



Gyroscopic Survey Report  
for  
K.P. KAUFFMAN  
1675 BROADWAY SUITE 2800  
DENVER, CO

|                    |  |
|--------------------|--|
| Well Location      | WELD COUNTY, CO                          |
| Well Name          | Donald E Miller #B-2                     |
| Rig Number         | FMC                                      |
| Survey Date        | 5/27/2014                                |
| Latitude           | 40.0745200°N                             |
| Longitude          | 104.9027800°W                            |
| North Reference    | True North                               |
| Grid Correction    | None                                     |
| Depth Reference    | GROUND LEVEL (4994.00 ft)                |
| Calculation Method | Minimum Curvature                        |
| Section (VS) Ref   | 0.00N (ft), 0.00E (ft), 284.42Azim (deg) |
| Definitive Survey  | Donald E Miller #B-2                     |
| Operator(s)        | C JAQUES                                 |

**Well Notes**



Well Name: Donald E Miller #B-2

Survey: Donald E Miller #B-2

Survey Date: 5/27/2014

| MD     | Inc  | Azim   | TVD    | VS    | +N/-S | +E/-W  | DLS     | Closure Distance | Closure Direction |
|--------|------|--------|--------|-------|-------|--------|---------|------------------|-------------------|
| ft     | deg  | deg    | ft     | ft    | ft    | ft     | °/100ft | ft               | deg               |
| 0.00   | 0.00 | 0.00   | 0.00   | 0.00  | 0.00  | 0.00   | Invalid | 0.00             | 0.00              |
| 101.99 | 1.30 | 320.15 | 101.98 | 0.94  | 0.89  | -0.74  | 1.28    | 1.16             | 320.15            |
| 124.48 | 1.30 | 318.72 | 124.47 | 1.36  | 1.28  | -1.07  | 0.14    | 1.67             | 319.93            |
| 149.62 | 1.12 | 312.85 | 149.60 | 1.81  | 1.66  | -1.44  | 0.87    | 2.20             | 318.98            |
| 173.98 | 1.05 | 304.29 | 173.96 | 2.23  | 1.95  | -1.80  | 0.72    | 2.65             | 317.20            |
| 198.74 | 1.12 | 307.21 | 198.71 | 2.67  | 2.22  | -2.18  | 0.34    | 3.11             | 315.50            |
| 224.00 | 1.01 | 309.31 | 223.96 | 3.09  | 2.51  | -2.55  | 0.45    | 3.58             | 314.55            |
| 249.30 | 1.03 | 302.41 | 249.27 | 3.51  | 2.77  | -2.91  | 0.49    | 4.02             | 313.58            |
| 274.06 | 0.99 | 306.60 | 274.01 | 3.92  | 3.02  | -3.27  | 0.33    | 4.45             | 312.69            |
| 299.14 | 0.88 | 308.01 | 299.09 | 4.30  | 3.27  | -3.60  | 0.45    | 4.86             | 312.23            |
| 323.92 | 0.95 | 299.69 | 323.87 | 4.67  | 3.49  | -3.93  | 0.60    | 5.25             | 311.59            |
