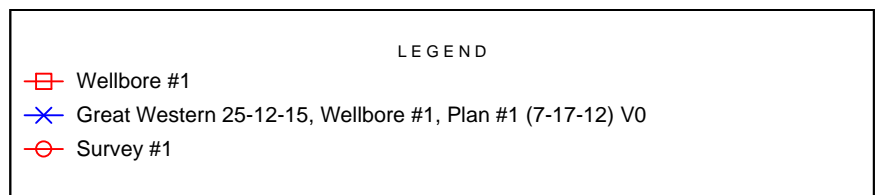
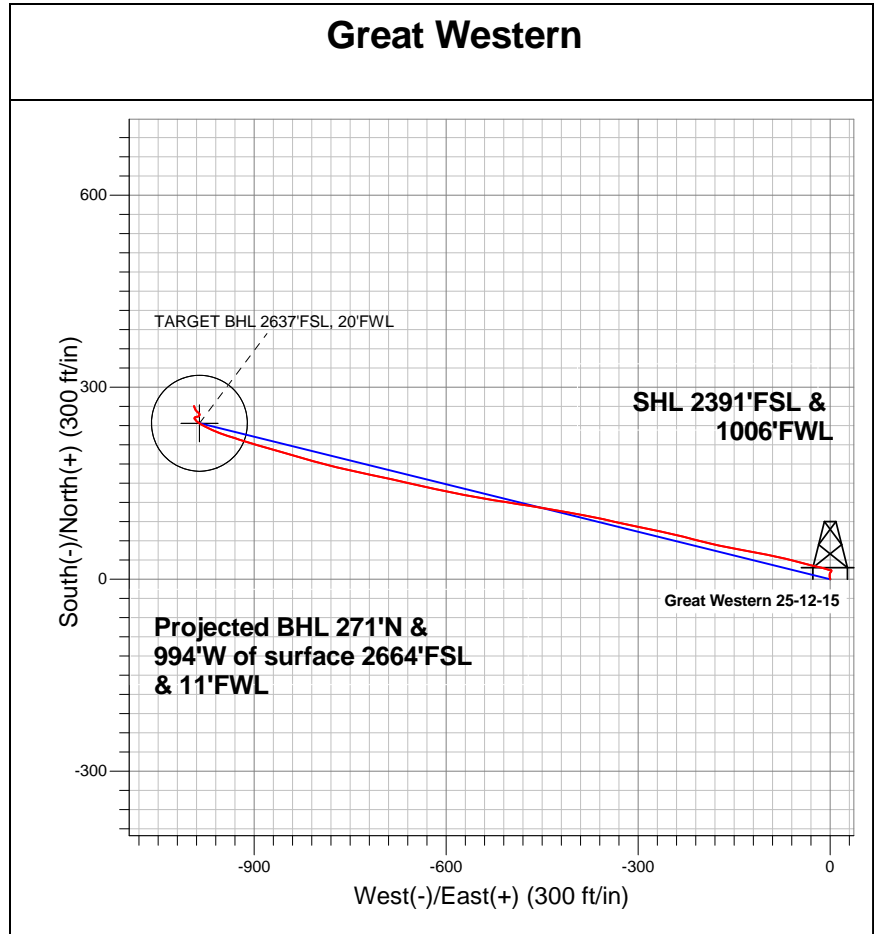
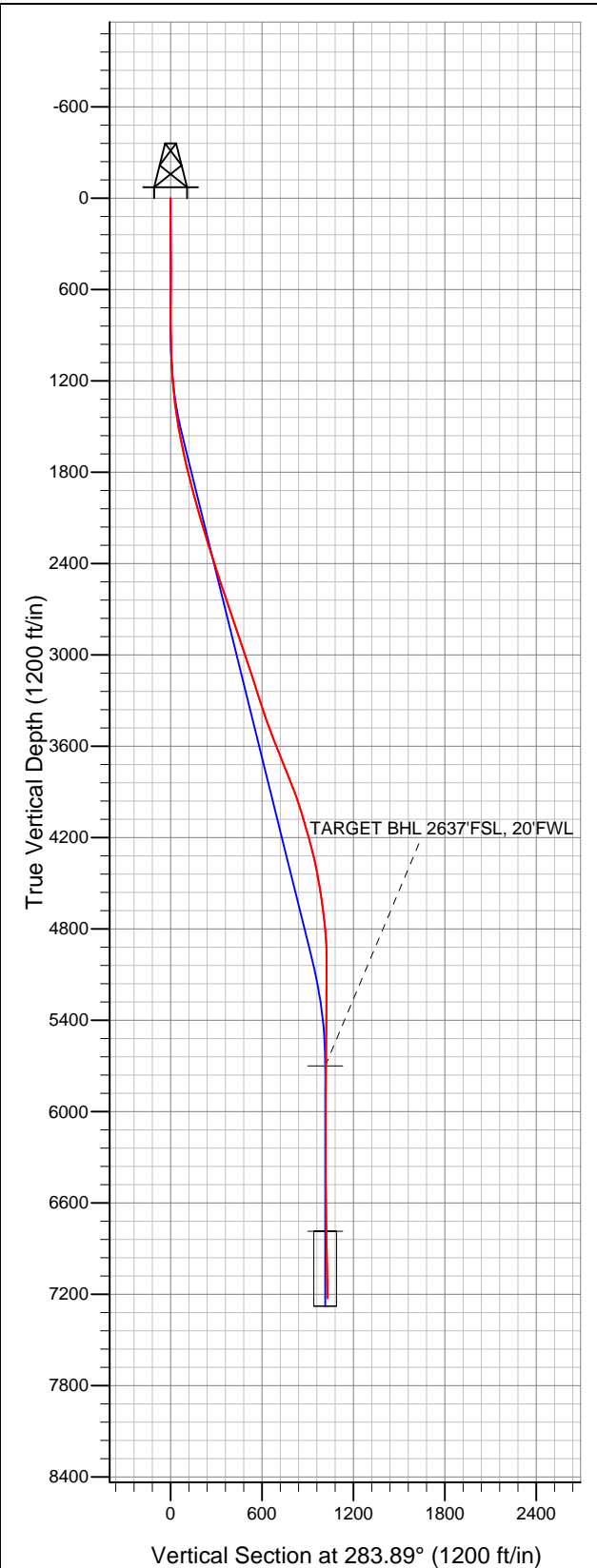


