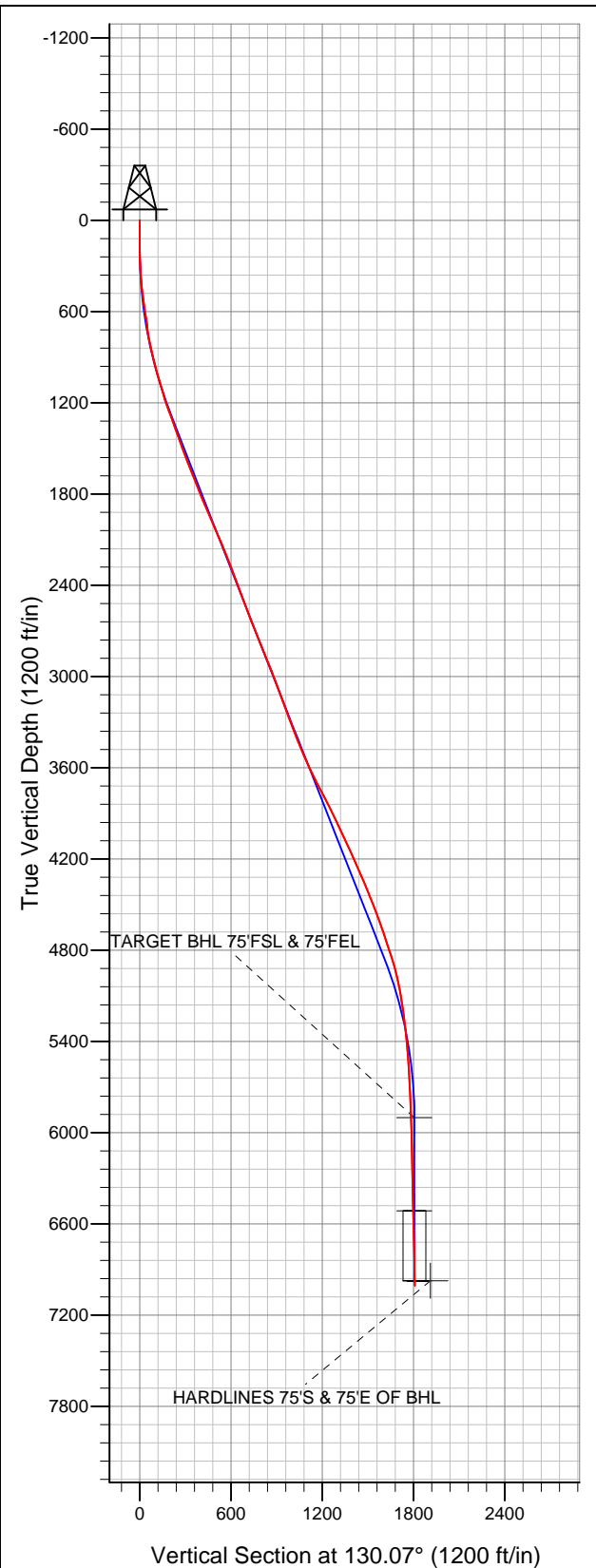


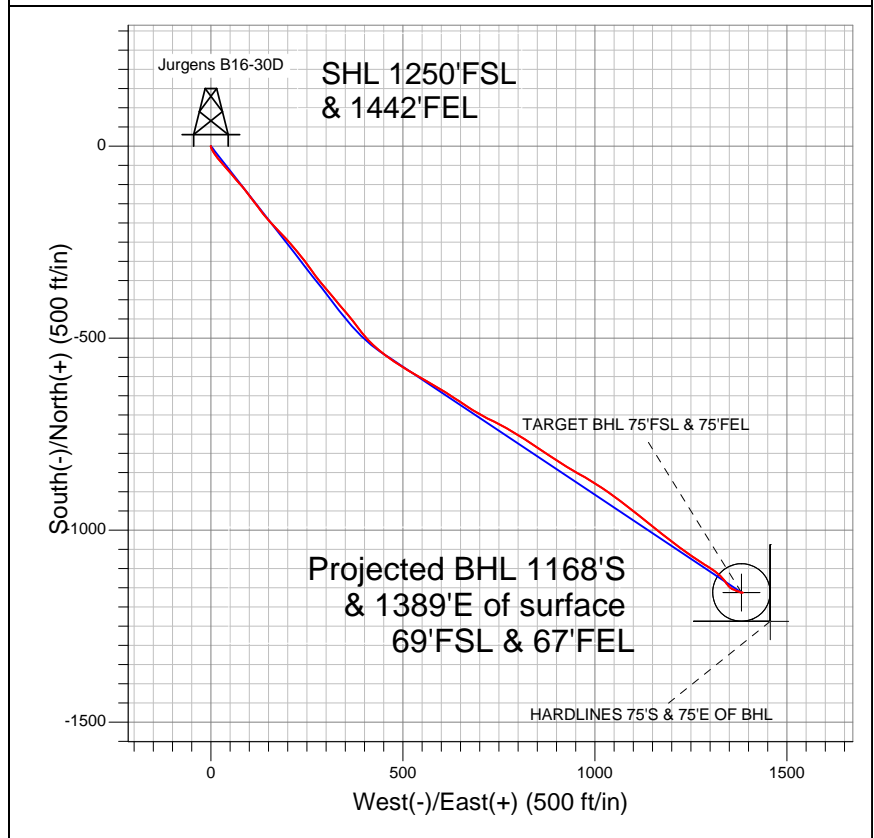
Well Name: Jurgens B16-30D

Surface Location: Jurgens PC B08-22D Pad Sec.8-T5N-R64W
 North American Datum 1983 US State Plane 1983Colorado Northern Zone
 Ground Elevation: 4590.0

| | | | | | | |
|--------------|--------------|------------------------|-----------------------|--------------------------------------|--------------------------|------|
| +N/-S 0.0 | +E/-W 0.0 | Northing 1393544.01 | Easting 3259052.62 | Latitude 40.409950 | Longitude -104.569710 | Slot |
| | | Original Well Elev | | WELL @ 4603.0ft (Original Well Elev) | | |



NOBLE ENERGY INC WELD COUNTY CO



LEGEND

- Survey #1
- ◇ Jurgens B16-30D, Wellbore #1, Noble Jurgens B16-30D Plan #2 (2-24-12) R V0
- Wellbore #1

Final Survey Plot

Projected Final Survey -
 7335'MD & 7004'TVD @ 1815'VS
 1.40 deg Inc 89.00 deg AZ

Project: SEC.8-T5N-R64W
 Site: Jurgens PC B08-22D Pad Sec.8-T5N-R64W
 Well: Jurgens B16-30D
 Plan: Wellbore #1



NOBLE ENERGY INC WELD COUNTY CO

SEC.8-T5N-R64W

Jurgens PC B08-22D Pad Sec.8-T5N-R64W

Jurgens B16-30D

Wellbore #1

Survey: Survey #1

Standard Survey Report

01 March, 2012



| | | | |
|------------------|---------------------------------------|-------------------------------------|--------------------------------------|
| Company: | NOBLE ENERGY INC WELD COUNTY CO | Local Co-ordinate Reference: | Well Jurgens B16-30D |
| Project: | SEC.8-T5N-R64W | TVD Reference: | WELL @ 4603.0ft (Original Well Elev) |
| Site: | Jurgens PC B08-22D Pad Sec.8-T5N-R64W | MD Reference: | WELL @ 4603.0ft (Original Well Elev) |
| Well: | Jurgens B16-30D | North Reference: | True |
| Wellbore: | Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Wellbore #1 | Database: | Landmark |

