



**Marlan Downey St. 04 09 23S 35E #113H**  
**Lea County, NM**

**November 20, 2019**

*30-085-46254*

**Job No. LNM5534019**

**ORIGINAL**

## **Survey Completion Report**



**PRODIRECTIONAL**

## *Survey Certification Letter*

November 20, 2019



Operator Name: Matador Resources  
Well Name: Marian Downey State 04 09 23S 35E No. 113H  
County/Parish: Lea County,  
State: NM  
Rig Name: Patterson 274  
Job Number: LNM5534019

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>Dates Performed</u> | <u>Type of Survey</u> |
|-----------------|------------------------|------------------------|-----------------------|
| ProDirectional  | 168' MD – 15,900' MD   | 10/13/19 – 10/29/19    | MWD                   |

Sincerely,

Mike Coats  
Regulatory Specialist  
Professional Directional

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

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



## **Matador Resources**

**Lea County, NM (NAD83)**

**Marlan Downey State 04 09 23S 35E**

**No. 113H**

**OH**

**Survey: ProDirectional**

## **Survey Report**

**20 November, 2019**





# ProDirectional Survey Report



|           |                                   |                              |                    |
|-----------|-----------------------------------|------------------------------|--------------------|
| Company:  | Matador Resources                 | Local Co-ordinate Reference: | Well No. 113H      |
| Project:  | Lea County, NM (NAD83)            | TVD Reference:               | Well @ 3570.50usft |
| Site:     | Marlan Downey State 04 09 23S 35E | MD Reference:                | Well @ 3570.50usft |
| Well:     | No. 113H                          | North Reference:             | Grid               |
| Wellbore: | OH                                | Survey Calculation Method:   | Minimum Curvature  |
| Design:   | MWD                               | Database:                    | WellPlanner1       |

|             |                           |               |                |
|-------------|---------------------------|---------------|----------------|
| Project     | Lea County, NM (NAD83)    |               |                |
| Map System: | US State Plane 1983       | System Datum: | Mean Sea Level |
| Geo Datum:  | North American Datum 1983 |               |                |
| Map Zone:   | New Mexico Eastern Zone   |               |                |

|                       |                                   |                   |                 |
|-----------------------|-----------------------------------|-------------------|-----------------|
| Site                  | Marlan Downey State 04 09 23S 35E |                   |                 |
| Site Position:        |                                   | Northing:         | 486,233.00 usft |
| From:                 | Map                               | Easting:          | 839,765.00 usft |
| Position Uncertainty: | 0.00 usft                         | Slot Radius:      | 13-3/16 "       |
|                       |                                   | Latitude:         | 32.3330265      |
|                       |                                   | Longitude:        | -103.3671380    |
|                       |                                   | Grid Convergence: | 0.52 °          |

|                      |                      |           |                     |                 |               |               |
|----------------------|----------------------|-----------|---------------------|-----------------|---------------|---------------|
| Well                 | No. 113H, LNM5534019 |           |                     |                 |               |               |
| Well Position        | +N/-S                | 0.00 usft | Northing:           | 486,203.00 usft | Latitude:     | 32.3329441    |
|                      | +E/-W                | 0.00 usft | Easting:            | 839,765.00 usft | Longitude:    | -103.3671389  |
| Position Uncertainty | 0.00 usft            |           | Wellhead Elevation: | usft            | Ground Level: | 3,542.00 usft |

|           |            |             |                    |                  |                        |
|-----------|------------|-------------|--------------------|------------------|------------------------|
| Wellbore  | OH         |             |                    |                  |                        |
|           |            |             |                    |                  |                        |
| Magnetics | Model Name | Sample Date | Declination<br>(°) | Dip Angle<br>(°) | Field Strength<br>(nT) |
|           | HDGM       | 9/20/2019   | 6.63               | 60.10            | 47,977.40              |

|                   |                            |                 |                 |                    |
|-------------------|----------------------------|-----------------|-----------------|--------------------|
| Design            |                            | MWD             |                 |                    |
| Audit Notes:      |                            |                 |                 |                    |
| Version:          | 1.0                        | Phase:          | ACTUAL          | Tie On Depth: 0.00 |
| Vertical Section: | Depth From (TVD)<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Direction<br>(°)   |
|                   | 0.00                       | 0.00            | 0.00            | 179.52             |

| Survey Program |              | Date 11/20/2019   |           |                 |
|----------------|--------------|-------------------|-----------|-----------------|
| From<br>(usft) | To<br>(usft) | Survey (Wellbore) | Tool Name | Description     |
| 168.00         | 15,900.00    | Survey #1 (OH)    | MWD+HDGM  | OWSG MWD + HRGM |



ProDirectional  
Survey Report



Company: Matador Resources  
Project: Lea County, NM (NAD83)  
Site: Marlan Downey State 04 09 23S 35E  
Well: No. 113H  
Wellbore: OH  
Design: MWD

