



# Stone Energy Corporation

Mary Prospect  
Erlewine Pad  
Erlewine 4H - Slot 4H

OH

Design: 4H As Drilled

## Standard Survey Report

25 February, 2015



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Department of  
Environmental Protection

06/02/2017



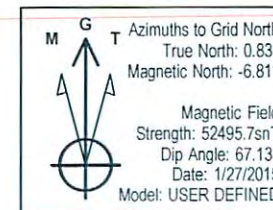
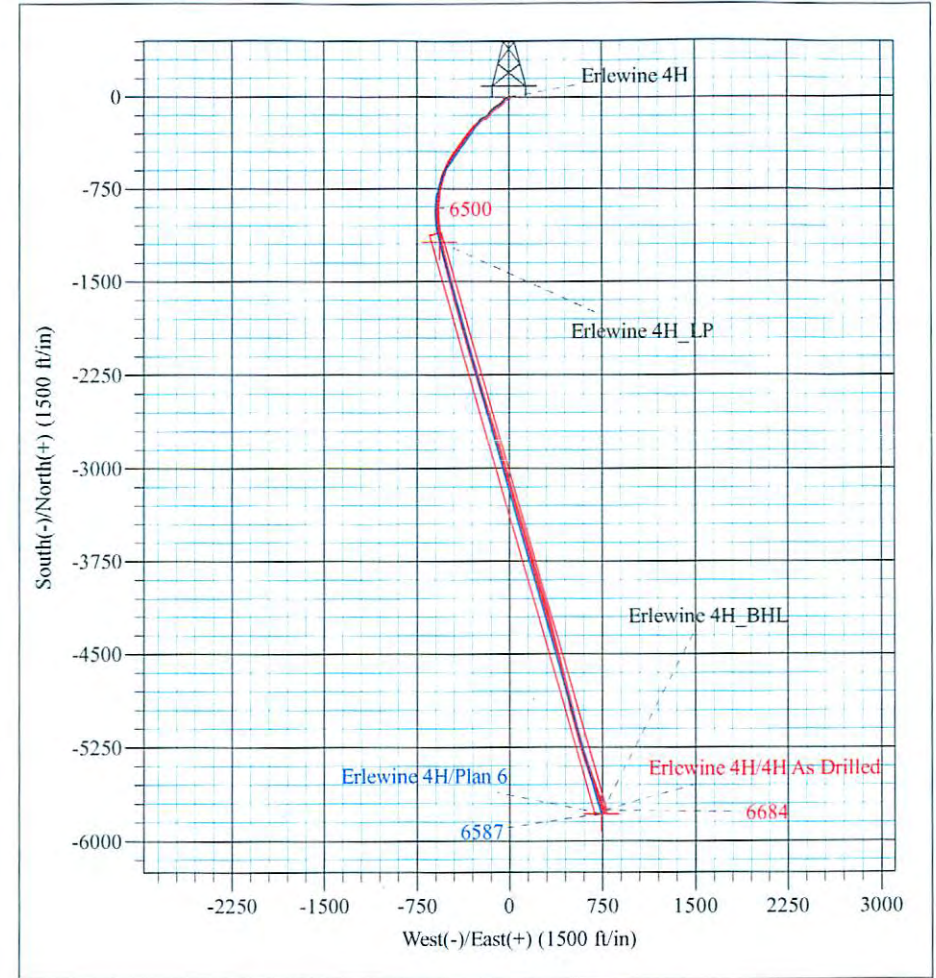
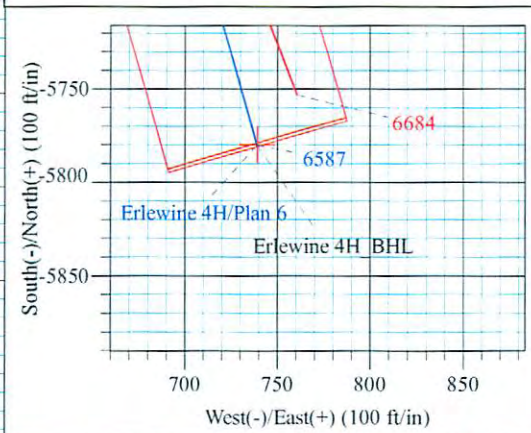
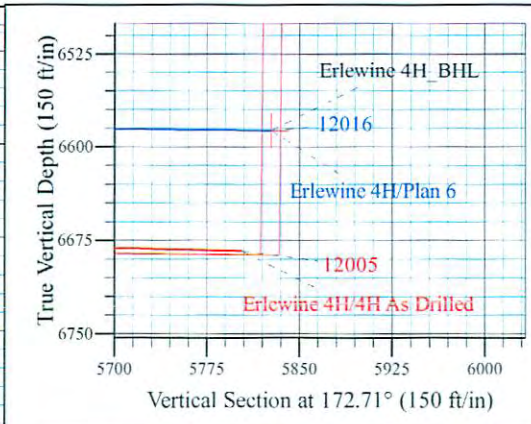
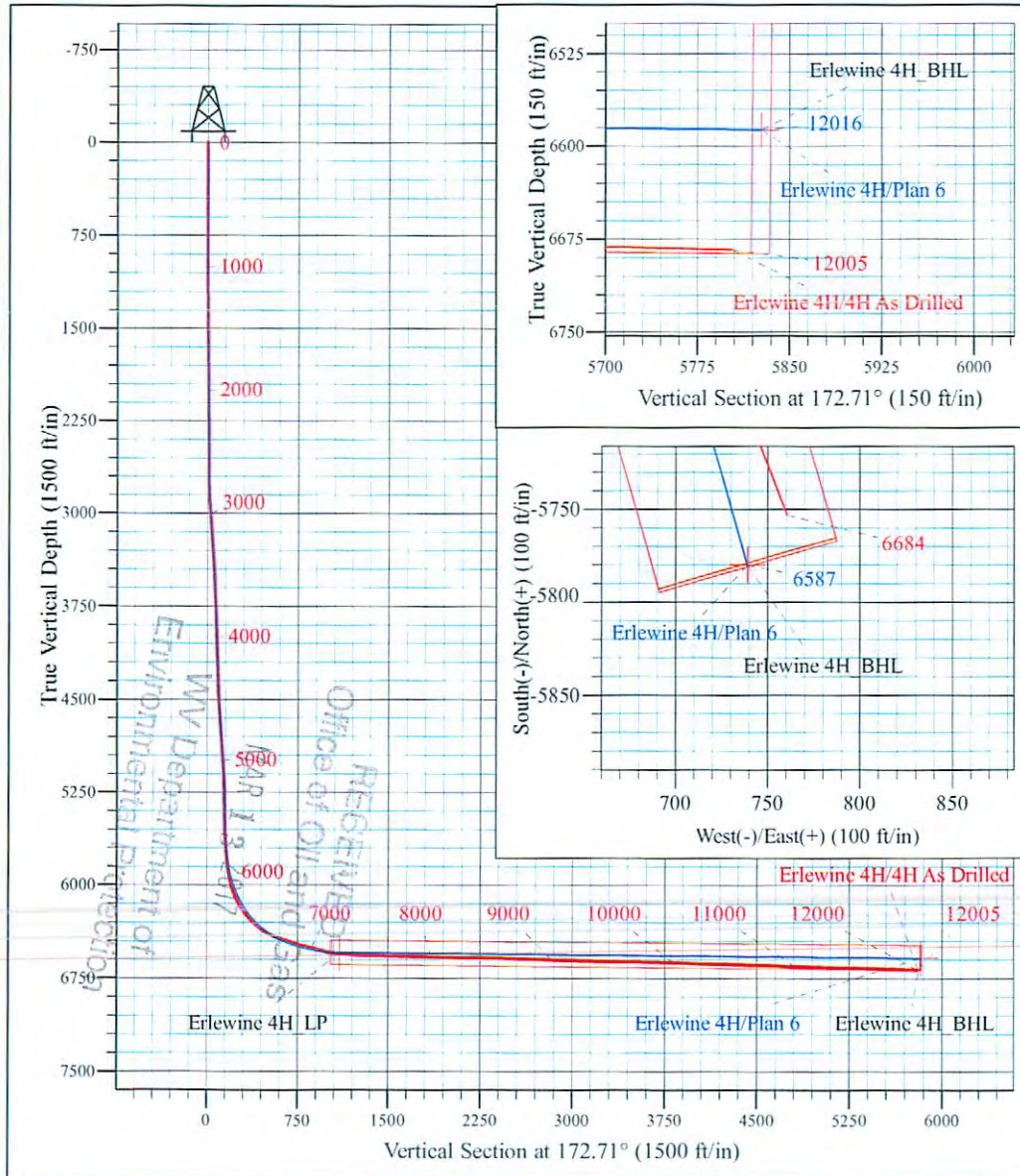
Erlewine Pad  
 Erlewine 4H  
 Plan 6  
 GL 1212' & KB 18' @ 1230.00ft (Saxon 141)  
 Mary Prospect

