



# **EOW REPORT**

**Wool Head 20 State Com #554H**

**Lea County, New Mexico**

**11/11/2019 - 12/14/2019**

**API:30-025-46483**





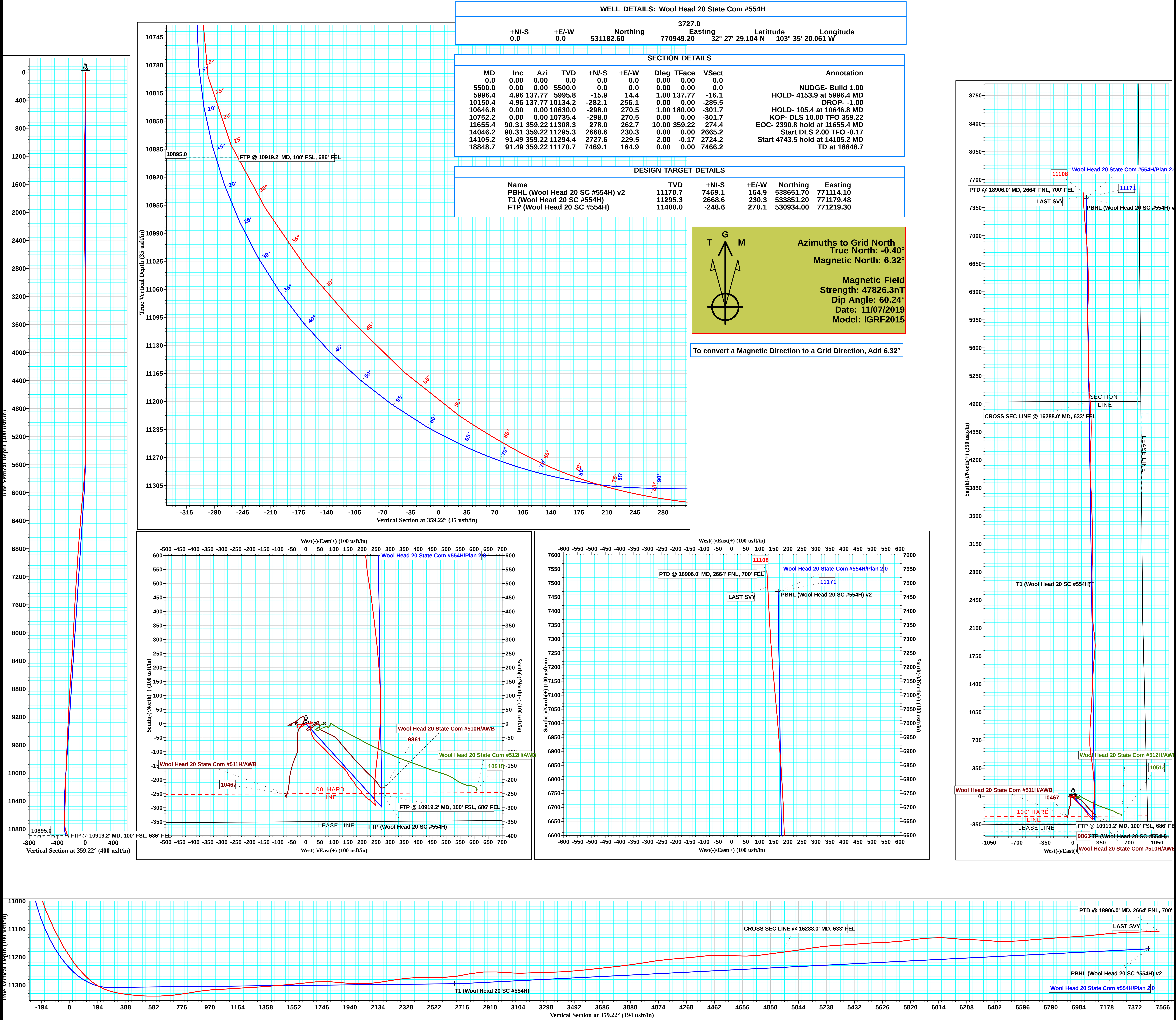
# Plan Vs. Actual







Advance Energy Partners  
Project: Lea County, NM (NAD 83 NME)  
Site: (Wool Head)Sec20\_T-21-S\_R-33-E  
Well: Wool Head 20 State Com #554H  
Wellbore: OWB  
Design: AWB  
Lat: 32° 27' 29.104 N  
Long: 103° 35' 20.061 W  
Pad GL: 3727.0  
KB: KB @ 3752.0usft







# **Advance Energy Partners**

**Lea County, NM (NAD 83 NME)  
(Wool Head)Sec20\_T-21-S\_R-33-E  
Wool Head 20 State Com #554H  
OWB**

**Design: AWB**

## **Distance to Plan**

**16 December, 2019**





|                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Company:</b> Advance Energy Partners<br><b>Project:</b> Lea County, NM (NAD 83 NME)<br><b>Site:</b> (Wool Head)Sec20_T-21-S_R-33-E<br><b>Well:</b> Wool Head 20 State Com #554H<br><b>Wellbore:</b> OWB<br><b>Design:</b> AWB | <b>Local Co-ordinate Reference:</b> Well Wool Head 20 State Com #554H<br><b>TVD Reference:</b> KB @ 3752.0usft<br><b>MD Reference:</b> KB @ 3752.0usft<br><b>North Reference:</b> Grid<br><b>Survey Calculation Method:</b> Minimum Curvature<br><b>Database:</b> EDM 10_13 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                   |                                     |
|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| <b>Project</b> Lea County, NM (NAD 83 NME)                                                                                        |                                     |
| <b>Map System:</b> US State Plane 1983<br><b>Geo Datum:</b> North American Datum 1983<br><b>Map Zone:</b> New Mexico Eastern Zone | <b>System Datum:</b> Mean Sea Level |

|                                                                                    |                                                                                                      |                                                                                                             |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| <b>Site</b> (Wool Head)Sec20_T-21-S_R-33-E                                         |                                                                                                      |                                                                                                             |
| <b>Site Position:</b><br><b>From:</b> Map<br><b>Position Uncertainty:</b> 0.0 usft | <b>Northing:</b> 531,182.60 usft<br><b>Easting:</b> 770,949.20 usft<br><b>Slot Radius:</b> 13-3/16 " | <b>Latitude:</b> 32° 27' 29.104 N<br><b>Longitude:</b> 103° 35' 20.061 W<br><b>Grid Convergence:</b> 0.40 ° |

|                                                                                               |                                                                                                        |                                                                                                               |
|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| <b>Well</b> Wool Head 20 State Com #554H                                                      |                                                                                                        |                                                                                                               |
| <b>Well Position</b> +N/-S 0.0 usft<br>+E/-W 0.0 usft<br><b>Position Uncertainty</b> 0.0 usft | <b>Northing:</b> 531,182.60 usft<br><b>Easting:</b> 770,949.20 usft<br><b>Wellhead Elevation:</b> usft | <b>Latitude:</b> 32° 27' 29.104 N<br><b>Longitude:</b> 103° 35' 20.061 W<br><b>Ground Level:</b> 3,727.0 usft |

| <b>Wellbore</b> OWB                                                                                                                                                                                                                                                                                                                |            |             |                 |                 |                     |                     |  |          |            |      |       |                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------|-----------------|-----------------|---------------------|---------------------|--|----------|------------|------|-------|-----------------|
| <table border="1"> <thead> <tr> <th>Magnetics</th> <th>Model Name</th> <th>Sample Date</th> <th>Declination (°)</th> <th>Dip Angle (°)</th> <th>Field Strength (nT)</th> </tr> </thead> <tbody> <tr> <td></td> <td>IGRF2015</td> <td>11/07/2019</td> <td>6.72</td> <td>60.24</td> <td>47,826.25094994</td> </tr> </tbody> </table> | Magnetics  | Model Name  | Sample Date     | Declination (°) | Dip Angle (°)       | Field Strength (nT) |  | IGRF2015 | 11/07/2019 | 6.72 | 60.24 | 47,826.25094994 |
| Magnetics                                                                                                                                                                                                                                                                                                                          | Model Name | Sample Date | Declination (°) | Dip Angle (°)   | Field Strength (nT) |                     |  |          |            |      |       |                 |
|                                                                                                                                                                                                                                                                                                                                    | IGRF2015   | 11/07/2019  | 6.72            | 60.24           | 47,826.25094994     |                     |  |          |            |      |       |                 |

| <b>Design</b> AWB                                                                                                                                                                                                                                                       |                         |              |               |               |     |     |     |        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|--------------|---------------|---------------|-----|-----|-----|--------|
| <b>Audit Notes:</b><br><b>Version:</b> 1.0<br><b>Phase:</b> ACTUAL<br><b>Tie On Depth:</b> 0.0                                                                                                                                                                          |                         |              |               |               |     |     |     |        |
| <b>Vertical Section:</b> <table border="1"> <thead> <tr> <th>Depth From (TVD) (usft)</th> <th>+N/-S (usft)</th> <th>+E/-W (usft)</th> <th>Direction (°)</th> </tr> </thead> <tbody> <tr> <td>0.0</td> <td>0.0</td> <td>0.0</td> <td>359.22</td> </tr> </tbody> </table> | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft)  | Direction (°) | 0.0 | 0.0 | 0.0 | 359.22 |
| Depth From (TVD) (usft)                                                                                                                                                                                                                                                 | +N/-S (usft)            | +E/-W (usft) | Direction (°) |               |     |     |     |        |
| 0.0                                                                                                                                                                                                                                                                     | 0.0                     | 0.0          | 359.22        |               |     |     |     |        |

| <b>Survey Program</b> Date 12/16/2019                                                                                                                                                                                                                                                                 |             |                    |                   |                     |             |       |          |                    |     |                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------------------|-------------------|---------------------|-------------|-------|----------|--------------------|-----|---------------------|
| <table border="1"> <thead> <tr> <th>From (usft)</th> <th>To (usft)</th> <th>Survey (Wellbore)</th> <th>Tool Name</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>238.0</td> <td>18,906.0</td> <td>Intrepid MWD (OWB)</td> <td>MWD</td> <td>OWSG MWD - Standard</td> </tr> </tbody> </table> | From (usft) | To (usft)          | Survey (Wellbore) | Tool Name           | Description | 238.0 | 18,906.0 | Intrepid MWD (OWB) | MWD | OWSG MWD - Standard |
| From (usft)                                                                                                                                                                                                                                                                                           | To (usft)   | Survey (Wellbore)  | Tool Name         | Description         |             |       |          |                    |     |                     |
| 238.0                                                                                                                                                                                                                                                                                                 | 18,906.0    | Intrepid MWD (OWB) | MWD               | OWSG MWD - Standard |             |       |          |                    |     |                     |

|                  |                                |                                     |                                   |
|------------------|--------------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>  | Advance Energy Partners        | <b>Local Co-ordinate Reference:</b> | Well Wool Head 20 State Com #554H |
| <b>Project:</b>  | Lea County, NM (NAD 83 NME)    | <b>TVD Reference:</b>               | KB @ 3752.0usft                   |
| <b>Site:</b>     | (Wool Head)Sec20_T-21-S_R-33-E | <b>MD Reference:</b>                | KB @ 3752.0usft                   |
| <b>Well:</b>     | Wool Head 20 State Com #554H   | <b>North Reference:</b>             | Grid                              |
| <b>Wellbore:</b> | OWB                            | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Design:</b>   | AWB                            | <b>Database:</b>                    | EDM 10_13                         |

| Survey       |            |                      |               |                  |                         |                            |                        |                         |                         |  |
|--------------|------------|----------------------|---------------|------------------|-------------------------|----------------------------|------------------------|-------------------------|-------------------------|--|
| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | V. Sec<br>(usft) | Depth on Plan<br>(usft) | Distance to Plan<br>(usft) | High to Plan<br>(usft) | Right to Plan<br>(usft) | Toolface to Plan<br>(°) |  |
| 0.0          | 0.00       | 0.00                 | 0.0           | 0.0              | 0.0                     | 0.0                        | 0.0                    | 0.0                     | 0.00                    |  |
| 238.0        | 0.31       | 181.05               | 238.0         | -0.6             | 238.0                   | 0.6                        | -0.6                   | 0.0                     | 180.00                  |  |
| 329.0        | 0.48       | 239.41               | 329.0         | -1.1             | 329.0                   | 1.1                        | -0.8                   | 0.8                     | 138.22                  |  |
| 424.0        | 0.66       | 198.19               | 424.0         | -1.8             | 424.0                   | 2.0                        | -2.0                   | -0.3                    | -172.79                 |  |
| 519.0        | 0.84       | 230.27               | 519.0         | -2.7             | 519.0                   | 3.2                        | -3.0                   | 1.1                     | 159.17                  |  |
| 614.0        | 0.48       | 264.37               | 614.0         | -3.2             | 614.0                   | 4.1                        | -2.8                   | 3.0                     | 133.11                  |  |
| 710.0        | 1.01       | 243.27               | 710.0         | -3.6             | 710.0                   | 5.2                        | -4.9                   | 1.6                     | 161.54                  |  |
| 804.0        | 2.42       | 239.93               | 803.9         | -5.0             | 803.9                   | 7.9                        | -7.8                   | 1.3                     | 170.53                  |  |
| 899.0        | 1.27       | 237.38               | 898.9         | -6.5             | 898.9                   | 11.0                       | -10.9                  | 0.9                     | 175.47                  |  |
| 994.0        | 0.84       | 241.34               | 993.9         | -7.4             | 993.9                   | 12.7                       | -12.6                  | 1.7                     | 172.35                  |  |
| 1,084.0      | 0.92       | 247.76               | 1,083.8       | -7.9             | 1,083.8                 | 14.1                       | -13.7                  | 3.2                     | 167.00                  |  |
| 1,173.0      | 1.14       | 236.51               | 1,172.8       | -8.7             | 1,172.8                 | 15.6                       | -15.6                  | 0.3                     | 178.94                  |  |
| 1,263.0      | 1.14       | 230.18               | 1,262.8       | -9.7             | 1,262.8                 | 17.4                       | -17.4                  | -1.5                    | -174.94                 |  |
| 1,352.0      | 1.23       | 241.87               | 1,351.8       | -10.7            | 1,351.8                 | 19.3                       | -19.1                  | 2.2                     | 173.46                  |  |
| 1,442.0      | 1.27       | 236.24               | 1,441.8       | -11.7            | 1,441.8                 | 21.2                       | -21.2                  | 0.2                     | 179.43                  |  |
| 1,531.0      | 1.63       | 235.98               | 1,530.7       | -13.0            | 1,530.7                 | 23.5                       | -23.5                  | 0.1                     | 179.73                  |  |
| 1,620.0      | 1.23       | 244.15               | 1,619.7       | -14.0            | 1,619.7                 | 25.7                       | -25.4                  | 3.6                     | 171.89                  |  |
| 1,710.0      | 1.41       | 244.94               | 1,709.7       | -14.9            | 1,709.7                 | 27.7                       | -27.4                  | 4.0                     | 171.73                  |  |
| 1,770.0      | 1.76       | 261.47               | 1,769.7       | -15.3            | 1,769.7                 | 29.3                       | -26.8                  | 11.8                    | 156.16                  |  |
| 1,892.0      | 1.58       | 285.64               | 1,891.6       | -15.1            | 1,891.6                 | 32.2                       | -23.0                  | 22.5                    | 135.56                  |  |
| 1,982.0      | 1.49       | 294.25               | 1,981.6       | -14.3            | 1,981.6                 | 33.8                       | -21.8                  | 25.9                    | 130.01                  |  |
| 2,071.0      | 0.88       | 330.20               | 2,070.6       | -13.2            | 2,070.6                 | 34.7                       | -4.0                   | 34.4                    | 96.66                   |  |
| 2,161.0      | 0.79       | 21.26                | 2,160.6       | -12.0            | 2,160.6                 | 34.3                       | 23.2                   | 25.3                    | 47.49                   |  |
| 2,250.0      | 0.79       | 20.56                | 2,249.6       | -10.9            | 2,249.6                 | 33.5                       | 21.7                   | 25.6                    | 49.74                   |  |
| 2,340.0      | 1.05       | 24.69                | 2,339.5       | -9.5             | 2,339.5                 | 32.6                       | 22.0                   | 24.0                    | 47.49                   |  |
| 2,430.0      | 0.92       | 35.32                | 2,429.5       | -8.2             | 2,429.5                 | 31.4                       | 24.5                   | 19.7                    | 38.75                   |  |
| 2,520.0      | 1.01       | 39.72                | 2,519.5       | -7.0             | 2,519.5                 | 30.2                       | 24.4                   | 17.8                    | 36.06                   |  |

|                  |                                |                                     |                                   |
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| <b>Project:</b>  | Lea County, NM (NAD 83 NME)    | <b>TVD Reference:</b>               | KB @ 3752.0usft                   |
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| <b>Well:</b>     | Wool Head 20 State Com #554H   | <b>North Reference:</b>             | Grid                              |
| <b>Wellbore:</b> | OWB                            | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Design:</b>   | AWB                            | <b>Database:</b>                    | EDM 10_13                         |

| Survey       |            |                      |               |                  |                         |                            |                        |                         |                         |  |
|--------------|------------|----------------------|---------------|------------------|-------------------------|----------------------------|------------------------|-------------------------|-------------------------|--|
| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | V. Sec<br>(usft) | Depth on Plan<br>(usft) | Distance to Plan<br>(usft) | High to Plan<br>(usft) | Right to Plan<br>(usft) | Toolface to Plan<br>(°) |  |
| 2,609.0      | 1.01       | 18.01                | 2,608.5       | -5.7             | 2,608.5                 | 29.2                       | 14.6                   | 25.3                    | 59.98                   |  |
| 2,699.0      | 0.97       | 18.01                | 2,698.5       | -4.2             | 2,698.5                 | 28.5                       | 13.1                   | 25.3                    | 62.69                   |  |
| 2,789.0      | 0.92       | 39.98                | 2,788.5       | -2.9             | 2,788.5                 | 27.6                       | 20.1                   | 18.8                    | 43.11                   |  |
| 2,878.0      | 1.63       | 78.65                | 2,877.5       | -2.2             | 2,877.5                 | 25.8                       | 25.7                   | 2.6                     | 5.74                    |  |
| 2,968.0      | 2.37       | 88.41                | 2,967.4       | -1.9             | 2,967.4                 | 22.7                       | 22.6                   | -1.6                    | -4.04                   |  |
| 3,058.0      | 2.99       | 90.26                | 3,057.3       | -1.9             | 3,057.3                 | 18.5                       | 18.3                   | -2.3                    | -7.04                   |  |
| 3,148.0      | 2.59       | 87.79                | 3,147.2       | -1.9             | 3,147.2                 | 14.1                       | 14.0                   | -1.6                    | -6.39                   |  |
| 3,237.0      | 1.98       | 90.87                | 3,236.1       | -1.9             | 3,236.1                 | 10.6                       | 10.4                   | -2.2                    | -12.04                  |  |
| 3,327.0      | 2.15       | 85.95                | 3,326.1       | -1.9             | 3,326.1                 | 7.5                        | 7.3                    | -1.5                    | -11.22                  |  |
| 3,417.0      | 1.71       | 87.09                | 3,416.0       | -1.7             | 3,416.0                 | 4.5                        | 4.3                    | -1.6                    | -20.17                  |  |
| 3,506.0      | 0.66       | 72.06                | 3,505.0       | -1.5             | 3,505.0                 | 2.8                        | 2.7                    | -0.7                    | -15.43                  |  |
| 3,596.0      | 0.53       | 58.88                | 3,595.0       | -1.2             | 3,595.0                 | 1.9                        | 1.9                    | -0.2                    | -6.88                   |  |
| 3,686.0      | 0.75       | 89.20                | 3,685.0       | -0.9             | 3,685.0                 | 1.1                        | 0.6                    | -0.9                    | -58.77                  |  |
| 3,776.0      | 0.97       | 63.10                | 3,775.0       | -0.6             | 3,775.0                 | 0.9                        | -0.4                   | -0.9                    | -112.88                 |  |
| 3,865.0      | 0.88       | 72.59                | 3,864.0       | -0.1             | 3,864.0                 | 2.0                        | -1.9                   | -0.7                    | -161.06                 |  |
| 3,955.0      | 1.19       | 88.94                | 3,953.9       | 0.1              | 3,953.9                 | 3.6                        | -3.6                   | 0.1                     | 178.38                  |  |
| 4,045.0      | 1.45       | 78.39                | 4,043.9       | 0.3              | 4,043.9                 | 5.7                        | -5.6                   | -0.7                    | -172.58                 |  |
| 4,135.0      | 1.71       | 72.85                | 4,133.9       | 0.9              | 4,133.9                 | 8.1                        | -8.0                   | -1.4                    | -170.20                 |  |
| 4,224.0      | 2.07       | 88.76                | 4,222.8       | 1.3              | 4,222.8                 | 11.0                       | -11.0                  | 1.2                     | 173.60                  |  |
| 4,314.0      | 1.93       | 87.27                | 4,312.8       | 1.4              | 4,312.8                 | 14.2                       | -14.1                  | 0.9                     | 176.35                  |  |
| 4,404.0      | 1.76       | 86.48                | 4,402.7       | 1.5              | 4,402.7                 | 17.1                       | -17.1                  | 0.7                     | 177.69                  |  |
| 4,493.0      | 1.71       | 93.16                | 4,491.7       | 1.5              | 4,491.7                 | 19.8                       | -19.5                  | 2.8                     | 171.77                  |  |
| 4,583.0      | 1.93       | 72.24                | 4,581.7       | 1.8              | 4,581.7                 | 22.6                       | -22.0                  | -4.8                    | -167.65                 |  |
| 4,673.0      | 0.57       | 40.42                | 4,671.6       | 2.6              | 4,671.6                 | 24.4                       | -17.9                  | -16.5                   | -137.33                 |  |
| 4,762.0      | 0.75       | 301.81               | 4,760.6       | 3.3              | 4,760.6                 | 24.2                       | 18.5                   | -15.7                   | -40.30                  |  |
| 4,852.0      | 0.84       | 301.98               | 4,850.6       | 3.9              | 4,850.6                 | 23.3                       | 17.2                   | -15.7                   | -42.46                  |  |
| 4,942.0      | 0.57       | 282.65               | 4,940.6       | 4.4              | 4,940.6                 | 22.4                       | 20.4                   | -9.4                    | -24.71                  |  |



|                  |                                |                                     |                                   |
|------------------|--------------------------------|-------------------------------------|-----------------------------------|
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| <b>Well:</b>     | Wool Head 20 State Com #554H   | <b>North Reference:</b>             | Grid                              |
| <b>Wellbore:</b> | OWB                            | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Design:</b>   | AWB                            | <b>Database:</b>                    | EDM 10_13                         |

| Survey       |            |                      |               |                  |                         |                            |                        |                         |                         |  |
|--------------|------------|----------------------|---------------|------------------|-------------------------|----------------------------|------------------------|-------------------------|-------------------------|--|
| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | V. Sec<br>(usft) | Depth on Plan<br>(usft) | Distance to Plan<br>(usft) | High to Plan<br>(usft) | Right to Plan<br>(usft) | Toolface to Plan<br>(°) |  |
| 5,031.0      | 0.53       | 286.69               | 5,029.6       | 4.6              | 5,029.6                 | 21.7                       | 18.8                   | -10.8                   | -29.77                  |  |
| 5,121.0      | 1.01       | 305.15               | 5,119.6       | 5.2              | 5,119.6                 | 20.8                       | 13.2                   | -16.0                   | -50.43                  |  |
| 5,192.0      | 0.79       | 284.32               | 5,190.6       | 5.7              | 5,190.6                 | 20.0                       | 17.0                   | -10.5                   | -31.68                  |  |
| 5,303.0      | 1.19       | 278.28               | 5,301.6       | 6.1              | 5,301.6                 | 18.3                       | 16.1                   | -8.7                    | -28.46                  |  |
| 5,392.0      | 0.92       | 265.86               | 5,390.6       | 6.2              | 5,390.6                 | 16.8                       | 16.0                   | -5.3                    | -18.21                  |  |
| 5,482.0      | 3.34       | 185.00               | 5,480.5       | 3.5              | 5,480.5                 | 15.1                       | 5.0                    | 14.2                    | 70.70                   |  |
| 5,572.0      | 3.16       | 181.13               | 5,570.4       | -1.6             | 5,570.5                 | 14.1                       | -0.8                   | 14.1                    | 93.13                   |  |
| 5,661.0      | 2.68       | 176.65               | 5,659.2       | -6.1             | 5,659.6                 | 13.6                       | -5.0                   | 12.6                    | 111.59                  |  |
| 5,751.0      | 3.87       | 175.25               | 5,749.1       | -11.2            | 5,749.7                 | 13.1                       | -7.9                   | 10.5                    | 126.97                  |  |
| 5,841.0      | 5.76       | 169.01               | 5,838.8       | -18.7            | 5,839.8                 | 14.3                       | -12.6                  | 6.9                     | 151.42                  |  |
| 5,930.0      | 5.54       | 168.39               | 5,927.3       | -27.3            | 5,928.9                 | 16.7                       | -16.3                  | 3.6                     | 167.46                  |  |
| 6,020.0      | 5.27       | 162.68               | 6,016.9       | -35.5            | 6,019.0                 | 18.4                       | -18.3                  | -1.6                    | -175.14                 |  |
| 6,110.0      | 5.71       | 158.28               | 6,106.5       | -43.7            | 6,109.0                 | 20.4                       | -19.5                  | -6.0                    | -162.86                 |  |
| 6,199.0      | 5.89       | 148.70               | 6,195.1       | -51.8            | 6,197.9                 | 22.6                       | -19.6                  | -11.3                   | -149.89                 |  |
| 6,289.0      | 6.64       | 131.83               | 6,284.5       | -59.3            | 6,287.9                 | 24.3                       | -17.3                  | -17.1                   | -135.47                 |  |
| 6,378.0      | 6.42       | 132.71               | 6,373.0       | -66.2            | 6,376.9                 | 25.7                       | -20.1                  | -16.0                   | -141.37                 |  |
| 6,468.0      | 6.29       | 135.70               | 6,462.4       | -73.2            | 6,466.8                 | 27.2                       | -23.0                  | -14.4                   | -147.96                 |  |
| 6,558.0      | 6.37       | 134.46               | 6,551.9       | -80.3            | 6,556.8                 | 28.8                       | -24.9                  | -14.6                   | -149.64                 |  |
| 6,648.0      | 5.98       | 133.23               | 6,641.3       | -87.1            | 6,646.8                 | 30.2                       | -26.5                  | -14.6                   | -151.15                 |  |
| 6,737.0      | 5.54       | 136.05               | 6,729.9       | -93.5            | 6,735.8                 | 31.2                       | -28.4                  | -12.8                   | -155.72                 |  |
| 6,827.0      | 5.45       | 134.82               | 6,819.5       | -99.7            | 6,825.8                 | 31.8                       | -29.0                  | -13.1                   | -155.65                 |  |
| 6,917.0      | 5.49       | 137.54               | 6,909.1       | -106.0           | 6,915.8                 | 32.5                       | -30.4                  | -11.5                   | -159.25                 |  |
| 7,007.0      | 5.05       | 136.93               | 6,998.7       | -112.1           | 7,005.8                 | 32.9                       | -30.7                  | -11.7                   | -159.06                 |  |
| 7,096.0      | 5.41       | 137.89               | 7,087.3       | -118.2           | 7,094.8                 | 33.2                       | -31.3                  | -11.2                   | -160.34                 |  |
| 7,186.0      | 5.36       | 132.97               | 7,176.9       | -124.3           | 7,184.8                 | 33.7                       | -30.9                  | -13.5                   | -156.36                 |  |
| 7,276.0      | 4.79       | 135.70               | 7,266.6       | -129.9           | 7,274.8                 | 33.7                       | -31.7                  | -11.6                   | -159.95                 |  |
| 7,366.0      | 4.92       | 134.73               | 7,356.2       | -135.4           | 7,364.8                 | 33.5                       | -31.3                  | -11.8                   | -159.44                 |  |

|                  |                                |                                     |                                   |
|------------------|--------------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>  | Advance Energy Partners        | <b>Local Co-ordinate Reference:</b> | Well Wool Head 20 State Com #554H |
| <b>Project:</b>  | Lea County, NM (NAD 83 NME)    | <b>TVD Reference:</b>               | KB @ 3752.0usft                   |
| <b>Site:</b>     | (Wool Head)Sec20_T-21-S_R-33-E | <b>MD Reference:</b>                | KB @ 3752.0usft                   |
| <b>Well:</b>     | Wool Head 20 State Com #554H   | <b>North Reference:</b>             | Grid                              |
| <b>Wellbore:</b> | OWB                            | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Design:</b>   | AWB                            | <b>Database:</b>                    | EDM 10_13                         |

| Survey       |            |                      |               |                  |                         |                            |                        |                         |                         |  |
|--------------|------------|----------------------|---------------|------------------|-------------------------|----------------------------|------------------------|-------------------------|-------------------------|--|
| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | V. Sec<br>(usft) | Depth on Plan<br>(usft) | Distance to Plan<br>(usft) | High to Plan<br>(usft) | Right to Plan<br>(usft) | Toolface to Plan<br>(°) |  |
| 7,455.0      | 4.92       | 131.92               | 7,444.9       | -140.7           | 7,453.8                 | 33.2                       | -30.7                  | -12.7                   | -157.57                 |  |
| 7,545.0      | 4.31       | 136.13               | 7,534.6       | -145.8           | 7,543.8                 | 32.5                       | -31.0                  | -9.9                    | -162.30                 |  |
| 7,634.0      | 4.26       | 130.77               | 7,623.4       | -150.4           | 7,632.7                 | 31.3                       | -28.9                  | -12.1                   | -157.29                 |  |
| 7,724.0      | 4.13       | 132.09               | 7,713.1       | -154.8           | 7,722.7                 | 29.9                       | -28.0                  | -10.6                   | -159.29                 |  |
| 7,814.0      | 4.22       | 133.59               | 7,802.9       | -159.3           | 7,812.7                 | 28.6                       | -27.1                  | -9.2                    | -161.22                 |  |
| 7,904.0      | 4.35       | 137.80               | 7,892.6       | -164.2           | 7,902.7                 | 27.5                       | -26.6                  | -7.0                    | -165.33                 |  |
| 7,993.0      | 4.13       | 143.25               | 7,981.4       | -169.3           | 7,991.7                 | 26.5                       | -26.0                  | -4.8                    | -169.49                 |  |
| 8,083.0      | 4.31       | 146.59               | 8,071.2       | -174.8           | 8,081.7                 | 25.5                       | -25.2                  | -4.3                    | -170.28                 |  |
| 8,172.0      | 3.91       | 150.55               | 8,159.9       | -180.3           | 8,170.7                 | 24.6                       | -24.3                  | -4.0                    | -170.54                 |  |
| 8,262.0      | 3.03       | 152.04               | 8,249.8       | -185.1           | 8,260.6                 | 22.9                       | -22.2                  | -5.3                    | -166.71                 |  |
| 8,352.0      | 3.08       | 148.26               | 8,339.6       | -189.3           | 8,350.6                 | 20.7                       | -19.0                  | -8.3                    | -156.43                 |  |
| 8,442.0      | 4.84       | 142.55               | 8,429.4       | -194.4           | 8,440.6                 | 19.8                       | -16.5                  | -11.0                   | -146.29                 |  |
| 8,531.0      | 5.14       | 138.42               | 8,518.1       | -200.4           | 8,529.6                 | 20.1                       | -15.7                  | -12.5                   | -141.43                 |  |
| 8,621.0      | 5.10       | 140.44               | 8,607.7       | -206.6           | 8,619.6                 | 20.4                       | -16.4                  | -12.2                   | -143.36                 |  |
| 8,710.0      | 4.44       | 146.95               | 8,696.4       | -212.6           | 8,708.5                 | 20.6                       | -17.4                  | -11.0                   | -147.65                 |  |
| 8,800.0      | 3.96       | 151.69               | 8,786.2       | -218.3           | 8,798.5                 | 20.6                       | -17.3                  | -11.1                   | -147.19                 |  |
| 8,890.0      | 3.69       | 153.62               | 8,876.0       | -223.7           | 8,888.5                 | 20.5                       | -16.2                  | -12.6                   | -142.09                 |  |
| 8,979.0      | 4.22       | 135.26               | 8,964.8       | -228.6           | 8,977.5                 | 20.1                       | -9.7                   | -17.6                   | -118.83                 |  |
| 9,069.0      | 4.70       | 131.04               | 9,054.5       | -233.5           | 9,067.5                 | 19.2                       | -7.6                   | -17.6                   | -113.43                 |  |
| 9,159.0      | 3.96       | 136.93               | 9,144.2       | -238.2           | 9,157.5                 | 18.2                       | -8.4                   | -16.2                   | -117.27                 |  |
| 9,248.0      | 2.81       | 147.82               | 9,233.1       | -242.3           | 9,246.4                 | 17.5                       | -8.9                   | -15.1                   | -120.43                 |  |
| 9,338.0      | 3.47       | 145.98               | 9,322.9       | -246.5           | 9,336.4                 | 17.5                       | -5.6                   | -16.6                   | -108.68                 |  |
| 9,428.0      | 3.03       | 146.42               | 9,412.8       | -250.8           | 9,426.3                 | 18.0                       | -3.1                   | -17.7                   | -100.03                 |  |
| 9,518.0      | 3.25       | 136.49               | 9,502.7       | -254.7           | 9,516.3                 | 18.4                       | 2.9                    | -18.2                   | -81.05                  |  |
| 9,608.0      | 4.09       | 134.20               | 9,592.5       | -258.8           | 9,606.3                 | 18.5                       | 5.6                    | -17.7                   | -72.40                  |  |
| 9,697.0      | 3.30       | 145.36               | 9,681.3       | -263.2           | 9,695.2                 | 19.3                       | 4.0                    | -18.8                   | -77.87                  |  |
| 9,788.0      | 3.60       | 128.40               | 9,772.1       | -267.2           | 9,786.2                 | 20.1                       | 11.8                   | -16.3                   | -54.20                  |  |