Local Co-ordinate Reference:  
TVD Reference: Well No. 113H  
MD Reference: Well @ 3570.50usft  
North Reference: Well @ 3570.50usft  
Survey Calculation Method: Grid  
Database: 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) |
|-------------------------------|------------|----------------------|---------------|------------------|---------------|---------------|----------------------------|------------------------|--------------------|-------------------|
| 0.00                          | 0.00       | 0.00                 | 0.00          | 0.00             | 0.00          | 0.00          | 0.00                       | 0.00                   | 486,203.00         | 839,765.00        |
| 168.00                        | 0.80       | 282.30               | 167.99        | -0.26            | 0.25          | -1.15         | 1.17                       | 282.30                 | 486,203.25         | 839,763.85        |
| Pro MWD First Survey: 168' MD |            |                      |               |                  |               |               |                            |                        |                    |                   |
| 231.00                        | 1.50       | 281.90               | 230.98        | -0.53            | 0.51          | -2.38         | 2.44                       | 282.16                 | 486,203.51         | 839,762.62        |
| 323.00                        | 1.10       | 267.40               | 322.96        | -0.76            | 0.72          | -4.44         | 4.50                       | 279.23                 | 486,203.72         | 839,760.56        |
| 413.00                        | 1.00       | 257.30               | 412.94        | -0.56            | 0.51          | -6.07         | 6.09                       | 274.80                 | 486,203.51         | 839,758.93        |
| 505.00                        | 2.00       | 265.00               | 504.91        | -0.26            | 0.19          | -8.45         | 8.46                       | 271.31                 | 486,203.19         | 839,756.55        |
| 596.00                        | 2.80       | 264.70               | 595.83        | 0.05             | -0.15         | -12.25        | 12.25                      | 269.30                 | 486,202.85         | 839,752.75        |
| 687.00                        | 4.70       | 265.80               | 686.63        | 0.48             | -0.63         | -18.18        | 18.19                      | 268.02                 | 486,202.37         | 839,746.82        |
| 780.00                        | 5.70       | 263.50               | 779.25        | 1.21             | -1.43         | -26.57        | 26.61                      | 266.92                 | 486,201.57         | 839,738.43        |
| 874.00                        | 5.50       | 270.10               | 872.80        | 1.65             | -1.95         | -35.71        | 35.77                      | 266.87                 | 486,201.05         | 839,729.29        |
| 965.00                        | 5.70       | 274.30               | 963.37        | 1.23             | -1.60         | -44.58        | 44.61                      | 267.94                 | 486,201.40         | 839,720.42        |
| 1,057.00                      | 6.90       | 276.20               | 1,054.81      | 0.21             | -0.67         | -54.63        | 54.63                      | 269.30                 | 486,202.33         | 839,710.37        |
| 1,149.00                      | 7.60       | 279.40               | 1,146.07      | -1.48            | 0.93          | -66.13        | 66.13                      | 270.80                 | 486,203.93         | 839,698.87        |
| 1,244.00                      | 6.90       | 282.30               | 1,240.31      | -3.82            | 3.17          | -77.90        | 77.96                      | 272.33                 | 486,206.17         | 839,687.10        |
| 1,339.00                      | 7.20       | 289.70               | 1,334.60      | -7.14            | 6.39          | -89.08        | 89.31                      | 274.10                 | 486,209.39         | 839,675.92        |
| 1,434.00                      | 7.30       | 287.70               | 1,428.84      | -11.07           | 10.23         | -100.44       | 100.96                     | 275.82                 | 486,213.23         | 839,664.56        |
| 1,514.00                      | 6.40       | 292.60               | 1,508.27      | -14.41           | 13.49         | -109.39       | 110.22                     | 277.03                 | 486,216.49         | 839,655.61        |
| 1,609.00                      | 6.60       | 297.00               | 1,602.66      | -19.00           | 18.00         | -119.15       | 120.50                     | 278.59                 | 486,221.00         | 839,645.85        |
| 1,701.00                      | 6.20       | 300.70               | 1,694.08      | -24.01           | 22.94         | -128.13       | 130.17                     | 280.15                 | 486,225.94         | 839,636.87        |
| 1,796.00                      | 5.10       | 302.50               | 1,788.62      | -28.97           | 27.83         | -136.10       | 138.92                     | 281.56                 | 486,230.83         | 839,628.90        |
| 1,891.00                      | 5.20       | 293.30               | 1,883.24      | -33.00           | 31.80         | -143.62       | 147.10                     | 282.49                 | 486,234.80         | 839,621.38        |
| 1,903.00                      | 5.30       | 298.00               | 1,895.19      | -33.49           | 32.28         | -144.61       | 148.16                     | 282.58                 | 486,235.28         | 839,620.39        |
| 2,035.00                      | 6.30       | 293.00               | 2,026.51      | -39.28           | 37.97         | -156.66       | 161.19                     | 283.62                 | 486,240.97         | 839,608.34        |
| 2,066.00                      | 6.30       | 291.30               | 2,057.32      | -40.59           | 39.25         | -159.81       | 164.56                     | 283.80                 | 486,242.25         | 839,605.19        |
| 2,161.00                      | 8.20       | 280.50               | 2,151.56      | -43.81           | 42.38         | -171.33       | 176.49                     | 283.89                 | 486,245.38         | 839,593.67        |
| 2,256.00                      | 9.50       | 277.50               | 2,245.43      | -46.19           | 44.64         | -185.76       | 191.05                     | 283.51                 | 486,247.64         | 839,579.24        |



# ProDirectional Survey Report



Company: Matador Resources  
Project: Lea County, NM (NAD83)  
Site: Marlan Downey State 04 09 23S 35E  
Well: No. 113H  
Wellbore: OH  
Design: MWD