| 349.96 | 0.94 | 302.08 | 349.91 | 5.09  | 3.71  | -4.30  | 0.16    | 5.68             | 310.79            |
| 373.91 | 0.93 | 296.65 | 373.86 | 5.46  | 3.90  | -4.64  | 0.37    | 6.06             | 310.06            |
| 399.94 | 0.93 | 295.91 | 399.88 | 5.87  | 4.09  | -5.01  | 0.05    | 6.47             | 309.17            |
| 424.63 | 0.88 | 299.47 | 424.57 | 6.25  | 4.27  | -5.36  | 0.29    | 6.85             | 308.52            |
| 449.41 | 0.89 | 295.70 | 449.34 | 6.63  | 4.44  | -5.70  | 0.24    | 7.23             | 307.94            |
| 473.63 | 0.90 | 288.54 | 473.56 | 7.00  | 4.59  | -6.05  | 0.46    | 7.59             | 307.16            |
| 499.77 | 0.81 | 291.02 | 499.70 | 7.39  | 4.72  | -6.42  | 0.38    | 7.96             | 306.32            |
| 524.51 | 0.92 | 290.26 | 524.44 | 7.76  | 4.85  | -6.77  | 0.45    | 8.32             | 305.63            |
| 549.24 | 0.92 | 288.82 | 549.16 | 8.15  | 4.98  | -7.14  | 0.09    | 8.70             | 304.91            |
| 573.57 | 0.89 | 287.67 | 573.49 | 8.54  | 5.10  | -7.50  | 0.14    | 9.07             | 304.21            |
| 599.45 | 0.83 | 284.54 | 599.37 | 8.92  | 5.21  | -7.88  | 0.27    | 9.44             | 303.48            |
| 624.33 | 0.83 | 287.22 | 624.25 | 9.29  | 5.31  | -8.22  | 0.16    | 9.79             | 302.84            |
| 649.06 | 0.92 | 289.07 | 648.97 | 9.66  | 5.43  | -8.58  | 0.36    | 10.15            | 302.30            |
| 673.38 | 0.87 | 286.43 | 673.29 | 10.04 | 5.54  | -8.94  | 0.27    | 10.52            | 301.78            |
| 699.42 | 0.95 | 289.33 | 699.32 | 10.45 | 5.67  | -9.34  | 0.36    | 10.92            | 301.27            |
| 724.09 | 0.93 | 290.54 | 723.99 | 10.86 | 5.81  | -9.72  | 0.13    | 11.32            | 300.86            |
| 748.91 | 0.92 | 289.88 | 748.81 | 11.25 | 5.94  | -10.09 | 0.04    | 11.71            | 300.50            |
| 774.90 | 0.81 | 292.64 | 774.80 | 11.65 | 6.09  | -10.46 | 0.46    | 12.10            | 300.20            |
| 799.29 | 0.88 | 291.89 | 799.19 | 12.00 | 6.22  | -10.79 | 0.30    | 12.46            | 299.97            |
| 824.21 | 0.95 | 288.80 | 824.10 | 12.40 | 6.36  | -11.17 | 0.33    | 12.85            | 299.67            |
| 849.82 | 0.98 | 294.58 | 849.70 | 12.83 | 6.52  | -11.57 | 0.39    | 13.28            | 299.41            |
| 873.55 | 0.98 | 293.74 | 873.43 | 13.23 | 6.69  | -11.94 | 0.06    | 13.68            | 299.26            |
| 899.99 | 0.89 | 289.39 | 899.87 | 13.65 | 6.85  | -12.34 | 0.43    | 14.11            | 299.03            |
| 923.93 | 0.83 | 291.43 | 923.81 | 14.01 | 6.97  | -12.68 | 0.28    | 14.47            | 298.81            |
| 949.17 | 0.89 | 288.64 | 949.04 | 14.39 | 7.10  | -13.03 | 0.29    | 14.84            | 298.59            |



