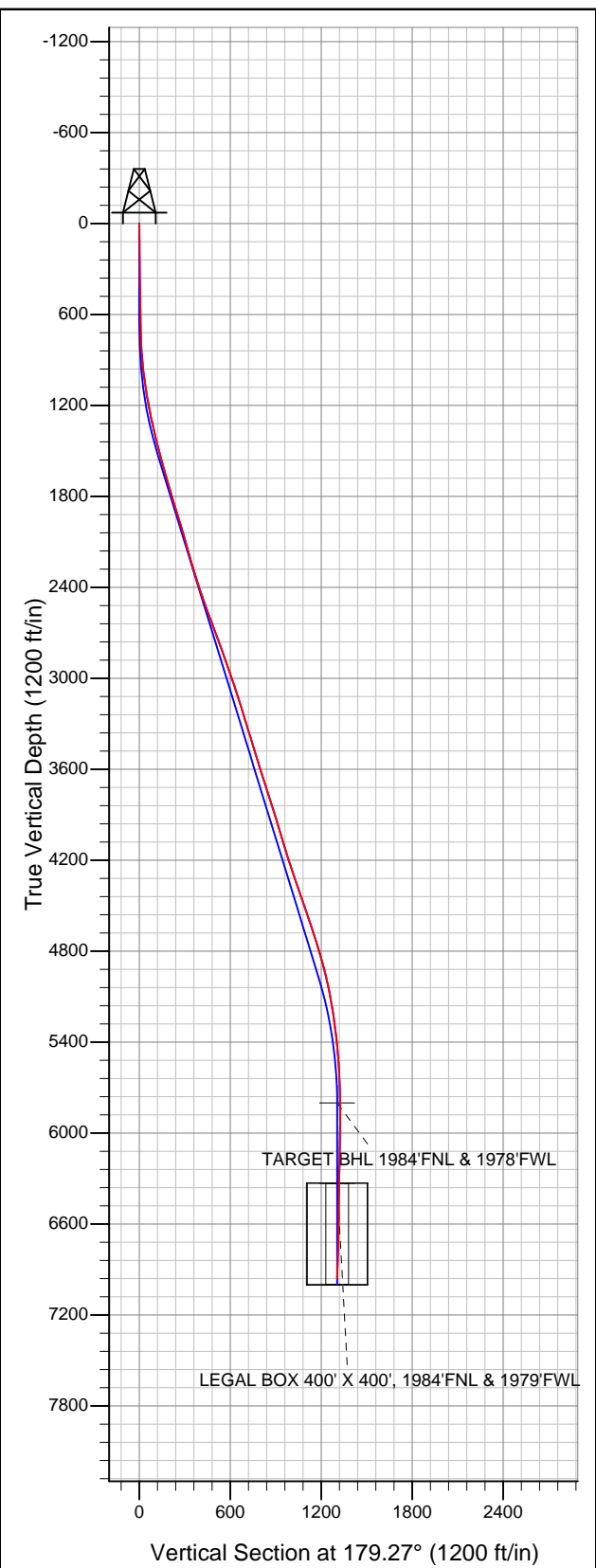




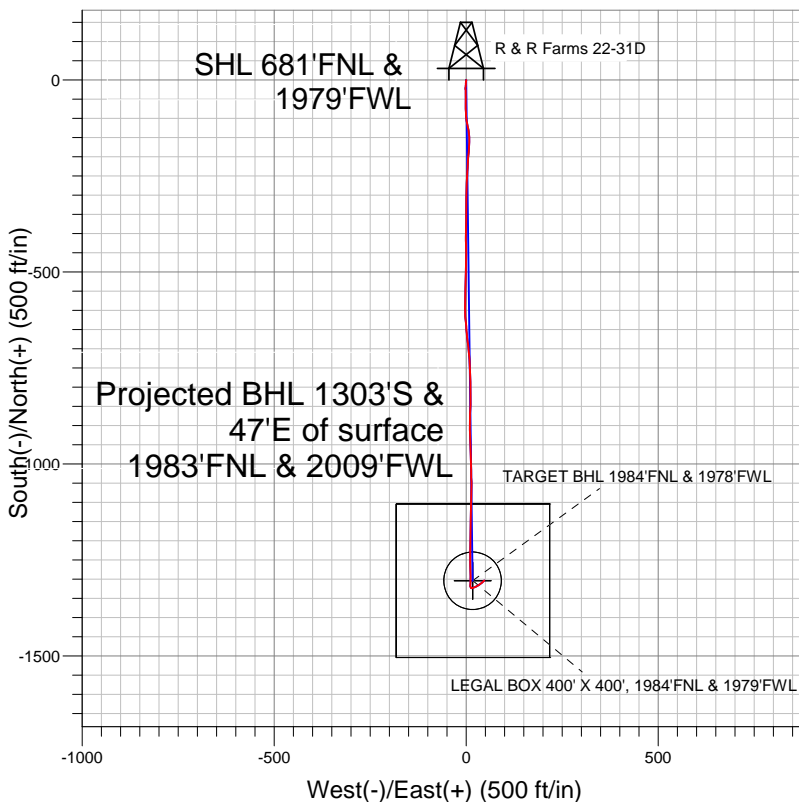
Well Name: R & R Farms 22-31D

Surface Location: R & R Farms 22-31D Pad Sec.31-T5N-R63W
North American Datum 1983 US State Plane 1983 Colorado Northern Zone
Ground Elevation: 4582.0

| +N/-S | +E/-W | Northing | Easting | Latitude | Longitude | Slot |
|-------|-------|------------|-----------------------------|-----------|-------------|------|
| 0.0 | 0.0 | 1376099.97 | 3283868.56 | 40.361320 | -104.481320 | |
| | | RKB - 13' | WELL @ 4595.0ft (RKB - 13') | | | |



Apollo Operating, LLC.



