

**VES** SURVEY

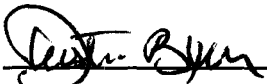
NM OIL CONSERVATION  
ARTESIA DISTRICT

MAR 30 2017

RECEIVED

30-015-43774

I Dustin Byers certify that I am employed by VES Survey International. That I did on the day(s) of 01/14/17 through 01/14/17 conduct or supervise the taking of a Rate Gyro survey from a depth of 0.00 feet to a depth of 9,660.00 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Vaughn Energy Services, that I am authorized and qualified to make this report; that this survey was conducted at the request of Matador Production Company for the Brantley State Com Well # #221H API # 30-015-43774 in Eddy County / Parish New Mexico; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by VES Survey International.



Dustin Byers  
Service Technician  
VES Survey International



Company: MATADOR PRODUCTION COMPANY  
Lease/Well: BRANTLEY STATE COM 13 24 27 RB/221H

Rig Name: PATTERSON 274  
State/County: NEW MEXICO/EDDY  
VS-Azi: 269.14 Degrees

Latitude: 32.22315, Longitude: -104.13441  
Grid North = True North -0.11 degs (NAD 27)  
Grid Correction Applied = -0.11 degs

**VES**

SURVEY

IONAL

Depth Reference : 28.5

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: e-line-de\_01.ut  
Minimum Curvature Method  
Report Date/Time: 1/19/2017 / 15:45

VES Survey International  
West Texas  
432-563-5444

Surveyor: Dustin Byers

Brantley State Com 13 24 27 RB No. 221H / API 30-015-43774

NM OIL CONSERVATION  
ARTESIA DISTRICT

MAR 30 2017

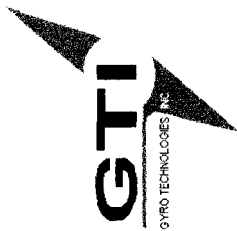
RECEIVED

| Measured<br>Depth<br>FT | Incl<br>Angle<br>Deg | Drift<br>Direction<br>Deg | TVD<br>FT | +N-S<br>FT | +E/-W<br>FT | Vertical<br>Section<br>FT | Closure<br>Distance<br>FT | Closure<br>Direction<br>Deg | Dogleg<br>Severity<br>Deg/100 |
|-------------------------|----------------------|---------------------------|-----------|------------|-------------|---------------------------|---------------------------|-----------------------------|-------------------------------|
| 0.00                    | 0.00                 | 0.00                      | 0.00      | 0.00       | 0.00        | 0.00                      | 0.00                      | 0.00                        | ****                          |
| 100.00                  | 0.64                 | 143.23                    | 100.00    | -0.45      | 0.34        | -0.33                     | 0.56                      | 143.23                      | 0.64                          |
| 200.00                  | 0.30                 | 149.33                    | 199.99    | -1.12      | 0.80        | -0.79                     | 1.38                      | 144.38                      | 0.35                          |
| 300.00                  | 0.25                 | 358.21                    | 299.99    | -1.13      | 0.93        | -0.91                     | 1.46                      | 140.47                      | 0.53                          |
| 400.00                  | 0.51                 | 87.48                     | 399.99    | -0.89      | 1.37        | -1.36                     | 1.63                      | 122.97                      | 0.57                          |
| 500.00                  | 1.13                 | 114.24                    | 499.98    | -1.27      | 2.72        | -2.70                     | 3.00                      | 115.13                      | 0.71                          |
| 600.00                  | 1.14                 | 112.87                    | 599.96    | -2.06      | 4.53        | -4.50                     | 4.98                      | 114.50                      | 0.03                          |
| 700.00                  | 1.01                 | 118.17                    | 699.94    | -2.87      | 6.22        | -6.18                     | 6.85                      | 114.73                      | 0.16                          |
| 800.00                  | 1.20                 | 129.25                    | 799.93    | -3.94      | 7.80        | -7.74                     | 8.74                      | 116.80                      | 0.29                          |
| 900.00                  | 1.17                 | 140.08                    | 899.91    | -5.38      | 9.27        | -9.18                     | 10.72                     | 120.15                      | 0.23                          |
| 1000.00                 | 1.07                 | 146.18                    | 999.89    | -6.94      | 10.44       | -10.33                    | 12.54                     | 123.61                      | 0.15                          |
| 1100.00                 | 1.09                 | 125.82                    | 1099.87   | -8.27      | 11.73       | -11.60                    | 14.35                     | 125.19                      | 0.38                          |
| 1200.00                 | 1.05                 | 145.91                    | 1199.85   | -9.59      | 13.01       | -12.86                    | 16.16                     | 126.38                      | 0.37                          |
| 1300.00                 | 0.74                 | 144.57                    | 1299.84   | -10.87     | 13.90       | -13.73                    | 17.64                     | 128.03                      | 0.32                          |
| 1400.00                 | 0.47                 | 140.64                    | 1399.83   | -11.71     | 14.53       | -14.35                    | 18.66                     | 128.87                      | 0.27                          |
| 1500.00                 | 0.57                 | 104.87                    | 1499.83   | -12.15     | 15.27       | -15.08                    | 19.51                     | 128.52                      | 0.33                          |
| 1600.00                 | 0.47                 | 106.54                    | 1599.83   | -12.39     | 16.14       | -15.95                    | 20.35                     | 127.53                      | 0.10                          |

| Measured<br>Depth<br>FT | Incl<br>Angle<br>Deg | Drift<br>Direction<br>Deg | TVD<br>FT | +N/-S<br>FT | +E/-W<br>FT | Vertical<br>Section<br>FT | Closure<br>Distance<br>FT | Closure<br>Direction<br>Deg | Dogleg<br>Severity<br>Deg/100 |
|-------------------------|----------------------|---------------------------|-----------|-------------|-------------|---------------------------|---------------------------|-----------------------------|-------------------------------|
| 1700.00                 | 1.62                 | 85.74                     | 1699.81   | -12.41      | 17.94       | -17.75                    | 21.81                     | 124.66                      | 1.20                          |
| 1800.00                 | 2.53                 | 80.64                     | 1799.74   | -11.94      | 21.54       | -21.36                    | 24.63                     | 119.00                      | 0.93                          |
| 1900.00                 | 2.10                 | 72.46                     | 1899.66   | -11.03      | 25.46       | -25.29                    | 27.75                     | 113.42                      | 0.55                          |
| 2000.00                 | 2.30                 | 69.94                     | 1999.59   | -9.79       | 29.09       | -28.94                    | 30.69                     | 108.60                      | 0.22                          |
| 2100.00                 | 2.31                 | 46.18                     | 2099.51   | -7.71       | 32.43       | -32.31                    | 33.33                     | 103.37                      | 0.95                          |
| 2200.00                 | 1.89                 | 11.86                     | 2199.44   | -4.70       | 34.22       | -34.15                    | 34.54                     | 97.81                       | 1.30                          |
| 2300.00                 | 2.35                 | 339.78                    | 2299.38   | -1.16       | 33.85       | -33.83                    | 33.87                     | 91.96                       | 1.25                          |
| 2400.00                 | 1.88                 | 340.49                    | 2399.31   | 2.31        | 32.60       | -32.63                    | 32.68                     | 85.94                       | 0.48                          |
| 2500.00                 | 1.78                 | 343.50                    | 2499.26   | 5.35        | 31.61       | -31.69                    | 32.06                     | 80.40                       | 0.13                          |
| 2600.00                 | 2.19                 | 345.92                    | 2599.20   | 8.69        | 30.70       | -30.83                    | 31.91                     | 74.19                       | 0.42                          |
| 2700.00                 | 4.42                 | 349.46                    | 2699.03   | 14.33       | 29.53       | -29.74                    | 32.83                     | 64.11                       | 2.23                          |
| 2800.00                 | 5.93                 | 355.97                    | 2798.62   | 23.27       | 28.46       | -28.81                    | 36.77                     | 50.73                       | 1.62                          |
| 2900.00                 | 5.92                 | 354.93                    | 2898.08   | 33.56       | 27.65       | -28.15                    | 43.48                     | 39.48                       | 0.11                          |
| 3000.00                 | 5.53                 | 342.69                    | 2997.59   | 43.30       | 25.76       | -26.40                    | 50.38                     | 30.74                       | 1.28                          |
| 3100.00                 | 5.20                 | 335.82                    | 3097.15   | 52.04       | 22.46       | -23.24                    | 56.68                     | 23.35                       | 0.72                          |
| 3200.00                 | 5.28                 | 332.56                    | 3196.73   | 60.26       | 18.49       | -19.39                    | 63.04                     | 17.05                       | 0.31                          |
| 3300.00                 | 5.13                 | 326.85                    | 3296.32   | 68.09       | 13.92       | -14.94                    | 69.50                     | 11.55                       | 0.54                          |
| 3400.00                 | 5.35                 | 325.93                    | 3395.90   | 75.70       | 8.86        | -10.00                    | 76.22                     | 6.68                        | 0.23                          |
| 3500.00                 | 5.47                 | 326.82                    | 3495.46   | 83.55       | 3.64        | -4.89                     | 83.63                     | 2.49                        | 0.15                          |
| 3600.00                 | 5.50                 | 319.87                    | 3595.00   | 91.21       | -2.06       | 0.69                      | 91.23                     | 358.71                      | 0.66                          |
| 3700.00                 | 5.45                 | 317.17                    | 3694.54   | 98.35       | -8.37       | 6.90                      | 98.71                     | 355.13                      | 0.26                          |
| 3800.00                 | 5.57                 | 316.31                    | 3794.08   | 105.34      | -14.95      | 13.37                     | 106.40                    | 351.92                      | 0.15                          |
| 3900.00                 | 5.61                 | 326.62                    | 3893.61   | 112.93      | -20.99      | 19.29                     | 114.87                    | 349.47                      | 1.00                          |
| 4000.00                 | 5.77                 | 340.08                    | 3993.12   | 121.74      | -25.40      | 23.57                     | 124.36                    | 348.22                      | 1.34                          |
| 4100.00                 | 4.71                 | 358.28                    | 4092.71   | 130.57      | -27.23      | 25.27                     | 133.38                    | 348.22                      | 1.96                          |
| 4200.00                 | 2.94                 | 26.28                     | 4192.49   | 136.98      | -26.22      | 24.16                     | 139.46                    | 349.16                      | 2.52                          |
| 4300.00                 | 2.83                 | 21.75                     | 4292.36   | 141.57      | -24.17      | 22.04                     | 143.62                    | 350.31                      | 0.25                          |
| 4400.00                 | 2.54                 | 20.48                     | 4392.25   | 145.94      | -22.48      | 20.28                     | 147.66                    | 351.24                      | 0.30                          |
| 4500.00                 | 3.21                 | 22.22                     | 4492.13   | 150.61      | -20.64      | 18.38                     | 152.02                    | 352.20                      | 0.67                          |
| 4600.00                 | 3.31                 | 350.22                    | 4591.97   | 156.04      | -20.07      | 17.73                     | 157.33                    | 352.67                      | 1.80                          |
| 4700.00                 | 3.53                 | 353.12                    | 4691.79   | 161.94      | -20.93      | 18.50                     | 163.29                    | 352.63                      | 0.28                          |
| 4800.00                 | 5.33                 | 338.24                    | 4791.49   | 169.31      | -23.02      | 20.48                     | 170.87                    | 352.26                      | 2.12                          |
| 4900.00                 | 5.02                 | 340.71                    | 4891.09   | 177.75      | -26.19      | 23.52                     | 179.67                    | 351.62                      | 0.38                          |
| 5000.00                 | 4.62                 | 334.22                    | 4990.73   | 185.50      | -29.39      | 26.60                     | 187.82                    | 351.00                      | 0.67                          |
| 5100.00                 | 4.27                 | 328.35                    | 5090.43   | 192.30      | -33.09      | 30.20                     | 195.13                    | 350.24                      | 0.58                          |
| 5200.00                 | 4.13                 | 331.90                    | 5190.17   | 198.64      | -36.74      | 33.75                     | 202.01                    | 349.52                      | 0.29                          |
| 5300.00                 | 3.93                 | 334.13                    | 5289.92   | 204.91      | -39.93      | 36.85                     | 208.76                    | 348.97                      | 0.25                          |
| 5400.00                 | 3.72                 | 324.85                    | 5389.70   | 210.64      | -43.30      | 40.13                     | 215.05                    | 348.39                      | 0.65                          |
| 5500.00                 | 2.74                 | 332.86                    | 5489.54   | 215.43      | -46.26      | 43.02                     | 220.34                    | 347.88                      | 1.08                          |