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

Well No. 113H  
Well @ 3570.50usft  
Well @ 3570.50usft  
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) |
|--------------|------------|----------------------|---------------|------------------|---------------|---------------|----------------------------|------------------------|--------------------|-------------------|
| 2,351.00     | 10.40      | 276.70               | 2,339.00      | -48.35           | 46.66         | -202.05       | 207.37                     | 283.00                 | 486,249.66         | 839,562.95        |
| 2,446.00     | 9.80       | 274.70               | 2,432.53      | -50.15           | 48.32         | -218.62       | 223.90                     | 282.46                 | 486,251.32         | 839,546.38        |
| 2,541.00     | 9.30       | 273.00               | 2,526.21      | -51.35           | 49.39         | -234.35       | 239.50                     | 281.90                 | 486,252.39         | 839,530.65        |
| 2,636.00     | 9.20       | 273.50               | 2,619.98      | -52.34           | 50.25         | -249.59       | 254.60                     | 281.38                 | 486,253.25         | 839,515.41        |
| 2,731.00     | 8.80       | 273.90               | 2,713.81      | -53.42           | 51.21         | -264.42       | 269.34                     | 280.96                 | 486,254.21         | 839,500.58        |
| 2,827.00     | 10.20      | 274.30               | 2,808.49      | -54.69           | 52.35         | -280.23       | 285.07                     | 280.58                 | 486,255.35         | 839,484.77        |
| 2,922.00     | 11.50      | 275.80               | 2,901.79      | -56.43           | 53.94         | -298.04       | 302.88                     | 280.26                 | 486,256.94         | 839,466.96        |
| 3,017.00     | 11.30      | 276.70               | 2,994.91      | -58.63           | 55.98         | -316.70       | 321.61                     | 280.02                 | 486,258.98         | 839,448.30        |
| 3,112.00     | 10.90      | 277.40               | 3,088.14      | -61.02           | 58.22         | -334.85       | 339.88                     | 279.86                 | 486,261.22         | 839,430.15        |
| 3,208.00     | 10.40      | 277.30               | 3,182.48      | -63.44           | 60.49         | -352.45       | 357.60                     | 279.74                 | 486,263.49         | 839,412.55        |
| 3,303.00     | 10.10      | 277.20               | 3,275.97      | -65.72           | 62.62         | -369.22       | 374.49                     | 279.63                 | 486,265.62         | 839,395.78        |
| 3,398.00     | 9.70       | 277.70               | 3,369.55      | -67.97           | 64.74         | -385.41       | 390.81                     | 279.54                 | 486,267.74         | 839,379.59        |
| 3,493.00     | 9.10       | 278.40               | 3,463.28      | -70.27           | 66.91         | -400.78       | 406.32                     | 279.48                 | 486,269.91         | 839,364.22        |
| 3,588.00     | 8.70       | 279.00               | 3,557.13      | -72.61           | 69.13         | -415.31       | 421.02                     | 279.45                 | 486,272.13         | 839,349.69        |
| 3,683.00     | 9.80       | 279.90               | 3,650.90      | -75.25           | 71.65         | -430.37       | 436.29                     | 279.45                 | 486,274.65         | 839,334.63        |
| 3,778.00     | 11.10      | 282.90               | 3,744.32      | -78.82           | 75.08         | -447.25       | 453.50                     | 279.53                 | 486,278.08         | 839,317.75        |
| 3,874.00     | 10.30      | 284.40               | 3,838.65      | -83.16           | 79.28         | -464.57       | 471.28                     | 279.68                 | 486,282.28         | 839,300.43        |
| 3,968.00     | 9.80       | 286.50               | 3,931.21      | -87.66           | 83.64         | -480.38       | 487.60                     | 279.88                 | 486,286.64         | 839,284.62        |
| 4,063.00     | 10.30      | 284.90               | 4,024.75      | -92.27           | 88.12         | -496.34       | 504.10                     | 280.07                 | 486,291.12         | 839,268.66        |
| 4,158.00     | 10.70      | 284.20               | 4,118.16      | -96.76           | 92.46         | -513.10       | 521.36                     | 280.22                 | 486,295.46         | 839,251.90        |
| 4,254.00     | 9.80       | 286.10               | 4,212.62      | -101.35          | 96.92         | -529.58       | 538.38                     | 280.37                 | 486,299.92         | 839,235.42        |
| 4,349.00     | 8.60       | 285.70               | 4,306.40      | -105.64          | 101.08        | -544.19       | 553.50                     | 280.52                 | 486,304.08         | 839,220.81        |
| 4,444.00     | 8.00       | 286.90               | 4,400.41      | -109.59          | 104.92        | -557.35       | 567.14                     | 280.66                 | 486,307.92         | 839,207.65        |
| 4,540.00     | 8.70       | 284.90               | 4,495.39      | -113.51          | 108.73        | -570.76       | 581.03                     | 280.79                 | 486,311.73         | 839,194.24        |
| 4,634.00     | 9.10       | 283.50               | 4,588.26      | -117.19          | 112.30        | -584.86       | 595.54                     | 280.87                 | 486,315.30         | 839,180.14        |
| 4,729.00     | 8.30       | 285.90               | 4,682.16      | -120.94          | 115.93        | -598.76       | 609.88                     | 280.96                 | 486,318.93         | 839,166.24        |
| 4,824.00     | 7.40       | 286.80               | 4,776.27      | -124.69          | 119.58        | -611.21       | 622.80                     | 281.07                 | 486,322.58         | 839,153.79        |



# ProDirectional Survey Report



Company: Matador Resources  
Project: Lea County, NM (NAD83)  
Site: Marlan Downey State 04 09 23S 35E  
Well: No. 113H  
Wellbore: OH  
Design: MWD