LEGEND

- △ R & R Farms 22-31D, Wellbore #1, Plan #3 (12-17-12) V0
- Wellbore #1
- Survey #1

Final Survey Plot

Projected Final Survey -
7150' MD & 6959' TVD @ 1304' VS
2.6 deg Inc 44.6 deg AZ

Project: SEC.31-T5N-R63W
Site: R & R Farms 22-31D Pad Sec.31-T5N-R63W
Well: R & R Farms 22-31D
Plan: Wellbore #1



Apollo Operating, LLC.

SEC.31-T5N-R63W

R & R Farms 22-31D Pad Sec.31-T5N-R63W

R & R Farms 22-31D

Wellbore #1

Survey: Survey #1

Standard Survey Report

26 December, 2012

| Survey | Wellbore Data | | | | | | | | | |
|--------|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| | 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) |
| Well A | 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| | 708.0 | 1.30 | 184.10 | 707.9 | -8.0 | -0.6 | 8.0 | 0.18 | 0.18 | 0.00 |
| | 740.0 | 1.80 | 186.20 | 739.9 | -8.9 | -0.7 | 8.9 | 1.57 | 1.56 | 6.56 |
| | 771.0 | 2.30 | 179.00 | 770.9 | -10.0 | -0.7 | 10.0 | 1.81 | 1.61 | -23.23 |
| | 802.0 | 2.60 | 181.80 | 801.9 | -11.3 | -0.7 | 11.3 | 1.04 | 0.97 | 9.03 |
| | 834.0 | 3.60 | 184.50 | 833.8 | -13.0 | -0.8 | 13.0 | 3.16 | 3.13 | 8.44 |
| | 897.0 | 5.50 | 188.80 | 896.6 | -18.0 | -1.4 | 18.0 | 3.06 | 3.02 | 6.83 |
| | 928.0 | 5.50 | 179.90 | 927.5 | -20.9 | -1.7 | 20.9 | 2.75 | 0.00 | -28.71 |
| | 959.0 | 6.30 | 177.80 | 958.3 | -24.1 | -1.6 | 24.1 | 2.67 | 2.58 | -6.77 |
| | 991.0 | 7.60 | 176.20 | 990.1 | -28.0 | -1.4 | 28.0 | 4.11 | 4.06 | -5.00 |
| | 1,022.0 | 8.60 | 177.30 | 1,020.8 | -32.4 | -1.1 | 32.3 | 3.26 | 3.23 | 3.55 |
| | 1,054.0 | 8.60 | 179.00 | 1,052.4 | -37.1 | -1.0 | 37.1 | 0.79 | 0.00 | 5.31 |
| | 1,085.0 | 9.10 | 182.20 | 1,083.1 | -41.9 | -1.0 | 41.9 | 2.26 | 1.61 | 10.32 |

| | | | |
|------------------|--|-------------------------------------|-----------------------------|
| Company: | Apollo Operating, LLC. | Local Co-ordinate Reference: | Well R & R Farms 22-31D |
| Project: | SEC.31-T5N-R63W | TVD Reference: | WELL @ 4595.0ft (RKB - 13') |
| Site: | R & R Farms 22-31D Pad Sec.31-T5N-R63W | MD Reference: | WELL @ 4595.0ft (RKB - 13') |
| Well: | R & R Farms 22-31D | North Reference: | True |
| Wellbore: | Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Wellbore #1 | Database: | Landmark |