Well Name: Donald E Miller #B-2

Survey: Donald E Miller #B-2

Survey Date: 5/27/2014

| MD<br>ft | Inc<br>deg | Azim<br>deg | TVD<br>ft | VS<br>ft | +N/-S<br>ft | +E/-W<br>ft | DLS<br>°/100ft | Closure<br>Distance<br>ft | Closure<br>Direction<br>deg |
|----------|------------|-------------|-----------|----------|-------------|-------------|----------------|---------------------------|-----------------------------|
| 973.92   | 1.08       | 290.06      | 973.79    | 14.82    | 7.24        | -13.43      | 0.76           | 15.26                     | 298.33                      |
| 999.97   | 0.97       | 281.79      | 999.84    | 15.28    | 7.37        | -13.88      | 0.69           | 15.72                     | 297.97                      |
| 1024.65  | 1.22       | 287.00      | 1024.51   | 15.75    | 7.49        | -14.34      | 1.07           | 16.18                     | 297.59                      |
| 1049.48  | 1.17       | 281.99      | 1049.34   | 16.27    | 7.62        | -14.84      | 0.47           | 16.68                     | 297.19                      |
| 1074.99  | 1.22       | 282.50      | 1074.84   | 16.80    | 7.74        | -15.36      | 0.22           | 17.20                     | 296.73                      |
| 1099.70  | 1.27       | 277.00      | 1099.55   | 17.34    | 7.83        | -15.89      | 0.52           | 17.71                     | 296.22                      |
| 1124.40  | 1.08       | 269.47      | 1124.24   | 17.84    | 7.86        | -16.39      | 0.98           | 18.18                     | 295.61                      |
| 1149.11  | 1.28       | 276.03      | 1148.95   | 18.33    | 7.88        | -16.90      | 0.95           | 18.65                     | 295.01                      |
| 1174.65  | 1.16       | 274.59      | 1174.48   | 18.87    | 7.93        | -17.44      | 0.49           | 19.16                     | 294.46                      |
| 1199.34  | 1.15       | 271.93      | 1199.17   | 19.36    | 7.96        | -17.94      | 0.22           | 19.63                     | 293.94                      |
| 1224.01  | 1.09       | 274.60      | 1223.83   | 19.83    | 7.99        | -18.42      | 0.32           | 20.08                     | 293.45                      |
| 1249.91  | 1.24       | 274.03      | 1249.73   | 20.35    | 8.03        | -18.95      | 0.56           | 20.58                     | 292.97                      |
| 1274.12  | 1.26       | 274.98      | 1273.93   | 20.87    | 8.07        | -19.47      | 0.13           | 21.08                     | 292.51                      |
| 1299.98  | 1.21       | 272.06      | 1299.78   | 21.42    | 8.11        | -20.03      | 0.31           | 21.61                     | 292.03                      |
| 1324.56  | 1.32       | 279.99      | 1324.36   | 21.96    | 8.16        | -20.57      | 0.84           | 22.13                     | 291.65                      |
| 1349.18  | 1.25       | 275.39      | 1348.97   | 22.50    | 8.24        | -21.12      | 0.52           | 22.67                     | 291.31                      |
| 1374.26  | 1.27       | 279.38      | 1374.04   | 23.05    | 8.31        | -21.66      | 0.36           | 23.20                     | 290.99                      |
| 1398.37  | 1.19       | 279.27      | 1398.15   | 23.57    | 8.39        | -22.18      | 0.35           | 23.71                     | 290.73                      |
| 1424.18  | 1.10       | 277.34      | 1423.95   | 24.08    | 8.47        | -22.69      | 0.37           | 24.22                     | 290.47                      |
| 1449.62  | 1.07       | 278.33      | 1449.39   | 24.56    | 8.53        | -23.16      | 0.15           | 24.69                     | 290.23                      |
| 1474.26  | 1.00       | 281.21      | 1474.03   | 25.00    | 8.61        | -23.60      | 0.36           | 25.12                     | 290.04                      |
| 1499.69  | 0.84       | 278.93      | 1499.45   | 25.41    | 8.68        | -24.00      | 0.66           | 25.52                     | 289.88                      |
| 1524.31  | 0.87       | 280.35      | 1524.07   | 25.77    | 8.74        | -24.36      | 0.16           | 25.88                     | 289.74                      |
| 1548.92  | 0.81       | 277.93      | 1548.68   | 26.13    | 8.80        | -24.72      | 0.29           | 26.24                     | 289.60                      |
| 1574.78  | 0.81       | 282.09      | 1574.53   | 26.49    | 8.86        | -25.08      | 0.23           | 26.60                     | 289.47                      |
| 1599.03  | 0.78       | 280.61      | 1598.78   | 26.83    | 8.93        | -25.41      | 0.15           | 26.93                     | 289.36                      |
| 1623.85  | 0.82       | 283.39      | 1623.60   | 27.17    | 9.00        | -25.74      | 0.22           | 27.27                     | 289.27                      |
| 1649.98  | 0.71       | 281.80      | 1649.73   | 27.52    | 9.08        | -26.08      | 0.43           | 27.62                     | 289.19                      |
| 1673.82  | 0.66       | 280.21      | 1673.57   | 27.81    | 9.13        | -26.36      | 0.22           | 27.90                     | 289.11                      |
| 1698.87  | 0.62       | 277.78      | 1698.62   | 28.08    | 9.18        | -26.64      | 0.19           | 28.17                     | 289.01                      |
| 1724.72  | 0.64       | 276.70      | 1724.46   | 28.37    | 9.21        | -26.92      | 0.10           | 28.45                     | 288.89                      |
| 1749.02  | 0.67       | 283.77      | 1748.76   | 28.64    | 9.26        | -27.19      | 0.35           | 28.73                     | 288.81                      |
| 1774.78  | 0.64       | 276.19      | 1774.51   | 28.94    | 9.31        | -27.48      | 0.35           | 29.02                     | 288.72                      |
| 1798.88  | 0.63       | 271.99      | 1798.61   | 29.20    | 9.33        | -27.75      | 0.20           | 29.28                     | 288.59                      |
| 1824.65  | 0.66       | 272.00      | 1824.39   | 29.49    | 9.34        | -28.04      | 0.08           | 29.56                     | 288.42                      |
| 1849.17  | 0.62       | 267.07      | 1848.90   | 29.75    | 9.34        | -28.32      | 0.26           | 29.82                     | 288.26                      |



