

## HALLIBURTON

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State of New Mexico, Lea

I, Jesus Contreras certify that I am employed by Halliburton Energy Services, Inc. (aka Sperry Drilling) and that on the dates of October 06, 2019 through November 02, 2019, I did conduct or supervise the taking of MWD directional surveys for the Frizzle Fry 15 WXY Fed 7H ST01 well from a depth of 131' MD to a depth of 22217' MD. This data is true, correct, complete and within the limitations of the tools as set forth by Halliburton Energy Services, Inc. (aka Sperry Drilling). I am authorized and qualified to make this report and these surveys were conducted at the request of Marathon , for the Frizzle Fry 15 WXY Fed 7H ST01 well in Lea. I have reviewed this report and find that it confirms to the principles and procedures as set forth by Halliburton Energy Services, Inc. (aka Sperry Drilling.)

*Jesus Contreras*

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Jesus Contreras  
Field Engineer



Precision 601

# Marathon Oil Permian LLC

Lea County, New Mexico (NAD27) Frizzle Fry 15 Pad (Grid)

API#

## Frizzle Fry 15 WXY Fed Com 7H

273' FNL, 822' FWL of Sec. 15

ST01

Design: Sidetrack #1

## Sperry Drilling Services

### Combo Report

06 November, 2019

Well Coordinates: 32.39808150  
-103.66797941

NAD 1927 (NADCON CONUS)  
New Mexico East 3001  
509,175.51 N  
705,362.09 E

Ground Level: 3,791.00 usft

Local Coordinate Origin:

Centered on Well Frizzle Fry 15 WXY Fed Com 7H

Viewing Datum:

GL: 3791' + KB: 25' @ 3816.00usft (Precision 601)

TVDs to System:

N

**North Reference:**

**Grid**

Unit System:

Midcon (2 decimal)

Version: 5000.15 Build: 91

Report Version: Midcon Combo v1.14

**HALLIBURTON**

## Design Report for Frizzle Fry 15 WXY Fed Com 7H - Sidetrack #1

| Measured Depth (usft) | Inclination (°) | Grid Azimuth (°) | Vertical Depth (usft) | Local Coordinates |                | Map Coordinates |                | Dogleg Rate (°/100usft) | Vertical Section (usft) | Toolface Angle (°) | Comments                           |
|-----------------------|-----------------|------------------|-----------------------|-------------------|----------------|-----------------|----------------|-------------------------|-------------------------|--------------------|------------------------------------|
|                       |                 |                  |                       | Northing (usft)   | Easting (usft) | Northing (usft) | Easting (usft) |                         |                         |                    |                                    |
| 0.00                  | 0.00            | 0.00             | 0.00                  | 0.00 N            | 0.00 E         | 509,175.51      | 705,362.09     | 0.00                    | 0.00                    | 0.00               |                                    |
| 131.00                | 0.40            | 10.75            | 131.00                | 0.45 N            | 0.09 E         | 509,175.96      | 705,362.18     | 0.31                    | -0.45                   | 10.75              | First Invictus MWD Survey @ 131'MD |
| 158.40                | 0.20            | 148.75           | 158.40                | 0.50 N            | 0.13 E         | 509,176.01      | 705,362.22     | 2.06                    | -0.50                   | 166.29             |                                    |
| 187.00                | 1.00            | 230.75           | 187.00                | 0.30 N            | 0.04 W         | 509,175.81      | 705,362.05     | 3.47                    | -0.30                   | 93.51              |                                    |
| 254.20                | 0.80            | 283.75           | 254.19                | 0.04 N            | 0.95 W         | 509,175.55      | 705,361.14     | 1.22                    | -0.05                   | 129.06             |                                    |
| 356.00                | 1.10            | 277.75           | 355.98                | 0.34 N            | 2.61 W         | 509,175.85      | 705,359.48     | 0.31                    | -0.36                   | -21.36             |                                    |
| 446.00                | 2.60            | 188.75           | 445.94                | 1.56 S            | 3.77 W         | 509,173.95      | 705,358.32     | 3.12                    | 1.53                    | -112.07            |                                    |
| 528.00                | 0.90            | 212.75           | 527.90                | 3.94 S            | 4.41 W         | 509,171.57      | 705,357.68     | 2.21                    | 3.91                    | 168.36             |                                    |
| 706.00                | 1.00            | 285.75           | 705.88                | 4.69 S            | 6.66 W         | 509,170.82      | 705,355.43     | 0.64                    | 4.65                    | 122.43             |                                    |
| 807.00                | 1.00            | 226.75           | 806.87                | 5.06 S            | 8.15 W         | 509,170.45      | 705,353.94     | 0.98                    | 5.00                    | -119.50            |                                    |
| 986.00                | 0.70            | 207.75           | 985.85                | 7.10 S            | 9.79 W         | 509,168.41      | 705,352.30     | 0.23                    | 7.03                    | -146.02            |                                    |
| 1,041.00              | 0.40            | 166.75           | 1,040.85              | 7.58 S            | 9.91 W         | 509,167.93      | 705,352.18     | 0.87                    | 7.51                    | -146.61            | Last Invictus MWD Survey @ 1041'MD |
| 1,168.00              | 0.36            | 63.89            | 1,167.84              | 7.84 S            | 9.45 W         | 509,167.67      | 705,352.64     | 0.47                    | 7.77                    | -143.83            | First Hal MWD Survey @ 1168'MD     |
| 1,213.00              | 0.32            | 62.82            | 1,212.84              | 7.72 S            | 9.21 W         | 509,167.79      | 705,352.88     | 0.09                    | 7.65                    | -171.52            |                                    |
| 1,303.00              | 0.36            | 58.01            | 1,302.84              | 7.45 S            | 8.74 W         | 509,168.06      | 705,353.35     | 0.05                    | 7.39                    | -37.93             |                                    |
| 1,393.00              | 0.46            | 74.02            | 1,392.84              | 7.20 S            | 8.16 W         | 509,168.31      | 705,353.93     | 0.17                    | 7.15                    | 57.07              |                                    |
| 1,482.00              | 0.37            | 68.14            | 1,481.84              | 7.00 S            | 7.55 W         | 509,168.51      | 705,354.54     | 0.11                    | 6.95                    | -157.60            |                                    |
| 1,572.00              | 0.36            | 77.26            | 1,571.83              | 6.83 S            | 7.00 W         | 509,168.68      | 705,355.09     | 0.07                    | 6.78                    | 104.31             |                                    |
| 1,661.00              | 0.54            | 74.28            | 1,660.83              | 6.65 S            | 6.33 W         | 509,168.86      | 705,355.76     | 0.20                    | 6.61                    | -8.90              |                                    |
| 1,688.00              | 0.65            | 58.49            | 1,687.83              | 6.54 S            | 6.07 W         | 509,168.97      | 705,356.02     | 0.74                    | 6.50                    | -63.51             | ST Depth @ 1688'MD                 |
| 1,741.00              | 0.96            | 41.00            | 1,740.83              | 6.04 S            | 5.52 W         | 509,169.47      | 705,356.57     | 0.74                    | 6.01                    | -47.71             |                                    |
| 1,831.00              | 1.22            | 39.20            | 1,830.81              | 4.73 S            | 4.42 W         | 509,170.78      | 705,357.67     | 0.29                    | 4.70                    | -8.40              |                                    |
| 1,929.00              | 1.45            | 38.01            | 1,928.78              | 2.95 S            | 3.00 W         | 509,172.56      | 705,359.09     | 0.24                    | 2.93                    | -7.47              |                                    |
| 2,019.00              | 1.50            | 45.64            | 2,018.75              | 1.23 S            | 1.46 W         | 509,174.28      | 705,360.63     | 0.22                    | 1.22                    | 79.55              |                                    |
| 2,108.00              | 2.41            | 56.48            | 2,107.70              | 0.62 N            | 0.94 E         | 509,176.13      | 705,363.03     | 1.10                    | -0.62                   | 27.59              |                                    |
| 2,198.00              | 3.58            | 65.64            | 2,197.58              | 2.83 N            | 5.07 E         | 509,178.34      | 705,367.16     | 1.40                    | -2.79                   | 26.86              |                                    |
| 2,287.00              | 4.11            | 66.21            | 2,286.38              | 5.26 N            | 10.52 E        | 509,180.77      | 705,372.61     | 0.60                    | -5.19                   | 4.41               |                                    |
| 2,377.00              | 4.85            | 70.01            | 2,376.10              | 7.86 N            | 17.05 E        | 509,183.37      | 705,379.14     | 0.89                    | -7.75                   | 23.76              |                                    |
| 2,466.00              | 5.36            | 73.86            | 2,464.75              | 10.30 N           | 24.58 E        | 509,185.81      | 705,386.67     | 0.69                    | -10.14                  | 35.82              |                                    |
| 2,556.00              | 5.84            | 83.98            | 2,554.32              | 11.95 N           | 33.17 E        | 509,187.46      | 705,395.26     | 1.22                    | -11.73                  | 69.17              |                                    |
| 2,646.00              | 6.38            | 82.79            | 2,643.81              | 13.06 N           | 42.69 E        | 509,188.57      | 705,404.78     | 0.62                    | -12.78                  | -13.79             |                                    |
| 2,735.00              | 6.79            | 84.99            | 2,732.22              | 14.14 N           | 52.83 E        | 509,189.65      | 705,414.92     | 0.54                    | -13.79                  | 32.70              |                                    |
| 2,824.00              | 3.93            | 94.76            | 2,820.82              | 14.35 N           | 61.11 E        | 509,189.86      | 705,423.20     | 3.36                    | -13.94                  | 167.12             |                                    |
| 2,914.00              | 3.51            | 98.04            | 2,910.63              | 13.70 N           | 66.92 E        | 509,189.21      | 705,429.01     | 0.52                    | -13.26                  | 154.76             |                                    |
| 3,003.00              | 4.52            | 95.56            | 2,999.41              | 12.98 N           | 73.10 E        | 509,188.49      | 705,435.19     | 1.15                    | -12.50                  | -10.99             |                                    |
| 3,093.00              | 4.38            | 95.36            | 3,089.14              | 12.32 N           | 80.06 E        | 509,187.83      | 705,442.15     | 0.16                    | -11.79                  | -173.77            |                                    |