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) |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| 1,116.0 | 9.00 | 183.60 | 1,113.7 | -46.8 | -1.3 | 46.8 | 0.78 | -0.32 | 4.52 |
| 1,148.0 | 9.90 | 178.50 | 1,145.2 | -52.0 | -1.4 | 52.0 | 3.84 | 2.81 | -15.94 |
| 1,179.0 | 10.20 | 179.00 | 1,175.8 | -57.4 | -1.2 | 57.4 | 1.01 | 0.97 | 1.61 |
| 1,211.0 | 10.90 | 181.00 | 1,207.2 | -63.3 | -1.2 | 63.3 | 2.47 | 2.19 | 6.25 |
| 1,242.0 | 11.10 | 181.30 | 1,237.6 | -69.2 | -1.4 | 69.2 | 0.67 | 0.65 | 0.97 |
| 1,274.0 | 11.60 | 177.40 | 1,269.0 | -75.5 | -1.3 | 75.5 | 2.86 | 1.56 | -12.19 |
| 1,305.0 | 12.00 | 175.90 | 1,299.4 | -81.8 | -0.9 | 81.8 | 1.63 | 1.29 | -4.84 |
| 1,337.0 | 13.00 | 176.60 | 1,330.6 | -88.7 | -0.5 | 88.7 | 3.16 | 3.13 | 2.19 |
| 1,368.0 | 12.80 | 176.00 | 1,360.8 | -95.6 | 0.0 | 95.6 | 0.78 | -0.65 | -1.94 |
| 1,399.0 | 13.40 | 170.90 | 1,391.0 | -102.6 | 0.8 | 102.6 | 4.20 | 1.94 | -16.45 |
| 1,431.0 | 12.80 | 170.10 | 1,422.2 | -109.8 | 2.0 | 109.8 | 1.96 | -1.88 | -2.50 |
| 1,462.0 | 13.40 | 168.80 | 1,452.4 | -116.7 | 3.3 | 116.7 | 2.16 | 1.94 | -4.19 |
| 1,494.0 | 14.20 | 169.70 | 1,483.5 | -124.2 | 4.7 | 124.2 | 2.59 | 2.50 | 2.81 |
| 1,526.0 | 14.90 | 170.90 | 1,514.4 | -132.1 | 6.0 | 132.2 | 2.38 | 2.19 | 3.75 |
| 1,557.0 | 15.20 | 172.70 | 1,544.4 | -140.1 | 7.2 | 140.1 | 1.79 | 0.97 | 5.81 |
| 1,589.0 | 15.70 | 175.20 | 1,575.2 | -148.5 | 8.1 | 148.6 | 2.60 | 1.56 | 7.81 |
| 1,621.0 | 15.70 | 179.90 | 1,606.0 | -157.2 | 8.5 | 157.3 | 3.97 | 0.00 | 14.69 |
| 1,652.0 | 16.40 | 183.40 | 1,635.8 | -165.7 | 8.2 | 165.8 | 3.85 | 2.26 | 11.29 |
| 1,683.0 | 17.40 | 184.30 | 1,665.5 | -174.7 | 7.6 | 174.8 | 3.33 | 3.23 | 2.90 |
| 1,715.0 | 17.40 | 185.40 | 1,696.0 | -184.3 | 6.8 | 184.3 | 1.03 | 0.00 | 3.44 |
| 1,745.0 | 16.90 | 183.90 | 1,724.7 | -193.1 | 6.1 | 193.1 | 2.23 | -1.67 | -5.00 |
| 1,776.0 | 16.50 | 183.90 | 1,754.4 | -202.0 | 5.5 | 202.0 | 1.29 | -1.29 | 0.00 |
| 1,808.0 | 17.30 | 183.90 | 1,785.0 | -211.3 | 4.8 | 211.3 | 2.50 | 2.50 | 0.00 |
| 1,839.0 | 16.90 | 184.10 | 1,814.6 | -220.3 | 4.2 | 220.4 | 1.30 | -1.29 | 0.65 |
| 1,870.0 | 16.60 | 182.90 | 1,844.3 | -229.3 | 3.7 | 229.3 | 1.48 | -0.97 | -3.87 |
| 1,900.0 | 17.20 | 182.50 | 1,873.0 | -238.0 | 3.2 | 238.0 | 2.04 | 2.00 | -1.33 |
| 1,932.0 | 17.00 | 182.20 | 1,903.6 | -247.4 | 2.9 | 247.4 | 0.68 | -0.63 | -0.94 |
| 1,963.0 | 16.60 | 182.40 | 1,933.3 | -256.3 | 2.5 | 256.3 | 1.30 | -1.29 | 0.65 |
| 1,994.0 | 17.10 | 182.90 | 1,962.9 | -265.3 | 2.1 | 265.3 | 1.68 | 1.61 | 1.61 |
| 2,026.0 | 16.50 | 183.10 | 1,993.6 | -274.5 | 1.6 | 274.5 | 1.88 | -1.88 | 0.63 |
| 2,056.0 | 15.90 | 183.90 | 2,022.4 | -282.9 | 1.1 | 282.9 | 2.13 | -2.00 | 2.67 |
| 2,087.0 | 16.00 | 181.70 | 2,052.2 | -291.4 | 0.7 | 291.4 | 1.98 | 0.32 | -7.10 |
| 2,118.0 | 15.50 | 180.80 | 2,082.0 | -299.8 | 0.5 | 299.8 | 1.80 | -1.61 | -2.90 |
| 2,149.0 | 15.60 | 179.70 | 2,111.9 | -308.1 | 0.4 | 308.1 | 1.00 | 0.32 | -3.55 |
| 2,181.0 | 15.10 | 179.60 | 2,142.7 | -316.6 | 0.5 | 316.6 | 1.56 | -1.56 | -0.31 |
| 2,212.0 | 15.30 | 180.60 | 2,172.7 | -324.7 | 0.5 | 324.7 | 1.06 | 0.65 | 3.23 |
| 2,244.0 | 15.90 | 180.60 | 2,203.5 | -333.3 | 0.4 | 333.3 | 1.88 | 1.88 | 0.00 |
| 2,275.0 | 16.40 | 180.30 | 2,233.3 | -342.0 | 0.3 | 341.9 | 1.64 | 1.61 | -0.97 |
| 2,306.0 | 17.10 | 179.90 | 2,262.9 | -350.9 | 0.3 | 350.9 | 2.29 | 2.26 | -1.29 |
| 2,338.0 | 17.70 | 179.90 | 2,293.5 | -360.5 | 0.3 | 360.4 | 1.88 | 1.88 | 0.00 |
| 2,369.0 | 17.30 | 180.80 | 2,323.0 | -369.8 | 0.3 | 369.7 | 1.56 | -1.29 | 2.90 |
| 2,401.0 | 17.90 | 181.50 | 2,353.5 | -379.4 | 0.1 | 379.4 | 1.99 | 1.88 | 2.19 |
| 2,432.0 | 18.60 | 181.10 | 2,383.0 | -389.2 | -0.1 | 389.1 | 2.29 | 2.26 | -1.29 |
| 2,463.0 | 18.20 | 181.50 | 2,412.4 | -398.9 | -0.4 | 398.9 | 1.35 | -1.29 | 1.29 |
| 2,495.0 | 18.70 | 180.30 | 2,442.7 | -409.1 | -0.5 | 409.0 | 1.96 | 1.56 | -3.75 |
| 2,526.0 | 18.50 | 179.90 | 2,472.1 | -419.0 | -0.5 | 418.9 | 0.77 | -0.65 | -1.29 |
| 2,558.0 | 19.30 | 179.60 | 2,502.4 | -429.3 | -0.5 | 429.3 | 2.52 | 2.50 | -0.94 |
| 2,589.0 | 19.50 | 179.00 | 2,531.6 | -439.6 | -0.4 | 439.6 | 0.91 | 0.65 | -1.94 |
| 2,621.0 | 20.60 | 179.90 | 2,561.7 | -450.6 | -0.3 | 450.5 | 3.57 | 3.44 | 2.81 |
| 2,652.0 | 20.80 | 180.60 | 2,590.7 | -461.5 | -0.3 | 461.5 | 1.03 | 0.65 | 2.26 |
| 2,683.0 | 20.70 | 180.10 | 2,619.7 | -472.5 | -0.4 | 472.5 | 0.66 | -0.32 | -1.61 |
| 2,715.0 | 20.60 | 180.60 | 2,649.6 | -483.8 | -0.4 | 483.8 | 0.63 | -0.31 | 1.56 |
| 2,746.0 | 20.50 | 181.00 | 2,678.7 | -494.7 | -0.6 | 494.6 | 0.56 | -0.32 | 1.29 |
| 2,777.0 | 20.00 | 181.50 | 2,707.7 | -505.4 | -0.8 | 505.4 | 1.71 | -1.61 | 1.61 |