Well Name: Donald E Miller #B-2

Survey: Donald E Miller #B-2

Survey Date: 5/27/2014

| MD<br>ft | Inc<br>deg | Azim<br>deg | TVD<br>ft | VS<br>ft | +N/-S<br>ft | +E/-W<br>ft | DLS<br>°/100ft | Closure<br>Distance<br>ft | Closure<br>Direction<br>deg |
|----------|------------|-------------|-----------|----------|-------------|-------------|----------------|---------------------------|-----------------------------|
| 1874.88  | 0.71       | 267.69      | 1874.61   | 30.04    | 9.33        | -28.61      | 0.33           | 30.10                     | 288.05                      |
| 1899.33  | 0.72       | 268.84      | 1899.06   | 30.33    | 9.32        | -28.92      | 0.07           | 30.38                     | 287.86                      |
| 1924.54  | 0.60       | 261.54      | 1924.27   | 30.60    | 9.29        | -29.21      | 0.57           | 30.65                     | 287.65                      |
| 1949.85  | 0.71       | 265.56      | 1949.58   | 30.87    | 9.26        | -29.50      | 0.47           | 30.92                     | 287.43                      |
| 1974.49  | 0.60       | 261.36      | 1974.22   | 31.14    | 9.23        | -29.78      | 0.51           | 31.17                     | 287.23                      |
| 1999.74  | 0.55       | 260.06      | 1999.47   | 31.37    | 9.19        | -30.02      | 0.20           | 31.40                     | 287.02                      |
| 2023.87  | 0.81       | 253.09      | 2023.59   | 31.62    | 9.12        | -30.30      | 1.13           | 31.65                     | 286.75                      |
| 2049.81  | 0.38       | 259.64      | 2049.53   | 31.85    | 9.05        | -30.56      | 1.67           | 31.88                     | 286.50                      |
| 2074.10  | 0.50       | 257.55      | 2073.82   | 32.02    | 9.02        | -30.75      | 0.49           | 32.04                     | 286.34                      |
| 2098.82  | 0.50       | 267.59      | 2098.54   | 32.22    | 8.99        | -30.96      | 0.35           | 32.24                     | 286.19                      |
| 2124.38  | 0.44       | 262.27      | 2124.10   | 32.42    | 8.97        | -31.17      | 0.30           | 32.43                     | 286.06                      |
| 2149.59  | 0.04       | 258.20      | 2149.31   | 32.51    | 8.95        | -31.27      | 1.58           | 32.53                     | 285.98                      |
| 2173.91  | 0.08       | 274.37      | 2173.63   | 32.54    | 8.95        | -31.29      | 0.18           | 32.55                     | 285.97                      |
| 2198.53  | 0.27       | 15.36       | 2198.24   | 32.55    | 9.01        | -31.30      | 1.20           | 32.57                     | 286.06                      |
| 2224.96  | 0.29       | 19.23       | 2224.68   | 32.55    | 9.14        | -31.26      | 0.11           | 32.56                     | 286.29                      |
| 2249.62  | 0.51       | 26.79       | 2249.33   | 32.52    | 9.29        | -31.19      | 0.91           | 32.54                     | 286.59                      |
| 2274.78  | 0.56       | 18.83       | 2274.49   | 32.48    | 9.51        | -31.10      | 0.36           | 32.52                     | 287.01                      |