## Design Report for Frizzle Fry 15 WXY Fed Com 7H - Sidetrack #1

| Measured<br>Depth<br>(usft) | Inclination<br>(°) | Grid<br>Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | Local Coordinates |          | Map Coordinates |            | Dogleg<br>Rate<br>(°/100usft) | Vertical<br>Section<br>(usft) | Toolface<br>Angle<br>(°) | Comments |
|-----------------------------|--------------------|------------------------|-----------------------------|-------------------|----------|-----------------|------------|-------------------------------|-------------------------------|--------------------------|----------|
| 3,182.00                    | 2.42               | 87.61                  | 3,177.98                    | 12.08 N           | 85.32 E  | 509,187.59      | 705,447.41 | 2.26                          | -11.51                        | -170.65                  |          |
| 3,272.00                    | 1.98               | 23.79                  | 3,267.93                    | 13.58 N           | 87.84 E  | 509,189.09      | 705,449.93 | 2.62                          | -13.00                        | -131.02                  |          |
| 3,361.00                    | 3.12               | 30.00                  | 3,356.84                    | 17.09 N           | 89.67 E  | 509,192.60      | 705,451.76 | 1.32                          | -16.49                        | 16.74                    |          |
| 3,451.00                    | 4.41               | 42.51                  | 3,446.64                    | 21.76 N           | 93.24 E  | 509,197.27      | 705,455.33 | 1.69                          | -21.14                        | 38.83                    |          |
| 3,540.00                    | 4.59               | 48.58                  | 3,535.37                    | 26.64 N           | 98.22 E  | 509,202.15      | 705,460.31 | 0.57                          | -25.99                        | 72.34                    |          |
| 3,630.00                    | 4.93               | 49.78                  | 3,625.06                    | 31.52 N           | 103.87 E | 509,207.03      | 705,465.96 | 0.39                          | -30.83                        | 16.92                    |          |
| 3,719.00                    | 5.71               | 59.36                  | 3,713.68                    | 36.24 N           | 110.60 E | 509,211.75      | 705,472.69 | 1.33                          | -35.51                        | 53.55                    |          |
| 3,809.00                    | 5.46               | 74.10                  | 3,803.26                    | 39.70 N           | 118.57 E | 509,215.21      | 705,480.66 | 1.61                          | -38.91                        | 107.17                   |          |
| 3,898.00                    | 5.22               | 81.40                  | 3,891.87                    | 41.46 N           | 126.65 E | 509,216.97      | 705,488.74 | 0.81                          | -40.62                        | 113.07                   |          |
| 3,988.00                    | 5.69               | 79.62                  | 3,981.46                    | 42.88 N           | 135.09 E | 509,218.39      | 705,497.18 | 0.55                          | -41.98                        | -20.69                   |          |
| 4,077.00                    | 5.03               | 81.78                  | 4,070.07                    | 44.23 N           | 143.29 E | 509,219.74      | 705,505.38 | 0.78                          | -43.28                        | 164.07                   |          |
| 4,167.00                    | 5.69               | 82.79                  | 4,159.68                    | 45.36 N           | 151.62 E | 509,220.87      | 705,513.71 | 0.74                          | -44.35                        | 8.64                     |          |
| 4,256.00                    | 3.15               | 89.06                  | 4,248.41                    | 45.95 N           | 158.44 E | 509,221.46      | 705,520.53 | 2.90                          | -44.90                        | 172.34                   |          |
| 4,346.00                    | 3.78               | 85.79                  | 4,338.24                    | 46.21 N           | 163.87 E | 509,221.72      | 705,525.96 | 0.73                          | -45.12                        | -19.05                   |          |
| 4,435.00                    | 3.98               | 84.16                  | 4,427.04                    | 46.74 N           | 169.87 E | 509,222.25      | 705,531.96 | 0.26                          | -45.61                        | -29.69                   |          |
| 4,525.00                    | 2.31               | 77.08                  | 4,516.90                    | 47.46 N           | 174.75 E | 509,222.97      | 705,536.84 | 1.90                          | -46.30                        | -170.42                  |          |
| 4,614.00                    | 2.35               | 68.57                  | 4,605.83                    | 48.53 N           | 178.19 E | 509,224.04      | 705,540.28 | 0.39                          | -47.35                        | -87.67                   |          |
| 4,704.00                    | 2.32               | 67.28                  | 4,695.75                    | 49.91 N           | 181.59 E | 509,225.42      | 705,543.68 | 0.07                          | -48.70                        | -120.36                  |          |
| 4,793.00                    | 3.34               | 70.23                  | 4,784.64                    | 51.48 N           | 185.69 E | 509,226.99      | 705,547.78 | 1.16                          | -50.25                        | 9.60                     |          |
| 4,883.00                    | 5.37               | 64.47                  | 4,874.38                    | 54.18 N           | 191.96 E | 509,229.69      | 705,554.05 | 2.30                          | -52.91                        | -15.04                   |          |
| 4,972.00                    | 6.87               | 64.64                  | 4,962.87                    | 58.26 N           | 200.53 E | 509,233.77      | 705,562.62 | 1.69                          | -56.93                        | 0.78                     |          |
| 5,062.00                    | 7.82               | 68.14                  | 5,052.13                    | 62.84 N           | 211.08 E | 509,238.35      | 705,573.17 | 1.17                          | -61.44                        | 26.96                    |          |
| 5,152.00                    | 8.78               | 69.79                  | 5,141.19                    | 67.49 N           | 223.21 E | 509,243.00      | 705,585.30 | 1.10                          | -66.01                        | 14.75                    |          |
| 5,241.00                    | 8.23               | 75.42                  | 5,229.21                    | 71.45 N           | 235.74 E | 509,246.96      | 705,597.83 | 1.12                          | -69.88                        | 126.21                   |          |
| 5,331.00                    | 7.73               | 81.76                  | 5,318.34                    | 73.93 N           | 247.97 E | 509,249.44      | 705,610.06 | 1.12                          | -72.29                        | 122.71                   |          |
| 5,420.00                    | 7.97               | 80.44                  | 5,406.50                    | 75.82 N           | 259.98 E | 509,251.33      | 705,622.07 | 0.34                          | -74.09                        | -37.57                   |          |
| 5,510.00                    | 8.53               | 80.06                  | 5,495.57                    | 78.01 N           | 272.71 E | 509,253.52      | 705,634.80 | 0.63                          | -76.19                        | -5.75                    |          |
| 5,599.00                    | 8.44               | 78.32                  | 5,583.60                    | 80.47 N           | 285.60 E | 509,255.98      | 705,647.69 | 0.31                          | -78.57                        | -110.18                  |          |
| 5,689.00                    | 7.94               | 82.73                  | 5,672.68                    | 82.59 N           | 298.24 E | 509,258.10      | 705,660.33 | 0.89                          | -80.61                        | 130.68                   |          |
| 5,778.00                    | 6.66               | 81.02                  | 5,760.96                    | 84.17 N           | 309.43 E | 509,259.68      | 705,671.52 | 1.46                          | -82.12                        | -171.21                  |          |
| 5,868.00                    | 5.92               | 77.55                  | 5,850.42                    | 85.99 N           | 319.12 E | 509,261.50      | 705,681.21 | 0.92                          | -83.87                        | -154.53                  |          |
| 5,957.00                    | 5.87               | 77.63                  | 5,938.94                    | 87.95 N           | 328.05 E | 509,263.46      | 705,690.14 | 0.06                          | -85.78                        | 170.71                   |          |
| 6,047.00                    | 5.81               | 74.34                  | 6,028.48                    | 90.17 N           | 336.93 E | 509,265.68      | 705,699.02 | 0.38                          | -87.93                        | -101.80                  |          |
| 6,137.00                    | 5.75               | 73.54                  | 6,118.02                    | 92.68 N           | 345.64 E | 509,268.19      | 705,707.73 | 0.11                          | -90.38                        | -127.07                  |          |
| 6,226.00                    | 5.89               | 74.12                  | 6,206.56                    | 95.19 N           | 354.31 E | 509,270.70      | 705,716.40 | 0.17                          | -92.84                        | 23.08                    |          |
| 6,316.00                    | 6.00               | 74.99                  | 6,296.08                    | 97.67 N           | 363.29 E | 509,273.18      | 705,725.38 | 0.16                          | -95.26                        | 39.76                    |          |
| 6,405.00                    | 5.85               | 72.83                  | 6,384.60                    | 100.21 N          | 372.12 E | 509,275.72      | 705,734.21 | 0.30                          | -97.74                        | -125.00                  |          |