| | | | |
|------------------|--|-------------------------------------|-----------------------------|
| Company: | Apollo Operating, LLC. | Local Co-ordinate Reference: | Well R & R Farms 22-31D |
| Project: | SEC.31-T5N-R63W | TVD Reference: | WELL @ 4595.0ft (RKB - 13') |
| Site: | R & R Farms 22-31D Pad Sec.31-T5N-R63W | MD Reference: | WELL @ 4595.0ft (RKB - 13') |
| Well: | R & R Farms 22-31D | North Reference: | True |
| Wellbore: | Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Wellbore #1 | Database: | Landmark |

| 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) |
| 2,808.0 | 19.60 | 181.70 | 2,736.9 | -515.9 | -1.1 | 515.9 | 1.31 | -1.29 | 0.65 |
| 2,840.0 | 19.80 | 181.10 | 2,767.0 | -526.7 | -1.4 | 526.6 | 0.89 | 0.63 | -1.88 |
| 2,871.0 | 19.90 | 181.10 | 2,796.2 | -537.2 | -1.6 | 537.2 | 0.32 | 0.32 | 0.00 |
| 2,902.0 | 20.80 | 181.50 | 2,825.3 | -548.0 | -1.8 | 547.9 | 2.94 | 2.90 | 1.29 |
| 2,934.0 | 20.10 | 181.80 | 2,855.2 | -559.2 | -2.2 | 559.1 | 2.21 | -2.19 | 0.94 |
| 2,965.0 | 19.90 | 181.80 | 2,884.4 | -569.8 | -2.5 | 569.7 | 0.65 | -0.65 | 0.00 |
| 2,996.0 | 20.00 | 180.40 | 2,913.5 | -580.3 | -2.7 | 580.3 | 1.57 | 0.32 | -4.52 |
| 3,027.0 | 19.30 | 180.30 | 2,942.7 | -590.8 | -2.8 | 590.7 | 2.26 | -2.26 | -0.32 |
| 3,059.0 | 18.30 | 179.20 | 2,973.0 | -601.1 | -2.7 | 601.0 | 3.32 | -3.13 | -3.44 |
| 3,091.0 | 17.90 | 178.10 | 3,003.4 | -611.0 | -2.5 | 610.9 | 1.64 | -1.25 | -3.44 |
| 3,122.0 | 18.30 | 174.80 | 3,032.9 | -620.6 | -1.9 | 620.6 | 3.55 | 1.29 | -10.65 |
| 3,154.0 | 18.90 | 174.50 | 3,063.2 | -630.8 | -0.9 | 630.7 | 1.90 | 1.88 | -0.94 |
| 3,186.0 | 18.40 | 174.80 | 3,093.5 | -641.0 | 0.0 | 640.9 | 1.59 | -1.56 | 0.94 |
| 3,217.0 | 18.50 | 174.80 | 3,122.9 | -650.7 | 0.9 | 650.7 | 0.32 | 0.32 | 0.00 |
| 3,248.0 | 17.80 | 175.30 | 3,152.4 | -660.4 | 1.7 | 660.3 | 2.31 | -2.26 | 1.61 |
| 3,278.0 | 17.70 | 176.00 | 3,181.0 | -669.5 | 2.4 | 669.5 | 0.79 | -0.33 | 2.33 |
| 3,310.0 | 17.10 | 175.70 | 3,211.5 | -679.0 | 3.1 | 679.0 | 1.90 | -1.88 | -0.94 |
| 3,341.0 | 16.80 | 171.60 | 3,241.2 | -688.0 | 4.1 | 688.0 | 3.97 | -0.97 | -13.23 |
| 3,373.0 | 16.80 | 170.40 | 3,271.8 | -697.1 | 5.6 | 697.2 | 1.08 | 0.00 | -3.75 |
| 3,404.0 | 17.00 | 172.20 | 3,301.5 | -706.1 | 6.9 | 706.1 | 1.81 | 0.65 | 5.81 |
| 3,436.0 | 17.40 | 175.30 | 3,332.0 | -715.5 | 8.0 | 715.5 | 3.13 | 1.25 | 9.69 |
| 3,467.0 | 16.80 | 174.80 | 3,361.7 | -724.5 | 8.8 | 724.6 | 1.99 | -1.94 | -1.61 |
| 3,499.0 | 16.50 | 175.70 | 3,392.3 | -733.7 | 9.5 | 733.7 | 1.24 | -0.94 | 2.81 |
| 3,530.0 | 16.90 | 177.60 | 3,422.0 | -742.6 | 10.0 | 742.6 | 2.18 | 1.29 | 6.13 |