| 2299.55  | 0.66       | 19.51       | 2299.27   | 32.46    | 9.76        | -31.01      | 0.41           | 32.51                     | 287.47                      |
| 2324.31  | 0.74       | 18.78       | 2324.02   | 32.44    | 10.05       | -30.91      | 0.30           | 32.50                     | 288.00                      |
| 2349.10  | 0.78       | 17.53       | 2348.81   | 32.42    | 10.36       | -30.81      | 0.19           | 32.50                     | 288.58                      |
| 2374.81  | 0.84       | 23.21       | 2374.52   | 32.38    | 10.70       | -30.68      | 0.39           | 32.49                     | 289.22                      |
| 2399.75  | 0.56       | 30.73       | 2399.45   | 32.32    | 10.97       | -30.55      | 1.16           | 32.46                     | 289.76                      |
| 2424.70  | 0.74       | 25.73       | 2424.40   | 32.25    | 11.22       | -30.41      | 0.76           | 32.42                     | 290.25                      |
| 2449.69  | 0.77       | 24.02       | 2449.39   | 32.19    | 11.52       | -30.27      | 0.15           | 32.39                     | 290.84                      |
| 2474.16  | 0.82       | 28.76       | 2473.86   | 32.12    | 11.83       | -30.12      | 0.32           | 32.36                     | 291.44                      |
| 2499.78  | 0.37       | 19.59       | 2499.48   | 32.07    | 12.06       | -30.01      | 1.80           | 32.34                     | 291.90                      |
| 2524.57  | 0.58       | 18.61       | 2524.27   | 32.05    | 12.26       | -29.94      | 0.88           | 32.35                     | 292.27                      |
| 2549.04  | 0.61       | 20.94       | 2548.73   | 32.03    | 12.50       | -29.85      | 0.15           | 32.36                     | 292.72                      |
| 2574.84  | 0.45       | 30.76       | 2574.54   | 31.98    | 12.72       | -29.75      | 0.72           | 32.36                     | 293.14                      |
| 2599.73  | 0.49       | 23.94       | 2599.42   | 31.94    | 12.90       | -29.66      | 0.28           | 32.34                     | 293.50                      |
| 2624.98  | 0.56       | 34.73       | 2624.68   | 31.88    | 13.10       | -29.54      | 0.46           | 32.32                     | 293.91                      |
| 2649.41  | 0.30       | 32.30       | 2649.10   | 31.81    | 13.25       | -29.44      | 1.04           | 32.29                     | 294.23                      |
| 2673.83  | 0.56       | 26.71       | 2673.52   | 31.77    | 13.41       | -29.36      | 1.07           | 32.27                     | 294.55                      |
| 2699.52  | 0.47       | 33.37       | 2699.21   | 31.71    | 13.61       | -29.24      | 0.43           | 32.25                     | 294.96                      |
| 2724.30  | 0.33       | 6.73        | 2723.99   | 31.69    | 13.76       | -29.18      | 0.91           | 32.26                     | 295.26                      |
| 2749.93  | 0.24       | 4.26        | 2749.62   | 31.71    | 13.89       | -29.16      | 0.36           | 32.30                     | 295.47                      |