## Design Report for Frizzle Fry 15 WXY Fed Com 7H - Sidetrack #1

| Measured<br>Depth<br>(usft) | Inclination<br>(°) | Grid<br>Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | Local Coordinates |          | Map Coordinates |            | Dogleg<br>Rate<br>(°/100usft) | Vertical<br>Section<br>(usft) | Toolface<br>Angle<br>(°) | Comments |
|-----------------------------|--------------------|------------------------|-----------------------------|-------------------|----------|-----------------|------------|-------------------------------|-------------------------------|--------------------------|----------|
| 6,495.00                    | 6.14               | 73.34                  | 6,474.11                    | 102.95 N          | 381.11 E | 509,278.46      | 705,743.20 | 0.33                          | -100.42                       | 10.66                    |          |
| 6,584.00                    | 6.60               | 73.38                  | 6,562.56                    | 105.78 N          | 390.57 E | 509,281.29      | 705,752.66 | 0.52                          | -103.18                       | 0.57                     |          |
| 6,674.00                    | 6.43               | 76.06                  | 6,651.98                    | 108.47 N          | 400.42 E | 509,283.98      | 705,762.51 | 0.39                          | -105.81                       | 120.53                   |          |
| 6,764.00                    | 6.52               | 80.22                  | 6,741.41                    | 110.55 N          | 410.35 E | 509,286.06      | 705,772.44 | 0.53                          | -107.83                       | 81.21                    |          |
| 6,853.00                    | 6.36               | 78.75                  | 6,829.84                    | 112.37 N          | 420.16 E | 509,287.88      | 705,782.25 | 0.26                          | -109.58                       | -134.87                  |          |
| 6,943.00                    | 6.62               | 81.80                  | 6,919.27                    | 114.08 N          | 430.18 E | 509,289.59      | 705,792.27 | 0.48                          | -111.23                       | 54.50                    |          |
| 7,032.00                    | 6.81               | 84.88                  | 7,007.66                    | 115.29 N          | 440.52 E | 509,290.80      | 705,802.61 | 0.46                          | -112.36                       | 63.72                    |          |
| 7,122.00                    | 6.64               | 83.95                  | 7,097.04                    | 116.31 N          | 451.01 E | 509,291.82      | 705,813.10 | 0.22                          | -113.32                       | -147.82                  |          |
| 7,212.00                    | 6.52               | 83.91                  | 7,186.45                    | 117.40 N          | 461.26 E | 509,292.91      | 705,823.35 | 0.13                          | -114.34                       | -177.83                  |          |
| 7,301.00                    | 6.41               | 85.42                  | 7,274.88                    | 118.33 N          | 471.24 E | 509,293.84      | 705,833.33 | 0.23                          | -115.21                       | 123.65                   |          |
| 7,391.00                    | 6.75               | 85.39                  | 7,364.29                    | 119.16 N          | 481.52 E | 509,294.67      | 705,843.61 | 0.38                          | -115.96                       | -0.59                    |          |
| 7,480.00                    | 6.91               | 74.16                  | 7,452.66                    | 121.04 N          | 491.88 E | 509,296.55      | 705,853.97 | 1.51                          | -117.78                       | -88.77                   |          |
| 7,570.00                    | 7.35               | 69.76                  | 7,541.96                    | 124.51 N          | 502.49 E | 509,300.02      | 705,864.58 | 0.78                          | -121.18                       | -53.34                   |          |
| 7,659.00                    | 7.73               | 73.57                  | 7,630.19                    | 128.17 N          | 513.58 E | 509,303.68      | 705,875.67 | 0.71                          | -124.77                       | 54.66                    |          |
| 7,749.00                    | 8.05               | 78.18                  | 7,719.34                    | 131.18 N          | 525.55 E | 509,306.69      | 705,887.64 | 0.79                          | -127.69                       | 65.47                    |          |
| 7,838.00                    | 7.79               | 79.27                  | 7,807.49                    | 133.58 N          | 537.58 E | 509,309.09      | 705,899.67 | 0.34                          | -130.01                       | 150.53                   |          |
| 7,928.00                    | 7.67               | 79.49                  | 7,896.68                    | 135.81 N          | 549.47 E | 509,311.32      | 705,911.56 | 0.14                          | -132.16                       | 166.26                   |          |
| 8,017.00                    | 7.67               | 80.62                  | 7,984.88                    | 137.86 N          | 561.17 E | 509,313.37      | 705,923.26 | 0.17                          | -134.13                       | 90.56                    |          |
| 8,107.00                    | 7.58               | 81.07                  | 8,074.08                    | 139.76 N          | 572.96 E | 509,315.27      | 705,935.05 | 0.12                          | -135.96                       | 146.66                   |          |
| 8,196.00                    | 7.68               | 83.30                  | 8,162.30                    | 141.36 N          | 584.67 E | 509,316.87      | 705,946.76 | 0.35                          | -137.48                       | 72.45                    |          |
| 8,286.00                    | 7.51               | 84.58                  | 8,251.51                    | 142.62 N          | 596.50 E | 509,318.13      | 705,958.59 | 0.27                          | -138.66                       | 135.77                   |          |
| 8,375.00                    | 7.16               | 86.46                  | 8,339.78                    | 143.51 N          | 607.82 E | 509,319.02      | 705,969.91 | 0.48                          | -139.48                       | 146.49                   |          |
| 8,465.00                    | 7.26               | 86.30                  | 8,429.07                    | 144.23 N          | 619.10 E | 509,319.74      | 705,981.19 | 0.11                          | -140.12                       | -11.43                   |          |
| 8,555.00                    | 7.02               | 87.92                  | 8,518.37                    | 144.79 N          | 630.27 E | 509,320.30      | 705,992.36 | 0.35                          | -140.61                       | 140.81                   |          |
| 8,644.00                    | 6.87               | 87.99                  | 8,606.72                    | 145.18 N          | 641.02 E | 509,320.69      | 706,003.11 | 0.17                          | -140.92                       | 176.81                   |          |
| 8,734.00                    | 6.86               | 89.99                  | 8,696.07                    | 145.37 N          | 651.78 E | 509,320.88      | 706,013.87 | 0.27                          | -141.04                       | 93.39                    |          |
| 8,823.00                    | 6.31               | 91.98                  | 8,784.48                    | 145.20 N          | 661.98 E | 509,320.71      | 706,024.07 | 0.67                          | -140.81                       | 158.45                   |          |
| 8,843.00                    | 6.15               | 91.93                  | 8,804.37                    | 145.13 N          | 664.15 E | 509,320.64      | 706,026.24 | 0.80                          | -140.72                       | -178.08                  |          |
| 8,930.00                    | 6.02               | 95.24                  | 8,890.88                    | 144.55 N          | 673.35 E | 509,320.06      | 706,035.44 | 0.43                          | -140.08                       | 111.97                   |          |
| 9,020.00                    | 6.90               | 90.73                  | 8,980.30                    | 144.05 N          | 683.45 E | 509,319.56      | 706,045.54 | 1.13                          | -139.52                       | -32.22                   |          |
| 9,109.00                    | 7.18               | 77.48                  | 9,068.64                    | 145.19 N          | 694.23 E | 509,320.70      | 706,056.32 | 1.85                          | -140.58                       | -86.84                   |          |
| 9,199.00                    | 6.26               | 59.14                  | 9,158.03                    | 148.93 N          | 703.93 E | 509,324.44      | 706,066.02 | 2.58                          | -144.25                       | -122.13                  |          |
| 9,288.00                    | 5.48               | 58.98                  | 9,246.56                    | 153.60 N          | 711.74 E | 509,329.11      | 706,073.83 | 0.88                          | -148.88                       | -178.88                  |          |
| 9,378.00                    | 4.57               | 64.08                  | 9,336.22                    | 157.39 N          | 718.65 E | 509,332.90      | 706,080.74 | 1.13                          | -152.62                       | 156.38                   |          |
| 9,467.00                    | 5.66               | 61.88                  | 9,424.86                    | 161.01 N          | 725.71 E | 509,336.52      | 706,087.80 | 1.24                          | -156.19                       | -11.30                   |          |
| 9,557.00                    | 6.15               | 72.83                  | 9,514.38                    | 164.52 N          | 734.23 E | 509,340.03      | 706,096.32 | 1.36                          | -159.65                       | 72.00                    |          |
| 9,646.00                    | 5.74               | 68.98                  | 9,602.91                    | 167.52 N          | 742.94 E | 509,343.03      | 706,105.03 | 0.64                          | -162.59                       | -137.70                  |          |