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

Well No. 113H  
Well @ 3570.50usft  
Well @ 3570.50usft  
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) |
|--------------|------------|----------------------|---------------|------------------|---------------|---------------|----------------------------|------------------------|--------------------|-------------------|
| 4,919.00     | 6.70       | 287.90               | 4,870.55      | -128.26          | 123.05        | -622.34       | 634.39                     | 281.18                 | 486,326.05         | 839,142.66        |
| 5,014.00     | 6.10       | 288.70               | 4,964.96      | -131.66          | 126.37        | -632.40       | 644.90                     | 281.30                 | 486,329.37         | 839,132.60        |
| 5,109.00     | 5.60       | 287.60               | 5,059.46      | -134.76          | 129.39        | -641.60       | 654.51                     | 281.40                 | 486,332.39         | 839,123.40        |
| 5,204.00     | 6.60       | 276.80               | 5,153.93      | -136.89          | 131.44        | -651.44       | 664.56                     | 281.41                 | 486,334.44         | 839,113.56        |
| 5,298.00     | 8.00       | 272.30               | 5,247.16      | -137.89          | 132.34        | -663.34       | 676.41                     | 281.28                 | 486,335.34         | 839,101.66        |
| 5,394.00     | 7.60       | 274.20               | 5,342.28      | -138.73          | 133.07        | -676.34       | 689.31                     | 281.13                 | 486,336.07         | 839,088.66        |
| 5,489.00     | 7.20       | 274.90               | 5,436.49      | -139.80          | 134.04        | -688.54       | 701.47                     | 281.02                 | 486,337.04         | 839,076.46        |
| 5,584.00     | 6.60       | 277.20               | 5,530.80      | -141.09          | 135.23        | -699.89       | 712.83                     | 280.94                 | 486,338.23         | 839,065.11        |
| 5,679.00     | 6.20       | 277.60               | 5,625.20      | -142.54          | 136.60        | -710.39       | 723.40                     | 280.88                 | 486,339.60         | 839,054.61        |
| 5,774.00     | 5.70       | 279.20               | 5,719.69      | -144.06          | 138.03        | -720.13       | 733.24                     | 280.85                 | 486,341.03         | 839,044.87        |
| 5,869.00     | 5.10       | 280.60               | 5,814.27      | -145.66          | 139.56        | -728.94       | 742.18                     | 280.84                 | 486,342.56         | 839,036.06        |
| 5,963.00     | 4.50       | 279.80               | 5,907.94      | -147.12          | 140.96        | -736.68       | 750.04                     | 280.83                 | 486,343.96         | 839,028.32        |
| 6,065.00     | 3.60       | 276.10               | 6,009.69      | -148.20          | 141.98        | -743.81       | 757.24                     | 280.81                 | 486,344.98         | 839,021.19        |
| 6,160.00     | 6.00       | 271.40               | 6,104.35      | -148.71          | 142.42        | -751.74       | 765.11                     | 280.73                 | 486,345.42         | 839,013.26        |
| 6,256.00     | 6.80       | 267.40               | 6,199.75      | -148.66          | 142.28        | -762.43       | 775.59                     | 280.57                 | 486,345.28         | 839,002.57        |
| 6,351.00     | 8.80       | 267.80               | 6,293.86      | -148.24          | 141.75        | -775.31       | 788.16                     | 280.36                 | 486,344.75         | 838,989.69        |
| 6,446.00     | 8.40       | 266.80               | 6,387.79      | -147.69          | 141.08        | -789.50       | 802.01                     | 280.13                 | 486,344.08         | 838,975.50        |
| 6,541.00     | 10.30      | 270.00               | 6,481.53      | -147.43          | 140.69        | -804.93       | 817.13                     | 279.91                 | 486,343.69         | 838,960.07        |
| 6,636.00     | 11.30      | 268.90               | 6,574.85      | -147.40          | 140.51        | -822.72       | 834.64                     | 279.69                 | 486,343.51         | 838,942.28        |
| 6,731.00     | 11.30      | 269.90               | 6,668.00      | -147.36          | 140.32        | -841.34       | 852.96                     | 279.47                 | 486,343.32         | 838,923.66        |
| 6,827.00     | 10.60      | 270.40               | 6,762.26      | -147.56          | 140.37        | -859.57       | 870.96                     | 279.27                 | 486,343.37         | 838,905.43        |
| 6,922.00     | 9.30       | 269.70               | 6,855.82      | -147.72          | 140.39        | -875.99       | 887.17                     | 279.10                 | 486,343.39         | 838,889.01        |
| 7,016.00     | 9.10       | 270.30               | 6,948.62      | -147.84          | 140.39        | -891.02       | 902.01                     | 278.95                 | 486,343.39         | 838,873.98        |
| 7,111.00     | 8.70       | 270.10               | 7,042.47      | -148.02          | 140.44        | -905.71       | 916.54                     | 278.81                 | 486,343.44         | 838,859.29        |
| 7,206.00     | 8.30       | 270.50               | 7,136.43      | -148.21          | 140.51        | -919.75       | 930.43                     | 278.69                 | 486,343.51         | 838,845.25        |
| 7,301.00     | 8.30       | 268.70               | 7,230.43      | -148.23          | 140.41        | -933.47       | 943.97                     | 278.55                 | 486,343.41         | 838,831.53        |
| 7,396.00     | 7.90       | 269.40               | 7,324.48      | -148.12          | 140.19        | -946.85       | 957.17                     | 278.42                 | 486,343.19         | 838,818.15        |