PROJECT DETAILS:  
 Geodetic System: US State Plane 1927 (Exact solution)  
 Datum: NAD 1927 (NADCON CONUS)  
 Ellipsoid: Clarke 1866  
 Zone: West Virginia North 4701  
 System Datum: Mean Sea Level



WELL DETAILS: Erlewine 4H

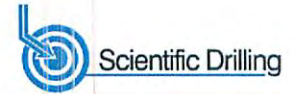
| +N/-S | +E/-W | Northing  | Easting    | Latitude        | Longitude        |
|-------|-------|-----------|------------|-----------------|------------------|
| 0.00  | 0.00  | 433639.00 | 1634860.00 | 39° 41' 0.056 N | 80° 47' 50.739 W |



Shane Rhodes  
 17:34, February 24 2015  
 Scientific Drilling International  
 124 Vista Drive  
 Charleroi, PA 15022



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Survey Report



|                  |                          |                                     |                                           |
|------------------|--------------------------|-------------------------------------|-------------------------------------------|
| <b>Company:</b>  | Stone Energy Corporation | <b>Local Co-ordinate Reference:</b> | Well Erlewine 4H - Slot 4H                |
| <b>Project:</b>  | Mary Prospect            | <b>TVD Reference:</b>               | GL 1212' & KB 18' @ 1230.00ft (Saxon 141) |
| <b>Site:</b>     | Erlewine Pad             | <b>MD Reference:</b>                | GL 1212' & KB 18' @ 1230.00ft (Saxon 141) |
| <b>Well:</b>     | Erlewine 4H              | <b>North Reference:</b>             | Grid                                      |
| <b>Wellbore:</b> | OH                       | <b>Survey Calculation Method:</b>   | Minimum Curvature                         |
| <b>Design:</b>   | 4H As Drilled            | <b>Database:</b>                    | Northeast District                        |

|                    |                                             |                      |                |
|--------------------|---------------------------------------------|----------------------|----------------|
| <b>Project</b>     | Mary Prospect, Wetzel County, West Virginia |                      |                |
| <b>Map System:</b> | US State Plane 1927 (Exact solution)        | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | NAD 1927 (NADCON CONUS)                     |                      |                |
| <b>Map Zone:</b>   | West Virginia North 4701                    |                      |                |

|                              |              |                     |                   |                          |                  |
|------------------------------|--------------|---------------------|-------------------|--------------------------|------------------|
| <b>Site</b>                  | Erlewine Pad |                     |                   |                          |                  |
| <b>Site Position:</b>        |              | <b>Northing:</b>    | 433,674.00 usft   | <b>Latitude:</b>         | 39° 41' 0.404 N  |
| <b>From:</b>                 | Map          | <b>Easting:</b>     | 1,634,878.00 usft | <b>Longitude:</b>        | 80° 47' 50.515 W |
| <b>Position Uncertainty:</b> | 0.00 ft      | <b>Slot Radius:</b> | 13-3/16 "         | <b>Grid Convergence:</b> | -0.83 °          |

|                             |                       |         |                            |                   |                      |                  |
|-----------------------------|-----------------------|---------|----------------------------|-------------------|----------------------|------------------|
| <b>Well</b>                 | Erlewine 4H - Slot 4H |         |                            |                   |                      |                  |
| <b>Well Position</b>        | <b>+N/-S</b>          | 0.00 ft | <b>Northing:</b>           | 433,639.00 usft   | <b>Latitude:</b>     | 39° 41' 0.056 N  |
|                             | <b>+E/-W</b>          | 0.00 ft | <b>Easting:</b>            | 1,634,860.00 usft | <b>Longitude:</b>    | 80° 47' 50.739 W |
| <b>Position Uncertainty</b> |                       | 0.00 ft | <b>Wellhead Elevation:</b> | 0.00 ft           | <b>Ground Level:</b> | 1,212.00 ft      |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | OH                |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | User Defined      | 1/27/2015          | -7.64                  | 67.13                | 52,496                     |

|                          |                              |                   |                   |                      |      |
|--------------------------|------------------------------|-------------------|-------------------|----------------------|------|
| <b>Design</b>            | 4H As Drilled                |                   |                   |                      |      |
| <b>Audit Notes:</b>      |                              |                   |                   |                      |      |
| <b>Version:</b>          | 1.0                          | <b>Phase:</b>     | ACTUAL            | <b>Tie On Depth:</b> | 0.00 |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (ft)</b> | <b>+N/-S (ft)</b> | <b>+E/-W (ft)</b> | <b>Direction (°)</b> |      |
|                          | 0.00                         | 0.00              | 0.00              | 172.71               |      |