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Survey Date: 5/27/2014

| MD<br>ft | Inc<br>deg | Azim<br>deg | TVD<br>ft | VS<br>ft | +N/-S<br>ft | +E/-W<br>ft | DLS<br>°/100ft | Closure<br>Distance<br>ft | Closure<br>Direction<br>deg |
|----------|------------|-------------|-----------|----------|-------------|-------------|----------------|---------------------------|-----------------------------|
| 2774.33  | 0.17       | 307.31      | 2774.02   | 31.75    | 13.97       | -29.19      | 0.84           | 32.36                     | 295.57                      |
| 2799.94  | 0.19       | 308.91      | 2799.63   | 31.82    | 14.01       | -29.25      | 0.06           | 32.44                     | 295.60                      |
| 2823.92  | 0.24       | 324.89      | 2823.61   | 31.89    | 14.08       | -29.31      | 0.35           | 32.52                     | 295.66                      |
| 2849.62  | 0.32       | 7.18        | 2849.31   | 31.95    | 14.20       | -29.33      | 0.84           | 32.59                     | 295.83                      |
| 2873.98  | 0.35       | 350.53      | 2873.67   | 31.98    | 14.34       | -29.34      | 0.42           | 32.65                     | 296.05                      |
| 2899.56  | 0.25       | 339.07      | 2899.25   | 32.05    | 14.47       | -29.37      | 0.46           | 32.74                     | 296.22                      |
| 2923.90  | 0.19       | 345.17      | 2923.59   | 32.10    | 14.56       | -29.40      | 0.26           | 32.81                     | 296.34                      |
| 2949.03  | 0.13       | 352.49      | 2948.72   | 32.13    | 14.62       | -29.41      | 0.28           | 32.85                     | 296.44                      |
| 2974.61  | 0.05       | 258.14      | 2974.30   | 32.15    | 14.65       | -29.43      | 0.54           | 32.87                     | 296.46                      |
| 2998.91  | 0.07       | 252.37      | 2998.60   | 32.17    | 14.64       | -29.46      | 0.09           | 32.89                     | 296.43                      |
| 3024.37  | 0.20       | 243.93      | 3024.06   | 32.22    | 14.62       | -29.51      | 0.49           | 32.93                     | 296.35                      |
| 3049.97  | 0.25       | 226.92      | 3049.66   | 32.28    | 14.56       | -29.59      | 0.32           | 32.98                     | 296.20                      |
| 3073.84  | 0.38       | 226.95      | 3073.53   | 32.35    | 14.47       | -29.68      | 0.54           | 33.03                     | 295.99                      |
| 3099.45  | 0.29       | 238.01      | 3099.14   | 32.44    | 14.38       | -29.80      | 0.41           | 33.09                     | 295.76                      |
| 3123.77  | 0.18       | 254.74      | 3123.46   | 32.52    | 14.34       | -29.89      | 0.54           | 33.15                     | 295.63                      |
| 3149.32  | 0.28       | 273.30      | 3149.01   | 32.61    | 14.33       | -29.99      | 0.48           | 33.24                     | 295.54                      |
| 3174.88  | 0.28       | 253.64      | 3174.57   | 32.73    | 14.32       | -30.11      | 0.37           | 33.34                     | 295.43                      |
| 3198.83  | 0.23       | 219.95      | 3198.52   | 32.80    | 14.26       | -30.20      | 0.64           | 33.40                     | 295.29                      |
| 3224.68  | 0.12       | 206.83      | 3224.37   | 32.83    | 14.20       | -30.24      | 0.47           | 33.41                     | 295.15                      |
| 3249.73  | 0.33       | 193.77      | 3249.42   | 32.83    | 14.11       | -30.27      | 0.84           | 33.40                     | 294.99                      |
| 3274.47  | 0.08       | 163.48      | 3274.16   | 32.82    | 14.02       | -30.28      | 1.04           | 33.37                     | 294.84                      |
| 3298.67  | 0.16       | 275.44      | 3298.36   | 32.85    | 14.01       | -30.31      | 0.86           | 33.39                     | 294.80                      |
| 3324.52  | 0.45       | 247.77      | 3324.21   | 32.96    | 13.97       | -30.44      | 1.21           | 33.50                     | 294.66                      |
| 3349.12  | 0.44       | 247.89      | 3348.81   | 33.12    | 13.90       | -30.62      | 0.01           | 33.63                     | 294.42                      |
| 3373.77  | 0.42       | 245.59      | 3373.46   | 33.26    | 13.83       | -30.79      | 0.12           | 33.75                     | 294.19                      |
| 3399.57  | 0.40       | 271.12      | 3399.25   | 33.42    | 13.79       | -30.96      | 0.70           | 33.90                     | 294.01                      |
| 3424.98  | 0.51       | 266.32      | 3424.66   | 33.62    | 13.79       | -31.16      | 0.47           | 34.08                     | 293.86                      |
| 3449.31  | 0.22       | 267.83      | 3448.99   | 33.76    | 13.78       | -31.32      | 1.18           | 34.22                     | 293.74                      |
| 3473.79  | 0.26       | 252.65      | 3473.47   | 33.86    | 13.76       | -31.42      | 0.31           | 34.30                     | 293.65                      |
| 3499.72  | 0.33       | 241.10      | 3499.40   | 33.96    | 13.70       | -31.54      | 0.34           | 34.39                     | 293.48                      |
| 3523.74  | 0.54       | 244.51      | 3523.42   | 34.10    | 13.62       | -31.71      | 0.89           | 34.51                     | 293.25                      |
| 3549.65  | 0.56       | 246.52      | 3549.33   | 34.29    | 13.52       | -31.93      | 0.10           | 34.68                     | 292.95                      |
| 3574.58  | 0.64       | 252.05      | 3574.26   | 34.51    | 13.43       | -32.18      | 0.41           | 34.87                     | 292.65                      |
| 3599.08  | 0.57       | 260.10      | 3598.76   | 34.74    | 13.36       | -32.43      | 0.47           | 35.07                     | 292.40                      |
| 3624.92  | 0.37       | 272.08      | 3624.59   | 34.93    | 13.34       | -32.64      | 0.84           | 35.26                     | 292.24                      |
| 3649.39  | 0.33       | 259.65      | 3649.06   | 35.08    | 13.33       | -32.79      | 0.35           | 35.40                     | 292.13                      |