|                  |                                |                                     |                                   |
|------------------|--------------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>  | Advance Energy Partners        | <b>Local Co-ordinate Reference:</b> | Well Wool Head 20 State Com #554H |
| <b>Project:</b>  | Lea County, NM (NAD 83 NME)    | <b>TVD Reference:</b>               | KB @ 3752.0usft                   |
| <b>Site:</b>     | (Wool Head)Sec20_T-21-S_R-33-E | <b>MD Reference:</b>                | KB @ 3752.0usft                   |
| <b>Well:</b>     | Wool Head 20 State Com #554H   | <b>North Reference:</b>             | Grid                              |
| <b>Wellbore:</b> | OWB                            | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Design:</b>   | AWB                            | <b>Database:</b>                    | EDM 10_13                         |

| Survey                                |            |                      |               |                  |                         |                            |                        |                         |                         |  |
|---------------------------------------|------------|----------------------|---------------|------------------|-------------------------|----------------------------|------------------------|-------------------------|-------------------------|--|
| MD<br>(usft)                          | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | V. Sec<br>(usft) | Depth on Plan<br>(usft) | Distance to Plan<br>(usft) | High to Plan<br>(usft) | Right to Plan<br>(usft) | Toolface to Plan<br>(°) |  |
| 9,877.0                               | 4.00       | 125.50               | 9,860.9       | -270.8           | 9,875.2                 | 20.1                       | 14.2                   | -14.2                   | -44.99                  |  |
| 9,967.0                               | 3.34       | 122.51               | 9,950.8       | -274.1           | 9,965.1                 | 20.3                       | 16.7                   | -11.6                   | -34.71                  |  |
| 10,057.0                              | 3.16       | 127.52               | 10,040.6      | -277.0           | 10,055.1                | 21.5                       | 18.2                   | -11.4                   | -31.97                  |  |
| 10,147.0                              | 2.81       | 138.42               | 10,130.5      | -280.2           | 10,145.0                | 23.6                       | 18.9                   | -14.2                   | -36.97                  |  |
| 10,236.0                              | 2.55       | 137.36               | 10,219.4      | -283.4           | 10,234.3                | 26.1                       | 22.1                   | -13.8                   | -32.10                  |  |
| 10,326.0                              | 2.68       | 123.30               | 10,309.3      | -286.0           | 10,324.6                | 27.3                       | 26.3                   | -7.1                    | -15.13                  |  |
| 10,416.0                              | 2.37       | 117.85               | 10,399.2      | -288.1           | 10,415.0                | 27.2                       | 27.0                   | -3.3                    | -6.97                   |  |
| 10,506.0                              | 1.93       | 150.20               | 10,489.1      | -290.3           | 10,505.4                | 26.8                       | 20.8                   | -16.9                   | -39.00                  |  |
| 10,595.0                              | 1.80       | 140.44               | 10,578.1      | -292.7           | 10,594.7                | 25.8                       | 22.0                   | -13.4                   | -31.37                  |  |
| 10,667.0                              | 1.85       | 155.03               | 10,650.1      | -294.7           | 10,666.9                | 24.3                       | 15.9                   | -18.3                   | -49.07                  |  |
| 10,723.0                              | 1.60       | 154.82               | 10,706.0      | -296.2           | 10,722.9                | 23.2                       | 14.3                   | -18.3                   | -52.00                  |  |
| 10,812.0                              | 12.00      | 348.32               | 10,794.5      | -288.2           | 10,812.5                | 25.9                       | -14.5                  | 21.5                    | 124.12                  |  |
| 10,902.0                              | 25.40      | 358.52               | 10,879.5      | -259.6           | 10,904.1                | 34.5                       | -22.9                  | 25.7                    | 131.75                  |  |
| 10,919.2                              | 26.57      | 359.51               | 10,895.0      | -252.0           | 10,921.8                | 36.5                       | -25.5                  | 26.1                    | 134.32                  |  |
| FTP @ 10919.2' MD, 100' FSL, 686' FEL |            |                      |               |                  |                         |                            |                        |                         |                         |  |
| 10,992.0                              | 31.60      | 2.92                 | 10,958.6      | -216.7           | 10,998.0                | 43.8                       | -34.8                  | 26.7                    | 142.50                  |  |
| 11,082.0                              | 37.40      | 6.82                 | 11,032.8      | -166.0           | 11,094.3                | 48.2                       | -41.8                  | 24.0                    | 150.08                  |  |
| 11,171.0                              | 44.40      | 6.52                 | 11,100.0      | -108.3           | 11,190.7                | 48.1                       | -45.4                  | 16.0                    | 160.56                  |  |
| 11,261.0                              | 47.20      | 5.02                 | 11,162.7      | -44.2            | 11,287.8                | 42.0                       | -41.4                  | 7.0                     | 170.37                  |  |
| 11,350.0                              | 56.20      | 1.22                 | 11,217.8      | 25.4             | 11,382.1                | 31.5                       | -31.5                  | 0.4                     | 179.27                  |  |
| 11,440.0                              | 61.80      | 358.32               | 11,264.2      | 102.5            | 11,475.2                | 17.9                       | -17.9                  | -0.9                    | -177.20                 |  |
| 11,530.0                              | 72.10      | 355.62               | 11,299.4      | 185.1            | 11,565.4                | 3.5                        | -2.5                   | 2.5                     | 134.24                  |  |
| 11,619.0                              | 80.80      | 354.42               | 11,320.2      | 271.3            | 11,652.3                | 14.8                       | 11.8                   | 9.0                     | 37.46                   |  |
| 11,709.0                              | 85.80      | 352.82               | 11,330.7      | 360.3            | 11,741.1                | 28.8                       | 22.8                   | 17.7                    | 37.75                   |  |
| 11,799.0                              | 87.10      | 352.62               | 11,336.3      | 449.5            | 11,830.3                | 40.1                       | 28.9                   | 27.8                    | 43.91                   |  |
| 11,888.0                              | 89.20      | 349.60               | 11,339.2      | 537.6            | 11,918.3                | 51.7                       | 32.5                   | 40.2                    | 51.05                   |  |
| 11,978.0                              | 90.86      | 359.47               | 11,339.1      | 627.1            | 12,007.9                | 57.8                       | 32.7                   | 47.7                    | 55.59                   |  |

|                  |                                |                                     |                                   |
|------------------|--------------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>  | Advance Energy Partners        | <b>Local Co-ordinate Reference:</b> | Well Wool Head 20 State Com #554H |
| <b>Project:</b>  | Lea County, NM (NAD 83 NME)    | <b>TVD Reference:</b>               | KB @ 3752.0usft                   |
| <b>Site:</b>     | (Wool Head)Sec20_T-21-S_R-33-E | <b>MD Reference:</b>                | KB @ 3752.0usft                   |
| <b>Well:</b>     | Wool Head 20 State Com #554H   | <b>North Reference:</b>             | Grid                              |
| <b>Wellbore:</b> | OWB                            | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Design:</b>   | AWB                            | <b>Database:</b>                    | EDM 10_13                         |

| Survey       |            |                      |               |                  |                         |                            |                        |                         |                         |  |
|--------------|------------|----------------------|---------------|------------------|-------------------------|----------------------------|------------------------|-------------------------|-------------------------|--|
| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | V. Sec<br>(usft) | Depth on Plan<br>(usft) | Distance to Plan<br>(usft) | High to Plan<br>(usft) | Right to Plan<br>(usft) | Toolface to Plan<br>(°) |  |
| 12,068.0     | 93.00      | 0.32                 | 11,336.1      | 717.1            | 12,097.8                | 55.5                       | 30.1                   | 46.7                    | 57.20                   |  |
| 12,160.0     | 95.00      | 0.62                 | 11,329.7      | 808.8            | 12,189.6                | 50.8                       | 24.1                   | 44.7                    | 61.69                   |  |
| 12,249.0     | 95.10      | 3.82                 | 11,321.8      | 897.4            | 12,278.2                | 43.4                       | 16.6                   | 40.1                    | 67.50                   |  |
| 12,339.0     | 91.50      | 4.72                 | 11,316.6      | 986.8            | 12,367.7                | 34.3                       | 12.2                   | 32.1                    | 69.28                   |  |
| 12,429.0     | 91.50      | 3.42                 | 11,314.3      | 1,076.5          | 12,457.4                | 26.6                       | 10.3                   | 24.5                    | 67.23                   |  |
| 12,518.0     | 92.40      | 3.32                 | 11,311.3      | 1,165.2          | 12,546.1                | 19.7                       | 7.7                    | 18.1                    | 66.87                   |  |
| 12,608.0     | 91.10      | 2.02                 | 11,308.5      | 1,255.0          | 12,635.9                | 13.8                       | 5.5                    | 12.7                    | 66.54                   |  |
| 12,698.0     | 92.40      | 2.32                 | 11,305.8      | 1,344.8          | 12,725.7                | 8.7                        | 3.2                    | 8.1                     | 68.11                   |  |
| 12,787.0     | 92.80      | 2.62                 | 11,301.7      | 1,433.6          | 12,814.5                | 3.0                        | -0.3                   | 3.0                     | 95.88                   |  |
| 12,877.0     | 92.10      | 3.52                 | 11,297.9      | 1,523.3          | 12,904.3                | 4.7                        | -3.7                   | -3.0                    | -140.50                 |  |
| 12,967.0     | 93.60      | 3.82                 | 11,293.4      | 1,612.9          | 12,993.9                | 12.6                       | -7.6                   | -10.0                   | -127.29                 |  |
| 13,057.0     | 92.40      | 5.62                 | 11,288.7      | 1,702.4          | 13,083.4                | 22.1                       | -11.8                  | -18.6                   | -122.49                 |  |
| 13,146.0     | 88.50      | 5.02                 | 11,288.0      | 1,790.9          | 13,171.9                | 30.5                       | -12.2                  | -28.0                   | -113.53                 |  |
| 13,235.0     | 87.10      | 1.72                 | 11,291.4      | 1,879.5          | 13,260.5                | 35.4                       | -8.2                   | -34.5                   | -103.46                 |  |
| 13,325.0     | 87.90      | 353.42               | 11,295.3      | 1,969.3          | 13,350.3                | 32.1                       | -3.7                   | -31.9                   | -96.54                  |  |
| 13,415.0     | 92.20      | 352.12               | 11,295.3      | 2,058.7          | 13,439.7                | 22.0                       | -3.5                   | -21.7                   | -99.08                  |  |
| 13,505.0     | 94.80      | 354.22               | 11,289.8      | 2,148.1          | 13,529.1                | 14.9                       | -8.4                   | -12.2                   | -124.52                 |  |
| 13,594.0     | 94.50      | 357.62               | 11,282.5      | 2,236.6          | 13,617.6                | 16.7                       | -15.1                  | -7.2                    | -154.52                 |  |
| 13,684.0     | 94.10      | 358.72               | 11,275.8      | 2,326.3          | 13,707.4                | 22.1                       | -21.3                  | -5.5                    | -165.44                 |  |
| 13,773.0     | 89.60      | 0.02                 | 11,272.9      | 2,415.3          | 13,796.4                | 24.4                       | -23.7                  | -5.8                    | -166.35                 |  |
| 13,863.0     | 90.50      | 359.42               | 11,272.8      | 2,505.3          | 13,886.3                | 24.2                       | -23.3                  | -6.5                    | -164.33                 |  |
| 13,953.0     | 90.20      | 359.12               | 11,272.3      | 2,595.3          | 13,976.3                | 24.3                       | -23.4                  | -6.6                    | -164.20                 |  |
| 14,042.0     | 95.40      | 359.20               | 11,268.0      | 2,684.1          | 14,065.4                | 27.9                       | -27.2                  | -6.5                    | -166.47                 |  |
| 14,133.0     | 95.70      | 0.32                 | 11,259.2      | 2,774.7          | 14,156.6                | 34.7                       | -33.9                  | -7.4                    | -167.66                 |  |
| 14,223.0     | 91.70      | 1.62                 | 11,253.3      | 2,864.4          | 14,246.4                | 38.7                       | -37.3                  | -10.2                   | -164.80                 |  |
| 14,313.0     | 88.40      | 1.52                 | 11,253.3      | 2,954.4          | 14,336.3                | 37.7                       | -35.1                  | -13.8                   | -158.47                 |  |
| 14,402.0     | 87.90      | 1.12                 | 11,256.1      | 3,043.2          | 14,425.1                | 34.4                       | -29.9                  | -17.1                   | -150.23                 |  |

|                  |                                |                                     |                                   |
|------------------|--------------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>  | Advance Energy Partners        | <b>Local Co-ordinate Reference:</b> | Well Wool Head 20 State Com #554H |
| <b>Project:</b>  | Lea County, NM (NAD 83 NME)    | <b>TVD Reference:</b>               | KB @ 3752.0usft                   |
| <b>Site:</b>     | (Wool Head)Sec20_T-21-S_R-33-E | <b>MD Reference:</b>                | KB @ 3752.0usft                   |
| <b>Well:</b>     | Wool Head 20 State Com #554H   | <b>North Reference:</b>             | Grid                              |
| <b>Wellbore:</b> | OWB                            | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Design:</b>   | AWB                            | <b>Database:</b>                    | EDM 10_13                         |

| Survey                                 |            |                      |               |                  |                         |                            |                        |                         |                         |  |
|----------------------------------------|------------|----------------------|---------------|------------------|-------------------------|----------------------------|------------------------|-------------------------|-------------------------|--|
| MD<br>(usft)                           | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | V. Sec<br>(usft) | Depth on Plan<br>(usft) | Distance to Plan<br>(usft) | High to Plan<br>(usft) | Right to Plan<br>(usft) | Toolface to Plan<br>(°) |  |
| 14,492.0                               | 90.40      | 359.92               | 11,257.5      | 3,133.2          | 14,515.0                | 32.4                       | -26.2                  | -19.1                   | -143.90                 |  |
| 14,582.0                               | 91.60      | 359.42               | 11,255.9      | 3,223.2          | 14,605.0                | 32.3                       | -25.4                  | -19.8                   | -142.09                 |  |
| 14,671.0                               | 90.20      | 358.92               | 11,254.5      | 3,312.2          | 14,694.0                | 31.5                       | -24.5                  | -19.7                   | -141.17                 |  |
| 14,761.0                               | 91.90      | 358.52               | 11,252.9      | 3,402.2          | 14,784.0                | 30.5                       | -23.8                  | -18.9                   | -141.52                 |  |
| 14,851.0                               | 92.40      | 358.32               | 11,249.5      | 3,492.1          | 14,874.0                | 30.5                       | -24.9                  | -17.7                   | -144.58                 |  |
| 14,940.0                               | 93.00      | 358.72               | 11,245.3      | 3,581.0          | 14,962.9                | 31.5                       | -26.7                  | -16.6                   | -148.15                 |  |
| 14,987.0                               | 93.70      | 358.12               | 11,242.5      | 3,627.9          | 15,009.9                | 32.5                       | -28.3                  | -15.9                   | -150.57                 |  |
| 15,061.0                               | 92.60      | 357.32               | 11,238.5      | 3,701.7          | 15,083.8                | 33.5                       | -30.4                  | -14.0                   | -155.30                 |  |
| 15,151.0                               | 93.80      | 357.22               | 11,233.5      | 3,791.6          | 15,173.7                | 34.9                       | -33.1                  | -10.9                   | -161.71                 |  |
| 15,241.0                               | 93.70      | 357.02               | 11,227.6      | 3,881.3          | 15,263.6                | 37.4                       | -36.6                  | -7.6                    | -168.22                 |  |
| 15,330.0                               | 95.00      | 356.62               | 11,220.8      | 3,970.0          | 15,352.4                | 41.3                       | -41.1                  | -3.9                    | -174.55                 |  |
| 15,420.0                               | 94.50      | 358.72               | 11,213.4      | 4,059.6          | 15,442.2                | 46.2                       | -46.2                  | -1.5                    | -178.10                 |  |
| 15,510.0                               | 92.20      | 0.82                 | 11,208.1      | 4,149.4          | 15,532.2                | 49.2                       | -49.1                  | -2.4                    | -177.16                 |  |
| 15,599.0                               | 92.60      | 1.52                 | 11,204.4      | 4,238.3          | 15,621.1                | 50.8                       | -50.5                  | -5.5                    | -173.81                 |  |
| 15,689.0                               | 93.10      | 2.42                 | 11,199.9      | 4,328.1          | 15,711.0                | 53.5                       | -52.6                  | -9.8                    | -169.44                 |  |
| 15,778.0                               | 93.00      | 3.22                 | 11,195.2      | 4,416.8          | 15,799.8                | 57.2                       | -55.0                  | -15.4                   | -164.37                 |  |
| 15,868.0                               | 89.20      | 0.82                 | 11,193.4      | 4,506.7          | 15,889.6                | 57.9                       | -54.4                  | -19.8                   | -160.05                 |  |
| 15,958.0                               | 88.50      | 0.32                 | 11,195.2      | 4,596.6          | 15,979.5                | 54.8                       | -50.3                  | -21.9                   | -156.49                 |  |
| 16,048.0                               | 90.00      | 358.72               | 11,196.4      | 4,686.6          | 16,069.4                | 51.8                       | -46.8                  | -22.3                   | -154.51                 |  |
| 16,137.0                               | 93.80      | 357.62               | 11,193.5      | 4,775.5          | 16,158.4                | 51.7                       | -47.4                  | -20.6                   | -156.48                 |  |
| 16,227.0                               | 94.00      | 355.82               | 11,187.3      | 4,865.2          | 16,248.2                | 53.9                       | -51.2                  | -16.7                   | -161.98                 |  |
| 16,288.0                               | 93.80      | 356.29               | 11,183.2      | 4,926.0          | 16,309.1                | 55.4                       | -53.8                  | -13.3                   | -166.08                 |  |
| CROSS SEC LINE @ 16288.0' MD, 633' FEL |            |                      |               |                  |                         |                            |                        |                         |                         |  |
| 16,317.0                               | 93.70      | 356.52               | 11,181.3      | 4,954.9          | 16,338.0                | 56.2                       | -54.9                  | -11.9                   | -167.76                 |  |
| 16,407.0                               | 94.30      | 356.22               | 11,175.0      | 5,044.6          | 16,427.8                | 59.3                       | -58.8                  | -7.4                    | -172.79                 |  |
| 16,496.0                               | 94.80      | 357.72               | 11,168.0      | 5,133.2          | 16,516.6                | 63.7                       | -63.6                  | -4.0                    | -176.40                 |  |
| 16,586.0                               | 93.10      | 357.92               | 11,161.8      | 5,223.0          | 16,606.5                | 67.5                       | -67.4                  | -1.8                    | -178.46                 |  |



|                  |                                |                                     |                                   |
|------------------|--------------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>  | Advance Energy Partners        | <b>Local Co-ordinate Reference:</b> | Well Wool Head 20 State Com #554H |
| <b>Project:</b>  | Lea County, NM (NAD 83 NME)    | <b>TVD Reference:</b>               | KB @ 3752.0usft                   |
| <b>Site:</b>     | (Wool Head)Sec20_T-21-S_R-33-E | <b>MD Reference:</b>                | KB @ 3752.0usft                   |
| <b>Well:</b>     | Wool Head 20 State Com #554H   | <b>North Reference:</b>             | Grid                              |
| <b>Wellbore:</b> | OWB                            | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Design:</b>   | AWB                            | <b>Database:</b>                    | EDM 10_13                         |

| Survey       |            |                      |               |                  |                         |                            |                        |                         |                         |  |
|--------------|------------|----------------------|---------------|------------------|-------------------------|----------------------------|------------------------|-------------------------|-------------------------|--|
| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | V. Sec<br>(usft) | Depth on Plan<br>(usft) | Distance to Plan<br>(usft) | High to Plan<br>(usft) | Right to Plan<br>(usft) | Toolface to Plan<br>(°) |  |
| 16,676.0     | 91.60      | 359.42               | 11,158.1      | 5,312.9          | 16,696.5                | 68.8                       | -68.8                  | -1.0                    | -179.17                 |  |
| 16,766.0     | 91.80      | 358.72               | 11,155.4      | 5,402.8          | 16,786.5                | 69.1                       | -69.1                  | -0.7                    | -179.39                 |  |
| 16,855.0     | 92.60      | 358.72               | 11,152.0      | 5,491.8          | 16,875.5                | 70.2                       | -70.2                  | 0.0                     | 179.97                  |  |
| 16,945.0     | 91.90      | 358.62               | 11,148.5      | 5,581.7          | 16,965.5                | 71.4                       | -71.4                  | 0.9                     | 179.27                  |  |
| 17,035.0     | 90.10      | 358.52               | 11,146.9      | 5,671.7          | 17,055.5                | 70.6                       | -70.6                  | 1.9                     | 178.43                  |  |
| 17,125.0     | 94.70      | 358.82               | 11,143.1      | 5,761.6          | 17,145.4                | 72.1                       | -72.0                  | 2.8                     | 177.78                  |  |
| 17,214.0     | 93.20      | 358.92               | 11,137.0      | 5,850.3          | 17,234.3                | 75.9                       | -75.9                  | 3.3                     | 177.49                  |  |
| 17,304.0     | 92.60      | 0.12                 | 11,132.4      | 5,940.2          | 17,324.3                | 78.1                       | -78.1                  | 2.8                     | 177.94                  |  |
| 17,394.0     | 89.10      | 0.82                 | 11,131.1      | 6,030.2          | 17,414.3                | 77.1                       | -77.1                  | 0.8                     | 179.39                  |  |
| 17,483.0     | 86.90      | 2.02                 | 11,134.2      | 6,119.1          | 17,503.0                | 71.7                       | -71.6                  | -2.6                    | -177.90                 |  |
| 17,573.0     | 89.00      | 0.92                 | 11,137.4      | 6,208.9          | 17,592.8                | 66.4                       | -66.1                  | -6.1                    | -174.71                 |  |
| 17,663.0     | 88.40      | 0.52                 | 11,139.5      | 6,298.9          | 17,682.7                | 62.3                       | -61.7                  | -8.5                    | -172.18                 |  |
| 17,753.0     | 87.40      | 359.92               | 11,142.8      | 6,388.8          | 17,772.5                | 56.9                       | -56.0                  | -10.0                   | -169.85                 |  |
| 17,842.0     | 90.30      | 359.32               | 11,144.6      | 6,477.8          | 17,861.4                | 53.0                       | -51.9                  | -10.6                   | -168.45                 |  |
| 17,932.0     | 92.50      | 358.82               | 11,142.4      | 6,567.7          | 17,951.3                | 52.8                       | -51.8                  | -10.4                   | -168.68                 |  |
| 18,022.0     | 92.30      | 358.12               | 11,138.6      | 6,657.6          | 18,041.3                | 54.0                       | -53.2                  | -9.2                    | -170.22                 |  |
| 18,111.0     | 92.40      | 356.92               | 11,134.9      | 6,746.5          | 18,130.3                | 55.0                       | -54.6                  | -6.5                    | -173.20                 |  |
| 18,201.0     | 92.10      | 355.92               | 11,131.4      | 6,836.3          | 18,220.2                | 55.8                       | -55.8                  | -2.1                    | -177.86                 |  |
| 18,290.0     | 91.60      | 355.82               | 11,128.5      | 6,925.1          | 18,309.0                | 56.4                       | -56.3                  | 3.1                     | 176.84                  |  |
| 18,380.0     | 92.50      | 355.12               | 11,125.3      | 7,014.9          | 18,398.8                | 57.9                       | -57.2                  | 9.0                     | 171.06                  |  |
| 18,470.0     | 93.00      | 354.32               | 11,121.0      | 7,104.5          | 18,488.5                | 61.3                       | -59.1                  | 16.1                    | 164.82                  |  |
| 18,560.0     | 93.00      | 355.62               | 11,116.3      | 7,194.1          | 18,578.2                | 65.6                       | -61.5                  | 22.7                    | 159.74                  |  |
| 18,650.0     | 91.20      | 355.72               | 11,113.0      | 7,283.9          | 18,668.0                | 68.6                       | -62.5                  | 28.2                    | 155.68                  |  |
| 18,739.0     | 90.90      | 357.22               | 11,111.4      | 7,372.8          | 18,756.9                | 69.8                       | -61.8                  | 32.5                    | 152.26                  |  |
| 18,829.0     | 91.20      | 357.02               | 11,109.7      | 7,462.7          | 18,846.9                | 70.8                       | -61.1                  | 35.8                    | 149.64                  |  |
| 18,851.0     | 91.30      | 356.72               | 11,109.2      | 7,484.7          | 18,849.5                | 73.8                       | -63.6                  | 37.3                    | 149.58                  |  |
| LAST SVY     |            |                      |               |                  |                         |                            |                        |                         |                         |  |

|                  |                                |                                     |                                   |
|------------------|--------------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>  | Advance Energy Partners        | <b>Local Co-ordinate Reference:</b> | Well Wool Head 20 State Com #554H |
| <b>Project:</b>  | Lea County, NM (NAD 83 NME)    | <b>TVD Reference:</b>               | KB @ 3752.0usft                   |
| <b>Site:</b>     | (Wool Head)Sec20_T-21-S_R-33-E | <b>MD Reference:</b>                | KB @ 3752.0usft                   |
| <b>Well:</b>     | Wool Head 20 State Com #554H   | <b>North Reference:</b>             | Grid                              |
| <b>Wellbore:</b> | OWB                            | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Design:</b>   | AWB                            | <b>Database:</b>                    | EDM 10_13                         |

| Survey                                 |            |                      |               |                  |                         |                            |                        |                         |                         |  |
|----------------------------------------|------------|----------------------|---------------|------------------|-------------------------|----------------------------|------------------------|-------------------------|-------------------------|--|
| MD<br>(usft)                           | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | V. Sec<br>(usft) | Depth on Plan<br>(usft) | Distance to Plan<br>(usft) | High to Plan<br>(usft) | Right to Plan<br>(usft) | Toolface to Plan<br>(°) |  |
| 18,906.0                               | 91.30      | 356.72               | 11,108.0      | 7,539.6          | 18,849.5                | 103.7                      | -89.4                  | 52.5                    | 149.58                  |  |
| PTD @ 18906.0' MD, 2664' FNL, 700' FEL |            |                      |               |                  |                         |                            |                        |                         |                         |  |

| Design Annotations          |                             |                   |                 |                                        |  |
|-----------------------------|-----------------------------|-------------------|-----------------|----------------------------------------|--|
| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates |                 |                                        |  |
|                             |                             | +N/-S<br>(usft)   | +E/-W<br>(usft) | Comment                                |  |
| 10,919.2                    | 10,895.0                    | -248.7            | 244.0           | FTP @ 10919.2' MD, 100' FSL, 686' FEL  |  |
| 16,288.0                    | 11,183.2                    | 4,929.3           | 212.9           | CROSS SEC LINE @ 16288.0' MD, 633' FEL |  |
| 18,851.0                    | 11,109.2                    | 7,487.1           | 128.0           | LAST SVY                               |  |
| 18,906.0                    | 11,108.0                    | 7,542.0           | 124.9           | PTD @ 18906.0' MD, 2664' FNL, 700' FEL |  |

|                   |                    |             |
|-------------------|--------------------|-------------|
| Checked By: _____ | Approved By: _____ | Date: _____ |
|-------------------|--------------------|-------------|



# **Advance Energy Partners**

**Lea County, NM (NAD 83 NME)  
(Wool Head)Sec20\_T-21-S\_R-33-E  
Wool Head 20 State Com #554H**

**OWB**

**Design: AWB**

## **Standard Survey Report**

**16 December, 2019**



|                  |                                |                                     |                                   |
|------------------|--------------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>  | Advance Energy Partners        | <b>Local Co-ordinate Reference:</b> | Well Wool Head 20 State Com #554H |
| <b>Project:</b>  | Lea County, NM (NAD 83 NME)    | <b>TVD Reference:</b>               | KB @ 3752.0usft                   |
| <b>Site:</b>     | (Wool Head)Sec20_T-21-S_R-33-E | <b>MD Reference:</b>                | KB @ 3752.0usft                   |
| <b>Well:</b>     | Wool Head 20 State Com #554H   | <b>North Reference:</b>             | Grid                              |
| <b>Wellbore:</b> | OWB                            | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Design:</b>   | AWB                            | <b>Database:</b>                    | EDM 10_13                         |

|                    |                             |                      |                |
|--------------------|-----------------------------|----------------------|----------------|
| <b>Project</b>     | Lea County, NM (NAD 83 NME) |                      |                |
| <b>Map System:</b> | US State Plane 1983         | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | North American Datum 1983   |                      |                |
| <b>Map Zone:</b>   | New Mexico Eastern Zone     |                      |                |

|                              |                                |                          |                   |
|------------------------------|--------------------------------|--------------------------|-------------------|
| <b>Site</b>                  | (Wool Head)Sec20_T-21-S_R-33-E |                          |                   |
| <b>Site Position:</b>        |                                | <b>Northing:</b>         | 531,182.60 usft   |
| <b>From:</b>                 | Map                            | <b>Easting:</b>          | 770,949.20 usft   |
| <b>Position Uncertainty:</b> | 0.0 usft                       | <b>Slot Radius:</b>      | 13-3/16 "         |
|                              |                                | <b>Latitude:</b>         | 32° 27' 29.104 N  |
|                              |                                | <b>Longitude:</b>        | 103° 35' 20.061 W |
|                              |                                | <b>Grid Convergence:</b> | 0.40 °            |

|                             |                              |                            |                                  |
|-----------------------------|------------------------------|----------------------------|----------------------------------|
| <b>Well</b>                 | Wool Head 20 State Com #554H |                            |                                  |
| <b>Well Position</b>        | <b>+N/-S</b>                 | 0.0 usft                   | <b>Northing:</b> 531,182.60 usft |
|                             | <b>+E/-W</b>                 | 0.0 usft                   | <b>Easting:</b> 770,949.20 usft  |
| <b>Position Uncertainty</b> | 0.0 usft                     | <b>Wellhead Elevation:</b> | usft                             |
|                             |                              | <b>Latitude:</b>           | 32° 27' 29.104 N                 |
|                             |                              | <b>Longitude:</b>          | 103° 35' 20.061 W                |
|                             |                              | <b>Ground Level:</b>       | 3,727.0 usft                     |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | OWB               |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | IGRF2015          | 11/07/2019         | 6.72                   | 60.24                | 47,826.25094994            |

|                          |                                |                     |                     |                      |     |
|--------------------------|--------------------------------|---------------------|---------------------|----------------------|-----|
| <b>Design</b>            | AWB                            |                     |                     |                      |     |
| <b>Audit Notes:</b>      |                                |                     |                     |                      |     |
| <b>Version:</b>          | 1.0                            | <b>Phase:</b>       | ACTUAL              | <b>Tie On Depth:</b> | 0.0 |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (usft)</b> | <b>+N/-S (usft)</b> | <b>+E/-W (usft)</b> | <b>Direction (°)</b> |     |
|                          | 0.0                            | 0.0                 | 0.0                 | 359.22               |     |

|                       |                  |                          |                  |                     |  |
|-----------------------|------------------|--------------------------|------------------|---------------------|--|
| <b>Survey Program</b> | <b>Date</b>      | 12/16/2019               |                  |                     |  |
| <b>From (usft)</b>    | <b>To (usft)</b> | <b>Survey (Wellbore)</b> | <b>Tool Name</b> | <b>Description</b>  |  |
| 238.0                 | 18,906.0         | Intrepid MWD (OWB)       | MWD              | OWSG MWD - Standard |  |

