103° 22' 38.73" W
Grid Convergence at Surface is: 1.01°

Based upon Minimum Curvature type calculations, at a Measured Depth of 9,831.10usft the Bottom Hole Displacement is 4,513.68usft in the Direction of 181.01° (True).
Magnetic Convergence at surface is: -6.67° (7 May 2014, , BGGM2013)