# Well Name: Great Western 25-12-15

Surface Location: Great Western 25-12-15 Pad Sec.25-T6N-R67W  
North American Datum 1983 US State Plane 1983Colorado Northern Zone  
Ground Elevation: 4752.0

| +N/-S                                | +E/-W | Northing   | Easting    | Latitude  | Longitude   | Slot |
|--------------------------------------|-------|------------|------------|-----------|-------------|------|
| 0.0                                  | 0.0   | 1410085.01 | 3181487.19 | 40.457253 | -104.847808 |      |
| Original Well Elev                   |       |            |            |           |             |      |
| WELL @ 4766.0ft (Original Well Elev) |       |            |            |           |             |      |



## Final Survey Plot

Projected Final Survey -  
7377'MD & 7227'TVD @ 1030'VS  
1.80 deg Inc 342.10 deg AZ

Project: SEC.25-T6N-R67W  
Site: Great Western 25-12-15 Pad Sec.25-T6N-R67W  
Well: Great Western 25-12-15  
Plan: Wellbore #1



## **Great Western**

**SEC.25-T6N-R67W**

**Great Western 25-12-15 Pad Sec.25-T6N-R67W**

**Great Western 25-12-15**

**Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**31 July, 2012**

|                  |  |                                     |                                      |
|------------------|--|-------------------------------------|--------------------------------------|
| <b>Company:</b>  | Great Western                              | <b>Local Co-ordinate Reference:</b> | Well Great Western 25-12-15          |
| <b>Project:</b>  | SEC.25-T6N-R67W                            | <b>TVD Reference:</b>               | WELL @ 4766.0ft (Original Well Elev) |
| <b>Site:</b>     | Great Western 25-12-15 Pad Sec.25-T6N-R67W | <b>MD Reference:</b>                | WELL @ 4766.0ft (Original Well Elev) |
| <b>Well:</b>     | Great Western 25-12-15                     | <b>North Reference:</b>             | True                                 |
| <b>Wellbore:</b> | Wellbore #1                                | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Design:</b>   | Wellbore #1                                | <b>Database:</b>                    | Landmark                             |