|                              |                        |                    |                              |                     |                     |                                |                                |                               |                              |
|------------------------------|------------------------|--------------------|------------------------------|---------------------|---------------------|--------------------------------|--------------------------------|-------------------------------|------------------------------|
| <b>Survey</b>                |                        |                    |                              |                     |                     |                                |                                |                               |                              |
| <b>Measured Depth (usft)</b> | <b>Inclination (°)</b> | <b>Azimuth (°)</b> | <b>Vertical Depth (usft)</b> | <b>+N/-S (usft)</b> | <b>+E/-W (usft)</b> | <b>Vertical Section (usft)</b> | <b>Dogleg Rate (°/100usft)</b> | <b>Build Rate (°/100usft)</b> | <b>Turn Rate (°/100usft)</b> |
| 0.0                          | 0.00                   | 0.00               | 0.0                          | 0.0                 | 0.0                 | 0.0                            | 0.00                           | 0.00                          | 0.00                         |
| 238.0                        | 0.31                   | 181.05             | 238.0                        | -0.6                | 0.0                 | -0.6                           | 0.13                           | 0.13                          | 0.00                         |
| 329.0                        | 0.48                   | 239.41             | 329.0                        | -1.1                | -0.3                | -1.1                           | 0.45                           | 0.19                          | 64.13                        |
| 424.0                        | 0.66                   | 198.19             | 424.0                        | -1.8                | -0.9                | -1.8                           | 0.46                           | 0.19                          | -43.39                       |
| 519.0                        | 0.84                   | 230.27             | 519.0                        | -2.8                | -1.6                | -2.7                           | 0.47                           | 0.19                          | 33.77                        |
| 614.0                        | 0.48                   | 264.37             | 614.0                        | -3.3                | -2.5                | -3.2                           | 0.55                           | -0.38                         | 35.89                        |
| 710.0                        | 1.01                   | 243.27             | 710.0                        | -3.7                | -3.7                | -3.6                           | 0.61                           | 0.55                          | -21.98                       |
| 804.0                        | 2.42                   | 239.93             | 803.9                        | -5.0                | -6.1                | -5.0                           | 1.50                           | 1.50                          | -3.55                        |
| 899.0                        | 1.27                   | 237.38             | 898.9                        | -6.6                | -8.7                | -6.5                           | 1.21                           | -1.21                         | -2.68                        |
| 994.0                        | 0.84                   | 241.34             | 993.9                        | -7.5                | -10.2               | -7.4                           | 0.46                           | -0.45                         | 4.17                         |

|                  |                                |                                     |                                   |
|------------------|--------------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>  | Advance Energy Partners        | <b>Local Co-ordinate Reference:</b> | Well Wool Head 20 State Com #554H |
| <b>Project:</b>  | Lea County, NM (NAD 83 NME)    | <b>TVD Reference:</b>               | KB @ 3752.0usft                   |
| <b>Site:</b>     | (Wool Head)Sec20_T-21-S_R-33-E | <b>MD Reference:</b>                | KB @ 3752.0usft                   |
| <b>Well:</b>     | Wool Head 20 State Com #554H   | <b>North Reference:</b>             | Grid                              |
| <b>Wellbore:</b> | OWB                            | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Design:</b>   | AWB                            | <b>Database:</b>                    | EDM 10_13                         |

| Survey                |                 |             |                       |              |              |                         |                         |                        |                       |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 1,084.0               | 0.92            | 247.76      | 1,083.8               | -8.1         | -11.5        | -7.9                    | 0.14                    | 0.09                   | 7.13                  |
| 1,173.0               | 1.14            | 236.51      | 1,172.8               | -8.9         | -12.9        | -8.7                    | 0.33                    | 0.25                   | -12.64                |
| 1,263.0               | 1.14            | 230.18      | 1,262.8               | -9.9         | -14.3        | -9.7                    | 0.14                    | 0.00                   | -7.03                 |
| 1,352.0               | 1.23            | 241.87      | 1,351.8               | -10.9        | -15.8        | -10.7                   | 0.29                    | 0.10                   | 13.13                 |
| 1,442.0               | 1.27            | 236.24      | 1,441.8               | -12.0        | -17.5        | -11.7                   | 0.14                    | 0.04                   | -6.26                 |
| 1,531.0               | 1.63            | 235.98      | 1,530.7               | -13.2        | -19.4        | -13.0                   | 0.40                    | 0.40                   | -0.29                 |
| 1,620.0               | 1.23            | 244.15      | 1,619.7               | -14.3        | -21.3        | -14.0                   | 0.50                    | -0.45                  | 9.18                  |
| 1,710.0               | 1.41            | 244.94      | 1,709.7               | -15.2        | -23.2        | -14.9                   | 0.20                    | 0.20                   | 0.88                  |
| 1,770.0               | 1.76            | 261.47      | 1,769.7               | -15.7        | -24.7        | -15.3                   | 0.95                    | 0.58                   | 27.55                 |
| 1,892.0               | 1.58            | 285.64      | 1,891.6               | -15.5        | -28.2        | -15.1                   | 0.59                    | -0.15                  | 19.81                 |
| 1,982.0               | 1.49            | 294.25      | 1,981.6               | -14.7        | -30.5        | -14.3                   | 0.27                    | -0.10                  | 9.57                  |
| 2,071.0               | 0.88            | 330.20      | 2,070.6               | -13.6        | -31.9        | -13.2                   | 1.05                    | -0.69                  | 40.39                 |
| 2,161.0               | 0.79            | 21.26       | 2,160.6               | -12.4        | -32.0        | -12.0                   | 0.80                    | -0.10                  | 56.73                 |
| 2,250.0               | 0.79            | 20.56       | 2,249.6               | -11.3        | -31.6        | -10.9                   | 0.01                    | 0.00                   | -0.79                 |
| 2,340.0               | 1.05            | 24.69       | 2,339.5               | -10.0        | -31.0        | -9.5                    | 0.30                    | 0.29                   | 4.59                  |
| 2,430.0               | 0.92            | 35.32       | 2,429.5               | -8.6         | -30.2        | -8.2                    | 0.25                    | -0.14                  | 11.81                 |
| 2,520.0               | 1.01            | 39.72       | 2,519.5               | -7.4         | -29.3        | -7.0                    | 0.13                    | 0.10                   | 4.89                  |
| 2,609.0               | 1.01            | 18.01       | 2,608.5               | -6.1         | -28.6        | -5.7                    | 0.43                    | 0.00                   | -24.39                |
| 2,699.0               | 0.97            | 18.01       | 2,698.5               | -4.6         | -28.1        | -4.2                    | 0.04                    | -0.04                  | 0.00                  |
| 2,789.0               | 0.92            | 39.98       | 2,788.5               | -3.3         | -27.4        | -2.9                    | 0.40                    | -0.06                  | 24.41                 |
| 2,878.0               | 1.63            | 78.65       | 2,877.5               | -2.5         | -25.7        | -2.2                    | 1.21                    | 0.80                   | 43.45                 |
| 2,968.0               | 2.37            | 88.41       | 2,967.4               | -2.2         | -22.6        | -1.9                    | 0.90                    | 0.82                   | 10.84                 |
| 3,058.0               | 2.99            | 90.26       | 3,057.3               | -2.2         | -18.4        | -1.9                    | 0.70                    | 0.69                   | 2.06                  |
| 3,148.0               | 2.59            | 87.79       | 3,147.2               | -2.1         | -14.0        | -1.9                    | 0.46                    | -0.44                  | -2.74                 |
| 3,237.0               | 1.98            | 90.87       | 3,236.1               | -2.1         | -10.4        | -1.9                    | 0.70                    | -0.69                  | 3.46                  |
| 3,327.0               | 2.15            | 85.95       | 3,326.1               | -2.0         | -7.2         | -1.9                    | 0.27                    | 0.19                   | -5.47                 |
| 3,417.0               | 1.71            | 87.09       | 3,416.0               | -1.8         | -4.2         | -1.7                    | 0.49                    | -0.49                  | 1.27                  |
| 3,506.0               | 0.66            | 72.06       | 3,505.0               | -1.6         | -2.4         | -1.5                    | 1.22                    | -1.18                  | -16.89                |
| 3,596.0               | 0.53            | 58.88       | 3,595.0               | -1.2         | -1.5         | -1.2                    | 0.21                    | -0.14                  | -14.64                |
| 3,686.0               | 0.75            | 89.20       | 3,685.0               | -1.0         | -0.6         | -0.9                    | 0.44                    | 0.24                   | 33.69                 |
| 3,776.0               | 0.97            | 63.10       | 3,775.0               | -0.6         | 0.7          | -0.6                    | 0.49                    | 0.24                   | -29.00                |
| 3,865.0               | 0.88            | 72.59       | 3,864.0               | -0.1         | 2.0          | -0.1                    | 0.20                    | -0.10                  | 10.66                 |
| 3,955.0               | 1.19            | 88.94       | 3,953.9               | 0.2          | 3.6          | 0.1                     | 0.47                    | 0.34                   | 18.17                 |
| 4,045.0               | 1.45            | 78.39       | 4,043.9               | 0.4          | 5.7          | 0.3                     | 0.39                    | 0.29                   | -11.72                |
| 4,135.0               | 1.71            | 72.85       | 4,133.9               | 1.0          | 8.1          | 0.9                     | 0.33                    | 0.29                   | -6.16                 |
| 4,224.0               | 2.07            | 88.76       | 4,222.8               | 1.5          | 11.0         | 1.3                     | 0.71                    | 0.40                   | 17.88                 |
| 4,314.0               | 1.93            | 87.27       | 4,312.8               | 1.6          | 14.1         | 1.4                     | 0.17                    | -0.16                  | -1.66                 |
| 4,404.0               | 1.76            | 86.48       | 4,402.7               | 1.7          | 17.0         | 1.5                     | 0.19                    | -0.19                  | -0.88                 |
| 4,493.0               | 1.71            | 93.16       | 4,491.7               | 1.7          | 19.7         | 1.5                     | 0.23                    | -0.06                  | 7.51                  |
| 4,583.0               | 1.93            | 72.24       | 4,581.7               | 2.1          | 22.5         | 1.8                     | 0.77                    | 0.24                   | -23.24                |
| 4,673.0               | 0.57            | 40.42       | 4,671.6               | 2.9          | 24.2         | 2.6                     | 1.64                    | -1.51                  | -35.36                |
| 4,762.0               | 0.75            | 301.81      | 4,760.6               | 3.6          | 24.0         | 3.3                     | 1.13                    | 0.20                   | -110.80               |
| 4,852.0               | 0.84            | 301.98      | 4,850.6               | 4.2          | 22.9         | 3.9                     | 0.10                    | 0.10                   | 0.19                  |
| 4,942.0               | 0.57            | 282.65      | 4,940.6               | 4.7          | 21.9         | 4.4                     | 0.40                    | -0.30                  | -21.48                |

|                  |                                |                                     |                                   |
|------------------|--------------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>  | Advance Energy Partners        | <b>Local Co-ordinate Reference:</b> | Well Wool Head 20 State Com #554H |
| <b>Project:</b>  | Lea County, NM (NAD 83 NME)    | <b>TVD Reference:</b>               | KB @ 3752.0usft                   |
| <b>Site:</b>     | (Wool Head)Sec20_T-21-S_R-33-E | <b>MD Reference:</b>                | KB @ 3752.0usft                   |
| <b>Well:</b>     | Wool Head 20 State Com #554H   | <b>North Reference:</b>             | Grid                              |
| <b>Wellbore:</b> | OWB                            | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Design:</b>   | AWB                            | <b>Database:</b>                    | EDM 10_13                         |

| Survey                |                 |             |                       |              |              |                         |                         |                        |                       |  |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|--|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |  |
| 5,031.0               | 0.53            | 286.69      | 5,029.6               | 4.9          | 21.1         | 4.6                     | 0.06                    | -0.04                  | 4.54                  |  |
| 5,121.0               | 1.01            | 305.15      | 5,119.6               | 5.5          | 20.1         | 5.2                     | 0.59                    | 0.53                   | 20.51                 |  |
| 5,192.0               | 0.79            | 284.32      | 5,190.6               | 6.0          | 19.1         | 5.7                     | 0.55                    | -0.31                  | -29.34                |  |
| 5,303.0               | 1.19            | 278.28      | 5,301.6               | 6.3          | 17.2         | 6.1                     | 0.37                    | 0.36                   | -5.44                 |  |
| 5,392.0               | 0.92            | 265.86      | 5,390.6               | 6.4          | 15.6         | 6.2                     | 0.40                    | -0.30                  | -13.96                |  |
| 5,482.0               | 3.34            | 185.00      | 5,480.5               | 3.7          | 14.6         | 3.5                     | 3.69                    | 2.69                   | -89.84                |  |
| 5,572.0               | 3.16            | 181.13      | 5,570.4               | -1.4         | 14.3         | -1.6                    | 0.32                    | -0.20                  | -4.30                 |  |
| 5,661.0               | 2.68            | 176.65      | 5,659.2               | -5.9         | 14.4         | -6.1                    | 0.60                    | -0.54                  | -5.03                 |  |
| 5,751.0               | 3.87            | 175.25      | 5,749.1               | -11.0        | 14.8         | -11.2                   | 1.33                    | 1.32                   | -1.56                 |  |
| 5,841.0               | 5.76            | 169.01      | 5,838.8               | -18.5        | 15.9         | -18.7                   | 2.18                    | 2.10                   | -6.93                 |  |
| 5,930.0               | 5.54            | 168.39      | 5,927.3               | -27.1        | 17.6         | -27.3                   | 0.26                    | -0.25                  | -0.70                 |  |
| 6,020.0               | 5.27            | 162.68      | 6,016.9               | -35.3        | 19.7         | -35.5                   | 0.67                    | -0.30                  | -6.34                 |  |
| 6,110.0               | 5.71            | 158.28      | 6,106.5               | -43.4        | 22.6         | -43.7                   | 0.68                    | 0.49                   | -4.89                 |  |
| 6,199.0               | 5.89            | 148.70      | 6,195.1               | -51.4        | 26.6         | -51.8                   | 1.11                    | 0.20                   | -10.76                |  |
| 6,289.0               | 6.64            | 131.83      | 6,284.5               | -58.8        | 32.9         | -59.3                   | 2.20                    | 0.83                   | -18.74                |  |
| 6,378.0               | 6.42            | 132.71      | 6,373.0               | -65.6        | 40.4         | -66.2                   | 0.27                    | -0.25                  | 0.99                  |  |
| 6,468.0               | 6.29            | 135.70      | 6,462.4               | -72.6        | 47.5         | -73.2                   | 0.40                    | -0.14                  | 3.32                  |  |
| 6,558.0               | 6.37            | 134.46      | 6,551.9               | -79.6        | 54.5         | -80.3                   | 0.18                    | 0.09                   | -1.38                 |  |
| 6,648.0               | 5.98            | 133.23      | 6,641.3               | -86.3        | 61.5         | -87.1                   | 0.46                    | -0.43                  | -1.37                 |  |
| 6,737.0               | 5.54            | 136.05      | 6,729.9               | -92.6        | 67.9         | -93.5                   | 0.59                    | -0.49                  | 3.17                  |  |
| 6,827.0               | 5.45            | 134.82      | 6,819.5               | -98.7        | 73.9         | -99.7                   | 0.16                    | -0.10                  | -1.37                 |  |
| 6,917.0               | 5.49            | 137.54      | 6,909.1               | -104.9       | 79.8         | -106.0                  | 0.29                    | 0.04                   | 3.02                  |  |
| 7,007.0               | 5.05            | 136.93      | 6,998.7               | -111.0       | 85.5         | -112.1                  | 0.49                    | -0.49                  | -0.68                 |  |
| 7,096.0               | 5.41            | 137.89      | 7,087.3               | -116.9       | 90.9         | -118.2                  | 0.42                    | 0.40                   | 1.08                  |  |
| 7,186.0               | 5.36            | 132.97      | 7,176.9               | -122.9       | 96.9         | -124.3                  | 0.52                    | -0.06                  | -5.47                 |  |
| 7,276.0               | 4.79            | 135.70      | 7,266.6               | -128.5       | 102.6        | -129.9                  | 0.69                    | -0.63                  | 3.03                  |  |
| 7,366.0               | 4.92            | 134.73      | 7,356.2               | -133.9       | 107.9        | -135.4                  | 0.17                    | 0.14                   | -1.08                 |  |
| 7,455.0               | 4.92            | 131.92      | 7,444.9               | -139.1       | 113.5        | -140.7                  | 0.27                    | 0.00                   | -3.16                 |  |
| 7,545.0               | 4.31            | 136.13      | 7,534.6               | -144.2       | 118.7        | -145.8                  | 0.77                    | -0.68                  | 4.68                  |  |
| 7,634.0               | 4.26            | 130.77      | 7,623.4               | -148.7       | 123.5        | -150.4                  | 0.45                    | -0.06                  | -6.02                 |  |
| 7,724.0               | 4.13            | 132.09      | 7,713.1               | -153.1       | 128.5        | -154.8                  | 0.18                    | -0.14                  | 1.47                  |  |
| 7,814.0               | 4.22            | 133.59      | 7,802.9               | -157.5       | 133.3        | -159.3                  | 0.16                    | 0.10                   | 1.67                  |  |
| 7,904.0               | 4.35            | 137.80      | 7,892.6               | -162.4       | 138.0        | -164.2                  | 0.38                    | 0.14                   | 4.68                  |  |
| 7,993.0               | 4.13            | 143.25      | 7,981.4               | -167.4       | 142.1        | -169.3                  | 0.52                    | -0.25                  | 6.12                  |  |
| 8,083.0               | 4.31            | 146.59      | 8,071.2               | -172.8       | 145.9        | -174.8                  | 0.34                    | 0.20                   | 3.71                  |  |
| 8,172.0               | 3.91            | 150.55      | 8,159.9               | -178.3       | 149.3        | -180.3                  | 0.55                    | -0.45                  | 4.45                  |  |
| 8,262.0               | 3.03            | 152.04      | 8,249.8               | -183.0       | 151.9        | -185.1                  | 0.98                    | -0.98                  | 1.66                  |  |
| 8,352.0               | 3.08            | 148.26      | 8,339.6               | -187.2       | 154.3        | -189.3                  | 0.23                    | 0.06                   | -4.20                 |  |
| 8,442.0               | 4.84            | 142.55      | 8,429.4               | -192.3       | 157.9        | -194.4                  | 2.00                    | 1.96                   | -6.34                 |  |
| 8,531.0               | 5.14            | 138.42      | 8,518.1               | -198.2       | 162.8        | -200.4                  | 0.53                    | 0.34                   | -4.64                 |  |
| 8,621.0               | 5.10            | 140.44      | 8,607.7               | -204.3       | 168.0        | -206.6                  | 0.21                    | -0.04                  | 2.24                  |  |
| 8,710.0               | 4.44            | 146.95      | 8,696.4               | -210.3       | 172.4        | -212.6                  | 0.96                    | -0.74                  | 7.31                  |  |
| 8,800.0               | 3.96            | 151.69      | 8,786.2               | -215.9       | 175.8        | -218.3                  | 0.66                    | -0.53                  | 5.27                  |  |



|                  |                                |                                     |                                   |
|------------------|--------------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>  | Advance Energy Partners        | <b>Local Co-ordinate Reference:</b> | Well Wool Head 20 State Com #554H |
| <b>Project:</b>  | Lea County, NM (NAD 83 NME)    | <b>TVD Reference:</b>               | KB @ 3752.0usft                   |
| <b>Site:</b>     | (Wool Head)Sec20_T-21-S_R-33-E | <b>MD Reference:</b>                | KB @ 3752.0usft                   |
| <b>Well:</b>     | Wool Head 20 State Com #554H   | <b>North Reference:</b>             | Grid                              |
| <b>Wellbore:</b> | OWB                            | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Design:</b>   | AWB                            | <b>Database:</b>                    | EDM 10_13                         |

| Survey                                |                 |             |                       |              |              |                         |                         |                        |                       |
|---------------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft)                 | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 8,890.0                               | 3.69            | 153.62      | 8,876.0               | -221.3       | 178.6        | -223.7                  | 0.33                    | -0.30                  | 2.14                  |
| 8,979.0                               | 4.22            | 135.26      | 8,964.8               | -226.2       | 182.1        | -228.6                  | 1.53                    | 0.60                   | -20.63                |
| 9,069.0                               | 4.70            | 131.04      | 9,054.5               | -230.9       | 187.2        | -233.5                  | 0.65                    | 0.53                   | -4.69                 |
| 9,159.0                               | 3.96            | 136.93      | 9,144.2               | -235.6       | 192.1        | -238.2                  | 0.96                    | -0.82                  | 6.54                  |
| 9,248.0                               | 2.81            | 147.82      | 9,233.1               | -239.7       | 195.4        | -242.3                  | 1.47                    | -1.29                  | 12.24                 |
| 9,338.0                               | 3.47            | 145.98      | 9,322.9               | -243.8       | 198.1        | -246.5                  | 0.74                    | 0.73                   | -2.04                 |
| 9,428.0                               | 3.03            | 146.42      | 9,412.8               | -248.1       | 200.9        | -250.8                  | 0.49                    | -0.49                  | 0.49                  |
| 9,518.0                               | 3.25            | 136.49      | 9,502.7               | -251.9       | 204.0        | -254.7                  | 0.65                    | 0.24                   | -11.03                |
| 9,608.0                               | 4.09            | 134.20      | 9,592.5               | -256.0       | 208.1        | -258.8                  | 0.95                    | 0.93                   | -2.54                 |
| 9,697.0                               | 3.30            | 145.36      | 9,681.3               | -260.3       | 211.8        | -263.2                  | 1.20                    | -0.89                  | 12.54                 |
| 9,788.0                               | 3.60            | 128.40      | 9,772.1               | -264.2       | 215.5        | -267.2                  | 1.16                    | 0.33                   | -18.64                |
| 9,877.0                               | 4.00            | 125.50      | 9,860.9               | -267.8       | 220.2        | -270.8                  | 0.50                    | 0.45                   | -3.26                 |
| 9,967.0                               | 3.34            | 122.51      | 9,950.8               | -271.0       | 225.0        | -274.1                  | 0.76                    | -0.73                  | -3.32                 |
| 10,057.0                              | 3.16            | 127.52      | 10,040.6              | -273.9       | 229.2        | -277.0                  | 0.37                    | -0.20                  | 5.57                  |
| 10,147.0                              | 2.81            | 138.42      | 10,130.5              | -277.1       | 232.6        | -280.2                  | 0.74                    | -0.39                  | 12.11                 |
| 10,236.0                              | 2.55            | 137.36      | 10,219.4              | -280.2       | 235.4        | -283.4                  | 0.30                    | -0.29                  | -1.19                 |
| 10,326.0                              | 2.68            | 123.30      | 10,309.3              | -282.8       | 238.5        | -286.0                  | 0.73                    | 0.14                   | -15.62                |
| 10,416.0                              | 2.37            | 117.85      | 10,399.2              | -284.8       | 241.9        | -288.1                  | 0.44                    | -0.34                  | -6.06                 |
| 10,506.0                              | 1.93            | 150.20      | 10,489.1              | -287.0       | 244.3        | -290.3                  | 1.41                    | -0.49                  | 35.94                 |
| 10,595.0                              | 1.80            | 140.44      | 10,578.1              | -289.4       | 246.0        | -292.7                  | 0.39                    | -0.15                  | -10.97                |
| 10,667.0                              | 1.85            | 155.03      | 10,650.1              | -291.3       | 247.2        | -294.7                  | 0.65                    | 0.07                   | 20.26                 |
| 10,723.0                              | 1.60            | 154.82      | 10,706.0              | -292.8       | 247.9        | -296.2                  | 0.45                    | -0.45                  | -0.38                 |
| 10,812.0                              | 12.00           | 348.32      | 10,794.5              | -284.9       | 246.5        | -288.2                  | 15.24                   | 11.69                  | -187.08               |
| 10,902.0                              | 25.40           | 358.52      | 10,879.5              | -256.3       | 244.1        | -259.6                  | 15.27                   | 14.89                  | 11.33                 |
| 10,919.2                              | 26.57           | 359.51      | 10,895.0              | -248.7       | 244.0        | -252.0                  | 7.27                    | 6.82                   | 5.73                  |
| FTP @ 10919.2' MD, 100' FSL, 686' FEL |                 |             |                       |              |              |                         |                         |                        |                       |
| 10,992.0                              | 31.60           | 2.92        | 10,958.6              | -213.4       | 244.8        | -216.7                  | 7.27                    | 6.90                   | 4.69                  |
| 11,082.0                              | 37.40           | 6.82        | 11,032.8              | -162.7       | 249.3        | -166.0                  | 6.89                    | 6.44                   | 4.33                  |
| 11,171.0                              | 44.40           | 6.52        | 11,100.0              | -104.8       | 256.0        | -108.3                  | 7.87                    | 7.87                   | -0.34                 |
| 11,261.0                              | 47.20           | 5.02        | 11,162.7              | -40.6        | 262.5        | -44.2                   | 3.33                    | 3.11                   | -1.67                 |
| 11,350.0                              | 56.20           | 1.22        | 11,217.8              | 29.0         | 266.2        | 25.4                    | 10.65                   | 10.11                  | -4.27                 |
| 11,440.0                              | 61.80           | 358.32      | 11,264.2              | 106.1        | 265.8        | 102.5                   | 6.81                    | 6.22                   | -3.22                 |
| 11,530.0                              | 72.10           | 355.62      | 11,299.4              | 188.7        | 261.4        | 185.1                   | 11.77                   | 11.44                  | -3.00                 |
| 11,619.0                              | 80.80           | 354.42      | 11,320.2              | 274.8        | 253.8        | 271.3                   | 9.86                    | 9.78                   | -1.35                 |
| 11,709.0                              | 85.80           | 352.82      | 11,330.7              | 363.6        | 243.9        | 360.3                   | 5.83                    | 5.56                   | -1.78                 |
| 11,799.0                              | 87.10           | 352.62      | 11,336.3              | 452.7        | 232.5        | 449.5                   | 1.46                    | 1.44                   | -0.22                 |
| 11,888.0                              | 89.20           | 349.60      | 11,339.2              | 540.6        | 218.8        | 537.6                   | 4.13                    | 2.36                   | -3.39                 |
| 11,978.0                              | 90.86           | 359.47      | 11,339.1              | 630.1        | 210.2        | 627.1                   | 11.12                   | 1.84                   | 10.97                 |
| 12,068.0                              | 93.00           | 0.32        | 11,336.1              | 720.0        | 210.0        | 717.1                   | 2.56                    | 2.38                   | 0.94                  |
| 12,160.0                              | 95.00           | 0.62        | 11,329.7              | 811.8        | 210.8        | 808.8                   | 2.20                    | 2.17                   | 0.33                  |
| 12,249.0                              | 95.10           | 3.82        | 11,321.8              | 900.4        | 214.2        | 897.4                   | 3.58                    | 0.11                   | 3.60                  |
| 12,339.0                              | 91.50           | 4.72        | 11,316.6              | 989.9        | 220.9        | 986.8                   | 4.12                    | -4.00                  | 1.00                  |
| 12,429.0                              | 91.50           | 3.42        | 11,314.3              | 1,079.7      | 227.3        | 1,076.5                 | 1.44                    | 0.00                   | -1.44                 |
| 12,518.0                              | 92.40           | 3.32        | 11,311.3              | 1,168.5      | 232.5        | 1,165.2                 | 1.02                    | 1.01                   | -0.11                 |

|                  |                                |                                     |                                   |
|------------------|--------------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>  | Advance Energy Partners        | <b>Local Co-ordinate Reference:</b> | Well Wool Head 20 State Com #554H |
| <b>Project:</b>  | Lea County, NM (NAD 83 NME)    | <b>TVD Reference:</b>               | KB @ 3752.0usft                   |
| <b>Site:</b>     | (Wool Head)Sec20_T-21-S_R-33-E | <b>MD Reference:</b>                | KB @ 3752.0usft                   |
| <b>Well:</b>     | Wool Head 20 State Com #554H   | <b>North Reference:</b>             | Grid                              |
| <b>Wellbore:</b> | OWB                            | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Design:</b>   | AWB                            | <b>Database:</b>                    | EDM 10_13                         |

| Survey                |                 |             |                       |              |              |                         |                         |                        |                       |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 12,608.0              | 91.10           | 2.02        | 11,308.5              | 1,258.3      | 236.7        | 1,255.0                 | 2.04                    | -1.44                  | -1.44                 |
| 12,698.0              | 92.40           | 2.32        | 11,305.8              | 1,348.2      | 240.1        | 1,344.8                 | 1.48                    | 1.44                   | 0.33                  |
| 12,787.0              | 92.80           | 2.62        | 11,301.7              | 1,437.0      | 244.0        | 1,433.6                 | 0.56                    | 0.45                   | 0.34                  |
| 12,877.0              | 92.10           | 3.52        | 11,297.9              | 1,526.8      | 248.8        | 1,523.3                 | 1.27                    | -0.78                  | 1.00                  |
| 12,967.0              | 93.60           | 3.82        | 11,293.4              | 1,616.5      | 254.5        | 1,612.9                 | 1.70                    | 1.67                   | 0.33                  |
| 13,057.0              | 92.40           | 5.62        | 11,288.7              | 1,706.1      | 261.9        | 1,702.4                 | 2.40                    | -1.33                  | 2.00                  |
| 13,146.0              | 88.50           | 5.02        | 11,288.0              | 1,794.7      | 270.2        | 1,790.9                 | 4.43                    | -4.38                  | -0.67                 |
| 13,235.0              | 87.10           | 1.72        | 11,291.4              | 1,883.5      | 275.4        | 1,879.5                 | 4.03                    | -1.57                  | -3.71                 |
| 13,325.0              | 87.90           | 353.42      | 11,295.3              | 1,973.2      | 271.6        | 1,969.3                 | 9.26                    | 0.89                   | -9.22                 |
| 13,415.0              | 92.20           | 352.12      | 11,295.3              | 2,062.5      | 260.3        | 2,058.7                 | 4.99                    | 4.78                   | -1.44                 |
| 13,505.0              | 94.80           | 354.22      | 11,289.8              | 2,151.7      | 249.6        | 2,148.1                 | 3.71                    | 2.89                   | 2.33                  |
| 13,594.0              | 94.50           | 357.62      | 11,282.5              | 2,240.1      | 243.3        | 2,236.6                 | 3.82                    | -0.34                  | 3.82                  |
| 13,684.0              | 94.10           | 358.72      | 11,275.8              | 2,329.8      | 240.4        | 2,326.3                 | 1.30                    | -0.44                  | 1.22                  |
| 13,773.0              | 89.60           | 0.02        | 11,272.9              | 2,418.8      | 239.4        | 2,415.3                 | 5.26                    | -5.06                  | 1.46                  |
| 13,863.0              | 90.50           | 359.42      | 11,272.8              | 2,508.7      | 239.0        | 2,505.3                 | 1.20                    | 1.00                   | -0.67                 |
| 13,953.0              | 90.20           | 359.12      | 11,272.3              | 2,598.7      | 237.8        | 2,595.3                 | 0.47                    | -0.33                  | -0.33                 |
| 14,042.0              | 95.40           | 359.20      | 11,268.0              | 2,687.6      | 236.5        | 2,684.1                 | 5.84                    | 5.84                   | 0.09                  |
| 14,133.0              | 95.70           | 0.32        | 11,259.2              | 2,778.2      | 236.2        | 2,774.7                 | 1.27                    | 0.33                   | 1.23                  |
| 14,223.0              | 91.70           | 1.62        | 11,253.3              | 2,867.9      | 237.7        | 2,864.4                 | 4.67                    | -4.44                  | 1.44                  |
| 14,313.0              | 88.40           | 1.52        | 11,253.3              | 2,957.9      | 240.2        | 2,954.4                 | 3.67                    | -3.67                  | -0.11                 |
| 14,402.0              | 87.90           | 1.12        | 11,256.1              | 3,046.8      | 242.2        | 3,043.2                 | 0.72                    | -0.56                  | -0.45                 |
| 14,492.0              | 90.40           | 359.92      | 11,257.5              | 3,136.8      | 243.0        | 3,133.2                 | 3.08                    | 2.78                   | -1.33                 |
| 14,582.0              | 91.60           | 359.42      | 11,255.9              | 3,226.8      | 242.5        | 3,223.2                 | 1.44                    | 1.33                   | -0.56                 |
| 14,671.0              | 90.20           | 358.92      | 11,254.5              | 3,315.8      | 241.2        | 3,312.2                 | 1.67                    | -1.57                  | -0.56                 |
| 14,761.0              | 91.90           | 358.52      | 11,252.9              | 3,405.7      | 239.2        | 3,402.2                 | 1.94                    | 1.89                   | -0.44                 |
| 14,851.0              | 92.40           | 358.32      | 11,249.5              | 3,495.6      | 236.7        | 3,492.1                 | 0.60                    | 0.56                   | -0.22                 |
| 14,940.0              | 93.00           | 358.72      | 11,245.3              | 3,584.5      | 234.4        | 3,581.0                 | 0.81                    | 0.67                   | 0.45                  |
| 14,987.0              | 93.70           | 358.12      | 11,242.5              | 3,631.4      | 233.1        | 3,627.9                 | 1.96                    | 1.49                   | -1.28                 |
| 15,061.0              | 92.60           | 357.32      | 11,238.5              | 3,705.2      | 230.2        | 3,701.7                 | 1.84                    | -1.49                  | -1.08                 |
| 15,151.0              | 93.80           | 357.22      | 11,233.5              | 3,795.0      | 225.9        | 3,791.6                 | 1.34                    | 1.33                   | -0.11                 |
| 15,241.0              | 93.70           | 357.02      | 11,227.6              | 3,884.7      | 221.4        | 3,881.3                 | 0.25                    | -0.11                  | -0.22                 |
| 15,330.0              | 95.00           | 356.62      | 11,220.8              | 3,973.3      | 216.5        | 3,970.0                 | 1.53                    | 1.46                   | -0.45                 |
| 15,420.0              | 94.50           | 358.72      | 11,213.4              | 4,062.9      | 212.8        | 4,059.6                 | 2.39                    | -0.56                  | 2.33                  |
| 15,510.0              | 92.20           | 0.82        | 11,208.1              | 4,152.7      | 212.5        | 4,149.4                 | 3.46                    | -2.56                  | 2.33                  |
| 15,599.0              | 92.60           | 1.52        | 11,204.4              | 4,241.6      | 214.3        | 4,238.3                 | 0.91                    | 0.45                   | 0.79                  |
| 15,689.0              | 93.10           | 2.42        | 11,199.9              | 4,331.5      | 217.4        | 4,328.1                 | 1.14                    | 0.56                   | 1.00                  |
| 15,778.0              | 93.00           | 3.22        | 11,195.2              | 4,420.2      | 221.7        | 4,416.8                 | 0.90                    | -0.11                  | 0.90                  |
| 15,868.0              | 89.20           | 0.82        | 11,193.4              | 4,510.1      | 224.9        | 4,506.7                 | 4.99                    | -4.22                  | -2.67                 |
| 15,958.0              | 88.50           | 0.32        | 11,195.2              | 4,600.1      | 225.8        | 4,596.6                 | 0.96                    | -0.78                  | -0.56                 |
| 16,048.0              | 90.00           | 358.72      | 11,196.4              | 4,690.1      | 225.1        | 4,686.6                 | 2.44                    | 1.67                   | -1.78                 |
| 16,137.0              | 93.80           | 357.62      | 11,193.5              | 4,779.0      | 222.2        | 4,775.5                 | 4.44                    | 4.27                   | -1.24                 |
| 16,227.0              | 94.00           | 355.82      | 11,187.3              | 4,868.6      | 217.1        | 4,865.2                 | 2.01                    | 0.22                   | -2.00                 |
| 16,288.0              | 93.80           | 356.29      | 11,183.2              | 4,929.3      | 212.9        | 4,926.0                 | 0.84                    | -0.33                  | 0.78                  |