| Measured<br>Depth<br>FT | Incl<br>Angle<br>Deg | Drift<br>Direction<br>Deg | TVD<br>FT | +N/-S<br>FT | +E/-W<br>FT | Vertical<br>Section<br>FT | Closure<br>Distance<br>FT | Closure<br>Direction<br>Deg | Dogleg<br>Severity<br>Deg/100 |
|-------------------------|----------------------|---------------------------|-----------|-------------|-------------|---------------------------|---------------------------|-----------------------------|-------------------------------|
| 5600.00                 | 2.27                 | 353.27                    | 5589.44   | 219.53      | -47.58      | 44.28                     | 224.62                    | 347.77                      | 1.00                          |
| 5700.00                 | 2.10                 | 341.51                    | 5689.37   | 223.24      | -48.39      | 45.04                     | 228.42                    | 347.77                      | 0.48                          |
| 5800.00                 | 1.55                 | 349.84                    | 5789.32   | 226.31      | -49.22      | 45.81                     | 231.60                    | 347.73                      | 0.61                          |
| 5900.00                 | 1.74                 | 332.91                    | 5889.28   | 229.00      | -50.15      | 46.70                     | 234.43                    | 347.65                      | 0.52                          |
| 6000.00                 | 1.33                 | 335.26                    | 5989.24   | 231.41      | -51.32      | 47.84                     | 237.03                    | 347.49                      | 0.41                          |
| 6100.00                 | 1.33                 | 324.26                    | 6089.21   | 233.41      | -52.49      | 48.98                     | 239.23                    | 347.33                      | 0.26                          |
| 6200.00                 | 0.94                 | 298.32                    | 6189.20   | 234.74      | -53.89      | 50.36                     | 240.84                    | 347.07                      | 0.64                          |
| 6300.00                 | 0.70                 | 302.75                    | 6289.19   | 235.46      | -55.12      | 51.58                     | 241.82                    | 346.82                      | 0.25                          |
| 6400.00                 | 0.35                 | 242.63                    | 6389.18   | 235.65      | -55.91      | 52.37                     | 242.19                    | 346.65                      | 0.61                          |
| 6500.00                 | 0.42                 | 220.70                    | 6489.18   | 235.23      | -56.42      | 52.89                     | 241.90                    | 346.51                      | 0.16                          |
| 6600.00                 | 0.12                 | 325.59                    | 6589.18   | 235.03      | -56.72      | 53.19                     | 241.78                    | 346.43                      | 0.47                          |
| 6700.00                 | 1.46                 | 15.58                     | 6689.17   | 236.35      | -56.44      | 52.88                     | 242.99                    | 346.57                      | 1.39                          |
| 6800.00                 | 1.47                 | 15.07                     | 6789.13   | 238.81      | -55.76      | 52.17                     | 245.24                    | 346.86                      | 0.01                          |
| 6900.00                 | 1.47                 | 21.03                     | 6889.10   | 241.24      | -54.97      | 51.34                     | 247.43                    | 347.16                      | 0.15                          |
| 7000.00                 | 1.39                 | 15.57                     | 6989.07   | 243.60      | -54.19      | 50.52                     | 249.56                    | 347.46                      | 0.16                          |
| 7100.00                 | 1.31                 | 13.42                     | 7089.04   | 245.88      | -53.59      | 49.90                     | 251.66                    | 347.70                      | 0.09                          |
| 7200.00                 | 1.94                 | 356.91                    | 7189.00   | 248.69      | -53.42      | 49.68                     | 254.36                    | 347.88                      | 0.78                          |
| 7300.00                 | 1.93                 | 353.71                    | 7288.95   | 252.05      | -53.69      | 49.91                     | 257.70                    | 347.97                      | 0.11                          |
| 7400.00                 | 2.23                 | 321.91                    | 7388.88   | 255.25      | -55.08      | 51.24                     | 261.12                    | 347.82                      | 1.17                          |
| 7500.00                 | 2.15                 | 326.78                    | 7488.81   | 258.35      | -57.30      | 53.42                     | 264.63                    | 347.49                      | 0.20                          |
| 7600.00                 | 1.81                 | 341.74                    | 7588.75   | 261.42      | -58.83      | 54.90                     | 267.96                    | 347.32                      | 0.62                          |
| 7700.00                 | 1.60                 | 332.16                    | 7688.71   | 264.16      | -59.98      | 56.00                     | 270.88                    | 347.21                      | 0.36                          |
| 7800.00                 | 1.31                 | 321.73                    | 7788.67   | 266.28      | -61.33      | 57.33                     | 273.26                    | 347.03                      | 0.39                          |
| 7900.00                 | 0.68                 | 285.56                    | 7888.66   | 267.34      | -62.61      | 58.59                     | 274.57                    | 346.82                      | 0.86                          |
| 8000.00                 | 0.94                 | 269.74                    | 7988.65   | 267.50      | -64.01      | 59.98                     | 275.05                    | 346.54                      | 0.34                          |
| 8100.00                 | 0.80                 | 185.35                    | 8088.64   | 266.80      | -64.89      | 60.88                     | 274.58                    | 346.33                      | 1.17                          |
| 8200.00                 | 1.25                 | 187.28                    | 8188.63   | 265.02      | -65.09      | 61.11                     | 272.90                    | 346.20                      | 0.45                          |
| 8300.00                 | 2.13                 | 117.14                    | 8288.59   | 263.09      | -63.57      | 59.62                     | 270.67                    | 346.42                      | 2.07                          |
| 8400.00                 | 2.34                 | 128.72                    | 8388.51   | 260.97      | -60.32      | 56.40                     | 267.85                    | 346.98                      | 0.50                          |
| 8500.00                 | 2.70                 | 129.37                    | 8488.42   | 258.19      | -56.91      | 53.03                     | 264.39                    | 347.57                      | 0.36                          |
| 8600.00                 | 2.76                 | 134.28                    | 8588.30   | 255.02      | -53.36      | 49.53                     | 260.54                    | 348.18                      | 0.24                          |
| 8700.00                 | 2.26                 | 125.04                    | 8688.21   | 252.21      | -50.03      | 46.24                     | 257.12                    | 348.78                      | 0.64                          |
| 8800.00                 | 1.56                 | 123.49                    | 8788.15   | 250.33      | -47.28      | 43.52                     | 254.75                    | 349.30                      | 0.70                          |
| 8900.00                 | 0.79                 | 108.99                    | 8888.13   | 249.35      | -45.49      | 41.75                     | 253.47                    | 349.66                      | 0.82                          |
| 9000.00                 | 0.56                 | 89.97                     | 8988.12   | 249.13      | -44.35      | 40.61                     | 253.05                    | 349.91                      | 0.31                          |
| 9100.00                 | 0.64                 | 91.79                     | 9088.12   | 249.11      | -43.31      | 39.56                     | 252.85                    | 350.14                      | 0.08                          |
| 9200.00                 | 0.28                 | 136.13                    | 9188.12   | 248.92      | -42.59      | 38.85                     | 252.54                    | 350.29                      | 0.48                          |
| 9300.00                 | 0.68                 | 160.76                    | 9288.11   | 248.19      | -42.22      | 38.49                     | 251.75                    | 350.34                      | 0.44                          |
| 9400.00                 | 1.17                 | 149.52                    | 9388.10   | 246.75      | -41.51      | 37.80                     | 250.21                    | 350.45                      | 0.52                          |

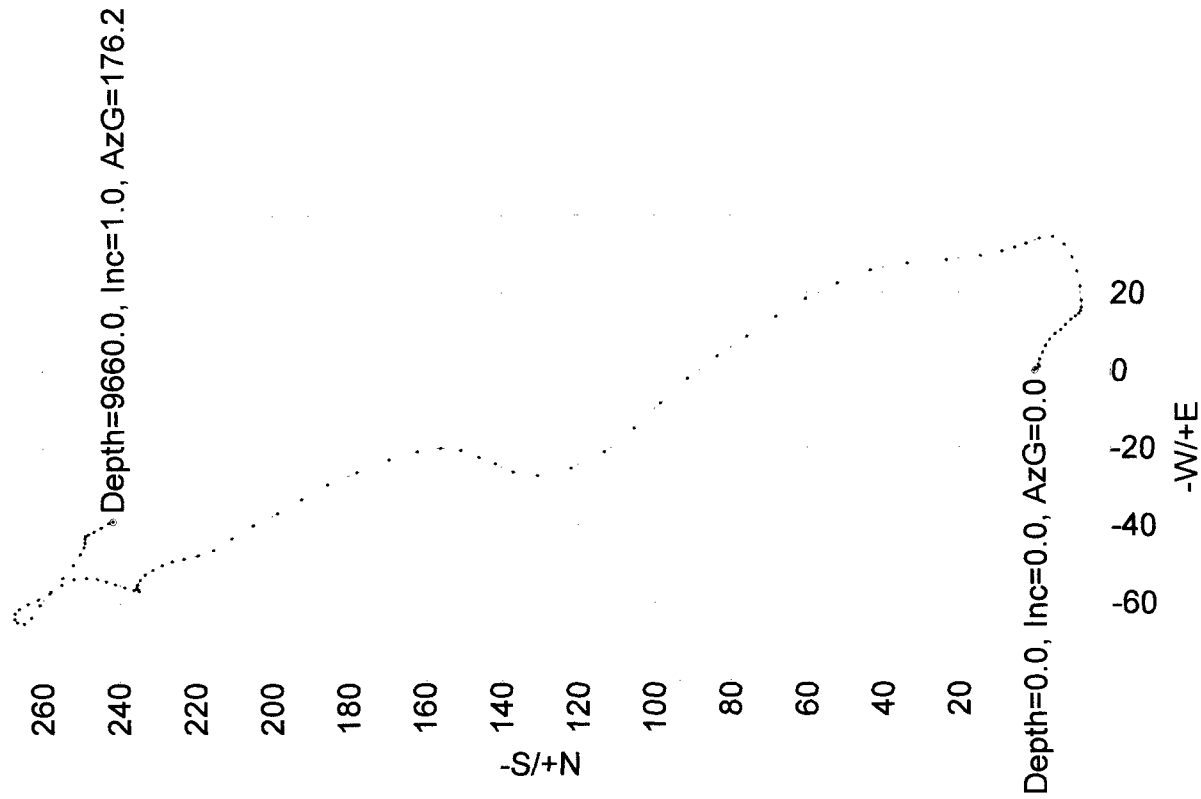
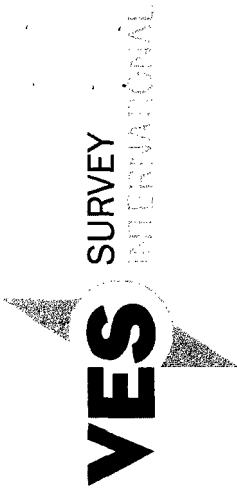
| Measured<br>Depth<br>FT | Incl<br>Angle<br>Deg | Drift<br>Direction<br>Deg | TVD<br>FT | +N/-S<br>FT | +E/-W<br>FT | Vertical<br>Section<br>FT | Closure<br>Distance<br>FT | Closure<br>Direction<br>Deg | Dogleg<br>Severity<br>Deg/100 |
|-------------------------|----------------------|---------------------------|-----------|-------------|-------------|---------------------------|---------------------------|-----------------------------|-------------------------------|
| 9500.00                 | 1.36                 | 148.14                    | 9488.07   | 244.86      | -40.36      | 36.68                     | 248.16                    | 350.64                      | 0.19                          |
| 9600.00                 | 1.35                 | 150.07                    | 9588.05   | 242.83      | -39.15      | 35.50                     | 245.97                    | 350.84                      | 0.05                          |
| 9660.00                 | 0.99                 | 176.22                    | 9648.03   | 241.70      | -38.77      | 35.13                     | 244.79                    | 350.89                      | 1.06                          |



VES Survey International  
West Texas  
432-563-5444

Surveyor: Dustin Byers

Brantley State Com 13 24 27 RB No. 221H / API 30-015-43774



V.E.S. Survey Date: 1/14/2017



NM OIL CONSERVATION  
ARTESIA DISTRICT

MAR 30 2017

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**Brantley State Com No. 221H(OH)**

**Eddy County, NM**

**January 29, 2017**

**Job No. LNM5130717**

*Document*

# Survey Completion Report



**PRODIRECTIONAL**

## Survey Certification Letter

**NM OIL CONSERVATION**

ARTESIA DISTRICT

MAR 30 2017

January 29, 2017

RECEIVED



Operator Name: Matador Resources  
Well Name: Brantley State Com 13-24S-27E RB No. 221H(OH)  
County/Parish: Eddy County,  
State: NM  
Rig Name: Patterson 274  
Job Number: LNM5130717

This is to certify the surveys performed on the referenced well by Professional Directional Ent., Inc. are true and correct MWD Surveys, data provided as follows:

| Surveyor       | Surveyed Depths        | Projection to Bit | Dates Performed     | Type of Survey |
|----------------|------------------------|-------------------|---------------------|----------------|
| ProDirectional | 9,704' MD – 12,540' MD | 12,654' MD        | 01/13/17 – 01/22/17 | MWD-OWSG       |

Sincerely,

Mike Coats  
Well Planning  
Professional Directional

850 Conroe Park West Drive | Conroe, TX 77303 | Phone: 936.441.7266

[prodirectional.com](http://prodirectional.com)





NM OIL CONSERVATION  
ARTESIA DISTRICT  
MAR 30 2017

RECEIVED

## Matador Resources

Eddy County, NM  
Brantley State Com  
No. 221H  
OH

Survey: ProDirectional

## Survey Report

29 January, 2017





Well No. 221H  
Well @ 3118.00usft (GL: 3089' + KB: 29' (Patu274))  
Well @ 3118.00usft (GL: 3089' + KB: 29' (Patu274))  
Grid  
Minimum Curvature  
WellPlanner1



# ProDirectional Survey Report



Company: Matador Resources  
Project: Eddy County, NM  
Site: Brantley State Com  
Well: No. 221H  
Wellbore: OH  
Design: MWD

Local Co-ordinate Reference:  
TVD Reference:  
MD Reference:  
North Reference:  
Survey Calculation Method:  
Database:

