

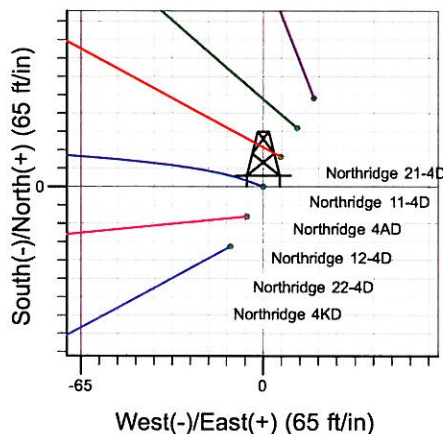
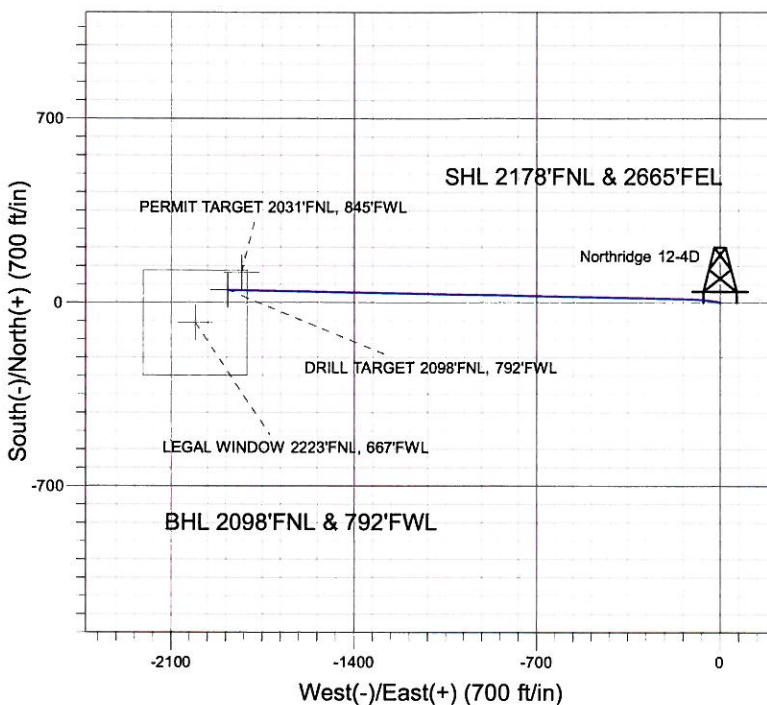
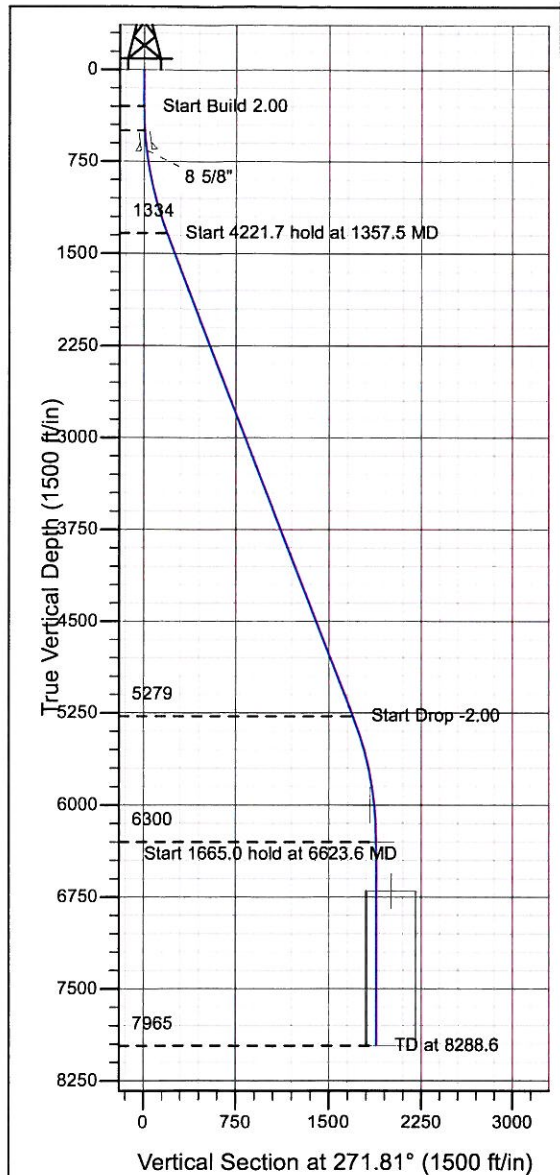
# ENSIGN

## Directional

### Well Name: Northridge 12-4D

Surface Location: Northridge Pad Sec.4-T5N-R66W  
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone  
 Ground Elevation: 4741.0  
 +N/-S+E/-W Northing Easting Latitude Longitude Slot  
 0.0 0.0 1400805.16 3199456.68 40° 25' 53.040 N 104° 47' 0.618 W  
 Original Well Elev WELL @ 4754.0ft (Original Well Elev)

### Synergy Resources



Northridge Pad Sec.4-T5N-R66W  
 Northridge 12-4D  
 Plan #3 (1-12-10)  
 16:04, January 13 2010

Azimuths to True North  
 Magnetic North: 9.04°  
 Magnetic Field  
 Strength: 53319.3snT  
 Dip Angle: 67.13°  
 Date: 12/31/2009  
 Model: IGRF200510

### WELLBORE TARGET DETAILS (LAT/LONG)

| Name                            | TVD    | +N/-S | +E/-W   | Latitude         | Longitude         | Shape                            |
|---------------------------------|--------|-------|---------|------------------|-------------------|----------------------------------|
| PERMIT TARGET 2031'FNL, 845'FWL | 6000.0 | 115.3 | -1829.0 | 40° 25' 54.178 N | 104° 47' 24.269 W | Point                            |
| DRILL TARGET 2098'FNL, 792'FWL  | 6300.0 | 48.3  | -1882.0 | 40° 25' 53.516 N | 104° 47' 24.955 W | Point                            |
| LEGAL WINDOW 2223'FNL, 667'FWL  | 6700.0 | -76.7 | -2007.0 | 40° 25' 52.281 N | 104° 47' 26.571 W | Rectangle (Sides: L400.0 W400.0) |

### SECTION DETAILS

| Sec | MD     | Inc   | Azi    | TVD    | +N/-S | +E/-W   | DLeg | TFace  | VSec   | Target                         |
|-----|--------|-------|--------|--------|-------|---------|------|--------|--------|--------------------------------|
| 1   | 0.0    | 0.00  | 0.00   | 0.0    | 0.0   | 0.0     | 0.00 | 0.00   | 0.0    |                                |
| 2   | 300.0  | 0.00  | 0.00   | 300.0  | 0.0   | 0.0     | 0.00 | 0.00   | 0.0    |                                |
| 3   | 500.0  | 4.00  | 290.00 | 499.8  | 2.4   | -6.6    | 2.00 | 290.00 | 6.6    |                                |
| 4   | 1357.5 | 20.89 | 271.10 | 1334.4 | 15.7  | -188.9  | 2.00 | -23.05 | 189.3  |                                |
| 5   | 5579.2 | 20.89 | 271.10 | 5278.6 | 44.7  | -1693.8 | 0.00 | 0.00   | 1694.3 |                                |
| 6   | 6623.6 | 0.00  | 0.00   | 6300.0 | 48.3  | -1882.0 | 2.00 | 180.00 | 1882.6 | DRILL TARGET 2098'FNL, 792'FWL |
| 7   | 8288.6 | 0.00  | 0.00   | 7965.0 | 48.3  | -1882.0 | 0.00 | 0.00   | 1882.6 |                                |



## **Directional**

### **Synergy Resources**

**SEC.4-T5N-R66W**

**Northridge Pad Sec.4-T5N-R66W**

**Northridge 12-4D**

**Wellbore #1**

**Plan: Plan #3 (1-12-10)**

### **Standard Planning Report**

**13 January, 2010**



# **ENSIGN** Directional

## ENSIGN DIRECTIONAL

### Planning Report

|                  |                               |                                     |                                      |
|------------------|-------------------------------|-------------------------------------|--------------------------------------|
| <b>Database:</b> | EDM den0-adp01 Server Data    | <b>Local Co-ordinate Reference:</b> | Well Northridge 12-4D                |
| <b>Company:</b>  | Synergy Resources             | <b>TVD Reference:</b>               | WELL @ 4754.0ft (Original Well Elev) |
| <b>Project:</b>  | SEC.4-T5N-R66W                | <b>MD Reference:</b>                | WELL @ 4754.0ft (Original Well Elev) |
| <b>Site:</b>     | Northridge Pad Sec.4-T5N-R66W | <b>North Reference:</b>             | True                                 |
| <b>Well:</b>     | Northridge 12-4D              | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Wellbore:</b> | Wellbore #1                   |                                     |                                      |
| <b>Design:</b>   | Plan #3 (1-12-10)             |                                     |                                      |

|                    |                                       |                      |                             |
|--------------------|---------------------------------------|----------------------|-----------------------------|
| <b>Project</b>     | SEC.4-T5N-R66W, 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                  |          | Northridge Pad Sec.4-T5N-R66W |                 |                   |                  |
| Site Position:        |          | Northing:                     | 1,400,867.38 ft | Latitude:         | 40° 25' 53.652 N |
| From:                 | Lat/Long | Easting:                      | 3,199,490.98 ft | Longitude:        | 104° 47' 0.168 W |
| Position Uncertainty: | 0.0 ft   | Slot Radius:                  | "               | Grid Convergence: | 0.46 °           |

| Well                 | Northridge 12-4D |          |                     |                 |               |                  |
|----------------------|------------------|----------|---------------------|-----------------|---------------|------------------|
| Well Position        | +N/-S            | -61.9 ft | Northing:           | 1,400,805.16 ft | Latitude:     | 40° 25' 53.040 N |
|                      | +E/-W            | -34.8 ft | Easting:            | 3,199,456.68 ft | Longitude:    | 104° 47' 0.618 W |
| Position Uncertainty |                  | 0.0 ft   | Wellhead Elevation: | ft              | Ground Level: | 4,741.0 ft       |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | Wellbore #1       |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | IGRF200510        | 9/26/2008          | 9.21                   | 67.17                | 53,450                     |
|                  | IGRF200510        | 12/31/2009         | 9.04                   | 67.13                | 53,319                     |

|                          |                              |                   |                      |                      |
|--------------------------|------------------------------|-------------------|----------------------|----------------------|
| <b>Design</b>            | Plan #3 (1-12-10)            |                   |                      |                      |
| <b>Audit Notes:</b>      |                              |                   |                      |                      |
| <b>Version:</b>          | <b>Phase:</b>                | PROTOTYPE         | <b>Tie On Depth:</b> | 0.0                  |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (ft)</b> | <b>+N/-S (ft)</b> | <b>+E/-W (ft)</b>    | <b>Direction (°)</b> |
|                          | 0.0                          | 0.0               | 0.0                  | 271.81               |

| <b>Plan Sections</b> |                 |             |                     |            |            |                       |                      |                     |         |                 |
|----------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|----------------------|---------------------|---------|-----------------|
| Measured Depth (ft)  | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | TFO (°) | Target          |
| 0.0                  | 0.00            | 0.00        | 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        | 0.00                  | 0.00                 | 0.00                | 0.00    |                 |
| 500.0                | 4.00            | 290.00      | 499.8               | 2.4        | -6.6       | 2.00                  | 2.00                 | 0.00                | 290.00  |                 |
| 1,357.5              | 20.89           | 271.10      | 1,334.4             | 15.7       | -188.9     | 2.00                  | 1.97                 | -2.20               | -23.05  |                 |
| 5,579.2              | 20.89           | 271.10      | 5,278.6             | 44.7       | -1,693.8   | 0.00                  | 0.00                 | 0.00                | 0.00    |                 |
| 6,623.6              | 0.00            | 0.00        | 6,300.0             | 48.3       | -1,882.0   | 2.00                  | -2.00                | 0.00                | 180.00  | DRILL TARGET 20 |
| 8,288.6              | 0.00            | 0.00        | 7,965.0             | 48.3       | -1,882.0   | 0.00                  | 0.00                 | 0.00                | 0.00    |                 |

|                  |                               |                                     |                                      |
|------------------|-------------------------------|-------------------------------------|--------------------------------------|
| <b>Database:</b> | EDM den0-adp01 Server Data    | <b>Local Co-ordinate Reference:</b> | Well Northridge 12-4D                |
| <b>Company:</b>  | Synergy Resources             | <b>TVD Reference:</b>               | WELL @ 4754.0ft (Original Well Elev) |
| <b>Project:</b>  | SEC.4-T5N-R66W                | <b>MD Reference:</b>                | WELL @ 4754.0ft (Original Well Elev) |
| <b>Site:</b>     | Northridge Pad Sec.4-T5N-R66W | <b>North Reference:</b>             | True                                 |
| <b>Well:</b>     | Northridge 12-4D              | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Wellbore:</b> | Wellbore #1                   |                                     |                                      |
| <b>Design:</b>   | Plan #3 (1-12-10)             |                                     |                                      |