|                    |  |                      |                             |
|--------------------|--|----------------------|-----------------------------|
| <b>Project</b>     | SEC.25-T6N-R67W, Weld County, Colorado |                      |                             |
| <b>Map System:</b> | US State Plane 1983                    | <b>System Datum:</b> | Mean Sea Level              |
| <b>Geo Datum:</b>  | North American Datum 1983              |                      | Using Well Reference Point  |
| <b>Map Zone:</b>   | Colorado Northern Zone                 |                      | Using geodetic scale factor |

|                       |          |  |  |                   |  |
|-----------------------|----------|--|--|-------------------|--|
| Site                  |          | Great Western 25-12-15 Pad Sec.25-T6N-R67W |  |                   |  |
| Site Position:        |          | Northing:                                  |  | 1,410,085.03ft    |  |
| From:                 | Lat/Long | Easting:                                   |  | Longitude:        |  |
|                       |          | 3,181,487.19ft                             |  | -104.847808       |  |
| Position Uncertainty: |          | Slot Radius:                               |  | Grid Convergence: |  |
| 0.0 ft                |          | "  |  | 0.42 °            |  |

|                      |                        |        |                     |                 |               |             |
|----------------------|------------------------|--------|---------------------|-----------------|---------------|-------------|
| Well                 | Great Western 25-12-15 |        |                     |                 |               |             |
| Well Position        | +N-S                   | 0.0 ft | Northing:           | 1,410,085.01 ft | Latitude:     | 40.457253   |
|                      | +E-W                   | 0.0 ft | Easting:            | 3,181,487.19 ft | Longitude:    | -104.847808 |
| Position Uncertainty |                        | 0.0 ft | Wellhead Elevation: | ft              | Ground Level: | 4,752.0 ft  |

|           |             |             |                    |                  |                        |
|-----------|-------------|-------------|--------------------|------------------|------------------------|
| Wellbore  | Wellbore #1 |             |                    |                  |                        |
| Magnetics | Model Name  | Sample Date | Declination<br>(°) | Dip Angle<br>(°) | Field Strength<br>(nT) |
|           | IGRF2010    | 7/19/2012   | 8.77               | 67.05            | 53,038                 |

|                   |                          |               |               |                   |
|-------------------|--------------------------|---------------|---------------|-------------------|
| Design            | Wellbore #1              |               |               |                   |
| Audit Notes:      |                          |               |               |                   |
| Version:          | 1.0                      | Phase:        | ACTUAL        | Tie On Depth: 0.0 |
| Vertical Section: | Depth From (TVD)<br>(ft) | +N/-S<br>(ft) | +E/-W<br>(ft) | Direction<br>(°)  |
|                   | 0.0                      | 0.0           | 0.0           | 283.89            |

| Survey Program |            | Date                    | 7/31/2012 |                |  |
|----------------|------------|-------------------------|-----------|----------------|--|
| From<br>(ft)   | To<br>(ft) | Survey (Wellbore)       | Tool Name | Description    |  |
| 58.0           | 7,377.0    | 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                |
| 58.0                | 0.50            | 334.40      | 58.0                | 0.2        | -0.1       | 0.2                   | 0.86                  | 0.86                 | 0.00                |
| 151.0               | 0.70            | 348.40      | 151.0               | 1.2        | -0.4       | 0.7                   | 0.27                  | 0.22                 | 15.05               |
| 336.0               | 1.10            | 349.60      | 336.0               | 4.0        | -0.9       | 1.9                   | 0.22                  | 0.22                 | 0.65                |
| 427.0               | 1.10            | 1.30        | 427.0               | 5.7        | -1.1       | 2.4                   | 0.25                  | 0.00                 | 12.86               |
| 513.0               | 1.10            | 9.30        | 512.9               | 7.4        | -0.9       | 2.7                   | 0.18                  | 0.00                 | 9.30                |
| 605.0               | 1.00            | 16.20       | 604.9               | 9.0        | -0.6       | 2.7                   | 0.18                  | -0.11                | 7.50                |
| 700.0               | 1.10            | 30.40       | 699.9               | 10.6       | 0.1        | 2.4                   | 0.29                  | 0.11                 | 14.95               |
| 791.0               | 1.30            | 43.60       | 790.9               | 12.1       | 1.3        | 1.7                   | 0.37                  | 0.22                 | 14.51               |
| 885.0               | 1.10            | 345.40      | 884.9               | 13.7       | 1.8        | 1.6                   | 1.26                  | -0.21                | -61.92              |
| 980.0               | 1.40            | 264.20      | 979.9               | 14.5       | 0.4        | 3.1                   | 1.73                  | 0.32                 | -85.47              |
| 1,075.0             | 2.60            | 283.60      | 1,074.8             | 14.9       | -2.8       | 6.3                   | 1.43                  | 1.26                 | 20.42               |
| 1,169.0             | 4.60            | 288.10      | 1,168.6             | 16.6       | -8.5       | 12.2                  | 2.15                  | 2.13                 | 4.79                |