Well No. 221H  
Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))  
Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))  
Grid  
Minimum Curvature  
WellPlanner1

| Survey Program |         | Date              |          | 1/29/2017         |               |            |            |                                   |                     |                 |                |  |  |  |  |  |  |  |  |  |  |
|----------------|---------|-------------------|----------|-------------------|---------------|------------|------------|-----------------------------------|---------------------|-----------------|----------------|--|--|--|--|--|--|--|--|--|--|
| From (usft)    |         | To (usft)         |          | Survey (Wellbore) |               | Tool Name  |            | Description                       |                     |                 |                |  |  |  |  |  |  |  |  |  |  |
| 100.00         |         | 9,660.00          |          | Survey #1 (OH)    |               | GYD_DP_MS  |            | Gyrodata gyro-compassing and drop |                     |                 |                |  |  |  |  |  |  |  |  |  |  |
| 9,704.00       |         | 12,654.00         |          | Survey #2 (OH)    |               | MWD - OWSG |            | MWD - OWSG                        |                     |                 |                |  |  |  |  |  |  |  |  |  |  |
| Survey         |         |                   |          |                   |               |            |            |                                   |                     |                 |                |  |  |  |  |  |  |  |  |  |  |
| MD (usft)      | Inc (°) | Azi (azimuth) (°) |          | TVD (usft)        | V. Sec (usft) | N/S (usft) | E/W (usft) | Closure Distance (usft)           | Closure Azimuth (°) | Northing (usft) | Easting (usft) |  |  |  |  |  |  |  |  |  |  |
| 0.00           | 0.00    | 0.00              | 0.00     | 0.00              | 0.00          | 0.00       | 0.00       | 0.00                              | 0.00                | 444,957.00      | 561,517.00     |  |  |  |  |  |  |  |  |  |  |
| 100.00         | 0.64    | 143.23            | 100.00   | -0.33             | -0.45         | 0.33       | 0.56       | 143.23                            | 444,956.55          | 561,517.33      |                |  |  |  |  |  |  |  |  |  |  |
| 200.00         | 0.30    | 149.33            | 199.99   | -0.80             | -1.12         | 0.80       | 1.38       | 144.39                            | 444,955.88          | 561,517.80      |                |  |  |  |  |  |  |  |  |  |  |
| 300.00         | 0.25    | 358.21            | 299.99   | -0.92             | -1.13         | 0.93       | 1.46       | 140.51                            | 444,955.87          | 561,517.93      |                |  |  |  |  |  |  |  |  |  |  |
| 400.00         | 0.51    | 87.48             | 399.99   | -1.36             | -0.89         | 1.37       | 1.63       | 123.06                            | 444,956.11          | 561,518.37      |                |  |  |  |  |  |  |  |  |  |  |
| 500.00         | 1.13    | 114.24            | 499.98   | -2.70             | -1.27         | 2.71       | 3.00       | 115.19                            | 444,955.73          | 561,519.71      |                |  |  |  |  |  |  |  |  |  |  |
| 600.00         | 1.14    | 112.87            | 599.96   | -4.51             | -2.07         | 4.53       | 4.98       | 114.54                            | 444,954.93          | 561,521.53      |                |  |  |  |  |  |  |  |  |  |  |
| 700.00         | 1.01    | 118.17            | 699.94   | -6.20             | -2.87         | 6.22       | 6.85       | 114.76                            | 444,954.13          | 561,523.22      |                |  |  |  |  |  |  |  |  |  |  |
| 800.00         | 1.20    | 129.25            | 799.93   | -7.78             | -3.95         | 7.81       | 8.75       | 116.82                            | 444,953.05          | 561,524.81      |                |  |  |  |  |  |  |  |  |  |  |
| 900.00         | 1.17    | 140.08            | 899.90   | -9.24             | -5.39         | 9.27       | 10.73      | 120.18                            | 444,951.61          | 561,526.27      |                |  |  |  |  |  |  |  |  |  |  |
| 1,000.00       | 1.07    | 146.18            | 999.89   | -10.40            | -6.95         | 10.45      | 12.55      | 123.64                            | 444,950.05          | 561,527.45      |                |  |  |  |  |  |  |  |  |  |  |
| 1,100.00       | 1.09    | 125.82            | 1,099.87 | -11.69            | -8.28         | 11.74      | 14.37      | 125.21                            | 444,948.72          | 561,528.74      |                |  |  |  |  |  |  |  |  |  |  |
| 1,200.00       | 1.05    | 145.91            | 1,199.85 | -12.96            | -9.60         | 13.02      | 16.18      | 126.39                            | 444,947.40          | 561,530.02      |                |  |  |  |  |  |  |  |  |  |  |
| 1,300.00       | 0.74    | 144.57            | 1,299.84 | -13.84            | -10.88        | 13.91      | 17.66      | 128.04                            | 444,946.12          | 561,530.91      |                |  |  |  |  |  |  |  |  |  |  |
| 1,400.00       | 0.47    | 140.64            | 1,399.83 | -14.47            | -11.73        | 14.55      | 18.69      | 128.88                            | 444,945.27          | 561,531.55      |                |  |  |  |  |  |  |  |  |  |  |
| 1,500.00       | 0.57    | 104.87            | 1,499.83 | -15.21            | -12.17        | 15.29      | 19.54      | 128.53                            | 444,944.83          | 561,532.29      |                |  |  |  |  |  |  |  |  |  |  |
| 1,600.00       | 0.47    | 106.54            | 1,599.83 | -16.08            | -12.42        | 16.16      | 20.38      | 127.54                            | 444,944.58          | 561,533.16      |                |  |  |  |  |  |  |  |  |  |  |
| 1,700.00       | 1.62    | 85.74             | 1,699.81 | -17.89            | -12.43        | 17.96      | 21.84      | 124.68                            | 444,944.57          | 561,534.96      |                |  |  |  |  |  |  |  |  |  |  |
| 1,800.00       | 2.53    | 80.64             | 1,799.74 | -21.48            | -11.96        | 21.55      | 24.65      | 119.04                            | 444,945.04          | 561,538.55      |                |  |  |  |  |  |  |  |  |  |  |
| 1,900.00       | 2.10    | 72.46             | 1,899.66 | -25.41            | -11.05        | 25.48      | 27.77      | 113.45                            | 444,945.95          | 561,542.48      |                |  |  |  |  |  |  |  |  |  |  |
| 2,000.00       | 2.30    | 69.94             | 1,999.59 | -29.05            | -9.81         | 29.11      | 30.72      | 108.63                            | 444,947.19          | 561,546.11      |                |  |  |  |  |  |  |  |  |  |  |



# ProDirectional Survey Report



**Company:** Matador Resources  
**Project:** Eddy County, NM  
**Site:** Brantley State Com  
**Well:** No. 221H  
**Wellbore:** OH  
**Design:** MWD

**Local Co-ordinate Reference:**  
**TVD Reference:** Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))  
**MD Reference:** Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** WellPlanner1

Well No. 221H

Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))  
Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))

Grid

Minimum Curvature

WellPlanner1

## Survey

| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | V. Sec<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | Closure Distance<br>(usft) | Closure Azimuth<br>(°) | Northing<br>(usft) | Easting<br>(usft) |
|--------------|------------|----------------------|---------------|------------------|---------------|---------------|----------------------------|------------------------|--------------------|-------------------|
| 2,100.00     | 2.31       | 46.18                | 2,099.51      | -32.40           | -7.73         | 32.45         | 33.36                      | 103.40                 | 444,949.27         | 561,549.45        |
| 2,200.00     | 1.89       | 11.86                | 2,199.44      | -34.21           | -4.72         | 34.24         | 34.56                      | 97.85                  | 444,952.28         | 561,551.24        |
| 2,300.00     | 2.35       | 339.78               | 2,299.38      | -33.86           | -1.18         | 33.87         | 33.89                      | 92.00                  | 444,955.82         | 561,550.87        |
| 2,400.00     | 1.88       | 340.49               | 2,399.31      | -32.63           | 2.29          | 32.61         | 32.69                      | 85.99                  | 444,959.29         | 561,549.61        |
| 2,500.00     | 1.78       | 343.50               | 2,499.26      | -31.66           | 5.32          | 31.63         | 32.07                      | 80.45                  | 444,962.32         | 561,548.63        |
| 2,600.00     | 2.19       | 345.92               | 2,599.20      | -30.77           | 8.67          | 30.72         | 31.92                      | 74.25                  | 444,965.67         | 561,547.72        |
| 2,700.00     | 4.42       | 349.46               | 2,699.03      | -29.64           | 14.31         | 29.55         | 32.83                      | 64.16                  | 444,971.31         | 561,546.55        |
| 2,800.00     | 5.93       | 355.97               | 2,798.62      | -28.63           | 23.25         | 28.48         | 36.77                      | 50.78                  | 444,980.25         | 561,545.48        |
| 2,900.00     | 5.92       | 354.93               | 2,898.08      | -27.87           | 33.54         | 27.66         | 43.48                      | 39.52                  | 444,990.54         | 561,544.66        |
| 3,000.00     | 5.53       | 342.69               | 2,997.59      | -26.04           | 43.28         | 25.77         | 50.37                      | 30.78                  | 445,000.28         | 561,542.77        |
| 3,100.00     | 5.20       | 335.82               | 3,097.15      | -22.81           | 52.01         | 22.48         | 56.66                      | 23.38                  | 445,009.01         | 561,539.48        |
| 3,200.00     | 5.28       | 332.56               | 3,196.73      | -18.88           | 60.23         | 18.51         | 63.01                      | 17.08                  | 445,017.23         | 561,535.51        |
| 3,300.00     | 5.13       | 326.85               | 3,296.32      | -14.37           | 68.06         | 13.94         | 69.47                      | 11.58                  | 445,025.06         | 561,530.94        |
| 3,400.00     | 5.35       | 325.93               | 3,395.90      | -9.36            | 75.66         | 8.89          | 76.18                      | 6.70                   | 445,032.66         | 561,525.89        |
| 3,500.00     | 5.47       | 326.82               | 3,495.46      | -4.19            | 83.51         | 3.67          | 83.59                      | 2.51                   | 445,040.51         | 561,520.67        |
| 3,600.00     | 5.50       | 319.87               | 3,595.00      | 1.46             | 91.16         | -2.03         | 91.19                      | 358.72                 | 445,048.16         | 561,514.97        |
| 3,700.00     | 5.45       | 317.17               | 3,694.54      | 7.73             | 98.31         | -8.35         | 98.66                      | 355.15                 | 445,055.31         | 561,508.65        |
| 3,800.00     | 5.57       | 316.31               | 3,794.08      | 14.27            | 105.30        | -14.93        | 106.36                     | 351.93                 | 445,062.30         | 561,502.07        |
| 3,900.00     | 5.61       | 326.62               | 3,893.61      | 20.26            | 112.89        | -20.97        | 114.83                     | 349.48                 | 445,069.89         | 561,496.03        |
| 4,000.00     | 5.77       | 340.08               | 3,993.12      | 24.61            | 121.70        | -25.37        | 124.32                     | 348.22                 | 445,078.70         | 561,491.63        |
| 4,100.00     | 4.71       | 358.28               | 4,092.71      | 26.39            | 130.53        | -27.21        | 133.34                     | 348.23                 | 445,087.53         | 561,489.79        |
| 4,200.00     | 2.94       | 26.28                | 4,192.49      | 25.34            | 136.94        | -26.20        | 139.42                     | 349.17                 | 445,093.94         | 561,490.80        |
| 4,300.00     | 2.83       | 21.75                | 4,292.36      | 23.26            | 141.53        | -24.15        | 143.57                     | 350.32                 | 445,098.53         | 561,492.85        |
| 4,400.00     | 2.54       | 20.48                | 4,392.25      | 21.54            | 145.90        | -22.46        | 147.62                     | 351.25                 | 445,102.90         | 561,494.54        |
| 4,500.00     | 3.21       | 22.22                | 4,492.13      | 19.68            | 150.57        | -20.62        | 151.97                     | 352.20                 | 445,107.57         | 561,496.38        |
| 4,600.00     | 3.31       | 350.22               | 4,591.97      | 19.07            | 156.00        | -20.05        | 157.29                     | 352.67                 | 445,113.00         | 561,496.95        |
| 4,700.00     | 3.53       | 353.12               | 4,691.80      | 19.90            | 161.90        | -20.91        | 163.25                     | 352.64                 | 445,118.90         | 561,496.09        |



# ProDirectional Survey Report



**Company:** Matador Resources  
**Project:** Eddy County, NM  
**Site:** Brantley State Com  
**Well:** No. 221H  
**Wellbore:** OH  
**Design:** MWD

**Local Co-ordinate Reference:**  
**TVD Reference:** Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))  
**MD Reference:** Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** WellPlanner1

Well No. 221H

| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | V. Sec<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | Closure Distance<br>(usft) | Closure Azimuth<br>(°) | Northing<br>(usft) | Easting<br>(usft) |
|--------------|------------|----------------------|---------------|------------------|---------------|---------------|----------------------------|------------------------|--------------------|-------------------|
| 4,800.00     | 5.33       | 338.24               | 4,791.50      | 21.94            | 169.27        | -23.00        | 170.83                     | 352.26                 | 445,126.27         | 561,494.00        |
| 4,900.00     | 5.02       | 340.71               | 4,891.09      | 25.05            | 177.72        | -26.17        | 179.63                     | 351.62                 | 445,134.72         | 561,490.83        |
| 5,000.00     | 4.62       | 334.22               | 4,990.73      | 28.20            | 185.47        | -29.37        | 187.79                     | 351.00                 | 445,142.47         | 561,487.63        |
| 5,100.00     | 4.27       | 328.35               | 5,090.43      | 31.86            | 192.27        | -33.07        | 195.09                     | 350.24                 | 445,149.27         | 561,483.93        |
| 5,200.00     | 4.13       | 331.90               | 5,190.17      | 35.47            | 198.62        | -36.72        | 201.98                     | 349.52                 | 445,155.62         | 561,480.28        |
| 5,300.00     | 3.93       | 334.13               | 5,289.92      | 38.63            | 204.88        | -39.91        | 208.73                     | 348.98                 | 445,161.88         | 561,477.09        |
| 5,400.00     | 3.72       | 324.85               | 5,389.70      | 41.95            | 210.61        | -43.28        | 215.01                     | 348.39                 | 445,167.61         | 561,473.72        |
| 5,500.00     | 2.74       | 332.86               | 5,489.54      | 44.88            | 215.39        | -46.24        | 220.30                     | 347.88                 | 445,172.39         | 561,470.76        |
| 5,600.00     | 2.27       | 353.27               | 5,589.44      | 46.18            | 219.49        | -47.56        | 224.58                     | 347.77                 | 445,176.49         | 561,469.44        |
| 5,700.00     | 2.10       | 341.51               | 5,689.37      | 46.97            | 223.19        | -48.37        | 228.37                     | 347.77                 | 445,180.19         | 561,468.63        |
| 5,800.00     | 1.55       | 349.84               | 5,789.32      | 47.77            | 226.26        | -49.19        | 231.54                     | 347.73                 | 445,183.26         | 561,467.81        |
| 5,900.00     | 1.74       | 332.91               | 5,889.28      | 48.68            | 228.94        | -50.12        | 234.36                     | 347.65                 | 445,185.94         | 561,466.88        |
| 6,000.00     | 1.33       | 335.26               | 5,989.24      | 49.84            | 231.35        | -51.30        | 236.97                     | 347.50                 | 445,188.35         | 561,465.70        |
| 6,100.00     | 1.33       | 324.26               | 6,089.22      | 50.99            | 233.34        | -52.46        | 239.17                     | 347.33                 | 445,190.34         | 561,464.54        |
| 6,200.00     | 0.94       | 298.32               | 6,189.20      | 52.39            | 234.67        | -53.86        | 240.78                     | 347.07                 | 445,191.67         | 561,463.14        |
| 6,300.00     | 0.70       | 302.75               | 6,289.19      | 53.62            | 235.39        | -55.10        | 241.76                     | 346.83                 | 445,192.39         | 561,461.90        |
| 6,400.00     | 0.35       | 242.63               | 6,389.18      | 54.40            | 235.58        | -55.88        | 242.12                     | 346.66                 | 445,192.58         | 561,461.12        |
| 6,500.00     | 0.42       | 220.70               | 6,489.18      | 54.91            | 235.17        | -56.39        | 241.83                     | 346.52                 | 445,192.17         | 561,460.61        |
| 6,600.00     | 0.12       | 325.59               | 6,589.18      | 55.21            | 234.97        | -56.69        | 241.72                     | 346.44                 | 445,191.97         | 561,460.31        |
| 6,700.00     | 1.46       | 15.58                | 6,689.17      | 54.92            | 236.29        | -56.41        | 242.93                     | 346.57                 | 445,193.29         | 561,460.59        |
| 6,800.00     | 1.47       | 15.07                | 6,789.14      | 54.23            | 238.75        | -55.73        | 245.17                     | 346.86                 | 445,195.75         | 561,461.27        |
| 6,900.00     | 1.47       | 21.03                | 6,889.10      | 53.42            | 241.19        | -54.94        | 247.37                     | 347.17                 | 445,198.19         | 561,462.06        |
| 7,000.00     | 1.39       | 15.57                | 6,989.07      | 52.62            | 243.55        | -54.15        | 249.50                     | 347.46                 | 445,200.55         | 561,462.85        |
| 7,100.00     | 1.31       | 13.42                | 7,089.04      | 52.02            | 245.84        | -53.56        | 251.60                     | 347.71                 | 445,202.84         | 561,463.44        |
| 7,200.00     | 1.94       | 356.91               | 7,189.00      | 51.82            | 248.64        | -53.39        | 254.30                     | 347.88                 | 445,205.64         | 561,463.61        |
| 7,300.00     | 1.93       | 353.71               | 7,288.95      | 52.08            | 252.00        | -53.66        | 257.65                     | 347.98                 | 445,209.00         | 561,463.34        |
| 7,400.00     | 2.23       | 321.91               | 7,388.88      | 53.44            | 255.21        | -55.05        | 261.08                     | 347.83                 | 445,212.21         | 561,461.95        |