|                  |                                |                                     |                                   |
|------------------|--------------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>  | Advance Energy Partners        | <b>Local Co-ordinate Reference:</b> | Well Wool Head 20 State Com #554H |
| <b>Project:</b>  | Lea County, NM (NAD 83 NME)    | <b>TVD Reference:</b>               | KB @ 3752.0usft                   |
| <b>Site:</b>     | (Wool Head)Sec20_T-21-S_R-33-E | <b>MD Reference:</b>                | KB @ 3752.0usft                   |
| <b>Well:</b>     | Wool Head 20 State Com #554H   | <b>North Reference:</b>             | Grid                              |
| <b>Wellbore:</b> | OWB                            | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Design:</b>   | AWB                            | <b>Database:</b>                    | EDM 10_13                         |

| Survey                                        |                 |             |                       |              |              |                         |                         |                        |                       |
|-----------------------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft)                         | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| <b>CROSS SEC LINE @ 16288.0' MD, 633' FEL</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 16,317.0                                      | 93.70           | 356.52      | 11,181.3              | 4,958.2      | 211.1        | 4,954.9                 | 0.84                    | -0.33                  | 0.78                  |
| 16,407.0                                      | 94.30           | 356.22      | 11,175.0              | 5,047.8      | 205.4        | 5,044.6                 | 0.74                    | 0.67                   | -0.33                 |
| 16,496.0                                      | 94.80           | 357.72      | 11,168.0              | 5,136.4      | 200.7        | 5,133.2                 | 1.77                    | 0.56                   | 1.69                  |
| 16,586.0                                      | 93.10           | 357.92      | 11,161.8              | 5,226.1      | 197.3        | 5,223.0                 | 1.90                    | -1.89                  | 0.22                  |
| 16,676.0                                      | 91.60           | 359.42      | 11,158.1              | 5,316.0      | 195.2        | 5,312.9                 | 2.36                    | -1.67                  | 1.67                  |
| 16,766.0                                      | 91.80           | 358.72      | 11,155.4              | 5,406.0      | 193.7        | 5,402.8                 | 0.81                    | 0.22                   | -0.78                 |
| 16,855.0                                      | 92.60           | 358.72      | 11,152.0              | 5,494.9      | 191.8        | 5,491.8                 | 0.90                    | 0.90                   | 0.00                  |
| 16,945.0                                      | 91.90           | 358.62      | 11,148.5              | 5,584.8      | 189.7        | 5,581.7                 | 0.79                    | -0.78                  | -0.11                 |
| 17,035.0                                      | 90.10           | 358.52      | 11,146.9              | 5,674.7      | 187.4        | 5,671.7                 | 2.00                    | -2.00                  | -0.11                 |
| 17,125.0                                      | 94.70           | 358.82      | 11,143.1              | 5,764.6      | 185.3        | 5,761.6                 | 5.12                    | 5.11                   | 0.33                  |
| 17,214.0                                      | 93.20           | 358.92      | 11,137.0              | 5,853.4      | 183.6        | 5,850.3                 | 1.69                    | -1.69                  | 0.11                  |
| 17,304.0                                      | 92.60           | 0.12        | 11,132.4              | 5,943.3      | 182.8        | 5,940.2                 | 1.49                    | -0.67                  | 1.33                  |
| 17,394.0                                      | 89.10           | 0.82        | 11,131.1              | 6,033.2      | 183.6        | 6,030.2                 | 3.97                    | -3.89                  | 0.78                  |
| 17,483.0                                      | 86.90           | 2.02        | 11,134.2              | 6,122.1      | 185.8        | 6,119.1                 | 2.82                    | -2.47                  | 1.35                  |
| 17,573.0                                      | 89.00           | 0.92        | 11,137.4              | 6,212.1      | 188.1        | 6,208.9                 | 2.63                    | 2.33                   | -1.22                 |
| 17,663.0                                      | 88.40           | 0.52        | 11,139.5              | 6,302.0      | 189.2        | 6,298.9                 | 0.80                    | -0.67                  | -0.44                 |
| 17,753.0                                      | 87.40           | 359.92      | 11,142.8              | 6,392.0      | 189.6        | 6,388.8                 | 1.30                    | -1.11                  | -0.67                 |
| 17,842.0                                      | 90.30           | 359.32      | 11,144.6              | 6,480.9      | 189.0        | 6,477.8                 | 3.33                    | 3.26                   | -0.67                 |
| 17,932.0                                      | 92.50           | 358.82      | 11,142.4              | 6,570.9      | 187.5        | 6,567.7                 | 2.51                    | 2.44                   | -0.56                 |
| 18,022.0                                      | 92.30           | 358.12      | 11,138.6              | 6,660.8      | 185.1        | 6,657.6                 | 0.81                    | -0.22                  | -0.78                 |
| 18,111.0                                      | 92.40           | 356.92      | 11,134.9              | 6,749.6      | 181.3        | 6,746.5                 | 1.35                    | 0.11                   | -1.35                 |
| 18,201.0                                      | 92.10           | 355.92      | 11,131.4              | 6,839.4      | 175.6        | 6,836.3                 | 1.16                    | -0.33                  | -1.11                 |
| 18,290.0                                      | 91.60           | 355.82      | 11,128.5              | 6,928.1      | 169.2        | 6,925.1                 | 0.57                    | -0.56                  | -0.11                 |
| 18,380.0                                      | 92.50           | 355.12      | 11,125.3              | 7,017.8      | 162.1        | 7,014.9                 | 1.27                    | 1.00                   | -0.78                 |
| 18,470.0                                      | 93.00           | 354.32      | 11,121.0              | 7,107.3      | 153.9        | 7,104.5                 | 1.05                    | 0.56                   | -0.89                 |
| 18,560.0                                      | 93.00           | 355.62      | 11,116.3              | 7,196.8      | 146.0        | 7,194.1                 | 1.44                    | 0.00                   | 1.44                  |
| 18,650.0                                      | 91.20           | 355.72      | 11,113.0              | 7,286.5      | 139.2        | 7,283.9                 | 2.00                    | -2.00                  | 0.11                  |
| 18,739.0                                      | 90.90           | 357.22      | 11,111.4              | 7,375.3      | 133.7        | 7,372.8                 | 1.72                    | -0.34                  | 1.69                  |
| 18,829.0                                      | 91.20           | 357.02      | 11,109.7              | 7,465.2      | 129.2        | 7,462.7                 | 0.40                    | 0.33                   | -0.22                 |
| 18,851.0                                      | 91.30           | 356.72      | 11,109.2              | 7,487.1      | 128.0        | 7,484.7                 | 1.44                    | 0.45                   | -1.36                 |
| <b>LAST SVY</b>                               |                 |             |                       |              |              |                         |                         |                        |                       |
| 18,906.0                                      | 91.30           | 356.72      | 11,108.0              | 7,542.0      | 124.9        | 7,539.6                 | 0.00                    | 0.00                   | 0.00                  |
| <b>PTD @ 18906.0' MD, 2664' FNL, 700' FEL</b> |                 |             |                       |              |              |                         |                         |                        |                       |

|                  |                                |                                     |                                   |
|------------------|--------------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>  | Advance Energy Partners        | <b>Local Co-ordinate Reference:</b> | Well Wool Head 20 State Com #554H |
| <b>Project:</b>  | Lea County, NM (NAD 83 NME)    | <b>TVD Reference:</b>               | KB @ 3752.0usft                   |
| <b>Site:</b>     | (Wool Head)Sec20_T-21-S_R-33-E | <b>MD Reference:</b>                | KB @ 3752.0usft                   |
| <b>Well:</b>     | Wool Head 20 State Com #554H   | <b>North Reference:</b>             | Grid                              |
| <b>Wellbore:</b> | OWB                            | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Design:</b>   | AWB                            | <b>Database:</b>                    | EDM 10_13                         |

#### Design Targets

| Target Name<br>- hit/miss target<br>- Shape                                                                                             | Dip Angle<br>(°) | Dip Dir.<br>(°) | TVD<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Northing<br>(usft) | Easting<br>(usft) | Latitude         | Longitude         |
|-----------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|---------------|-----------------|-----------------|--------------------|-------------------|------------------|-------------------|
| PBHL (Wool Head 20<br>- actual wellpath misses target center by 70.8usft at 18829.7usft MD (11109.7 TVD, 7465.8 N, 129.2 E)<br>- Point  | 0.00             | 0.01            | 11,170.7      | 7,469.1         | 164.9           | 538,651.70         | 771,114.10        | 32° 28' 42.998 N | 103° 35' 17.528 W |
| T1 (Wool Head 20 SC<br>- actual wellpath misses target center by 26.5usft at 14021.8usft MD (11269.6 TVD, 2667.4 N, 236.8 E)<br>- Point | 0.00             | 0.01            | 11,295.3      | 2,668.6         | 230.3           | 533,851.20         | 771,179.48        | 32° 27' 55.493 N | 103° 35' 17.156 W |
| FTP (Wool Head 20 S<br>- actual wellpath misses target center by 315.6usft at 11261.0usft MD (11162.7 TVD, -40.6 N, 262.5 E)<br>- Point | 0.00             | 0.01            | 11,400.0      | -248.6          | 270.1           | 530,934.00         | 771,219.30        | 32° 27' 26.625 N | 103° 35' 16.929 W |

#### Design Annotations

| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates |                 | Comment                                |
|-----------------------------|-----------------------------|-------------------|-----------------|----------------------------------------|
|                             |                             | +N/-S<br>(usft)   | +E/-W<br>(usft) |                                        |
| 10,919.2                    | 10,895.0                    | -248.7            | 244.0           | FTP @ 10919.2' MD, 100' FSL, 686' FEL  |
| 16,288.0                    | 11,183.2                    | 4,929.3           | 212.9           | CROSS SEC LINE @ 16288.0' MD, 633' FEL |
| 18,851.0                    | 11,109.2                    | 7,487.1           | 128.0           | LAST SVY                               |
| 18,906.0                    | 11,108.0                    | 7,542.0           | 124.9           | PTD @ 18906.0' MD, 2664' FNL, 700' FEL |

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



# Anti-Collision Report



# **Advance Energy Partners**

**Lea County, NM (NAD 83 NME)  
(Wool Head)Sec20\_T-21-S\_R-33-E  
Wool Head 20 State Com #554H**

**OWB  
AWB**

## **Anticollision Report**

**16 December, 2019**



|                           |                                |                                     |                                   |
|---------------------------|--------------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>           | Advance Energy Partners        | <b>Local Co-ordinate Reference:</b> | Well Wool Head 20 State Com #554H |
| <b>Project:</b>           | Lea County, NM (NAD 83 NME)    | <b>TVD Reference:</b>               | KB @ 3752.0usft                   |
| <b>Reference Site:</b>    | (Wool Head)Sec20_T-21-S_R-33-E | <b>MD Reference:</b>                | KB @ 3752.0usft                   |
| <b>Site Error:</b>        | 0.0 usft                       | <b>North Reference:</b>             | Grid                              |
| <b>Reference Well:</b>    | Wool Head 20 State Com #554H   | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Well Error:</b>        | 0.0 usft                       | <b>Output errors are at</b>         | 2.00 sigma                        |
| <b>Reference Wellbore</b> | OWB                            | <b>Database:</b>                    | EDM 10_13                         |
| <b>Reference Design:</b>  | AWB                            | <b>Offset TVD Reference:</b>        | Offset Datum                      |

| Reference                    | AWB                                                                 |                |                     |
|------------------------------|---------------------------------------------------------------------|----------------|---------------------|
| Filter type:                 | NO GLOBAL FILTER: Using user defined selection & filtering criteria |                |                     |
| Interpolation Method:        | MD Interval 100.0usft                                               | Error Model:   | ISCWSA              |
| Depth Range:                 | Unlimited                                                           | Scan Method:   | Closest Approach 3D |
| Results Limited by:          | Maximum center-center distance of 2,298.0 usft                      | Error Surface: | Pedal Curve         |
| Warning Levels Evaluated at: | 2.00 Sigma                                                          | Casing Method: | Not applied         |

| Survey Program |           | Date               | 12/16/2019 |                     |  |
|----------------|-----------|--------------------|------------|---------------------|--|
| From (usft)    | To (usft) | Survey (Wellbore)  | Tool Name  | Description         |  |
| 238.0          | 18,906.0  | Intrepid MWD (OWB) | MWD        | OWSG MWD - Standard |  |

| Summary                        |                                          |                          |                       |                        |                         |                   |                     |
|--------------------------------|------------------------------------------|--------------------------|-----------------------|------------------------|-------------------------|-------------------|---------------------|
|                                |                                          | Reference Measured Depth | Offset Measured Depth | Distance               |                         | Separation Factor | Warning             |
| Site Name                      | Offset Well - Wellbore - Design          | (usft)                   | (usft)                | Between Centres (usft) | Between Ellipses (usft) |                   |                     |
| (Wool Head)Sec20_T-21-S_R-33-E |                                          |                          |                       |                        |                         |                   |                     |
|                                | Wool Head 20 State Com #510H - OWB - AWB | 4,647.7                  | 4,648.2               | 17.8                   | -13.7                   | 0.564             | Level 1, CC, ES, SF |
|                                | Wool Head 20 State Com #511H - OWB - AWB | 2,734.6                  | 2,737.5               | 22.3                   | 4.0                     | 1.219             | Level 2, CC         |
|                                | Wool Head 20 State Com #511H - OWB - AWB | 5,400.0                  | 5,402.2               | 22.5                   | -14.3                   | 0.611             | Level 1, ES, SF     |
|                                | Wool Head 20 State Com #512H - OWB - AWB | 4,658.6                  | 4,658.5               | 58.4                   | 26.8                    | 1.848             | CC, ES              |
|                                | Wool Head 20 State Com #512H - OWB - AWB | 4,700.0                  | 4,699.9               | 58.7                   | 26.8                    | 1.841             | SF                  |

| Offset Design:(Wool Head)Sec20_T-21-S_R-33-E - Wool Head 20 State Com #510H - OWB - AWB |                       |                       |                       |                  |               |                        |              |              |                                 |                         |                           |                   | Offset Site Error: | 0.0 usft |
|-----------------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|------------------------|--------------|--------------|---------------------------------|-------------------------|---------------------------|-------------------|--------------------|----------|
| Survey Program: 238-MWD                                                                 |                       | Offset                |                       | Semi Major Axis  |               | Offset Wellbore Centre |              |              | Rule Assigned:                  |                         |                           |                   | Offset Well Error: | 0.0 usft |
| Reference Measured Depth (usft)                                                         | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°)  | +N/-S (usft) | +E/-W (usft) | Distance Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning            |          |
| 0.0                                                                                     | 0.0                   | 0.5                   | 0.5                   | 0.0              | 0.0           | 89.83                  | 0.1          | 33.0         | 33.0                            |                         |                           |                   |                    |          |
| 100.0                                                                                   | 100.0                 | 100.5                 | 100.5                 | 0.1              | 0.2           | -91.13                 | -0.1         | 32.9         | 32.9                            | 32.6                    | 0.29                      | 111.683           |                    |          |
| 200.0                                                                                   | 200.0                 | 200.6                 | 200.6                 | 0.3              | 0.3           | -90.87                 | -0.6         | 32.7         | 32.7                            | 32.1                    | 0.63                      | 51.663            |                    |          |
| 300.0                                                                                   | 300.0                 | 300.7                 | 300.7                 | 0.6              | 0.6           | -136.31                | -1.3         | 32.4         | 32.5                            | 31.3                    | 1.21                      | 26.985            |                    |          |
| 400.0                                                                                   | 400.0                 | 400.8                 | 400.8                 | 1.0              | 1.0           | -115.38                | -1.9         | 31.7         | 32.4                            | 30.5                    | 1.92                      | 16.894            |                    |          |
| 477.7                                                                                   | 477.6                 | 478.4                 | 478.4                 | 1.2              | 1.2           | -131.90                | -2.2         | 31.0         | 32.3                            | 29.8                    | 2.47                      | 13.046            |                    |          |
| 500.0                                                                                   | 500.0                 | 500.7                 | 500.7                 | 1.3              | 1.3           | -135.71                | -2.3         | 30.9         | 32.2                            | 29.6                    | 2.63                      | 12.238            |                    |          |
| 600.0                                                                                   | 600.0                 | 600.8                 | 600.8                 | 1.7              | 1.7           | -167.75                | -2.6         | 30.2         | 32.6                            | 29.2                    | 3.35                      | 9.740             |                    |          |
| 700.0                                                                                   | 700.0                 | 700.6                 | 700.6                 | 2.0              | 2.0           | -154.82                | -3.3         | 29.5         | 33.0                            | 29.0                    | 4.06                      | 8.143             |                    |          |
| 800.0                                                                                   | 799.9                 | 800.8                 | 800.8                 | 2.4              | 2.4           | -151.22                | -4.2         | 28.9         | 34.9                            | 30.1                    | 4.78                      | 7.299             |                    |          |
| 900.0                                                                                   | 899.9                 | 900.3                 | 900.3                 | 2.7              | 2.7           | -151.81                | -3.7         | 28.4         | 37.2                            | 31.8                    | 5.48                      | 6.800             |                    |          |
| 1,000.0                                                                                 | 999.9                 | 1,001.3               | 1,001.3               | 3.1              | 3.1           | -157.42                | -3.9         | 27.2         | 37.7                            | 31.5                    | 6.18                      | 6.097             |                    |          |
| 1,100.0                                                                                 | 1,099.8               | 1,101.3               | 1,101.2               | 3.5              | 3.4           | -159.67                | -5.4         | 25.0         | 36.8                            | 29.9                    | 6.90                      | 5.338             |                    |          |
| 1,200.0                                                                                 | 1,199.8               | 1,201.5               | 1,201.3               | 3.8              | 3.8           | -148.06                | -7.0         | 22.5         | 35.9                            | 28.3                    | 7.62                      | 4.709             |                    |          |
| 1,300.0                                                                                 | 1,299.8               | 1,301.6               | 1,301.4               | 4.2              | 4.2           | -148.51                | -8.4         | 19.6         | 34.5                            | 26.2                    | 8.34                      | 4.143             |                    |          |
| 1,400.0                                                                                 | 1,399.8               | 1,401.8               | 1,401.5               | 4.5              | 4.5           | -152.33                | -9.5         | 16.0         | 32.8                            | 23.8                    | 9.06                      | 3.624             |                    |          |
| 1,500.0                                                                                 | 1,499.8               | 1,501.8               | 1,501.5               | 4.9              | 4.9           | -148.76                | -11.3        | 12.3         | 31.0                            | 21.2                    | 9.77                      | 3.171             |                    |          |
| 1,600.0                                                                                 | 1,599.7               | 1,601.4               | 1,601.0               | 5.3              | 5.3           | -152.77                | -13.7        | 8.9          | 29.8                            | 19.3                    | 10.50                     | 2.840             |                    |          |
| 1,700.0                                                                                 | 1,699.7               | 1,701.3               | 1,700.9               | 5.6              | 5.6           | -153.15                | -16.0        | 6.6          | 29.5                            | 18.3                    | 11.22                     | 2.634             |                    |          |
| 1,707.2                                                                                 | 1,706.9               | 1,708.5               | 1,708.0               | 5.7              | 5.6           | -154.84                | -16.2        | 6.4          | 29.5                            | 18.3                    | 11.27                     | 2.622             |                    |          |
| 1,800.0                                                                                 | 1,799.7               | 1,801.3               | 1,800.8               | 6.0              | 6.0           | -172.35                | -18.1        | 4.3          | 30.0                            | 18.1                    | 11.94                     | 2.516             |                    |          |
| 1,900.0                                                                                 | 1,899.6               | 1,901.2               | 1,900.6               | 6.3              | 6.3           | 171.27                 | -19.5        | 2.1          | 30.8                            | 18.2                    | 12.65                     | 2.436             |                    |          |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



|                           |                                |                                     |                                   |
|---------------------------|--------------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>           | Advance Energy Partners        | <b>Local Co-ordinate Reference:</b> | Well Wool Head 20 State Com #554H |
| <b>Project:</b>           | Lea County, NM (NAD 83 NME)    | <b>TVD Reference:</b>               | KB @ 3752.0usft                   |
| <b>Reference Site:</b>    | (Wool Head)Sec20_T-21-S_R-33-E | <b>MD Reference:</b>                | KB @ 3752.0usft                   |
| <b>Site Error:</b>        | 0.0 usft                       | <b>North Reference:</b>             | Grid                              |
| <b>Reference Well:</b>    | Wool Head 20 State Com #554H   | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Well Error:</b>        | 0.0 usft                       | <b>Output errors are at</b>         | 2.00 sigma                        |
| <b>Reference Wellbore</b> | OWB                            | <b>Database:</b>                    | EDM 10_13                         |
| <b>Reference Design:</b>  | AWB                            | <b>Offset TVD Reference:</b>        | Offset Datum                      |

**Offset Design:**(Wool Head)Sec20\_T-21-S\_R-33-E - Wool Head 20 State Com #510H - OWB - AWB

Offset Site Error: 0.0 usft

Offset Well Error: 0.0 usft

| Survey Program: 238-MWD     |                             | Offset                      |                             | Semi Major Axis     |                  | Highside<br>Toolface<br>(°) | Offset Wellbore Centre |                 | Rule Assigned:                           |                               | Minimum<br>Separation<br>(usft) | Separation<br>Factor      | Warning |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|-----------------------------|------------------------|-----------------|------------------------------------------|-------------------------------|---------------------------------|---------------------------|---------|
| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Reference<br>(usft) | Offset<br>(usft) |                             | +N/-S<br>(usft)        | +E/-W<br>(usft) | Distance<br>Between<br>Centres<br>(usft) | Between<br>Ellipses<br>(usft) |                                 |                           |         |
| 2,000.0                     | 1,999.6                     | 2,000.1                     | 1,999.5                     | 6.7                 | 6.7              | 162.41                      | -21.0                  | 2.0             | 33.5                                     | 20.1                          | 13.35                           | 2.508                     |         |
| 2,100.0                     | 2,099.6                     | 2,099.3                     | 2,098.6                     | 7.0                 | 7.0              | 120.16                      | -23.1                  | 4.6             | 38.0                                     | 23.9                          | 14.02                           | 2.707                     |         |
| 2,200.0                     | 2,199.6                     | 2,199.4                     | 2,198.7                     | 7.4                 | 7.3              | 84.49                       | -23.3                  | 8.3             | 41.6                                     | 27.0                          | 14.69                           | 2.835                     |         |
| 2,300.0                     | 2,299.5                     | 2,299.5                     | 2,298.7                     | 7.7                 | 7.7              | 80.33                       | -21.0                  | 12.0            | 44.6                                     | 29.2                          | 15.35                           | 2.903                     |         |
| 2,400.0                     | 2,399.5                     | 2,399.5                     | 2,398.6                     | 8.0                 | 8.0              | 69.87                       | -18.3                  | 15.7            | 47.1                                     | 31.1                          | 16.01                           | 2.942                     |         |
| 2,500.0                     | 2,499.5                     | 2,499.5                     | 2,498.5                     | 8.4                 | 8.3              | 60.53                       | -15.7                  | 19.2            | 49.4                                     | 32.8                          | 16.68                           | 2.964                     |         |
| 2,600.0                     | 2,599.5                     | 2,599.7                     | 2,598.6                     | 8.7                 | 8.7              | 77.75                       | -13.4                  | 22.5            | 51.6                                     | 34.3                          | 17.35                           | 2.976                     |         |
| 2,700.0                     | 2,699.5                     | 2,699.9                     | 2,698.7                     | 9.0                 | 9.0              | 78.94                       | -11.1                  | 25.4            | 53.9                                     | 35.8                          | 18.03                           | 2.986                     |         |
| 2,800.0                     | 2,799.5                     | 2,799.8                     | 2,798.6                     | 9.4                 | 9.4              | 48.59                       | -9.0                   | 28.0            | 55.6                                     | 36.9                          | 18.71                           | 2.970                     |         |
| 2,900.0                     | 2,899.4                     | 2,899.8                     | 2,898.5                     | 9.7                 | 9.7              | 12.98                       | -7.0                   | 30.7            | 55.9                                     | 36.6                          | 19.39                           | 2.885                     |         |
| 3,000.0                     | 2,999.4                     | 2,999.6                     | 2,998.3                     | 10.1                | 10.0             | 3.87                        | -5.1                   | 33.5            | 54.8                                     | 34.8                          | 20.07                           | 2.732                     |         |
| 3,100.0                     | 3,099.2                     | 3,099.4                     | 3,098.0                     | 10.4                | 10.4             | 2.07                        | -3.3                   | 36.7            | 52.9                                     | 32.2                          | 20.75                           | 2.552                     |         |
| 3,200.0                     | 3,199.2                     | 3,199.8                     | 3,198.3                     | 10.7                | 10.7             | 0.31                        | -1.8                   | 39.9            | 51.7                                     | 30.2                          | 21.44                           | 2.410                     |         |
| 3,300.0                     | 3,299.1                     | 3,300.5                     | 3,299.1                     | 11.1                | 11.1             | 1.81                        | -1.3                   | 41.6            | 49.8                                     | 27.7                          | 22.14                           | 2.252                     |         |
| 3,400.0                     | 3,399.0                     | 3,400.5                     | 3,399.0                     | 11.4                | 11.4             | 3.25                        | -1.9                   | 42.5            | 47.2                                     | 24.4                          | 22.83                           | 2.068                     |         |
| 3,486.0                     | 3,485.0                     | 3,486.3                     | 3,484.8                     | 11.7                | 11.7             | 12.82                       | -2.2                   | 43.6            | 46.3                                     | 22.9                          | 23.43                           | 1.978                     |         |
| 3,500.0                     | 3,499.0                     | 3,500.2                     | 3,498.7                     | 11.8                | 11.8             | 16.45                       | -2.3                   | 43.8            | 46.3                                     | 22.8                          | 23.52                           | 1.968                     |         |
| 3,600.0                     | 3,599.0                     | 3,600.3                     | 3,598.8                     | 12.1                | 12.1             | 30.71                       | -2.3                   | 45.5            | 47.0                                     | 22.7                          | 24.22                           | 1.939                     |         |
| 3,700.0                     | 3,699.0                     | 3,701.3                     | 3,699.8                     | 12.5                | 12.5             | 7.07                        | -2.0                   | 45.9            | 46.3                                     | 21.4                          | 24.92                           | 1.857                     |         |
| 3,800.0                     | 3,799.0                     | 3,801.9                     | 3,800.4                     | 12.8                | 12.8             | 26.14                       | -1.6                   | 44.3            | 43.3                                     | 17.7                          | 25.61                           | 1.691                     |         |
| 3,900.0                     | 3,899.0                     | 3,901.9                     | 3,900.4                     | 13.2                | 13.2             | 11.63                       | -1.1                   | 42.1            | 39.5                                     | 13.2                          | 26.30                           | 1.503                     |         |
| 4,000.0                     | 3,998.9                     | 4,001.8                     | 4,000.2                     | 13.5                | 13.5             | 8.00                        | -0.5                   | 39.8            | 35.2                                     | 8.2                           | 27.00                           | 1.303 Level 3             |         |
| 4,100.0                     | 4,098.9                     | 4,101.5                     | 4,099.9                     | 13.9                | 13.9             | 15.20                       | 0.8                    | 37.8            | 30.7                                     | 3.0                           | 27.70                           | 1.110 Level 2             |         |
| 4,200.0                     | 4,198.9                     | 4,201.1                     | 4,199.4                     | 14.2                | 14.2             | 1.08                        | 3.2                    | 36.8            | 26.7                                     | -1.7                          | 28.40                           | 0.941 Level 1             |         |
| 4,300.0                     | 4,298.8                     | 4,300.8                     | 4,299.1                     | 14.6                | 14.6             | -5.28                       | 4.7                    | 37.0            | 23.6                                     | -5.5                          | 29.09                           | 0.811 Level 1             |         |
| 4,400.0                     | 4,398.7                     | 4,400.7                     | 4,399.0                     | 14.9                | 14.9             | -6.47                       | 5.4                    | 37.9            | 21.4                                     | -8.4                          | 29.79                           | 0.717 Level 1             |         |
| 4,500.0                     | 4,498.7                     | 4,500.6                     | 4,498.9                     | 15.3                | 15.3             | -13.87                      | 6.0                    | 39.1            | 19.7                                     | -10.8                         | 30.48                           | 0.646 Level 1             |         |
| 4,600.0                     | 4,598.6                     | 4,600.5                     | 4,598.9                     | 15.6                | 15.6             | 5.52                        | 6.7                    | 40.5            | 18.1                                     | -13.1                         | 31.18                           | 0.580 Level 1             |         |
| 4,647.7                     | 4,646.3                     | 4,648.2                     | 4,646.5                     | 15.8                | 15.8             | 15.91                       | 7.1                    | 41.2            | 17.8                                     | -13.7                         | 31.52                           | 0.564 Level 1, CC, ES, SF |         |
| 4,700.0                     | 4,698.6                     | 4,700.5                     | 4,698.8                     | 16.0                | 16.0             | 67.10                       | 7.6                    | 42.0            | 18.2                                     | -13.6                         | 31.88                           | 0.572 Level 1             |         |
| 4,800.0                     | 4,798.6                     | 4,800.6                     | 4,798.9                     | 16.3                | 16.3             | 135.05                      | 8.5                    | 43.4            | 20.4                                     | -12.2                         | 32.58                           | 0.626 Level 1             |         |
| 4,900.0                     | 4,898.6                     | 4,900.7                     | 4,899.0                     | 16.7                | 16.6             | 147.91                      | 7.9                    | 44.5            | 22.4                                     | -10.9                         | 33.28                           | 0.672 Level 1             |         |
| 5,000.0                     | 4,998.6                     | 5,000.7                     | 4,999.0                     | 17.0                | 17.0             | 163.04                      | 5.5                    | 45.1            | 23.7                                     | -10.3                         | 33.98                           | 0.698 Level 1             |         |
| 5,100.0                     | 5,098.6                     | 5,100.6                     | 5,098.8                     | 17.4                | 17.3             | 153.73                      | 2.4                    | 45.8            | 25.6                                     | -9.1                          | 34.68                           | 0.738 Level 1             |         |
| 5,200.0                     | 5,198.6                     | 5,200.6                     | 5,198.7                     | 17.7                | 17.7             | -179.96                     | -0.7                   | 46.4            | 28.3                                     | -7.1                          | 35.38                           | 0.799 Level 1             |         |
| 5,300.0                     | 5,298.6                     | 5,300.4                     | 5,298.5                     | 18.1                | 18.0             | -169.26                     | -4.0                   | 47.1            | 31.6                                     | -4.5                          | 36.08                           | 0.875 Level 1             |         |
| 5,400.0                     | 5,398.6                     | 5,400.3                     | 5,398.3                     | 18.4                | 18.4             | -134.32                     | -7.5                   | 47.8            | 35.2                                     | -1.5                          | 36.78                           | 0.958 Level 1             |         |
| 5,500.0                     | 5,498.5                     | 5,500.3                     | 5,498.2                     | 18.7                | 18.7             | -72.09                      | -11.1                  | 48.5            | 36.7                                     | -0.8                          | 37.48                           | 0.979 Level 1             |         |
| 5,600.0                     | 5,598.3                     | 5,600.2                     | 5,598.1                     | 19.1                | 19.1             | -70.86                      | -14.9                  | 49.3            | 37.0                                     | -1.2                          | 38.18                           | 0.968 Level 1             |         |
| 5,700.0                     | 5,698.2                     | 5,700.0                     | 5,697.8                     | 19.4                | 19.4             | -69.53                      | -18.3                  | 50.2            | 37.2                                     | -1.7                          | 38.87                           | 0.956 Level 1             |         |
| 5,800.0                     | 5,798.0                     | 5,798.8                     | 5,796.6                     | 19.8                | 19.8             | -70.62                      | -21.7                  | 52.9            | 38.4                                     | -1.2                          | 39.54                           | 0.971 Level 1             |         |
| 5,900.0                     | 5,897.5                     | 5,897.5                     | 5,895.0                     | 20.1                | 20.1             | -76.76                      | -25.3                  | 58.8            | 41.9                                     | 1.7                           | 40.19                           | 1.042 Level 2             |         |
| 6,000.0                     | 5,997.0                     | 5,996.9                     | 5,994.1                     | 20.5                | 20.5             | -78.87                      | -29.2                  | 66.4            | 47.5                                     | 6.6                           | 40.89                           | 1.162 Level 2             |         |
| 6,100.0                     | 6,096.6                     | 6,096.6                     | 6,093.4                     | 20.8                | 20.8             | -79.01                      | -32.7                  | 74.0            | 52.8                                     | 11.2                          | 41.60                           | 1.270 Level 3             |         |
| 6,200.0                     | 6,196.1                     | 6,196.3                     | 6,192.6                     | 21.2                | 21.2             | -73.56                      | -36.3                  | 82.0            | 57.5                                     | 15.2                          | 42.32                           | 1.359 Level 3             |         |
| 6,300.0                     | 6,295.5                     | 6,296.5                     | 6,292.5                     | 21.5                | 21.6             | -61.04                      | -40.1                  | 89.8            | 59.4                                     | 16.3                          | 43.05                           | 1.380 Level 3             |         |
| 6,400.0                     | 6,394.8                     | 6,396.3                     | 6,391.9                     | 21.9                | 21.9             | -65.72                      | -44.3                  | 97.7            | 60.2                                     | 16.4                          | 43.77                           | 1.376 Level 3             |         |
| 6,500.0                     | 6,494.2                     | 6,496.9                     | 6,492.0                     | 22.3                | 22.3             | -68.89                      | -50.4                  | 106.0           | 61.2                                     | 16.7                          | 44.51                           | 1.376 Level 3             |         |
| 6,600.0                     | 6,593.6                     | 6,597.7                     | 6,592.1                     | 22.6                | 22.6             | -67.60                      | -58.2                  | 113.6           | 60.9                                     | 15.7                          | 45.25                           | 1.347 Level 3             |         |
| 6,700.0                     | 6,693.1                     | 6,698.2                     | 6,692.3                     | 23.0                | 23.0             | -69.77                      | -64.8                  | 119.5           | 59.8                                     | 13.8                          | 45.98                           | 1.300 Level 3             |         |
| 6,800.0                     | 6,792.6                     | 6,798.4                     | 6,792.2                     | 23.3                | 23.4             | -71.76                      | -70.7                  | 124.4           | 58.5                                     | 11.8                          | 46.71                           | 1.252 Level 3             |         |
| 6,900.0                     | 6,892.1                     | 6,898.4                     | 6,891.9                     | 23.7                | 23.7             | -75.41                      | -76.5                  | 129.0           | 57.2                                     | 9.7                           | 47.44                           | 1.205 Level 2             |         |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