| Planned 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                |
| 40.0                | 0.00            | 0.00        | 40.0                | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 80.0                | 0.00            | 0.00        | 80.0                | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 120.0               | 0.00            | 0.00        | 120.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 160.0               | 0.00            | 0.00        | 160.0               | 0.0        | 0.0        | 0.0                   | 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                |
| 240.0               | 0.00            | 0.00        | 240.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 280.0               | 0.00            | 0.00        | 280.0               | 0.0        | 0.0        | 0.0                   | 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                |
| 320.0               | 0.40            | 290.00      | 320.0               | 0.0        | -0.1       | 0.1                   | 2.00                  | 2.00                 | 0.00                |
| 360.0               | 1.20            | 290.00      | 360.0               | 0.2        | -0.6       | 0.6                   | 2.00                  | 2.00                 | 0.00                |
| 400.0               | 2.00            | 290.00      | 400.0               | 0.6        | -1.6       | 1.7                   | 2.00                  | 2.00                 | 0.00                |
| 440.0               | 2.80            | 290.00      | 439.9               | 1.2        | -3.2       | 3.2                   | 2.00                  | 2.00                 | 0.00                |
| 480.0               | 3.60            | 290.00      | 479.9               | 1.9        | -5.3       | 5.4                   | 2.00                  | 2.00                 | 0.00                |
| 500.0               | 4.00            | 290.00      | 499.8               | 2.4        | -6.6       | 6.6                   | 2.00                  | 2.00                 | 0.00                |
| 520.0               | 4.37            | 287.94      | 519.8               | 2.9        | -7.9       | 8.0                   | 2.00                  | 1.85                 | -10.28              |
| 560.0               | 5.13            | 284.73      | 559.6               | 3.8        | -11.1      | 11.2                  | 2.00                  | 1.89                 | -8.03               |
| 600.0               | 5.89            | 282.35      | 599.5               | 4.7        | -14.9      | 15.0                  | 2.00                  | 1.92                 | -5.96               |
| 640.0               | 6.67            | 280.52      | 639.2               | 5.5        | -19.1      | 19.3                  | 2.00                  | 1.94                 | -4.58               |
| 660.9               | 7.07            | 279.72      | 660.0               | 6.0        | -21.6      | 21.8                  | 2.00                  | 1.95                 | -3.82               |
| 8 5/8"              |                 |             |                     |            |            |                       |                       |                      |                     |
| 680.0               | 7.45            | 279.06      | 678.9               | 6.4        | -24.0      | 24.2                  | 2.00                  | 1.95                 | -3.42               |
| 720.0               | 8.23            | 277.89      | 718.5               | 7.2        | -29.4      | 29.6                  | 2.00                  | 1.96                 | -2.94               |
| 760.0               | 9.02            | 276.91      | 758.1               | 7.9        | -35.3      | 35.6                  | 2.00                  | 1.97                 | -2.43               |
| 800.0               | 9.81            | 276.09      | 797.6               | 8.7        | -41.8      | 42.1                  | 2.00                  | 1.97                 | -2.05               |
| 840.0               | 10.60           | 275.40      | 836.9               | 9.4        | -48.9      | 49.1                  | 2.00                  | 1.98                 | -1.74               |
| 880.0               | 11.39           | 274.80      | 876.2               | 10.1       | -56.5      | 56.8                  | 2.00                  | 1.98                 | -1.50               |
| 920.0               | 12.18           | 274.27      | 915.3               | 10.7       | -64.6      | 64.9                  | 2.00                  | 1.98                 | -1.31               |
| 960.0               | 12.97           | 273.81      | 954.4               | 11.3       | -73.3      | 73.6                  | 2.00                  | 1.98                 | -1.15               |
| 1,000.0             | 13.77           | 273.40      | 993.3               | 11.9       | -82.5      | 82.9                  | 2.00                  | 1.99                 | -1.02               |
| 1,040.0             | 14.56           | 273.04      | 1,032.1             | 12.5       | -92.3      | 92.7                  | 2.00                  | 1.99                 | -0.91               |
| 1,080.0             | 15.36           | 272.71      | 1,070.7             | 13.0       | -102.6     | 103.0                 | 2.00                  | 1.99                 | -0.82               |
| 1,120.0             | 16.16           | 272.41      | 1,109.2             | 13.5       | -113.5     | 113.8                 | 2.00                  | 1.99                 | -0.74               |
| 1,160.0             | 16.95           | 272.14      | 1,147.6             | 13.9       | -124.9     | 125.2                 | 2.00                  | 1.99                 | -0.67               |
| 1,200.0             | 17.75           | 271.90      | 1,185.7             | 14.3       | -136.8     | 137.2                 | 2.00                  | 1.99                 | -0.61               |
| 1,240.0             | 18.55           | 271.67      | 1,223.8             | 14.7       | -149.2     | 149.6                 | 2.00                  | 1.99                 | -0.56               |
| 1,280.0             | 19.34           | 271.46      | 1,261.6             | 15.1       | -162.2     | 162.6                 | 2.00                  | 1.99                 | -0.52               |
| 1,320.0             | 20.14           | 271.27      | 1,299.2             | 15.4       | -175.7     | 176.1                 | 2.00                  | 1.99                 | -0.48               |
| 1,357.5             | 20.89           | 271.10      | 1,334.4             | 15.7       | -188.9     | 189.3                 | 2.00                  | 1.99                 | -0.44               |
| 1,360.0             | 20.89           | 271.10      | 1,336.7             | 15.7       | -189.8     | 190.2                 | 0.00                  | 0.00                 | 0.00                |
| 1,400.0             | 20.89           | 271.10      | 1,374.1             | 16.0       | -204.0     | 204.4                 | 0.00                  | 0.00                 | 0.00                |
| 1,440.0             | 20.89           | 271.10      | 1,411.4             | 16.2       | -218.3     | 218.7                 | 0.00                  | 0.00                 | 0.00                |
| 1,480.0             | 20.89           | 271.10      | 1,448.8             | 16.5       | -232.5     | 232.9                 | 0.00                  | 0.00                 | 0.00                |
| 1,520.0             | 20.89           | 271.10      | 1,486.2             | 16.8       | -246.8     | 247.2                 | 0.00                  | 0.00                 | 0.00                |
| 1,560.0             | 20.89           | 271.10      | 1,523.5             | 17.1       | -261.0     | 261.5                 | 0.00                  | 0.00                 | 0.00                |
| 1,600.0             | 20.89           | 271.10      | 1,560.9             | 17.3       | -275.3     | 275.7                 | 0.00                  | 0.00                 | 0.00                |
| 1,640.0             | 20.89           | 271.10      | 1,598.3             | 17.6       | -289.6     | 290.0                 | 0.00                  | 0.00                 | 0.00                |
| 1,680.0             | 20.89           | 271.10      | 1,635.7             | 17.9       | -303.8     | 304.2                 | 0.00                  | 0.00                 | 0.00                |
| 1,720.0             | 20.89           | 271.10      | 1,673.0             | 18.2       | -318.1     | 318.5                 | 0.00                  | 0.00                 | 0.00                |
| 1,760.0             | 20.89           | 271.10      | 1,710.4             | 18.4       | -332.3     | 332.8                 | 0.00                  | 0.00                 | 0.00                |
| 1,800.0             | 20.89           | 271.10      | 1,747.8             | 18.7       | -346.6     | 347.0                 | 0.00                  | 0.00                 | 0.00                |
| 1,840.0             | 20.89           | 271.10      | 1,785.1             | 19.0       | -360.9     | 361.3                 | 0.00                  | 0.00                 | 0.00                |
| 1,880.0             | 20.89           | 271.10      | 1,822.5             | 19.3       | -375.1     | 375.5                 | 0.00                  | 0.00                 | 0.00                |
| 1,920.0             | 20.89           | 271.10      | 1,859.9             | 19.5       | -389.4     | 389.8                 | 0.00                  | 0.00                 | 0.00                |



|                  |                               |                                     |                                      |
|------------------|-------------------------------|-------------------------------------|--------------------------------------|
| <b>Database:</b> | EDM den0-adp01 Server Data    | <b>Local Co-ordinate Reference:</b> | Well Northridge 12-4D                |
| <b>Company:</b>  | Synergy Resources             | <b>TVD Reference:</b>               | WELL @ 4754.0ft (Original Well Elev) |
| <b>Project:</b>  | SEC.4-T5N-R66W                | <b>MD Reference:</b>                | WELL @ 4754.0ft (Original Well Elev) |
| <b>Site:</b>     | Northridge Pad Sec.4-T5N-R66W | <b>North Reference:</b>             | True                                 |
| <b>Well:</b>     | Northridge 12-4D              | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Wellbore:</b> | Wellbore #1                   |                                     |                                      |
| <b>Design:</b>   | Plan #3 (1-12-10)             |                                     |                                      |

| Planned 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) |
| 1,960.0             | 20.89           | 271.10      | 1,897.3             | 19.8       | -403.6     | 404.1                 | 0.00                  | 0.00                 | 0.00                |
| 2,000.0             | 20.89           | 271.10      | 1,934.6             | 20.1       | -417.9     | 418.3                 | 0.00                  | 0.00                 | 0.00                |
| 2,040.0             | 20.89           | 271.10      | 1,972.0             | 20.4       | -432.2     | 432.6                 | 0.00                  | 0.00                 | 0.00                |
| 2,080.0             | 20.89           | 271.10      | 2,009.4             | 20.6       | -446.4     | 446.8                 | 0.00                  | 0.00                 | 0.00                |
| 2,120.0             | 20.89           | 271.10      | 2,046.7             | 20.9       | -460.7     | 461.1                 | 0.00                  | 0.00                 | 0.00                |
| 2,160.0             | 20.89           | 271.10      | 2,084.1             | 21.2       | -474.9     | 475.4                 | 0.00                  | 0.00                 | 0.00                |
| 2,200.0             | 20.89           | 271.10      | 2,121.5             | 21.5       | -489.2     | 489.6                 | 0.00                  | 0.00                 | 0.00                |
| 2,240.0             | 20.89           | 271.10      | 2,158.9             | 21.7       | -503.4     | 503.9                 | 0.00                  | 0.00                 | 0.00                |
| 2,280.0             | 20.89           | 271.10      | 2,196.2             | 22.0       | -517.7     | 518.1                 | 0.00                  | 0.00                 | 0.00                |
| 2,320.0             | 20.89           | 271.10      | 2,233.6             | 22.3       | -532.0     | 532.4                 | 0.00                  | 0.00                 | 0.00                |
| 2,360.0             | 20.89           | 271.10      | 2,271.0             | 22.6       | -546.2     | 546.7                 | 0.00                  | 0.00                 | 0.00                |
| 2,400.0             | 20.89           | 271.10      | 2,308.3             | 22.8       | -560.5     | 560.9                 | 0.00                  | 0.00                 | 0.00                |
| 2,440.0             | 20.89           | 271.10      | 2,345.7             | 23.1       | -574.7     | 575.2                 | 0.00                  | 0.00                 | 0.00                |
| 2,480.0             | 20.89           | 271.10      | 2,383.1             | 23.4       | -589.0     | 589.4                 | 0.00                  | 0.00                 | 0.00                |
| 2,520.0             | 20.89           | 271.10      | 2,420.5             | 23.6       | -603.3     | 603.7                 | 0.00                  | 0.00                 | 0.00                |
| 2,560.0             | 20.89           | 271.10      | 2,457.8             | 23.9       | -617.5     | 618.0                 | 0.00                  | 0.00                 | 0.00                |
| 2,600.0             | 20.89           | 271.10      | 2,495.2             | 24.2       | -631.8     | 632.2                 | 0.00                  | 0.00                 | 0.00                |
| 2,640.0             | 20.89           | 271.10      | 2,532.6             | 24.5       | -646.0     | 646.5                 | 0.00                  | 0.00                 | 0.00                |
| 2,680.0             | 20.89           | 271.10      | 2,569.9             | 24.7       | -660.3     | 660.7                 | 0.00                  | 0.00                 | 0.00                |
| 2,720.0             | 20.89           | 271.10      | 2,607.3             | 25.0       | -674.6     | 675.0                 | 0.00                  | 0.00                 | 0.00                |
| 2,760.0             | 20.89           | 271.10      | 2,644.7             | 25.3       | -688.8     | 689.3                 | 0.00                  | 0.00                 | 0.00                |
| 2,800.0             | 20.89           | 271.10      | 2,682.1             | 25.6       | -703.1     | 703.5                 | 0.00                  | 0.00                 | 0.00                |
| 2,840.0             | 20.89           | 271.10      | 2,719.4             | 25.8       | -717.3     | 717.8                 | 0.00                  | 0.00                 | 0.00                |
| 2,880.0             | 20.89           | 271.10      | 2,756.8             | 26.1       | -731.6     | 732.0                 | 0.00                  | 0.00                 | 0.00                |
| 2,920.0             | 20.89           | 271.10      | 2,794.2             | 26.4       | -745.8     | 746.3                 | 0.00                  | 0.00                 | 0.00                |
| 2,960.0             | 20.89           | 271.10      | 2,831.5             | 26.7       | -760.1     | 760.6                 | 0.00                  | 0.00                 | 0.00                |
| 3,000.0             | 20.89           | 271.10      | 2,868.9             | 26.9       | -774.4     | 774.8                 | 0.00                  | 0.00                 | 0.00                |
| 3,040.0             | 20.89           | 271.10      | 2,906.3             | 27.2       | -788.6     | 789.1                 | 0.00                  | 0.00                 | 0.00                |
| 3,080.0             | 20.89           | 271.10      | 2,943.7             | 27.5       | -802.9     | 803.3                 | 0.00                  | 0.00                 | 0.00                |
| 3,120.0             | 20.89           | 271.10      | 2,981.0             | 27.8       | -817.1     | 817.6                 | 0.00                  | 0.00                 | 0.00                |
| 3,160.0             | 20.89           | 271.10      | 3,018.4             | 28.0       | -831.4     | 831.9                 | 0.00                  | 0.00                 | 0.00                |
| 3,200.0             | 20.89           | 271.10      | 3,055.8             | 28.3       | -845.7     | 846.1                 | 0.00                  | 0.00                 | 0.00                |
| 3,240.0             | 20.89           | 271.10      | 3,093.1             | 28.6       | -859.9     | 860.4                 | 0.00                  | 0.00                 | 0.00                |
| 3,280.0             | 20.89           | 271.10      | 3,130.5             | 28.9       | -874.2     | 874.7                 | 0.00                  | 0.00                 | 0.00                |
| 3,320.0             | 20.89           | 271.10      | 3,167.9             | 29.1       | -888.4     | 888.9                 | 0.00                  | 0.00                 | 0.00                |
| 3,360.0             | 20.89           | 271.10      | 3,205.3             | 29.4       | -902.7     | 903.2                 | 0.00                  | 0.00                 | 0.00                |
| 3,400.0             | 20.89           | 271.10      | 3,242.6             | 29.7       | -917.0     | 917.4                 | 0.00                  | 0.00                 | 0.00                |
| 3,440.0             | 20.89           | 271.10      | 3,280.0             | 30.0       | -931.2     | 931.7                 | 0.00                  | 0.00                 | 0.00                |
| 3,480.0             | 20.89           | 271.10      | 3,317.4             | 30.2       | -945.5     | 946.0                 | 0.00                  | 0.00                 | 0.00                |
| 3,520.0             | 20.89           | 271.10      | 3,354.7             | 30.5       | -959.7     | 960.2                 | 0.00                  | 0.00                 | 0.00                |
| 3,560.0             | 20.89           | 271.10      | 3,392.1             | 30.8       | -974.0     | 974.5                 | 0.00                  | 0.00                 | 0.00                |
| 3,600.0             | 20.89           | 271.10      | 3,429.5             | 31.1       | -988.2     | 988.7                 | 0.00                  | 0.00                 | 0.00                |
| 3,640.0             | 20.89           | 271.10      | 3,466.9             | 31.3       | -1,002.5   | 1,003.0               | 0.00                  | 0.00                 | 0.00                |
| 3,680.0             | 20.89           | 271.10      | 3,504.2             | 31.6       | -1,016.8   | 1,017.3               | 0.00                  | 0.00                 | 0.00                |
| 3,720.0             | 20.89           | 271.10      | 3,541.6             | 31.9       | -1,031.0   | 1,031.5               | 0.00                  | 0.00                 | 0.00                |
| 3,760.0             | 20.89           | 271.10      | 3,579.0             | 32.2       | -1,045.3   | 1,045.8               | 0.00                  | 0.00                 | 0.00                |
| 3,800.0             | 20.89           | 271.10      | 3,616.3             | 32.4       | -1,059.5   | 1,060.0               | 0.00                  | 0.00                 | 0.00                |
| 3,840.0             | 20.89           | 271.10      | 3,653.7             | 32.7       | -1,073.8   | 1,074.3               | 0.00                  | 0.00                 | 0.00                |
| 3,880.0             | 20.89           | 271.10      | 3,691.1             | 33.0       | -1,088.1   | 1,088.6               | 0.00                  | 0.00                 | 0.00                |
| 3,920.0             | 20.89           | 271.10      | 3,728.5             | 33.3       | -1,102.3   | 1,102.8               | 0.00                  | 0.00                 | 0.00                |
| 3,960.0             | 20.89           | 271.10      | 3,765.8             | 33.5       | -1,116.6   | 1,117.1               | 0.00                  | 0.00                 | 0.00                |
| 4,000.0             | 20.89           | 271.10      | 3,803.2             | 33.8       | -1,130.8   | 1,131.3               | 0.00                  | 0.00                 | 0.00                |
| 4,040.0             | 20.89           | 271.10      | 3,840.6             | 34.1       | -1,145.1   | 1,145.6               | 0.00                  | 0.00                 | 0.00                |
| 4,080.0             | 20.89           | 271.10      | 3,877.9             | 34.4       | -1,159.4   | 1,159.9               | 0.00                  | 0.00                 | 0.00                |