# ProDirectional Survey Report



**Company:** Matador Resources  
**Project:** Eddy County, NM  
**Site:** Brantley State Com  
**Well:** No. 221H  
**Wellbore:** OH  
**Design:** MWD

**Local Co-ordinate Reference:**  
**TVD Reference:** Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))  
**MD Reference:** Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** WellPlanner1

Well No. 221H

Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))  
 Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))

Grid  
 Minimum Curvature  
 WellPlanner1

| Survey                                | MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | V. Sec<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | Closure Distance<br>(usft) | Closure Azimuth<br>(°) | Northing<br>(usft) | Easting<br>(usft) |
|---------------------------------------|--------------|------------|----------------------|---------------|------------------|---------------|---------------|----------------------------|------------------------|--------------------|-------------------|
|                                       | 7,500.00     | 2.15       | 326.78               | 7,488.81      | 55.65            | 258.31        | -57.28        | 264.58                     | 347.50                 | 445,215.31         | 561,459.72        |
|                                       | 7,600.00     | 1.81       | 341.74               | 7,588.75      | 57.15            | 261.38        | -58.80        | 267.91                     | 347.32                 | 445,218.38         | 561,458.20        |
|                                       | 7,700.00     | 1.60       | 332.16               | 7,688.71      | 58.28            | 264.11        | -59.95        | 270.83                     | 347.21                 | 445,221.11         | 561,457.05        |
|                                       | 7,800.00     | 1.31       | 321.73               | 7,788.68      | 59.63            | 266.24        | -61.31        | 273.21                     | 347.03                 | 445,223.24         | 561,455.69        |
|                                       | 7,900.00     | 0.68       | 285.56               | 7,888.66      | 60.90            | 267.30        | -62.58        | 274.53                     | 346.82                 | 445,224.30         | 561,454.42        |
|                                       | 8,000.00     | 0.94       | 269.74               | 7,988.65      | 62.29            | 267.45        | -63.98        | 275.00                     | 346.55                 | 445,224.45         | 561,453.02        |
|                                       | 8,100.00     | 0.80       | 185.35               | 8,088.64      | 63.18            | 266.76        | -64.86        | 274.53                     | 346.33                 | 445,223.76         | 561,452.14        |
|                                       | 8,200.00     | 1.25       | 187.28               | 8,188.63      | 63.40            | 264.98        | -65.07        | 272.85                     | 346.20                 | 445,221.98         | 561,451.93        |
|                                       | 8,300.00     | 2.13       | 117.14               | 8,288.59      | 61.90            | 263.05        | -63.55        | 270.62                     | 346.42                 | 445,220.05         | 561,453.45        |
|                                       | 8,400.00     | 2.34       | 128.72               | 8,388.52      | 58.66            | 260.92        | -60.30        | 267.80                     | 346.99                 | 445,217.92         | 561,456.70        |
|                                       | 8,500.00     | 2.70       | 129.37               | 8,488.42      | 55.27            | 258.15        | -56.89        | 264.35                     | 347.57                 | 445,215.15         | 561,460.11        |
|                                       | 8,600.00     | 2.76       | 134.28               | 8,588.31      | 51.74            | 254.98        | -53.35        | 260.50                     | 348.18                 | 445,211.98         | 561,463.65        |
|                                       | 8,700.00     | 2.26       | 125.04               | 8,688.21      | 48.42            | 252.16        | -50.01        | 257.08                     | 348.78                 | 445,209.16         | 561,466.99        |
|                                       | 8,800.00     | 1.56       | 123.49               | 8,788.15      | 45.68            | 250.28        | -47.26        | 254.70                     | 349.31                 | 445,207.28         | 561,469.74        |
|                                       | 8,900.00     | 0.79       | 108.99               | 8,888.13      | 43.90            | 249.31        | -45.47        | 253.42                     | 349.66                 | 445,206.31         | 561,471.53        |
|                                       | 9,000.00     | 0.56       | 89.97                | 8,988.13      | 42.76            | 249.08        | -44.33        | 253.00                     | 349.91                 | 445,206.08         | 561,472.67        |
|                                       | 9,100.00     | 0.64       | 91.79                | 9,088.12      | 41.72            | 249.06        | -43.28        | 252.80                     | 350.14                 | 445,206.06         | 561,473.72        |
|                                       | 9,200.00     | 0.28       | 136.13               | 9,188.12      | 40.99            | 248.87        | -42.56        | 252.48                     | 350.30                 | 445,205.87         | 561,474.44        |
|                                       | 9,300.00     | 0.68       | 160.76               | 9,288.11      | 40.63            | 248.13        | -42.19        | 251.70                     | 350.35                 | 445,205.13         | 561,474.81        |
|                                       | 9,400.00     | 1.17       | 149.52               | 9,388.10      | 39.93            | 246.69        | -41.48        | 250.16                     | 350.46                 | 445,203.69         | 561,475.52        |
|                                       | 9,500.00     | 1.36       | 148.14               | 9,488.08      | 38.79            | 244.81        | -40.33        | 248.11                     | 350.64                 | 445,201.81         | 561,476.67        |
|                                       | 9,600.00     | 1.35       | 150.07               | 9,588.05      | 37.59            | 242.78        | -39.12        | 245.91                     | 350.85                 | 445,199.78         | 561,477.88        |
|                                       | 9,660.00     | 0.99       | 176.22               | 9,648.04      | 37.21            | 241.65        | -38.73        | 244.73                     | 350.89                 | 445,198.65         | 561,478.27        |
|                                       | 9,704.00     | 6.10       | 278.30               | 9,691.95      | 39.50            | 241.61        | -41.02        | 245.06                     | 350.36                 | 445,198.61         | 561,475.98        |
| <b>Pro MWD First Survey: 9704' MD</b> |              |            |                      |               |                  |               |               |                            |                        |                    |                   |
|                                       | 9,736.00     | 10.00      | 280.70               | 9,723.63      | 43.91            | 242.37        | -45.44        | 246.59                     | 349.38                 | 445,199.37         | 561,471.56        |
|                                       | 9,768.00     | 13.60      | 281.80               | 9,754.95      | 50.32            | 243.65        | -51.85        | 249.11                     | 347.99                 | 445,200.65         | 561,465.15        |



# ProDirectional Survey Report



**Company:** Matador Resources  
**Project:** Eddy County, NM  
**Site:** Branley State Com  
**Well:** No. 221H  
**Wellbore:** OH  
**Design:** MWD

**Local Co-ordinate Reference:**  
**TVD Reference:**  
**MD Reference:**  
**North Reference:**  
**Survey Calculation Method:**  
**Database:**

Well No. 221H  
 Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))  
 Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))  
 Grid  
 Minimum Curvature  
 WellPlanner1

| Survey             | MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | V. Sec<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | Closure Distance<br>(usft) | Closure Azimuth<br>(°) | Northing<br>(usft) | Easting<br>(usft) |
|--------------------|--------------|------------|----------------------|---------------|------------------|---------------|---------------|----------------------------|------------------------|--------------------|-------------------|
|                    | 9,799.00     | 17.00      | 281.50               | 9,784.85      | 58.32            | 245.30        | -59.86        | 252.50                     | 346.29                 | 445,202.30         | 561,457.14        |
|                    | 9,831.00     | 20.30      | 280.30               | 9,815.16      | 68.36            | 247.23        | -69.91        | 256.92                     | 344.21                 | 445,204.23         | 561,447.09        |
|                    | 9,863.00     | 23.80      | 279.50               | 9,844.82      | 80.18            | 249.29        | -81.74        | 262.35                     | 341.85                 | 445,206.29         | 561,435.26        |
|                    | 9,895.00     | 28.00      | 278.90               | 9,873.60      | 93.96            | 251.52        | -95.54        | 269.05                     | 339.20                 | 445,208.52         | 561,421.46        |
|                    | 9,926.00     | 30.90      | 277.70               | 9,900.59      | 109.02           | 253.71        | -110.62       | 276.78                     | 336.44                 | 445,210.71         | 561,406.38        |
|                    | 9,958.00     | 31.30      | 276.00               | 9,927.99      | 125.42           | 255.68        | -127.03       | 285.50                     | 333.58                 | 445,212.68         | 561,389.97        |
|                    | 9,990.00     | 32.60      | 272.60               | 9,955.14      | 142.29           | 256.94        | -143.91       | 294.50                     | 330.75                 | 445,213.94         | 561,373.09        |
|                    | 10,021.00    | 32.80      | 269.30               | 9,981.23      | 159.03           | 257.22        | -160.65       | 303.26                     | 328.01                 | 445,214.22         | 561,356.35        |
|                    | 10,053.00    | 35.00      | 268.20               | 10,007.79     | 176.87           | 258.82        | -178.49       | 312.76                     | 325.20                 | 445,213.82         | 561,338.51        |
|                    | 10,085.00    | 38.80      | 267.70               | 10,033.38     | 196.08           | 258.13        | -197.69       | 323.55                     | 322.34                 | 445,213.13         | 561,319.31        |
|                    | 10,117.00    | 43.30      | 267.10               | 10,057.50     | 217.07           | 255.17        | -218.68       | 336.05                     | 319.40                 | 445,212.17         | 561,298.32        |
|                    | 10,148.00    | 45.50      | 268.10               | 10,079.65     | 238.74           | 254.27        | -240.35       | 349.88                     | 316.61                 | 445,211.27         | 561,276.65        |
|                    | 10,195.00    | 47.30      | 269.00               | 10,112.06     | 272.77           | 253.41        | -274.37       | 373.49                     | 312.73                 | 445,210.41         | 561,242.63        |
|                    | 10,243.00    | 50.50      | 268.80               | 10,143.61     | 308.93           | 252.71        | -310.53       | 400.37                     | 309.14                 | 445,209.71         | 561,206.47        |
|                    | 10,291.00    | 53.00      | 265.90               | 10,173.33     | 346.59           | 250.96        | -348.17       | 429.19                     | 305.78                 | 445,207.96         | 561,168.83        |
|                    | 10,339.00    | 56.20      | 264.70               | 10,201.13     | 385.60           | 247.74        | -387.16       | 459.64                     | 302.62                 | 445,204.74         | 561,129.84        |
|                    | 10,386.00    | 61.00      | 264.90               | 10,225.61     | 425.56           | 244.11        | -427.10       | 491.94                     | 299.75                 | 445,201.11         | 561,089.90        |
|                    | 10,434.00    | 64.90      | 266.00               | 10,247.44     | 468.18           | 240.73        | -469.71       | 527.80                     | 297.14                 | 445,197.73         | 561,047.29        |
|                    | 10,481.00    | 69.10      | 266.20               | 10,265.80     | 511.36           | 237.79        | -512.86       | 565.30                     | 294.87                 | 445,194.79         | 561,004.14        |
|                    | 10,488.00    | 69.44      | 266.23               | 10,268.28     | 517.89           | 237.35        | -519.39       | 571.06                     | 294.56                 | 445,194.35         | 560,997.61        |
| HL Xing: 10438' MD |              |            |                      |               |                  |               |               |                            |                        |                    |                   |
|                    | 10,529.00    | 71.40      | 266.40               | 10,282.02     | 556.45           | 234.87        | -557.94       | 605.36                     | 292.83                 | 445,191.87         | 560,959.06        |
|                    | 10,544.00    | 72.40      | 266.70               | 10,286.68     | 570.69           | 234.01        | -572.17       | 618.18                     | 292.24                 | 445,191.01         | 560,944.83        |
|                    | 10,649.00    | 81.80      | 268.40               | 10,310.09     | 672.85           | 229.67        | -674.31       | 712.35                     | 288.81                 | 445,186.67         | 560,842.69        |
|                    | 10,681.00    | 85.70      | 266.80               | 10,313.58     | 704.64           | 228.34        | -706.08       | 742.09                     | 287.92                 | 445,185.34         | 560,810.92        |
|                    | 10,712.00    | 88.00      | 266.70               | 10,315.28     | 735.55           | 225.58        | -736.99       | 771.03                     | 287.09                 | 445,183.58         | 560,780.01        |
|                    | 10,744.00    | 88.80      | 267.40               | 10,316.17     | 767.50           | 224.94        | -768.93       | 801.16                     | 286.31                 | 445,181.94         | 560,749.07        |