|                  |  |                                     |                                      |
|------------------|--|-------------------------------------|--------------------------------------|
| <b>Company:</b>  | Great Western                              | <b>Local Co-ordinate Reference:</b> | Well Great Western 25-12-15          |
| <b>Project:</b>  | SEC.25-T6N-R67W                            | <b>TVD Reference:</b>               | WELL @ 4766.0ft (Original Well Elev) |
| <b>Site:</b>     | Great Western 25-12-15 Pad Sec.25-T6N-R67W | <b>MD Reference:</b>                | WELL @ 4766.0ft (Original Well Elev) |
| <b>Well:</b>     | Great Western 25-12-15                     | <b>North Reference:</b>             | True                                 |
| <b>Wellbore:</b> | Wellbore #1                                | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Design:</b>   | Wellbore #1                                | <b>Database:</b>                    | 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) |  |
| 1,264.0                     | 5.80            | 281.40      | 1,263.2             | 18.7       | -16.8      | 20.8                  | 1.41                  | 1.26                 | -7.05               |  |
| 1,358.0                     | 7.10            | 283.90      | 1,356.6             | 21.0       | -27.1      | 31.4                  | 1.41                  | 1.38                 | 2.66                |  |
| 1,453.0                     | 9.00            | 285.00      | 1,450.7             | 24.4       | -40.0      | 44.7                  | 2.01                  | 2.00                 | 1.16                |  |
| 1,547.0                     | 10.30           | 284.10      | 1,543.3             | 28.3       | -55.3      | 60.4                  | 1.39                  | 1.38                 | -0.96               |  |
| 1,642.0                     | 11.60           | 283.40      | 1,636.6             | 32.6       | -72.8      | 78.5                  | 1.38                  | 1.37                 | -0.74               |  |
| 1,737.0                     | 12.80           | 281.40      | 1,729.5             | 36.9       | -92.4      | 98.5                  | 1.34                  | 1.26                 | -2.11               |  |
| 1,831.0                     | 13.70           | 280.70      | 1,821.0             | 41.0       | -113.5     | 120.1                 | 0.97                  | 0.96                 | -0.74               |  |
| 1,925.0                     | 15.10           | 281.30      | 1,912.0             | 45.5       | -136.5     | 143.4                 | 1.50                  | 1.49                 | 0.64                |  |
| 2,020.0                     | 15.60           | 280.20      | 2,003.6             | 50.2       | -161.2     | 168.5                 | 0.61                  | 0.53                 | -1.16               |  |
| 2,115.0                     | 16.10           | 283.40      | 2,095.0             | 55.5       | -186.6     | 194.4                 | 1.06                  | 0.53                 | 3.37                |  |
| 2,209.0                     | 16.50           | 285.00      | 2,185.2             | 62.0       | -212.1     | 220.8                 | 0.64                  | 0.43                 | 1.70                |  |
| 2,304.0                     | 17.70           | 283.20      | 2,276.0             | 68.8       | -239.2     | 248.8                 | 1.38                  | 1.26                 | -1.89               |  |
| 2,399.0                     | 16.40           | 281.40      | 2,366.9             | 74.7       | -266.4     | 276.6                 | 1.48                  | -1.37                | -1.89               |  |
| 2,494.0                     | 18.50           | 282.10      | 2,457.5             | 80.5       | -294.3     | 305.1                 | 2.22                  | 2.21                 | 0.74                |  |
| 2,589.0                     | 19.60           | 282.90      | 2,547.3             | 87.2       | -324.6     | 336.1                 | 1.19                  | 1.16                 | 0.84                |  |
| 2,684.0                     | 18.00           | 282.30      | 2,637.2             | 93.9       | -354.5     | 366.7                 | 1.70                  | -1.68                | -0.63               |  |
| 2,779.0                     | 18.40           | 279.70      | 2,727.4             | 99.6       | -383.6     | 396.3                 | 0.95                  | 0.42                 | -2.74               |  |
| 2,874.0                     | 19.00           | 280.40      | 2,817.4             | 104.9      | -413.6     | 426.7                 | 0.67                  | 0.63                 | 0.74                |  |
| 2,969.0                     | 18.60           | 280.20      | 2,907.4             | 110.4      | -443.7     | 457.2                 | 0.43                  | -0.42                | -0.21               |  |
| 3,064.0                     | 19.00           | 278.50      | 2,997.3             | 115.3      | -473.9     | 487.7                 | 0.71                  | 0.42                 | -1.79               |  |
| 3,159.0                     | 17.90           | 279.90      | 3,087.4             | 120.1      | -503.6     | 517.7                 | 1.25                  | -1.16                | 1.47                |  |
| 3,254.0                     | 18.10           | 278.50      | 3,177.8             | 124.8      | -532.6     | 547.0                 | 0.50                  | 0.21                 | -1.47               |  |
| 3,345.0                     | 18.30           | 280.40      | 3,264.2             | 129.5      | -560.6     | 575.3                 | 0.69                  | 0.22                 | 2.09                |  |
| 3,440.0                     | 18.40           | 280.90      | 3,354.4             | 135.0      | -590.0     | 605.2                 | 0.20                  | 0.11                 | 0.53                |  |