|                  |                               |                                     |                                      |
|------------------|-------------------------------|-------------------------------------|--------------------------------------|
| <b>Database:</b> | EDM den0-adp01 Server Data    | <b>Local Co-ordinate Reference:</b> | Well Northridge 12-4D                |
| <b>Company:</b>  | Synergy Resources             | <b>TVD Reference:</b>               | WELL @ 4754.0ft (Original Well Elev) |
| <b>Project:</b>  | SEC.4-T5N-R66W                | <b>MD Reference:</b>                | WELL @ 4754.0ft (Original Well Elev) |
| <b>Site:</b>     | Northridge Pad Sec.4-T5N-R66W | <b>North Reference:</b>             | True                                 |
| <b>Well:</b>     | Northridge 12-4D              | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Wellbore:</b> | Wellbore #1                   |                                     |                                      |
| <b>Design:</b>   | Plan #3 (1-12-10)             |                                     |                                      |

| Planned 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) |
| 4,120.0             | 20.89           | 271.10      | 3,915.3             | 34.6       | -1,173.6   | 1,174.1               | 0.00                  | 0.00                 | 0.00                |
| 4,160.0             | 20.89           | 271.10      | 3,952.7             | 34.9       | -1,187.9   | 1,188.4               | 0.00                  | 0.00                 | 0.00                |
| 4,200.0             | 20.89           | 271.10      | 3,990.1             | 35.2       | -1,202.1   | 1,202.6               | 0.00                  | 0.00                 | 0.00                |
| 4,240.0             | 20.89           | 271.10      | 4,027.4             | 35.5       | -1,216.4   | 1,216.9               | 0.00                  | 0.00                 | 0.00                |
| 4,280.0             | 20.89           | 271.10      | 4,064.8             | 35.7       | -1,230.6   | 1,231.2               | 0.00                  | 0.00                 | 0.00                |
| 4,320.0             | 20.89           | 271.10      | 4,102.2             | 36.0       | -1,244.9   | 1,245.4               | 0.00                  | 0.00                 | 0.00                |
| 4,360.0             | 20.89           | 271.10      | 4,139.5             | 36.3       | -1,259.2   | 1,259.7               | 0.00                  | 0.00                 | 0.00                |
| 4,400.0             | 20.89           | 271.10      | 4,176.9             | 36.6       | -1,273.4   | 1,273.9               | 0.00                  | 0.00                 | 0.00                |
| 4,440.0             | 20.89           | 271.10      | 4,214.3             | 36.8       | -1,287.7   | 1,288.2               | 0.00                  | 0.00                 | 0.00                |
| 4,480.0             | 20.89           | 271.10      | 4,251.7             | 37.1       | -1,301.9   | 1,302.5               | 0.00                  | 0.00                 | 0.00                |
| 4,520.0             | 20.89           | 271.10      | 4,289.0             | 37.4       | -1,316.2   | 1,316.7               | 0.00                  | 0.00                 | 0.00                |
| 4,560.0             | 20.89           | 271.10      | 4,326.4             | 37.7       | -1,330.5   | 1,331.0               | 0.00                  | 0.00                 | 0.00                |
| 4,600.0             | 20.89           | 271.10      | 4,363.8             | 37.9       | -1,344.7   | 1,345.2               | 0.00                  | 0.00                 | 0.00                |
| 4,640.0             | 20.89           | 271.10      | 4,401.1             | 38.2       | -1,359.0   | 1,359.5               | 0.00                  | 0.00                 | 0.00                |
| 4,680.0             | 20.89           | 271.10      | 4,438.5             | 38.5       | -1,373.2   | 1,373.8               | 0.00                  | 0.00                 | 0.00                |
| 4,720.0             | 20.89           | 271.10      | 4,475.9             | 38.8       | -1,387.5   | 1,388.0               | 0.00                  | 0.00                 | 0.00                |
| 4,760.0             | 20.89           | 271.10      | 4,513.2             | 39.0       | -1,401.8   | 1,402.3               | 0.00                  | 0.00                 | 0.00                |
| 4,800.0             | 20.89           | 271.10      | 4,550.6             | 39.3       | -1,416.0   | 1,416.5               | 0.00                  | 0.00                 | 0.00                |
| 4,840.0             | 20.89           | 271.10      | 4,588.0             | 39.6       | -1,430.3   | 1,430.8               | 0.00                  | 0.00                 | 0.00                |
| 4,880.0             | 20.89           | 271.10      | 4,625.4             | 39.9       | -1,444.5   | 1,445.1               | 0.00                  | 0.00                 | 0.00                |
| 4,920.0             | 20.89           | 271.10      | 4,662.7             | 40.1       | -1,458.8   | 1,459.3               | 0.00                  | 0.00                 | 0.00                |
| 4,960.0             | 20.89           | 271.10      | 4,700.1             | 40.4       | -1,473.0   | 1,473.6               | 0.00                  | 0.00                 | 0.00                |
| 5,000.0             | 20.89           | 271.10      | 4,737.5             | 40.7       | -1,487.3   | 1,487.8               | 0.00                  | 0.00                 | 0.00                |
| 5,040.0             | 20.89           | 271.10      | 4,774.8             | 41.0       | -1,501.6   | 1,502.1               | 0.00                  | 0.00                 | 0.00                |
| 5,080.0             | 20.89           | 271.10      | 4,812.2             | 41.2       | -1,515.8   | 1,516.4               | 0.00                  | 0.00                 | 0.00                |
| 5,120.0             | 20.89           | 271.10      | 4,849.6             | 41.5       | -1,530.1   | 1,530.6               | 0.00                  | 0.00                 | 0.00                |
| 5,160.0             | 20.89           | 271.10      | 4,887.0             | 41.8       | -1,544.3   | 1,544.9               | 0.00                  | 0.00                 | 0.00                |
| 5,200.0             | 20.89           | 271.10      | 4,924.3             | 42.1       | -1,558.6   | 1,559.1               | 0.00                  | 0.00                 | 0.00                |
| 5,240.0             | 20.89           | 271.10      | 4,961.7             | 42.3       | -1,572.9   | 1,573.4               | 0.00                  | 0.00                 | 0.00                |
| 5,280.0             | 20.89           | 271.10      | 4,999.1             | 42.6       | -1,587.1   | 1,587.7               | 0.00                  | 0.00                 | 0.00                |
| 5,320.0             | 20.89           | 271.10      | 5,036.4             | 42.9       | -1,601.4   | 1,601.9               | 0.00                  | 0.00                 | 0.00                |
| 5,360.0             | 20.89           | 271.10      | 5,073.8             | 43.2       | -1,615.6   | 1,616.2               | 0.00                  | 0.00                 | 0.00                |
| 5,400.0             | 20.89           | 271.10      | 5,111.2             | 43.4       | -1,629.9   | 1,630.5               | 0.00                  | 0.00                 | 0.00                |
| 5,440.0             | 20.89           | 271.10      | 5,148.6             | 43.7       | -1,644.2   | 1,644.7               | 0.00                  | 0.00                 | 0.00                |
| 5,480.0             | 20.89           | 271.10      | 5,185.9             | 44.0       | -1,658.4   | 1,659.0               | 0.00                  | 0.00                 | 0.00                |
| 5,520.0             | 20.89           | 271.10      | 5,223.3             | 44.3       | -1,672.7   | 1,673.2               | 0.00                  | 0.00                 | 0.00                |
| 5,560.0             | 20.89           | 271.10      | 5,260.7             | 44.5       | -1,686.9   | 1,687.5               | 0.00                  | 0.00                 | 0.00                |
| 5,579.2             | 20.89           | 271.10      | 5,278.6             | 44.7       | -1,693.8   | 1,694.3               | 0.00                  | 0.00                 | 0.00                |
| 5,600.0             | 20.47           | 271.10      | 5,298.1             | 44.8       | -1,701.1   | 1,701.7               | 2.00                  | -2.00                | 0.00                |
| 5,640.0             | 19.67           | 271.10      | 5,335.6             | 45.1       | -1,714.8   | 1,715.4               | 2.00                  | -2.00                | 0.00                |
| 5,680.0             | 18.87           | 271.10      | 5,373.4             | 45.3       | -1,728.0   | 1,728.6               | 2.00                  | -2.00                | 0.00                |
| 5,720.0             | 18.07           | 271.10      | 5,411.3             | 45.6       | -1,740.7   | 1,741.3               | 2.00                  | -2.00                | 0.00                |
| 5,760.0             | 17.27           | 271.10      | 5,449.5             | 45.8       | -1,752.8   | 1,753.4               | 2.00                  | -2.00                | 0.00                |
| 5,800.0             | 16.47           | 271.10      | 5,487.7             | 46.0       | -1,764.5   | 1,765.0               | 2.00                  | -2.00                | 0.00                |
| 5,840.0             | 15.67           | 271.10      | 5,526.2             | 46.2       | -1,775.5   | 1,776.1               | 2.00                  | -2.00                | 0.00                |
| 5,880.0             | 14.87           | 271.10      | 5,564.8             | 46.5       | -1,786.1   | 1,786.6               | 2.00                  | -2.00                | 0.00                |
| 5,920.0             | 14.07           | 271.10      | 5,603.5             | 46.6       | -1,796.1   | 1,796.6               | 2.00                  | -2.00                | 0.00                |
| 5,960.0             | 13.27           | 271.10      | 5,642.4             | 46.8       | -1,805.5   | 1,806.1               | 2.00                  | -2.00                | 0.00                |
| 6,000.0             | 12.47           | 271.10      | 5,681.3             | 47.0       | -1,814.4   | 1,815.0               | 2.00                  | -2.00                | 0.00                |
| 6,040.0             | 11.67           | 271.10      | 5,720.5             | 47.2       | -1,822.8   | 1,823.4               | 2.00                  | -2.00                | 0.00                |
| 6,080.0             | 10.87           | 271.10      | 5,759.7             | 47.3       | -1,830.6   | 1,831.2               | 2.00                  | -2.00                | 0.00                |
| 6,120.0             | 10.07           | 271.10      | 5,799.0             | 47.4       | -1,837.9   | 1,838.4               | 2.00                  | -2.00                | 0.00                |
| 6,160.0             | 9.27            | 271.10      | 5,838.5             | 47.6       | -1,844.6   | 1,845.2               | 2.00                  | -2.00                | 0.00                |
| 6,200.0             | 8.47            | 271.10      | 5,878.0             | 47.7       | -1,850.8   | 1,851.3               | 2.00                  | -2.00                | 0.00                |



**Database:** EDM den0-adp01 Server Data  
**Company:** Synergy Resources  
**Project:** SEC.4-T5N-R66W  
**Site:** Northridge Pad Sec.4-T5N-R66W  
**Well:** Northridge 12-4D  
**Wellbore:** Wellbore #1  
**Design:** Plan #3 (1-12-10)

**Local Co-ordinate Reference:** Well Northridge 12-4D  
**TVD Reference:** WELL @ 4754.0ft (Original Well Elev)  
**MD Reference:** WELL @ 4754.0ft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