| 3,562.0 | 17.10 | 179.20 | 3,452.6 | -751.9 | 10.3 | 752.0 | 1.59 | 0.63 | 5.00 |
| 3,594.0 | 17.20 | 179.20 | 3,483.2 | -761.4 | 10.4 | 761.4 | 0.31 | 0.31 | 0.00 |
| 3,625.0 | 17.30 | 179.40 | 3,512.8 | -770.5 | 10.5 | 770.6 | 0.38 | 0.32 | 0.65 |
| 3,657.0 | 17.60 | 178.90 | 3,543.3 | -780.1 | 10.7 | 780.2 | 1.05 | 0.94 | -1.56 |
| 3,689.0 | 17.80 | 179.00 | 3,573.8 | -789.9 | 10.9 | 789.9 | 0.63 | 0.63 | 0.31 |
| 3,719.0 | 17.80 | 178.90 | 3,602.4 | -799.0 | 11.0 | 799.1 | 0.10 | 0.00 | -0.33 |
| 3,751.0 | 17.70 | 179.20 | 3,632.8 | -808.8 | 11.2 | 808.9 | 0.42 | -0.31 | 0.94 |
| 3,783.0 | 17.70 | 179.40 | 3,663.3 | -818.5 | 11.3 | 818.6 | 0.19 | 0.00 | 0.63 |
| 3,814.0 | 17.60 | 179.90 | 3,692.9 | -827.9 | 11.4 | 828.0 | 0.59 | -0.32 | 1.61 |
| 3,846.0 | 17.40 | 179.90 | 3,723.4 | -837.5 | 11.4 | 837.6 | 0.63 | -0.63 | 0.00 |
| 3,877.0 | 17.30 | 180.80 | 3,753.0 | -846.8 | 11.3 | 846.9 | 0.92 | -0.32 | 2.90 |
| 3,908.0 | 17.90 | 182.00 | 3,782.5 | -856.2 | 11.1 | 856.2 | 2.26 | 1.94 | 3.87 |
| 3,939.0 | 17.80 | 181.70 | 3,812.0 | -865.7 | 10.8 | 865.7 | 0.44 | -0.32 | -0.97 |
| 3,970.0 | 17.40 | 182.40 | 3,841.6 | -875.0 | 10.5 | 875.1 | 1.46 | -1.29 | 2.26 |
| 4,001.0 | 17.30 | 182.20 | 3,871.2 | -884.3 | 10.1 | 884.3 | 0.38 | -0.32 | -0.65 |
| 4,033.0 | 17.60 | 180.60 | 3,901.7 | -893.8 | 9.8 | 893.9 | 1.77 | 0.94 | -5.00 |
| 4,064.0 | 17.20 | 180.60 | 3,931.3 | -903.1 | 9.7 | 903.2 | 1.29 | -1.29 | 0.00 |
| 4,095.0 | 16.70 | 181.30 | 3,960.9 | -912.2 | 9.6 | 912.2 | 1.74 | -1.61 | 2.26 |
| 4,126.0 | 16.80 | 177.60 | 3,990.6 | -921.1 | 9.7 | 921.1 | 3.45 | 0.32 | -11.94 |
| 4,158.0 | 16.70 | 177.40 | 4,021.3 | -930.3 | 10.1 | 930.3 | 0.36 | -0.31 | -0.63 |
| 4,189.0 | 16.90 | 177.40 | 4,050.9 | -939.2 | 10.5 | 939.3 | 0.65 | 0.65 | 0.00 |
| 4,221.0 | 16.90 | 177.30 | 4,081.6 | -948.5 | 10.9 | 948.6 | 0.09 | 0.00 | -0.31 |
| 4,252.0 | 17.40 | 177.30 | 4,111.2 | -957.7 | 11.4 | 957.7 | 1.61 | 1.61 | 0.00 |
| 4,284.0 | 17.10 | 177.40 | 4,141.7 | -967.1 | 11.8 | 967.2 | 0.94 | -0.94 | 0.31 |
| 4,315.0 | 17.70 | 177.30 | 4,171.3 | -976.4 | 12.2 | 976.5 | 1.94 | 1.94 | -0.32 |
| 4,347.0 | 17.80 | 178.00 | 4,201.8 | -986.2 | 12.6 | 986.2 | 0.74 | 0.31 | 2.19 |
| 4,378.0 | 18.20 | 178.70 | 4,231.3 | -995.7 | 12.9 | 995.8 | 1.47 | 1.29 | 2.26 |
| 4,410.0 | 18.20 | 178.30 | 4,261.7 | -1,005.7 | 13.2 | 1,005.8 | 0.39 | 0.00 | -1.25 |
| 4,441.0 | 18.60 | 180.10 | 4,291.1 | -1,015.5 | 13.3 | 1,015.6 | 2.24 | 1.29 | 5.81 |
| 4,472.0 | 18.60 | 179.70 | 4,320.5 | -1,025.4 | 13.3 | 1,025.5 | 0.41 | 0.00 | -1.29 |