| | | | |
|--------------------|---------------------------------|----------------------|-----------------------------|
| Project | SEC.8-T5N-R64W, 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 | Jurgens PC B08-22D Pad Sec.8-T5N-R64W | | |
| Site Position: | | Northing: | 1,393,613.24 ft |
| From: | Lat/Long | Easting: | 3,259,051.89 ft |
| Position Uncertainty: | 0.0 ft | Slot Radius: | " |
| | | Latitude: | 40.410140 |
| | | Longitude: | -104.569710 |
| | | Grid Convergence: | 0.60 ° |

| | | | |
|-----------------------------|-----------------|----------------------------|----------------------------------|
| Well | Jurgens B16-30D | | |
| Well Position | +N/-S | 0.0 ft | Northing: 1,393,544.01 ft |
| | +E/-W | 0.0 ft | Easting: 3,259,052.62 ft |
| Position Uncertainty | 0.0 ft | Wellhead Elevation: | ft |
| | | Latitude: | 40.409950 |
| | | Longitude: | -104.569710 |
| | | Ground Level: | 4,590.0 ft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Wellbore #1 | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 1/23/2012 | 8.68 | 67.07 | 53,095 |

| | | | | | |
|--------------------------|------------------------------|-------------------|-------------------|----------------------|-----|
| Design | Wellbore #1 | | | | |
| Audit Notes: | | | | | |
| Version: | 1.0 | Phase: | ACTUAL | Tie On Depth: | 0.0 |
| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) | |
| | 5,900.0 | 0.0 | 0.0 | 130.07 | |

| | | | | | |
|-----------------------|----------------|--------------------------|------------------|--------------------|--|
| Survey Program | Date | 3/1/2012 | | | |
| From (ft) | To (ft) | Survey (Wellbore) | Tool Name | Description | |
| 75.0 | 7,335.0 | Survey #1 (Wellbore #1) | MWD | MWD - Standard | |

| | | | | | | | | | | |
|----------------------------|------------------------|--------------------|----------------------------|-------------------|-------------------|------------------------------|------------------------------|-----------------------------|----------------------------|--|
| 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 | |
| 75.0 | 0.40 | 292.60 | 75.0 | 0.1 | -0.2 | -0.2 | 0.53 | 0.53 | 0.00 | |
| 198.0 | 1.00 | 170.90 | 198.0 | -0.8 | -0.5 | 0.2 | 1.02 | 0.49 | -98.94 | |
| 290.0 | 2.60 | 163.70 | 289.9 | -3.6 | 0.2 | 2.5 | 1.75 | 1.74 | -7.83 | |
| 383.0 | 4.70 | 153.70 | 382.8 | -9.0 | 2.5 | 7.7 | 2.35 | 2.26 | -10.75 | |
| 474.0 | 6.90 | 146.80 | 473.3 | -16.9 | 7.2 | 16.4 | 2.53 | 2.42 | -7.58 | |
| 566.0 | 9.00 | 141.60 | 564.4 | -27.2 | 14.7 | 28.7 | 2.41 | 2.28 | -5.65 | |
| 659.0 | 10.60 | 140.70 | 656.0 | -39.5 | 24.6 | 44.3 | 1.73 | 1.72 | -0.97 | |
| 710.0 | 1.90 | 140.00 | 706.7 | -43.8 | 28.1 | 49.7 | 17.06 | -17.06 | -1.37 | |
| 747.0 | 10.80 | 140.90 | 743.4 | -47.0 | 30.7 | 53.7 | 24.05 | 24.05 | 2.43 | |
| 828.0 | 11.90 | 138.10 | 822.8 | -59.1 | 41.1 | 69.5 | 1.52 | 1.36 | -3.46 | |
| 910.0 | 14.20 | 138.40 | 902.7 | -72.9 | 53.4 | 87.8 | 2.81 | 2.80 | 0.37 | |
| 992.0 | 15.20 | 139.10 | 982.0 | -88.6 | 67.1 | 108.4 | 1.24 | 1.22 | 0.85 | |