ProDirectional  
Survey Report



Company: Matador Resources  
Project: Lea County, NM (NAD83)  
Site: Marlan Downey State 04 09 23S 35E  
Well: No. 113H  
Wellbore: OH  
Design: MWD

Local Co-ordinate Reference:  
TVD Reference: Well No. 113H  
MD Reference: Well @ 3570.50usft  
North Reference: Well @ 3570.50usft  
Survey Calculation Method: Grid  
Database: 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) |
|--------------|------------|----------------------|---------------|------------------|---------------|---------------|----------------------------|------------------------|--------------------|-------------------|
| 7,491.00     | 8.20       | 270.50               | 7,418.55      | -148.22          | 140.18        | -960.15       | 970.33                     | 278.31                 | 486,343.18         | 838,804.85        |
| 7,586.00     | 9.40       | 270.90               | 7,512.43      | -148.52          | 140.36        | -974.69       | 984.74                     | 278.19                 | 486,343.36         | 838,790.31        |
| 7,682.00     | 8.60       | 268.30               | 7,607.25      | -148.56          | 140.27        | -989.70       | 999.59                     | 278.07                 | 486,343.27         | 838,775.30        |
| 7,777.00     | 8.70       | 275.00               | 7,701.17      | -149.09          | 140.69        | -1,003.96     | 1,013.77                   | 277.98                 | 486,343.69         | 838,761.04        |
| 7,872.00     | 9.80       | 286.50               | 7,794.94      | -152.14          | 143.61        | -1,018.87     | 1,028.94                   | 278.02                 | 486,346.61         | 838,746.13        |
| 7,967.00     | 9.60       | 287.40               | 7,888.58      | -156.93          | 148.28        | -1,034.18     | 1,044.75                   | 278.16                 | 486,351.28         | 838,730.82        |
| 8,060.00     | 8.10       | 290.00               | 7,980.47      | -161.61          | 152.84        | -1,047.74     | 1,058.82                   | 278.30                 | 486,355.84         | 838,717.26        |
| 8,155.00     | 6.90       | 291.50               | 8,074.66      | -166.08          | 157.22        | -1,059.34     | 1,070.94                   | 278.44                 | 486,360.22         | 838,705.66        |
| 8,250.00     | 7.20       | 275.30               | 8,168.95      | -168.82          | 159.86        | -1,070.57     | 1,082.44                   | 278.49                 | 486,362.86         | 838,694.43        |
| 8,346.00     | 6.60       | 271.20               | 8,264.25      | -169.59          | 160.53        | -1,082.08     | 1,093.92                   | 278.44                 | 486,363.53         | 838,682.92        |
| 8,441.00     | 7.20       | 280.30               | 8,358.57      | -170.86          | 161.71        | -1,093.40     | 1,105.29                   | 278.41                 | 486,364.71         | 838,671.60        |
| 8,536.00     | 6.70       | 280.90               | 8,452.87      | -173.07          | 163.82        | -1,104.70     | 1,116.78                   | 278.44                 | 486,366.82         | 838,660.30        |
| 8,631.00     | 5.60       | 281.30               | 8,547.32      | -175.11          | 165.78        | -1,114.68     | 1,126.94                   | 278.46                 | 486,368.78         | 838,650.32        |
| 8,726.00     | 6.50       | 275.90               | 8,641.79      | -176.65          | 167.24        | -1,124.58     | 1,136.94                   | 278.46                 | 486,370.24         | 838,640.42        |
| 8,821.00     | 6.00       | 273.50               | 8,736.23      | -177.59          | 168.09        | -1,134.88     | 1,147.26                   | 278.43                 | 486,371.09         | 838,630.12        |
| 8,916.00     | 4.70       | 271.50               | 8,830.81      | -178.07          | 168.50        | -1,143.73     | 1,156.07                   | 278.38                 | 486,371.50         | 838,621.27        |
| 9,011.00     | 3.40       | 267.50               | 8,925.57      | -178.11          | 168.48        | -1,150.43     | 1,162.71                   | 278.33                 | 486,371.48         | 838,614.57        |
| 9,107.00     | 3.10       | 257.10               | 9,021.42      | -177.45          | 167.77        | -1,155.81     | 1,167.92                   | 278.26                 | 486,370.77         | 838,609.19        |
| 9,202.00     | 2.90       | 245.30               | 9,116.29      | -175.91          | 166.20        | -1,160.50     | 1,172.34                   | 278.15                 | 486,369.20         | 838,604.50        |
| 9,311.00     | 3.30       | 215.20               | 9,225.14      | -172.23          | 162.48        | -1,164.81     | 1,176.09                   | 277.94                 | 486,365.48         | 838,600.19        |
| 9,406.00     | 14.20      | 206.90               | 9,318.89      | -159.63          | 149.82        | -1,171.68     | 1,181.22                   | 277.29                 | 486,352.82         | 838,593.32        |
| 9,501.00     | 24.50      | 200.90               | 9,408.41      | -130.86          | 120.94        | -1,184.01     | 1,190.17                   | 275.83                 | 486,323.94         | 838,580.99        |
| 9,596.00     | 33.90      | 198.80               | 9,491.25      | -87.41           | 77.36         | -1,199.61     | 1,202.10                   | 273.69                 | 486,280.36         | 838,565.39        |
| 9,691.00     | 40.40      | 195.90               | 9,566.94      | -32.80           | 22.61         | -1,216.60     | 1,216.81                   | 271.06                 | 486,225.61         | 838,548.40        |
| 9,786.00     | 41.90      | 190.60               | 9,638.49      | 27.89            | -38.20        | -1,230.88     | 1,231.47                   | 268.22                 | 486,164.80         | 838,534.12        |
| 9,882.00     | 49.60      | 184.10               | 9,705.46      | 95.92            | -106.31       | -1,239.41     | 1,243.96                   | 265.10                 | 486,096.69         | 838,525.59        |
| 9,977.00     | 62.90      | 179.90               | 9,758.14      | 174.64           | -185.05       | -1,241.93     | 1,255.64                   | 261.53                 | 486,017.95         | 838,523.07        |