## Design Report for Frizzle Fry 15 WXY Fed Com 7H - Sidetrack #1

| Measured Depth (usft) | Inclination (°) | Grid Azimuth (°) | Vertical Depth (usft) | Local Coordinates |                | Map Coordinates |                | Dogleg Rate (°/100usft) | Vertical Section (usft) | Toolface Angle (°) | Comments                                                      |
|-----------------------|-----------------|------------------|-----------------------|-------------------|----------------|-----------------|----------------|-------------------------|-------------------------|--------------------|---------------------------------------------------------------|
|                       |                 |                  |                       | Northing (usft)   | Easting (usft) | Northing (usft) | Easting (usft) |                         |                         |                    |                                                               |
| 9,736.00              | 4.74            | 65.53            | 9,692.53              | 170.68 N          | 750.53 E       | 509,346.19      | 706,112.62     | 1.16                    | -165.70                 | -164.22            |                                                               |
| 9,825.00              | 4.09            | 65.66            | 9,781.26              | 173.51 N          | 756.76 E       | 509,349.02      | 706,118.85     | 0.73                    | -168.49                 | 179.18             |                                                               |
| 9,915.00              | 3.37            | 53.26            | 9,871.08              | 176.42 N          | 761.81 E       | 509,351.93      | 706,123.90     | 1.20                    | -171.36                 | -137.83            |                                                               |
| 10,004.00             | 2.90            | 52.05            | 9,959.94              | 179.36 N          | 765.68 E       | 509,354.87      | 706,127.77     | 0.53                    | -174.28                 | -172.59            |                                                               |
| 10,094.00             | 2.60            | 65.61            | 10,049.84             | 181.61 N          | 769.33 E       | 509,357.12      | 706,131.42     | 0.79                    | -176.50                 | 121.43             |                                                               |
| 10,183.00             | 2.27            | 70.20            | 10,138.76             | 183.04 N          | 772.83 E       | 509,358.55      | 706,134.92     | 0.43                    | -177.91                 | 151.70             |                                                               |
| 10,260.00             | 1.98            | 72.94            | 10,215.71             | 183.95 N          | 775.54 E       | 509,359.46      | 706,137.63     | 0.40                    | -178.80                 | 162.06             |                                                               |
| 10,349.00             | 1.52            | 93.74            | 10,304.66             | 184.32 N          | 778.19 E       | 509,359.83      | 706,140.28     | 0.87                    | -179.15                 | 136.01             |                                                               |
| 10,439.00             | 1.39            | 98.36            | 10,394.64             | 184.08 N          | 780.46 E       | 509,359.59      | 706,142.55     | 0.19                    | -178.90                 | 140.23             |                                                               |
| 10,528.00             | 0.22            | 48.61            | 10,483.63             | 184.04 N          | 781.65 E       | 509,359.55      | 706,143.74     | 1.41                    | -178.85                 | -172.34            |                                                               |
| 10,618.00             | 2.19            | 267.12           | 10,573.61             | 184.07 N          | 780.06 E       | 509,359.58      | 706,142.15     | 2.63                    | -178.89                 | -144.81            |                                                               |
| 10,707.00             | 1.95            | 263.87           | 10,662.55             | 183.82 N          | 776.86 E       | 509,359.33      | 706,138.95     | 0.30                    | -178.66                 | -155.55            |                                                               |
| 10,797.00             | 2.00            | 263.82           | 10,752.49             | 183.49 N          | 773.78 E       | 509,359.00      | 706,135.87     | 0.06                    | -178.35                 | -2.00              |                                                               |
| 10,887.00             | 2.54            | 255.04           | 10,842.42             | 182.80 N          | 770.29 E       | 509,358.31      | 706,132.38     | 0.71                    | -177.69                 | -37.22             |                                                               |
| 10,976.00             | 3.11            | 253.62           | 10,931.31             | 181.61 N          | 766.07 E       | 509,357.12      | 706,128.16     | 0.65                    | -176.53                 | -7.71              |                                                               |
| 11,066.00             | 2.41            | 258.44           | 11,021.21             | 180.55 N          | 761.87 E       | 509,356.06      | 706,123.96     | 0.82                    | -175.49                 | 164.05             |                                                               |
| 11,155.00             | 2.05            | 258.05           | 11,110.14             | 179.84 N          | 758.48 E       | 509,355.35      | 706,120.57     | 0.40                    | -174.81                 | -177.78            |                                                               |
| 11,244.00             | 2.04            | 254.42           | 11,199.09             | 179.09 N          | 755.40 E       | 509,354.60      | 706,117.49     | 0.15                    | -174.07                 | -96.23             |                                                               |
| 11,334.00             | 1.74            | 261.16           | 11,289.04             | 178.45 N          | 752.50 E       | 509,353.96      | 706,114.59     | 0.41                    | -173.45                 | 146.80             |                                                               |
| 11,423.00             | 1.27            | 258.45           | 11,378.01             | 178.04 N          | 750.20 E       | 509,353.55      | 706,112.29     | 0.53                    | -173.06                 | -172.74            |                                                               |
| 11,458.00             | 1.27            | 252.50           | 11,413.00             | 177.85 N          | 749.45 E       | 509,353.36      | 706,111.54     | 0.38                    | -172.87                 | -92.97             |                                                               |
| 11,528.00             | 1.01            | 235.95           | 11,482.98             | 177.27 N          | 748.20 E       | 509,352.78      | 706,110.29     | 0.60                    | -172.30                 | -136.37            |                                                               |
| 11,550.00             | 3.00            | 192.15           | 11,504.97             | 176.60 N          | 747.92 E       | 509,352.11      | 706,110.01     | 10.79                   | -171.63                 | -60.92             | KOP @ 11550'MD (105.27' FNL, 1072.10' FEL of Sec. 15&22 W1/2) |
| 11,617.00             | 10.13           | 179.98           | 11,571.49             | 168.98 N          | 747.55 E       | 509,344.49      | 706,109.64     | 10.79                   | -164.02                 | -17.14             |                                                               |
| 11,707.00             | 21.25           | 164.83           | 11,658.03             | 145.24 N          | 751.84 E       | 509,320.75      | 706,113.93     | 13.07                   | -140.25                 | -27.69             |                                                               |
| 11,796.00             | 30.97           | 157.53           | 11,737.87             | 108.42 N          | 764.85 E       | 509,283.93      | 706,126.94     | 11.48                   | -103.34                 | -21.62             |                                                               |
| 11,886.00             | 40.60           | 160.96           | 11,810.81             | 59.22 N           | 783.30 E       | 509,234.73      | 706,145.39     | 10.93                   | -54.02                  | 13.18              |                                                               |
| 11,975.00             | 50.55           | 164.81           | 11,873.04             | 1.48 S            | 801.80 E       | 509,174.03      | 706,163.89     | 11.59                   | 6.80                    | 16.82              |                                                               |
| 12,065.00             | 58.01           | 170.53           | 11,925.57             | 72.80 S           | 817.21 E       | 509,102.71      | 706,179.30     | 9.76                    | 78.22                   | 33.62              |                                                               |
| 12,154.00             | 63.28           | 180.38           | 11,969.27             | 149.98 S          | 823.17 E       | 509,025.53      | 706,185.26     | 11.31                   | 155.43                  | 60.95              |                                                               |
| 12,244.00             | 65.63           | 184.68           | 12,008.09             | 231.07 S          | 819.56 E       | 508,944.44      | 706,181.65     | 5.04                    | 236.50                  | 59.74              |                                                               |
| 12,334.00             | 66.42           | 184.56           | 12,044.66             | 313.04 S          | 812.94 E       | 508,862.47      | 706,175.03     | 0.89                    | 318.42                  | -7.93              |                                                               |
| 12,423.00             | 71.86           | 184.81           | 12,076.34             | 395.89 S          | 806.14 E       | 508,779.62      | 706,168.23     | 6.12                    | 401.23                  | 2.50               |                                                               |
| 12,513.00             | 79.14           | 182.94           | 12,098.86             | 482.77 S          | 800.28 E       | 508,692.74      | 706,162.37     | 8.33                    | 488.06                  | -14.21             |                                                               |
| 12,603.00             | 87.75           | 179.21           | 12,109.13             | 572.06 S          | 798.63 E       | 508,603.45      | 706,160.72     | 10.41                   | 577.35                  | -23.53             |                                                               |
| 12,692.00             | 89.07           | 180.41           | 12,111.60             | 661.02 S          | 798.93 E       | 508,514.49      | 706,161.02     | 2.00                    | 666.31                  | 42.28              |                                                               |