Well Name: Donald E Miller #B-2

Survey: Donald E Miller #B-2

Survey Date: 5/27/2014

| MD<br>ft | Inc<br>deg | Azim<br>deg | TVD<br>ft | VS<br>ft | +N/-S<br>ft | +E/-W<br>ft | DLS<br>°/100ft | Closure<br>Distance<br>ft | Closure<br>Direction<br>deg |
|----------|------------|-------------|-----------|----------|-------------|-------------|----------------|---------------------------|-----------------------------|
| 3674.34  | 0.32       | 243.20      | 3674.01   | 35.19    | 13.29       | -32.92      | 0.38           | 35.50                     | 291.98                      |
| 3699.28  | 0.40       | 236.76      | 3698.96   | 35.31    | 13.21       | -33.06      | 0.38           | 35.60                     | 291.78                      |
| 3723.97  | 0.44       | 250.00      | 3723.65   | 35.44    | 13.13       | -33.22      | 0.41           | 35.72                     | 291.57                      |
| 3749.83  | 0.47       | 254.64      | 3749.51   | 35.62    | 13.07       | -33.41      | 0.20           | 35.88                     | 291.36                      |
| 3773.90  | 0.41       | 276.29      | 3773.57   | 35.79    | 13.05       | -33.59      | 0.74           | 36.04                     | 291.23                      |
| 3799.67  | 0.23       | 272.12      | 3799.35   | 35.93    | 13.06       | -33.74      | 0.69           | 36.18                     | 291.17                      |
| 3824.27  | 0.33       | 196.42      | 3823.94   | 35.98    | 13.00       | -33.81      | 1.44           | 36.22                     | 291.03                      |
| 3850.00  | 0.49       | 189.04      | 3849.67   | 35.97    | 12.82       | -33.85      | 0.64           | 36.19                     | 290.74                      |
| 3874.60  | 0.46       | 220.64      | 3874.27   | 36.01    | 12.64       | -33.93      | 1.05           | 36.20                     | 290.43                      |
| 3899.55  | 0.42       | 241.42      | 3899.22   | 36.12    | 12.52       | -34.07      | 0.65           | 36.30                     | 290.18                      |
| 3924.09  | 0.37       | 263.86      | 3923.76   | 36.26    | 12.47       | -34.23      | 0.67           | 36.43                     | 290.01                      |
| 3949.80  | 0.34       | 242.21      | 3949.47   | 36.39    | 12.42       | -34.38      | 0.53           | 36.56                     | 289.87                      |
| 3974.09  | 0.27       | 243.31      | 3973.76   | 36.49    | 12.36       | -34.49      | 0.30           | 36.64                     | 289.72                      |
| 3999.52  | 0.49       | 233.69      | 3999.19   | 36.60    | 12.27       | -34.64      | 0.91           | 36.75                     | 289.51                      |
| 4024.90  | 0.59       | 239.41      | 4024.56   | 36.76    | 12.14       | -34.83      | 0.43           | 36.89                     | 289.22                      |
| 4049.00  | 0.57       | 254.78      | 4048.66   | 36.95    | 12.05       | -35.06      | 0.64           | 37.07                     | 288.97                      |
| 4074.35  | 0.46       | 259.98      | 4074.02   | 37.15    | 12.00       | -35.28      | 0.47           | 37.26                     | 288.78                      |
| 4099.73  | 0.47       | 228.44      | 4099.39   | 37.31    | 11.91       | -35.46      | 1.00           | 37.40                     | 288.57                      |
| 4123.32  | 0.51       | 231.20      | 4122.98   | 37.42    | 11.78       | -35.61      | 0.22           | 37.51                     | 288.31                      |
| 4149.05  | 0.76       | 243.52      | 4148.71   | 37.62    | 11.63       | -35.85      | 1.07           | 37.69                     | 287.98                      |
| 4174.02  | 0.72       | 248.01      | 4173.68   | 37.87    | 11.50       | -36.14      | 0.28           | 37.93                     | 287.65                      |
| 4198.44  | 0.74       | 242.46      | 4198.09   | 38.11    | 11.37       | -36.43      | 0.30           | 38.16                     | 287.34                      |
| 4224.58  | 0.71       | 227.88      | 4224.24   | 38.32    | 11.19       | -36.70      | 0.71           | 38.36                     | 286.95                      |
| 4249.39  | 0.99       | 237.19      | 4249.04   | 38.55    | 10.97       | -36.99      | 1.24           | 38.58                     | 286.51                      |
| 4274.19  | 1.00       | 248.37      | 4273.84   | 38.88    | 10.77       | -37.37      | 0.78           | 38.89                     | 286.08                      |
| 4298.52  | 0.96       | 249.73      | 4298.16   | 39.22    | 10.62       | -37.76      | 0.20           | 39.23                     | 285.71                      |
| 4324.54  | 1.06       | 247.47      | 4324.18   | 39.59    | 10.45       | -38.19      | 0.42           | 39.59                     | 285.31                      |
| 4349.29  | 1.12       | 250.68      | 4348.92   | 39.97    | 10.29       | -38.63      | 0.32           | 39.97                     | 284.91                      |
| 4374.02  | 1.46       | 256.98      | 4373.65   | 40.45    | 10.13       | -39.16      | 1.52           | 40.45                     | 284.51                      |
| 4398.40  | 1.55       | 264.91      | 4398.03   | 41.04    | 10.03       | -39.79      | 0.92           | 41.04                     | 284.15                      |
| 4424.33  | 1.54       | 273.45      | 4423.94   | 41.71    | 10.02       | -40.49      | 0.89           | 41.71                     | 283.91                      |
| 4449.10  | 1.69       | 276.04      | 4448.70   | 42.40    | 10.08       | -41.19      | 0.67           | 42.41                     | 283.76                      |
| 4473.79  | 1.76       | 276.80      | 4473.38   | 43.14    | 10.17       | -41.93      | 0.29           | 43.14                     | 283.63                      |
| 4499.62  | 2.05       | 277.03      | 4499.20   | 43.99    | 10.27       | -42.78      | 1.10           | 44.00                     | 283.50                      |
| 4524.00  | 2.37       | 278.52      | 4523.56   | 44.92    | 10.40       | -43.71      | 1.34           | 44.93                     | 283.38                      |
| 4549.70  | 2.54       | 280.20      | 4549.24   | 46.02    | 10.58       | -44.79      | 0.72           | 46.03                     | 283.29                      |