ProDirectional  
Survey Report



Company: Matador Resources  
Project: Lea County, NM (NAD83)  
Site: Marlan Downey State 04 09 23S 35E  
Well: No. 113H  
Wellbore: OH  
Design: MWD

Local Go-ordinate Reference:  
TVD Reference: Well @ 3570.50usft  
MD Reference: Well @ 3570.50usft  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: 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) |
|--------------|------------|----------------------|---------------|------------------|---------------|--------------|----------------------------|------------------------|--------------------|-------------------|
| 10,072.00    | 72.10      | 177.90               | 9,794.46      | 262.30           | -272.70       | -1,240.20    | 1,269.82                   | 257.60                 | 485,930.30         | 838,524.80        |
| 10,166.00    | 81.90      | 179.60               | 9,815.58      | 353.77           | -364.16       | -1,238.23    | 1,290.67                   | 253.61                 | 485,838.84         | 838,526.77        |
| 10,261.00    | 88.60      | 183.30               | 9,823.45      | 448.32           | -458.73       | -1,240.64    | 1,322.73                   | 249.71                 | 485,744.27         | 838,524.36        |
| 10,356.00    | 90.50      | 183.30               | 9,824.19      | 543.11           | -553.57       | -1,246.10    | 1,363.53                   | 246.05                 | 485,649.43         | 838,518.90        |
| 10,457.00    | 92.00      | 183.00               | 9,821.99      | 643.88           | -654.39       | -1,251.65    | 1,412.39                   | 242.40                 | 485,548.61         | 838,513.35        |
| 10,552.00    | 90.50      | 182.80               | 9,819.92      | 738.69           | -749.24       | -1,256.46    | 1,462.89                   | 239.19                 | 485,453.76         | 838,508.54        |
| 10,648.00    | 90.90      | 182.50               | 9,818.74      | 834.54           | -845.13       | -1,260.90    | 1,517.93                   | 236.17                 | 485,357.87         | 838,504.10        |
| 10,742.00    | 90.10      | 182.00               | 9,817.92      | 928.42           | -939.05       | -1,264.59    | 1,575.12                   | 233.40                 | 485,263.95         | 838,500.41        |
| 10,838.00    | 89.50      | 181.40               | 9,818.26      | 1,024.35         | -1,035.01     | -1,267.43    | 1,636.35                   | 230.76                 | 485,167.99         | 838,497.57        |
| 10,933.00    | 89.80      | 181.50               | 9,818.84      | 1,119.30         | -1,129.98     | -1,269.84    | 1,699.80                   | 228.34                 | 485,073.02         | 838,495.16        |
| 11,028.00    | 88.40      | 179.70               | 9,820.33      | 1,214.26         | -1,224.95     | -1,270.83    | 1,765.09                   | 226.05                 | 484,978.05         | 838,494.17        |
| 11,123.00    | 88.40      | 178.40               | 9,822.98      | 1,309.22         | -1,319.90     | -1,269.26    | 1,831.16                   | 223.88                 | 484,883.10         | 838,495.74        |
| 11,218.00    | 89.40      | 179.00               | 9,824.81      | 1,404.19         | -1,414.86     | -1,267.10    | 1,899.31                   | 221.85                 | 484,788.14         | 838,497.90        |
| 11,313.00    | 90.10      | 179.20               | 9,825.22      | 1,499.19         | -1,509.84     | -1,265.61    | 1,970.13                   | 219.97                 | 484,693.16         | 838,499.39        |
| 11,408.00    | 90.50      | 180.10               | 9,824.72      | 1,594.19         | -1,604.84     | -1,265.03    | 2,043.48                   | 218.25                 | 484,598.16         | 838,499.97        |
| 11,503.00    | 88.00      | 180.80               | 9,825.97      | 1,689.16         | -1,699.82     | -1,265.78    | 2,119.33                   | 216.67                 | 484,503.18         | 838,499.22        |
| 11,598.00    | 87.60      | 180.90               | 9,829.61      | 1,784.06         | -1,794.74     | -1,267.19    | 2,197.01                   | 215.22                 | 484,408.26         | 838,497.81        |
| 11,693.00    | 88.00      | 181.20               | 9,833.26      | 1,878.96         | -1,889.65     | -1,268.93    | 2,276.17                   | 213.88                 | 484,313.35         | 838,496.07        |
| 11,788.00    | 88.40      | 181.20               | 9,836.25      | 1,973.87         | -1,984.59     | -1,270.91    | 2,356.65                   | 212.64                 | 484,218.41         | 838,494.09        |
| 11,884.00    | 89.30      | 181.50               | 9,838.17      | 2,069.80         | -2,080.54     | -1,273.17    | 2,439.18                   | 211.46                 | 484,122.46         | 838,491.83        |
| 11,979.00    | 88.60      | 180.70               | 9,839.91      | 2,164.75         | -2,175.50     | -1,275.00    | 2,521.59                   | 210.37                 | 484,027.50         | 838,490.00        |
| 12,074.00    | 89.50      | 179.70               | 9,841.49      | 2,259.72         | -2,270.49     | -1,275.33    | 2,604.15                   | 209.32                 | 483,932.51         | 838,489.67        |
| 12,170.00    | 90.50      | 180.30               | 9,841.49      | 2,355.72         | -2,366.49     | -1,275.33    | 2,688.26                   | 208.32                 | 483,836.51         | 838,489.67        |
| 12,265.00    | 89.30      | 178.80               | 9,841.65      | 2,450.71         | -2,461.48     | -1,274.58    | 2,771.90                   | 207.38                 | 483,741.52         | 838,490.42        |
| 12,360.00    | 88.80      | 178.30               | 9,843.23      | 2,545.69         | -2,556.43     | -1,272.18    | 2,855.49                   | 206.46                 | 483,646.57         | 838,492.82        |
| 12,456.00    | 90.00      | 178.70               | 9,844.23      | 2,641.66         | -2,652.39     | -1,269.67    | 2,940.62                   | 205.58                 | 483,550.61         | 838,495.33        |
| 12,552.00    | 91.20      | 179.30               | 9,843.23      | 2,737.65         | -2,748.37     | -1,267.99    | 3,026.77                   | 204.77                 | 483,454.63         | 838,497.01        |