| 3,534.0                     | 19.00           | 283.20      | 3,443.4             | 141.3      | -619.5     | 635.3                 | 1.01                  | 0.64                 | 2.45                |  |
| 3,629.0                     | 20.80           | 282.90      | 3,532.7             | 148.6      | -651.0     | 667.6                 | 1.90                  | 1.89                 | -0.32               |  |
| 3,724.0                     | 21.70           | 281.60      | 3,621.3             | 155.9      | -684.6     | 702.0                 | 1.07                  | 0.95                 | -1.37               |  |
| 3,818.0                     | 22.40           | 282.00      | 3,708.4             | 163.1      | -719.2     | 737.3                 | 0.76                  | 0.74                 | 0.43                |  |
| 3,913.0                     | 22.20           | 283.40      | 3,796.3             | 171.1      | -754.3     | 773.3                 | 0.60                  | -0.21                | 1.47                |  |
| 4,008.0                     | 20.50           | 284.10      | 3,884.8             | 179.3      | -787.9     | 807.9                 | 1.81                  | -1.79                | 0.74                |  |
| 4,102.0                     | 18.20           | 286.20      | 3,973.5             | 187.4      | -818.0     | 839.0                 | 2.56                  | -2.45                | 2.23                |  |
| 4,197.0                     | 17.10           | 285.50      | 4,064.0             | 195.2      | -845.7     | 867.8                 | 1.18                  | -1.16                | -0.74               |  |
| 4,292.0                     | 15.40           | 286.00      | 4,155.2             | 202.5      | -871.3     | 894.4                 | 1.80                  | -1.79                | 0.53                |  |
| 4,386.0                     | 14.80           | 287.10      | 4,245.9             | 209.4      | -894.7     | 918.9                 | 0.71                  | -0.64                | 1.17                |  |
| 4,481.0                     | 13.30           | 286.70      | 4,338.1             | 216.1      | -916.8     | 941.9                 | 1.58                  | -1.58                | -0.42               |  |
| 4,575.0                     | 10.80           | 287.80      | 4,430.0             | 221.9      | -935.6     | 961.5                 | 2.67                  | -2.66                | 1.17                |  |
| 4,670.0                     | 9.10            | 290.20      | 4,523.6             | 227.3      | -951.1     | 977.8                 | 1.84                  | -1.79                | 2.53                |  |
| 4,766.0                     | 8.50            | 294.10      | 4,618.5             | 232.8      | -964.7     | 992.4                 | 0.88                  | -0.63                | 4.06                |  |
| 4,861.0                     | 7.50            | 296.90      | 4,712.5             | 238.4      | -976.6     | 1,005.3               | 1.13                  | -1.05                | 2.95                |  |
| 4,956.0                     | 5.50            | 304.60      | 4,806.9             | 243.8      | -985.9     | 1,015.6               | 2.29                  | -2.11                | 8.11                |  |
| 5,051.0                     | 3.20            | 318.40      | 4,901.6             | 248.4      | -991.4     | 1,022.0               | 2.64                  | -2.42                | 14.53               |  |
| 5,146.0                     | 0.70            | 348.60      | 4,996.6             | 251.0      | -993.3     | 1,024.5               | 2.76                  | -2.63                | 31.79               |  |
| 5,241.0                     | 0.70            | 7.90        | 5,091.6             | 252.1      | -993.3     | 1,024.8               | 0.25                  | 0.00                 | 20.32               |  |
| 5,431.0                     | 0.80            | 83.50       | 5,281.6             | 253.4      | -991.8     | 1,023.7               | 0.49                  | 0.05                 | 39.79               |  |
| 5,620.0                     | 0.70            | 77.00       | 5,470.6             | 253.8      | -989.4     | 1,021.4               | 0.07                  | -0.05                | -3.44               |  |
| 5,810.0                     | 0.60            | 61.40       | 5,660.5             | 254.5      | -987.4     | 1,019.6               | 0.11                  | -0.05                | -8.21               |  |
| 5,849.4                     | 0.54            | 59.90       | 5,700.0             | 254.7      | -987.1     | 1,019.3               | 0.17                  | -0.16                | -3.79               |  |
| TARGET BHL 2637'FSL, 20'FWL |                 |             |                     |            |            |                       |                       |                      |                     |  |
| 6,000.0                     | 0.30            | 48.40       | 5,850.5             | 255.3      | -986.2     | 1,018.6               | 0.17                  | -0.16                | -7.64               |  |
| 6,188.0                     | 0.40            | 30.10       | 6,038.5             | 256.2      | -985.5     | 1,018.2               | 0.08                  | 0.05                 | -9.73               |  |
| 6,378.0                     | 0.40            | 341.40      | 6,228.5             | 257.4      | -985.3     | 1,018.3               | 0.17                  | 0.00                 | -25.63              |  |
| 6,567.0                     | 0.40            | 333.30      | 6,417.5             | 258.7      | -985.8     | 1,019.1               | 0.03                  | 0.00                 | -4.29               |  |
| 6,757.0                     | 0.70            | 314.70      | 6,607.5             | 260.1      | -987.0     | 1,020.5               | 0.18                  | 0.16                 | -9.79               |  |
| 6,935.3                     | 0.98            | 301.02      | 6,785.8             | 261.6      | -989.0     | 1,022.9               | 0.19                  | 0.16                 | -7.67               |  |