### Planned 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) |
|--|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| 6,240.0                                | 7.67            | 271.10      | 5,917.6             | 47.8       | -1,856.4   | 1,856.9               | 2.00                  | -2.00                | 0.00                |
| 6,280.0                                | 6.87            | 271.10      | 5,957.3             | 47.9       | -1,861.4   | 1,862.0               | 2.00                  | -2.00                | 0.00                |
| 6,319.0                                | 6.09            | 271.10      | 5,996.0             | 48.0       | -1,865.8   | 1,866.4               | 2.00                  | -2.00                | 0.00                |
| <b>PERMIT TARGET 2031'FNL, 845'FWL</b> |                 |             |                     |            |            |                       |                       |                      |                     |
| 6,320.0                                | 6.07            | 271.10      | 5,997.0             | 48.0       | -1,865.9   | 1,866.5               | 2.00                  | -2.00                | 0.00                |
| 6,360.0                                | 5.27            | 271.10      | 6,036.8             | 48.1       | -1,869.9   | 1,870.5               | 2.00                  | -2.00                | 0.00                |
| 6,400.0                                | 4.47            | 271.10      | 6,076.7             | 48.1       | -1,873.3   | 1,873.9               | 2.00                  | -2.00                | 0.00                |
| 6,440.0                                | 3.67            | 271.10      | 6,116.6             | 48.2       | -1,876.1   | 1,876.7               | 2.00                  | -2.00                | 0.00                |
| 6,480.0                                | 2.87            | 271.10      | 6,156.5             | 48.2       | -1,878.4   | 1,879.0               | 2.00                  | -2.00                | 0.00                |
| 6,520.0                                | 2.07            | 271.10      | 6,196.5             | 48.3       | -1,880.1   | 1,880.7               | 2.00                  | -2.00                | 0.00                |
| 6,560.0                                | 1.27            | 271.10      | 6,236.4             | 48.3       | -1,881.3   | 1,881.9               | 2.00                  | -2.00                | 0.00                |
| 6,600.0                                | 0.47            | 271.10      | 6,276.4             | 48.3       | -1,881.9   | 1,882.5               | 2.00                  | -2.00                | 0.00                |
| 6,623.6                                | 0.00            | 0.00        | 6,300.0             | 48.3       | -1,882.0   | 1,882.6               | 2.00                  | -2.00                | 0.00                |
| <b>DRILL TARGET 2098'FNL, 792'FWL</b>  |                 |             |                     |            |            |                       |                       |                      |                     |
| 6,640.0                                | 0.00            | 0.00        | 6,316.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 6,680.0                                | 0.00            | 0.00        | 6,356.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 6,720.0                                | 0.00            | 0.00        | 6,396.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 6,760.0                                | 0.00            | 0.00        | 6,436.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 6,800.0                                | 0.00            | 0.00        | 6,476.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 6,840.0                                | 0.00            | 0.00        | 6,516.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 6,880.0                                | 0.00            | 0.00        | 6,556.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 6,920.0                                | 0.00            | 0.00        | 6,596.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 6,960.0                                | 0.00            | 0.00        | 6,636.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 7,000.0                                | 0.00            | 0.00        | 6,676.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 7,023.6                                | 0.00            | 0.00        | 6,700.0             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| <b>LEGAL WINDOW 2223'FNL, 667'FWL</b>  |                 |             |                     |            |            |                       |                       |                      |                     |
| 7,040.0                                | 0.00            | 0.00        | 6,716.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 7,080.0                                | 0.00            | 0.00        | 6,756.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 7,120.0                                | 0.00            | 0.00        | 6,796.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 7,160.0                                | 0.00            | 0.00        | 6,836.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 7,200.0                                | 0.00            | 0.00        | 6,876.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 7,240.0                                | 0.00            | 0.00        | 6,916.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 7,280.0                                | 0.00            | 0.00        | 6,956.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 7,320.0                                | 0.00            | 0.00        | 6,996.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 7,360.0                                | 0.00            | 0.00        | 7,036.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 7,400.0                                | 0.00            | 0.00        | 7,076.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 7,440.0                                | 0.00            | 0.00        | 7,116.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 7,480.0                                | 0.00            | 0.00        | 7,156.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 7,520.0                                | 0.00            | 0.00        | 7,196.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 7,560.0                                | 0.00            | 0.00        | 7,236.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 7,600.0                                | 0.00            | 0.00        | 7,276.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 7,640.0                                | 0.00            | 0.00        | 7,316.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 7,680.0                                | 0.00            | 0.00        | 7,356.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 7,720.0                                | 0.00            | 0.00        | 7,396.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 7,760.0                                | 0.00            | 0.00        | 7,436.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 7,800.0                                | 0.00            | 0.00        | 7,476.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 7,840.0                                | 0.00            | 0.00        | 7,516.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 7,880.0                                | 0.00            | 0.00        | 7,556.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 7,920.0                                | 0.00            | 0.00        | 7,596.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 7,960.0                                | 0.00            | 0.00        | 7,636.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 8,000.0                                | 0.00            | 0.00        | 7,676.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 8,040.0                                | 0.00            | 0.00        | 7,716.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 8,080.0                                | 0.00            | 0.00        | 7,756.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |

|                  |                               |                                     |                                      |
|------------------|-------------------------------|-------------------------------------|--------------------------------------|
| <b>Database:</b> | EDM den0-adp01 Server Data    | <b>Local Co-ordinate Reference:</b> | Well Northridge 12-4D                |
| <b>Company:</b>  | Synergy Resources             | <b>TVD Reference:</b>               | WELL @ 4754.0ft (Original Well Elev) |
| <b>Project:</b>  | SEC.4-T5N-R66W                | <b>MD Reference:</b>                | WELL @ 4754.0ft (Original Well Elev) |
| <b>Site:</b>     | Northridge Pad Sec.4-T5N-R66W | <b>North Reference:</b>             | True                                 |
| <b>Well:</b>     | Northridge 12-4D              | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Wellbore:</b> | Wellbore #1                   |                                     |                                      |
| <b>Design:</b>   | Plan #3 (1-12-10)             |                                     |                                      |

**Planned 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) |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| 8,120.0             | 0.00            | 0.00        | 7,796.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 8,160.0             | 0.00            | 0.00        | 7,836.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 8,200.0             | 0.00            | 0.00        | 7,876.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 8,240.0             | 0.00            | 0.00        | 7,916.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 8,280.0             | 0.00            | 0.00        | 7,956.4             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |
| 8,288.6             | 0.00            | 0.00        | 7,965.0             | 48.3       | -1,882.0   | 1,882.6               | 0.00                  | 0.00                 | 0.00                |

**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   |               |              |          |            |            |               |              |                  |                   |
| DRILL TARGET 2098   | 0.00          | 0.00         | 6,300.0  | 48.3       | -1,882.0   | 1,400,838.25  | 3,197,574.43 | 40° 25' 53.516 N | 104° 47' 24.955 W |
| - plan hits target center   |               |              |          |            |            |               |              |                  |                   |
| - Point   |               |              |          |            |            |               |              |                  |                   |
| LEGAL WINDOW 222  | 0.00          | 0.00         | 6,700.0  | -76.7      | -2,007.0   | 1,400,712.25  | 3,197,450.45 | 40° 25' 52.281 N | 104° 47' 26.571 W |
| - plan misses target center by 176.8ft at 7023.6ft MD (6700.0 TVD, 48.3 N, -1882.0 E) |               |              |          |            |            |               |              |                  |                   |
| - Rectangle (sides W400.0 H400.0 D1,265.0)  |               |              |          |            |            |               |              |                  |                   |
| PERMIT TARGET 20:   | 0.00          | 0.00         | 6,000.0  | 115.3      | -1,829.0   | 1,400,905.63  | 3,197,626.92 | 40° 25' 54.178 N | 104° 47' 24.269 W |
| - plan misses target center by 76.8ft at 6319.2ft MD (5996.2 TVD, 48.0 N, -1865.8 E)  |               |              |          |            |            |               |              |                  |                   |
| - Point   |               |              |          |            |            |               |              |                  |                   |

**Casing Points**

| Measured Depth (ft) | Vertical Depth (ft) | Name   | Casing Diameter (") | Hole Diameter (") |
|---------------------|---------------------|--------|---------------------|-------------------|
| 660.9               | 660.0               | 8 5/8" | 8-5/8               | 12-1/4            |





## **Directional**

### **Synergy Resources**

**SEC.4-T5N-R66W**

**Northridge Pad Sec.4-T5N-R66W**

**Northridge 12-4D**

**Wellbore #1**

**Plan #3 (1-12-10)**

## **Anticollision Report**

**13 January, 2010**

|                           |                               |                                     |                                      |
|---------------------------|-------------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>           | Synergy Resources             | <b>Local Co-ordinate Reference:</b> | Well Northridge 12-4D                |
| <b>Project:</b>           | SEC.4-T5N-R66W                | <b>TVD Reference:</b>               | WELL @ 4754.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | Northridge Pad Sec.4-T5N-R66W | <b>MD Reference:</b>                | WELL @ 4754.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                         | <b>North Reference:</b>             | True                                 |
| <b>Reference Well:</b>    | Northridge 12-4D              | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Well Error:</b>        | 0.0ft                         | <b>Output errors are at</b>         | 2.00 sigma                           |
| <b>Reference Wellbore</b> | Wellbore #1                   | <b>Database:</b>                    | EDM den0-adp01 Server Data           |
| <b>Reference Design:</b>  | Plan #3 (1-12-10)             | <b>Offset TVD Reference:</b>        | Offset Datum                         |

|                                     |   |                       |                     |
|-------------------------------------|---|-----------------------|---------------------|
| <b>Reference</b>                    | Plan #3 (1-12-10)   |                       |                     |
| <b>Filter type:</b>                 | NO GLOBAL FILTER: Using user defined selection & filtering criteria |                       |                     |
| <b>Interpolation Method:</b>        | MD Interval 100.0ft   | <b>Error Model:</b>   | ISCWSA              |
| <b>Depth Range:</b>                 | Unlimited   | <b>Scan Method:</b>   | Closest Approach 3D |
| <b>Results Limited by:</b>          | Maximum center-center distance of 2,000.0ft                         | <b>Error Surface:</b> | Elliptical Conic    |
| <b>Warning Levels Evaluated at:</b> | 2.00 Sigma  |                       |                     |

|                            |                       |                                 |                  |                    |
|----------------------------|-----------------------|---------------------------------|------------------|--------------------|
| <b>Survey Tool Program</b> | <b>Date</b> 1/13/2010 |                                 |                  |                    |
| <b>From (ft)</b>           | <b>To (ft)</b>        | <b>Survey (Wellbore)</b>        | <b>Tool Name</b> | <b>Description</b> |
| 0.0                        | 8,288.6               | Plan #3 (1-12-10) (Wellbore #1) | MWD              | MWD - Standard     |

|  |                                      |                                   |                                      |                              |                          |                |
|--|--------------------------------------|-----------------------------------|--------------------------------------|------------------------------|--------------------------|----------------|
| <b>Summary</b>                                     |                                      |                                   |                                      |                              |                          |                |
| <b>Site Name</b>                                   | <b>Reference Measured Depth (ft)</b> | <b>Offset Measured Depth (ft)</b> | <b>Distance Between Centres (ft)</b> | <b>Between Ellipses (ft)</b> | <b>Separation Factor</b> | <b>Warning</b> |
| Offset Well - Wellbore - Design                    |                                      |                                   |                                      |                              |                          |                |
| Northridge Pad Sec.4-T5N-R66W                      |                                      |                                   |                                      |                              |                          |                |
| Northridge 22-4D - Wellbore #1 - Plan #3 (1-12-10) | 403.8                                | 403.8                             | 11.9                                 | 10.3                         | 7.533                    | CC, ES         |
| Northridge 22-4D - Wellbore #1 - Plan #3 (1-12-10) | 500.0                                | 499.8                             | 13.0                                 | 11.0                         | 6.436                    | SF             |
| Northridge 4AD - Wellbore #1 - Plan #3 (1-11-10)   | 300.0                                | 299.0                             | 12.2                                 | 11.1                         | 10.888                   | CC             |
| Northridge 4AD - Wellbore #1 - Plan #3 (1-11-10)   | 400.0                                | 399.0                             | 12.6                                 | 11.1                         | 8.077                    | ES             |
| Northridge 4AD - Wellbore #1 - Plan #3 (1-11-10)   | 500.0                                | 498.8                             | 15.1                                 | 13.1                         | 7.503                    | SF             |