# ProDirectional Survey Report



Company: Matador Resources  
Project: Lea County, NM (NAD83)  
Site: Marian Downey State 04 09 23S 35E  
Well: No. 113H  
Wellbore: OH  
Design: MWD

Local Co-ordinate Reference:  
TVD Reference:  
MD Reference:  
North Reference:  
Survey Calculation Method:  
Database:  
Well No. 113H  
Well @ 3570.50usft  
Well @ 3570.50usft  
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) |
| 12,647.00    | 89.70      | 178.60               | 9,842.48      | 2,832.64         | -2,843.35     | -1,266.25     | 3,112.56                   | 204.01                 | 483,359.65         | 838,498.75        |
| 12,742.00    | 88.70      | 177.80               | 9,843.81      | 2,927.61         | -2,938.29     | -1,263.27     | 3,198.34                   | 203.26                 | 483,264.71         | 838,501.73        |
| 12,836.00    | 89.30      | 177.70               | 9,845.45      | 3,021.55         | -3,032.20     | -1,259.58     | 3,283.41                   | 202.56                 | 483,170.80         | 838,505.42        |
| 12,931.00    | 90.00      | 177.80               | 9,846.03      | 3,116.50         | -3,127.13     | -1,255.85     | 3,369.88                   | 201.88                 | 483,075.87         | 838,509.15        |
| 13,026.00    | 90.90      | 178.60               | 9,845.28      | 3,211.47         | -3,222.08     | -1,252.86     | 3,457.09                   | 201.25                 | 482,980.92         | 838,512.14        |
| 13,122.00    | 91.60      | 178.80               | 9,843.19      | 3,307.44         | -3,318.03     | -1,250.69     | 3,545.92                   | 200.65                 | 482,884.97         | 838,514.31        |
| 13,217.00    | 89.60      | 180.80               | 9,842.20      | 3,402.42         | -3,413.01     | -1,250.36     | 3,634.84                   | 200.12                 | 482,789.99         | 838,514.64        |
| 13,312.00    | 90.50      | 180.90               | 9,842.11      | 3,497.39         | -3,508.00     | -1,251.76     | 3,724.65                   | 199.64                 | 482,695.00         | 838,513.24        |
| 13,408.00    | 90.90      | 180.80               | 9,840.94      | 3,593.36         | -3,603.98     | -1,253.19     | 3,815.65                   | 199.17                 | 482,599.02         | 838,511.81        |
| 13,503.00    | 87.90      | 181.50               | 9,841.93      | 3,688.30         | -3,698.95     | -1,255.10     | 3,906.08                   | 198.74                 | 482,504.05         | 838,509.90        |
| 13,598.00    | 88.40      | 181.30               | 9,845.00      | 3,783.20         | -3,793.87     | -1,257.41     | 3,996.82                   | 198.34                 | 482,409.13         | 838,507.59        |
| 13,693.00    | 89.10      | 181.20               | 9,847.07      | 3,878.14         | -3,888.82     | -1,259.49     | 4,087.70                   | 197.95                 | 482,314.18         | 838,505.51        |
| 13,788.00    | 89.90      | 181.20               | 9,847.90      | 3,973.09         | -3,983.80     | -1,261.48     | 4,178.75                   | 197.57                 | 482,219.20         | 838,503.52        |
| 13,883.00    | 91.00      | 181.00               | 9,847.16      | 4,068.05         | -4,078.78     | -1,263.30     | 4,269.94                   | 197.21                 | 482,124.22         | 838,501.70        |
| 13,978.00    | 92.20      | 181.10               | 9,844.50      | 4,162.98         | -4,173.72     | -1,265.04     | 4,361.23                   | 196.86                 | 482,029.28         | 838,499.96        |
| 14,073.00    | 90.50      | 181.40               | 9,842.27      | 4,257.91         | -4,268.67     | -1,267.11     | 4,452.77                   | 196.53                 | 481,934.33         | 838,497.89        |
| 14,168.00    | 90.30      | 180.90               | 9,841.60      | 4,352.86         | -4,363.65     | -1,269.02     | 4,544.43                   | 196.22                 | 481,839.35         | 838,495.98        |
| 14,263.00    | 91.80      | 181.30               | 9,839.86      | 4,447.81         | -4,458.61     | -1,270.84     | 4,636.19                   | 195.91                 | 481,744.39         | 838,494.16        |
| 14,359.00    | 90.30      | 179.80               | 9,838.10      | 4,543.77         | -4,554.59     | -1,271.76     | 4,728.81                   | 195.60                 | 481,648.41         | 838,493.24        |
| 14,454.00    | 91.40      | 180.00               | 9,836.69      | 4,638.76         | -4,649.57     | -1,271.60     | 4,820.32                   | 195.30                 | 481,553.43         | 838,493.40        |
| 14,549.00    | 92.30      | 180.10               | 9,833.63      | 4,733.70         | -4,744.52     | -1,271.68     | 4,911.99                   | 195.00                 | 481,458.48         | 838,493.32        |
| 14,644.00    | 92.90      | 180.00               | 9,829.32      | 4,828.60         | -4,839.42     | -1,271.76     | 5,003.74                   | 194.72                 | 481,363.58         | 838,493.24        |
| 14,739.00    | 91.00      | 179.40               | 9,826.08      | 4,923.54         | -4,934.36     | -1,271.27     | 5,095.49                   | 194.45                 | 481,268.64         | 838,493.73        |
| 14,853.00    | 87.80      | 179.60               | 9,827.28      | 5,037.52         | -5,048.34     | -1,270.27     | 5,205.70                   | 194.12                 | 481,154.66         | 838,494.73        |
| 14,949.00    | 87.60      | 179.30               | 9,831.13      | 5,133.44         | -5,144.26     | -1,269.35     | 5,298.55                   | 193.86                 | 481,058.74         | 838,495.65        |
| 15,043.00    | 87.50      | 179.00               | 9,835.15      | 5,227.35         | -5,238.16     | -1,267.96     | 5,389.44                   | 193.61                 | 480,964.84         | 838,497.04        |
| 15,138.00    | 87.40      | 179.40               | 9,839.38      | 5,322.26         | -5,333.06     | -1,266.63     | 5,481.41                   | 193.36                 | 480,869.94         | 838,498.37        |