| | | | |
|------------------|--|-------------------------------------|-----------------------------|
| Company: | Apollo Operating, LLC. | Local Co-ordinate Reference: | Well R & R Farms 22-31D |
| Project: | SEC.31-T5N-R63W | TVD Reference: | WELL @ 4595.0ft (RKB - 13') |
| Site: | R & R Farms 22-31D Pad Sec.31-T5N-R63W | MD Reference: | WELL @ 4595.0ft (RKB - 13') |
| Well: | R & R Farms 22-31D | North Reference: | True |
| Wellbore: | Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Wellbore #1 | Database: | Landmark |

| 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) |
| 4,504.0 | 19.00 | 179.20 | 4,350.8 | -1,035.7 | 13.4 | 1,035.8 | 1.35 | 1.25 | -1.56 |
| 4,535.0 | 18.80 | 179.40 | 4,380.1 | -1,045.7 | 13.5 | 1,045.8 | 0.68 | -0.65 | 0.65 |
| 4,566.0 | 18.90 | 180.30 | 4,409.4 | -1,055.8 | 13.6 | 1,055.8 | 0.99 | 0.32 | 2.90 |
| 4,598.0 | 19.00 | 180.10 | 4,439.7 | -1,066.2 | 13.5 | 1,066.2 | 0.37 | 0.31 | -0.63 |
| 4,629.0 | 19.30 | 181.80 | 4,469.0 | -1,076.3 | 13.4 | 1,076.4 | 2.04 | 0.97 | 5.48 |
| 4,661.0 | 19.30 | 181.10 | 4,499.2 | -1,086.9 | 13.1 | 1,087.0 | 0.72 | 0.00 | -2.19 |
| 4,691.0 | 19.60 | 180.30 | 4,527.5 | -1,096.9 | 13.0 | 1,097.0 | 1.34 | 1.00 | -2.67 |
| 4,723.0 | 19.30 | 181.10 | 4,557.7 | -1,107.5 | 12.8 | 1,107.6 | 1.25 | -0.94 | 2.50 |
| 4,755.0 | 18.60 | 181.10 | 4,587.9 | -1,117.9 | 12.6 | 1,118.0 | 2.19 | -2.19 | 0.00 |
| 4,786.0 | 18.20 | 182.20 | 4,617.3 | -1,127.7 | 12.4 | 1,127.8 | 1.71 | -1.29 | 3.55 |
| 4,817.0 | 17.90 | 181.30 | 4,646.8 | -1,137.3 | 12.1 | 1,137.4 | 1.32 | -0.97 | -2.90 |
| 4,849.0 | 17.80 | 181.10 | 4,677.3 | -1,147.1 | 11.9 | 1,147.2 | 0.37 | -0.31 | -0.63 |
| 4,881.0 | 17.60 | 180.40 | 4,707.8 | -1,156.8 | 11.7 | 1,156.9 | 0.91 | -0.63 | -2.19 |
| 4,912.0 | 17.30 | 181.10 | 4,737.3 | -1,166.1 | 11.6 | 1,166.2 | 1.18 | -0.97 | 2.26 |
| 4,943.0 | 17.00 | 180.80 | 4,766.9 | -1,175.3 | 11.5 | 1,175.3 | 1.01 | -0.97 | -0.97 |
| 4,975.0 | 16.70 | 181.00 | 4,797.6 | -1,184.6 | 11.3 | 1,184.6 | 0.95 | -0.94 | 0.63 |
| 5,007.0 | 16.60 | 179.90 | 4,828.2 | -1,193.7 | 11.2 | 1,193.8 | 1.03 | -0.31 | -3.44 |
| 5,037.0 | 16.20 | 181.00 | 4,857.0 | -1,202.2 | 11.2 | 1,202.2 | 1.69 | -1.33 | 3.67 |
| 5,069.0 | 15.20 | 181.20 | 4,887.8 | -1,210.8 | 11.0 | 1,210.9 | 3.13 | -3.13 | 0.63 |
| 5,100.0 | 14.40 | 179.70 | 4,917.8 | -1,218.8 | 10.9 | 1,218.8 | 2.86 | -2.58 | -4.84 |
| 5,131.0 | 13.90 | 180.30 | 4,947.8 | -1,226.3 | 10.9 | 1,226.4 | 1.68 | -1.61 | 1.94 |
| 5,163.0 | 13.10 | 180.60 | 4,979.0 | -1,233.8 | 10.9 | 1,233.9 | 2.51 | -2.50 | 0.94 |
| 5,194.0 | 12.40 | 180.40 | 5,009.2 | -1,240.7 | 10.8 | 1,240.7 | 2.26 | -2.26 | -0.65 |