|                           |                                |                                     |                                   |
|---------------------------|--------------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>           | Advance Energy Partners        | <b>Local Co-ordinate Reference:</b> | Well Wool Head 20 State Com #554H |
| <b>Project:</b>           | Lea County, NM (NAD 83 NME)    | <b>TVD Reference:</b>               | KB @ 3752.0usft                   |
| <b>Reference Site:</b>    | (Wool Head)Sec20_T-21-S_R-33-E | <b>MD Reference:</b>                | KB @ 3752.0usft                   |
| <b>Site Error:</b>        | 0.0 usft                       | <b>North Reference:</b>             | Grid                              |
| <b>Reference Well:</b>    | Wool Head 20 State Com #554H   | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Well Error:</b>        | 0.0 usft                       | <b>Output errors are at</b>         | 2.00 sigma                        |
| <b>Reference Wellbore</b> | OWB                            | <b>Database:</b>                    | EDM 10_13                         |
| <b>Reference Design:</b>  | AWB                            | <b>Offset TVD Reference:</b>        | Offset Datum                      |

| Offset Design:(Wool Head)Sec20_T-21-S_R-33-E - Wool Head 20 State Com #510H - OWB - AWB |                       |                       |                       |                                  |               |                       |                                     |              |                                 |                         |                           |                   | Offset Site Error: | 0.0 usft |
|-----------------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|----------------------------------|---------------|-----------------------|-------------------------------------|--------------|---------------------------------|-------------------------|---------------------------|-------------------|--------------------|----------|
| Survey Program: 238-MWD                                                                 |                       |                       |                       |                                  |               |                       |                                     |              |                                 |                         |                           |                   | Offset Well Error: | 0.0 usft |
| Measured Depth (usft)                                                                   | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Semi Major Axis Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Distance Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning            |          |
| 7,000.0                                                                                 | 6,991.7               | 6,998.3               | 6,991.6               | 24.1                             | 24.1          | -77.59                | -81.9                               | 133.4        | 56.2                            | 8.0                     | 48.17                     | 1.167             | Level 2            |          |
| 7,100.0                                                                                 | 7,091.3               | 7,098.1               | 7,091.2               | 24.4                             | 24.5          | -80.45                | -87.1                               | 137.9        | 55.6                            | 6.7                     | 48.90                     | 1.137             | Level 2            |          |
| 7,200.0                                                                                 | 7,190.9               | 7,198.1               | 7,190.9               | 24.8                             | 24.8          | -78.57                | -92.3                               | 142.6        | 54.8                            | 5.2                     | 49.63                     | 1.104             | Level 2            |          |
| 7,300.0                                                                                 | 7,290.5               | 7,298.1               | 7,290.5               | 25.2                             | 25.2          | -81.21                | -98.3                               | 147.9        | 54.2                            | 3.8                     | 50.36                     | 1.075             | Level 2            |          |
| 7,400.0                                                                                 | 7,390.1               | 7,398.0               | 7,390.0               | 25.5                             | 25.6          | -77.92                | -105.7                              | 154.4        | 53.7                            | 2.6                     | 51.09                     | 1.051             | Level 2            |          |
| 7,500.0                                                                                 | 7,489.8               | 7,498.0               | 7,489.5               | 25.9                             | 25.9          | -76.39                | -113.2                              | 160.9        | 53.0                            | 1.2                     | 51.82                     | 1.022             | Level 2            |          |
| 7,600.0                                                                                 | 7,589.5               | 7,597.9               | 7,588.9               | 26.3                             | 26.3          | -72.74                | -120.6                              | 167.5        | 52.9                            | 0.3                     | 52.54                     | 1.007             | Level 2            |          |
| 7,700.0                                                                                 | 7,689.2               | 7,697.9               | 7,688.4               | 26.6                             | 26.7          | -69.15                | -127.7                              | 173.8        | 52.6                            | -0.7                    | 53.27                     | 0.987             | Level 1            |          |
| 7,749.1                                                                                 | 7,738.1               | 7,746.9               | 7,737.3               | 26.8                             | 26.8          | -68.93                | -130.9                              | 176.8        | 52.5                            | -1.1                    | 53.62                     | 0.980             | Level 1            |          |
| 7,800.0                                                                                 | 7,788.9               | 7,797.8               | 7,788.0               | 27.0                             | 27.0          | -68.78                | -134.2                              | 180.0        | 52.6                            | -1.4                    | 53.99                     | 0.974             | Level 1            |          |
| 7,900.0                                                                                 | 7,888.7               | 7,897.8               | 7,887.6               | 27.4                             | 27.4          | -71.70                | -140.5                              | 186.1        | 53.0                            | -1.8                    | 54.72                     | 0.968             | Level 1            |          |
| 8,000.0                                                                                 | 7,988.4               | 7,997.8               | 7,987.2               | 27.7                             | 27.8          | -76.52                | -146.6                              | 192.1        | 54.0                            | -1.4                    | 55.45                     | 0.974             | Level 1            |          |
| 8,100.0                                                                                 | 8,088.1               | 8,098.1               | 8,087.1               | 28.1                             | 28.1          | -79.48                | -152.9                              | 197.9        | 55.4                            | -0.8                    | 56.19                     | 0.986             | Level 1            |          |
| 8,200.0                                                                                 | 8,187.9               | 8,198.3               | 8,187.0               | 28.5                             | 28.5          | -82.56                | -158.9                              | 203.0        | 56.8                            | -0.1                    | 56.92                     | 0.999             | Level 1            |          |
| 8,300.0                                                                                 | 8,287.7               | 8,298.1               | 8,286.6               | 28.8                             | 28.9          | -81.24                | -163.9                              | 207.7        | 58.7                            | 1.0                     | 57.64                     | 1.018             | Level 2            |          |
| 8,400.0                                                                                 | 8,387.5               | 8,397.5               | 8,385.6               | 29.2                             | 29.2          | -73.72                | -169.7                              | 213.3        | 60.8                            | 2.4                     | 58.35                     | 1.041             | Level 2            |          |
| 8,500.0                                                                                 | 8,487.2               | 8,497.3               | 8,484.9               | 29.6                             | 29.6          | -68.00                | -176.5                              | 220.3        | 62.5                            | 3.4                     | 59.08                     | 1.058             | Level 2            |          |
| 8,600.0                                                                                 | 8,586.8               | 8,597.3               | 8,584.5               | 29.9                             | 30.0          | -67.99                | -183.2                              | 227.0        | 63.4                            | 3.6                     | 59.81                     | 1.060             | Level 2            |          |
| 8,700.0                                                                                 | 8,686.4               | 8,697.5               | 8,684.3               | 30.3                             | 30.4          | -74.12                | -189.4                              | 233.6        | 64.9                            | 4.4                     | 60.56                     | 1.072             | Level 2            |          |
| 8,800.0                                                                                 | 8,786.2               | 8,797.9               | 8,784.3               | 30.7                             | 30.7          | -79.46                | -195.4                              | 239.6        | 67.0                            | 5.7                     | 61.30                     | 1.094             | Level 2            |          |
| 8,900.0                                                                                 | 8,886.0               | 8,897.9               | 8,884.0               | 31.0                             | 31.1          | -78.63                | -201.1                              | 245.0        | 69.4                            | 7.4                     | 62.04                     | 1.119             | Level 2            |          |
| 9,000.0                                                                                 | 8,985.7               | 8,998.0               | 8,983.9               | 31.4                             | 31.5          | -61.25                | -206.6                              | 250.4        | 70.3                            | 7.6                     | 62.77                     | 1.120             | Level 2            |          |
| 9,100.0                                                                                 | 9,085.4               | 9,098.8               | 9,084.4               | 31.8                             | 31.9          | -60.36                | -211.8                              | 254.9        | 69.0                            | 5.5                     | 63.52                     | 1.087             | Level 2            |          |
| 9,200.0                                                                                 | 9,185.2               | 9,199.3               | 9,184.7               | 32.1                             | 32.2          | -68.84                | -216.9                              | 258.4        | 67.8                            | 3.6                     | 64.26                     | 1.056             | Level 2            |          |
| 9,300.0                                                                                 | 9,285.0               | 9,299.9               | 9,285.1               | 32.5                             | 32.6          | -74.26                | -221.6                              | 261.1        | 67.4                            | 2.4                     | 64.99                     | 1.036             | Level 2            |          |
| 9,387.6                                                                                 | 9,372.4               | 9,386.7               | 9,371.8               | 32.8                             | 32.9          | -74.81                | -224.9                              | 262.7        | 66.6                            | 1.0                     | 65.63                     | 1.015             | Level 2            |          |
| 9,400.0                                                                                 | 9,384.8               | 9,398.8               | 9,384.0               | 32.9                             | 33.0          | -75.12                | -225.3                              | 263.1        | 66.6                            | 0.8                     | 65.72                     | 1.013             | Level 2            |          |
| 9,500.0                                                                                 | 9,484.7               | 9,498.1               | 9,483.1               | 33.2                             | 33.3          | -68.57                | -227.7                              | 266.9        | 67.8                            | 1.3                     | 66.45                     | 1.020             | Level 2            |          |
| 9,600.0                                                                                 | 9,584.5               | 9,598.3               | 9,583.3               | 33.6                             | 33.7          | -67.23                | -229.1                              | 270.5        | 68.2                            | 1.0                     | 67.20                     | 1.015             | Level 2            |          |
| 9,612.2                                                                                 | 9,596.6               | 9,610.5               | 9,595.5               | 33.6                             | 33.7          | -68.75                | -229.2                              | 270.8        | 68.2                            | 0.9                     | 67.29                     | 1.013             | Level 2            |          |
| 9,700.0                                                                                 | 9,684.3               | 9,697.6               | 9,682.5               | 34.0                             | 34.0          | -81.31                | -229.4                              | 273.7        | 69.2                            | 1.3                     | 67.93                     | 1.019             | Level 2            |          |
| 9,800.0                                                                                 | 9,784.1               | 9,797.8               | 9,782.7               | 34.3                             | 34.4          | -68.20                | -229.2                              | 277.0        | 70.5                            | 1.8                     | 68.68                     | 1.026             | Level 2            |          |
| 9,802.5                                                                                 | 9,786.6               | 9,800.4               | 9,785.3               | 34.3                             | 34.4          | -68.22                | -229.2                              | 277.1        | 70.5                            | 1.8                     | 68.69                     | 1.026             | Level 2            |          |
| 9,900.0                                                                                 | 9,883.9               | 9,877.0               | 9,861.9               | 34.7                             | 34.7          | -68.45                | -228.8                              | 279.0        | 73.5                            | 6.4                     | 67.06                     | 1.096             | Level 2            |          |
| 10,000.0                                                                                | 9,983.7               | 9,877.0               | 9,861.9               | 35.1                             | 34.7          | -68.33                | -228.8                              | 279.0        | 139.9                           | 92.6                    | 47.31                     | 2.958             |                    |          |
| 10,100.0                                                                                | 10,083.5              | 9,877.0               | 9,861.9               | 35.4                             | 34.7          | -76.83                | -228.8                              | 279.0        | 232.1                           | 190.4                   | 41.62                     | 5.575             |                    |          |
| 10,200.0                                                                                | 10,183.4              | 9,877.0               | 9,861.9               | 35.8                             | 34.7          | -83.33                | -228.8                              | 279.0        | 329.0                           | 288.9                   | 40.13                     | 8.198             |                    |          |
| 10,300.0                                                                                | 10,283.3              | 9,877.0               | 9,861.9               | 36.2                             | 34.7          | -73.37                | -228.8                              | 279.0        | 427.3                           | 387.6                   | 39.70                     | 10.765            |                    |          |
| 10,400.0                                                                                | 10,383.2              | 9,877.0               | 9,861.9               | 36.5                             | 34.7          | -67.21                | -228.8                              | 279.0        | 526.2                           | 486.6                   | 39.62                     | 13.281            |                    |          |
| 10,500.0                                                                                | 10,483.2              | 9,877.0               | 9,861.9               | 36.9                             | 34.7          | -98.84                | -228.8                              | 279.0        | 625.5                           | 585.7                   | 39.73                     | 15.743            |                    |          |
| 10,600.0                                                                                | 10,583.1              | 9,877.0               | 9,861.9               | 37.2                             | 34.7          | -93.82                | -228.8                              | 279.0        | 725.0                           | 685.1                   | 39.93                     | 18.156            |                    |          |
| 10,700.0                                                                                | 10,683.0              | 9,877.0               | 9,861.9               | 37.6                             | 34.7          | -109.56               | -228.8                              | 279.0        | 824.7                           | 784.6                   | 40.19                     | 20.523            |                    |          |
| 10,800.0                                                                                | 10,782.7              | 9,877.0               | 9,861.9               | 37.9                             | 34.7          | 11.41                 | -228.8                              | 279.0        | 923.7                           | 883.3                   | 40.43                     | 22.846            |                    |          |
| 10,900.0                                                                                | 10,877.7              | 9,877.0               | 9,861.9               | 38.2                             | 34.7          | 4.47                  | -228.8                              | 279.0        | 1,017.4                         | 976.7                   | 40.65                     | 25.024            |                    |          |
| 11,000.0                                                                                | 10,965.4              | 9,877.0               | 9,861.9               | 38.4                             | 34.7          | 3.51                  | -228.8                              | 279.0        | 1,104.7                         | 1,063.8                 | 40.97                     | 26.964            |                    |          |
| 11,100.0                                                                                | 11,046.9              | 9,877.0               | 9,861.9               | 38.6                             | 34.7          | 3.11                  | -228.8                              | 279.0        | 1,188.4                         | 1,147.0                 | 41.45                     | 28.674            |                    |          |
| 11,200.0                                                                                | 11,120.5              | 9,877.0               | 9,861.9               | 38.8                             | 34.7          | 2.58                  | -228.8                              | 279.0        | 1,267.6                         | 1,225.5                 | 42.10                     | 30.107            |                    |          |
| 11,300.0                                                                                | 11,188.2              | 9,877.0               | 9,861.9               | 39.0                             | 34.7          | 1.70                  | -228.8                              | 279.0        | 1,344.7                         | 1,301.7                 | 42.93                     | 31.321            |                    |          |
| 11,400.0                                                                                | 11,244.5              | 9,877.0               | 9,861.9               | 39.3                             | 34.7          | 0.57                  | -228.8                              | 279.0        | 1,415.4                         | 1,371.4                 | 43.97                     | 32.193            |                    |          |
| 11,500.0                                                                                | 11,289.3              | 9,877.0               | 9,861.9               | 39.6                             | 34.7          | -0.40                 | -228.8                              | 279.0        | 1,480.2                         | 1,435.0                 | 45.19                     | 32.757            |                    |          |
| 11,600.0                                                                                | 11,316.9              | 9,877.0               | 9,861.9               | 39.9                             | 34.7          | -0.93                 | -228.8                              | 279.0        | 1,534.4                         | 1,487.8                 | 46.63                     | 32.909            |                    |          |
| 11,700.0                                                                                | 11,330.0              | 9,877.0               | 9,861.9               | 40.2                             | 34.7          | -1.52                 | -228.8                              | 279.0        | 1,580.7                         | 1,532.5                 | 48.25                     | 32.763            |                    |          |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

|                           |                                |                                     |                                   |
|---------------------------|--------------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>           | Advance Energy Partners        | <b>Local Co-ordinate Reference:</b> | Well Wool Head 20 State Com #554H |
| <b>Project:</b>           | Lea County, NM (NAD 83 NME)    | <b>TVD Reference:</b>               | KB @ 3752.0usft                   |
| <b>Reference Site:</b>    | (Wool Head)Sec20_T-21-S_R-33-E | <b>MD Reference:</b>                | KB @ 3752.0usft                   |
| <b>Site Error:</b>        | 0.0 usft                       | <b>North Reference:</b>             | Grid                              |
| <b>Reference Well:</b>    | Wool Head 20 State Com #554H   | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Well Error:</b>        | 0.0 usft                       | <b>Output errors are at</b>         | 2.00 sigma                        |
| <b>Reference Wellbore</b> | OWB                            | <b>Database:</b>                    | EDM 10_13                         |
| <b>Reference Design:</b>  | AWB                            | <b>Offset TVD Reference:</b>        | Offset Datum                      |

| Offset Design:(Wool Head)Sec20_T-21-S_R-33-E - Wool Head 20 State Com #510H - OWB - AWB |                       |                       |                       |                        |               |                       |              |              |                        |                         |                   |            | Offset Site Error: | 0.0 usft |
|-----------------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|------------------------|---------------|-----------------------|--------------|--------------|------------------------|-------------------------|-------------------|------------|--------------------|----------|
| Survey Program: 238-MWD                                                                 |                       |                       |                       |                        |               |                       |              |              |                        |                         |                   |            | Offset Well Error: | 0.0 usft |
| Reference                                                                               | Offset                | Semi Major Axis       |                       | Offset Wellbore Centre |               | Rule Assigned:        |              | Distance     |                        | Minimum                 |                   | Separation | Warning            |          |
| Measured Depth (usft)                                                                   | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft)       | Offset (usft) | Highside Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Separation (usft) | Factor     |                    |          |
| 11,800.0                                                                                | 11,336.3              | 9,877.0               | 9,861.9               | 40.5                   | 34.7          | -1.66                 | -228.8       | 279.0        | 1,625.9                | 1,575.9                 | 49.96             | 32.542     |                    |          |
| 11,900.0                                                                                | 11,339.3              | 9,877.0               | 9,861.9               | 41.0                   | 34.7          | -2.41                 | -228.8       | 279.0        | 1,672.9                | 1,621.2                 | 51.71             | 32.351     |                    |          |
| 12,000.0                                                                                | 11,338.7              | 9,877.0               | 9,861.9               | 41.4                   | 34.7          | 2.45                  | -228.8       | 279.0        | 1,721.4                | 1,668.0                 | 53.45             | 32.209     |                    |          |
| 12,100.0                                                                                | 11,334.2              | 9,877.0               | 9,861.9               | 42.0                   | 34.7          | 2.84                  | -228.8       | 279.0        | 1,770.9                | 1,715.7                 | 55.14             | 32.118     |                    |          |
| 12,200.0                                                                                | 11,326.2              | 9,877.0               | 9,861.9               | 42.6                   | 34.7          | 3.91                  | -228.8       | 279.0        | 1,821.4                | 1,764.6                 | 56.77             | 32.084     |                    |          |
| 12,300.0                                                                                | 11,318.2              | 9,877.0               | 9,861.9               | 43.3                   | 34.7          | 5.65                  | -228.8       | 279.0        | 1,875.7                | 1,817.4                 | 58.31             | 32.170     |                    |          |
| 12,400.0                                                                                | 11,315.0              | 9,877.0               | 9,861.9               | 43.9                   | 34.7          | 5.35                  | -228.8       | 279.0        | 1,937.4                | 1,877.7                 | 59.71             | 32.447     |                    |          |
| 12,500.0                                                                                | 11,312.0              | 9,877.0               | 9,861.9               | 44.7                   | 34.7          | 4.86                  | -228.8       | 279.0        | 2,002.3                | 1,941.3                 | 61.01             | 32.819     |                    |          |
| 12,600.0                                                                                | 11,308.7              | 9,877.0               | 9,861.9               | 45.5                   | 34.7          | 3.78                  | -228.8       | 279.0        | 2,069.9                | 2,007.7                 | 62.21             | 33.271     |                    |          |
| 12,700.0                                                                                | 11,305.7              | 9,877.0               | 9,861.9               | 46.3                   | 34.7          | 3.90                  | -228.8       | 279.0        | 2,140.3                | 2,077.0                 | 63.32             | 33.803     |                    |          |
| 12,800.0                                                                                | 11,301.1              | 9,877.0               | 9,861.9               | 47.2                   | 34.7          | 4.33                  | -228.8       | 279.0        | 2,211.9                | 2,147.6                 | 64.34             | 34.380     |                    |          |
| 12,900.0                                                                                | 11,297.0              | 9,877.0               | 9,861.9               | 48.1                   | 34.7          | 5.31                  | -228.8       | 279.0        | 2,285.9                | 2,220.6                 | 65.27             | 35.023     |                    |          |

|                           |                                |                                     |                                   |
|---------------------------|--------------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>           | Advance Energy Partners        | <b>Local Co-ordinate Reference:</b> | Well Wool Head 20 State Com #554H |
| <b>Project:</b>           | Lea County, NM (NAD 83 NME)    | <b>TVD Reference:</b>               | KB @ 3752.0usft                   |
| <b>Reference Site:</b>    | (Wool Head)Sec20_T-21-S_R-33-E | <b>MD Reference:</b>                | KB @ 3752.0usft                   |
| <b>Site Error:</b>        | 0.0 usft                       | <b>North Reference:</b>             | Grid                              |
| <b>Reference Well:</b>    | Wool Head 20 State Com #554H   | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Well Error:</b>        | 0.0 usft                       | <b>Output errors are at</b>         | 2.00 sigma                        |
| <b>Reference Wellbore</b> | OWB                            | <b>Database:</b>                    | EDM 10_13                         |
| <b>Reference Design:</b>  | AWB                            | <b>Offset TVD Reference:</b>        | Offset Datum                      |

| Offset Design:(Wool Head)Sec20_T-21-S_R-33-E - Wool Head 20 State Com #511H - OWB - AWB |                       |                       |                       |                                  |                               |                       |                                     |                                     |                                 |                                        |                           |                   |         | Offset Site Error: | 0.0 usft |
|-----------------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|----------------------------------|-------------------------------|-----------------------|-------------------------------------|-------------------------------------|---------------------------------|----------------------------------------|---------------------------|-------------------|---------|--------------------|----------|
| Survey Program: 238-MWD                                                                 |                       |                       |                       |                                  |                               |                       |                                     |                                     |                                 |                                        |                           |                   |         | Offset Well Error: | 0.0 usft |
| Measured Depth (usft)                                                                   | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Rule Assigned: Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |                    |          |
| 0.0                                                                                     | 0.0                   | 2.5                   | 2.5                   | 0.0                              | 0.0                           | -90.69                | -0.4                                | -33.1                               | 33.1                            |                                        |                           |                   |         |                    |          |
| 100.0                                                                                   | 100.0                 | 102.5                 | 102.5                 | 0.1                              | 0.2                           | 88.74                 | -0.2                                | -33.1                               | 33.1                            | 32.8                                   | 0.30                      | 111.044           |         |                    |          |
| 200.0                                                                                   | 200.0                 | 202.5                 | 202.5                 | 0.3                              | 0.3                           | 90.18                 | 0.3                                 | -33.0                               | 33.0                            | 32.4                                   | 0.64                      | 51.836            |         |                    |          |
| 300.0                                                                                   | 300.0                 | 302.4                 | 302.4                 | 0.6                              | 0.6                           | 46.43                 | 1.0                                 | -33.0                               | 32.9                            | 31.7                                   | 1.21                      | 27.177            |         |                    |          |
| 370.6                                                                                   | 370.6                 | 372.9                 | 372.9                 | 0.9                              | 0.9                           | 64.35                 | 1.4                                 | -33.3                               | 32.9                            | 31.2                                   | 1.71                      | 19.236            |         |                    |          |
| 400.0                                                                                   | 400.0                 | 402.3                 | 402.3                 | 1.0                              | 1.0                           | 69.35                 | 1.5                                 | -33.5                               | 32.9                            | 30.9                                   | 1.92                      | 17.097            |         |                    |          |
| 500.0                                                                                   | 500.0                 | 502.4                 | 502.4                 | 1.3                              | 1.3                           | 53.01                 | 2.1                                 | -33.9                               | 32.8                            | 30.2                                   | 2.64                      | 12.451            |         |                    |          |
| 600.0                                                                                   | 600.0                 | 602.3                 | 602.3                 | 1.7                              | 1.7                           | 24.33                 | 2.9                                 | -34.2                               | 32.4                            | 29.1                                   | 3.35                      | 9.683             |         |                    |          |
| 700.0                                                                                   | 700.0                 | 702.2                 | 702.1                 | 2.0                              | 2.0                           | 38.38                 | 3.5                                 | -35.0                               | 32.3                            | 28.2                                   | 4.06                      | 7.948             |         |                    |          |
| 800.0                                                                                   | 799.9                 | 802.0                 | 801.9                 | 2.4                              | 2.4                           | 46.16                 | 3.8                                 | -36.2                               | 31.5                            | 26.7                                   | 4.77                      | 6.606             |         |                    |          |
| 884.4                                                                                   | 884.3                 | 886.3                 | 886.3                 | 2.7                              | 2.7                           | 51.59                 | 4.0                                 | -37.6                               | 31.0                            | 25.6                                   | 5.37                      | 5.769             |         |                    |          |
| 900.0                                                                                   | 899.9                 | 901.9                 | 901.9                 | 2.7                              | 2.7                           | 52.86                 | 4.1                                 | -37.8                               | 31.0                            | 25.5                                   | 5.48                      | 5.647             |         |                    |          |
| 1,000.0                                                                                 | 999.9                 | 1,001.8               | 1,001.8               | 3.1                              | 3.1                           | 50.08                 | 4.2                                 | -39.6                               | 31.6                            | 25.4                                   | 6.20                      | 5.093             |         |                    |          |
| 1,100.0                                                                                 | 1,099.8               | 1,101.8               | 1,101.7               | 3.5                              | 3.4                           | 46.34                 | 3.8                                 | -41.8                               | 32.4                            | 25.5                                   | 6.91                      | 4.691             |         |                    |          |
| 1,200.0                                                                                 | 1,199.8               | 1,201.8               | 1,201.6               | 3.8                              | 3.8                           | 57.00                 | 3.1                                 | -44.3                               | 33.3                            | 25.7                                   | 7.62                      | 4.370             |         |                    |          |
| 1,300.0                                                                                 | 1,299.8               | 1,301.7               | 1,301.5               | 4.2                              | 4.2                           | 56.39                 | 2.3                                 | -46.9                               | 34.4                            | 26.1                                   | 8.33                      | 4.129             |         |                    |          |
| 1,400.0                                                                                 | 1,399.8               | 1,401.4               | 1,401.2               | 4.5                              | 4.5                           | 51.71                 | 1.1                                 | -50.1                               | 35.7                            | 26.7                                   | 9.05                      | 3.947             |         |                    |          |
| 1,500.0                                                                                 | 1,499.8               | 1,501.5               | 1,501.2               | 4.9                              | 4.9                           | 52.35                 | -0.9                                | -54.1                               | 37.4                            | 27.6                                   | 9.76                      | 3.830             |         |                    |          |
| 1,600.0                                                                                 | 1,599.7               | 1,601.9               | 1,601.5               | 5.3                              | 5.2                           | 44.85                 | -3.1                                | -57.4                               | 38.2                            | 27.7                                   | 10.48                     | 3.643             |         |                    |          |
| 1,700.0                                                                                 | 1,699.7               | 1,702.0               | 1,701.5               | 5.6                              | 5.6                           | 39.85                 | -5.4                                | -59.9                               | 38.2                            | 27.1                                   | 11.19                     | 3.418             |         |                    |          |
| 1,800.0                                                                                 | 1,799.7               | 1,801.8               | 1,801.3               | 6.0                              | 5.9                           | 16.39                 | -7.1                                | -62.5                               | 37.9                            | 25.9                                   | 11.90                     | 3.180             |         |                    |          |
| 1,900.0                                                                                 | 1,899.6               | 1,902.1               | 1,901.6               | 6.3                              | 6.3                           | -4.54                 | -7.9                                | -64.7                               | 37.0                            | 24.4                                   | 12.61                     | 2.936             |         |                    |          |
| 2,000.0                                                                                 | 1,999.6               | 2,003.3               | 2,002.7               | 6.7                              | 6.6                           | -18.25                | -8.3                                | -64.5                               | 34.2                            | 20.9                                   | 13.30                     | 2.574             |         |                    |          |
| 2,100.0                                                                                 | 2,099.6               | 2,103.9               | 2,103.3               | 7.0                              | 7.0                           | -65.26                | -8.3                                | -61.2                               | 29.6                            | 15.6                                   | 13.96                     | 2.119             |         |                    |          |
| 2,200.0                                                                                 | 2,199.6               | 2,203.6               | 2,202.9               | 7.4                              | 7.3                           | -102.94               | -8.2                                | -57.1                               | 25.6                            | 10.9                                   | 14.63                     | 1.748             |         |                    |          |
| 2,300.0                                                                                 | 2,299.5               | 2,303.1               | 2,302.4               | 7.7                              | 7.6                           | -105.82               | -7.6                                | -54.8                               | 23.7                            | 8.4                                    | 15.31                     | 1.549             |         |                    |          |
| 2,400.0                                                                                 | 2,399.5               | 2,403.0               | 2,402.3               | 8.0                              | 8.0                           | -115.32               | -6.5                                | -53.8                               | 23.4                            | 7.4                                    | 15.99                     | 1.466 Level 3     |         |                    |          |
| 2,500.0                                                                                 | 2,499.5               | 2,503.0               | 2,502.3               | 8.4                              | 8.3                           | -123.42               | -5.5                                | -52.5                               | 23.1                            | 6.4                                    | 16.66                     | 1.387 Level 3     |         |                    |          |
| 2,600.0                                                                                 | 2,599.5               | 2,603.0               | 2,602.2               | 8.7                              | 8.7                           | -105.65               | -4.4                                | -51.2                               | 22.7                            | 5.4                                    | 17.34                     | 1.309 Level 3     |         |                    |          |
| 2,700.0                                                                                 | 2,699.5               | 2,702.9               | 2,702.1               | 9.0                              | 9.0                           | -104.48               | -3.2                                | -50.3                               | 22.3                            | 4.3                                    | 18.03                     | 1.238 Level 2     |         |                    |          |
| 2,734.6                                                                                 | 2,734.1               | 2,737.5               | 2,736.8               | 9.2                              | 9.1                           | -114.67               | -2.7                                | -50.1                               | 22.3                            | 4.0                                    | 18.27                     | 1.219 Level 2, CC |         |                    |          |
| 2,800.0                                                                                 | 2,799.5               | 2,802.9               | 2,802.1               | 9.4                              | 9.4                           | -133.71               | -1.7                                | -49.6                               | 22.4                            | 3.7                                    | 18.72                     | 1.195 Level 2     |         |                    |          |
| 2,900.0                                                                                 | 2,899.4               | 2,902.9               | 2,902.1               | 9.7                              | 9.7                           | -166.90               | -0.4                                | -48.8                               | 23.9                            | 4.5                                    | 19.41                     | 1.231 Level 2     |         |                    |          |
| 3,000.0                                                                                 | 2,999.4               | 3,003.0               | 3,002.2               | 10.1                             | 10.1                          | -172.56               | 0.9                                 | -47.7                               | 26.7                            | 6.6                                    | 20.09                     | 1.327 Level 3     |         |                    |          |
| 3,100.0                                                                                 | 3,099.2               | 3,103.1               | 3,102.3               | 10.4                             | 10.4                          | -170.96               | 2.1                                 | -45.8                               | 29.9                            | 9.1                                    | 20.78                     | 1.440 Level 3     |         |                    |          |
| 3,200.0                                                                                 | 3,199.2               | 3,203.2               | 3,202.3               | 10.7                             | 10.8                          | -169.54               | 3.5                                 | -43.5                               | 32.2                            | 10.8                                   | 21.47                     | 1.501             |         |                    |          |
| 3,300.0                                                                                 | 3,299.1               | 3,303.2               | 3,302.4               | 11.1                             | 11.1                          | -165.43               | 4.9                                 | -41.0                               | 33.5                            | 11.4                                   | 22.16                     | 1.513             |         |                    |          |
| 3,400.0                                                                                 | 3,399.0               | 3,403.3               | 3,402.3               | 11.4                             | 11.4                          | -163.41               | 6.2                                 | -38.3                               | 34.6                            | 11.7                                   | 22.85                     | 1.514             |         |                    |          |
| 3,500.0                                                                                 | 3,499.0               | 3,503.1               | 3,502.1               | 11.8                             | 11.8                          | -149.00               | 7.7                                 | -35.9                               | 34.7                            | 11.1                                   | 23.55                     | 1.473 Level 3     |         |                    |          |
| 3,600.0                                                                                 | 3,599.0               | 3,603.0               | 3,602.0               | 12.1                             | 12.2                          | -132.75               | 9.3                                 | -33.7                               | 33.9                            | 9.7                                    | 24.25                     | 1.399 Level 3     |         |                    |          |
| 3,698.7                                                                                 | 3,697.7               | 3,701.6               | 3,700.6               | 12.5                             | 12.5                          | -153.29               | 11.0                                | -31.7                               | 33.5                            | 8.6                                    | 24.94                     | 1.343 Level 3     |         |                    |          |
| 3,700.0                                                                                 | 3,699.0               | 3,702.9               | 3,701.9               | 12.5                             | 12.5                          | -153.34               | 11.0                                | -31.7                               | 33.6                            | 8.6                                    | 24.95                     | 1.345 Level 3     |         |                    |          |
| 3,800.0                                                                                 | 3,799.0               | 3,802.9               | 3,801.8               | 12.8                             | 12.9                          | -132.47               | 12.7                                | -29.9                               | 33.7                            | 8.0                                    | 25.65                     | 1.312 Level 3     |         |                    |          |
| 3,900.0                                                                                 | 3,899.0               | 3,902.9               | 3,901.8               | 13.2                             | 13.2                          | -145.22               | 14.3                                | -28.1                               | 33.8                            | 7.4                                    | 26.35                     | 1.282 Level 3     |         |                    |          |
| 4,000.0                                                                                 | 3,998.9               | 4,002.9               | 4,001.7               | 13.5                             | 13.6                          | -146.11               | 16.0                                | -26.2                               | 34.6                            | 7.5                                    | 27.05                     | 1.278 Level 3     |         |                    |          |
| 4,100.0                                                                                 | 4,098.9               | 4,102.9               | 4,101.8               | 13.9                             | 13.9                          | -136.38               | 17.7                                | -24.3                               | 35.7                            | 7.9                                    | 27.76                     | 1.286 Level 3     |         |                    |          |
| 4,200.0                                                                                 | 4,198.9               | 4,203.1               | 4,201.9               | 14.2                             | 14.3                          | -145.87               | 19.4                                | -22.0                               | 36.8                            | 8.4                                    | 28.46                     | 1.294 Level 3     |         |                    |          |
| 4,300.0                                                                                 | 4,298.8               | 4,303.1               | 4,301.8               | 14.6                             | 14.6                          | -147.23               | 20.9                                | -19.5                               | 38.3                            | 9.2                                    | 29.16                     | 1.314 Level 3     |         |                    |          |
| 4,400.0                                                                                 | 4,398.7               | 4,403.2               | 4,401.8               | 14.9                             | 15.0                          | -144.99               | 22.4                                | -16.9                               | 39.6                            | 9.7                                    | 29.87                     | 1.325 Level 3     |         |                    |          |
| 4,500.0                                                                                 | 4,498.7               | 4,503.3               | 4,501.9               | 15.3                             | 15.3                          | -148.12               | 23.9                                | -13.9                               | 40.5                            | 9.9                                    | 30.57                     | 1.324 Level 3     |         |                    |          |
| 4,600.0                                                                                 | 4,598.6               | 4,603.4               | 4,602.0               | 15.6                             | 15.7                          | -125.51               | 25.5                                | -10.5                               | 40.7                            | 9.4                                    | 31.28                     | 1.301 Level 3     |         |                    |          |
| 4,700.0                                                                                 | 4,698.6               | 4,703.2               | 4,701.7               | 16.0                             | 16.0                          | -63.34                | 26.0                                | -8.0                                | 39.6                            | 7.6                                    | 31.98                     | 1.239 Level 2     |         |                    |          |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