# ProDirectional Survey Report



**Company:** Matador Resources  
**Project:** Lea County, NM (NAD83)  
**Site:** Marlan Downey State 04 09 23S 35E  
**Well:** No. 113H  
**Wellbore:** OH  
**Design:** MWD

**Local Co-ordinate Reference:**  
**TVD Reference:** Well @ 3570.50usft  
**MD Reference:** Well @ 3570.50usft  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** 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) |
|--------------|------------|----------------------|---------------|------------------|---------------|---------------|----------------------------|------------------------|--------------------|-------------------|
| 15,234.00    | 87.90      | 179.60               | 9,843.31      | 5,418.18         | -5,428.97     | -1,265.79     | 5,574.58                   | 193.12                 | 480,774.03         | 838,499.21        |
| 15,329.00    | 89.20      | 180.20               | 9,845.72      | 5,513.14         | -5,523.94     | -1,265.63     | 5,667.07                   | 192.90                 | 480,679.06         | 838,499.37        |
| 15,424.00    | 87.50      | 179.60               | 9,848.45      | 5,608.10         | -5,618.90     | -1,265.46     | 5,759.63                   | 192.69                 | 480,584.10         | 838,499.54        |
| 15,520.00    | 87.90      | 179.50               | 9,852.30      | 5,704.02         | -5,714.81     | -1,264.71     | 5,853.08                   | 192.48                 | 480,488.19         | 838,500.29        |
| 15,614.00    | 88.50      | 179.80               | 9,855.26      | 5,797.97         | -5,808.77     | -1,264.14     | 5,944.73                   | 192.28                 | 480,394.23         | 838,500.86        |
| 15,709.00    | 89.60      | 179.50               | 9,856.83      | 5,892.96         | -5,903.75     | -1,263.56     | 6,037.45                   | 192.08                 | 480,299.25         | 838,501.44        |
| 15,804.00    | 90.20      | 179.50               | 9,857.00      | 5,987.96         | -5,998.75     | -1,262.73     | 6,130.21                   | 191.89                 | 480,204.25         | 838,502.27        |
| 15,900.00    | 90.80      | 179.30               | 9,856.16      | 6,083.95         | -6,094.74     | -1,261.72     | 6,223.97                   | 191.70                 | 480,108.26         | 838,503.28        |

Last Pro MWD Survey Taken: 15900' MD

## Design Annotations

| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates |                 | Comment                              |
|-----------------------------|-----------------------------|-------------------|-----------------|--------------------------------------|
|                             |                             | +N/-S<br>(usft)   | +E/-W<br>(usft) |                                      |
| 168.00                      | 167.99                      | 0.25              | -1.15           | Pro MWD First Survey: 168' MD        |
| 15,900.00                   | 9,856.16                    | -6,094.74         | -1,261.72       | Last Pro MWD Survey Taken: 15900' MD |