|                  |  |                                     |                                      |
|------------------|--|-------------------------------------|--------------------------------------|
| <b>Company:</b>  | Great Western                              | <b>Local Co-ordinate Reference:</b> | Well Great Western 25-12-15          |
| <b>Project:</b>  | SEC.25-T6N-R67W                            | <b>TVD Reference:</b>               | WELL @ 4766.0ft (Original Well Elev) |
| <b>Site:</b>     | Great Western 25-12-15 Pad Sec.25-T6N-R67W | <b>MD Reference:</b>                | WELL @ 4766.0ft (Original Well Elev) |
| <b>Well:</b>     | Great Western 25-12-15                     | <b>North Reference:</b>             | True                                 |
| <b>Wellbore:</b> | Wellbore #1                                | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Design:</b>   | Wellbore #1                                | <b>Database:</b>                    | 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) |
| TARGET CIRCLE 2637'FSL & 20'FWL |                 |             |                     |            |            |                       |                       |                      |                     |
| 6,947.0                         | 1.00            | 300.40      | 6,797.5             | 261.7      | -989.2     | 1,023.1               | 0.19                  | 0.17                 | -5.32               |
| 7,136.0                         | 1.30            | 329.10      | 6,986.5             | 264.4      | -991.7     | 1,026.2               | 0.34                  | 0.16                 | 15.19               |
| 7,327.0                         | 1.80            | 342.10      | 7,177.4             | 269.1      | -993.8     | 1,029.3               | 0.32                  | 0.26                 | 6.81                |
| 7,377.0                         | 1.80            | 342.10      | 7,227.4             | 270.6      | -994.3     | 1,030.1               | 0.00                  | 0.00                 | 0.00                |

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