# ProDirectional Survey Report



**Company:** Matador Resources  
**Project:** Eddy County, NM  
**Site:** Brantley State Com  
**Well:** No. 221H  
**Wellbore:** OH  
**Design:** MWD

**Local Co-ordinate Reference:**  
**TVD Reference:** Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))  
**MD Reference:** Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** WellPlanner1

Well No. 221H

Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))  
Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))

Grid

Minimum Curvature

WellPlanner1

| Survey | MD<br>(usft)                              | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | V. Sec<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | Closure Distance<br>(usft) | Closure Azimuth<br>(°) | Northing<br>(usft) | Easting<br>(usft) |
|--------|---|------------|----------------------|---------------|------------------|---------------|---------------|----------------------------|------------------------|--------------------|-------------------|
|        | 10,839.00                                 | 92.10      | 270.10               | 10,315.43     | 862.47           | 222.86        | -863.88       | 892.17                     | 284.47                 | 445,179.86         | 560,653.12        |
|        | 10,933.00                                 | 94.00      | 271.80               | 10,310.43     | 956.30           | 224.42        | -957.73       | 983.67                     | 283.19                 | 445,181.42         | 560,559.27        |
|        | 11,028.00                                 | 92.70      | 271.90               | 10,304.87     | 1,051.07         | 227.48        | -1,052.52     | 1,076.82                   | 282.20                 | 445,184.48         | 560,464.48        |
|        | 11,123.00                                 | 88.00      | 269.30               | 10,304.29     | 1,146.02         | 228.47        | -1,147.47     | 1,170.00                   | 281.26                 | 445,185.47         | 560,369.53        |
|        | 11,217.00                                 | 87.00      | 267.10               | 10,308.40     | 1,239.89         | 225.53        | -1,241.33     | 1,261.65                   | 280.30                 | 445,182.53         | 560,275.67        |
|        | 11,312.00                                 | 87.70      | 265.40               | 10,312.79     | 1,334.62         | 219.32        | -1,336.02     | 1,353.90                   | 279.32                 | 445,176.32         | 560,180.98        |
|        | 11,406.00                                 | 94.10      | 264.70               | 10,311.31     | 1,428.26         | 211.21        | -1,429.61     | 1,445.13                   | 278.40                 | 445,168.21         | 560,087.39        |
|        | 11,501.00                                 | 98.00      | 264.50               | 10,301.30     | 1,522.34         | 202.33        | -1,523.64     | 1,537.02                   | 277.56                 | 445,159.33         | 559,993.36        |
|        | 11,596.00                                 | 97.60      | 265.60               | 10,288.41     | 1,616.16         | 194.21        | -1,617.41     | 1,629.03                   | 276.85                 | 445,151.21         | 559,899.59        |
|        | 11,690.00                                 | 95.40      | 269.40               | 10,277.76     | 1,709.47         | 190.14        | -1,710.70     | 1,721.23                   | 276.34                 | 445,147.14         | 559,806.30        |
|        | 11,785.00                                 | 93.80      | 270.20               | 10,270.14     | 1,804.16         | 189.81        | -1,805.39     | 1,815.34                   | 276.00                 | 445,146.81         | 559,711.61        |
|        | 11,879.00                                 | 92.10      | 270.70               | 10,265.31     | 1,898.02         | 190.55        | -1,899.25     | 1,908.79                   | 275.73                 | 445,147.55         | 559,617.75        |
|        | 11,974.00                                 | 92.00      | 271.50               | 10,261.91     | 1,992.93         | 192.37        | -1,994.18     | 2,003.43                   | 275.51                 | 445,149.37         | 559,522.82        |
|        | 12,068.00                                 | 93.40      | 277.00               | 10,257.48     | 2,086.48         | 199.32        | -2,087.77     | 2,097.27                   | 275.45                 | 445,156.32         | 559,429.23        |
|        | 12,163.00                                 | 86.90      | 274.80               | 10,257.23     | 2,180.86         | 209.08        | -2,182.21     | 2,192.21                   | 275.47                 | 445,166.08         | 559,334.79        |
|        | 12,257.00                                 | 86.50      | 271.70               | 10,262.64     | 2,274.50         | 214.40        | -2,275.90     | 2,285.97                   | 275.38                 | 445,171.40         | 559,241.10        |
|        | 12,351.00                                 | 94.70      | 268.40               | 10,261.66     | 2,368.40         | 214.49        | -2,369.80     | 2,379.48                   | 275.17                 | 445,171.49         | 559,147.20        |
|        | 12,445.00                                 | 92.60      | 266.90               | 10,255.67     | 2,462.15         | 210.64        | -2,463.52     | 2,472.51                   | 274.89                 | 445,167.64         | 559,053.48        |
|        | 12,540.00                                 | 95.20      | 265.30               | 10,249.21     | 2,556.74         | 204.19        | -2,558.07     | 2,566.21                   | 274.56                 | 445,161.19         | 558,958.93        |
|        | Last Survey(OH): 12540' MD, 10249.21' TVD |            |                      |               |                  |               |               |                            |                        |                    |                   |
|        | 12,654.00                                 | 95.20      | 265.30               | 10,238.88     | 2,669.94         | 194.89        | -2,671.22     | 2,678.32                   | 274.17                 | 445,151.89         | 558,845.78        |
|        | PTB(OH): 12654' MD, 10238.88' TVD         |            |                      |               |                  |               |               |                            |                        |                    |                   |





# ProDirectional Survey Report



**Company:** Matador Resources  
**Project:** Eddy County, NM  
**Site:** Brantley State Com  
**Well:** No. 221H  
**Wellbore:** OH  
**Design:** MWD

**Local Co-ordinate Reference:**  
**TVD Reference:**  
**MD Reference:**  
**North Reference:**  
**Survey Calculation Method:**  
**Database:**

**Well No. 221H**  
**Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))**  
**Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))**  
**Grid**  
**Minimum Curvature**  
**WellPlanner1**

## Design Annotations

| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates                         |                 |
|-----------------------------|-----------------------------|---|-----------------|
|                             |                             | +N/-S<br>(usft)                           | +E/-W<br>(usft) |
| 9,704.00                    | 9,691.95                    | 241.61                                    | -41.02          |
| 10,488.00                   | 10,268.28                   | 237.35                                    | -519.39         |
| 12,540.00                   | 10,249.21                   | 204.19                                    | -2,558.07       |
| 12,654.00                   | 10,238.88                   | 194.89                                    | -2,671.22       |
|                             |                             | Pro MWD First Survey: 9704' MD            |                 |
|                             |                             | HL X'ing: 10488' MD                       |                 |
|                             |                             | Last Survey(OH): 12540' MD, 10249.21' TVD |                 |
|                             |                             | PTB(OH): 12654' MD, 10238.88' TVD         |                 |

PRODIRECTIONAL

NM OIL CONSERVATION  
ARTESIA DISTRICT

MAR 30 2017

RECEIVED



**Brantley State Com No. 221H(ST01)**  
**Eddy County, NM**

**January 29, 2017**

**Job No. LNM5130717**

# **Survey Completion Report**

**PRODIRECTIONAL**

**Survey Certification Letter**

**NM OIL CONSERVATION**  
ARTESIA DISTRICT

MAR 30 2017

RECEIVED

January 29, 2017



Operator Name: Matador Resources  
Well Name: Brantley State Com 13-24S-27E RB No. 221H(ST01)  
County/Parish: Eddy County,  
State: NM  
Rig Name: Patterson 274  
Job Number: LNM5130717

This is to certify the surveys performed on the referenced well by Professional Directional Ent., Inc. are true and correct MWD Surveys, data provided as follows:

| <u>Surveyor</u> | <u>Surveyed Depths</u>  | <u>Projection to Bit</u> | <u>Dates Performed</u> | <u>Type of Survey</u> |
|-----------------|-------------------------|--------------------------|------------------------|-----------------------|
| ProDirectional  | 12,280' MD – 15,278' MD | 15,311' MD               | 01/24/17 – 01/29/17    | MWD-OWSG              |

Sincerely,

A handwritten signature in black ink that reads "Mike Coats". The signature is written in a cursive, flowing style.

Mike Coats  
Well Planning  
Professional Directional

850 Conroe Park West Drive | Conroe, TX 77303 | Phone: 936.441.7266

prodirectional.com



NM OIL CONSERVATION  
ARTESIA DISTRICT  
MAR 30 2017

RECEIVED

## Matador Resources

Eddy County, NM  
Brantley State Com  
No. 221H  
ST01

Survey: ProDirectional

## Survey Report

08 February, 2017





# ProDIRECTIONAL Survey Report



**Company:** Matador Resources  
**Project:** Eddy County, NM  
**Site:** Brantley State Com  
**Well:** No. 221H  
**Wellbore:** ST01  
**Design:** ST01-12280'-15278', Proj. 15311'

**Local Co-ordinate Reference:**  
**TVD Reference:** Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))  
**MD Reference:** Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** WellPlanner1

**Well No. 221H**  
**Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))**  
**Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))**  
**Grid**  
**Minimum Curvature**  
**WellPlanner1**

|                    |                                      |                      |                |
|--------------------|--------------------------------------|----------------------|----------------|
| <b>Project</b>     | Eddy County, NM                      | <b>System Datum:</b> | Mean Sea Level |
| <b>Map System:</b> | US State Plane 1927 (Exact solution) |                      |                |
| <b>Geo Datum:</b>  | NAD 1927 (NADCON CONUS)              |                      |                |
| <b>Map Zone:</b>   | New Mexico East 3001                 |                      |                |

|                              |                    |                          |                  |
|------------------------------|--------------------|--------------------------|------------------|
| <b>Site</b>                  | Brantley State Com |                          |                  |
| <b>Site Position:</b>        |                    | <b>Northing:</b>         | 444,957.00 usft  |
| <b>From:</b>                 | Map                | <b>Easting:</b>          | 561,517.00 usft  |
| <b>Position Uncertainty:</b> | 0.00 usft          | <b>Slot Radius:</b>      | 13-3/16 "        |
|                              |                    | <b>Latitude:</b>         | 32° 13' 23.330 N |
|                              |                    | <b>Longitude:</b>        | 104° 8' 3.858 W  |
|                              |                    | <b>Grid Convergence:</b> | 0.11 °           |

|                             |           |                            |                  |
|-----------------------------|-----------|----------------------------|------------------|
| <b>Well</b>                 | No. 221H  |                            |                  |
| <b>Well Position</b>        | +N/-S     | <b>Northing:</b>           | 444,957.00 usft  |
|                             | +E/-W     | <b>Easting:</b>            | 561,517.00 usft  |
| <b>Position Uncertainty</b> | 0.00 usft | <b>Wellhead Elevation:</b> | usft             |
|                             |           | <b>Latitude:</b>           | 32° 13' 23.330 N |
|                             |           | <b>Longitude:</b>          | 104° 8' 3.858 W  |
|                             |           | <b>Ground Level:</b>       | 3,089.00 usft    |

|                  |      |                            |            |
|------------------|------|----------------------------|------------|
| <b>Wellbore</b>  | ST01 |                            |            |
| <b>Magnetics</b> |      | <b>Model Name</b>          | HDGM       |
|                  |      | <b>Sample Date</b>         | 12/31/2016 |
|                  |      | <b>Declination</b> (°)     | 7.42       |
|                  |      | <b>Dip Angle</b> (°)       | 60.05      |
|                  |      | <b>Field Strength</b> (nT) | 48,144.00  |

|                          |                                  |                                |           |
|--------------------------|----------------------------------|--------------------------------|-----------|
| <b>Design</b>            | ST01-12280'-15278', Proj. 15311' |                                |           |
| <b>Audit Notes:</b>      |                                  |                                |           |
| <b>Version:</b>          | 1.0                              | <b>Phase:</b>                  | ACTUAL    |
| <b>Vertical Section:</b> |                                  | <b>Depth From (TVD)</b> (usft) | 0.00      |
|                          |                                  | <b>+N/-S</b> (usft)            | 0.00      |
|                          |                                  | <b>+E/-W</b> (usft)            | 0.00      |
|                          |                                  | <b>Tie On Depth:</b>           | 12,257.00 |
|                          |                                  | <b>Direction</b> (°)           | 269.64    |



# ProDirectional Survey Report



**Company:** Matador Resources  
**Project:** Eddy County, NM  
**Site:** Brantley State Com  
**Well:** No. 221H  
**Wellbore:** ST01  
**Design:** ST01-12280'-15278', Proj. 15311'

**Local Co-ordinates Reference:**  
**TVD Reference:** Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))  
**MD Reference:** Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** WellPlanner1