| | | | |
|------------------|---------------------------------------|-------------------------------------|--------------------------------------|
| Company: | NOBLE ENERGY INC WELD COUNTY CO | Local Co-ordinate Reference: | Well Jurgens B16-30D |
| Project: | SEC.8-T5N-R64W | TVD Reference: | WELL @ 4603.0ft (Original Well Elev) |
| Site: | Jurgens PC B08-22D Pad Sec.8-T5N-R64W | MD Reference: | WELL @ 4603.0ft (Original Well Elev) |
| Well: | Jurgens B16-30D | 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) |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| 1,073.0 | 16.30 | 139.60 | 1,060.0 | -105.2 | 81.4 | 130.1 | 1.37 | 1.36 | 0.62 |
| 1,155.0 | 17.20 | 143.90 | 1,138.5 | -123.8 | 96.0 | 153.2 | 1.87 | 1.10 | 5.24 |
| 1,236.0 | 19.30 | 141.00 | 1,215.4 | -143.9 | 111.5 | 178.0 | 2.82 | 2.59 | -3.58 |
| 1,318.0 | 21.20 | 144.70 | 1,292.4 | -166.5 | 128.6 | 205.6 | 2.79 | 2.32 | 4.51 |
| 1,400.0 | 20.40 | 138.10 | 1,369.0 | -189.3 | 146.7 | 234.1 | 3.02 | -0.98 | -8.05 |
| 1,481.0 | 19.70 | 136.50 | 1,445.1 | -209.7 | 165.6 | 261.7 | 1.10 | -0.86 | -1.98 |
| 1,563.0 | 20.30 | 135.90 | 1,522.2 | -229.9 | 185.0 | 289.6 | 0.77 | 0.73 | -0.73 |
| 1,645.0 | 21.50 | 138.80 | 1,598.8 | -251.4 | 204.8 | 318.6 | 1.93 | 1.46 | 3.54 |
| 1,726.0 | 22.10 | 140.20 | 1,674.0 | -274.3 | 224.3 | 348.2 | 0.98 | 0.74 | 1.73 |
| 1,808.0 | 22.30 | 142.80 | 1,749.9 | -298.5 | 243.6 | 378.6 | 1.22 | 0.24 | 3.17 |
| 1,890.0 | 23.00 | 144.60 | 1,825.6 | -324.0 | 262.3 | 409.3 | 1.20 | 0.85 | 2.20 |
| 1,971.0 | 23.30 | 141.60 | 1,900.1 | -349.5 | 281.4 | 440.3 | 1.50 | 0.37 | -3.70 |
| 2,053.0 | 24.10 | 139.30 | 1,975.1 | -374.9 | 302.4 | 472.7 | 1.49 | 0.98 | -2.80 |
| 2,135.0 | 23.80 | 140.90 | 2,050.1 | -400.4 | 323.7 | 505.5 | 0.87 | -0.37 | 1.95 |
| 2,216.0 | 23.00 | 138.40 | 2,124.4 | -424.9 | 344.5 | 537.2 | 1.57 | -0.99 | -3.09 |
| 2,298.0 | 21.70 | 142.30 | 2,200.3 | -448.9 | 364.5 | 567.9 | 2.40 | -1.59 | 4.76 |
| 2,379.0 | 22.10 | 142.10 | 2,275.4 | -472.8 | 383.0 | 597.4 | 0.50 | 0.49 | -0.25 |
| 2,461.0 | 21.80 | 140.10 | 2,351.5 | -496.6 | 402.2 | 627.5 | 0.98 | -0.37 | -2.44 |
| 2,543.0 | 20.30 | 132.60 | 2,428.0 | -517.9 | 422.5 | 656.7 | 3.76 | -1.83 | -9.15 |
| 2,624.0 | 19.00 | 129.30 | 2,504.3 | -535.8 | 443.0 | 683.9 | 2.11 | -1.60 | -4.07 |
| 2,706.0 | 20.70 | 125.90 | 2,581.4 | -552.7 | 465.1 | 711.7 | 2.51 | 2.07 | -4.15 |
| 2,788.0 | 23.20 | 120.70 | 2,657.5 | -569.5 | 490.7 | 742.1 | 3.86 | 3.05 | -6.34 |
| 2,869.0 | 22.40 | 121.20 | 2,732.2 | -585.6 | 517.6 | 773.1 | 1.02 | -0.99 | 0.62 |
| 2,951.0 | 21.60 | 119.80 | 2,808.2 | -601.2 | 544.1 | 803.4 | 1.17 | -0.98 | -1.71 |