|                       |                |                             |                  |                              |  |
|-----------------------|----------------|-----------------------------|------------------|------------------------------|--|
| <b>Survey Program</b> | <b>Date</b>    | 2/25/2015                   |                  |                              |  |
| <b>From (ft)</b>      | <b>To (ft)</b> | <b>Survey (Wellbore)</b>    | <b>Tool Name</b> | <b>Description</b>           |  |
| 108.00                | 2,374.00       | Survey 1 - Vaughn Gyro (OH) | VES GyroFlex     |                              |  |
| 2,561.00              | 5,638.00       | Survey 2 - SDI MWD (OH)     | MWD SDI          | MWD - Standard ver 1.0.1     |  |
| 5,676.00              | 12,005.00      | Survey #3-SDI MWD (OH)      | SDI MWD          | SDI MWD - Standard ver 1.0.1 |  |

| Measured Depth (ft)            | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|--------------------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-------------------------|------------------------|-----------------------|
| 0.00                           | 0.00            | 0.00        | 0.00                | 0.00       | 0.00       | 0.00                  | 0.00                    | 0.00                   | 0.00                  |
| 108.00                         | 0.39            | 50.22       | 108.00              | 0.24       | 0.28       | -0.20                 | 0.36                    | 0.36                   | 0.00                  |
| <b>First VES Gyro @ 108 MD</b> |                 |             |                     |            |            |                       |                         |                        |                       |
| 208.00                         | 0.30            | 85.60       | 208.00              | 0.47       | 0.81       | -0.37                 | 0.23                    | -0.09                  | 35.38                 |
| 308.00                         | 0.33            | 99.50       | 308.00              | 0.45       | 1.35       | -0.27                 | 0.08                    | 0.03                   | 13.90                 |
| 408.00                         | 0.27            | 108.95      | 407.99              | 0.32       | 1.86       | -0.08                 | 0.08                    | -0.06                  | 9.45                  |
| 508.00                         | 0.21            | 98.14       | 507.99              | 0.22       | 2.26       | 0.07                  | 0.07                    | -0.06                  | 10.81                 |
| 608.00                         | 0.23            | 100.31      | 607.99              | 0.16       | 2.64       | 0.18                  | 0.02                    | 0.02                   | 2.17                  |
| 708.00                         | 0.27            | 98.19       | 707.99              | 0.09       | 3.07       | 0.30                  | 0.04                    | 0.04                   | -2.12                 |

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|                  |                          |                                     |                                           |
|------------------|--------------------------|-------------------------------------|-------------------------------------------|
| <b>Company:</b>  | Stone Energy Corporation | <b>Local Co-ordinate Reference:</b> | Well Erlewine 4H - Slot 4H                |
| <b>Project:</b>  | Mary Prospect            | <b>TVD Reference:</b>               | GL 1212' & KB 18' @ 1230.00ft (Saxon 141) |
| <b>Site:</b>     | Erlewine Pad             | <b>MD Reference:</b>                | GL 1212' & KB 18' @ 1230.00ft (Saxon 141) |
| <b>Well:</b>     | Erlewine 4H              | <b>North Reference:</b>             | Grid                                      |
| <b>Wellbore:</b> | OH                       | <b>Survey Calculation Method:</b>   | Minimum Curvature                         |
| <b>Design:</b>   | 4H As Drilled            | <b>Database:</b>                    | Northeast District                        |