Well No. 221H

| Survey Program |           |                   | Date | 2/8/2017 |
|----------------|-----------|-------------------|------|----------|
| From (usft)    | To (usft) | Survey (Wellbore) |      |          |
| 100.00         | 9,660.00  | Survey #1 (OH)    |      |          |
| 9,704.00       | 12,257.00 | Survey #2 (OH)    |      |          |
| 12,280.00      | 15,311.00 | Survey #1 (ST01)  |      |          |

| Survey       |            |                      |               |                  |               |               |                            |                        |                    |                   |
|--------------|------------|----------------------|---------------|------------------|---------------|---------------|----------------------------|------------------------|--------------------|-------------------|
| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | V. Sec<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | Closure Distance<br>(usft) | Closure Azimuth<br>(°) | Northing<br>(usft) | Easting<br>(usft) |
| 0.00         | 0.00       | 0.00                 | 0.00          | 0.00             | 0.00          | 0.00          | 0.00                       | 0.00                   | 444,957.00         | 561,517.00        |
| 100.00       | 0.64       | 143.23               | 100.00        | -0.33            | -0.45         | -0.45         | 0.33                       | 0.56                   | 444,956.55         | 561,517.33        |
| 200.00       | 0.30       | 149.33               | 199.99        | -0.80            | -1.12         | -1.12         | 0.80                       | 1.38                   | 444,955.88         | 561,517.80        |
| 300.00       | 0.25       | 358.21               | 299.99        | -0.92            | -1.13         | -1.13         | 0.93                       | 1.46                   | 444,955.87         | 561,517.93        |
| 400.00       | 0.51       | 87.48                | 399.99        | -1.36            | -0.89         | -0.89         | 1.37                       | 1.63                   | 444,956.11         | 561,518.37        |
| 500.00       | 1.13       | 114.24               | 499.98        | -2.70            | -1.27         | -1.27         | 2.71                       | 3.00                   | 444,955.73         | 561,519.71        |
| 600.00       | 1.14       | 112.87               | 599.96        | -4.51            | -2.07         | -2.07         | 4.53                       | 4.98                   | 444,954.93         | 561,521.53        |
| 700.00       | 1.01       | 118.17               | 699.94        | -6.20            | -2.87         | -2.87         | 6.22                       | 6.85                   | 444,954.13         | 561,523.22        |
| 800.00       | 1.20       | 129.25               | 799.93        | -7.78            | -3.95         | -3.95         | 7.81                       | 8.75                   | 444,953.05         | 561,524.81        |
| 900.00       | 1.17       | 140.08               | 899.90        | -9.24            | -5.39         | -5.39         | 9.27                       | 10.73                  | 444,951.61         | 561,526.27        |
| 1,000.00     | 1.07       | 146.18               | 999.89        | -10.40           | -6.95         | -6.95         | 10.45                      | 12.55                  | 444,950.05         | 561,527.45        |
| 1,100.00     | 1.09       | 125.82               | 1,099.87      | -11.69           | -8.28         | -8.28         | 11.74                      | 14.37                  | 444,948.72         | 561,528.74        |
| 1,200.00     | 1.05       | 145.91               | 1,199.85      | -12.96           | -9.60         | -9.60         | 13.02                      | 16.18                  | 444,947.40         | 561,530.02        |
| 1,300.00     | 0.74       | 144.57               | 1,299.84      | -13.84           | -10.88        | -10.88        | 13.91                      | 17.66                  | 444,946.12         | 561,530.91        |
| 1,400.00     | 0.47       | 140.64               | 1,399.83      | -14.47           | -11.73        | -11.73        | 14.55                      | 18.69                  | 444,945.27         | 561,531.55        |
| 1,500.00     | 0.57       | 104.87               | 1,499.83      | -15.21           | -12.17        | -12.17        | 15.29                      | 19.54                  | 444,944.83         | 561,532.29        |
| 1,600.00     | 0.47       | 106.54               | 1,599.83      | -16.08           | -12.42        | -12.42        | 16.16                      | 20.38                  | 444,944.58         | 561,533.16        |
| 1,700.00     | 1.62       | 85.74                | 1,699.81      | -17.89           | -12.43        | -12.43        | 17.96                      | 21.84                  | 444,944.57         | 561,534.96        |
| 1,800.00     | 2.53       | 80.64                | 1,799.74      | -21.48           | -11.96        | -11.96        | 21.55                      | 24.65                  | 444,945.04         | 561,538.55        |
| 1,900.00     | 2.10       | 72.46                | 1,899.66      | -25.41           | -11.05        | -11.05        | 25.48                      | 27.77                  | 444,945.95         | 561,542.48        |



# ProDirectional Survey Report



**Company:** Matador Resources  
**Project:** Eddy County, NM  
**Site:** Brantley State Corn  
**Well:** No. 221H  
**Wellbore:** ST01  
**Design:** ST01-12280'-15278', Proj. 15311'

**Local Co-ordinate Reference:** Well No. 221H  
**TVD Reference:** Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))  
**MD Reference:** Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Databases:** WellPlanner1

| Survey | MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | V. Sec<br>(usft) | NS<br>(usft) | EW<br>(usft) | Closure Distance<br>(usft) | Closure Azimuth<br>(°) | Northing<br>(usft) | Easting<br>(usft) |
|--------|--------------|------------|----------------------|---------------|------------------|--------------|--------------|----------------------------|------------------------|--------------------|-------------------|
|        | 2,000.00     | 2.30       | 69.94                | 1,999.59      | -29.05           | -9.81        | 29.11        | 30.72                      | 108.63                 | 444,947.19         | 561,546.11        |
|        | 2,100.00     | 2.31       | 46.18                | 2,099.51      | -32.40           | -7.73        | 32.45        | 33.36                      | 103.40                 | 444,949.27         | 561,549.45        |
|        | 2,200.00     | 1.89       | 11.86                | 2,199.44      | -34.21           | -4.72        | 34.24        | 34.56                      | 97.85                  | 444,952.28         | 561,551.24        |
|        | 2,300.00     | 2.35       | 339.78               | 2,299.38      | -33.86           | -1.18        | 33.87        | 33.89                      | 92.00                  | 444,955.82         | 561,550.87        |
|        | 2,400.00     | 1.88       | 340.49               | 2,399.31      | -32.63           | 2.29         | 32.61        | 32.69                      | 85.99                  | 444,959.29         | 561,549.61        |
|        | 2,500.00     | 1.78       | 343.50               | 2,499.26      | -31.66           | 5.32         | 31.63        | 32.07                      | 80.45                  | 444,962.32         | 561,548.63        |
|        | 2,600.00     | 2.19       | 345.92               | 2,599.20      | -30.77           | 8.67         | 30.72        | 31.92                      | 74.25                  | 444,965.67         | 561,547.72        |
|        | 2,700.00     | 4.42       | 349.46               | 2,699.03      | -29.84           | 14.31        | 29.55        | 32.83                      | 64.16                  | 444,971.31         | 561,546.55        |
|        | 2,800.00     | 5.93       | 355.97               | 2,798.62      | -28.63           | 23.25        | 28.48        | 36.77                      | 50.78                  | 444,980.25         | 561,545.48        |
|        | 2,900.00     | 5.92       | 354.93               | 2,898.08      | -27.87           | 33.54        | 27.66        | 43.48                      | 39.52                  | 444,990.54         | 561,544.66        |
|        | 3,000.00     | 5.53       | 342.69               | 2,997.59      | -26.04           | 43.28        | 25.77        | 50.37                      | 30.78                  | 445,000.28         | 561,542.77        |
|        | 3,100.00     | 5.20       | 335.82               | 3,097.15      | -22.81           | 52.01        | 22.48        | 56.66                      | 23.38                  | 445,009.01         | 561,539.48        |
|        | 3,200.00     | 5.28       | 332.56               | 3,196.73      | -18.88           | 60.23        | 18.51        | 63.01                      | 17.08                  | 445,017.23         | 561,535.51        |
|        | 3,300.00     | 5.13       | 326.85               | 3,296.32      | -14.37           | 68.06        | 13.94        | 69.47                      | 11.58                  | 445,025.06         | 561,530.94        |
|        | 3,400.00     | 5.35       | 325.93               | 3,395.90      | -9.36            | 75.66        | 8.89         | 76.18                      | 6.70                   | 445,032.66         | 561,525.89        |
|        | 3,500.00     | 5.47       | 326.82               | 3,495.46      | -4.19            | 83.51        | 3.67         | 83.59                      | 2.51                   | 445,040.51         | 561,520.67        |
|        | 3,600.00     | 5.50       | 319.87               | 3,595.00      | 1.46             | 91.16        | -2.03        | 91.19                      | 358.72                 | 445,048.16         | 561,514.97        |
|        | 3,700.00     | 5.45       | 317.17               | 3,694.54      | 7.73             | 98.31        | -8.35        | 98.66                      | 355.15                 | 445,055.31         | 561,508.65        |
|        | 3,800.00     | 5.57       | 316.31               | 3,794.08      | 14.27            | 105.30       | -14.93       | 106.36                     | 351.93                 | 445,062.30         | 561,502.07        |
|        | 3,900.00     | 5.61       | 326.62               | 3,893.61      | 20.26            | 112.89       | -20.97       | 114.83                     | 349.48                 | 445,069.89         | 561,496.03        |
|        | 4,000.00     | 5.77       | 340.08               | 3,993.12      | 24.61            | 121.70       | -25.37       | 124.32                     | 348.22                 | 445,078.70         | 561,491.63        |
|        | 4,100.00     | 4.71       | 358.28               | 4,092.71      | 26.39            | 130.53       | -27.21       | 133.34                     | 348.23                 | 445,087.53         | 561,489.79        |
|        | 4,200.00     | 2.94       | 26.28                | 4,192.49      | 25.34            | 136.94       | -26.20       | 139.42                     | 349.17                 | 445,093.94         | 561,490.80        |
|        | 4,300.00     | 2.83       | 21.75                | 4,292.36      | 23.26            | 141.53       | -24.15       | 143.57                     | 350.32                 | 445,098.53         | 561,492.85        |
|        | 4,400.00     | 2.54       | 20.48                | 4,392.25      | 21.54            | 145.90       | -22.46       | 147.62                     | 351.25                 | 445,102.90         | 561,494.54        |
|        | 4,500.00     | 3.21       | 22.22                | 4,492.13      | 19.68            | 150.57       | -20.62       | 151.97                     | 352.20                 | 445,107.57         | 561,496.38        |
|        | 4,600.00     | 3.31       | 350.22               | 4,591.97      | 19.07            | 156.00       | -20.05       | 157.29                     | 352.67                 | 445,113.00         | 561,496.95        |



## ProDirectional Survey Report



**Company:** Matador Resources  
**Project:** Eddy County, NM  
**Site:** Brantley State Com  
**Well:** No. 221H  
**Wellbore:** ST01  
**Design:** ST01-12280'-15278', Proj. 15311'

**Local Co-ordinate Reference:**  
**TVD Reference:** Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))  
**MD Reference:** Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** WellPlanner1

Well No. 221H

Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))

Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))

Grid

Minimum Curvature

WellPlanner1

| Survey | MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | V. Sec<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | Closure Distance<br>(usft) | Closure Azimuth<br>(°) | Northing<br>(usft) | Easting<br>(usft) |
|--------|--------------|------------|----------------------|---------------|------------------|---------------|---------------|----------------------------|------------------------|--------------------|-------------------|
|        | 4,700.00     | 3.53       | 353.12               | 4,691.80      | 19.90            | 161.90        | -20.91        | 163.25                     | 352.64                 | 445,118.90         | 561,496.09        |
|        | 4,800.00     | 5.33       | 338.24               | 4,791.50      | 21.94            | 169.27        | -23.00        | 170.83                     | 352.26                 | 445,126.27         | 561,494.00        |
|        | 4,900.00     | 5.02       | 340.71               | 4,891.09      | 25.05            | 177.72        | -26.17        | 179.63                     | 351.62                 | 445,134.72         | 561,490.83        |
|        | 5,000.00     | 4.62       | 334.22               | 4,990.73      | 28.20            | 185.47        | -29.37        | 187.79                     | 351.00                 | 445,142.47         | 561,487.63        |
|        | 5,100.00     | 4.27       | 328.35               | 5,090.43      | 31.86            | 192.27        | -33.07        | 195.09                     | 350.24                 | 445,149.27         | 561,483.93        |
|        | 5,200.00     | 4.13       | 331.90               | 5,190.17      | 35.47            | 198.62        | -36.72        | 201.98                     | 349.52                 | 445,155.62         | 561,480.28        |
|        | 5,300.00     | 3.93       | 334.13               | 5,289.92      | 38.63            | 204.88        | -39.91        | 208.73                     | 348.98                 | 445,161.88         | 561,477.09        |
|        | 5,400.00     | 3.72       | 324.85               | 5,389.70      | 41.95            | 210.61        | -43.28        | 215.01                     | 348.39                 | 445,167.61         | 561,473.72        |
|        | 5,500.00     | 2.74       | 332.86               | 5,489.54      | 44.88            | 215.39        | -46.24        | 220.30                     | 347.88                 | 445,172.39         | 561,470.76        |
|        | 5,600.00     | 2.27       | 353.27               | 5,589.44      | 46.18            | 219.49        | -47.56        | 224.58                     | 347.77                 | 445,176.49         | 561,469.44        |
|        | 5,700.00     | 2.10       | 341.51               | 5,689.37      | 46.97            | 223.19        | -48.37        | 228.37                     | 347.77                 | 445,180.19         | 561,468.63        |
|        | 5,800.00     | 1.55       | 349.84               | 5,789.32      | 47.77            | 226.26        | -49.19        | 231.54                     | 347.73                 | 445,183.26         | 561,467.81        |
|        | 5,900.00     | 1.74       | 332.91               | 5,889.28      | 48.68            | 228.94        | -50.12        | 234.36                     | 347.65                 | 445,185.94         | 561,466.88        |
|        | 6,000.00     | 1.33       | 335.26               | 5,989.24      | 49.84            | 231.35        | -51.30        | 236.97                     | 347.50                 | 445,188.35         | 561,465.70        |
|        | 6,100.00     | 1.33       | 324.26               | 6,089.22      | 50.99            | 233.34        | -52.46        | 239.17                     | 347.33                 | 445,190.34         | 561,464.54        |
|        | 6,200.00     | 0.94       | 298.32               | 6,189.20      | 52.39            | 234.67        | -53.86        | 240.78                     | 347.07                 | 445,191.67         | 561,463.14        |
|        | 6,300.00     | 0.70       | 302.75               | 6,289.19      | 53.62            | 235.39        | -55.10        | 241.76                     | 346.83                 | 445,192.39         | 561,461.90        |
|        | 6,400.00     | 0.35       | 242.63               | 6,389.18      | 54.40            | 235.58        | -55.88        | 242.12                     | 346.66                 | 445,192.58         | 561,461.12        |
|        | 6,500.00     | 0.42       | 220.70               | 6,489.18      | 54.91            | 235.17        | -56.39        | 241.83                     | 346.52                 | 445,192.17         | 561,460.61        |
|        | 6,600.00     | 0.12       | 325.59               | 6,589.18      | 55.21            | 234.97        | -56.69        | 241.72                     | 346.44                 | 445,191.97         | 561,460.31        |
|        | 6,700.00     | 1.46       | 15.58                | 6,689.17      | 54.92            | 236.29        | -56.41        | 242.93                     | 346.57                 | 445,193.29         | 561,460.59        |
|        | 6,800.00     | 1.47       | 15.07                | 6,789.14      | 54.23            | 238.75        | -55.73        | 245.17                     | 346.86                 | 445,195.75         | 561,461.27        |
|        | 6,900.00     | 1.47       | 21.03                | 6,889.10      | 53.42            | 241.19        | -54.94        | 247.37                     | 347.17                 | 445,198.19         | 561,462.06        |
|        | 7,000.00     | 1.39       | 15.57                | 6,989.07      | 52.62            | 243.55        | -54.15        | 249.50                     | 347.46                 | 445,200.55         | 561,462.85        |
|        | 7,100.00     | 1.31       | 13.42                | 7,089.04      | 52.02            | 245.84        | -53.56        | 251.60                     | 347.71                 | 445,202.84         | 561,463.44        |
|        | 7,200.00     | 1.94       | 356.91               | 7,189.00      | 51.82            | 248.64        | -53.39        | 254.30                     | 347.88                 | 445,205.64         | 561,463.61        |
|        | 7,300.00     | 1.93       | 353.71               | 7,288.95      | 52.08            | 252.00        | -53.66        | 257.65                     | 347.98                 | 445,209.00         | 561,463.34        |