| 3,033.0 | 22.80 | 122.10 | 2,884.1 | -617.2 | 570.6 | 834.0 | 1.81 | 1.46 | 2.80 |
| 3,114.0 | 21.90 | 120.70 | 2,959.0 | -633.2 | 596.9 | 864.4 | 1.29 | -1.11 | -1.73 |
| 3,196.0 | 20.50 | 121.40 | 3,035.5 | -648.5 | 622.3 | 893.7 | 1.73 | -1.71 | 0.85 |
| 3,277.0 | 20.70 | 124.70 | 3,111.3 | -664.1 | 646.2 | 922.0 | 1.45 | 0.25 | 4.07 |
| 3,359.0 | 20.60 | 123.10 | 3,188.0 | -680.2 | 670.2 | 950.7 | 0.70 | -0.12 | -1.95 |
| 3,441.0 | 20.30 | 119.20 | 3,264.9 | -695.0 | 694.7 | 979.0 | 1.70 | -0.37 | -4.76 |
| 3,522.0 | 21.30 | 117.10 | 3,340.6 | -708.6 | 720.1 | 1,007.2 | 1.54 | 1.23 | -2.59 |
| 3,604.0 | 21.70 | 116.30 | 3,416.9 | -722.1 | 746.9 | 1,036.4 | 0.60 | 0.49 | -0.98 |
| 3,686.0 | 23.80 | 120.10 | 3,492.5 | -737.1 | 774.8 | 1,067.4 | 3.12 | 2.56 | 4.63 |
| 3,767.0 | 24.80 | 122.90 | 3,566.3 | -754.5 | 803.2 | 1,100.4 | 1.88 | 1.23 | 3.46 |
| 3,849.0 | 26.30 | 123.80 | 3,640.3 | -773.9 | 832.8 | 1,135.5 | 1.89 | 1.83 | 1.10 |
| 3,931.0 | 26.90 | 122.90 | 3,713.6 | -794.1 | 863.5 | 1,172.0 | 0.88 | 0.73 | -1.10 |
| 4,012.0 | 28.00 | 122.90 | 3,785.5 | -814.4 | 894.8 | 1,209.0 | 1.36 | 1.36 | 0.00 |
| 4,094.0 | 27.90 | 122.20 | 3,857.9 | -835.1 | 927.2 | 1,247.1 | 0.42 | -0.12 | -0.85 |
| 4,176.0 | 25.60 | 118.50 | 3,931.2 | -853.8 | 959.0 | 1,283.5 | 3.46 | -2.80 | -4.51 |
| 4,257.0 | 25.00 | 122.10 | 4,004.4 | -871.2 | 988.9 | 1,317.6 | 2.04 | -0.74 | 4.44 |
| 4,339.0 | 25.00 | 123.10 | 4,078.7 | -889.9 | 1,018.1 | 1,351.9 | 0.52 | 0.00 | 1.22 |
| 4,420.0 | 24.90 | 126.50 | 4,152.2 | -909.4 | 1,046.1 | 1,385.9 | 1.77 | -0.12 | 4.20 |
| 4,502.0 | 23.70 | 128.00 | 4,226.9 | -929.8 | 1,073.0 | 1,419.6 | 1.65 | -1.46 | 1.83 |
| 4,584.0 | 23.70 | 126.80 | 4,302.0 | -949.8 | 1,099.2 | 1,452.6 | 0.59 | 0.00 | -1.46 |
| 4,665.0 | 23.00 | 128.60 | 4,376.4 | -969.4 | 1,124.6 | 1,484.6 | 1.23 | -0.86 | 2.22 |
| 4,747.0 | 21.20 | 129.10 | 4,452.3 | -988.8 | 1,148.6 | 1,515.5 | 2.21 | -2.20 | 0.61 |
| 4,829.0 | 21.30 | 127.90 | 4,528.7 | -1,007.3 | 1,171.9 | 1,545.2 | 0.54 | 0.12 | -1.46 |
| 4,910.0 | 20.90 | 127.50 | 4,604.3 | -1,025.1 | 1,194.9 | 1,574.3 | 0.52 | -0.49 | -0.49 |
| 4,992.0 | 17.90 | 128.40 | 4,681.7 | -1,041.8 | 1,216.4 | 1,601.5 | 3.68 | -3.66 | 1.10 |
| 5,074.0 | 18.40 | 125.60 | 4,759.6 | -1,057.2 | 1,236.8 | 1,627.0 | 1.23 | 0.61 | -3.41 |
| 5,155.0 | 17.80 | 122.80 | 4,836.6 | -1,071.4 | 1,257.6 | 1,652.1 | 1.30 | -0.74 | -3.46 |
| 5,237.0 | 16.30 | 124.00 | 4,915.0 | -1,084.6 | 1,277.7 | 1,675.9 | 1.88 | -1.83 | 1.46 |
| 5,318.0 | 12.40 | 120.30 | 4,993.4 | -1,095.3 | 1,294.6 | 1,695.8 | 4.94 | -4.81 | -4.57 |
| 5,400.0 | 9.80 | 127.20 | 5,073.9 | -1,104.0 | 1,307.8 | 1,711.5 | 3.56 | -3.17 | 8.41 |