| 5,226.0 | 11.70 | 180.30 | 5,040.5 | -1,247.3 | 10.8 | 1,247.4 | 2.19 | -2.19 | -0.31 |
| 5,257.0 | 11.10 | 179.70 | 5,070.9 | -1,253.5 | 10.8 | 1,253.5 | 1.97 | -1.94 | -1.94 |
| 5,288.0 | 10.50 | 179.70 | 5,101.3 | -1,259.3 | 10.8 | 1,259.3 | 1.94 | -1.94 | 0.00 |
| 5,320.0 | 9.90 | 178.90 | 5,132.8 | -1,264.9 | 10.9 | 1,265.0 | 1.93 | -1.88 | -2.50 |
| 5,351.0 | 9.40 | 179.60 | 5,163.4 | -1,270.1 | 10.9 | 1,270.2 | 1.66 | -1.61 | 2.26 |
| 5,383.0 | 9.10 | 179.00 | 5,195.0 | -1,275.3 | 11.0 | 1,275.3 | 0.98 | -0.94 | -1.88 |
| 5,414.0 | 8.60 | 179.90 | 5,225.6 | -1,280.0 | 11.1 | 1,280.1 | 1.67 | -1.61 | 2.90 |
| 5,446.0 | 8.10 | 179.40 | 5,257.3 | -1,284.7 | 11.1 | 1,284.7 | 1.58 | -1.56 | -1.56 |
| 5,478.0 | 7.50 | 179.90 | 5,289.0 | -1,289.0 | 11.1 | 1,289.1 | 1.89 | -1.88 | 1.56 |
| 5,508.0 | 6.90 | 179.40 | 5,318.7 | -1,292.8 | 11.1 | 1,292.8 | 2.01 | -2.00 | -1.67 |
| 5,540.0 | 6.50 | 179.40 | 5,350.5 | -1,296.5 | 11.2 | 1,296.6 | 1.25 | -1.25 | 0.00 |
| 5,570.0 | 6.20 | 178.10 | 5,380.3 | -1,299.8 | 11.2 | 1,299.9 | 1.11 | -1.00 | -4.33 |
| 5,602.0 | 5.80 | 179.20 | 5,412.2 | -1,303.2 | 11.3 | 1,303.2 | 1.30 | -1.25 | 3.44 |
| 5,633.0 | 5.40 | 179.20 | 5,443.0 | -1,306.2 | 11.4 | 1,306.3 | 1.29 | -1.29 | 0.00 |
| 5,665.0 | 4.90 | 181.30 | 5,474.9 | -1,309.1 | 11.4 | 1,309.1 | 1.67 | -1.56 | 6.56 |
| 5,696.0 | 4.70 | 184.80 | 5,505.8 | -1,311.7 | 11.2 | 1,311.7 | 1.14 | -0.65 | 11.29 |
| 5,728.0 | 4.60 | 186.80 | 5,537.7 | -1,314.3 | 11.0 | 1,314.3 | 0.60 | -0.31 | 6.25 |
| 5,758.0 | 3.40 | 179.60 | 5,567.6 | -1,316.3 | 10.8 | 1,316.4 | 4.33 | -4.00 | -24.00 |
| 5,789.0 | 3.20 | 173.10 | 5,598.5 | -1,318.1 | 10.9 | 1,318.1 | 1.37 | -0.65 | -20.97 |
| 5,821.0 | 2.80 | 166.40 | 5,630.5 | -1,319.8 | 11.2 | 1,319.8 | 1.66 | -1.25 | -20.94 |
| 5,853.0 | 2.30 | 153.70 | 5,662.5 | -1,321.1 | 11.7 | 1,321.1 | 2.35 | -1.56 | -39.69 |
| 5,884.0 | 2.20 | 146.00 | 5,693.4 | -1,322.1 | 12.3 | 1,322.2 | 1.03 | -0.32 | -24.84 |
| 5,915.0 | 1.90 | 132.80 | 5,724.4 | -1,323.0 | 13.0 | 1,323.1 | 1.80 | -0.97 | -42.58 |
| 5,947.0 | 1.80 | 99.40 | 5,756.4 | -1,323.4 | 13.9 | 1,323.5 | 3.34 | -0.31 | -104.38 |
| 5,978.0 | 1.90 | 88.50 | 5,787.4 | -1,323.5 | 14.9 | 1,323.6 | 1.18 | 0.32 | -35.16 |
| 5,990.7 | 1.86 | 88.23 | 5,800.1 | -1,323.5 | 15.3 | 1,323.6 | 0.32 | -0.31 | -2.12 |
| TARGET BHL 1984'FNL & 1978'FWL | | | | | | | | | |
| 6,010.0 | 1.80 | 87.80 | 5,819.4 | -1,323.5 | 15.9 | 1,323.6 | 0.32 | -0.31 | -2.23 |
| 6,041.0 | 0.90 | 65.50 | 5,850.4 | -1,323.3 | 16.6 | 1,323.5 | 3.31 | -2.90 | -71.94 |
| 6,073.0 | 0.60 | 48.20 | 5,882.4 | -1,323.1 | 17.0 | 1,323.2 | 1.16 | -0.94 | -54.06 |
| 6,104.0 | 0.90 | 62.30 | 5,913.4 | -1,322.9 | 17.3 | 1,323.0 | 1.13 | 0.97 | 45.48 |