# ProDirectional Survey Report



**Company:** Matador Resources  
**Project:** Eddy County, NM  
**Site:** Brantley State Com  
**Well:** No. 221H  
**Wellbore:** ST01  
**Design:** ST01-12280'-15278', Proj. 15311'

**Local Co-ordinate Reference:**  
**TVD Reference:**  
**MD Reference:**  
**North Reference:**  
**Survey Calculation Method:**  
**Database:**

**Well No. 221H**  
**Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))**  
**Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))**  
**Grid**  
**Minimum Curvature**  
**WellPlanner1**

| Survey | MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | V. Sec<br>(usft) | N/S<br>(usft) | EW<br>(usft) | Closure Distance<br>(usft) | Closure Azimuth<br>(°) | Northing<br>(usft) | Easting<br>(usft) |
|--------|--------------|------------|----------------------|---------------|------------------|---------------|--------------|----------------------------|------------------------|--------------------|-------------------|
|        | 7,400.00     | 2.23       | 321.91               | 7,388.88      | 53.44            | 255.21        | -55.05       | 261.08                     | 347.83                 | 445,212.21         | 561,461.95        |
|        | 7,500.00     | 2.15       | 326.78               | 7,488.81      | 55.65            | 258.31        | -57.28       | 264.58                     | 347.50                 | 445,215.31         | 561,459.72        |
|        | 7,600.00     | 1.81       | 341.74               | 7,588.75      | 57.15            | 261.38        | -58.80       | 267.91                     | 347.32                 | 445,218.38         | 561,458.20        |
|        | 7,700.00     | 1.60       | 332.16               | 7,688.71      | 58.28            | 264.11        | -59.95       | 270.83                     | 347.21                 | 445,221.11         | 561,457.05        |
|        | 7,800.00     | 1.31       | 321.73               | 7,788.68      | 59.63            | 266.24        | -61.31       | 273.21                     | 347.03                 | 445,223.24         | 561,455.69        |
|        | 7,900.00     | 0.68       | 285.56               | 7,888.66      | 60.90            | 267.30        | -62.58       | 274.53                     | 346.82                 | 445,224.30         | 561,454.42        |
|        | 8,000.00     | 0.94       | 269.74               | 7,988.65      | 62.29            | 267.45        | -63.98       | 275.00                     | 346.55                 | 445,224.45         | 561,453.02        |
|        | 8,100.00     | 0.80       | 185.35               | 8,088.64      | 63.18            | 266.76        | -64.86       | 274.53                     | 346.33                 | 445,223.76         | 561,452.14        |
|        | 8,200.00     | 1.25       | 187.28               | 8,188.63      | 63.40            | 264.98        | -65.07       | 272.85                     | 346.20                 | 445,221.98         | 561,451.93        |
|        | 8,300.00     | 2.13       | 117.14               | 8,288.59      | 61.90            | 263.05        | -63.55       | 270.62                     | 346.42                 | 445,220.05         | 561,453.45        |
|        | 8,400.00     | 2.34       | 128.72               | 8,388.52      | 58.66            | 260.92        | -60.30       | 267.80                     | 346.99                 | 445,217.92         | 561,456.70        |
|        | 8,500.00     | 2.70       | 129.37               | 8,488.42      | 55.27            | 258.15        | -56.89       | 264.35                     | 347.57                 | 445,215.15         | 561,460.11        |
|        | 8,600.00     | 2.76       | 134.28               | 8,588.31      | 51.74            | 254.98        | -53.35       | 260.50                     | 348.18                 | 445,211.98         | 561,463.65        |
|        | 8,700.00     | 2.26       | 125.04               | 8,688.21      | 48.42            | 252.16        | -50.01       | 257.08                     | 348.78                 | 445,209.16         | 561,466.99        |
|        | 8,800.00     | 1.56       | 123.49               | 8,788.15      | 45.68            | 250.28        | -47.26       | 254.70                     | 349.31                 | 445,207.28         | 561,469.74        |
|        | 8,900.00     | 0.79       | 108.99               | 8,888.13      | 43.90            | 249.31        | -45.47       | 253.42                     | 349.66                 | 445,206.31         | 561,471.53        |
|        | 9,000.00     | 0.56       | 89.97                | 8,988.13      | 42.76            | 249.08        | -44.33       | 253.00                     | 349.91                 | 445,206.08         | 561,472.67        |
|        | 9,100.00     | 0.64       | 91.79                | 9,088.12      | 41.72            | 249.06        | -43.28       | 252.80                     | 350.14                 | 445,206.06         | 561,473.72        |
|        | 9,200.00     | 0.28       | 136.13               | 9,188.12      | 40.99            | 248.87        | -42.56       | 252.48                     | 350.30                 | 445,205.87         | 561,474.44        |
|        | 9,300.00     | 0.68       | 160.76               | 9,288.11      | 40.63            | 248.13        | -42.19       | 251.70                     | 350.35                 | 445,205.13         | 561,474.81        |
|        | 9,400.00     | 1.17       | 149.52               | 9,388.10      | 39.93            | 246.69        | -41.48       | 250.16                     | 350.46                 | 445,203.69         | 561,475.52        |
|        | 9,500.00     | 1.36       | 148.14               | 9,488.08      | 38.79            | 244.81        | -40.33       | 248.11                     | 350.64                 | 445,201.81         | 561,476.67        |
|        | 9,600.00     | 1.35       | 150.07               | 9,588.05      | 37.59            | 242.78        | -39.12       | 245.91                     | 350.85                 | 445,199.78         | 561,477.88        |
|        | 9,660.00     | 0.99       | 176.22               | 9,648.04      | 37.21            | 241.65        | -38.73       | 244.73                     | 350.89                 | 445,198.65         | 561,478.27        |
|        | 9,704.00     | 6.10       | 278.30               | 9,691.95      | 39.50            | 241.61        | -41.02       | 245.06                     | 350.36                 | 445,198.61         | 561,475.98        |
|        | 9,736.00     | 10.00      | 280.70               | 9,723.63      | 43.91            | 242.37        | -45.44       | 246.59                     | 349.38                 | 445,199.37         | 561,471.56        |
|        | 9,768.00     | 13.60      | 281.80               | 9,754.95      | 50.32            | 243.65        | -51.85       | 249.11                     | 347.99                 | 445,200.65         | 561,465.15        |



# ProDirectional Survey Report



**Company:** Matador Resources  
**Project:** Eddy County, NM  
**Site:** Brantley State Cor  
**Well:** No. 221H  
**Wellbore:** ST01  
**Design:** ST01-12280'-15278', Proj. 15311'

**Local Co-ordinate Reference:**  
**TVD Reference:**  
**MD Reference:**  
**North Reference:**  
**Survey Calculation Method:**  
**Database:**

**Well No. 221H**  
**Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))**  
**Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))**  
**Grid**  
**Minimum Curvature**  
**WellPlanner1**

| Survey | MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | V. Sec<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | Closure Distance<br>(usft) | Closure Azimuth<br>(°) | Northing<br>(usft) | Easting<br>(usft) |
|--------|--------------|------------|----------------------|---------------|------------------|---------------|---------------|----------------------------|------------------------|--------------------|-------------------|
|        | 9,799.00     | 17.00      | 281.50               | 9,784.85      | 58.32            | 245.30        | -59.86        | 252.50                     | 346.29                 | 445,202.30         | 561,457.14        |
|        | 9,831.00     | 20.30      | 280.30               | 9,815.16      | 68.36            | 247.23        | -69.91        | 256.92                     | 344.21                 | 445,204.23         | 561,447.09        |
|        | 9,863.00     | 23.80      | 279.50               | 9,844.82      | 80.18            | 249.29        | -81.74        | 262.35                     | 341.85                 | 445,206.29         | 561,435.26        |
|        | 9,895.00     | 28.00      | 278.90               | 9,873.60      | 93.96            | 251.52        | -95.54        | 269.05                     | 339.20                 | 445,208.52         | 561,421.46        |
|        | 9,926.00     | 30.90      | 277.70               | 9,900.59      | 109.02           | 253.71        | -110.62       | 276.78                     | 336.44                 | 445,210.71         | 561,406.38        |
|        | 9,958.00     | 31.30      | 276.00               | 9,927.99      | 125.42           | 255.68        | -127.03       | 285.50                     | 333.58                 | 445,212.68         | 561,389.97        |
|        | 9,990.00     | 32.60      | 272.60               | 9,955.14      | 142.29           | 256.94        | -143.91       | 294.50                     | 330.75                 | 445,213.94         | 561,373.09        |
|        | 10,021.00    | 32.80      | 269.30               | 9,981.23      | 159.03           | 257.22        | -160.65       | 303.26                     | 328.01                 | 445,214.22         | 561,356.35        |
|        | 10,053.00    | 35.00      | 268.20               | 10,007.79     | 176.87           | 256.82        | -178.49       | 312.76                     | 325.20                 | 445,213.82         | 561,338.51        |
|        | 10,085.00    | 38.80      | 267.70               | 10,033.38     | 196.08           | 256.13        | -197.69       | 323.55                     | 322.34                 | 445,213.13         | 561,319.31        |
|        | 10,117.00    | 43.30      | 267.10               | 10,057.50     | 217.07           | 255.17        | -218.68       | 336.05                     | 319.40                 | 445,212.17         | 561,298.32        |
|        | 10,148.00    | 45.50      | 268.10               | 10,079.65     | 238.74           | 254.27        | -240.35       | 349.88                     | 316.61                 | 445,211.27         | 561,276.65        |
|        | 10,195.00    | 47.30      | 269.00               | 10,112.06     | 272.77           | 253.41        | -274.37       | 373.49                     | 312.73                 | 445,210.41         | 561,242.63        |
|        | 10,243.00    | 50.50      | 268.80               | 10,143.61     | 308.93           | 252.71        | -310.53       | 400.37                     | 309.14                 | 445,209.71         | 561,206.47        |
|        | 10,291.00    | 53.00      | 265.90               | 10,173.33     | 346.59           | 250.96        | -348.17       | 429.19                     | 305.78                 | 445,207.96         | 561,168.83        |
|        | 10,339.00    | 56.20      | 264.70               | 10,201.13     | 385.60           | 247.74        | -387.16       | 459.64                     | 302.62                 | 445,204.74         | 561,129.84        |
|        | 10,386.00    | 61.00      | 264.90               | 10,225.61     | 425.56           | 244.11        | -427.10       | 491.94                     | 299.75                 | 445,201.11         | 561,089.90        |
|        | 10,434.00    | 64.90      | 266.00               | 10,247.44     | 468.18           | 240.73        | -469.71       | 527.80                     | 297.14                 | 445,197.73         | 561,047.29        |
|        | 10,481.00    | 69.10      | 266.20               | 10,265.80     | 511.36           | 237.79        | -512.86       | 565.30                     | 294.87                 | 445,194.79         | 561,004.14        |
|        | 10,529.00    | 71.40      | 266.40               | 10,282.02     | 556.45           | 234.87        | -557.94       | 605.36                     | 292.83                 | 445,191.87         | 560,959.06        |
|        | 10,544.00    | 72.40      | 266.70               | 10,286.68     | 570.69           | 234.01        | -572.17       | 618.18                     | 292.24                 | 445,191.01         | 560,944.83        |
|        | 10,649.00    | 81.80      | 268.40               | 10,310.09     | 672.85           | 229.67        | -674.31       | 712.35                     | 288.81                 | 445,186.67         | 560,842.69        |
|        | 10,681.00    | 85.70      | 266.80               | 10,313.58     | 704.64           | 228.34        | -706.08       | 742.09                     | 287.92                 | 445,185.34         | 560,810.92        |
|        | 10,712.00    | 88.00      | 266.70               | 10,315.28     | 735.55           | 226.58        | -736.99       | 771.03                     | 287.09                 | 445,183.58         | 560,780.01        |
|        | 10,744.00    | 88.80      | 267.40               | 10,316.17     | 767.50           | 224.94        | -768.93       | 801.16                     | 286.31                 | 445,181.94         | 560,748.07        |
|        | 10,839.00    | 92.10      | 270.10               | 10,315.43     | 862.47           | 222.86        | -863.88       | 892.17                     | 284.47                 | 445,179.86         | 560,653.12        |
|        | 10,933.00    | 94.00      | 271.80               | 10,310.43     | 956.30           | 224.42        | -957.73       | 983.67                     | 283.19                 | 445,181.42         | 560,559.27        |



# ProDirectional Survey Report



Company: Matador Resources  
Project: Eddy County, NM  
Site: Brantley State Corn  
Well: No. 221H  
Wellbore: ST01  
Design: ST01-12280'-15278', Proj. 15311'