| | | | |
|------------------|---------------------------------------|-------------------------------------|--------------------------------------|
| Company: | NOBLE ENERGY INC WELD COUNTY CO | Local Co-ordinate Reference: | Well Jurgens B16-30D |
| Project: | SEC.8-T5N-R64W | TVD Reference: | WELL @ 4603.0ft (Original Well Elev) |
| Site: | Jurgens PC B08-22D Pad Sec.8-T5N-R64W | MD Reference: | WELL @ 4603.0ft (Original Well Elev) |
| Well: | Jurgens B16-30D | 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) |
|--|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| 5,482.0 | 8.70 | 128.60 | 5,154.8 | -1,112.1 | 1,318.2 | 1,724.6 | 1.37 | -1.34 | 1.71 |
| 5,563.0 | 7.70 | 132.40 | 5,235.0 | -1,119.6 | 1,327.0 | 1,736.2 | 1.40 | -1.23 | 4.69 |
| 5,645.0 | 5.70 | 143.30 | 5,316.4 | -1,126.5 | 1,333.5 | 1,745.6 | 2.88 | -2.44 | 13.29 |
| 5,727.0 | 6.10 | 147.50 | 5,398.0 | -1,133.5 | 1,338.3 | 1,753.8 | 0.72 | 0.49 | 5.12 |
| 5,808.0 | 5.30 | 137.50 | 5,478.6 | -1,139.9 | 1,343.1 | 1,761.6 | 1.57 | -0.99 | -12.35 |
| 5,890.0 | 4.20 | 138.90 | 5,560.3 | -1,144.9 | 1,347.6 | 1,768.3 | 1.35 | -1.34 | 1.71 |
| 5,972.0 | 3.10 | 130.00 | 5,642.1 | -1,148.6 | 1,351.3 | 1,773.5 | 1.51 | -1.34 | -10.85 |
| 6,053.0 | 2.50 | 128.00 | 5,723.0 | -1,151.1 | 1,354.4 | 1,777.4 | 0.75 | -0.74 | -2.47 |
| 6,135.0 | 1.80 | 120.70 | 5,805.0 | -1,152.9 | 1,356.9 | 1,780.5 | 0.91 | -0.85 | -8.90 |
| 6,217.0 | 1.40 | 108.70 | 5,887.0 | -1,153.8 | 1,359.0 | 1,782.7 | 0.63 | -0.49 | -14.63 |
| 6,230.6 | 1.42 | 107.99 | 5,900.6 | -1,153.9 | 1,359.3 | 1,783.0 | 0.18 | 0.12 | -5.23 |
| TARGET BHL 75'FSL & 75'FEL | | | | | | | | | |
| 6,298.0 | 1.50 | 104.70 | 5,967.9 | -1,154.4 | 1,360.9 | 1,784.6 | 0.18 | 0.12 | -4.88 |