|                           |                                |                                     |                                   |
|---------------------------|--------------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>           | Advance Energy Partners        | <b>Local Co-ordinate Reference:</b> | Well Wool Head 20 State Com #554H |
| <b>Project:</b>           | Lea County, NM (NAD 83 NME)    | <b>TVD Reference:</b>               | KB @ 3752.0usft                   |
| <b>Reference Site:</b>    | (Wool Head)Sec20_T-21-S_R-33-E | <b>MD Reference:</b>                | KB @ 3752.0usft                   |
| <b>Site Error:</b>        | 0.0 usft                       | <b>North Reference:</b>             | Grid                              |
| <b>Reference Well:</b>    | Wool Head 20 State Com #554H   | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Well Error:</b>        | 0.0 usft                       | <b>Output errors are at</b>         | 2.00 sigma                        |
| <b>Reference Wellbore</b> | OWB                            | <b>Database:</b>                    | EDM 10_13                         |
| <b>Reference Design:</b>  | AWB                            | <b>Offset TVD Reference:</b>        | Offset Datum                      |

| Offset Design:(Wool Head)Sec20_T-21-S_R-33-E - Wool Head 20 State Com #511H - OWB - AWB |                       |                       |                       |                                  |                               |                       |                                     |                                     |                                 |                                        |                           |                   | Offset Site Error: | 0.0 usft |
|-----------------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|----------------------------------|-------------------------------|-----------------------|-------------------------------------|-------------------------------------|---------------------------------|----------------------------------------|---------------------------|-------------------|--------------------|----------|
| Survey Program: 238-MWD                                                                 |                       |                       |                       |                                  |                               |                       |                                     |                                     |                                 |                                        |                           |                   | Offset Well Error: | 0.0 usft |
| Measured Depth (usft)                                                                   | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Rule Assigned: Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning            |          |
| 4,800.0                                                                                 | 4,798.6               | 4,803.0               | 4,801.5               | 16.3                             | 16.4                          | 2.54                  | 25.0                                | -7.3                                | 37.4                            | 4.7                                    | 32.67                     | 1.144             | Level 2            |          |
| 4,900.0                                                                                 | 4,898.6               | 4,903.1               | 4,901.6               | 16.7                             | 16.7                          | 8.52                  | 23.1                                | -7.2                                | 34.9                            | 1.6                                    | 33.36                     | 1.047             | Level 2            |          |
| 5,000.0                                                                                 | 4,998.6               | 5,003.1               | 5,001.6               | 17.0                             | 17.1                          | 14.67                 | 21.0                                | -6.8                                | 32.5                            | -1.6                                   | 34.05                     | 0.954             | Level 1            |          |
| 5,100.0                                                                                 | 5,098.6               | 5,103.1               | 5,101.5               | 17.4                             | 17.4                          | -5.97                 | 18.7                                | -6.3                                | 29.8                            | -4.9                                   | 34.74                     | 0.859             | Level 1            |          |
| 5,200.0                                                                                 | 5,198.6               | 5,203.0               | 5,201.4               | 17.7                             | 17.8                          | 8.66                  | 16.2                                | -5.9                                | 26.9                            | -8.5                                   | 35.43                     | 0.759             | Level 1            |          |
| 5,300.0                                                                                 | 5,298.6               | 5,303.0               | 5,301.4               | 18.1                             | 18.1                          | 10.04                 | 13.8                                | -5.4                                | 23.8                            | -12.3                                  | 36.12                     | 0.660             | Level 1            |          |
| 5,377.1                                                                                 | 5,375.7               | 5,379.5               | 5,377.8               | 18.3                             | 18.4                          | 26.56                 | 11.1                                | -6.1                                | 22.4                            | -14.2                                  | 36.65                     | 0.613             | Level 1            |          |
| 5,400.0                                                                                 | 5,398.6               | 5,402.2               | 5,400.5               | 18.4                             | 18.4                          | 31.38                 | 9.9                                 | -6.8                                | 22.5                            | -14.3                                  | 36.80                     | 0.611             | Level 1, ES, SF    |          |
| 5,500.0                                                                                 | 5,498.5               | 5,501.8               | 5,499.8               | 18.7                             | 18.8                          | 85.59                 | 2.7                                 | -10.9                               | 25.5                            | -12.0                                  | 37.45                     | 0.680             | Level 1            |          |
| 5,600.0                                                                                 | 5,598.3               | 5,601.6               | 5,599.1               | 19.1                             | 19.1                          | 85.26                 | -5.4                                | -15.9                               | 30.4                            | -7.8                                   | 38.13                     | 0.796             | Level 1            |          |
| 5,700.0                                                                                 | 5,698.2               | 5,701.6               | 5,698.6               | 19.4                             | 19.5                          | 85.17                 | -13.3                               | -20.7                               | 35.7                            | -3.1                                   | 38.82                     | 0.920             | Level 1            |          |
| 5,800.0                                                                                 | 5,798.0               | 5,801.6               | 5,798.3               | 19.8                             | 19.8                          | 90.03                 | -20.8                               | -25.2                               | 41.0                            | 1.5                                    | 39.52                     | 1.037             | Level 2            |          |
| 5,900.0                                                                                 | 5,897.5               | 5,902.3               | 5,898.6               | 20.1                             | 20.2                          | 95.04                 | -29.1                               | -28.6                               | 45.9                            | 5.6                                    | 40.26                     | 1.139             | Level 2            |          |
| 6,000.0                                                                                 | 5,997.0               | 6,003.0               | 5,998.7               | 20.5                             | 20.5                          | 99.24                 | -39.2                               | -29.6                               | 49.1                            | 8.2                                    | 40.97                     | 1.199             | Level 2            |          |
| 6,100.0                                                                                 | 6,096.6               | 6,103.1               | 6,098.2               | 20.8                             | 20.9                          | 102.83                | -50.0                               | -29.7                               | 52.5                            | 10.8                                   | 41.68                     | 1.260             | Level 3            |          |
| 6,200.0                                                                                 | 6,196.1               | 6,203.1               | 6,197.7               | 21.2                             | 21.2                          | 112.13                | -60.6                               | -29.7                               | 57.1                            | 14.7                                   | 42.39                     | 1.347             | Level 3            |          |
| 6,300.0                                                                                 | 6,295.5               | 6,302.5               | 6,296.6               | 21.5                             | 21.6                          | 127.41                | -71.3                               | -29.8                               | 64.7                            | 21.6                                   | 43.09                     | 1.502             |                    |          |
| 6,400.0                                                                                 | 6,394.8               | 6,402.5               | 6,396.0               | 21.9                             | 21.9                          | 124.51                | -82.3                               | -29.7                               | 73.4                            | 29.6                                   | 43.81                     | 1.675             |                    |          |
| 6,500.0                                                                                 | 6,494.2               | 6,501.8               | 6,494.6               | 22.3                             | 22.3                          | 121.80                | -92.9                               | -29.4                               | 81.4                            | 36.8                                   | 44.51                     | 1.828             |                    |          |
| 6,600.0                                                                                 | 6,593.6               | 6,599.5               | 6,591.9               | 22.6                             | 22.6                          | 123.27                | -102.3                              | -30.8                               | 90.9                            | 45.7                                   | 45.19                     | 2.011             |                    |          |
| 6,700.0                                                                                 | 6,693.1               | 6,698.0               | 6,689.9               | 23.0                             | 23.0                          | 122.72                | -111.3                              | -34.4                               | 102.1                           | 56.2                                   | 45.89                     | 2.225             |                    |          |
| 6,800.0                                                                                 | 6,792.6               | 6,797.6               | 6,789.1               | 23.3                             | 23.3                          | 122.61                | -119.9                              | -38.1                               | 112.7                           | 66.1                                   | 46.61                     | 2.418             |                    |          |
| 6,900.0                                                                                 | 6,892.1               | 6,897.3               | 6,888.3               | 23.7                             | 23.7                          | 120.90                | -128.6                              | -41.6                               | 123.0                           | 75.7                                   | 47.33                     | 2.600             |                    |          |
| 7,000.0                                                                                 | 6,991.7               | 6,997.4               | 6,988.0               | 24.1                             | 24.1                          | 121.03                | -137.4                              | -44.8                               | 132.7                           | 84.7                                   | 48.06                     | 2.762             |                    |          |
| 7,100.0                                                                                 | 7,091.3               | 7,097.1               | 7,087.3               | 24.4                             | 24.4                          | 120.28                | -146.0                              | -47.7                               | 142.0                           | 93.2                                   | 48.78                     | 2.911             |                    |          |
| 7,200.0                                                                                 | 7,190.9               | 7,197.4               | 7,187.2               | 24.8                             | 24.8                          | 124.62                | -154.6                              | -50.3                               | 151.4                           | 101.9                                  | 49.51                     | 3.058             |                    |          |
| 7,300.0                                                                                 | 7,290.5               | 7,297.7               | 7,287.1               | 25.2                             | 25.2                          | 122.42                | -162.9                              | -52.5                               | 160.1                           | 109.8                                  | 50.24                     | 3.186             |                    |          |
| 7,400.0                                                                                 | 7,390.1               | 7,397.9               | 7,387.0               | 25.5                             | 25.5                          | 124.01                | -171.2                              | -54.4                               | 168.2                           | 117.2                                  | 50.97                     | 3.300             |                    |          |
| 7,500.0                                                                                 | 7,489.8               | 7,497.8               | 7,486.5               | 25.9                             | 25.9                          | 123.62                | -179.2                              | -56.0                               | 176.3                           | 124.6                                  | 51.70                     | 3.411             |                    |          |
| 7,600.0                                                                                 | 7,589.5               | 7,598.1               | 7,586.5               | 26.3                             | 26.2                          | 124.45                | -186.9                              | -57.6                               | 183.7                           | 131.2                                  | 52.43                     | 3.503             |                    |          |
| 7,700.0                                                                                 | 7,689.2               | 7,699.5               | 7,687.6               | 26.6                             | 26.6                          | 125.26                | -194.3                              | -58.6                               | 190.6                           | 137.4                                  | 53.16                     | 3.584             |                    |          |
| 7,800.0                                                                                 | 7,788.9               | 7,799.5               | 7,787.4               | 27.0                             | 27.0                          | 123.40                | -201.4                              | -59.0                               | 196.7                           | 142.8                                  | 53.89                     | 3.649             |                    |          |
| 7,900.0                                                                                 | 7,888.7               | 7,898.6               | 7,886.3               | 27.4                             | 27.3                          | 118.98                | -208.6                              | -59.6                               | 202.8                           | 148.1                                  | 54.61                     | 3.713             |                    |          |
| 8,000.0                                                                                 | 7,988.4               | 7,997.8               | 7,985.1               | 27.7                             | 27.7                          | 112.97                | -216.0                              | -60.5                               | 208.6                           | 153.3                                  | 55.33                     | 3.770             |                    |          |
| 8,100.0                                                                                 | 8,088.1               | 8,098.0               | 8,085.1               | 28.1                             | 28.1                          | 109.20                | -223.3                              | -61.4                               | 213.9                           | 157.8                                  | 56.06                     | 3.816             |                    |          |
| 8,200.0                                                                                 | 8,187.9               | 8,197.4               | 8,184.2               | 28.5                             | 28.4                          | 105.58                | -230.4                              | -62.6                               | 218.8                           | 162.0                                  | 56.79                     | 3.852             |                    |          |
| 8,300.0                                                                                 | 8,287.7               | 8,297.9               | 8,284.4               | 28.8                             | 28.8                          | 105.89                | -237.1                              | -63.7                               | 222.9                           | 165.4                                  | 57.52                     | 3.875             |                    |          |
| 8,400.0                                                                                 | 8,387.5               | 8,396.2               | 8,382.6               | 29.2                             | 29.2                          | 111.56                | -243.4                              | -65.0                               | 227.5                           | 169.2                                  | 58.23                     | 3.907             |                    |          |
| 8,500.0                                                                                 | 8,487.2               | 8,497.1               | 8,483.3               | 29.6                             | 29.5                          | 116.82                | -249.5                              | -67.1                               | 234.3                           | 175.4                                  | 58.97                     | 3.974             |                    |          |
| 8,600.0                                                                                 | 8,586.8               | 8,598.1               | 8,584.1               | 29.9                             | 29.9                          | 117.42                | -254.7                              | -68.2                               | 240.7                           | 181.0                                  | 59.70                     | 4.031             |                    |          |
| 8,700.0                                                                                 | 8,686.4               | 8,698.4               | 8,684.3               | 30.3                             | 30.3                          | 112.54                | -257.5                              | -69.7                               | 246.4                           | 186.0                                  | 60.43                     | 4.078             |                    |          |
| 8,800.0                                                                                 | 8,786.2               | 8,797.4               | 8,783.3               | 30.7                             | 30.6                          | 108.13                | -259.8                              | -71.3                               | 251.0                           | 189.8                                  | 61.15                     | 4.104             |                    |          |
| 8,900.0                                                                                 | 8,886.0               | 8,905.7               | 8,891.6               | 31.0                             | 31.0                          | 109.75                | -261.2                              | -71.4                               | 253.3                           | 191.4                                  | 61.90                     | 4.093             |                    |          |
| 9,000.0                                                                                 | 8,985.7               | 9,006.5               | 8,992.4               | 31.4                             | 31.3                          | 128.01                | -261.8                              | -69.6                               | 255.2                           | 192.6                                  | 62.61                     | 4.076             |                    |          |
| 9,100.0                                                                                 | 9,085.4               | 9,103.5               | 9,089.4               | 31.8                             | 31.7                          | 130.50                | -262.3                              | -68.6                               | 259.4                           | 196.1                                  | 63.32                     | 4.096             |                    |          |
| 9,200.0                                                                                 | 9,185.2               | 9,202.2               | 9,188.1               | 32.1                             | 32.0                          | 123.57                | -262.1                              | -68.2                               | 263.2                           | 199.2                                  | 64.02                     | 4.112             |                    |          |
| 9,300.0                                                                                 | 9,285.0               | 9,299.6               | 9,285.5               | 32.5                             | 32.3                          | 118.99                | -261.9                              | -68.4                               | 266.1                           | 201.3                                  | 64.71                     | 4.112             |                    |          |
| 9,400.0                                                                                 | 9,384.8               | 9,397.8               | 9,383.6               | 32.9                             | 32.7                          | 120.49                | -261.7                              | -69.6                               | 270.1                           | 204.7                                  | 65.40                     | 4.131             |                    |          |
| 9,500.0                                                                                 | 9,484.7               | 9,496.6               | 9,482.5               | 33.2                             | 33.0                          | 129.47                | -261.2                              | -71.1                               | 274.7                           | 208.6                                  | 66.09                     | 4.156             |                    |          |
| 9,600.0                                                                                 | 9,584.5               | 9,595.7               | 9,581.5               | 33.6                             | 33.4                          | 134.67                | -259.7                              | -73.0                               | 280.7                           | 214.0                                  | 66.78                     | 4.204             |                    |          |
| 9,700.0                                                                                 | 9,684.3               | 9,703.6               | 9,689.4               | 34.0                             | 33.7                          | 125.84                | -257.4                              | -73.7                               | 285.7                           | 218.1                                  | 67.52                     | 4.231             |                    |          |
| 9,800.0                                                                                 | 9,784.1               | 9,807.4               | 9,793.1               | 34.3                             | 34.1                          | 143.95                | -255.0                              | -71.6                               | 287.9                           | 219.7                                  | 68.22                     | 4.221             |                    |          |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

|                           |                                |                                     |                                   |
|---------------------------|--------------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>           | Advance Energy Partners        | <b>Local Co-ordinate Reference:</b> | Well Wool Head 20 State Com #554H |
| <b>Project:</b>           | Lea County, NM (NAD 83 NME)    | <b>TVD Reference:</b>               | KB @ 3752.0usft                   |
| <b>Reference Site:</b>    | (Wool Head)Sec20_T-21-S_R-33-E | <b>MD Reference:</b>                | KB @ 3752.0usft                   |
| <b>Site Error:</b>        | 0.0 usft                       | <b>North Reference:</b>             | Grid                              |
| <b>Reference Well:</b>    | Wool Head 20 State Com #554H   | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Well Error:</b>        | 0.0 usft                       | <b>Output errors are at</b>         | 2.00 sigma                        |
| <b>Reference Wellbore</b> | OWB                            | <b>Database:</b>                    | EDM 10_13                         |
| <b>Reference Design:</b>  | AWB                            | <b>Offset TVD Reference:</b>        | Offset Datum                      |

| Offset Design:(Wool Head)Sec20_T-21-S_R-33-E - Wool Head 20 State Com #511H - OWB - AWB |                       |                       |                       |                  |               |                        |              |                |                        |                         |                           | Offset Site Error: | 0.0 usft |
|-----------------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|------------------------|--------------|----------------|------------------------|-------------------------|---------------------------|--------------------|----------|
| Survey Program: 238-MWD                                                                 |                       |                       |                       |                  |               |                        |              |                |                        |                         |                           | Offset Well Error: | 0.0 usft |
| Reference                                                                               | Offset                | Semi Major Axis       |                       | Highside         |               | Offset Wellbore Centre |              | Rule Assigned: |                        | Distance                |                           | Warning            |          |
| Measured Depth (usft)                                                                   | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Toolface (°)           | +N/-S (usft) | +E/-W (usft)   | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor  |          |
| 9,900.0                                                                                 | 9,883.9               | 9,900.2               | 9,885.9               | 34.7             | 34.4          | 148.15                 | -253.1       | -70.7          | 292.7                  | 223.8                   | 68.89                     | 4.248              |          |
| 10,000.0                                                                                | 9,983.7               | 9,998.1               | 9,983.8               | 35.1             | 34.7          | 149.60                 | -251.5       | -71.2          | 298.5                  | 228.9                   | 69.57                     | 4.291              |          |
| 10,100.0                                                                                | 10,083.5              | 10,098.0              | 10,083.7              | 35.4             | 35.1          | 142.29                 | -250.3       | -71.9          | 303.9                  | 233.6                   | 70.27                     | 4.325              |          |
| 10,200.0                                                                                | 10,183.4              | 10,196.8              | 10,182.4              | 35.8             | 35.4          | 137.69                 | -249.1       | -72.7          | 308.4                  | 237.5                   | 70.95                     | 4.347              |          |
| 10,300.0                                                                                | 10,283.3              | 10,296.8              | 10,282.5              | 36.2             | 35.7          | 148.86                 | -248.8       | -73.9          | 313.2                  | 241.5                   | 71.66                     | 4.371              |          |
| 10,400.0                                                                                | 10,383.2              | 10,398.3              | 10,384.0              | 36.5             | 36.1          | 157.40                 | -249.4       | -74.8          | 318.1                  | 245.7                   | 72.37                     | 4.395              |          |
| 10,500.0                                                                                | 10,483.2              | 10,484.0              | 10,469.7              | 36.9             | 36.4          | 128.84                 | -249.7       | -75.4          | 322.2                  | 249.3                   | 72.94                     | 4.418              |          |
| 10,600.0                                                                                | 10,583.1              | 10,484.0              | 10,469.7              | 37.2             | 36.4          | 135.12                 | -249.7       | -75.4          | 344.1                  | 273.8                   | 70.31                     | 4.894              |          |
| 10,700.0                                                                                | 10,683.0              | 10,484.0              | 10,469.7              | 37.6             | 36.4          | 121.62                 | -249.7       | -75.4          | 390.9                  | 325.5                   | 65.37                     | 5.980              |          |
| 10,800.0                                                                                | 10,782.7              | 10,484.0              | 10,469.7              | 37.9             | 36.4          | -63.41                 | -249.7       | -75.4          | 452.7                  | 392.3                   | 60.36                     | 7.500              |          |
| 10,900.0                                                                                | 10,877.7              | 10,484.0              | 10,469.7              | 38.2             | 36.4          | -59.39                 | -249.7       | -75.4          | 520.4                  | 464.0                   | 56.38                     | 9.230              |          |
| 11,000.0                                                                                | 10,965.4              | 10,484.0              | 10,469.7              | 38.4             | 36.4          | -55.92                 | -249.7       | -75.4          | 593.8                  | 539.8                   | 54.00                     | 10.997             |          |
| 11,100.0                                                                                | 11,046.9              | 10,484.0              | 10,469.7              | 38.6             | 36.4          | -50.47                 | -249.7       | -75.4          | 672.3                  | 619.4                   | 52.96                     | 12.695             |          |
| 11,200.0                                                                                | 11,120.5              | 10,484.0              | 10,469.7              | 38.8             | 36.4          | -44.13                 | -249.7       | -75.4          | 752.0                  | 699.2                   | 52.86                     | 14.228             |          |
| 11,300.0                                                                                | 11,188.2              | 10,484.0              | 10,469.7              | 39.0             | 36.4          | -39.19                 | -249.7       | -75.4          | 832.1                  | 778.9                   | 53.25                     | 15.626             |          |
| 11,400.0                                                                                | 11,244.5              | 10,484.0              | 10,469.7              | 39.3             | 36.4          | -34.24                 | -249.7       | -75.4          | 907.9                  | 853.8                   | 54.09                     | 16.785             |          |
| 11,500.0                                                                                | 11,289.3              | 10,484.0              | 10,469.7              | 39.6             | 36.4          | -30.19                 | -249.7       | -75.4          | 979.3                  | 924.0                   | 55.24                     | 17.726             |          |
| 11,600.0                                                                                | 11,316.9              | 10,484.0              | 10,469.7              | 39.9             | 36.4          | -26.87                 | -249.7       | -75.4          | 1,042.8                | 986.1                   | 56.77                     | 18.370             |          |
| 11,700.0                                                                                | 11,330.0              | 10,484.0              | 10,469.7              | 40.2             | 36.4          | -25.71                 | -249.7       | -75.4          | 1,101.1                | 1,042.6                 | 58.53                     | 18.814             |          |
| 11,800.0                                                                                | 11,336.3              | 10,484.0              | 10,469.7              | 40.5             | 36.4          | -25.37                 | -249.7       | -75.4          | 1,159.7                | 1,099.4                 | 60.31                     | 19.229             |          |
| 11,900.0                                                                                | 11,339.3              | 10,484.0              | 10,469.7              | 41.0             | 36.4          | -25.65                 | -249.7       | -75.4          | 1,220.4                | 1,158.4                 | 62.00                     | 19.684             |          |
| 12,000.0                                                                                | 11,338.7              | 10,484.0              | 10,469.7              | 41.4             | 36.4          | -18.02                 | -249.7       | -75.4          | 1,286.2                | 1,222.5                 | 63.65                     | 20.207             |          |
| 12,100.0                                                                                | 11,334.2              | 10,484.0              | 10,469.7              | 42.0             | 36.4          | -16.66                 | -249.7       | -75.4          | 1,355.2                | 1,290.1                 | 65.19                     | 20.790             |          |
| 12,200.0                                                                                | 11,326.2              | 10,484.0              | 10,469.7              | 42.6             | 36.4          | -14.55                 | -249.7       | -75.4          | 1,425.9                | 1,359.3                 | 66.57                     | 21.419             |          |
| 12,300.0                                                                                | 11,318.2              | 10,484.0              | 10,469.7              | 43.3             | 36.4          | -12.44                 | -249.7       | -75.4          | 1,500.7                | 1,432.9                 | 67.78                     | 22.140             |          |
| 12,400.0                                                                                | 11,315.0              | 10,484.0              | 10,469.7              | 43.9             | 36.4          | -13.59                 | -249.7       | -75.4          | 1,581.3                | 1,512.5                 | 68.78                     | 22.992             |          |
| 12,500.0                                                                                | 11,312.0              | 10,484.0              | 10,469.7              | 44.7             | 36.4          | -14.04                 | -249.7       | -75.4          | 1,663.9                | 1,594.2                 | 69.64                     | 23.894             |          |
| 12,600.0                                                                                | 11,308.7              | 10,484.0              | 10,469.7              | 45.5             | 36.4          | -16.32                 | -249.7       | -75.4          | 1,748.0                | 1,677.6                 | 70.38                     | 24.836             |          |
| 12,700.0                                                                                | 11,305.7              | 10,484.0              | 10,469.7              | 46.3             | 36.4          | -15.46                 | -249.7       | -75.4          | 1,833.7                | 1,762.7                 | 71.03                     | 25.817             |          |
| 12,800.0                                                                                | 11,301.1              | 10,484.0              | 10,469.7              | 47.2             | 36.4          | -14.61                 | -249.7       | -75.4          | 1,920.1                | 1,848.5                 | 71.60                     | 26.817             |          |
| 12,900.0                                                                                | 11,297.0              | 10,484.0              | 10,469.7              | 48.1             | 36.4          | -13.15                 | -249.7       | -75.4          | 2,008.1                | 1,936.0                 | 72.10                     | 27.851             |          |
| 13,000.0                                                                                | 11,291.5              | 10,484.0              | 10,469.7              | 49.1             | 36.4          | -11.14                 | -249.7       | -75.4          | 2,096.8                | 2,024.2                 | 72.55                     | 28.900             |          |
| 13,100.0                                                                                | 11,287.6              | 10,484.0              | 10,469.7              | 50.1             | 36.4          | -10.43                 | -249.7       | -75.4          | 2,187.2                | 2,114.3                 | 72.94                     | 29.987             |          |
| 13,200.0                                                                                | 11,289.8              | 10,484.0              | 10,469.7              | 51.1             | 36.4          | -17.97                 | -249.7       | -75.4          | 2,280.6                | 2,207.4                 | 73.25                     | 31.133             |          |

|                           |                                |                                     |                                   |
|---------------------------|--------------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>           | Advance Energy Partners        | <b>Local Co-ordinate Reference:</b> | Well Wool Head 20 State Com #554H |
| <b>Project:</b>           | Lea County, NM (NAD 83 NME)    | <b>TVD Reference:</b>               | KB @ 3752.0usft                   |
| <b>Reference Site:</b>    | (Wool Head)Sec20_T-21-S_R-33-E | <b>MD Reference:</b>                | KB @ 3752.0usft                   |
| <b>Site Error:</b>        | 0.0 usft                       | <b>North Reference:</b>             | Grid                              |
| <b>Reference Well:</b>    | Wool Head 20 State Com #554H   | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Well Error:</b>        | 0.0 usft                       | <b>Output errors are at</b>         | 2.00 sigma                        |
| <b>Reference Wellbore</b> | OWB                            | <b>Database:</b>                    | EDM 10_13                         |
| <b>Reference Design:</b>  | AWB                            | <b>Offset TVD Reference:</b>        | Offset Datum                      |