Local Co-ordinate Reference:  
TVD Reference:  
MD Reference:  
North Reference:  
Survey Calculation Method:  
Database:

Well No. 221H  
Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))  
Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))  
Grid  
Minimum Curvature  
WellPlanner1

| Survey                       | MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | V. Sec<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | Closure Distance<br>(usft) | Closure Azimuth<br>(°) | Northing<br>(usft) | Easting<br>(usft) |
|------------------------------|--------------|------------|----------------------|---------------|------------------|---------------|---------------|----------------------------|------------------------|--------------------|-------------------|
|                              | 11,028.00    | 92.70      | 271.90               | 10,304.87     | 1,051.07         | 227.48        | -1,052.52     | 1,076.82                   | 282.20                 | 445,184.48         | 560,484.48        |
|                              | 11,123.00    | 88.00      | 269.30               | 10,304.29     | 1,146.02         | 228.47        | -1,147.47     | 1,170.00                   | 281.26                 | 445,185.47         | 560,368.53        |
|                              | 11,217.00    | 87.00      | 267.10               | 10,308.40     | 1,239.89         | 225.53        | -1,241.33     | 1,261.65                   | 280.30                 | 445,182.53         | 560,275.67        |
|                              | 11,312.00    | 87.70      | 265.40               | 10,312.79     | 1,334.82         | 219.32        | -1,336.02     | 1,353.90                   | 279.32                 | 445,176.32         | 560,180.98        |
|                              | 11,406.00    | 94.10      | 264.70               | 10,311.31     | 1,428.26         | 211.21        | -1,429.61     | 1,445.13                   | 278.40                 | 445,168.21         | 560,087.39        |
|                              | 11,501.00    | 98.00      | 264.50               | 10,301.30     | 1,522.34         | 202.33        | -1,523.64     | 1,537.02                   | 277.56                 | 445,159.33         | 559,993.36        |
|                              | 11,596.00    | 97.60      | 265.60               | 10,288.41     | 1,616.16         | 194.21        | -1,617.41     | 1,629.03                   | 276.85                 | 445,151.21         | 559,899.59        |
|                              | 11,690.00    | 95.40      | 269.40               | 10,277.76     | 1,709.47         | 190.14        | -1,710.70     | 1,721.23                   | 276.34                 | 445,147.14         | 559,806.30        |
|                              | 11,785.00    | 93.80      | 270.20               | 10,270.14     | 1,804.16         | 189.81        | -1,805.39     | 1,815.34                   | 276.00                 | 445,146.81         | 559,711.61        |
|                              | 11,879.00    | 92.10      | 270.70               | 10,265.31     | 1,898.02         | 190.55        | -1,899.25     | 1,908.79                   | 275.73                 | 445,147.55         | 559,617.75        |
|                              | 11,974.00    | 92.00      | 271.50               | 10,261.91     | 1,992.93         | 192.37        | -1,994.18     | 2,003.43                   | 275.51                 | 445,149.37         | 559,522.82        |
|                              | 12,068.00    | 93.40      | 277.00               | 10,257.48     | 2,086.48         | 199.32        | -2,087.77     | 2,097.27                   | 275.45                 | 445,156.32         | 559,429.23        |
|                              | 12,163.00    | 86.90      | 274.80               | 10,257.23     | 2,180.86         | 209.08        | -2,182.21     | 2,192.21                   | 275.47                 | 445,166.08         | 559,334.79        |
|                              | 12,257.00    | 86.50      | 271.70               | 10,262.64     | 2,274.50         | 214.40        | -2,275.90     | 2,285.97                   | 275.38                 | 445,171.40         | 559,241.10        |
|                              | 12,280.00    | 85.00      | 271.50               | 10,264.35     | 2,297.43         | 215.04        | -2,298.82     | 2,308.86                   | 275.34                 | 445,172.04         | 559,218.18        |
| First ST01 Survey: 12280' MD |              |            |                      |               |                  |               |               |                            |                        |                    |                   |
|                              | 12,295.00    | 83.50      | 273.00               | 10,265.85     | 2,312.34         | 215.63        | -2,313.74     | 2,323.76                   | 275.32                 | 445,172.63         | 559,203.26        |
|                              | 12,310.00    | 84.00      | 274.80               | 10,267.48     | 2,327.20         | 216.64        | -2,328.61     | 2,338.67                   | 275.32                 | 445,173.64         | 559,188.39        |
|                              | 12,349.00    | 87.30      | 278.10               | 10,270.44     | 2,365.81         | 221.01        | -2,367.24     | 2,377.54                   | 275.33                 | 445,178.01         | 559,149.76        |
|                              | 12,444.00    | 88.10      | 277.20               | 10,274.25     | 2,459.80         | 233.65        | -2,461.32     | 2,472.38                   | 275.42                 | 445,190.65         | 559,055.68        |
|                              | 12,538.00    | 91.00      | 273.60               | 10,274.99     | 2,553.30         | 242.49        | -2,554.87     | 2,566.36                   | 275.42                 | 445,199.49         | 558,962.13        |
|                              | 12,632.00    | 92.80      | 271.00               | 10,271.87     | 2,647.13         | 246.26        | -2,648.73     | 2,660.16                   | 275.31                 | 445,203.26         | 558,868.27        |
|                              | 12,727.00    | 93.70      | 269.20               | 10,266.49     | 2,741.97         | 246.43        | -2,743.58     | 2,754.62                   | 275.13                 | 445,203.43         | 558,773.42        |
|                              | 12,821.00    | 93.80      | 268.10               | 10,260.34     | 2,835.76         | 244.22        | -2,837.35     | 2,847.84                   | 274.92                 | 445,201.22         | 558,679.65        |
|                              | 12,915.00    | 92.10      | 267.10               | 10,255.50     | 2,929.57         | 240.29        | -2,931.14     | 2,940.97                   | 274.69                 | 445,197.29         | 558,585.86        |
|                              | 13,010.00    | 95.40      | 268.80               | 10,249.29     | 3,024.31         | 236.89        | -3,025.85     | 3,035.11                   | 274.48                 | 445,193.89         | 558,491.15        |
|                              | 13,104.00    | 93.70      | 269.00               | 10,241.83     | 3,118.00         | 235.09        | -3,119.54     | 3,128.38                   | 274.31                 | 445,192.09         | 558,397.46        |



## ProDirectional Survey Report



**Company:** Matador Resources  
**Project:** Eddy County, NM  
**Site:** Brantley State Corn  
**Well:** No. 221H  
**Wellbore:** ST01  
**Design:** ST01-12280'-15278', Proj. 15311'

**Local Co-ordinate Reference:**  
**TVD Reference:** Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))  
**MD Reference:** Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** WellPlanner1

Well No. 221H

Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))

Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))

Grid

Minimum Curvature

WellPlanner1

### Survey

| MD<br>(usft)                                | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | V. Sec<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | Closure Distance<br>(usft) | Closure Azimuth<br>(°) | Northing<br>(usft) | Easting<br>(usft) |
|---|------------|----------------------|---------------|------------------|---------------|---------------|----------------------------|------------------------|--------------------|-------------------|
| 13,199.00                                   | 93.80      | 271.00               | 10,235.62     | 3,212.79         | 235.09        | -3,214.33     | 3,222.92                   | 274.18                 | 445,192.09         | 558,302.67        |
| 13,293.00                                   | 93.20      | 271.40               | 10,229.88     | 3,306.58         | 237.06        | -3,308.13     | 3,316.62                   | 274.10                 | 445,194.06         | 558,208.87        |
| 13,387.00                                   | 91.90      | 270.20               | 10,225.70     | 3,400.46         | 238.37        | -3,402.03     | 3,410.37                   | 274.01                 | 445,195.37         | 558,114.97        |
| 13,482.00                                   | 94.70      | 270.10               | 10,220.23     | 3,495.29         | 238.62        | -3,496.86     | 3,504.99                   | 273.90                 | 445,195.62         | 558,020.14        |
| 13,576.00                                   | 94.20      | 270.90               | 10,212.94     | 3,589.00         | 239.44        | -3,590.57     | 3,598.55                   | 273.82                 | 445,196.44         | 557,926.43        |
| 13,670.00                                   | 92.30      | 272.20               | 10,207.61     | 3,682.79         | 241.98        | -3,684.38     | 3,692.32                   | 273.76                 | 445,198.98         | 557,832.62        |
| 13,765.00                                   | 89.10      | 272.30               | 10,206.45     | 3,777.67         | 245.70        | -3,779.29     | 3,787.27                   | 273.72                 | 445,202.70         | 557,737.71        |
| 13,859.00                                   | 89.60      | 272.90               | 10,207.51     | 3,871.54         | 249.97        | -3,873.18     | 3,881.24                   | 273.69                 | 445,206.97         | 557,643.82        |
| 13,954.00                                   | 91.60      | 271.90               | 10,206.52     | 3,966.42         | 253.95        | -3,968.09     | 3,976.21                   | 273.66                 | 445,210.95         | 557,548.91        |
| 14,048.00                                   | 90.20      | 270.40               | 10,205.04     | 4,060.37         | 255.83        | -4,062.05     | 4,070.10                   | 273.60                 | 445,212.83         | 557,454.95        |
| 14,143.00                                   | 93.10      | 266.70               | 10,202.31     | 4,155.28         | 253.43        | -4,156.96     | 4,164.68                   | 273.49                 | 445,210.43         | 557,360.04        |
| 14,237.00                                   | 90.70      | 267.80               | 10,199.19     | 4,249.14         | 248.93        | -4,250.79     | 4,258.07                   | 273.35                 | 445,205.93         | 557,266.21        |
| 14,332.00                                   | 90.80      | 264.10               | 10,197.95     | 4,343.92         | 242.22        | -4,345.53     | 4,352.27                   | 273.19                 | 445,199.22         | 557,171.47        |
| 14,427.00                                   | 88.80      | 265.40               | 10,198.28     | 4,438.57         | 233.53        | -4,440.12     | 4,446.26                   | 273.01                 | 445,190.53         | 557,076.88        |
| 14,521.00                                   | 92.30      | 263.80               | 10,197.38     | 4,532.18         | 224.68        | -4,533.68     | 4,539.25                   | 272.84                 | 445,181.68         | 556,983.32        |
| 14,616.00                                   | 94.30      | 264.70               | 10,191.91     | 4,626.60         | 215.18        | -4,628.04     | 4,633.04                   | 272.66                 | 445,172.18         | 556,888.96        |
| 14,710.00                                   | 96.80      | 266.90               | 10,182.82     | 4,719.93         | 208.33        | -4,721.34     | 4,725.93                   | 272.53                 | 445,165.33         | 556,795.66        |
| 14,805.00                                   | 97.70      | 269.20               | 10,170.82     | 4,814.13         | 205.12        | -4,815.51     | 4,819.88                   | 272.44                 | 445,162.12         | 556,701.49        |
| 14,900.00                                   | 96.50      | 270.10               | 10,159.08     | 4,908.40         | 204.54        | -4,909.78     | 4,914.04                   | 272.39                 | 445,161.54         | 556,607.22        |
| 14,994.00                                   | 94.40      | 270.90               | 10,150.16     | 5,001.96         | 205.36        | -5,003.35     | 5,007.56                   | 272.35                 | 445,162.36         | 556,513.65        |
| 15,089.00                                   | 94.80      | 271.20               | 10,142.54     | 5,096.62         | 207.10        | -5,098.02     | 5,102.23                   | 272.33                 | 445,164.10         | 556,418.98        |
| 15,183.00                                   | 93.20      | 271.80               | 10,135.98     | 5,190.34         | 209.55        | -5,191.76     | 5,195.99                   | 272.31                 | 445,166.55         | 556,325.24        |
| 15,278.00                                   | 93.73      | 271.72               | 10,133.62     | 5,229.24         | 210.75        | -5,230.67     | 5,234.91                   | 272.31                 | 445,167.75         | 556,230.50        |
| HL Xing: 15222' MD, 10134' TVD<br>15,278.00 | 94.50      | 271.60               | 10,129.60     | 5,285.06         | 212.36        | -5,286.50     | 5,290.77                   | 272.30                 | 445,169.36         | 556,136.33        |
| Last Survey(ST01): 15278' MD, 10130' TVD    |            |                      |               |                  |               |               |                            |                        |                    |                   |



# ProDirectional Survey Report



**Company:** Matador Resources  
**Project:** Eddy County, NM  
**Site:** Brantley State Corn  
**Well:** No. 221H  
**Wellbore:** ST01  
**Design:** ST01-12280'-15278', Proj. 15311'

**Local Co-ordinate Reference:**  
**TVD Reference:** Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))  
**MD Reference:** Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** WellPlanner1

Well No. 221H

Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))  
Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))

Grid

Minimum Curvature

WellPlanner1

## Survey

| MD<br>(usft)               | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | V. Sec<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | Closure Distance<br>(usft) | Closure Azimuth<br>(°) | Northing<br>(usft) | Easting<br>(usft) |
|----------------------------|------------|----------------------|---------------|------------------|---------------|---------------|----------------------------|------------------------|--------------------|-------------------|
| 15,311.00                  | 94.50      | 271.60               | 10,127.01     | 5,317.94         | 213.28        | -5,319.39     | 5,323.66                   | 272.30                 | 445,170.28         | 556,197.61        |
| PTB: 15311' MD, 10127' TVD |            |                      |               |                  |               |               |                            |                        |                    |                   |

## Design Annotations

| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates |                 | Comment   |
|-----------------------------|-----------------------------|-------------------|-----------------|---|
|                             |                             | +N/-S<br>(usft)   | +E/-W<br>(usft) |   |
| 12,280.00                   | 10,264.35                   | 215.04            | -2,298.82       | First ST01 Survey: 12280' MD<br>HL X'ing: 15222' MD, 10134' TVD<br>Last Survey(ST01): 15278' MD, 10130' TVD<br>PTB: 15311' MD, 10127' TVD |
| 15,222.00                   | 10,133.62                   | 210.75            | -5,230.67       |   |
| 15,278.00                   | 10,129.60                   | 212.36            | -5,286.50       |   |
| 15,311.00                   | 10,127.01                   | 213.28            | -5,319.39       |   |