## Design Report for Frizzle Fry 15 WXY Fed Com 7H - Sidetrack #1

| Measured  |             | Grid    | Vertical  | Local Coordinates |          | Map Coordinates |            | Dogleg      | Vertical | Toolface | Comments |
|-----------|-------------|---------|-----------|-------------------|----------|-----------------|------------|-------------|----------|----------|----------|
| Depth     | Inclination | Azimuth | Depth     | Northing          | Easting  | Northing        | Easting    | Rate        | Section  | Angle    |          |
| (usft)    | (°)         | (°)     | (usft)    | (usft)            | (usft)   | (usft)          | (usft)     | (°/100usft) | (usft)   | (°)      |          |
| 12,782.00 | 90.31       | 180.35  | 12,112.09 | 751.02 S          | 798.33 E | 508,424.49      | 706,160.42 | 1.38        | 756.30   | -2.77    |          |
| 12,871.00 | 90.62       | 180.42  | 12,111.36 | 840.01 S          | 797.73 E | 508,335.50      | 706,159.82 | 0.36        | 845.29   | 12.72    |          |
| 12,961.00 | 89.11       | 177.77  | 12,111.58 | 929.99 S          | 799.15 E | 508,245.52      | 706,161.24 | 3.39        | 935.27   | -119.67  |          |
| 13,050.00 | 89.11       | 178.96  | 12,112.96 | 1,018.94 S        | 801.69 E | 508,156.57      | 706,163.78 | 1.34        | 1,024.24 | 90.01    |          |
| 13,120.00 | 89.69       | 178.66  | 12,113.69 | 1,088.92 S        | 803.14 E | 508,086.59      | 706,165.23 | 0.93        | 1,094.23 | -27.35   |          |
| 13,209.00 | 90.31       | 179.43  | 12,113.69 | 1,177.91 S        | 804.63 E | 507,997.60      | 706,166.72 | 1.11        | 1,183.22 | 51.16    |          |
| 13,299.00 | 91.05       | 181.47  | 12,112.62 | 1,267.90 S        | 803.92 E | 507,907.61      | 706,166.01 | 2.41        | 1,273.20 | 70.05    |          |
| 13,388.00 | 91.85       | 183.90  | 12,110.37 | 1,356.76 S        | 799.75 E | 507,818.75      | 706,161.84 | 2.87        | 1,362.04 | 71.74    |          |
| 13,478.00 | 91.42       | 182.25  | 12,107.80 | 1,446.59 S        | 794.93 E | 507,728.92      | 706,157.02 | 1.89        | 1,451.83 | -104.59  |          |
| 13,567.00 | 91.48       | 182.17  | 12,105.55 | 1,535.50 S        | 791.50 E | 507,640.01      | 706,153.59 | 0.11        | 1,540.71 | -53.12   |          |
| 13,657.00 | 90.49       | 181.31  | 12,104.00 | 1,625.44 S        | 788.77 E | 507,550.07      | 706,150.86 | 1.46        | 1,630.64 | -139.02  |          |
| 13,746.00 | 91.48       | 181.59  | 12,102.47 | 1,714.40 S        | 786.51 E | 507,461.11      | 706,148.60 | 1.16        | 1,719.58 | 15.79    |          |
| 13,836.00 | 90.74       | 180.36  | 12,100.73 | 1,804.37 S        | 784.98 E | 507,371.14      | 706,147.07 | 1.59        | 1,809.53 | -121.02  |          |
| 13,925.00 | 89.94       | 179.23  | 12,100.20 | 1,893.36 S        | 785.30 E | 507,282.15      | 706,147.39 | 1.56        | 1,898.53 | -125.29  |          |
| 14,014.00 | 89.51       | 177.34  | 12,100.63 | 1,982.32 S        | 787.96 E | 507,193.19      | 706,150.05 | 2.18        | 1,987.50 | -102.82  |          |
| 14,104.00 | 89.57       | 178.24  | 12,101.35 | 2,072.25 S        | 791.44 E | 507,103.26      | 706,153.53 | 1.00        | 2,077.45 | 86.19    |          |
| 14,193.00 | 89.57       | 179.99  | 12,102.02 | 2,161.23 S        | 792.81 E | 507,014.28      | 706,154.90 | 1.97        | 2,166.44 | 90.01    |          |
| 14,283.00 | 89.52       | 180.31  | 12,102.73 | 2,251.23 S        | 792.57 E | 506,924.28      | 706,154.66 | 0.36        | 2,256.43 | 98.88    |          |
| 14,372.00 | 89.94       | 181.31  | 12,103.15 | 2,340.21 S        | 791.32 E | 506,835.30      | 706,153.41 | 1.22        | 2,345.41 | 67.22    |          |
| 14,462.00 | 90.14       | 181.78  | 12,103.09 | 2,430.18 S        | 788.89 E | 506,745.33      | 706,150.98 | 0.57        | 2,435.36 | 66.95    |          |
| 14,552.00 | 90.37       | 180.63  | 12,102.69 | 2,520.16 S        | 787.00 E | 506,655.35      | 706,149.09 | 1.30        | 2,525.32 | -78.69   |          |
| 14,641.00 | 89.51       | 181.22  | 12,102.78 | 2,609.15 S        | 785.56 E | 506,566.36      | 706,147.65 | 1.17        | 2,614.30 | 145.55   |          |
| 14,731.00 | 90.00       | 179.58  | 12,103.17 | 2,699.14 S        | 784.93 E | 506,476.37      | 706,147.02 | 1.90        | 2,704.29 | -73.37   |          |
| 14,820.00 | 90.80       | 180.10  | 12,102.55 | 2,788.14 S        | 785.18 E | 506,387.37      | 706,147.27 | 1.07        | 2,793.28 | 33.02    |          |
| 14,910.00 | 90.62       | 180.50  | 12,101.43 | 2,878.13 S        | 784.71 E | 506,297.38      | 706,146.80 | 0.49        | 2,883.27 | 114.23   |          |
| 15,000.00 | 91.17       | 179.99  | 12,100.03 | 2,968.12 S        | 784.32 E | 506,207.39      | 706,146.41 | 0.83        | 2,973.25 | -42.83   |          |
| 15,089.00 | 92.04       | 180.67  | 12,097.53 | 3,057.08 S        | 783.81 E | 506,118.43      | 706,145.90 | 1.24        | 3,062.21 | 37.99    |          |
| 15,179.00 | 91.17       | 180.78  | 12,095.01 | 3,147.03 S        | 782.67 E | 506,028.48      | 706,144.76 | 0.97        | 3,152.16 | 172.80   |          |
| 15,268.00 | 91.17       | 181.45  | 12,093.20 | 3,236.00 S        | 780.94 E | 505,939.51      | 706,143.03 | 0.75        | 3,241.11 | 89.99    |          |
| 15,358.00 | 88.89       | 180.44  | 12,093.15 | 3,325.98 S        | 779.46 E | 505,849.53      | 706,141.55 | 2.77        | 3,331.08 | -156.11  |          |
| 15,447.00 | 89.07       | 179.06  | 12,094.73 | 3,414.96 S        | 779.85 E | 505,760.55      | 706,141.94 | 1.56        | 3,420.06 | -82.58   |          |
| 15,536.00 | 91.24       | 181.15  | 12,094.49 | 3,503.95 S        | 779.68 E | 505,671.56      | 706,141.77 | 3.39        | 3,509.04 | 43.93    |          |
| 15,626.00 | 91.17       | 180.81  | 12,092.60 | 3,593.92 S        | 778.14 E | 505,581.59      | 706,140.23 | 0.39        | 3,599.00 | -101.63  |          |
| 15,715.00 | 91.24       | 179.69  | 12,090.73 | 3,682.90 S        | 777.76 E | 505,492.61      | 706,139.85 | 1.26        | 3,687.97 | -86.41   |          |
| 15,805.00 | 91.23       | 179.86  | 12,088.79 | 3,772.87 S        | 778.11 E | 505,402.64      | 706,140.20 | 0.19        | 3,777.95 | 93.37    |          |
| 15,894.00 | 91.17       | 178.36  | 12,086.92 | 3,861.84 S        | 779.49 E | 505,313.67      | 706,141.58 | 1.69        | 3,866.93 | -92.28   |          |
| 15,984.00 | 88.64       | 176.31  | 12,087.07 | 3,951.73 S        | 783.68 E | 505,223.78      | 706,145.77 | 3.62        | 3,956.84 | -140.98  |          |