| Offset Design:(Wool Head)Sec20_T-21-S_R-33-E - Wool Head 20 State Com #512H - OWB - AWB |                       |                       |                       |                                  |                               |                       |                                     |                                     |                                 |                                  |                           |                   | Offset Site Error: | 0.0 usft |
|-----------------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|----------------------------------|-------------------------------|-----------------------|-------------------------------------|-------------------------------------|---------------------------------|----------------------------------|---------------------------|-------------------|--------------------|----------|
| Survey Program: 238-MWD                                                                 |                       |                       |                       |                                  |                               |                       |                                     |                                     |                                 |                                  |                           |                   | Offset Well Error: | 0.0 usft |
| Measured Depth (usft)                                                                   | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning            |          |
| 0.0                                                                                     | 0.0                   | 0.5                   | 0.5                   | 0.0                              | 0.0                           | 89.65                 | 0.4                                 | 65.9                                | 65.9                            |                                  |                           |                   |                    |          |
| 100.0                                                                                   | 100.0                 | 100.6                 | 100.6                 | 0.1                              | 0.2                           | -91.44                | 0.3                                 | 65.8                                | 65.8                            | 65.5                             | 0.29                      | 223.060           |                    |          |
| 200.0                                                                                   | 200.0                 | 200.8                 | 200.8                 | 0.3                              | 0.3                           | -91.57                | 0.1                                 | 65.5                                | 65.5                            | 64.8                             | 0.63                      | 103.263           |                    |          |
| 300.0                                                                                   | 300.0                 | 301.0                 | 301.0                 | 0.6                              | 0.6                           | -137.62               | -0.1                                | 64.8                                | 65.0                            | 63.8                             | 1.21                      | 53.841            |                    |          |
| 400.0                                                                                   | 400.0                 | 401.0                 | 401.0                 | 1.0                              | 1.0                           | -117.04               | -0.4                                | 63.9                                | 64.7                            | 62.8                             | 1.92                      | 33.675            |                    |          |
| 476.4                                                                                   | 476.4                 | 477.4                 | 477.4                 | 1.2                              | 1.2                           | -133.05               | -0.6                                | 63.4                                | 64.6                            | 62.2                             | 2.47                      | 26.183            |                    |          |
| 500.0                                                                                   | 500.0                 | 501.0                 | 501.0                 | 1.3                              | 1.3                           | -136.83               | -0.7                                | 63.2                                | 64.6                            | 61.9                             | 2.64                      | 24.478            |                    |          |
| 600.0                                                                                   | 600.0                 | 601.3                 | 601.3                 | 1.7                              | 1.7                           | -168.59               | -1.0                                | 62.2                                | 64.7                            | 61.3                             | 3.35                      | 19.283            |                    |          |
| 670.9                                                                                   | 670.9                 | 672.2                 | 672.2                 | 1.9                              | 1.9                           | -158.54               | -1.3                                | 61.4                                | 64.5                            | 60.7                             | 3.86                      | 16.728            |                    |          |
| 700.0                                                                                   | 700.0                 | 701.3                 | 701.3                 | 2.0                              | 2.0                           | -156.25               | -1.5                                | 61.0                                | 64.5                            | 60.5                             | 4.07                      | 15.872            |                    |          |
| 800.0                                                                                   | 799.9                 | 801.7                 | 801.7                 | 2.4                              | 2.4                           | -152.27               | -2.4                                | 59.5                                | 65.5                            | 60.7                             | 4.78                      | 13.694            |                    |          |
| 900.0                                                                                   | 899.9                 | 902.2                 | 902.2                 | 2.7                              | 2.8                           | -150.23               | -3.4                                | 57.2                                | 66.1                            | 60.5                             | 5.50                      | 12.000            |                    |          |
| 1,000.0                                                                                 | 999.9                 | 1,002.3               | 1,002.2               | 3.1                              | 3.1                           | -154.58               | -4.4                                | 54.4                                | 64.8                            | 58.5                             | 6.22                      | 10.408            |                    |          |
| 1,057.8                                                                                 | 1,057.7               | 1,059.3               | 1,059.1               | 3.3                              | 3.3                           | -156.41               | -5.2                                | 53.2                                | 64.3                            | 57.7                             | 6.63                      | 9.696             |                    |          |
| 1,100.0                                                                                 | 1,099.8               | 1,101.0               | 1,100.8               | 3.5                              | 3.5                           | -157.50               | -5.8                                | 52.8                                | 64.5                            | 57.6                             | 6.93                      | 9.307             |                    |          |
| 1,200.0                                                                                 | 1,199.8               | 1,201.0               | 1,200.8               | 3.8                              | 3.8                           | -146.30               | -7.2                                | 52.2                                | 65.5                            | 57.9                             | 7.65                      | 8.571             |                    |          |
| 1,300.0                                                                                 | 1,299.8               | 1,301.7               | 1,301.5               | 4.2                              | 4.2                           | -146.97               | -8.4                                | 51.0                                | 65.9                            | 57.6                             | 8.37                      | 7.882             |                    |          |
| 1,400.0                                                                                 | 1,399.8               | 1,402.7               | 1,402.4               | 4.5                              | 4.6                           | -149.86               | -10.3                               | 48.5                                | 65.3                            | 56.2                             | 9.09                      | 7.188             |                    |          |
| 1,500.0                                                                                 | 1,499.8               | 1,502.9               | 1,502.6               | 4.9                              | 4.9                           | -146.28               | -12.5                               | 44.8                                | 63.5                            | 53.7                             | 9.81                      | 6.474             |                    |          |
| 1,600.0                                                                                 | 1,599.7               | 1,602.4               | 1,602.0               | 5.3                              | 5.3                           | -150.73               | -15.4                               | 41.4                                | 62.3                            | 51.8                             | 10.53                     | 5.921             |                    |          |
| 1,694.0                                                                                 | 1,693.7               | 1,696.0               | 1,695.5               | 5.6                              | 5.6                           | -152.34               | -17.7                               | 39.0                                | 62.0                            | 50.8                             | 11.21                     | 5.530             |                    |          |
| 1,700.0                                                                                 | 1,699.7               | 1,702.0               | 1,701.5               | 5.6                              | 5.6                           | -152.41               | -17.8                               | 38.9                                | 61.9                            | 50.7                             | 11.25                     | 5.504             |                    |          |
| 1,800.0                                                                                 | 1,799.7               | 1,801.9               | 1,801.4               | 6.0                              | 6.0                           | -173.53               | -19.4                               | 36.8                                | 62.6                            | 50.6                             | 11.97                     | 5.228             |                    |          |
| 1,900.0                                                                                 | 1,899.6               | 1,901.7               | 1,901.2               | 6.3                              | 6.4                           | 167.98                | -20.2                               | 34.8                                | 63.4                            | 50.7                             | 12.68                     | 4.998             |                    |          |
| 2,000.0                                                                                 | 1,999.6               | 1,999.7               | 1,999.2               | 6.7                              | 6.7                           | 157.04                | -21.1                               | 34.5                                | 65.7                            | 52.4                             | 13.37                     | 4.917             |                    |          |
| 2,100.0                                                                                 | 2,099.6               | 2,098.0               | 2,097.4               | 7.0                              | 7.0                           | 112.85                | -22.7                               | 37.2                                | 69.9                            | 55.9                             | 14.03                     | 4.985             |                    |          |
| 2,200.0                                                                                 | 2,199.6               | 2,198.3               | 2,197.6               | 7.4                              | 7.4                           | 78.61                 | -24.6                               | 40.7                                | 73.6                            | 58.9                             | 14.70                     | 5.006             |                    |          |
| 2,300.0                                                                                 | 2,299.5               | 2,298.7               | 2,298.0               | 7.7                              | 7.7                           | 77.26                 | -24.4                               | 43.6                                | 76.1                            | 60.8                             | 15.37                     | 4.953             |                    |          |
| 2,400.0                                                                                 | 2,399.5               | 2,398.6               | 2,397.9               | 8.0                              | 8.0                           | 68.65                 | -22.8                               | 46.7                                | 78.5                            | 62.4                             | 16.03                     | 4.894             |                    |          |
| 2,500.0                                                                                 | 2,499.5               | 2,498.8               | 2,498.0               | 8.4                              | 8.4                           | 60.87                 | -21.2                               | 49.7                                | 80.4                            | 63.7                             | 16.70                     | 4.813             |                    |          |
| 2,600.0                                                                                 | 2,599.5               | 2,598.9               | 2,598.0               | 8.7                              | 8.7                           | 79.13                 | -19.5                               | 52.5                                | 82.2                            | 64.8                             | 17.37                     | 4.731             |                    |          |
| 2,700.0                                                                                 | 2,699.5               | 2,699.1               | 2,698.1               | 9.0                              | 9.0                           | 80.83                 | -17.5                               | 55.1                                | 84.2                            | 66.2                             | 18.05                     | 4.666             |                    |          |
| 2,800.0                                                                                 | 2,799.5               | 2,799.5               | 2,798.5               | 9.4                              | 9.4                           | 51.05                 | -15.8                               | 57.3                                | 85.5                            | 66.7                             | 18.73                     | 4.563             |                    |          |
| 2,900.0                                                                                 | 2,899.4               | 2,898.8               | 2,897.7               | 9.7                              | 9.7                           | 17.07                 | -15.6                               | 59.6                                | 85.7                            | 66.2                             | 19.40                     | 4.414             |                    |          |
| 3,000.0                                                                                 | 2,999.4               | 2,999.0               | 2,998.0               | 10.1                             | 10.0                          | 9.18                  | -14.4                               | 62.1                                | 84.2                            | 64.1                             | 20.09                     | 4.193             |                    |          |
| 3,100.0                                                                                 | 3,099.2               | 3,098.8               | 3,097.7               | 10.4                             | 10.4                          | 8.51                  | -13.1                               | 64.6                                | 81.6                            | 60.9                             | 20.77                     | 3.931             |                    |          |
| 3,200.0                                                                                 | 3,199.2               | 3,198.5               | 3,197.4               | 10.7                             | 10.7                          | 7.62                  | -11.8                               | 67.6                                | 80.0                            | 58.5                             | 21.45                     | 3.730             |                    |          |
| 3,300.0                                                                                 | 3,299.1               | 3,298.3               | 3,297.1               | 11.1                             | 11.1                          | 8.78                  | -10.5                               | 70.7                                | 79.3                            | 57.2                             | 22.13                     | 3.585             |                    |          |
| 3,400.0                                                                                 | 3,399.0               | 3,399.1               | 3,397.8               | 11.4                             | 11.4                          | 8.84                  | -9.6                                | 73.7                                | 78.7                            | 55.9                             | 22.83                     | 3.450             |                    |          |
| 3,500.0                                                                                 | 3,499.0               | 3,500.1               | 3,498.8               | 11.8                             | 11.8                          | 21.82                 | -10.0                               | 75.1                                | 78.0                            | 54.4                             | 23.53                     | 3.314             |                    |          |
| 3,549.2                                                                                 | 3,548.2               | 3,549.2               | 3,548.0               | 11.9                             | 11.9                          | 28.05                 | -10.5                               | 75.5                                | 77.9                            | 54.0                             | 23.87                     | 3.263             |                    |          |
| 3,600.0                                                                                 | 3,599.0               | 3,599.9               | 3,598.6               | 12.1                             | 12.1                          | 36.55                 | -11.0                               | 76.0                                | 78.1                            | 53.8                             | 24.23                     | 3.222             |                    |          |
| 3,700.0                                                                                 | 3,699.0               | 3,700.1               | 3,698.8               | 12.5                             | 12.5                          | 13.50                 | -11.5                               | 76.9                                | 78.0                            | 53.1                             | 24.92                     | 3.130             |                    |          |
| 3,800.0                                                                                 | 3,799.0               | 3,800.3               | 3,799.0               | 12.8                             | 12.8                          | 33.07                 | -11.9                               | 77.7                                | 77.5                            | 51.8                             | 25.62                     | 3.024             |                    |          |
| 3,900.0                                                                                 | 3,899.0               | 3,900.6               | 3,899.4               | 13.2                             | 13.2                          | 19.13                 | -12.2                               | 77.9                                | 76.3                            | 50.0                             | 26.32                     | 2.900             |                    |          |
| 4,000.0                                                                                 | 3,998.9               | 4,000.6               | 3,999.3               | 13.5                             | 13.5                          | 16.67                 | -12.5                               | 78.0                                | 74.5                            | 47.5                             | 27.02                     | 2.757             |                    |          |
| 4,100.0                                                                                 | 4,098.9               | 4,100.6               | 4,099.3               | 13.9                             | 13.9                          | 25.76                 | -12.5                               | 78.2                                | 72.3                            | 44.6                             | 27.72                     | 2.608             |                    |          |
| 4,200.0                                                                                 | 4,198.9               | 4,200.5               | 4,199.2               | 14.2                             | 14.2                          | 17.09                 | -13.2                               | 78.1                                | 69.6                            | 41.2                             | 28.42                     | 2.448             |                    |          |
| 4,300.0                                                                                 | 4,298.8               | 4,300.4               | 4,299.1               | 14.6                             | 14.6                          | 16.20                 | -14.2                               | 78.2                                | 66.5                            | 37.4                             | 29.13                     | 2.283             |                    |          |
| 4,400.0                                                                                 | 4,398.7               | 4,400.2               | 4,398.9               | 14.9                             | 14.9                          | 18.57                 | -14.9                               | 78.5                                | 63.8                            | 34.0                             | 29.83                     | 2.140             |                    |          |
| 4,500.0                                                                                 | 4,498.7               | 4,500.3               | 4,499.0               | 15.3                             | 15.3                          | 14.06                 | -14.6                               | 79.1                                | 61.4                            | 30.9                             | 30.53                     | 2.011             |                    |          |
| 4,600.0                                                                                 | 4,598.6               | 4,600.1               | 4,598.8               | 15.6                             | 15.6                          | 35.07                 | -13.3                               | 79.8                                | 59.0                            | 27.8                             | 31.22                     | 1.889             |                    |          |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



|                           |                                |                                     |                                   |
|---------------------------|--------------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>           | Advance Energy Partners        | <b>Local Co-ordinate Reference:</b> | Well Wool Head 20 State Com #554H |
| <b>Project:</b>           | Lea County, NM (NAD 83 NME)    | <b>TVD Reference:</b>               | KB @ 3752.0usft                   |
| <b>Reference Site:</b>    | (Wool Head)Sec20_T-21-S_R-33-E | <b>MD Reference:</b>                | KB @ 3752.0usft                   |
| <b>Site Error:</b>        | 0.0 usft                       | <b>North Reference:</b>             | Grid                              |
| <b>Reference Well:</b>    | Wool Head 20 State Com #554H   | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Well Error:</b>        | 0.0 usft                       | <b>Output errors are at</b>         | 2.00 sigma                        |
| <b>Reference Wellbore</b> | OWB                            | <b>Database:</b>                    | EDM 10_13                         |
| <b>Reference Design:</b>  | AWB                            | <b>Offset TVD Reference:</b>        | Offset Datum                      |

| Offset Design:(Wool Head)Sec20_T-21-S_R-33-E - Wool Head 20 State Com #512H - OWB - AWB |                       |                       |                       |                                  |                               |                       |                                     |                                     |                                 |                                  |                           |                   | Offset Site Error: | 0.0 usft |
|-----------------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|----------------------------------|-------------------------------|-----------------------|-------------------------------------|-------------------------------------|---------------------------------|----------------------------------|---------------------------|-------------------|--------------------|----------|
| Survey Program: 238-MWD                                                                 |                       |                       |                       |                                  |                               |                       |                                     |                                     |                                 |                                  |                           |                   | Offset Well Error: | 0.0 usft |
| Measured Depth (usft)                                                                   | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Semi Major Axis Reference (usft) | Semi Major Axis Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | Offset Wellbore Centre +E/-W (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning            |          |
| 4,658.6                                                                                 | 4,657.2               | 4,658.5               | 4,657.1               | 15.8                             | 15.8                          | 50.11                 | -12.4                               | 80.5                                | 58.4                            | 26.8                             | 31.63                     | 1.848 CC, ES      |                    |          |
| 4,700.0                                                                                 | 4,698.6               | 4,699.9               | 4,698.6               | 16.0                             | 16.0                          | 96.08                 | -11.8                               | 81.1                                | 58.7                            | 26.8                             | 31.92                     | 1.841 SF          |                    |          |
| 4,800.0                                                                                 | 4,798.6               | 4,799.9               | 4,798.6               | 16.3                             | 16.3                          | 161.71                | -10.4                               | 82.3                                | 60.4                            | 27.8                             | 32.61                     | 1.854             |                    |          |
| 4,900.0                                                                                 | 4,898.6               | 4,899.7               | 4,898.4               | 16.7                             | 16.7                          | 168.79                | -8.9                                | 83.8                                | 62.9                            | 29.6                             | 33.31                     | 1.889             |                    |          |
| 5,000.0                                                                                 | 4,998.6               | 4,999.9               | 4,998.5               | 17.0                             | 17.0                          | 175.40                | -7.2                                | 85.3                                | 65.1                            | 31.0                             | 34.00                     | 1.913             |                    |          |
| 5,100.0                                                                                 | 5,098.6               | 5,100.1               | 5,098.7               | 17.4                             | 17.4                          | 156.53                | -5.4                                | 86.4                                | 67.0                            | 32.3                             | 34.70                     | 1.930             |                    |          |
| 5,200.0                                                                                 | 5,198.6               | 5,200.1               | 5,198.7               | 17.7                             | 17.7                          | 174.13                | -3.4                                | 87.4                                | 69.1                            | 33.7                             | 35.39                     | 1.952             |                    |          |
| 5,300.0                                                                                 | 5,298.6               | 5,300.2               | 5,298.7               | 18.1                             | 18.1                          | 177.88                | -1.5                                | 88.2                                | 71.4                            | 35.3                             | 36.09                     | 1.978             |                    |          |
| 5,400.0                                                                                 | 5,398.6               | 5,400.4               | 5,398.9               | 18.4                             | 18.4                          | -152.59               | 0.0                                 | 88.7                                | 73.6                            | 36.8                             | 36.79                     | 2.000             |                    |          |
| 5,500.0                                                                                 | 5,498.5               | 5,500.6               | 5,499.1               | 18.7                             | 18.8                          | -92.66                | 0.6                                 | 88.9                                | 74.4                            | 36.9                             | 37.48                     | 1.984             |                    |          |
| 5,585.3                                                                                 | 5,583.7               | 5,585.9               | 5,584.4               | 19.0                             | 19.0                          | -93.26                | 1.4                                 | 88.5                                | 74.2                            | 36.2                             | 38.07                     | 1.950             |                    |          |
| 5,600.0                                                                                 | 5,598.3               | 5,600.3               | 5,598.8               | 19.1                             | 19.1                          | -93.31                | 1.6                                 | 88.5                                | 74.3                            | 36.1                             | 38.17                     | 1.946             |                    |          |
| 5,700.0                                                                                 | 5,698.2               | 5,697.8               | 5,696.3               | 19.4                             | 19.4                          | -92.66                | 1.2                                 | 89.8                                | 75.8                            | 37.0                             | 38.85                     | 1.952             |                    |          |
| 5,800.0                                                                                 | 5,798.0               | 5,795.3               | 5,793.5               | 19.8                             | 19.8                          | -89.31                | -3.0                                | 95.4                                | 81.2                            | 41.7                             | 39.50                     | 2.055             |                    |          |
| 5,900.0                                                                                 | 5,897.5               | 5,894.5               | 5,892.3               | 20.1                             | 20.1                          | -89.10                | -7.8                                | 102.6                               | 87.3                            | 47.1                             | 40.20                     | 2.172             |                    |          |
| 6,000.0                                                                                 | 5,997.0               | 5,993.7               | 5,991.1               | 20.5                             | 20.5                          | -86.67                | -12.4                               | 110.3                               | 93.7                            | 52.8                             | 40.89                     | 2.292             |                    |          |
| 6,100.0                                                                                 | 6,096.6               | 6,093.0               | 6,090.0               | 20.8                             | 20.8                          | -83.04                | -17.2                               | 118.6                               | 99.9                            | 58.3                             | 41.59                     | 2.401             |                    |          |
| 6,200.0                                                                                 | 6,196.1               | 6,190.9               | 6,187.3               | 21.2                             | 21.2                          | -74.14                | -22.3                               | 127.9                               | 105.8                           | 63.5                             | 42.25                     | 2.503             |                    |          |
| 6,300.0                                                                                 | 6,295.5               | 6,289.0               | 6,284.5               | 21.5                             | 21.6                          | -57.85                | -28.7                               | 139.5                               | 110.7                           | 67.8                             | 42.91                     | 2.581             |                    |          |
| 6,400.0                                                                                 | 6,394.8               | 6,388.9               | 6,383.3               | 21.9                             | 21.9                          | -59.09                | -35.5                               | 152.3                               | 115.2                           | 71.6                             | 43.62                     | 2.642             |                    |          |
| 6,500.0                                                                                 | 6,494.2               | 6,488.6               | 6,482.0               | 22.3                             | 22.3                          | -60.68                | -42.3                               | 165.1                               | 120.4                           | 76.0                             | 44.33                     | 2.716             |                    |          |
| 6,600.0                                                                                 | 6,593.6               | 6,588.8               | 6,581.2               | 22.6                             | 22.7                          | -59.14                | -49.2                               | 177.9                               | 125.4                           | 80.4                             | 45.06                     | 2.783             |                    |          |
| 6,700.0                                                                                 | 6,693.1               | 6,689.4               | 6,680.8               | 23.0                             | 23.0                          | -59.74                | -55.8                               | 190.2                               | 130.1                           | 84.3                             | 45.80                     | 2.841             |                    |          |
| 6,800.0                                                                                 | 6,792.6               | 6,789.9               | 6,780.3               | 23.3                             | 23.4                          | -59.82                | -62.2                               | 201.9                               | 135.0                           | 88.5                             | 46.54                     | 2.901             |                    |          |
| 6,900.0                                                                                 | 6,892.1               | 6,888.0               | 6,877.6               | 23.7                             | 23.8                          | -61.35                | -68.3                               | 213.4                               | 140.1                           | 92.9                             | 47.21                     | 2.967             |                    |          |
| 7,000.0                                                                                 | 6,991.7               | 6,984.9               | 6,973.3               | 24.1                             | 24.1                          | -60.55                | -75.0                               | 227.0                               | 147.5                           | 99.7                             | 47.84                     | 3.083             |                    |          |
| 7,100.0                                                                                 | 7,091.3               | 7,084.2               | 7,071.2               | 24.4                             | 24.5                          | -60.13                | -82.5                               | 242.1                               | 156.2                           | 107.7                            | 48.55                     | 3.218             |                    |          |
| 7,200.0                                                                                 | 7,190.9               | 7,183.8               | 7,169.3               | 24.8                             | 24.9                          | -55.00                | -89.6                               | 257.2                               | 164.5                           | 115.2                            | 49.27                     | 3.339             |                    |          |
| 7,300.0                                                                                 | 7,290.5               | 7,284.2               | 7,268.4               | 25.2                             | 25.3                          | -56.30                | -96.4                               | 272.1                               | 172.9                           | 122.9                            | 50.01                     | 3.457             |                    |          |
| 7,400.0                                                                                 | 7,390.1               | 7,383.5               | 7,366.4               | 25.5                             | 25.7                          | -53.83                | -102.9                              | 286.6                               | 181.3                           | 130.6                            | 50.72                     | 3.574             |                    |          |
| 7,500.0                                                                                 | 7,489.8               | 7,483.3               | 7,465.0               | 25.9                             | 26.1                          | -53.34                | -109.5                              | 301.4                               | 189.6                           | 138.2                            | 51.45                     | 3.686             |                    |          |
| 7,600.0                                                                                 | 7,589.5               | 7,583.8               | 7,564.1               | 26.3                             | 26.4                          | -51.56                | -116.0                              | 315.8                               | 198.3                           | 146.1                            | 52.19                     | 3.800             |                    |          |
| 7,700.0                                                                                 | 7,689.2               | 7,684.2               | 7,663.4               | 26.6                             | 26.8                          | -49.87                | -121.7                              | 329.7                               | 206.5                           | 153.6                            | 52.93                     | 3.901             |                    |          |
| 7,800.0                                                                                 | 7,788.9               | 7,783.8               | 7,762.0               | 27.0                             | 27.2                          | -51.08                | -127.0                              | 343.2                               | 214.6                           | 160.9                            | 53.65                     | 4.000             |                    |          |
| 7,900.0                                                                                 | 7,888.7               | 7,883.1               | 7,860.2               | 27.4                             | 27.6                          | -55.05                | -132.0                              | 356.9                               | 223.1                           | 168.7                            | 54.37                     | 4.103             |                    |          |
| 8,000.0                                                                                 | 7,988.4               | 7,982.7               | 7,958.7               | 27.7                             | 28.0                          | -60.83                | -136.9                              | 370.6                               | 232.2                           | 177.1                            | 55.10                     | 4.214             |                    |          |
| 8,100.0                                                                                 | 8,088.1               | 8,082.4               | 8,057.4               | 28.1                             | 28.4                          | -64.56                | -141.7                              | 384.2                               | 241.8                           | 186.0                            | 55.83                     | 4.331             |                    |          |
| 8,200.0                                                                                 | 8,187.9               | 8,182.8               | 8,156.7               | 28.5                             | 28.8                          | -68.20                | -146.6                              | 397.8                               | 251.9                           | 195.3                            | 56.58                     | 4.451             |                    |          |
| 8,300.0                                                                                 | 8,287.7               | 8,284.3               | 8,257.3               | 28.8                             | 29.2                          | -67.47                | -151.5                              | 410.9                               | 262.0                           | 204.6                            | 57.35                     | 4.568             |                    |          |
| 8,400.0                                                                                 | 8,387.5               | 8,384.4               | 8,356.5               | 29.2                             | 29.6                          | -61.35                | -156.3                              | 423.2                               | 271.1                           | 213.0                            | 58.08                     | 4.668             |                    |          |
| 8,500.0                                                                                 | 8,487.2               | 8,485.2               | 8,456.4               | 29.6                             | 30.0                          | -56.71                | -161.0                              | 435.7                               | 278.7                           | 219.8                            | 58.84                     | 4.736             |                    |          |
| 8,600.0                                                                                 | 8,586.8               | 8,583.8               | 8,554.2               | 29.9                             | 30.4                          | -57.23                | -165.2                              | 447.1                               | 284.7                           | 225.1                            | 59.56                     | 4.780             |                    |          |
| 8,700.0                                                                                 | 8,686.4               | 8,679.9               | 8,649.4               | 30.3                             | 30.7                          | -63.67                | -169.2                              | 459.6                               | 292.9                           | 232.7                            | 60.23                     | 4.862             |                    |          |
| 8,800.0                                                                                 | 8,786.2               | 8,781.8               | 8,750.4               | 30.7                             | 31.2                          | -69.40                | -173.5                              | 473.2                               | 302.6                           | 241.6                            | 61.02                     | 4.960             |                    |          |
| 8,900.0                                                                                 | 8,886.0               | 8,879.0               | 8,846.7               | 31.0                             | 31.5                          | -69.12                | -177.6                              | 485.7                               | 312.6                           | 250.9                            | 61.71                     | 5.065             |                    |          |
| 9,000.0                                                                                 | 8,985.7               | 8,979.0               | 8,945.6               | 31.4                             | 31.9                          | -51.95                | -182.2                              | 499.2                               | 321.8                           | 259.3                            | 62.45                     | 5.152             |                    |          |
| 9,100.0                                                                                 | 9,085.4               | 9,085.8               | 9,051.5               | 31.8                             | 32.4                          | -50.54                | -187.3                              | 512.3                               | 328.2                           | 264.9                            | 63.30                     | 5.184             |                    |          |
| 9,200.0                                                                                 | 9,185.2               | 9,188.6               | 9,153.5               | 32.1                             | 32.8                          | -58.42                | -193.5                              | 523.6                               | 334.2                           | 270.1                            | 64.07                     | 5.216             |                    |          |
| 9,300.0                                                                                 | 9,285.0               | 9,289.6               | 9,253.7               | 32.5                             | 33.2                          | -63.44                | -200.6                              | 533.8                               | 341.0                           | 276.1                            | 64.81                     | 5.261             |                    |          |
| 9,400.0                                                                                 | 9,384.8               | 9,388.0               | 9,351.3               | 32.9                             | 33.5                          | -62.67                | -206.7                              | 544.2                               | 348.0                           | 282.5                            | 65.52                     | 5.312             |                    |          |
| 9,500.0                                                                                 | 9,484.7               | 9,490.9               | 9,453.6               | 33.2                             | 33.9                          | -54.53                | -212.0                              | 554.5                               | 354.8                           | 288.5                            | 66.28                     | 5.353             |                    |          |
| 9,600.0                                                                                 | 9,584.5               | 9,595.3               | 9,557.5               | 33.6                             | 34.3                          | -50.51                | -216.2                              | 563.7                               | 359.3                           | 292.2                            | 67.06                     | 5.357             |                    |          |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

|                           |                                |                                     |                                   |
|---------------------------|--------------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>           | Advance Energy Partners        | <b>Local Co-ordinate Reference:</b> | Well Wool Head 20 State Com #554H |
| <b>Project:</b>           | Lea County, NM (NAD 83 NME)    | <b>TVD Reference:</b>               | KB @ 3752.0usft                   |
| <b>Reference Site:</b>    | (Wool Head)Sec20_T-21-S_R-33-E | <b>MD Reference:</b>                | KB @ 3752.0usft                   |
| <b>Site Error:</b>        | 0.0 usft                       | <b>North Reference:</b>             | Grid                              |
| <b>Reference Well:</b>    | Wool Head 20 State Com #554H   | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Well Error:</b>        | 0.0 usft                       | <b>Output errors are at</b>         | 2.00 sigma                        |
| <b>Reference Wellbore</b> | OWB                            | <b>Database:</b>                    | EDM 10_13                         |
| <b>Reference Design:</b>  | AWB                            | <b>Offset TVD Reference:</b>        | Offset Datum                      |