|  |                            |                            |                            |                       |                    |                              |  |                   |                             |                              |                                |                          |
|--|----------------------------|----------------------------|----------------------------|-----------------------|--------------------|------------------------------|--|-------------------|-----------------------------|------------------------------|--------------------------------|--------------------------|
| <b>Offset Design</b>   |                            |                            |                            |                       |                    |                              |  |                   |                             |                              |                                |                          |
| Northridge Pad Sec.4-T5N-R66W - Northridge 22-4D - Wellbore #1 - Plan #3 (1-12-10) |                            |                            |                            |                       |                    |                              |  |                   |                             |                              |                                |                          |
| Survey Program: 0-MWD  |                            |                            |                            |                       |                    |                              |  |                   |                             |                              |                                |                          |
| <b>Reference</b>   | <b>Offset</b>              | <b>Semi Major Axis</b>     |                            | <b>Distance</b>       |                    |                              |  |                   |                             |                              |                                |                          |
| <b>Measured Depth (ft)</b>   | <b>Vertical Depth (ft)</b> | <b>Measured Depth (ft)</b> | <b>Vertical Depth (ft)</b> | <b>Reference (ft)</b> | <b>Offset (ft)</b> | <b>Highside Toolface (°)</b> | <b>Offset Wellbore Centre +N/-S (ft)</b> | <b>+E/-W (ft)</b> | <b>Between Centres (ft)</b> | <b>Between Ellipses (ft)</b> | <b>Minimum Separation (ft)</b> | <b>Separation Factor</b> |
| 0.0  | 0.0                        | 0.0                        | 0.0                        | 0.0                   | 0.0                | -151.04                      | -10.6                                    | -5.8              | 12.1                        | 12.1                         | 0.00                           | N/A                      |
| 100.0  | 100.0                      | 100.0                      | 100.0                      | 0.1                   | 0.1                | -151.04                      | -10.6                                    | -5.8              | 12.1                        | 11.9                         | 0.22                           | 53.722                   |
| 200.0  | 200.0                      | 200.0                      | 200.0                      | 0.3                   | 0.3                | -151.04                      | -10.6                                    | -5.8              | 12.1                        | 11.4                         | 0.67                           | 17.907                   |
| 300.0  | 300.0                      | 300.0                      | 300.0                      | 0.6                   | 0.6                | -151.04                      | -10.6                                    | -5.8              | 12.1                        | 11.0                         | 1.12                           | 10.744                   |
| 400.0  | 400.0                      | 400.0                      | 400.0                      | 0.8                   | 0.8                | -89.35                       | -10.6                                    | -5.8              | 11.9                        | 10.4                         | 1.57                           | 7.615                    |
| 403.8  | 403.8                      | 403.8                      | 403.8                      | 0.8                   | 0.8                | -90.00                       | -10.6                                    | -5.8              | 11.9                        | 10.3                         | 1.58                           | 7.533 CC, ES             |
| 500.0  | 499.8                      | 499.8                      | 499.8                      | 1.0                   | 1.0                | -113.09                      | -10.6                                    | -5.8              | 13.0                        | 11.0                         | 2.02                           | 6.436 SF                 |
| 600.0  | 599.5                      | 599.5                      | 599.5                      | 1.2                   | 1.2                | -132.77                      | -10.6                                    | -5.8              | 17.7                        | 15.2                         | 2.47                           | 7.158                    |
| 700.0  | 698.7                      | 698.7                      | 698.7                      | 1.5                   | 1.5                | -148.34                      | -10.6                                    | -5.8              | 27.1                        | 24.1                         | 2.93                           | 9.244                    |
| 800.0  | 797.6                      | 797.6                      | 797.6                      | 1.8                   | 1.7                | -157.65                      | -10.6                                    | -5.8              | 40.8                        | 37.4                         | 3.38                           | 12.077                   |
| 900.0  | 895.8                      | 895.8                      | 895.8                      | 2.2                   | 1.9                | -163.20                      | -10.6                                    | -5.8              | 58.5                        | 54.7                         | 3.83                           | 15.271                   |
| 1,000.0  | 993.3                      | 993.3                      | 993.3                      | 2.6                   | 2.1                | -166.70                      | -10.6                                    | -5.8              | 79.9                        | 75.6                         | 4.29                           | 18.644                   |
| 1,100.0  | 1,090.0                    | 1,090.0                    | 1,090.0                    | 3.1                   | 2.3                | -169.05                      | -10.6                                    | -5.8              | 104.9                       | 100.1                        | 4.74                           | 22.108                   |
| 1,200.0  | 1,185.7                    | 1,185.7                    | 1,185.7                    | 3.7                   | 2.6                | -170.70                      | -10.6                                    | -5.8              | 133.3                       | 128.1                        | 5.20                           | 25.616                   |
| 1,300.0  | 1,280.4                    | 1,280.4                    | 1,280.4                    | 4.3                   | 2.8                | -171.90                      | -10.6                                    | -5.8              | 165.1                       | 159.4                        | 5.67                           | 29.141                   |
| 1,400.0  | 1,374.1                    | 1,374.1                    | 1,374.1                    | 5.0                   | 3.0                | -173.03                      | -10.6                                    | -5.8              | 199.9                       | 193.8                        | 6.14                           | 32.553                   |
| 1,500.0  | 1,467.5                    | 1,467.5                    | 1,467.5                    | 5.7                   | 3.2                | -174.08                      | -10.6                                    | -5.8              | 235.4                       | 228.7                        | 6.64                           | 35.444                   |
| 1,600.0  | 1,560.9                    | 1,560.9                    | 1,560.9                    | 6.5                   | 3.4                | -174.86                      | -10.6                                    | -5.8              | 270.9                       | 263.8                        | 7.15                           | 37.907                   |
| 1,700.0  | 1,654.3                    | 1,654.3                    | 1,654.3                    | 7.2                   | 3.6                | -175.46                      | -10.6                                    | -5.8              | 306.4                       | 298.8                        | 7.66                           | 40.025                   |
| 1,800.0  | 1,747.8                    | 1,747.8                    | 1,747.8                    | 8.0                   | 3.8                | -175.93                      | -10.6                                    | -5.8              | 342.0                       | 333.8                        | 8.17                           | 41.863                   |
| 1,900.0  | 1,841.2                    | 1,841.2                    | 1,841.2                    | 8.7                   | 4.0                | -176.31                      | -10.6                                    | -5.8              | 377.6                       | 368.9                        | 8.69                           | 43.471                   |
| 2,000.0  | 1,934.6                    | 1,934.6                    | 1,934.6                    | 9.5                   | 4.2                | -176.63                      | -10.6                                    | -5.8              | 413.2                       | 404.0                        | 9.20                           | 44.888                   |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



## ENSIGN DIRECTIONAL

|                           |                               |                                     |                                      |
|---------------------------|-------------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>           | Synergy Resources             | <b>Local Co-ordinate Reference:</b> | Well Northridge 12-4D                |
| <b>Project:</b>           | SEC.4-T5N-R66W                | <b>TVD Reference:</b>               | WELL @ 4754.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | Northridge Pad Sec.4-T5N-R66W | <b>MD Reference:</b>                | WELL @ 4754.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                         | <b>North Reference:</b>             | True                                 |
| <b>Reference Well:</b>    | Northridge 12-4D              | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Well Error:</b>        | 0.0ft                         | <b>Output errors are at</b>         | 2.00 sigma                           |
| <b>Reference Wellbore</b> | Wellbore #1                   | <b>Database:</b>                    | EDM den0-adp01 Server Data           |
| <b>Reference Design:</b>  | Plan #3 (1-12-10)             | <b>Offset TVD Reference:</b>        | Offset Datum                         |

| Offset Design         |                     | Northridge Pad Sec.4-T5N-R66W - Northridge 22-4D - Wellbore #1 - Plan #3 (1-12-10) |                     |                 |             |                       |                                   |            |                      |                       |                         |                   | Offset Site Error: |         | 0.0ft |
|-----------------------|---------------------|--|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|-------------------|--------------------|---------|-------|
| Survey Program: 0-MWD |                     |  |                     |                 |             |                       |                                   |            |                      |                       |                         |                   | Offset Well Error: |         | 0.0ft |
| Reference             |                     | Offset   |                     | Semi Major Axis |             |                       | Distance                          |            |                      |                       |                         |                   |                    | Warning |       |
| Measured Depth (ft)   | Vertical Depth (ft) | Measured Depth (ft)  | Vertical Depth (ft) | Reference (ft)  | Offset (ft) | Highside Toolface (") | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor |                    |         |       |
| 2,100.0               | 2,028.1             | 2,033.2  | 2,033.2             | 10.2            | 4.5         | -176.91               | -10.6                             | -6.0       | 448.6                | 438.9                 | 9.73                    | 46.104            |                    |         |       |
| 2,200.0               | 2,121.5             | 2,145.7  | 2,145.6             | 11.0            | 4.7         | -177.10               | -10.9                             | -9.5       | 481.4                | 471.1                 | 10.26                   | 46.902            |                    |         |       |
| 2,300.0               | 2,214.9             | 2,261.1  | 2,260.7             | 11.8            | 4.9         | -177.19               | -11.7                             | -17.7      | 510.3                | 499.5                 | 10.80                   | 47.267            |                    |         |       |
| 2,400.0               | 2,308.3             | 2,379.2  | 2,378.1             | 12.5            | 5.2         | -177.18               | -13.0                             | -30.8      | 535.5                | 524.1                 | 11.35                   | 47.187            |                    |         |       |
| 2,500.0               | 2,401.8             | 2,499.5  | 2,497.0             | 13.3            | 5.5         | -177.09               | -14.8                             | -49.1      | 556.6                | 544.7                 | 11.92                   | 46.712            |                    |         |       |
| 2,600.0               | 2,495.2             | 2,621.9  | 2,617.0             | 14.0            | 5.8         | -176.91               | -17.1                             | -72.8      | 573.6                | 561.1                 | 12.50                   | 45.878            |                    |         |       |
| 2,700.0               | 2,588.6             | 2,730.2  | 2,722.5             | 14.8            | 6.2         | -176.71               | -19.5                             | -97.3      | 587.3                | 574.2                 | 13.08                   | 44.897            |                    |         |       |
| 2,800.0               | 2,682.1             | 2,829.3  | 2,818.9             | 15.6            | 6.5         | -176.52               | -21.8                             | -120.1     | 600.6                | 587.0                 | 13.64                   | 44.036            |                    |         |       |
| 2,900.0               | 2,775.5             | 2,928.4  | 2,915.3             | 16.3            | 6.9         | -176.34               | -24.0                             | -142.9     | 614.0                | 599.8                 | 14.21                   | 43.203            |                    |         |       |
| 3,000.0               | 2,868.9             | 3,027.5  | 3,011.7             | 17.1            | 7.2         | -176.18               | -26.3                             | -165.8     | 627.4                | 612.6                 | 14.79                   | 42.420            |                    |         |       |
| 3,100.0               | 2,962.3             | 3,126.6  | 3,108.1             | 17.9            | 7.6         | -176.01               | -28.5                             | -188.6     | 640.8                | 625.4                 | 15.37                   | 41.681            |                    |         |       |
| 3,200.0               | 3,055.8             | 3,225.6  | 3,204.5             | 18.6            | 8.0         | -175.86               | -30.7                             | -211.4     | 654.2                | 638.2                 | 15.96                   | 40.983            |                    |         |       |
| 3,300.0               | 3,149.2             | 3,324.7  | 3,300.9             | 19.4            | 8.5         | -175.71               | -33.0                             | -234.2     | 667.5                | 651.0                 | 16.55                   | 40.324            |                    |         |       |
| 3,400.0               | 3,242.6             | 3,423.8  | 3,397.3             | 20.2            | 8.9         | -175.56               | -35.2                             | -257.0     | 680.9                | 663.8                 | 17.15                   | 39.700            |                    |         |       |
| 3,500.0               | 3,336.1             | 3,522.9  | 3,493.7             | 20.9            | 9.3         | -175.43               | -37.5                             | -279.8     | 694.3                | 676.6                 | 17.75                   | 39.110            |                    |         |       |
| 3,600.0               | 3,429.5             | 3,622.0  | 3,590.1             | 21.7            | 9.8         | -175.29               | -39.7                             | -302.6     | 707.7                | 689.4                 | 18.36                   | 38.552            |                    |         |       |
| 3,700.0               | 3,522.9             | 3,721.1  | 3,686.5             | 22.4            | 10.2        | -175.17               | -41.9                             | -325.4     | 721.1                | 702.2                 | 18.97                   | 38.022            |                    |         |       |
| 3,800.0               | 3,616.3             | 3,820.1  | 3,782.9             | 23.2            | 10.7        | -175.04               | -44.2                             | -348.2     | 734.6                | 715.0                 | 19.58                   | 37.520            |                    |         |       |
| 3,900.0               | 3,709.8             | 3,919.2  | 3,879.3             | 24.0            | 11.1        | -174.92               | -46.4                             | -371.0     | 748.0                | 727.8                 | 20.19                   | 37.042            |                    |         |       |
| 4,000.0               | 3,803.2             | 4,018.3  | 3,975.7             | 24.7            | 11.6        | -174.81               | -48.7                             | -393.8     | 761.4                | 740.6                 | 20.81                   | 36.589            |                    |         |       |
| 4,100.0               | 3,896.6             | 4,117.4  | 4,072.1             | 25.5            | 12.0        | -174.70               | -50.9                             | -416.7     | 774.8                | 753.4                 | 21.43                   | 36.157            |                    |         |       |
| 4,200.0               | 3,990.1             | 4,216.5  | 4,168.5             | 26.3            | 12.5        | -174.59               | -53.1                             | -439.5     | 788.2                | 766.2                 | 22.05                   | 35.746            |                    |         |       |
| 4,300.0               | 4,083.5             | 4,315.6  | 4,264.9             | 27.1            | 13.0        | -174.49               | -55.4                             | -462.3     | 801.6                | 779.0                 | 22.67                   | 35.354            |                    |         |       |
| 4,400.0               | 4,176.9             | 4,400.0  | 4,347.0             | 27.8            | 13.4        | -174.40               | -57.3                             | -481.7     | 815.2                | 792.0                 | 23.26                   | 35.052            |                    |         |       |
| 4,500.0               | 4,270.3             | 4,486.5  | 4,431.5             | 28.6            | 13.7        | -174.34               | -59.1                             | -500.0     | 830.5                | 806.7                 | 23.81                   | 34.881            |                    |         |       |
| 4,600.0               | 4,363.8             | 4,562.9  | 4,506.6             | 29.4            | 13.9        | -174.32               | -60.5                             | -514.1     | 848.5                | 824.2                 | 24.33                   | 34.872            |                    |         |       |
| 4,700.0               | 4,457.2             | 4,638.6  | 4,581.3             | 30.1            | 14.1        | -174.33               | -61.7                             | -526.1     | 869.0                | 844.2                 | 24.84                   | 34.979            |                    |         |       |
| 4,800.0               | 4,550.6             | 4,713.5  | 4,655.5             | 30.9            | 14.3        | -174.37               | -62.6                             | -536.1     | 892.0                | 866.7                 | 25.34                   | 35.195            |                    |         |       |
| 4,900.0               | 4,644.0             | 4,787.3  | 4,728.9             | 31.7            | 14.5        | -174.42               | -63.4                             | -544.0     | 917.5                | 891.7                 | 25.84                   | 35.514            |                    |         |       |
| 5,000.0               | 4,737.5             | 4,860.2  | 4,801.5             | 32.4            | 14.7        | -174.51               | -64.0                             | -549.9     | 945.4                | 919.1                 | 26.31                   | 35.927            |                    |         |       |
| 5,100.0               | 4,830.9             | 4,931.9  | 4,873.2             | 33.2            | 14.8        | -174.61               | -64.4                             | -554.0     | 975.7                | 948.9                 | 26.78                   | 36.427            |                    |         |       |
| 5,200.0               | 4,924.3             | 5,000.0  | 4,941.2             | 34.0            | 14.9        | -174.72               | -64.6                             | -556.1     | 1,008.3              | 981.0                 | 27.24                   | 37.011            |                    |         |       |
| 5,300.0               | 5,017.8             | 5,076.6  | 5,017.8             | 34.7            | 15.0        | -174.86               | -64.7                             | -556.7     | 1,043.0              | 1,015.3               | 27.71                   | 37.647            |                    |         |       |
| 5,400.0               | 5,111.2             | 5,170.0  | 5,111.2             | 35.5            | 15.2        | -175.03               | -64.7                             | -556.7     | 1,078.6              | 1,050.4               | 28.20                   | 38.243            |                    |         |       |
| 5,500.0               | 5,204.6             | 5,263.4  | 5,204.6             | 36.3            | 15.3        | -175.19               | -64.7                             | -556.7     | 1,114.1              | 1,085.4               | 28.70                   | 38.814            |                    |         |       |
| 5,600.0               | 5,298.1             | 5,356.9  | 5,298.1             | 37.0            | 15.5        | -175.35               | -64.7                             | -556.7     | 1,149.6              | 1,120.4               | 29.22                   | 39.342            |                    |         |       |
| 5,700.0               | 5,392.3             | 5,451.1  | 5,392.3             | 37.6            | 15.6        | -175.53               | -64.7                             | -556.7     | 1,182.8              | 1,153.1               | 29.75                   | 39.762            |                    |         |       |
| 5,800.0               | 5,487.7             | 5,546.5  | 5,487.7             | 38.1            | 15.8        | -175.69               | -64.7                             | -556.7     | 1,212.8              | 1,182.5               | 30.24                   | 40.106            |                    |         |       |
| 5,900.0               | 5,584.1             | 5,642.9  | 5,584.1             | 38.5            | 15.9        | -175.82               | -64.7                             | -556.7     | 1,239.4              | 1,208.7               | 30.69                   | 40.382            |                    |         |       |
| 6,000.0               | 5,681.3             | 5,740.1  | 5,681.3             | 38.9            | 16.1        | -175.94               | -64.7                             | -556.7     | 1,262.6              | 1,231.5               | 31.10                   | 40.594            |                    |         |       |
| 6,100.0               | 5,779.3             | 5,838.1  | 5,779.3             | 39.3            | 16.3        | -176.03               | -64.7                             | -556.7     | 1,282.5              | 1,251.0               | 31.47                   | 40.748            |                    |         |       |
| 6,200.0               | 5,878.0             | 5,936.8  | 5,878.0             | 39.6            | 16.4        | -176.10               | -64.7                             | -556.7     | 1,298.9              | 1,267.1               | 31.80                   | 40.846            |                    |         |       |
| 6,300.0               | 5,977.1             | 6,035.9  | 5,977.1             | 39.8            | 16.6        | -176.16               | -64.7                             | -556.7     | 1,311.8              | 1,279.8               | 32.08                   | 40.892            |                    |         |       |
| 6,400.0               | 6,076.7             | 6,135.5  | 6,076.7             | 40.0            | 16.8        | -176.20               | -64.7                             | -556.7     | 1,321.4              | 1,289.0               | 32.32                   | 40.887            |                    |         |       |
| 6,500.0               | 6,176.5             | 6,235.3  | 6,176.5             | 40.1            | 17.0        | -176.22               | -64.7                             | -556.7     | 1,327.4              | 1,294.9               | 32.51                   | 40.833            |                    |         |       |
| 6,600.0               | 6,276.4             | 6,335.2  | 6,276.4             | 40.2            | 17.1        | -176.23               | -64.7                             | -556.7     | 1,330.0              | 1,297.3               | 32.65                   | 40.730            |                    |         |       |
| 6,700.0               | 6,376.4             | 6,435.2  | 6,376.4             | 40.3            | 17.3        | 94.87                 | -64.7                             | -556.7     | 1,330.1              | 1,297.1               | 32.95                   | 40.368            |                    |         |       |
| 6,800.0               | 6,476.4             | 6,535.2  | 6,476.4             | 40.4            | 17.5        | 94.87                 | -64.7                             | -556.7     | 1,330.1              | 1,296.8               | 33.30                   | 39.942            |                    |         |       |
| 6,900.0               | 6,576.4             | 6,635.2  | 6,576.4             | 40.4            | 17.7        | 94.87                 | -64.7                             | -556.7     | 1,330.1              | 1,296.4               | 33.65                   | 39.522            |                    |         |       |
| 7,000.0               | 6,676.4             | 6,735.2  | 6,676.4             | 40.5            | 17.8        | 94.87                 | -64.7                             | -556.7     | 1,330.1              | 1,296.1               | 34.01                   | 39.109            |                    |         |       |
| 7,100.0               | 6,776.4             | 6,835.2  | 6,776.4             | 40.6            | 18.0        | 94.87                 | -64.7                             | -556.7     | 1,330.1              | 1,295.7               | 34.37                   | 38.702            |                    |         |       |
| 7,200.0               | 6,876.4             | 6,935.2  | 6,876.4             | 40.7            | 18.2        | 94.87                 | -64.7                             | -556.7     | 1,330.1              | 1,295.3               | 34.73                   | 38.301            |                    |         |       |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