## Design Report for Frizzle Fry 15 WXY Fed Com 7H - Sidetrack #1

| Measured  |             | Grid    | Vertical  | Local Coordinates |          | Map Coordinates |            | Dogleg      | Vertical | Toolface | Comments |
|-----------|-------------|---------|-----------|-------------------|----------|-----------------|------------|-------------|----------|----------|----------|
| Depth     | Inclination | Azimuth | Depth     | Northing          | Easting  | Northing        | Easting    | Rate        | Section  | Angle    |          |
| (usft)    | (°)         | (°)     | (usft)    | (usft)            | (usft)   | (usft)          | (usft)     | (°/100usft) | (usft)   | (°)      |          |
| 16,073.00 | 90.99       | 177.43  | 12,087.36 | 4,040.59 S        | 788.53 E | 505,134.92      | 706,150.62 | 2.92        | 4,045.73 | 25.49    |          |
| 16,163.00 | 89.14       | 178.23  | 12,087.26 | 4,130.52 S        | 791.94 E | 505,044.99      | 706,154.03 | 2.24        | 4,135.68 | 156.61   |          |
| 16,252.00 | 87.71       | 178.47  | 12,089.70 | 4,219.45 S        | 794.50 E | 504,956.06      | 706,156.59 | 1.63        | 4,224.63 | 170.48   |          |
| 16,342.00 | 85.92       | 177.61  | 12,094.70 | 4,309.25 S        | 797.58 E | 504,866.26      | 706,159.67 | 2.21        | 4,314.45 | -154.40  |          |
| 16,431.00 | 89.26       | 180.28  | 12,098.45 | 4,398.14 S        | 799.21 E | 504,777.37      | 706,161.30 | 4.80        | 4,403.34 | 38.68    |          |
| 16,521.00 | 89.26       | 180.16  | 12,099.61 | 4,488.13 S        | 798.87 E | 504,687.38      | 706,160.96 | 0.13        | 4,493.33 | -90.00   |          |
| 16,610.00 | 87.16       | 179.25  | 12,102.39 | 4,577.08 S        | 799.32 E | 504,598.43      | 706,161.41 | 2.57        | 4,582.28 | -156.59  |          |
| 16,700.00 | 85.67       | 180.43  | 12,108.02 | 4,666.90 S        | 799.57 E | 504,508.61      | 706,161.66 | 2.11        | 4,672.10 | 141.71   |          |
| 16,789.00 | 84.80       | 180.77  | 12,115.41 | 4,755.59 S        | 798.65 E | 504,419.92      | 706,160.74 | 1.05        | 4,760.78 | 158.74   |          |
| 16,879.00 | 85.12       | 181.67  | 12,123.32 | 4,845.22 S        | 796.74 E | 504,330.29      | 706,158.83 | 1.06        | 4,850.39 | 70.40    |          |
| 16,968.00 | 87.03       | 181.94  | 12,129.41 | 4,933.96 S        | 793.94 E | 504,241.55      | 706,156.03 | 2.17        | 4,939.12 | 8.04     |          |
| 17,057.00 | 87.84       | 180.95  | 12,133.39 | 5,022.84 S        | 791.70 E | 504,152.67      | 706,153.79 | 1.44        | 5,027.98 | -50.71   |          |
| 17,147.00 | 89.81       | 180.51  | 12,135.24 | 5,112.81 S        | 790.55 E | 504,062.70      | 706,152.64 | 2.24        | 5,117.94 | -12.59   |          |
| 17,237.00 | 90.31       | 181.74  | 12,135.14 | 5,202.79 S        | 788.79 E | 503,972.72      | 706,150.88 | 1.48        | 5,207.91 | 67.88    |          |
| 17,326.00 | 88.70       | 180.65  | 12,135.91 | 5,291.76 S        | 786.93 E | 503,883.75      | 706,149.02 | 2.18        | 5,296.87 | -145.91  |          |
| 17,416.00 | 89.20       | 179.69  | 12,137.56 | 5,381.75 S        | 786.66 E | 503,793.76      | 706,148.75 | 1.20        | 5,386.84 | -62.49   |          |
| 17,505.00 | 87.71       | 178.44  | 12,139.96 | 5,470.70 S        | 788.11 E | 503,704.81      | 706,150.20 | 2.18        | 5,475.80 | -140.03  |          |
| 17,595.00 | 90.31       | 178.23  | 12,141.52 | 5,560.64 S        | 790.73 E | 503,614.87      | 706,152.82 | 2.90        | 5,565.76 | -4.62    |          |
| 17,684.00 | 89.70       | 179.43  | 12,141.51 | 5,649.62 S        | 792.55 E | 503,525.89      | 706,154.64 | 1.51        | 5,654.75 | 116.94   |          |
| 17,774.00 | 89.01       | 179.19  | 12,142.52 | 5,739.60 S        | 793.63 E | 503,435.91      | 706,155.72 | 0.81        | 5,744.74 | -160.82  |          |
| 17,863.00 | 90.00       | 180.42  | 12,143.29 | 5,828.60 S        | 793.93 E | 503,346.91      | 706,156.02 | 1.77        | 5,833.74 | 51.18    |          |
| 17,953.00 | 90.56       | 180.01  | 12,142.85 | 5,918.60 S        | 793.59 E | 503,256.91      | 706,155.68 | 0.77        | 5,923.73 | -36.21   |          |
| 18,042.00 | 91.73       | 180.18  | 12,141.07 | 6,007.58 S        | 793.45 E | 503,167.93      | 706,155.54 | 1.33        | 6,012.71 | 8.26     |          |
| 18,132.00 | 92.41       | 178.81  | 12,137.82 | 6,097.51 S        | 794.24 E | 503,078.00      | 706,156.33 | 1.70        | 6,102.64 | -63.56   |          |
| 18,221.00 | 91.17       | 178.59  | 12,135.04 | 6,186.44 S        | 796.26 E | 502,989.07      | 706,158.35 | 1.41        | 6,191.59 | -169.94  |          |
| 18,310.00 | 88.89       | 178.07  | 12,134.99 | 6,275.40 S        | 798.85 E | 502,900.11      | 706,160.94 | 2.63        | 6,280.56 | -167.15  |          |
| 18,400.00 | 89.07       | 177.65  | 12,136.60 | 6,365.32 S        | 802.21 E | 502,810.19      | 706,164.30 | 0.51        | 6,370.50 | -66.80   |          |
| 18,489.00 | 90.68       | 178.11  | 12,136.79 | 6,454.26 S        | 805.50 E | 502,721.25      | 706,167.59 | 1.88        | 6,459.46 | 15.95    |          |
| 18,578.00 | 90.86       | 178.82  | 12,135.59 | 6,543.22 S        | 807.89 E | 502,632.29      | 706,169.98 | 0.82        | 6,548.43 | 75.77    |          |
| 18,668.00 | 91.85       | 180.30  | 12,133.47 | 6,633.19 S        | 808.58 E | 502,542.32      | 706,170.67 | 1.98        | 6,638.40 | 56.20    |          |
| 18,758.00 | 93.40       | 181.40  | 12,129.34 | 6,723.08 S        | 807.25 E | 502,452.43      | 706,169.34 | 2.11        | 6,728.28 | 35.31    |          |
| 18,847.00 | 92.90       | 182.09  | 12,124.45 | 6,811.90 S        | 804.54 E | 502,363.61      | 706,166.63 | 0.96        | 6,817.09 | 125.95   |          |
| 18,937.00 | 92.96       | 180.76  | 12,119.85 | 6,901.75 S        | 802.30 E | 502,273.76      | 706,164.39 | 1.48        | 6,906.92 | -87.38   |          |
| 19,027.00 | 92.60       | 180.77  | 12,115.49 | 6,991.64 S        | 801.10 E | 502,183.87      | 706,163.19 | 0.40        | 6,996.80 | 178.41   |          |
| 19,116.00 | 89.88       | 179.56  | 12,113.56 | 7,080.61 S        | 800.85 E | 502,094.90      | 706,162.94 | 3.34        | 7,085.76 | -156.01  |          |
| 19,206.00 | 90.00       | 178.60  | 12,113.66 | 7,170.60 S        | 802.29 E | 502,004.91      | 706,164.38 | 1.07        | 7,175.76 | -82.88   |          |
| 19,295.00 | 90.06       | 176.33  | 12,113.61 | 7,259.50 S        | 806.23 E | 501,916.01      | 706,168.32 | 2.55        | 7,264.69 | -88.49   |          |