| 6,380.0 | 1.80 | 115.40 | 6,049.9 | -1,155.2 | 1,363.1 | 1,786.8 | 0.52 | 0.37 | 13.05 |
| 6,461.0 | 1.60 | 110.50 | 6,130.9 | -1,156.2 | 1,365.3 | 1,789.1 | 0.31 | -0.25 | -6.05 |
| 6,543.0 | 1.30 | 129.60 | 6,212.8 | -1,157.2 | 1,367.1 | 1,791.1 | 0.69 | -0.37 | 23.29 |
| 6,625.0 | 1.30 | 109.20 | 6,294.8 | -1,158.1 | 1,368.7 | 1,792.9 | 0.56 | 0.00 | -24.88 |
| 6,706.0 | 1.50 | 99.60 | 6,375.8 | -1,158.6 | 1,370.6 | 1,794.7 | 0.38 | 0.25 | -11.85 |
| 6,788.0 | 1.70 | 111.20 | 6,457.8 | -1,159.2 | 1,372.8 | 1,796.8 | 0.46 | 0.24 | 14.15 |
| 6,843.5 | 1.56 | 108.41 | 6,513.2 | -1,159.7 | 1,374.3 | 1,798.2 | 0.28 | -0.25 | -5.03 |
| TARGET CIRCLE 75'FSL & 75'FEL | | | | | | | | | |
| 6,870.0 | 1.50 | 106.90 | 6,539.7 | -1,159.9 | 1,375.0 | 1,798.9 | 0.28 | -0.24 | -5.70 |
| 6,951.0 | 1.40 | 125.90 | 6,620.7 | -1,160.8 | 1,376.8 | 1,800.9 | 0.60 | -0.12 | 23.46 |
| 7,033.0 | 1.10 | 110.10 | 6,702.7 | -1,161.7 | 1,378.3 | 1,802.6 | 0.55 | -0.37 | -19.27 |
| 7,115.0 | 1.10 | 104.10 | 6,784.7 | -1,162.1 | 1,379.8 | 1,804.0 | 0.14 | 0.00 | -7.32 |
| 7,196.0 | 1.20 | 95.20 | 6,865.6 | -1,162.4 | 1,381.4 | 1,805.4 | 0.25 | 0.12 | -10.99 |
| 7,278.0 | 1.40 | 92.50 | 6,947.6 | -1,162.5 | 1,383.3 | 1,806.9 | 0.26 | 0.24 | -3.29 |
| 7,284.0 | 1.40 | 90.00 | 6,953.6 | -1,162.5 | 1,383.4 | 1,807.0 | 1.02 | 0.00 | -41.67 |
| HARDLINES 75'S & 75'E OF BHL | | | | | | | | | |
| 7,335.0 | 1.40 | 89.00 | 7,004.6 | -1,162.5 | 1,384.7 | 1,808.0 | 0.05 | 0.00 | -1.96 |

| | | |
|-------------------|--------------------|-------------|
| Checked By: _____ | Approved By: _____ | Date: _____ |
|-------------------|--------------------|-------------|