# ENSIGN DIRECTIONAL

## Anticollision Report

|                           |                               |                                     |                                      |
|---------------------------|-------------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>           | Synergy Resources             | <b>Local Co-ordinate Reference:</b> | Well Northridge 12-4D                |
| <b>Project:</b>           | SEC.4-T5N-R66W                | <b>TVD Reference:</b>               | WELL @ 4754.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | Northridge Pad Sec.4-T5N-R66W | <b>MD Reference:</b>                | WELL @ 4754.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                         | <b>North Reference:</b>             | True                                 |
| <b>Reference Well:</b>    | Northridge 12-4D              | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Well Error:</b>        | 0.0ft                         | <b>Output errors are at</b>         | 2.00 sigma                           |
| <b>Reference Wellbore</b> | Wellbore #1                   | <b>Database:</b>                    | EDM den0-adp01 Server Data           |
| <b>Reference Design:</b>  | Plan #3 (1-12-10)             | <b>Offset TVD Reference:</b>        | Offset Datum                         |

| Offset Design Northridge Pad Sec.4-T5N-R66W - Northridge 22-4D - Wellbore #1 - Plan #3 (1-12-10) |                     |                     |                     |                |             |                       |                                   |            |                      |                       |                         |                   | Offset Site Error: | 0.0 ft |
|--|---------------------|---------------------|---------------------|----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|-------------------|--------------------|--------|
| Survey Program: 0-MWD  |                     |                     |                     |                |             |                       |                                   |            |                      |                       |                         |                   | Offset Well Error: | 0.0 ft |
| Reference  | Offset              | Semi Major Axis     |                     | Distance       |             | Minimum               |                                   | Separation |                      | Warning               |                         |                   |                    |        |
| Measured Depth (ft)  | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Highside Toolface (") | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor |                    |        |
| 7,300.0  | 6,976.4             | 7,035.2             | 6,976.4             | 40.8           | 18.4        | 94.87                 | -64.7                             | -556.7     | 1,330.1              | 1,295.0               | 35.09                   | 37.907            |                    |        |
| 7,400.0  | 7,076.4             | 7,135.2             | 7,076.4             | 40.8           | 18.6        | 94.87                 | -64.7                             | -556.7     | 1,330.1              | 1,294.6               | 35.45                   | 37.519            |                    |        |
| 7,500.0  | 7,176.4             | 7,235.2             | 7,176.4             | 40.9           | 18.7        | 94.87                 | -64.7                             | -556.7     | 1,330.1              | 1,294.2               | 35.82                   | 37.136            |                    |        |
| 7,600.0  | 7,276.4             | 7,335.2             | 7,276.4             | 41.0           | 18.9        | 94.87                 | -64.7                             | -556.7     | 1,330.1              | 1,293.9               | 36.18                   | 36.760            |                    |        |
| 7,700.0  | 7,376.4             | 7,435.2             | 7,376.4             | 41.1           | 19.1        | 94.87                 | -64.7                             | -556.7     | 1,330.1              | 1,293.5               | 36.55                   | 36.390            |                    |        |
| 7,800.0  | 7,476.4             | 7,535.2             | 7,476.4             | 41.2           | 19.3        | 94.87                 | -64.7                             | -556.7     | 1,330.1              | 1,293.1               | 36.92                   | 36.025            |                    |        |
| 7,900.0  | 7,576.4             | 7,635.2             | 7,576.4             | 41.3           | 19.5        | 94.87                 | -64.7                             | -556.7     | 1,330.1              | 1,292.8               | 37.29                   | 35.666            |                    |        |
| 8,000.0  | 7,676.4             | 7,735.2             | 7,676.4             | 41.4           | 19.7        | 94.87                 | -64.7                             | -556.7     | 1,330.1              | 1,292.4               | 37.66                   | 35.313            |                    |        |
| 8,100.0  | 7,776.4             | 7,835.2             | 7,776.4             | 41.5           | 19.9        | 94.87                 | -64.7                             | -556.7     | 1,330.1              | 1,292.0               | 38.04                   | 34.966            |                    |        |
| 8,200.0  | 7,876.4             | 7,935.2             | 7,876.4             | 41.5           | 20.0        | 94.87                 | -64.7                             | -556.7     | 1,330.1              | 1,291.6               | 38.42                   | 34.623            |                    |        |
| 8,288.6  | 7,965.0             | 8,023.8             | 7,965.0             | 41.6           | 20.2        | 94.87                 | -64.7                             | -556.7     | 1,330.1              | 1,291.3               | 38.75                   | 34.325            |                    |        |