| | | | |
|------------------|--|-------------------------------------|-----------------------------|
| Company: | Apollo Operating, LLC. | Local Co-ordinate Reference: | Well R & R Farms 22-31D |
| Project: | SEC.31-T5N-R63W | TVD Reference: | WELL @ 4595.0ft (RKB - 13') |
| Site: | R & R Farms 22-31D Pad Sec.31-T5N-R63W | MD Reference: | WELL @ 4595.0ft (RKB - 13') |
| Well: | R & R Farms 22-31D | North Reference: | True |
| Wellbore: | Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Wellbore #1 | Database: | Landmark |

| 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) | |
| 6,199.0 | 1.40 | 65.50 | 6,008.3 | -1,322.1 | 19.0 | 1,322.2 | 0.53 | 0.53 | 3.37 | |
| 6,293.0 | 1.60 | 70.60 | 6,102.3 | -1,321.2 | 21.3 | 1,321.3 | 0.26 | 0.21 | 5.43 | |
| 6,387.0 | 1.70 | 66.20 | 6,196.3 | -1,320.2 | 23.8 | 1,320.4 | 0.17 | 0.11 | -4.68 | |
| 6,482.0 | 1.70 | 61.80 | 6,291.2 | -1,318.9 | 26.4 | 1,319.2 | 0.14 | 0.00 | -4.63 | |
| 6,520.7 | 1.78 | 62.55 | 6,329.9 | -1,318.4 | 27.4 | 1,318.6 | 0.22 | 0.21 | 1.95 | |
| LEGAL BOX 400' X 400', 1984'FNL & 1979'FWL - TARGET CIRCLE 1984'FNL & 1978'FWL | | | | | | | | | | |
| 6,575.0 | 1.90 | 63.50 | 6,384.2 | -1,317.6 | 29.0 | 1,317.9 | 0.22 | 0.22 | 1.74 | |
| 6,670.0 | 2.10 | 60.40 | 6,479.1 | -1,316.0 | 31.9 | 1,316.3 | 0.24 | 0.21 | -3.26 | |
| 6,764.0 | 2.30 | 56.20 | 6,573.0 | -1,314.1 | 34.9 | 1,314.5 | 0.27 | 0.21 | -4.47 | |
| 6,858.0 | 2.30 | 52.10 | 6,667.0 | -1,311.9 | 38.0 | 1,312.3 | 0.18 | 0.00 | -4.36 | |
| 6,953.0 | 2.50 | 47.90 | 6,761.9 | -1,309.4 | 41.0 | 1,309.8 | 0.28 | 0.21 | -4.42 | |
| 7,104.0 | 2.60 | 44.60 | 6,912.7 | -1,304.7 | 45.9 | 1,305.2 | 0.12 | 0.07 | -2.19 | |
| 7,150.0 | 2.60 | 44.60 | 6,958.7 | -1,303.2 | 47.4 | 1,303.7 | 0.00 | 0.00 | 0.00 | |

| Design 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 BHL 1984'F | 0.00 | 0.00 | 5,800.0 | -1,304.2 | 16.7 | 1,374,796.09 | 3,283,900.26 | 40.357740 | | -104.481260 |
| - survey misses target center by 19.3ft at 5990.7ft MD (5800.1 TVD, -1323.5 N, 15.3 E) | | | | | | | | | | |
| - Point | | | | | | | | | | |
| LEGAL BOX 400' X 400' | 0.00 | 0.00 | 6,330.0 | -1,304.2 | 17.7 | 1,374,796.10 | 3,283,901.24 | 40.357740 | | -104.481256 |
| - survey misses target center by 17.2ft at 6520.7ft MD (6329.9 TVD, -1318.4 N, 27.4 E) | | | | | | | | | | |
| - Rectangle (sides W400.0 H400.0 D670.0) | | | | | | | | | | |
| TARGET CIRCLE 1984'F | 0.00 | 0.00 | 6,330.0 | -1,304.2 | 16.7 | 1,374,796.09 | 3,283,900.26 | 40.357740 | | -104.481260 |
| - survey misses target center by 17.7ft at 6520.7ft MD (6329.9 TVD, -1318.4 N, 27.4 E) | | | | | | | | | | |
| - Circle (radius 75.0) | | | | | | | | | | |

Checked By: _____ Approved By: _____ Date: _____