## Design Report for Frizzle Fry 15 WXY Fed Com 7H - Sidetrack #1

| Measured        | Grid               | Vertical       | Local Coordinates |                    |                   | Map Coordinates    |                   | Dogleg              | Vertical          | Toolface     | Comments                                                              |
|-----------------|--------------------|----------------|-------------------|--------------------|-------------------|--------------------|-------------------|---------------------|-------------------|--------------|-----------------------------------------------------------------------|
| Depth<br>(usft) | Inclination<br>(°) | Azimuth<br>(°) | Depth<br>(usft)   | Northing<br>(usft) | Easting<br>(usft) | Northing<br>(usft) | Easting<br>(usft) | Rate<br>(°/100usft) | Section<br>(usft) | Angle<br>(°) |                                                                       |
| 19,385.00       | 89.69              | 175.64         | 12,113.81         | 7,349.28 S         | 812.53 E          | 501,826.23         | 706,174.62        | 0.87                | 7,354.51          | -118.20      |                                                                       |
| 19,475.00       | 89.26              | 175.33         | 12,114.63         | 7,439.00 S         | 819.61 E          | 501,736.51         | 706,181.70        | 0.59                | 7,444.27          | -144.21      |                                                                       |
| 19,564.00       | 89.69              | 176.97         | 12,115.45         | 7,527.79 S         | 825.59 E          | 501,647.72         | 706,187.68        | 1.90                | 7,533.10          | 75.32        |                                                                       |
| 19,653.00       | 89.81              | 177.06         | 12,115.83         | 7,616.67 S         | 830.22 E          | 501,558.84         | 706,192.31        | 0.17                | 7,622.01          | 36.87        |                                                                       |
| 19,742.00       | 89.63              | 177.53         | 12,116.27         | 7,705.57 S         | 834.43 E          | 501,469.94         | 706,196.52        | 0.57                | 7,710.93          | 110.96       |                                                                       |
| 19,832.00       | 90.68              | 179.56         | 12,116.03         | 7,795.53 S         | 836.71 E          | 501,379.98         | 706,198.80        | 2.54                | 7,800.91          | 62.65        |                                                                       |
| 19,921.00       | 89.88              | 180.49         | 12,115.59         | 7,884.53 S         | 836.67 E          | 501,290.98         | 706,198.76        | 1.38                | 7,889.90          | 130.70       |                                                                       |
| 20,011.00       | 90.25              | 181.69         | 12,115.49         | 7,974.51 S         | 834.96 E          | 501,201.00         | 706,197.05        | 1.40                | 7,979.87          | 72.86        |                                                                       |
| 20,100.00       | 91.54              | 183.03         | 12,114.10         | 8,063.42 S         | 831.30 E          | 501,112.09         | 706,193.39        | 2.09                | 8,068.76          | 46.08        |                                                                       |
| 20,190.00       | 90.31              | 184.51         | 12,112.65         | 8,153.21 S         | 825.38 E          | 501,022.30         | 706,187.47        | 2.14                | 8,158.50          | 129.72       |                                                                       |
| 20,279.00       | 88.70              | 181.44         | 12,113.41         | 8,242.07 S         | 820.76 E          | 500,933.44         | 706,182.85        | 3.89                | 8,247.34          | -117.68      |                                                                       |
| 20,369.00       | 89.51              | 180.81         | 12,114.82         | 8,332.04 S         | 818.99 E          | 500,843.47         | 706,181.08        | 1.14                | 8,337.29          | -37.88       |                                                                       |
| 20,458.00       | 90.19              | 182.01         | 12,115.05         | 8,421.01 S         | 816.80 E          | 500,754.50         | 706,178.89        | 1.55                | 8,426.25          | 60.46        |                                                                       |
| 20,548.00       | 90.43              | 180.45         | 12,114.57         | 8,510.99 S         | 814.87 E          | 500,664.52         | 706,176.96        | 1.75                | 8,516.21          | -81.25       |                                                                       |
| 20,637.00       | 90.37              | 178.02         | 12,113.95         | 8,599.97 S         | 816.06 E          | 500,575.54         | 706,178.15        | 2.73                | 8,605.20          | -91.41       |                                                                       |
| 20,727.00       | 89.63              | 177.44         | 12,113.95         | 8,689.90 S         | 819.62 E          | 500,485.61         | 706,181.71        | 1.04                | 8,695.15          | -141.91      |                                                                       |
| 20,816.00       | 89.14              | 177.51         | 12,114.90         | 8,778.81 S         | 823.54 E          | 500,396.70         | 706,185.63        | 0.56                | 8,784.08          | 171.87       |                                                                       |
| 20,906.00       | 90.12              | 179.20         | 12,115.48         | 8,868.77 S         | 826.13 E          | 500,306.74         | 706,188.22        | 2.17                | 8,874.05          | 59.90        |                                                                       |
| 20,996.00       | 89.69              | 178.32         | 12,115.63         | 8,958.74 S         | 828.08 E          | 500,216.77         | 706,190.17        | 1.09                | 8,964.04          | -116.04      |                                                                       |
| 21,085.00       | 89.26              | 179.59         | 12,116.45         | 9,047.72 S         | 829.70 E          | 500,127.79         | 706,191.79        | 1.51                | 9,053.03          | 108.71       |                                                                       |
| 21,175.00       | 89.94              | 179.04         | 12,117.07         | 9,137.71 S         | 830.77 E          | 500,037.80         | 706,192.86        | 0.97                | 9,143.02          | -38.97       |                                                                       |
| 21,264.00       | 89.75              | 178.45         | 12,117.32         | 9,226.69 S         | 832.72 E          | 499,948.82         | 706,194.81        | 0.70                | 9,232.01          | -107.85      |                                                                       |
| 21,354.00       | 90.49              | 179.69         | 12,117.13         | 9,316.68 S         | 834.19 E          | 499,858.83         | 706,196.28        | 1.60                | 9,322.00          | 59.17        |                                                                       |
| 21,443.00       | 90.74              | 179.74         | 12,116.17         | 9,405.67 S         | 834.63 E          | 499,769.84         | 706,196.72        | 0.29                | 9,411.00          | 11.31        |                                                                       |
| 21,533.00       | 90.62              | 178.86         | 12,115.10         | 9,495.66 S         | 835.73 E          | 499,679.85         | 706,197.82        | 0.99                | 9,500.99          | -97.76       |                                                                       |
| 21,622.00       | 88.58              | 178.45         | 12,115.72         | 9,584.63 S         | 837.82 E          | 499,590.88         | 706,199.91        | 2.34                | 9,589.97          | -168.64      |                                                                       |
| 21,712.00       | 88.89              | 180.12         | 12,117.71         | 9,674.59 S         | 838.94 E          | 499,500.92         | 706,201.03        | 1.89                | 9,679.94          | 79.50        |                                                                       |
| 21,802.00       | 91.90              | 181.37         | 12,117.09         | 9,764.57 S         | 837.77 E          | 499,410.94         | 706,199.86        | 3.62                | 9,769.91          | 22.55        |                                                                       |
| 21,891.00       | 90.62              | 180.54         | 12,115.13         | 9,853.53 S         | 836.29 E          | 499,321.98         | 706,198.38        | 1.71                | 9,858.86          | -147.04      |                                                                       |
| 21,980.00       | 91.85              | 179.18         | 12,113.22         | 9,942.51 S         | 836.50 E          | 499,233.00         | 706,198.59        | 2.06                | 9,947.84          | -47.85       |                                                                       |
| 22,070.00       | 90.56              | 179.54         | 12,111.32         | 10,032.48 S        | 837.51 E          | 499,143.03         | 706,199.60        | 1.49                | 10,037.82         | 164.41       |                                                                       |
| 22,159.00       | 89.94              | 177.40         | 12,110.94         | 10,121.44 S        | 839.88 E          | 499,054.07         | 706,201.97        | 2.50                | 10,126.79         | -106.15      |                                                                       |
| 22,175.00       | 89.81              | 177.05         | 12,110.97         | 10,137.43 S        | 840.66 E          | 499,038.08         | 706,202.75        | 2.33                | 10,142.78         | -110.38      | Last Hal MWD Survey @ 22175'MD                                        |
| 22,217.00       | 89.81              | 177.05         | 12,111.11         | 10,179.37 S        | 842.82 E          | 498,996.14         | 706,204.91        | 0.00                | 10,184.74         | 0.00         | Proj. to TD @ 22217'MD (100.62' FSL, 1046.78' FEL of Sec. 15&22 W1/2) |