| Northridge Pad Sec.4-T5N-R66W - Northridge 4AD - Wellbore #1 - Plan #3 (1-11-10) |                     |                     |                     |                 |             |                       |                                   |                                   |                      |                       |                         |                   |         | Offset Site Error: 0.0 ft |  |
|--|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|-----------------------------------|----------------------|-----------------------|-------------------------|-------------------|---------|---------------------------|--|
| Survey Program: 0-MWD  |                     |                     |                     |                 |             |                       |                                   |                                   |                      |                       |                         |                   |         | Offset Well Error: 0.0 ft |  |
| Reference  |                     | Offset              |                     | Semi Major Axis |             |                       | Distance                          |                                   |                      |                       |                         |                   | Warning |                           |  |
| Measured Depth (ft)  | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft)  | Offset (ft) | Highside Footface (") | Offset Wellbore Centre +N/-S (ft) | Offset Wellbore Centre +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor |         |                           |  |
| 0.0  | 0.0                 | 0.0                 | 0.0                 | 0.0             | 0.0         | 30.10                 | 10.6                              | 6.1                               | 12.3                 | 12.3                  | 0.00                    | N/A               |         |                           |  |
| 100.0  | 100.0               | 99.0                | 99.0                | 0.1             | 0.1         | 30.10                 | 10.6                              | 6.1                               | 12.2                 | 12.0                  | 0.22                    | 54.605            |         |                           |  |
| 200.0  | 200.0               | 199.0               | 199.0               | 0.3             | 0.3         | 30.10                 | 10.6                              | 6.1                               | 12.2                 | 11.5                  | 0.67                    | 18.171            |         |                           |  |
| 300.0  | 300.0               | 299.0               | 299.0               | 0.6             | 0.6         | 30.10                 | 10.6                              | 6.1                               | 12.2                 | 11.1                  | 1.12                    | 10.888 CC         |         |                           |  |
| 400.0  | 400.0               | 399.0               | 399.0               | 0.8             | 0.8         | 107.91                | 10.6                              | 6.1                               | 12.6                 | 11.1                  | 1.56                    | 8.077 ES          |         |                           |  |
| 500.0  | 499.8               | 498.8               | 498.8               | 1.0             | 1.0         | 127.12                | 10.6                              | 6.1                               | 15.1                 | 13.1                  | 2.01                    | 7.503 SF          |         |                           |  |
| 600.0  | 599.5               | 598.5               | 598.5               | 1.2             | 1.2         | 151.84                | 10.6                              | 6.1                               | 21.8                 | 19.3                  | 2.46                    | 8.840             |         |                           |  |
| 700.0  | 698.7               | 697.7               | 697.7               | 1.5             | 1.5         | 164.82                | 10.6                              | 6.1                               | 33.0                 | 30.0                  | 2.91                    | 11.309            |         |                           |  |
| 800.0  | 797.6               | 796.6               | 796.6               | 1.8             | 1.7         | 171.54                | 10.6                              | 6.1                               | 48.0                 | 44.6                  | 3.36                    | 14.267            |         |                           |  |
| 900.0  | 895.8               | 894.8               | 894.8               | 2.2             | 1.9         | 175.23                | 10.6                              | 6.1                               | 66.6                 | 62.8                  | 3.81                    | 17.458            |         |                           |  |
| 1,000.0  | 993.3               | 992.3               | 992.3               | 2.6             | 2.1         | 177.39                | 10.6                              | 6.1                               | 88.7                 | 84.4                  | 4.27                    | 20.775            |         |                           |  |
| 1,100.0  | 1,090.0             | 1,092.2             | 1,092.2             | 3.1             | 2.3         | 178.39                | 11.3                              | 4.8                               | 112.9                | 108.1                 | 4.72                    | 23.922            |         |                           |  |
| 1,200.0  | 1,185.7             | 1,193.1             | 1,192.9             | 3.7             | 2.6         | 178.34                | 13.6                              | 0.4                               | 137.4                | 132.3                 | 5.16                    | 26.618            |         |                           |  |
| 1,300.0  | 1,280.4             | 1,294.5             | 1,294.0             | 4.3             | 2.8         | 177.69                | 17.7                              | -7.2                              | 162.4                | 156.8                 | 5.62                    | 28.884            |         |                           |  |
| 1,400.0  | 1,374.1             | 1,396.7             | 1,395.4             | 5.0             | 3.0         | 176.48                | 23.5                              | -18.0                             | 187.5                | 181.4                 | 6.12                    | 30.652            |         |                           |  |
| 1,500.0  | 1,467.5             | 1,500.0             | 1,497.5             | 5.7             | 3.3         | 174.83                | 31.2                              | -32.2                             | 210.2                | 203.6                 | 6.67                    | 31.544            |         |                           |  |
| 1,600.0  | 1,560.9             | 1,604.6             | 1,600.1             | 6.5             | 3.7         | 172.98                | 40.6                              | -49.9                             | 230.2                | 222.9                 | 7.26                    | 31.702            |         |                           |  |
| 1,700.0  | 1,654.3             | 1,710.0             | 1,702.8             | 7.2             | 4.0         | 170.91                | 52.0                              | -71.0                             | 247.3                | 239.4                 | 7.92                    | 31.240            |         |                           |  |
| 1,800.0  | 1,747.8             | 1,816.1             | 1,805.1             | 8.0             | 4.5         | 168.60                | 65.2                              | -95.6                             | 261.9                | 253.2                 | 8.66                    | 30.253            |         |                           |  |
| 1,900.0  | 1,841.2             | 1,918.6             | 1,903.1             | 8.7             | 5.0         | 166.16                | 79.5                              | -122.2                            | 274.2                | 264.8                 | 9.48                    | 28.926            |         |                           |  |
| 2,000.0  | 1,934.6             | 2,017.3             | 1,997.2             | 9.5             | 5.5         | 163.97                | 93.4                              | -148.2                            | 286.7                | 276.3                 | 10.35                   | 27.691            |         |                           |  |
| 2,100.0  | 2,028.1             | 2,115.9             | 2,091.3             | 10.2            | 6.1         | 161.95                | 107.4                             | -174.1                            | 299.5                | 288.2                 | 11.29                   | 26.539            |         |                           |  |
| 2,200.0  | 2,121.5             | 2,214.5             | 2,185.5             | 11.0            | 6.6         | 160.11                | 121.3                             | -200.1                            | 312.7                | 300.4                 | 12.27                   | 25.489            |         |                           |  |
| 2,300.0  | 2,214.9             | 2,313.2             | 2,279.6             | 11.8            | 7.2         | 158.41                | 135.3                             | -226.1                            | 326.1                | 312.8                 | 13.29                   | 24.540            |         |                           |  |
| 2,400.0  | 2,308.3             | 2,411.8             | 2,373.7             | 12.5            | 7.7         | 156.85                | 149.2                             | -252.1                            | 339.9                | 325.5                 | 14.35                   | 23.687            |         |                           |  |
| 2,500.0  | 2,401.8             | 2,510.5             | 2,467.9             | 13.3            | 8.3         | 155.40                | 163.2                             | -278.1                            | 353.8                | 338.4                 | 15.44                   | 22.920            |         |                           |  |
| 2,600.0  | 2,495.2             | 2,609.1             | 2,562.0             | 14.0            | 8.9         | 154.07                | 177.2                             | -304.0                            | 368.0                | 351.4                 | 16.55                   | 22.233            |         |                           |  |
| 2,700.0  | 2,588.6             | 2,707.8             | 2,656.1             | 14.8            | 9.5         | 152.84                | 191.1                             | -330.0                            | 382.3                | 364.6                 | 17.69                   | 21.616            |         |                           |  |
| 2,800.0  | 2,682.1             | 2,806.4             | 2,750.2             | 15.6            | 10.1        | 151.69                | 205.1                             | -356.0                            | 396.8                | 378.0                 | 18.84                   | 21.061            |         |                           |  |
| 2,900.0  | 2,775.5             | 2,905.0             | 2,844.4             | 16.3            | 10.7        | 150.63                | 219.0                             | -382.0                            | 411.4                | 391.4                 | 20.01                   | 20.562            |         |                           |  |
| 3,000.0  | 2,868.9             | 3,003.7             | 2,938.5             | 17.1            | 11.3        | 149.64                | 233.0                             | -408.0                            | 426.2                | 405.0                 | 21.19                   | 20.111            |         |                           |  |
| 3,100.0  | 2,962.3             | 3,102.3             | 3,032.6             | 17.9            | 11.9        | 148.71                | 246.9                             | -434.0                            | 441.1                | 418.7                 | 22.39                   | 19.704            |         |                           |  |
| 3,200.0  | 3,055.8             | 3,201.0             | 3,126.8             | 18.6            | 12.5        | 147.85                | 260.9                             | -459.9                            | 456.1                | 432.5                 | 23.59                   | 19.334            |         |                           |  |
| 3,300.0  | 3,149.2             | 3,299.6             | 3,220.9             | 19.4            | 13.1        | 147.04                | 274.8                             | -485.9                            | 471.2                | 446.4                 | 24.80                   | 18.997            |         |                           |  |
| 3,400.0  | 3,242.6             | 3,398.2             | 3,315.0             | 20.2            | 13.7        | 146.28                | 288.8                             | -511.9                            | 486.4                | 460.4                 | 26.02                   | 18.690            |         |                           |  |
| 3,500.0  | 3,336.1             | 3,496.9             | 3,409.1             | 20.9            | 14.4        | 145.57                | 302.8                             | -537.9                            | 501.7                | 474.4                 | 27.25                   | 18.409            |         |                           |  |
| 3,600.0  | 3,429.5             | 3,595.5             | 3,503.3             | 21.7            | 15.0        | 144.90                | 316.7                             | -563.9                            | 517.0                | 488.5                 | 28.48                   | 18.151            |         |                           |  |
| 3,700.0  | 3,522.9             | 3,694.2             | 3,597.4             | 22.4            | 15.6        | 144.26                | 330.7                             | -589.9                            | 532.4                | 502.7                 | 29.72                   | 17.914            |         |                           |  |
| 3,800.0  | 3,616.3             | 3,792.8             | 3,691.5             | 23.2            | 16.2        | 143.67                | 344.6                             | -615.8                            | 547.8                | 516.9                 | 30.96                   | 17.695            |         |                           |  |
| 3,900.0  | 3,709.8             | 3,891.4             | 3,785.7             | 24.0            | 16.8        | 143.10                | 358.6                             | -641.8                            | 563.3                | 531.1                 | 32.20                   | 17.493            |         |                           |  |
| 4,000.0  | 3,803.2             | 3,990.1             | 3,879.8             | 24.7            | 17.4        | 142.57                | 372.5                             | -667.8                            | 578.9                | 545.5                 | 33.45                   | 17.306            |         |                           |  |
| 4,100.0  | 3,896.6             | 4,088.7             | 3,973.9             | 25.5            | 18.0        | 142.06                | 386.5                             | -693.8                            | 594.5                | 559.8                 | 34.70                   | 17.133            |         |                           |  |
| 4,200.0  | 3,990.1             | 4,187.4             | 4,068.0             | 26.3            | 18.7        | 141.58                | 400.4                             | -719.8                            | 610.2                | 574.2                 | 35.95                   | 16.971            |         |                           |  |
| 4,300.0  | 4,083.5             | 4,286.0             | 4,162.2             | 27.1            | 19.3        | 141.13                | 414.4                             | -745.8                            | 625.9                | 588.7                 | 37.21                   | 16.821            |         |                           |  |
| 4,400.0  | 4,176.9             | 4,384.6             | 4,256.3             | 27.8            | 19.9        | 140.69                | 428.4                             | -771.7                            | 641.6                | 603.1                 | 38.46                   | 16.680            |         |                           |  |
| 4,500.0  | 4,270.3             | 4,483.3             | 4,350.4             | 28.6            | 20.5        | 140.28                | 442.3                             | -797.7                            | 657.4                | 617.6                 | 39.72                   | 16.549            |         |                           |  |
| 4,600.0  | 4,363.8             | 4,581.9             | 4,444.6             | 29.4            | 21.1        | 139.88                | 456.3                             | -823.7                            | 673.2                | 632.2                 | 40.98                   | 16.426            |         |                           |  |
| 4,700.0  | 4,457.2             | 4,680.6             | 4,538.7             | 30.1            | 21.8        | 139.51                | 470.2                             | -849.7                            | 689.0                | 646.7                 | 42.24                   | 16.310            |         |                           |  |
| 4,800.0  | 4,550.6             | 4,779.2             | 4,632.8             | 30.9            | 22.4        | 139.15                | 484.2                             | -875.7                            | 704.8                | 661.3                 | 43.50                   | 16.201            |         |                           |  |
| 4,900.0  | 4,644.0             | 4,877.9             | 4,726.9             | 31.7            | 23.0        | 138.81                | 498.1                             | -901.7                            | 720.7                | 675.9                 | 44.77                   | 16.099            |         |                           |  |
| 5,000.0  | 4,737.5             | 4,976.5             | 4,821.1             | 32.4            | 23.6        | 138.48                | 512.1                             | -927.6                            | 736.6                | 690.6                 | 46.03                   | 16.002            |         |                           |  |
| 5,100.0  | 4,830.9             | 5,075.1             | 4,915.2             | 33.2            | 24.2        | 138.16                | 526.0                             | -953.6                            | 752.5                | 705.2                 | 47.30                   | 15.911            |         |                           |  |

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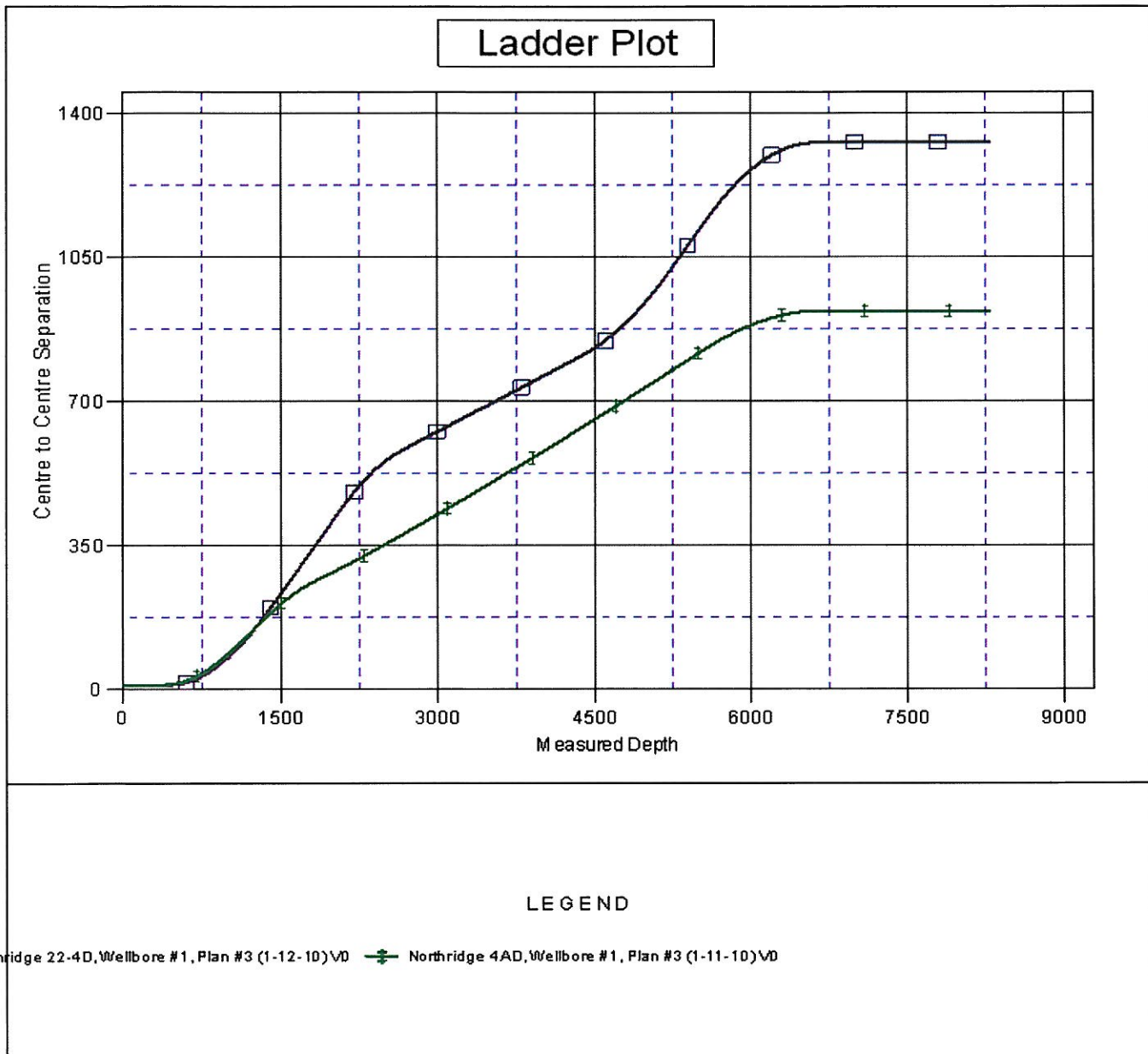
|                           |                               |                                     |                                      |
|---------------------------|-------------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>           | Synergy Resources             | <b>Local Co-ordinate Reference:</b> | Well Northridge 12-4D                |
| <b>Project:</b>           | SEC.4-T5N-R66W                | <b>TVD Reference:</b>               | WELL @ 4754.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | Northridge Pad Sec.4-T5N-R66W | <b>MD Reference:</b>                | WELL @ 4754.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                         | <b>North Reference:</b>             | True                                 |
| <b>Reference Well:</b>    | Northridge 12-4D              | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Well Error:</b>        | 0.0ft                         | <b>Output errors are at</b>         | 2.00 sigma                           |
| <b>Reference Wellbore</b> | Wellbore #1                   | <b>Database:</b>                    | EDM den0-adp01 Server Data           |
| <b>Reference Design:</b>  | Plan #3 (1-12-10)             | <b>Offset TVD Reference:</b>        | Offset Datum                         |