| Measured Depth (ft)            | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |  |
|--------------------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-------------------------|------------------------|-----------------------|--|
| 808.00                         | 0.34            | 93.13       | 807.99              | 0.04       | 3.60       | 0.42                  | 0.07                    | 0.07                   | -5.06                 |  |
| 908.00                         | 0.36            | 96.12       | 907.99              | -0.01      | 4.21       | 0.55                  | 0.03                    | 0.02                   | 2.99                  |  |
| 1,008.00                       | 0.34            | 105.06      | 1,007.99            | -0.12      | 4.81       | 0.73                  | 0.06                    | -0.02                  | 8.94                  |  |
| 1,108.00                       | 0.34            | 95.31       | 1,107.99            | -0.23      | 5.39       | 0.91                  | 0.06                    | 0.00                   | -9.75                 |  |
| 1,208.00                       | 0.35            | 39.93       | 1,207.98            | -0.02      | 5.88       | 0.77                  | 0.32                    | 0.01                   | -55.38                |  |
| 1,316.00                       | 0.68            | 242.28      | 1,315.98            | -0.07      | 5.53       | 0.77                  | 0.94                    | 0.31                   | -145.97               |  |
| 1,410.00                       | 2.38            | 244.42      | 1,409.94            | -1.17      | 3.27       | 1.57                  | 1.81                    | 1.81                   | 2.28                  |  |
| 1,504.00                       | 4.25            | 245.03      | 1,503.78            | -3.48      | -1.65      | 3.24                  | 1.99                    | 1.99                   | 0.65                  |  |
| 1,608.00                       | 3.70            | 246.44      | 1,607.53            | -6.45      | -8.22      | 5.35                  | 0.54                    | -0.53                  | 1.36                  |  |
| 1,708.00                       | 2.54            | 247.04      | 1,707.38            | -8.60      | -13.21     | 6.86                  | 1.16                    | -1.16                  | 0.60                  |  |
| 1,808.00                       | 1.99            | 247.05      | 1,807.30            | -10.14     | -16.85     | 7.93                  | 0.55                    | -0.55                  | 0.01                  |  |
| 1,908.00                       | 1.57            | 247.66      | 1,907.26            | -11.34     | -19.72     | 8.75                  | 0.42                    | -0.42                  | 0.61                  |  |
| 2,008.00                       | 1.13            | 249.37      | 2,007.23            | -12.21     | -21.91     | 9.33                  | 0.44                    | -0.44                  | 1.71                  |  |
| 2,108.00                       | 1.12            | 246.99      | 2,107.21            | -12.94     | -23.73     | 9.83                  | 0.05                    | -0.01                  | -2.38                 |  |
| 2,208.00                       | 0.70            | 246.44      | 2,207.20            | -13.57     | -25.19     | 10.26                 | 0.42                    | -0.42                  | -0.55                 |  |
| 2,308.00                       | 0.75            | 251.54      | 2,307.19            | -14.02     | -26.37     | 10.56                 | 0.08                    | 0.05                   | 5.10                  |  |
| 2,374.00                       | 0.76            | 269.04      | 2,373.18            | -14.16     | -27.22     | 10.60                 | 0.35                    | 0.02                   | 26.52                 |  |
| <b>Last VES Gyro @ 2374 MD</b> |                 |             |                     |            |            |                       |                         |                        |                       |  |
| 2,561.00                       | 0.65            | 285.26      | 2,560.17            | -13.90     | -29.48     | 10.05                 | 0.12                    | -0.06                  | 8.67                  |  |
| <b>First SDI MWD @ 2561 MD</b> |                 |             |                     |            |            |                       |                         |                        |                       |  |
| 2,655.00                       | 1.07            | 262.83      | 2,654.16            | -13.87     | -30.87     | 9.85                  | 0.56                    | 0.45                   | -23.86                |  |
| 2,750.00                       | 1.98            | 209.55      | 2,749.13            | -15.41     | -32.56     | 11.16                 | 1.67                    | 0.96                   | -56.08                |  |
| 2,844.00                       | 3.40            | 212.24      | 2,843.02            | -19.18     | -34.85     | 14.61                 | 1.52                    | 1.51                   | 2.86                  |  |
| 2,938.00                       | 4.99            | 209.26      | 2,936.77            | -25.11     | -38.33     | 20.04                 | 1.71                    | 1.69                   | -3.17                 |  |
| 3,032.00                       | 6.09            | 211.64      | 3,030.33            | -32.92     | -42.95     | 27.21                 | 1.20                    | 1.17                   | 2.53                  |  |
| 3,127.00                       | 6.62            | 222.69      | 3,124.75            | -41.23     | -49.30     | 34.65                 | 1.40                    | 0.56                   | 11.63                 |  |
| 3,221.00                       | 6.57            | 226.46      | 3,218.12            | -48.92     | -56.87     | 41.31                 | 0.46                    | -0.05                  | 4.01                  |  |
| 3,315.00                       | 6.52            | 230.16      | 3,311.51            | -56.04     | -64.87     | 47.36                 | 0.45                    | -0.05                  | 3.94                  |  |
| 3,409.00                       | 6.73            | 234.33      | 3,404.88            | -62.67     | -73.44     | 52.85                 | 0.56                    | 0.22                   | 4.44                  |  |
| 3,503.00                       | 6.66            | 230.71      | 3,498.24            | -69.34     | -82.14     | 58.36                 | 0.46                    | -0.07                  | -3.85                 |  |
| 3,597.00                       | 6.16            | 238.92      | 3,591.66            | -75.39     | -90.67     | 63.29                 | 1.11                    | -0.53                  | 8.73                  |  |
| 3,691.00                       | 6.12            | 243.03      | 3,685.12            | -80.27     | -99.46     | 67.01                 | 0.47                    | -0.04                  | 4.37                  |  |
| 3,785.00                       | 4.63            | 238.77      | 3,778.70            | -84.51     | -107.17    | 70.24                 | 1.64                    | -1.59                  | -4.53                 |  |
| 3,879.00                       | 3.95            | 230.44      | 3,872.44            | -88.54     | -112.91    | 73.50                 | 0.98                    | -0.72                  | -8.86                 |  |
| 3,975.00                       | 3.84            | 231.11      | 3,968.22            | -92.66     | -117.96    | 76.95                 | 0.12                    | -0.11                  | 0.70                  |  |
| 4,069.00                       | 3.75            | 231.37      | 4,062.01            | -96.56     | -122.81    | 80.20                 | 0.10                    | -0.10                  | 0.28                  |  |
| 4,163.00                       | 2.59            | 231.85      | 4,155.87            | -99.79     | -126.88    | 82.89                 | 1.23                    | -1.23                  | 0.51                  |  |
| 4,257.00                       | 3.18            | 229.80      | 4,249.75            | -102.78    | -130.55    | 85.40                 | 0.64                    | 0.63                   | -2.18                 |  |
| 4,352.00                       | 4.03            | 238.70      | 4,344.56            | -106.22    | -135.41    | 88.19                 | 1.07                    | 0.89                   | 9.37                  |  |
| 4,446.00                       | 4.61            | 230.13      | 4,438.29            | -110.36    | -141.13    | 91.57                 | 0.92                    | 0.62                   | -9.12                 |  |
| 4,540.00                       | 5.29            | 214.98      | 4,531.95            | -116.33    | -146.52    | 96.81                 | 1.56                    | 0.72                   | -16.12                |  |
| 4,634.00                       | 5.09            | 211.09      | 4,625.56            | -123.45    | -151.15    | 103.28                | 0.43                    | -0.21                  | -4.14                 |  |
| 4,727.00                       | 5.35            | 212.52      | 4,718.18            | -130.64    | -155.62    | 109.85                | 0.31                    | 0.28                   | 1.54                  |  |
| 4,822.00                       | 6.28            | 220.94      | 4,812.69            | -138.30    | -161.40    | 116.71                | 1.33                    | 0.98                   | 8.86                  |  |

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|------------------|--------------------------|-------------------------------------|-------------------------------------------|
| <b>Company:</b>  | Stone Energy Corporation | <b>Local Co-ordinate Reference:</b> | Well Erlewine 4H - Slot 4H                |
| <b>Project:</b>  | Mary Prospect            | <b>TVD Reference:</b>               | GL 1212' & KB 18' @ 1230.00ft (Saxon 141) |
| <b>Site:</b>     | Erlewine Pad             | <b>MD Reference:</b>                | GL 1212' & KB 18' @ 1230.00ft (Saxon 141) |
| <b>Well:</b>     | Erlewine 4H              | <b>North Reference:</b>             | Grid                                      |
| <b>Wellbore:</b> | OH                       | <b>Survey Calculation Method:</b>   | Minimum Curvature                         |
| <b>Design:</b>   | 4H As Drilled            | <b>Database:</b>                    | Northeast District                        |