**Well Name:** Donald E Miller #B-2**Survey:** Donald E Miller #B-2**Survey Date:** 5/27/2014

| <b>MD</b><br>ft | <b>Inc</b><br>deg | <b>Azim</b><br>deg | <b>TVD</b><br>ft | <b>VS</b><br>ft | <b>+N/-S</b><br>ft | <b>+E/-W</b><br>ft | <b>DLS</b><br>°/100ft | <b>Closure<br/>Distance</b><br>ft | <b>Closure<br/>Direction</b><br>deg |
|-----------------|-------------------|--------------------|------------------|-----------------|--------------------|--------------------|-----------------------|-----------------------------------|-------------------------------------|
| 4574.44         | 2.67              | 285.46             | 4573.95          | 47.14           | 10.83              | -45.89             | 1.11                  | 47.15                             | 283.28                              |
| 4599.04         | 2.80              | 286.60             | 4598.53          | 48.31           | 11.15              | -47.02             | 0.58                  | 48.32                             | 283.34                              |
| 4624.03         | 2.69              | 290.90             | 4623.49          | 49.51           | 11.54              | -48.15             | 0.94                  | 49.51                             | 283.47                              |
| 4649.29         | 2.34              | 293.71             | 4648.72          | 50.61           | 11.96              | -49.18             | 1.46                  | 50.61                             | 283.66                              |
| 4674.18         | 2.73              | 298.33             | 4673.58          | 51.68           | 12.44              | -50.17             | 1.77                  | 51.69                             | 283.93                              |
| 4698.87         | 2.48              | 293.52             | 4698.24          | 52.78           | 12.93              | -51.17             | 1.37                  | 52.78                             | 284.18                              |
| 4724.74         | 2.09              | 297.27             | 4724.10          | 53.80           | 13.37              | -52.11             | 1.59                  | 53.80                             | 284.39                              |
| 4728.87         | 2.10              | 290.40             | 4728.22          | 53.94           | 13.43              | -52.24             | 6.09                  | 53.94                             | 284.42                              |