| Offset Design Northridge Pad Sec.4-T5N-R66W - Northridge 4AD - Wellbore #1 - Plan #3 (1-11-10) |                     |                     |                     |                 |             |                       |                                   |            |                      |                       |                         |                   | Offset Site Error: 0.0 ft |         |
|--|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|-------------------------|-------------------|---------------------------|---------|
| Survey Program: 0-MWD  |                     |                     |                     |                 |             |                       |                                   |            |                      |                       |                         |                   | Offset Well Error: 0.0 ft |         |
| Reference  |                     | Offset              |                     | Semi Major Axis |             |                       | Distance                          |            |                      |                       |                         |                   |                           | Warning |
| Measured Depth (ft)  | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft)  | Offset (ft) | Highside Toolface (") | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Minimum Separation (ft) | Separation Factor |                           |         |
|  |                     |                     |                     |                 |             |                       |                                   |            |                      |                       |                         |                   |                           |         |
| 5,200.0  | 4,924.3             | 5,173.8             | 5,009.3             | 34.0            | 24.9        | 137.86                | 540.0                             | -979.6     | 768.5                | 719.9                 | 48.56                   | 15.824            |                           |         |
| 5,300.0  | 5,017.8             | 5,272.4             | 5,103.5             | 34.7            | 25.5        | 137.57                | 553.9                             | -1,005.6   | 784.4                | 734.6                 | 49.83                   | 15.743            |                           |         |
| 5,400.0  | 5,111.2             | 5,371.1             | 5,197.6             | 35.5            | 26.1        | 137.29                | 567.9                             | -1,031.6   | 800.4                | 749.3                 | 51.10                   | 15.665            |                           |         |
| 5,500.0  | 5,204.6             | 5,469.7             | 5,291.7             | 36.3            | 26.7        | 137.03                | 581.9                             | -1,057.5   | 816.4                | 764.1                 | 52.36                   | 15.591            |                           |         |
| 5,600.0  | 5,298.1             | 5,564.2             | 5,382.0             | 37.0            | 27.3        | 136.84                | 595.1                             | -1,082.2   | 832.5                | 779.0                 | 53.56                   | 15.544            |                           |         |
| 5,700.0  | 5,392.3             | 5,653.6             | 5,468.1             | 37.6            | 27.7        | 136.89                | 606.5                             | -1,103.5   | 847.8                | 793.3                 | 54.49                   | 15.558            |                           |         |
| 5,800.0  | 5,487.7             | 5,743.2             | 5,555.0             | 38.1            | 28.1        | 136.96                | 616.7                             | -1,122.5   | 861.7                | 806.4                 | 55.31                   | 15.578            |                           |         |
| 5,900.0  | 5,584.1             | 5,832.9             | 5,642.7             | 38.5            | 28.4        | 137.04                | 625.6                             | -1,139.1   | 874.1                | 818.1                 | 56.03                   | 15.600            |                           |         |
| 6,000.0  | 5,681.3             | 5,922.6             | 5,731.0             | 38.9            | 28.7        | 137.14                | 633.2                             | -1,153.2   | 885.1                | 828.5                 | 56.65                   | 15.624            |                           |         |
| 6,100.0  | 5,779.3             | 6,012.4             | 5,819.8             | 39.3            | 28.9        | 137.25                | 639.5                             | -1,165.0   | 894.7                | 837.5                 | 57.17                   | 15.649            |                           |         |
| 6,200.0  | 5,878.0             | 6,100.0             | 5,906.7             | 39.6            | 29.1        | 137.37                | 644.4                             | -1,174.0   | 902.7                | 845.1                 | 57.59                   | 15.676            |                           |         |
| 6,300.0  | 5,977.1             | 6,192.1             | 5,998.5             | 39.8            | 29.3        | 137.50                | 648.2                             | -1,181.0   | 909.3                | 851.4                 | 57.91                   | 15.702            |                           |         |
| 6,400.0  | 6,076.7             | 6,281.9             | 6,088.2             | 40.0            | 29.4        | 137.64                | 650.5                             | -1,185.4   | 914.5                | 856.3                 | 58.13                   | 15.731            |                           |         |
| 6,500.0  | 6,176.5             | 6,371.7             | 6,178.0             | 40.1            | 29.5        | 137.80                | 651.5                             | -1,187.2   | 918.1                | 859.9                 | 58.26                   | 15.759            |                           |         |
| 6,600.0  | 6,276.4             | 6,469.2             | 6,275.4             | 40.2            | 29.6        | 137.92                | 651.5                             | -1,187.3   | 920.0                | 861.7                 | 58.35                   | 15.767            |                           |         |
| 6,700.0  | 6,376.4             | 6,569.2             | 6,375.4             | 40.3            | 29.8        | 49.03                 | 651.5                             | -1,187.3   | 920.1                | 861.5                 | 58.52                   | 15.722            |                           |         |
| 6,800.0  | 6,476.4             | 6,669.2             | 6,475.4             | 40.4            | 29.9        | 49.03                 | 651.5                             | -1,187.3   | 920.1                | 861.3                 | 58.72                   | 15.668            |                           |         |
| 6,900.0  | 6,576.4             | 6,769.2             | 6,575.4             | 40.4            | 30.0        | 49.03                 | 651.5                             | -1,187.3   | 920.1                | 861.1                 | 58.93                   | 15.613            |                           |         |
| 7,000.0  | 6,676.4             | 6,869.2             | 6,675.4             | 40.5            | 30.1        | 49.03                 | 651.5                             | -1,187.3   | 920.1                | 860.9                 | 59.14                   | 15.558            |                           |         |
| 7,100.0  | 6,776.4             | 6,969.2             | 6,775.4             | 40.6            | 30.2        | 49.03                 | 651.5                             | -1,187.3   | 920.1                | 860.7                 | 59.35                   | 15.503            |                           |         |
| 7,200.0  | 6,876.4             | 7,069.2             | 6,875.4             | 40.7            | 30.3        | 49.03                 | 651.5                             | -1,187.3   | 920.1                | 860.5                 | 59.56                   | 15.448            |                           |         |
| 7,300.0  | 6,976.4             | 7,169.2             | 6,975.4             | 40.8            | 30.4        | 49.03                 | 651.5                             | -1,187.3   | 920.1                | 860.3                 | 59.78                   | 15.392            |                           |         |
| 7,400.0  | 7,076.4             | 7,269.2             | 7,075.4             | 40.8            | 30.5        | 49.03                 | 651.5                             | -1,187.3   | 920.1                | 860.1                 | 59.99                   | 15.336            |                           |         |
| 7,500.0  | 7,176.4             | 7,369.2             | 7,175.4             | 40.9            | 30.6        | 49.03                 | 651.5                             | -1,187.3   | 920.1                | 859.9                 | 60.21                   | 15.280            |                           |         |
| 7,600.0  | 7,276.4             | 7,469.2             | 7,275.4             | 41.0            | 30.7        | 49.03                 | 651.5                             | -1,187.3   | 920.1                | 859.6                 | 60.44                   | 15.224            |                           |         |
| 7,700.0  | 7,376.4             | 7,569.2             | 7,375.4             | 41.1            | 30.8        | 49.03                 | 651.5                             | -1,187.3   | 920.1                | 859.4                 | 60.66                   | 15.167            |                           |         |
| 7,800.0  | 7,476.4             | 7,669.2             | 7,475.4             | 41.2            | 31.0        | 49.03                 | 651.5                             | -1,187.3   | 920.1                | 859.2                 | 60.89                   | 15.110            |                           |         |
| 7,900.0  | 7,576.4             | 7,769.2             | 7,575.4             | 41.3            | 31.1        | 49.03                 | 651.5                             | -1,187.3   | 920.1                | 859.0                 | 61.12                   | 15.053            |                           |         |
| 8,000.0  | 7,676.4             | 7,869.2             | 7,675.4             | 41.4            | 31.2        | 49.03                 | 651.5                             | -1,187.3   | 920.1                | 858.7                 | 61.35                   | 14.996            |                           |         |
| 8,100.0  | 7,776.4             | 7,969.2             | 7,775.4             | 41.5            | 31.3        | 49.03                 | 651.5                             | -1,187.3   | 920.1                | 858.5                 | 61.59                   | 14.939            |                           |         |
| 8,200.0  | 7,876.4             | 8,069.2             | 7,875.4             | 41.5            | 31.4        | 49.03                 | 651.5                             | -1,187.3   | 920.1                | 858.2                 | 61.83                   | 14.881            |                           |         |
| 8,288.6  | 7,965.0             | 8,157.8             | 7,964.0             | 41.6            | 31.6        | 49.03                 | 651.5                             | -1,187.3   | 920.1                | 858.0                 | 62.04                   | 14.830            |                           |         |



|                           |                               |                                     |                                      |
|---------------------------|-------------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>           | Synergy Resources             | <b>Local Co-ordinate Reference:</b> | Well Northridge 12-4D                |
| <b>Project:</b>           | SEC.4-T5N-R66W                | <b>TVD Reference:</b>               | WELL @ 4754.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | Northridge Pad Sec.4-T5N-R66W | <b>MD Reference:</b>                | WELL @ 4754.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                         | <b>North Reference:</b>             | True                                 |
| <b>Reference Well:</b>    | Northridge 12-4D              | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Well Error:</b>        | 0.0ft                         | <b>Output errors are at</b>         | 2.00 sigma                           |
| <b>Reference Wellbore</b> | Wellbore #1                   | <b>Database:</b>                    | EDM den0-adp01 Server Data           |
| <b>Reference Design:</b>  | Plan #3 (1-12-10)             | <b>Offset TVD Reference:</b>        | Offset Datum                         |

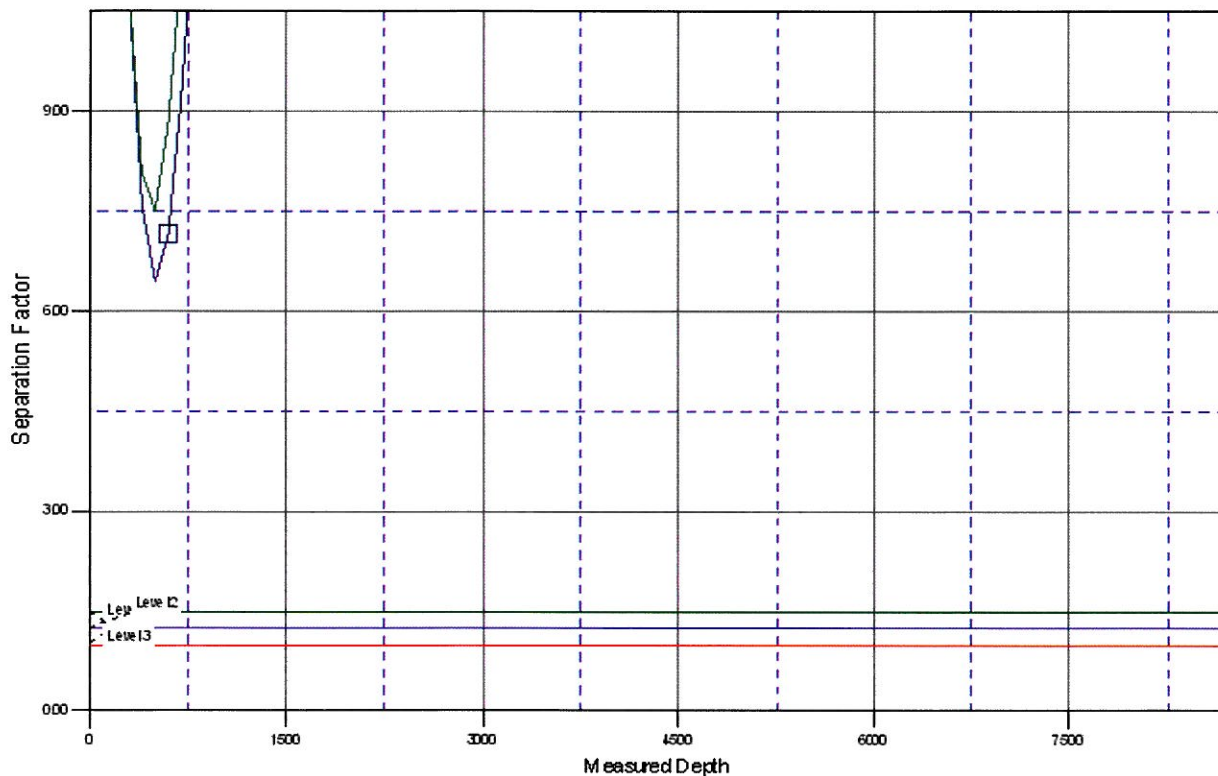
Reference Depths are relative to WELL @ 4754.0ft (Original Well Elev) Coordinates are relative to: Northridge 12-4D  
 Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone  
 Central Meridian is 105° 30' 0.000 W ° Grid Convergence at Surface is: 0.46°



|                           |                               |                                     |                                      |
|---------------------------|-------------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>           | Synergy Resources             | <b>Local Co-ordinate Reference:</b> | Well Northridge 12-4D                |
| <b>Project:</b>           | SEC.4-T5N-R66W                | <b>TVD Reference:</b>               | WELL @ 4754.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | Northridge Pad Sec.4-T5N-R66W | <b>MD Reference:</b>                | WELL @ 4754.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                         | <b>North Reference:</b>             | True                                 |
| <b>Reference Well:</b>    | Northridge 12-4D              | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Well Error:</b>        | 0.0ft                         | <b>Output errors are at</b>         | 2.00 sigma                           |
| <b>Reference Wellbore</b> | Wellbore #1                   | <b>Database:</b>                    | EDM den0-adp01 Server Data           |
| <b>Reference Design:</b>  | Plan #3 (1-12-10)             | <b>Offset TVD Reference:</b>        | Offset Datum                         |

Reference Depths are relative to WELL @ 4754.0ft (Original Well Elev) Coordinates are relative to: Northridge 12-4D  
 Offset Depths are relative to Offset Datum  
 Central Meridian is 105° 30' 0.000 W °  
 Coordinate System is US State Plane 1983, Colorado Northern Zone  
 Grid Convergence at Surface is: 0.46°

### Separation Factor Plot



### LEGEND

Northridge 22-4D, Wellbore #1, Plan #3 (1-12-10) \VD — Northridge 4AD, Wellbore #1, Plan #3 (1-11-10) \VD