| Survey              |                 |             |                     |            |            |                       |                         |                        |                       |  |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-------------------------|------------------------|-----------------------|--|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |  |
| 4,916.00            | 6.75            | 219.33      | 4,906.08            | -146.46    | -168.27    | 123.93                | 0.54                    | 0.50                   | -1.71                 |  |
| 5,011.00            | 6.58            | 225.26      | 5,000.44            | -154.61    | -175.68    | 131.08                | 0.75                    | -0.18                  | 6.24                  |  |
| 5,105.00            | 6.94            | 230.88      | 5,093.79            | -161.98    | -183.91    | 137.35                | 0.80                    | 0.38                   | 5.98                  |  |
| 5,199.00            | 6.37            | 242.44      | 5,187.16            | -167.98    | -192.94    | 142.15                | 1.55                    | -0.61                  | 12.30                 |  |
| 5,294.00            | 5.34            | 252.28      | 5,281.66            | -171.76    | -201.82    | 144.78                | 1.51                    | -1.08                  | 10.36                 |  |
| 5,388.00            | 4.81            | 256.74      | 5,375.29            | -174.00    | -209.82    | 145.98                | 0.70                    | -0.56                  | 4.74                  |  |
| 5,481.00            | 5.26            | 250.51      | 5,467.94            | -176.31    | -217.64    | 147.29                | 0.76                    | 0.48                   | -6.70                 |  |
| 5,575.00            | 4.91            | 232.21      | 5,561.57            | -180.22    | -224.88    | 150.24                | 1.76                    | -0.37                  | -19.47                |  |
| 5,638.00            | 4.98            | 213.88      | 5,624.34            | -184.14    | -228.53    | 153.67                | 2.50                    | 0.11                   | -29.10                |  |
| 5,676.00            | 5.36            | 216.83      | 5,662.19            | -186.93    | -230.52    | 156.18                | 1.22                    | 1.00                   | 7.76                  |  |
| 5,708.00            | 5.41            | 216.02      | 5,694.05            | -189.34    | -232.30    | 158.35                | 0.28                    | 0.16                   | -2.53                 |  |
| 5,740.00            | 6.04            | 214.17      | 5,725.89            | -191.96    | -234.13    | 160.71                | 2.05                    | 1.97                   | -5.78                 |  |
| 5,771.00            | 7.33            | 217.56      | 5,756.67            | -194.87    | -236.25    | 163.34                | 4.35                    | 4.16                   | 10.94                 |  |
| 5,803.00            | 8.91            | 219.45      | 5,788.35            | -198.41    | -239.07    | 166.48                | 5.01                    | 4.94                   | 5.91                  |  |
| 5,835.00            | 10.42           | 222.18      | 5,819.90            | -202.46    | -242.59    | 170.06                | 4.93                    | 4.72                   | 8.53                  |  |
| 5,867.00            | 11.63           | 221.42      | 5,851.31            | -207.03    | -246.67    | 174.07                | 3.81                    | 3.78                   | -2.38                 |  |
| 5,899.00            | 13.56           | 222.23      | 5,882.53            | -212.22    | -251.32    | 178.64                | 6.06                    | 6.03                   | 2.53                  |  |
| 5,931.00            | 16.01           | 223.20      | 5,913.47            | -218.22    | -256.87    | 183.88                | 7.69                    | 7.66                   | 3.03                  |  |
| 5,962.00            | 18.25           | 223.84      | 5,943.10            | -224.84    | -263.16    | 189.65                | 7.25                    | 7.23                   | 2.06                  |  |
| 5,992.00            | 20.65           | 224.14      | 5,971.38            | -232.02    | -270.10    | 195.90                | 8.01                    | 8.00                   | 1.00                  |  |
| 6,022.00            | 22.92           | 223.98      | 5,999.24            | -240.02    | -277.84    | 202.85                | 7.57                    | 7.57                   | -0.53                 |  |
| 6,052.00            | 25.15           | 223.03      | 6,026.63            | -248.89    | -286.24    | 210.58                | 7.54                    | 7.43                   | -3.17                 |  |
| 6,082.00            | 27.64           | 221.47      | 6,053.51            | -258.77    | -295.20    | 219.24                | 8.62                    | 8.30                   | -5.20                 |  |
| 6,113.00            | 30.38           | 220.08      | 6,080.61            | -270.15    | -305.01    | 229.29                | 9.10                    | 8.84                   | -4.48                 |  |
| 6,143.00            | 33.13           | 219.11      | 6,106.12            | -282.32    | -315.07    | 240.08                | 9.32                    | 9.17                   | -3.23                 |  |
| 6,173.00            | 36.27           | 218.27      | 6,130.78            | -295.65    | -325.74    | 251.95                | 10.59                   | 10.47                  | -2.80                 |  |
| 6,204.00            | 39.49           | 216.93      | 6,155.25            | -310.74    | -337.35    | 265.44                | 10.72                   | 10.39                  | -4.32                 |  |
| 6,235.00            | 43.02           | 216.64      | 6,178.55            | -327.11    | -349.59    | 280.13                | 11.40                   | 11.39                  | -0.94                 |  |
| 6,265.00            | 44.85           | 215.71      | 6,200.15            | -343.91    | -361.87    | 295.24                | 6.47                    | 6.10                   | -3.10                 |  |
| 6,295.00            | 46.66           | 215.79      | 6,221.08            | -361.35    | -374.42    | 310.95                | 6.04                    | 6.03                   | 0.27                  |  |
| 6,325.00            | 48.39           | 216.41      | 6,241.34            | -379.23    | -387.46    | 327.03                | 5.96                    | 5.77                   | 2.07                  |  |
| 6,356.00            | 50.75           | 216.16      | 6,261.44            | -398.25    | -401.43    | 344.12                | 7.64                    | 7.61                   | -0.81                 |  |
| 6,386.00            | 52.14           | 214.67      | 6,280.14            | -417.37    | -415.02    | 361.36                | 6.05                    | 4.63                   | -4.97                 |  |
| 6,416.00            | 53.87           | 213.35      | 6,298.19            | -437.23    | -428.42    | 379.37                | 6.75                    | 5.77                   | -4.40                 |  |
| 6,446.00            | 55.86           | 213.32      | 6,315.46            | -457.73    | -441.90    | 397.99                | 6.63                    | 6.63                   | -0.10                 |  |
| 6,476.00            | 58.43           | 212.89      | 6,331.73            | -478.83    | -455.66    | 417.18                | 8.65                    | 8.57                   | -1.43                 |  |
| 6,506.00            | 60.30           | 211.73      | 6,347.02            | -500.65    | -469.45    | 437.07                | 7.07                    | 6.23                   | -3.87                 |  |
| 6,536.00            | 61.55           | 209.76      | 6,361.60            | -523.18    | -482.85    | 457.72                | 7.09                    | 4.17                   | -6.57                 |  |
| 6,567.00            | 63.24           | 207.95      | 6,375.96            | -547.24    | -496.11    | 479.91                | 7.52                    | 5.45                   | -5.84                 |  |
| 6,597.00            | 64.62           | 205.32      | 6,389.15            | -571.33    | -508.18    | 502.27                | 9.12                    | 4.60                   | -8.77                 |  |
| 6,627.00            | 67.15           | 202.95      | 6,401.41            | -596.32    | -519.37    | 525.63                | 11.09                   | 8.43                   | -7.90                 |  |
| 6,658.00            | 69.13           | 200.43      | 6,412.95            | -623.05    | -530.00    | 550.80                | 9.88                    | 6.39                   | -8.13                 |  |
| 6,688.00            | 70.70           | 198.44      | 6,423.25            | -649.62    | -539.37    | 575.97                | 8.14                    | 5.23                   | -6.63                 |  |

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Survey Report



|                  |                          |                                     |                                           |
|------------------|--------------------------|-------------------------------------|-------------------------------------------|
| <b>Company:</b>  | Stone Energy Corporation | <b>Local Co-ordinate Reference:</b> | Well Erlewine 4H - Slot 4H                |
| <b>Project:</b>  | Mary Prospect            | <b>TVD Reference:</b>               | GL 1212' & KB 18' @ 1230.00ft (Saxon 141) |
| <b>Site:</b>     | Erlewine Pad             | <b>MD Reference:</b>                | GL 1212' & KB 18' @ 1230.00ft (Saxon 141) |
| <b>Well:</b>     | Erlewine 4H              | <b>North Reference:</b>             | Grid                                      |
| <b>Wellbore:</b> | OH                       | <b>Survey Calculation Method:</b>   | Minimum Curvature                         |
| <b>Design:</b>   | 4H As Drilled            | <b>Database:</b>                    | Northeast District                        |