## Design Report for Frizzle Fry 15 WXY Fed Com 7H - Sidetrack #1

### Design Annotations

| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates |                 | Comment                                                               |
|-----------------------------|-----------------------------|-------------------|-----------------|-----------------------------------------------------------------------|
|                             |                             | +N/-S<br>(usft)   | +E/-W<br>(usft) |                                                                       |
| 131.00                      | 131.00                      | 0.45              | 0.09            | First Invictus MWD Survey @ 131'MD                                    |
| 1,041.00                    | 1,040.85                    | -7.58             | -9.91           | Last Invictus MWD Survey @ 1041'MD                                    |
| 1,168.00                    | 1,167.84                    | -7.84             | -9.45           | First Hal MWD Survey @ 1168'MD                                        |
| 1,688.00                    | 1,687.83                    | -6.54             | -6.07           | ST Depth @ 1688'MD                                                    |
| 11,550.00                   | 11,504.97                   | 176.60            | 747.92          | KOP @ 11550'MD (105.27' FNL, 1072.10' FEL of Sec. 15&22 W1/2)         |
| 22,175.00                   | 12,110.97                   | -10,137.43        | 840.66          | Last Hal MWD Survey @ 22175'MD                                        |
| 22,217.00                   | 12,111.11                   | -10,179.37        | 842.82          | Proj. to TD @ 22217'MD (100.62' FSL, 1046.78' FEL of Sec. 15&22 W1/2) |

### Vertical Section Information

| Angle<br>Type | Target               | Azimuth<br>(°) | Origin<br>Type | Origin          |                 | Start<br>TVD<br>(usft) |
|---------------|----------------------|----------------|----------------|-----------------|-----------------|------------------------|
|               |                      |                |                | +N/-S<br>(usft) | +E/-W<br>(usft) |                        |
| User          | No Target (Freehand) | 179.62         | Slot           | 0.00            | 0.00            | 0.00                   |

### Survey tool program

| From<br>(usft) | To<br>(usft) | Survey/Plan              | Survey Tool   |
|----------------|--------------|--------------------------|---------------|
| 131.00         | 1,041.00     | Invictus Surface Surveys | 3_MWD+IGRF    |
| 1,168.00       | 1,661.00     | BHA #1 MWD Surveys       | 3_MWD+HRGM+AX |
| 1,741.00       | 1,831.00     | BHA #3 MWD Surveys       | 3_MWD+HRGM+AX |
| 1,929.00       | 8,843.00     | BHA #4 MWD Surveys       | 3_MWD+HRGM+AX |
| 8,930.00       | 10,183.00    | BHA #5 MWD Surveys       | 3_MWD+HRGM+AX |
| 10,260.00      | 11,458.00    | BHA #6 MWD Surveys       | 3_MWD+HRGM+AX |
| 11,528.00      | 13,050.00    | BHA #7 MWD Surveys       | 3_MWD+HRGM+AX |
| 13,120.00      | 22,175.00    | BHA #8 MWD Surveys       | 3_MWD+HRGM+AX |
| 22,217.00      | 22,217.00    | Projection to TD         | 3_Blind       |

## Design Report for Frizzle Fry 15 WXY Fed Com 7H - Sidetrack #1

### Design Targets

| Target Name<br>- hit/miss target<br>- Shape                                                      | Dip<br>Angle<br>(°) | Dip<br>Dir.<br>(°) | TVD<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Northing<br>(usft) | Easting<br>(usft) | Latitude    | Longitude     |
|--------------------------------------------------------------------------------------------------|---------------------|--------------------|---------------|-----------------|-----------------|--------------------|-------------------|-------------|---------------|
| Frizzle Fry WXY Fed Com 7H LTP/BHL ()                                                            | 0.00                | 0.00               | 0.00          | -10,179.96      | 845.55          | 498,995.55         | 706,207.64        | 32.37008498 | -103.66544598 |
| - actual wellpath misses target center by 10215.02usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E) |                     |                    |               |                 |                 |                    |                   |             |               |
| - Point                                                                                          |                     |                    |               |                 |                 |                    |                   |             |               |
| Frizzle Fry WXY Fed Com 7H KOP/FTP ()                                                            | 0.00                | 0.00               | 0.00          | 182.21          | 777.24          | 509,357.72         | 706,139.33        | 32.39856903 | -103.66545769 |
| - actual wellpath misses target center by 798.31usft at 1.13usft MD (1.13 TVD, 0.00 N, 0.00 E)   |                     |                    |               |                 |                 |                    |                   |             |               |
| - Point                                                                                          |                     |                    |               |                 |                 |                    |                   |             |               |

### Directional Difficulty Index

|                                     |                |                               |                                      |
|-------------------------------------|----------------|-------------------------------|--------------------------------------|
| Average Dogleg over Survey:         | 1.54 °/100usft | Maximum Dogleg over Survey:   | 13.07 °/100usft at<br>11,707.00 usft |
| Net Tortousity applicable to Plans: | 0.28 °/100usft | Directional Difficulty Index: | 6.849                                |

### Audit Info

**North Reference Sheet for Frizzle Fry 15 Pad (Grid) - Frizzle Fry 15 WXY Fed Com 7H - ST01**

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to Grid North Reference.

Vertical Depths are relative to GL: 3791' + KB: 25' @ 3816.00usft (Precision 601). Northing and Easting are relative to Frizzle Fry 15 WXY Fed Com 7H

Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 3001 using datum NAD 1927 (NADCON CONUS), ellipsoid Clarke 1866

Projection method is Transverse Mercator (Gauss-Kruger)

Central Meridian is -104.33333333°, Longitude Origin:0.00000000°, Latitude Origin:0.00000000°

False Easting: 500,000.00usft, False Northing: 0.00usft, Scale Reduction: 0.99995739

Grid Coordinates of Well: 509,175.51 usft N, 705,362.09 usft E

Geographical Coordinates of Well: 32.39808150, -103.66797941

Grid Convergence at Surface is: 0.36°

Based upon Minimum Curvature type calculations, at a Measured Depth of 22,217.00usft  
the Bottom Hole Displacement is 10,214.20usft in the Direction of 175.27° (Grid).

Magnetic Convergence at surface is: -6.38° (10 October 2019, , HDGM\_2019)