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-------------------------|------------------------|-----------------------|
| 6,717.00            | 72.01           | 197.13      | 6,432.52            | -675.78    | -547.76    | 600.85                | 6.22                    | 4.52                   | -4.52                 |
| 6,747.00            | 73.07           | 195.27      | 6,441.53            | -703.26    | -555.74    | 627.10                | 6.89                    | 3.53                   | -6.20                 |
| 6,777.00            | 73.50           | 193.50      | 6,450.16            | -731.09    | -562.88    | 653.80                | 5.83                    | 1.43                   | -5.90                 |
| 6,807.00            | 74.26           | 191.06      | 6,458.49            | -759.25    | -569.01    | 680.96                | 8.21                    | 2.53                   | -8.13                 |
| 6,837.00            | 74.55           | 188.93      | 6,466.55            | -787.70    | -574.02    | 708.54                | 6.91                    | 0.97                   | -7.10                 |
| 6,868.00            | 74.63           | 185.91      | 6,474.79            | -817.34    | -577.88    | 737.45                | 9.40                    | 0.26                   | -9.74                 |
| 6,898.00            | 74.78           | 184.06      | 6,482.71            | -846.16    | -580.40    | 765.72                | 5.97                    | 0.50                   | -6.17                 |
| 6,928.00            | 74.86           | 181.69      | 6,490.56            | -875.08    | -581.85    | 794.22                | 7.63                    | 0.27                   | -7.90                 |
| 6,959.00            | 74.68           | 179.52      | 6,498.71            | -904.98    | -582.17    | 823.85                | 6.78                    | -0.58                  | -7.00                 |
| 6,991.00            | 74.61           | 177.70      | 6,507.18            | -935.83    | -581.42    | 854.54                | 5.49                    | -0.22                  | -5.69                 |
| 7,022.00            | 74.71           | 177.83      | 6,515.38            | -965.70    | -580.25    | 884.32                | 0.52                    | 0.32                   | 0.42                  |
| 7,054.00            | 74.94           | 176.16      | 6,523.76            | -996.54    | -578.63    | 915.11                | 5.09                    | 0.72                   | -5.22                 |
| 7,086.00            | 76.20           | 175.22      | 6,531.73            | -1,027.45  | -576.30    | 946.06                | 4.86                    | 3.94                   | -2.94                 |
| 7,118.00            | 78.78           | 174.38      | 6,538.66            | -1,058.55  | -573.47    | 977.28                | 8.46                    | 8.06                   | -2.63                 |
| 7,150.00            | 81.10           | 173.68      | 6,544.25            | -1,089.89  | -570.19    | 1,008.78              | 7.56                    | 7.25                   | -2.19                 |
| 7,181.00            | 83.29           | 172.27      | 6,548.46            | -1,120.37  | -566.44    | 1,039.49              | 8.38                    | 7.06                   | -4.55                 |
| 7,213.00            | 83.88           | 170.75      | 6,552.04            | -1,151.82  | -561.74    | 1,071.28              | 5.07                    | 1.84                   | -4.75                 |
| 7,244.00            | 83.13           | 168.20      | 6,555.55            | -1,182.10  | -556.12    | 1,102.03              | 8.52                    | -2.42                  | -8.23                 |
| 7,276.00            | 84.45           | 166.28      | 6,559.01            | -1,213.12  | -549.09    | 1,133.69              | 7.25                    | 4.13                   | -6.00                 |
| 7,308.00            | 86.47           | 164.79      | 6,561.54            | -1,244.01  | -541.12    | 1,165.34              | 7.84                    | 6.31                   | -4.66                 |
| 7,340.00            | 86.41           | 164.96      | 6,563.53            | -1,274.84  | -532.79    | 1,196.98              | 0.56                    | -0.19                  | 0.53                  |
| 7,404.00            | 88.12           | 165.41      | 6,566.58            | -1,336.64  | -516.44    | 1,260.35              | 2.76                    | 2.67                   | 0.70                  |
| 7,468.00            | 88.09           | 165.01      | 6,568.70            | -1,398.49  | -500.11    | 1,323.77              | 0.63                    | -0.05                  | -0.63                 |
| 7,532.00            | 88.29           | 166.21      | 6,570.72            | -1,460.45  | -484.22    | 1,387.24              | 1.90                    | 0.31                   | 1.88                  |
| 7,595.00            | 87.92           | 166.24      | 6,572.80            | -1,521.60  | -469.22    | 1,449.81              | 0.59                    | -0.59                  | 0.05                  |
| 7,659.00            | 88.82           | 165.35      | 6,574.62            | -1,583.62  | -453.53    | 1,513.31              | 1.98                    | 1.41                   | -1.39                 |
| 7,723.00            | 89.46           | 164.75      | 6,575.58            | -1,645.44  | -437.02    | 1,576.73              | 1.37                    | 1.00                   | -0.94                 |
| 7,786.00            | 88.99           | 164.01      | 6,576.44            | -1,706.11  | -420.06    | 1,639.06              | 1.39                    | -0.75                  | -1.17                 |
| 7,850.00            | 89.09           | 164.22      | 6,577.51            | -1,767.66  | -402.54    | 1,702.33              | 0.36                    | 0.16                   | 0.33                  |
| 7,913.00            | 88.69           | 163.79      | 6,578.73            | -1,828.21  | -385.18    | 1,764.60              | 0.93                    | -0.63                  | -0.68                 |
| 7,977.00            | 88.56           | 164.00      | 6,580.26            | -1,889.68  | -367.44    | 1,827.82              | 0.39                    | -0.20                  | 0.33                  |
| 8,041.00            | 88.16           | 163.76      | 6,582.10            | -1,951.14  | -349.67    | 1,891.04              | 0.73                    | -0.63                  | -0.38                 |
| 8,104.00            | 88.52           | 164.18      | 6,583.92            | -2,011.66  | -332.28    | 1,953.28              | 0.88                    | 0.57                   | 0.67                  |
| 8,168.00            | 88.89           | 163.79      | 6,585.37            | -2,073.16  | -314.63    | 2,016.52              | 0.84                    | 0.58                   | -0.61                 |
| 8,232.00            | 89.26           | 163.21      | 6,586.40            | -2,134.52  | -296.46    | 2,079.68              | 1.07                    | 0.58                   | -0.91                 |
| 8,296.00            | 89.63           | 163.20      | 6,587.02            | -2,195.78  | -277.97    | 2,142.80              | 0.58                    | 0.58                   | -0.02                 |
| 8,359.00            | 89.23           | 162.92      | 6,587.65            | -2,256.05  | -259.61    | 2,204.91              | 0.78                    | -0.63                  | -0.44                 |
| 8,422.00            | 89.43           | 163.08      | 6,588.38            | -2,316.29  | -241.19    | 2,267.00              | 0.41                    | 0.32                   | 0.25                  |
| 8,485.00            | 89.53           | 163.57      | 6,588.96            | -2,376.64  | -223.12    | 2,329.15              | 0.79                    | 0.16                   | 0.78                  |
| 8,550.00            | 89.60           | 163.30      | 6,589.45            | -2,438.94  | -204.58    | 2,393.30              | 0.43                    | 0.11                   | -0.42                 |
| 8,613.00            | 88.66           | 163.13      | 6,590.41            | -2,499.25  | -186.39    | 2,455.43              | 1.52                    | -1.49                  | -0.27                 |
| 8,676.00            | 87.95           | 162.57      | 6,592.27            | -2,559.42  | -167.82    | 2,517.47              | 1.44                    | -1.13                  | -0.89                 |
| 8,740.00            | 87.35           | 162.23      | 6,594.89            | -2,620.37  | -148.49    | 2,580.38              | 1.06                    | -0.94                  | -0.53                 |

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Scientific Drilling International  
Survey Report



|                  |                          |                                     |                                           |
|------------------|--------------------------|-------------------------------------|-------------------------------------------|
| <b>Company:</b>  | Stone Energy Corporation | <b>Local Co-ordinate Reference:</b> | Well Erlewine 4H - Slot 4H                |
| <b>Project:</b>  | Mary Prospect            | <b>TVD Reference:</b>               | GL 1212' & KB 18' @ 1230.00ft (Saxon 141) |
| <b>Site:</b>     | Erlewine Pad             | <b>MD Reference:</b>                | GL 1212' & KB 18' @ 1230.00ft (Saxon 141) |
| <b>Well:</b>     | Erlewine 4H              | <b>North Reference:</b>             | Grid                                      |
| <b>Wellbore:</b> | OH                       | <b>Survey Calculation Method:</b>   | Minimum Curvature                         |
| <b>Design:</b>   | 4H As Drilled            | <b>Database:</b>                    | Northeast District                        |

| Survey              |                 |             |                     |            |            |                       |                         |                        |                       |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 8,804.00            | 87.78           | 162.77      | 6,597.61            | -2,681.35  | -129.26    | 2,643.31              | 1.08                    | 0.67                   | 0.84                  |
| 8,867.00            | 87.95           | 163.44      | 6,599.96            | -2,741.59  | -110.97    | 2,705.38              | 1.10                    | 0.27                   | 1.06                  |
| 8,930.00            | 88.36           | 163.64      | 6,601.99            | -2,801.98  | -93.12     | 2,767.54              | 0.72                    | 0.65                   | 0.32                  |
| 8,993.00            | 87.92           | 163.02      | 6,604.03            | -2,862.30  | -75.06     | 2,829.67              | 1.21                    | -0.70                  | -0.98                 |
| 9,057.00            | 88.09           | 163.30      | 6,606.26            | -2,923.52  | -56.53     | 2,892.74              | 0.51                    | 0.27                   | 0.44                  |
| 9,120.00            | 88.25           | 163.68      | 6,608.27            | -2,983.89  | -38.64     | 2,954.90              | 0.65                    | 0.25                   | 0.60                  |
| 9,184.00            | 88.42           | 164.23      | 6,610.13            | -3,045.37  | -20.96     | 3,018.12              | 0.90                    | 0.27                   | 0.86                  |
| 9,247.00            | 89.00           | 164.10      | 6,611.55            | -3,105.96  | -3.77      | 3,080.41              | 0.94                    | 0.92                   | -0.21                 |
| 9,310.00            | 89.03           | 165.10      | 6,612.63            | -3,166.69  | 12.96      | 3,142.77              | 1.59                    | 0.05                   | 1.59                  |
| 9,374.00            | 88.69           | 164.60      | 6,613.91            | -3,228.46  | 29.68      | 3,206.15              | 0.94                    | -0.53                  | -0.78                 |
| 9,437.00            | 88.35           | 164.30      | 6,615.53            | -3,289.13  | 46.56      | 3,268.48              | 0.72                    | -0.54                  | -0.48                 |
| 9,501.00            | 88.86           | 164.31      | 6,617.09            | -3,350.72  | 63.87      | 3,331.77              | 0.80                    | 0.80                   | 0.02                  |
| 9,564.00            | 89.70           | 164.03      | 6,617.88            | -3,411.33  | 81.06      | 3,394.06              | 1.41                    | 1.33                   | -0.44                 |
| 9,628.00            | 89.80           | 163.92      | 6,618.16            | -3,472.84  | 98.72      | 3,457.32              | 0.23                    | 0.16                   | -0.17                 |
| 9,692.00            | 89.26           | 163.49      | 6,618.69            | -3,534.27  | 116.68     | 3,520.53              | 1.08                    | -0.84                  | -0.67                 |
| 9,755.00            | 88.56           | 163.15      | 6,619.89            | -3,594.61  | 134.76     | 3,582.67              | 1.24                    | -1.11                  | -0.54                 |
| 9,819.00            | 89.06           | 163.42      | 6,621.22            | -3,655.89  | 153.16     | 3,645.79              | 0.89                    | 0.78                   | 0.42                  |
| 9,882.00            | 89.03           | 163.09      | 6,622.27            | -3,716.21  | 171.31     | 3,707.93              | 0.53                    | -0.05                  | -0.52                 |
| 9,946.00            | 88.19           | 163.42      | 6,623.82            | -3,777.48  | 189.74     | 3,771.04              | 1.41                    | -1.31                  | 0.52                  |
| 10,009.00           | 87.92           | 163.68      | 6,625.96            | -3,837.86  | 207.57     | 3,833.20              | 0.59                    | -0.43                  | 0.41                  |
| 10,072.00           | 87.62           | 163.68      | 6,628.41            | -3,898.28  | 225.26     | 3,895.37              | 0.48                    | -0.48                  | 0.00                  |
| 10,136.00           | 87.58           | 163.28      | 6,631.09            | -3,959.58  | 243.45     | 3,958.49              | 0.63                    | -0.06                  | -0.63                 |
| 10,200.00           | 87.99           | 164.05      | 6,633.56            | -4,020.95  | 261.43     | 4,021.64              | 1.36                    | 0.64                   | 1.20                  |
| 10,263.00           | 88.76           | 163.97      | 6,635.35            | -4,081.49  | 278.78     | 4,083.89              | 1.23                    | 1.22                   | -0.13                 |
| 10,326.00           | 88.66           | 165.29      | 6,636.77            | -4,142.22  | 295.47     | 4,146.25              | 2.10                    | -0.16                  | 2.10                  |
| 10,390.00           | 88.59           | 166.06      | 6,638.30            | -4,204.21  | 311.30     | 4,209.75              | 1.21                    | -0.11                  | 1.20                  |
| 10,454.00           | 89.23           | 165.78      | 6,639.52            | -4,266.28  | 326.87     | 4,273.28              | 1.09                    | 1.00                   | -0.44                 |
| 10,518.00           | 89.26           | 165.63      | 6,640.36            | -4,328.29  | 342.67     | 4,336.80              | 0.24                    | 0.05                   | -0.23                 |
| 10,581.00           | 88.76           | 165.58      | 6,641.45            | -4,389.30  | 358.33     | 4,399.31              | 0.80                    | -0.79                  | -0.08                 |
| 10,645.00           | 88.79           | 166.43      | 6,642.82            | -4,451.39  | 373.81     | 4,462.85              | 1.33                    | 0.05                   | 1.33                  |
| 10,709.00           | 87.92           | 165.75      | 6,644.66            | -4,513.49  | 389.18     | 4,526.40              | 1.73                    | -1.36                  | -1.06                 |
| 10,770.00           | 87.38           | 165.84      | 6,647.16            | -4,572.57  | 404.14     | 4,586.90              | 0.90                    | -0.89                  | 0.15                  |
| 10,834.00           | 87.45           | 165.66      | 6,650.04            | -4,634.54  | 419.88     | 4,650.37              | 0.30                    | 0.11                   | -0.28                 |
| 10,898.00           | 87.41           | 166.26      | 6,652.91            | -4,696.56  | 435.39     | 4,713.86              | 0.94                    | -0.06                  | 0.94                  |
| 10,962.00           | 87.25           | 165.81      | 6,655.90            | -4,758.60  | 450.82     | 4,777.35              | 0.75                    | -0.25                  | -0.70                 |
| 11,026.00           | 87.75           | 165.17      | 6,658.69            | -4,820.50  | 466.84     | 4,840.79              | 1.27                    | 0.78                   | -1.00                 |
| 11,089.00           | 87.71           | 165.93      | 6,661.18            | -4,881.46  | 482.54     | 4,903.24              | 1.21                    | -0.06                  | 1.21                  |
| 11,152.00           | 87.68           | 165.00      | 6,663.72            | -4,942.40  | 498.34     | 4,965.69              | 1.48                    | -0.05                  | -1.48                 |
| 11,215.00           | 88.96           | 165.64      | 6,665.56            | -5,003.31  | 514.30     | 5,028.14              | 2.27                    | 2.03                   | 1.02                  |
| 11,279.00           | 89.13           | 163.89      | 6,666.63            | -5,065.05  | 531.12     | 5,091.51              | 2.75                    | 0.27                   | -2.73                 |
| 11,342.00           | 89.06           | 164.47      | 6,667.63            | -5,125.66  | 548.29     | 5,153.81              | 0.93                    | -0.11                  | 0.92                  |
| 11,406.00           | 89.26           | 164.28      | 6,668.56            | -5,187.29  | 565.52     | 5,217.12              | 0.43                    | 0.31                   | -0.30                 |
| 11,470.00           | 89.10           | 163.99      | 6,669.48            | -5,248.84  | 583.02     | 5,280.40              | 0.52                    | -0.25                  | -0.45                 |
| 11,534.00           | 88.82           | 163.63      | 6,670.64            | -5,310.29  | 600.86     | 5,343.62              | 0.71                    | -0.44                  | -0.56                 |



**Scientific Drilling International**  
Survey Report



|                  |                          |                                     |                                           |
|------------------|--------------------------|-------------------------------------|-------------------------------------------|
| <b>Company:</b>  | Stone Energy Corporation | <b>Local Co-ordinate Reference:</b> | Well Erlewine 4H - Slot 4H                |
| <b>Project:</b>  | Mary Prospect            | <b>TVD Reference:</b>               | GL 1212' & KB 18' @ 1230.00ft (Saxon 141) |
| <b>Site:</b>     | Erlewine Pad             | <b>MD Reference:</b>                | GL 1212' & KB 18' @ 1230.00ft (Saxon 141) |
| <b>Well:</b>     | Erlewine 4H              | <b>North Reference:</b>             | Grid                                      |
| <b>Wellbore:</b> | OH                       | <b>Survey Calculation Method:</b>   | Minimum Curvature                         |
| <b>Design:</b>   | 4H As Drilled            | <b>Database:</b>                    | Northeast District                        |

| Survey                              |                 |             |                     |            |            |                       |                         |                        |                       |
|-------------------------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (ft)                 | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 11,597.00                           | 88.43           | 161.83      | 6,672.15            | -5,370.43  | 619.56     | 5,405.64              | 2.92                    | -0.62                  | -2.86                 |
| 11,660.00                           | 88.22           | 160.68      | 6,673.99            | -5,430.06  | 639.79     | 5,467.36              | 1.85                    | -0.33                  | -1.83                 |
| 11,724.00                           | 88.02           | 159.70      | 6,676.09            | -5,490.24  | 661.47     | 5,529.80              | 1.56                    | -0.31                  | -1.53                 |
| 11,788.00                           | 88.39           | 159.18      | 6,678.10            | -5,550.14  | 683.94     | 5,592.06              | 1.00                    | 0.58                   | -0.81                 |
| 11,851.00                           | 88.39           | 159.74      | 6,679.87            | -5,609.11  | 706.03     | 5,653.36              | 0.89                    | 0.00                   | 0.89                  |
| 11,915.00                           | 88.69           | 159.59      | 6,681.50            | -5,669.10  | 728.26     | 5,715.69              | 0.52                    | 0.47                   | -0.23                 |
| 11,947.00                           | 88.73           | 158.92      | 6,682.22            | -5,699.02  | 739.60     | 5,746.80              | 2.10                    | 0.13                   | -2.09                 |
| <b>Last SDI MWD @ 11947 MD</b>      |                 |             |                     |            |            |                       |                         |                        |                       |
| 12,005.00                           | 88.73           | 158.92      | 6,683.51            | -5,753.12  | 760.45     | 5,803.11              | 0.00                    | 0.00                   | 0.00                  |
| <b>Projection to Bit @ 12005 MD</b> |                 |             |                     |            |            |                       |                         |                        |                       |

| Design Annotations  |                     |                   |            |                              |
|---------------------|---------------------|-------------------|------------|------------------------------|
| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates |            | Comment                      |
|                     |                     | +N/-S (ft)        | +E/-W (ft) |                              |
| 108.00              | 108.00              | 0.24              | 0.28       | First VES Gyro @ 108 MD      |
| 2,374.00            | 2,373.18            | -14.16            | -27.22     | Last VES Gyro @ 2374 MD      |
| 2,561.00            | 2,560.17            | -13.90            | -29.48     | First SDI MWD @ 2561 MD      |
| 11,947.00           | 6,682.22            | -5,699.02         | 739.60     | Last SDI MWD @ 11947 MD      |
| 12,005.00           | 6,683.51            | -5,753.12         | 760.45     | Projection to Bit @ 12005 MD |

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_