**Offset Design:**(Wool Head)Sec20\_T-21-S\_R-33-E - Wool Head 20 State Com #512H - OWB - AWB

Offset Site Error: 0.0 usft

Offset Well Error: 0.0 usft

| Survey Program:             |                             | Reference                   |                             | Offset              |                  | Semi Major Axis     |                  | Highside<br>Toolface<br>(°) | Offset Wellbore Centre |                 | Rule Assigned:                           |                               | Minimum<br>Separation<br>(usft) | Separation<br>Factor | Warning |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|---------------------|------------------|-----------------------------|------------------------|-----------------|------------------------------------------|-------------------------------|---------------------------------|----------------------|---------|
| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Reference<br>(usft) | Offset<br>(usft) | Reference<br>(usft) | Offset<br>(usft) |                             | +N/-S<br>(usft)        | +E/-W<br>(usft) | Distance<br>Between<br>Centres<br>(usft) | Between<br>Ellipses<br>(usft) |                                 |                      |         |
| 9,700.0                     | 9,684.3                     | 9,697.2                     | 9,659.1                     | 34.0                | 34.7             | -61.12              | -219.3           | 571.5                       | 362.9                  | 295.1           | 362.9                                    | 295.1                         | 67.82                           | 5.351                |         |
| 9,800.0                     | 9,784.1                     | 9,797.4                     | 9,759.0                     | 34.3                | 35.1             | -44.72              | -221.0           | 578.9                       | 366.3                  | 297.7           | 366.3                                    | 297.7                         | 68.55                           | 5.343                |         |
| 9,900.0                     | 9,883.9                     | 9,899.4                     | 9,860.7                     | 34.7                | 35.5             | -42.16              | -221.2           | 585.6                       | 368.0                  | 298.7           | 368.0                                    | 298.7                         | 69.30                           | 5.309                |         |
| 10,000.0                    | 9,983.7                     | 9,997.5                     | 9,958.6                     | 35.1                | 35.9             | -41.92              | -222.3           | 592.5                       | 370.2                  | 300.1           | 370.2                                    | 300.1                         | 70.02                           | 5.287                |         |
| 10,100.0                    | 10,083.5                    | 10,098.6                    | 10,059.4                    | 35.4                | 36.2             | -50.12              | -224.7           | 599.7                       | 373.1                  | 302.3           | 373.1                                    | 302.3                         | 70.76                           | 5.272                |         |
| 10,200.0                    | 10,183.4                    | 10,210.7                    | 10,171.2                    | 35.8                | 36.6             | -55.50              | -228.4           | 606.6                       | 375.9                  | 304.4           | 375.9                                    | 304.4                         | 71.56                           | 5.254                |         |
| 10,300.0                    | 10,283.3                    | 10,324.1                    | 10,284.5                    | 36.2                | 37.0             | -44.89              | -232.3           | 608.7                       | 374.5                  | 302.2           | 374.5                                    | 302.2                         | 72.29                           | 5.180                |         |
| 10,400.0                    | 10,383.2                    | 10,429.6                    | 10,390.0                    | 36.5                | 37.4             | -36.50              | -236.1           | 608.0                       | 369.9                  | 296.9           | 369.9                                    | 296.9                         | 72.99                           | 5.068                |         |
| 10,500.0                    | 10,483.2                    | 10,527.8                    | 10,488.1                    | 36.9                | 37.7             | -65.10              | -239.9           | 607.2                       | 366.0                  | 292.3           | 366.0                                    | 292.3                         | 73.69                           | 4.966                |         |
| 10,537.1                    | 10,520.2                    | 10,555.0                    | 10,515.3                    | 37.0                | 37.8             | -62.85              | -241.0           | 607.0                       | 365.1                  | 291.2           | 365.1                                    | 291.2                         | 73.96                           | 4.937                |         |
| 10,600.0                    | 10,583.1                    | 10,555.0                    | 10,515.3                    | 37.2                | 37.8             | -58.84              | -241.0           | 607.0                       | 370.5                  | 296.9           | 370.5                                    | 296.9                         | 73.60                           | 5.035                |         |
| 10,700.0                    | 10,683.0                    | 10,555.0                    | 10,515.3                    | 37.6                | 37.8             | -72.28              | -241.0           | 607.0                       | 400.1                  | 329.6           | 400.1                                    | 329.6                         | 70.53                           | 5.673                |         |
| 10,800.0                    | 10,782.7                    | 10,555.0                    | 10,515.3                    | 37.9                | 37.8             | 86.55               | -241.0           | 607.0                       | 451.1                  | 385.0           | 451.1                                    | 385.0                         | 66.13                           | 6.822                |         |
| 10,900.0                    | 10,877.7                    | 10,555.0                    | 10,515.3                    | 38.2                | 37.8             | 66.30               | -241.0           | 607.0                       | 513.5                  | 451.4           | 513.5                                    | 451.4                         | 62.06                           | 8.273                |         |
| 11,000.0                    | 10,965.4                    | 10,555.0                    | 10,515.3                    | 38.4                | 37.8             | 57.62               | -241.0           | 607.0                       | 578.9                  | 519.9           | 578.9                                    | 519.9                         | 58.94                           | 9.821                |         |
| 11,100.0                    | 11,046.9                    | 10,555.0                    | 10,515.3                    | 38.6                | 37.8             | 50.82               | -241.0           | 607.0                       | 646.7                  | 589.9           | 646.7                                    | 589.9                         | 56.80                           | 11.384               |         |
| 11,200.0                    | 11,120.5                    | 10,555.0                    | 10,515.3                    | 38.8                | 37.8             | 46.33               | -241.0           | 607.0                       | 716.3                  | 660.6           | 716.3                                    | 660.6                         | 55.71                           | 12.856               |         |
| 11,300.0                    | 11,188.2                    | 10,555.0                    | 10,515.3                    | 39.0                | 37.8             | 42.12               | -241.0           | 607.0                       | 789.7                  | 734.2           | 789.7                                    | 734.2                         | 55.50                           | 14.228               |         |
| 11,400.0                    | 11,244.5                    | 10,555.0                    | 10,515.3                    | 39.3                | 37.8             | 35.93               | -241.0           | 607.0                       | 863.8                  | 807.6           | 863.8                                    | 807.6                         | 56.16                           | 15.379               |         |
| 11,500.0                    | 11,289.3                    | 10,555.0                    | 10,515.3                    | 39.6                | 37.8             | 29.27               | -241.0           | 607.0                       | 937.7                  | 880.3           | 937.7                                    | 880.3                         | 57.41                           | 16.332               |         |
| 11,600.0                    | 11,316.9                    | 10,555.0                    | 10,515.3                    | 39.9                | 37.8             | 23.88               | -241.0           | 607.0                       | 1,007.0                | 947.8           | 1,007.0                                  | 947.8                         | 59.17                           | 17.019               |         |
| 11,700.0                    | 11,330.0                    | 10,555.0                    | 10,515.3                    | 40.2                | 37.8             | 20.64               | -241.0           | 607.0                       | 1,072.6                | 1,011.5         | 1,072.6                                  | 1,011.5                       | 61.16                           | 17.539               |         |
| 11,800.0                    | 11,336.3                    | 10,555.0                    | 10,515.3                    | 40.5                | 37.8             | 19.78               | -241.0           | 607.0                       | 1,139.3                | 1,076.2         | 1,139.3                                  | 1,076.2                       | 63.11                           | 18.052               |         |
| 11,900.0                    | 11,339.3                    | 10,555.0                    | 10,515.3                    | 41.0                | 37.8             | 17.68               | -241.0           | 607.0                       | 1,209.0                | 1,144.1         | 1,209.0                                  | 1,144.1                       | 64.92                           | 18.623               |         |
| 12,000.0                    | 11,338.7                    | 10,555.0                    | 10,515.3                    | 41.4                | 37.8             | 24.88               | -241.0           | 607.0                       | 1,278.3                | 1,211.8         | 1,278.3                                  | 1,211.8                       | 66.51                           | 19.219               |         |
| 12,100.0                    | 11,334.2                    | 10,555.0                    | 10,515.3                    | 42.0                | 37.8             | 24.63               | -241.0           | 607.0                       | 1,347.2                | 1,279.3         | 1,347.2                                  | 1,279.3                       | 67.94                           | 19.831               |         |
| 12,200.0                    | 11,326.2                    | 10,555.0                    | 10,515.3                    | 42.6                | 37.8             | 25.68               | -241.0           | 607.0                       | 1,417.2                | 1,348.0         | 1,417.2                                  | 1,348.0                       | 69.22                           | 20.473               |         |
| 12,300.0                    | 11,318.2                    | 10,555.0                    | 10,515.3                    | 43.3                | 37.8             | 28.95               | -241.0           | 607.0                       | 1,489.3                | 1,419.0         | 1,489.3                                  | 1,419.0                       | 70.33                           | 21.176               |         |
| 12,400.0                    | 11,315.0                    | 10,555.0                    | 10,515.3                    | 43.9                | 37.8             | 29.28               | -241.0           | 607.0                       | 1,566.8                | 1,495.5         | 1,566.8                                  | 1,495.5                       | 71.25                           | 21.991               |         |
| 12,500.0                    | 11,312.0                    | 10,555.0                    | 10,515.3                    | 44.7                | 37.8             | 28.22               | -241.0           | 607.0                       | 1,647.1                | 1,575.1         | 1,647.1                                  | 1,575.1                       | 72.05                           | 22.861               |         |
| 12,600.0                    | 11,308.7                    | 10,555.0                    | 10,515.3                    | 45.5                | 37.8             | 27.30               | -241.0           | 607.0                       | 1,729.7                | 1,656.9         | 1,729.7                                  | 1,656.9                       | 72.76                           | 23.774               |         |
| 12,700.0                    | 11,305.7                    | 10,555.0                    | 10,515.3                    | 46.3                | 37.8             | 26.72               | -241.0           | 607.0                       | 1,814.4                | 1,741.1         | 1,814.4                                  | 1,741.1                       | 73.37                           | 24.729               |         |
| 12,800.0                    | 11,301.1                    | 10,555.0                    | 10,515.3                    | 47.2                | 37.8             | 27.15               | -241.0           | 607.0                       | 1,899.8                | 1,825.9         | 1,899.8                                  | 1,825.9                       | 73.92                           | 25.700               |         |
| 12,900.0                    | 11,297.0                    | 10,555.0                    | 10,515.3                    | 48.1                | 37.8             | 28.64               | -241.0           | 607.0                       | 1,986.5                | 1,912.1         | 1,986.5                                  | 1,912.1                       | 74.40                           | 26.699               |         |
| 13,000.0                    | 11,291.5                    | 10,555.0                    | 10,515.3                    | 49.1                | 37.8             | 29.50               | -241.0           | 607.0                       | 2,073.5                | 1,998.7         | 2,073.5                                  | 1,998.7                       | 74.84                           | 27.708               |         |
| 13,100.0                    | 11,287.6                    | 10,555.0                    | 10,515.3                    | 50.1                | 37.8             | 33.56               | -241.0           | 607.0                       | 2,161.8                | 2,086.6         | 2,161.8                                  | 2,086.6                       | 75.21                           | 28.744               |         |
| 13,200.0                    | 11,289.8                    | 10,555.0                    | 10,515.3                    | 51.1                | 37.8             | 32.70               | -241.0           | 607.0                       | 2,253.4                | 2,177.9         | 2,253.4                                  | 2,177.9                       | 75.51                           | 29.843               |         |

|                           |                                |                                     |                                   |
|---------------------------|--------------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>           | Advance Energy Partners        | <b>Local Co-ordinate Reference:</b> | Well Wool Head 20 State Com #554H |
| <b>Project:</b>           | Lea County, NM (NAD 83 NME)    | <b>TVD Reference:</b>               | KB @ 3752.0usft                   |
| <b>Reference Site:</b>    | (Wool Head)Sec20_T-21-S_R-33-E | <b>MD Reference:</b>                | KB @ 3752.0usft                   |
| <b>Site Error:</b>        | 0.0 usft                       | <b>North Reference:</b>             | Grid                              |
| <b>Reference Well:</b>    | Wool Head 20 State Com #554H   | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Well Error:</b>        | 0.0 usft                       | <b>Output errors are at</b>         | 2.00 sigma                        |
| <b>Reference Wellbore</b> | OWB                            | <b>Database:</b>                    | EDM 10_13                         |
| <b>Reference Design:</b>  | AWB                            | <b>Offset TVD Reference:</b>        | Offset Datum                      |

Reference Depths are relative to KB @ 3752.0usft

Offset Depths are relative to Offset Datum

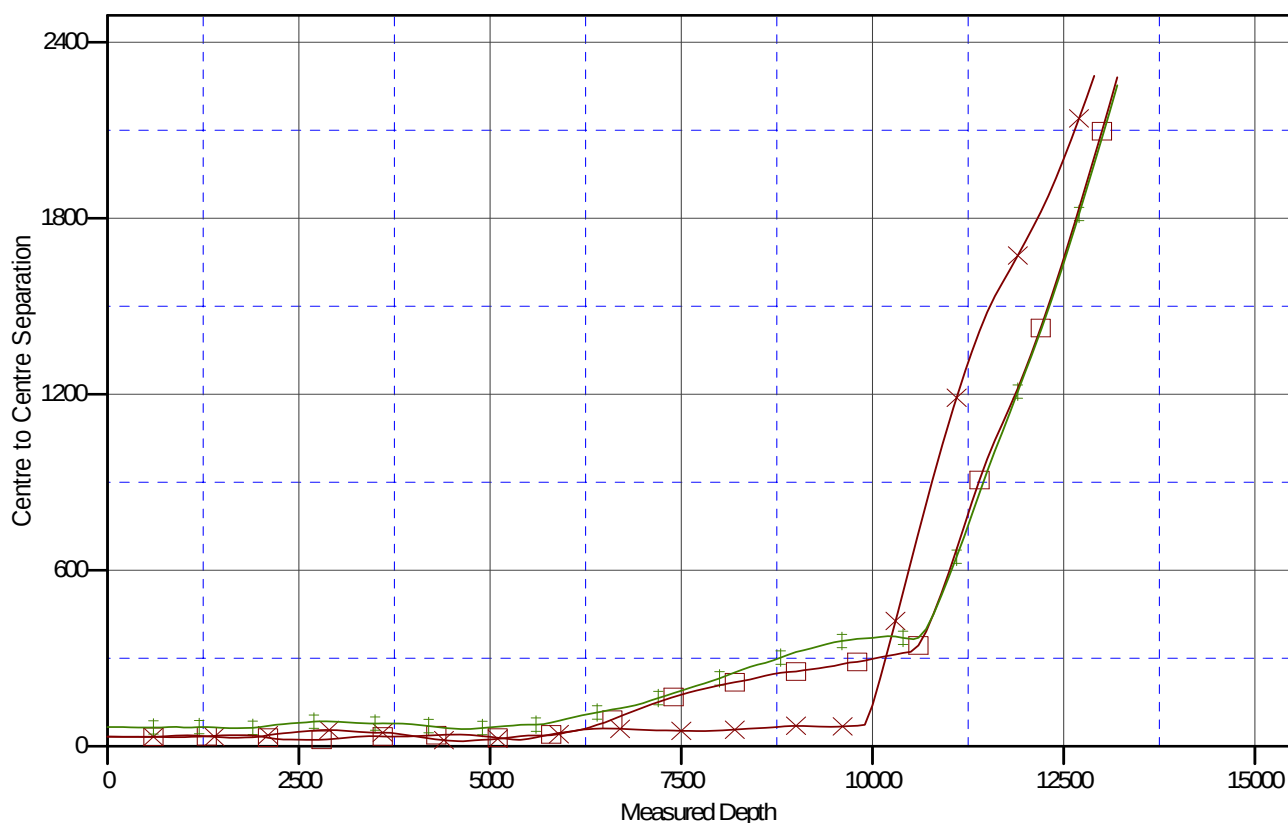
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Wool Head 20 State Com #554H

Coordinate System is US State Plane 1983, New Mexico Eastern Zone

Grid Convergence at Surface is: 0.40°

## Ladder Plot



### LEGEND

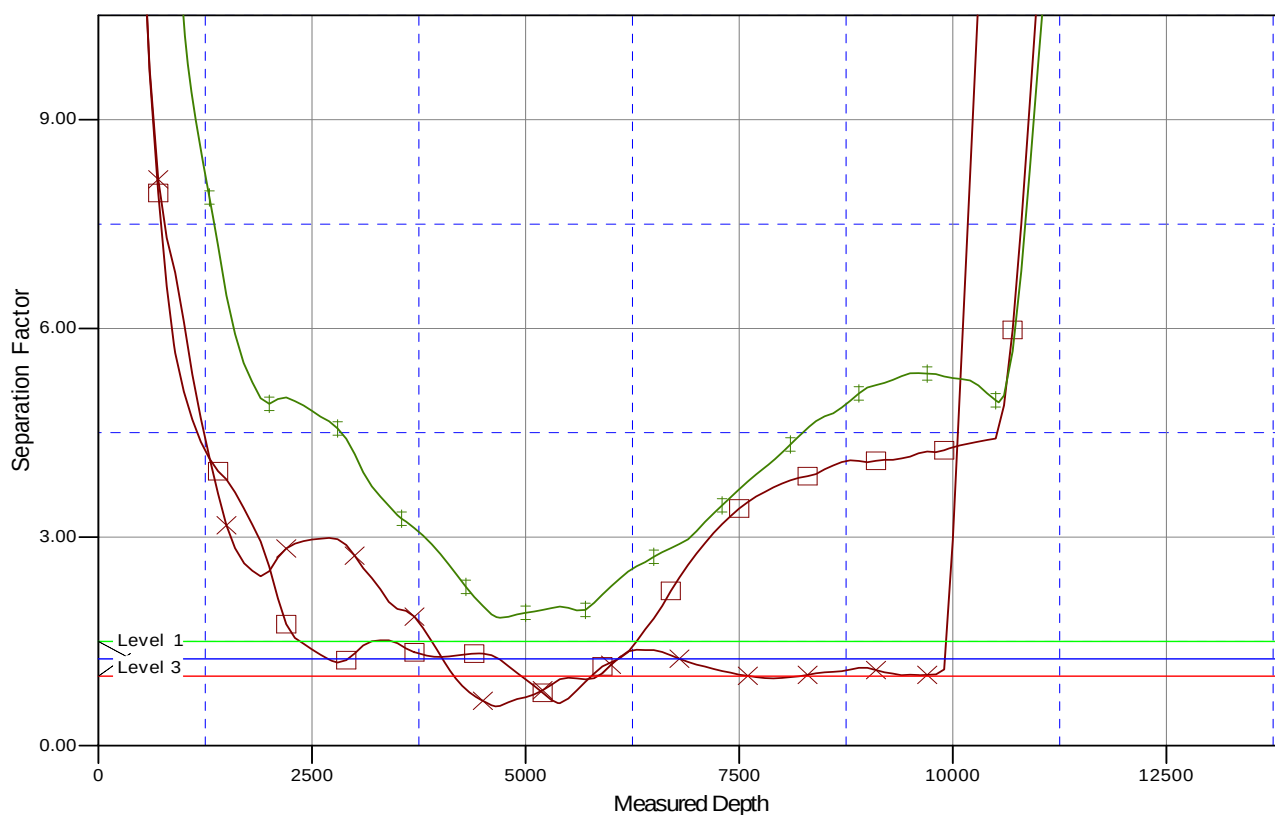
■ Wool Head 20 State Com #511H, OW B, AWB V0
 x Wool Head 20 State Com #510H, OW B, AWB V0
 + Wool Head 20 State Com #512H, OW B, AWB V0

|                           |                                |                                     |                                   |
|---------------------------|--------------------------------|-------------------------------------|-----------------------------------|
| <b>Company:</b>           | Advance Energy Partners        | <b>Local Co-ordinate Reference:</b> | Well Wool Head 20 State Com #554H |
| <b>Project:</b>           | Lea County, NM (NAD 83 NME)    | <b>TVD Reference:</b>               | KB @ 3752.0usft                   |
| <b>Reference Site:</b>    | (Wool Head)Sec20_T-21-S_R-33-E | <b>MD Reference:</b>                | KB @ 3752.0usft                   |
| <b>Site Error:</b>        | 0.0 usft                       | <b>North Reference:</b>             | Grid                              |
| <b>Reference Well:</b>    | Wool Head 20 State Com #554H   | <b>Survey Calculation Method:</b>   | Minimum Curvature                 |
| <b>Well Error:</b>        | 0.0 usft                       | <b>Output errors are at</b>         | 2.00 sigma                        |
| <b>Reference Wellbore</b> | OWB                            | <b>Database:</b>                    | EDM 10_13                         |
| <b>Reference Design:</b>  | AWB                            | <b>Offset TVD Reference:</b>        | Offset Datum                      |

Reference Depths are relative to KB @ 3752.0usft  
Offset Depths are relative to Offset Datum  
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Wool Head 20 State Com #554H  
Coordinate System is US State Plane 1983, New Mexico Eastern Zone  
Grid Convergence at Surface is: 0.40°

## Separation Factor Plot



### LEGEND

■ Wool Head 20 State Com #511H, OW B, AWB V0
 ✕ Wool Head 20 State Com #510H, OW B, AWB V0
 + Wool Head 20 State Com #512H, OW B, AWB V0



# Daily Reports





|                   |                              |                            |                |        |
|-------------------|------------------------------|----------------------------|----------------|--------|
| <b>SDI Job #:</b> | ID2386                       | <b>Report Time:</b>        | 2400           | 1 of 1 |
| <b>COMPANY:</b>   | Advance Energy Partners ,LLC | <b>API JOB #</b>           | 30-025-46483   |        |
| <b>LOCATION:</b>  | Lea County, New Mexico       | <b>WORK ORDER#</b>         | ID2386         |        |
| <b>RIG NAME:</b>  | H&P466 Flex 3                | <b>FIELD:</b>              | Delaware Basin |        |
| <b>STATE:</b>     | New Mexico                   | <b>Sec-Twn-Rng:</b>        | 20-21S-33E     |        |
| <b>COUNTY:</b>    | Lea Co.                      | <b>AFE# &amp; District</b> | NM0092         |        |
| <b>WELL NAME:</b> | Wool Head 20 State Com 554H  |                            |                |        |

From November 11, 2019 at 0000 to November 11, 2019 at 2400

| DRILLING SUMMARY       |                       |                   |        |            | Drilling Parameters |           |            |                                                                                                                                                     |             |             |    |
|------------------------|-----------------------|-------------------|--------|------------|---------------------|-----------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|----|
| Start Depth            | 145.00                | Rotary Hours      | 7.17   | WOB        | 40                  | Pick UP   | 82         | Slack Off                                                                                                                                           | 80          | SPM         |    |
| End Depth              | 1481.00               | Circulating Hours | 0.00   | RAB        | 80                  | SPP       | 2750       | FlowRate                                                                                                                                            | 0 - 900     | 279         |    |
| Total Drilled:         | 1336.00               | Avg. Total ROP:   | 152.69 | Mud Data   |                     |           |            |                                                                                                                                                     |             |             |    |
| Total Rotary Drilled:  | 1236.00               | Avg. Rotary ROP:  | 172.47 | Type       | WBM                 |           |            | PV                                                                                                                                                  | 0           | SOLID       | 0  |
| Total Drilled Sliding: | 100.00                | Avg. Slide ROP:   | 63.16  | Weight     | 8.4                 | GAS       | 0          | YP                                                                                                                                                  | 0           | BHT°        | 92 |
| Slide Hours:           | 1.58                  | Percent Rotary:   | 92.51  | Viscosity  | 28                  | SAND      | 0          | PH                                                                                                                                                  | 9.5         | Flow T°     | 0  |
| Below Rotary Hrs.      | 24.00                 | Percent Slide:    | 7.49   | Chlorides  | 0                   | WL        | 0          |                                                                                                                                                     |             | Oil %       | 0  |
| PERSONNEL              |                       |                   |        | Casing     |                     |           |            | BHA                                                                                                                                                 |             |             |    |
| Lead Directional :     | Bill Corley           |                   |        | Size       | Lb/ft               | Set Depth |            | BHA # 1:17.5" Baker DP606S, 9 5/8" 7/8, 5.9 ABH@ 1.50°, 17" Nortrak Stab, 8" UBHO, 8" NMDC, 8" NMDC, X/O ED 54 B - 6 5/8 Reg P, 30 Jts 5 1/2" HWDP, |             |             |    |
| Second Directional :   | Jason Greer           |                   |        | Signature: |                     |           |            |                                                                                                                                                     |             |             |    |
| MWD Operator1          | Ben Wallace           |                   |        |            |                     |           |            |                                                                                                                                                     |             |             |    |
| MWD Operator2          | Micheal Walton        |                   |        |            |                     |           |            |                                                                                                                                                     |             |             |    |
| Directional Company:   | Intrepid              |                   |        |            |                     |           |            |                                                                                                                                                     |             |             |    |
| Geologist:             |                       |                   |        |            |                     |           |            |                                                                                                                                                     |             |             |    |
| Company Man:           | TJ Nash/Frank Calhoun |                   |        |            |                     |           | Daily Cost |                                                                                                                                                     | \$17,620.00 |             |    |
| Incl. In:              | 0                     | Azm. In:          | 0      | Incl. Out: | 1.23                | Azm. Out: | 241.87     | Cummulative Cost:                                                                                                                                   |             | \$17,620.00 |    |

#### GENERAL COMMENT

| Date      | Start Time | End Time | Hours | Start Depth | End Depth | Activity Code | COMMENT                               |
|-----------|------------|----------|-------|-------------|-----------|---------------|---------------------------------------|
| 11-Nov-19 | 00:00      | 14:10    | 14.17 | 145         | 145       | Other         | Casing Ops for the 511H, walk to 554H |
| 11-Nov-19 | 14:10      | 15:00    | 0.83  | 145         | 145       | Change BHA    | Change BHA                            |
| 11-Nov-19 | 15:00      | 15:15    | 0.25  | 145         | 145       | Other         | Tag bottom, WOR                       |
| 11-Nov-19 | 15:15      | 18:40    | 0.00  | 145         | 883       | Drilling      | Drilling - (WOB:30;GPM :900;RPM:70)   |
| 11-Nov-19 | 18:40      | 19:10    | 0.00  | 883         | 918       | Sliding       | Sliding - (WOB:28;GPM :900;TFO:60M))  |
| 11-Nov-19 | 19:10      | 20:40    | 0.00  | 918         | 1163      | Drilling      | Drilling - (WOB:35;GPM :900;RPM:70)   |
| 11-Nov-19 | 20:40      | 21:00    | 0.00  | 1163        | 1193      | Sliding       | Sliding - (WOB:30;GPM :900;TFO:65M))  |
| 11-Nov-19 | 21:00      | 22:15    | 0.00  | 1193        | 1331      | Drilling      | Drilling - (WOB:40;GPM :900;RPM:70)   |
| 11-Nov-19 | 22:15      | 23:00    | 0.00  | 1331        | 1366      | Sliding       | Sliding - (WOB:30;GPM :900;TFO:50M))  |
| 11-Nov-19 | 23:00      | 24:00    | 0.00  | 1366        | 1481      | Drilling      | Drilling - (WOB:40;GPM :900;RPM:70)   |



**SDI Job #:** ID2386  
**COMPANY:** Advance Energy Partners ,LLC  
**LOCATION:** Lea County, New Mexico  
**RIG NAME:** H&P466 Flex 3  
**STATE:** New Mexico  
**COUNTY:** Lea Co.  
**WELL NAME:** Wool Head 20 State Com 554H  
**Lead Directional :** Bill Corley

**Report Time:** 2400 **2 of 2**  
**API JOB #** 30-025-46483  
**WORK ORDER#** ID2386  
**FIELD:** Delaware Basin  
**Sec-Twn-Rng:** 20-21S-33E  
**Range/Section** NM0092  
**Company Man** TJ Nash  
**2nd Dir Hand :** Jason Greer

**From November 12, 2019 at 0000 to November 12, 2019 at 2400**

| DAILY TOTALS    |         | Assembly Totals     |                    |              |           |                      |            |                                                                                                                                                          |           |          |         |
|-----------------|---------|---------------------|--------------------|--------------|-----------|----------------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|---------|
| Start Depth     | 1481.00 | BHA #               | Motor SN / R.S. SN | Slide Ftg    | Slide Hrs | Rotate Ftg           | Rotate Hrs | Circ Hrs                                                                                                                                                 | D & C Hrs | BHA Ftg  | Avg ROP |
| End Depth       | 1838.00 | 1                   | XSH96028           | 130.00       | 2.92      | 1,563.00             | 12.42      | .67                                                                                                                                                      | 16.00     | 1,693.00 | 105.81  |
| Below Rot Hrs.  | 18.00   |                     |                    |              |           |                      |            |                                                                                                                                                          |           |          |         |
| Total Drilled:  | 357.00  | Drilling Parameters |                    | Mud Record   |           | Bit Record           |            | Current BHA # 1                                                                                                                                          |           |          |         |
| Avg. Total ROP: | 54.23   | WOB: 50             |                    | WBM          |           | Bit No: 1            |            | 17.5" Baker DP606S<br>9 5/8" 7/8, 5.9 ABH@ 1.50°<br>17" Nortrak Stab<br>8" UBHO<br>8" NMDC<br>8" NMDC<br>X/O ED 54 B - 6 5/8 Reg P<br>30 Jts 5 1/2" HWDP |           |          |         |
| Slide Footage:  | 30.00   | Rot Wt: 100         |                    | Weight: 8.4  |           | Model 17.5" Baker    |            |                                                                                                                                                          |           |          |         |
| Slide Hours     | 1.33    | Pick UP: 105        |                    | Visc: 28     |           | SN.: 7046740         |            |                                                                                                                                                          |           |          |         |
| Avg. Slide ROP: | 22.50   | Slack Off: 100      |                    | Chlorides: 0 |           | MFG. Other           |            |                                                                                                                                                          |           |          |         |
| Rotate Footage: | 327.00  | SPP: 2250           |                    | YP: 0        |           | Type PDC             |            |                                                                                                                                                          |           |          |         |
| Rotary Hours    | 5.25    | Flow: 725 - 725     |                    | PV: 0        |           | IADC                 |            |                                                                                                                                                          |           |          |         |
| Avg. Rot ROP:   | 62.29   | SPM: 225            |                    | PH: 9.5      |           | JETS 9-12            |            |                                                                                                                                                          |           |          |         |
| Circ Hours      | 0.67    | Rot. RPM 70 - 70    |                    | GAS: 0       |           | TFA: 0.994           |            |                                                                                                                                                          |           |          |         |
| Ream Hours      | 0.00    | Mot RPM: 0 - 0      |                    | SAND: 0      |           | Hole ID: 17.5        |            |                                                                                                                                                          |           |          |         |
| Rotary Hrs%:    | 79.75   | Incl. In: 1.23      |                    | WL: 0        |           | Bit Hrs: 15.33       |            |                                                                                                                                                          |           |          |         |
| Slide Hrs%:     | 20.25   | Azm. In: 241.87     |                    | SOLID: 0     |           | Bit Ftg: 1693.00     |            |                                                                                                                                                          |           |          |         |
| Rotary Ftg%:    | 91.60   | Incl. Out: 1.23     |                    | BHT°: 92     |           | Pumps                |            |                                                                                                                                                          |           |          |         |
| Slide Ftg%:     | 8.40    | Azm. Out: 244.15    |                    | Flow T°: 0   |           | Liner 0 0            |            |                                                                                                                                                          |           |          |         |
| Cost Detail     |         | Cost Breakdown      |                    |              |           | Stroke 0 0           |            |                                                                                                                                                          |           |          |         |
| Descr.          | Price   |                     |                    |              |           | Effic. 95.00% 95.00% |            |                                                                                                                                                          |           |          |         |
|                 |         | Total Daily         |                    |              |           | Gal/Stk 0.00 0.00    |            |                                                                                                                                                          |           |          |         |
|                 |         | Total Job           |                    |              |           | BBL/Stk 0.000 0.000  |            |                                                                                                                                                          |           |          |         |
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|                   |                              |                            |                |        |
|-------------------|------------------------------|----------------------------|----------------|--------|
| <b>SDI Job #:</b> | ID2386-1                     | <b>Report Time:</b>        | 2400           | 3 of 3 |
| <b>COMPANY:</b>   | Advance Energy Partners ,LLC | <b>API JOB #</b>           | 30-025-46483   |        |
| <b>LOCATION:</b>  | Lea County, New Mexico       | <b>WORK ORDER#</b>         | ID2386         |        |
| <b>RIG NAME:</b>  | H&P466 Flex 3                | <b>FIELD:</b>              | Delaware Basin |        |
| <b>STATE:</b>     | New Mexico                   | <b>Sec-Twn-Rng:</b>        | 20-21S-33E     |        |
| <b>COUNTY:</b>    | Lea Co.                      | <b>AFE# &amp; District</b> | NM0092         |        |
| <b>WELL NAME:</b> | Wool Head 20 State Com 554H  |                            |                |        |

From November 17, 2019 at 0000 to November 17, 2019 at 2400

| DRILLING SUMMARY       |  |                |                   |  |        | Drilling Parameters    |     |       |           |           |       |                                                                                                                                                                                                           |         |             |     |  |  |
|------------------------|--|----------------|-------------------|--|--------|------------------------|-----|-------|-----------|-----------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|-----|--|--|
| Start Depth            |  | 1838.00        | Rotary Hours      |  | 6.00   | WOB                    |     | 45    | Pick UP   |           | 105   | Slack Off                                                                                                                                                                                                 |         | 100         | SPM |  |  |
| End Depth              |  | 3123.00        | Circulating Hours |  | 3.50   | RAB                    |     | 100   | SPP       |           | 4000  | FlowRate                                                                                                                                                                                                  |         | 725 - 900   | 279 |  |  |
| Total Drilled:         |  | 1285.00        | Avg. Total ROP:   |  | 202.89 | Mud Data               |     |       |           |           |       |                                                                                                                                                                                                           |         |             |     |  |  |
| Total Rotary Drilled:  |  | 1247.00        | Avg. Rotary ROP:  |  | 207.83 | Type                   | WBM |       |           |           | PV    | 0                                                                                                                                                                                                         | SOLID   |             | 0   |  |  |
| Total Drilled Sliding: |  | 38.00          | Avg. Slide ROP:   |  | 114.00 | Weight                 |     | 8.4   | GAS       | 0         | YP    | 0                                                                                                                                                                                                         | BHT°    |             | 92  |  |  |
| Slide Hours:           |  | 0.33           | Percent Rotary:   |  | 97.04  | Viscosity              |     | 28    | SAND      | 0         | PH    | 9.5                                                                                                                                                                                                       | Flow T° |             | 0   |  |  |
| Below Rotary Hrs.      |  | 24.00          | Percent Slide:    |  | 2.96   | Chlorides              |     | 0     | WL        | 0         |       |                                                                                                                                                                                                           | Oil %   |             | 0   |  |  |
| PERSONNEL              |  |                |                   |  |        | Casing                 |     |       |           |           |       | BHA                                                                                                                                                                                                       |         |             |     |  |  |
| Lead Directional :     |  | Bill Corley    |                   |  |        | Size                   |     | Lb/ft |           | Set Depth |       | BHA # 2:12 1/4" Baker D506WS, 8" 7/8, 5.9 FBH@1.5" w/12" NBS (XSH80014), 12" Nortrak Stab, 8" UBHO, 8" NMDC, 8" NMDC, X/O (6 5/8 P x XH B) , 18 - 6.5" D.C., X/O (ED54B x 4 1/2XH P), 30 Jts 5 1/2" HWDP, |         |             |     |  |  |
| Second Directional :   |  | Jason Greer    |                   |  |        | Signature: <div></div> |     |       |           |           |       |                                                                                                                                                                                                           |         |             |     |  |  |
| MWD Operator1          |  | Ben Wallace    |                   |  |        |                        |     |       |           |           |       |                                                                                                                                                                                                           |         |             |     |  |  |
| MWD Operator2          |  | Micheal Walton |                   |  |        |                        |     |       |           |           |       |                                                                                                                                                                                                           |         |             |     |  |  |
| Directional Company:   |  | Intrepid DDS   |                   |  |        |                        |     |       |           |           |       |                                                                                                                                                                                                           |         |             |     |  |  |
| Geologist:             |  |                |                   |  |        |                        |     |       |           |           |       |                                                                                                                                                                                                           |         |             |     |  |  |
| Company Man:           |  | TJ Nash        |                   |  |        |                        |     |       |           |           |       | Daily Cost                                                                                                                                                                                                |         | \$10,156.00 |     |  |  |
| Incl. In:              |  | 1.23           | Azm. In:          |  | 244.15 | Incl. Out:             |     | 2.37  | Azm. Out: |           | 88.41 | Cummulative Cost:                                                                                                                                                                                         |         | \$10,156.00 |     |  |  |

#### GENERAL COMMENT

| Date      | Start Time | End Time | Hours | Start Depth | End Depth | Activity Code | COMMENT                                     |
|-----------|------------|----------|-------|-------------|-----------|---------------|---------------------------------------------|
| 17-Nov-19 | 00:00      | 11:10    | 11.17 | 1838        | 1838      | Other         | Casing Ops @ 511H walk to 554H N/U and test |
| 17-Nov-19 | 11:10      | 11:50    | 0.67  | 1838        | 1838      | Change BHA    | Change BHA                                  |
| 17-Nov-19 | 11:50      | 14:10    | 2.33  | 1838        | 1838      | TIH           | TIH                                         |
| 17-Nov-19 | 14:10      | 17:40    | 3.50  | 1838        | 1838      | Circulating   | Circulating                                 |
| 17-Nov-19 | 17:40      | 19:00    | 1.33  | 1838        | 2060      | Drilling      | Drilling - (WOB:40;GPM :900;RPM:80)         |
| 17-Nov-19 | 19:00      | 19:10    | 0.17  | 2060        | 2080      | Sliding       | Sliding - (WOB:35;GPM :725;TFO:90M))        |
| 17-Nov-19 | 19:10      | 22:55    | 3.75  | 2080        | 2854      | Drilling      | Drilling - (WOB:42;GPM :900;RPM:80)         |
| 17-Nov-19 | 22:55      | 23:05    | 0.17  | 2854        | 2872      | Sliding       | Sliding - (WOB:35;GPM :725;TFO:130M))       |
| 17-Nov-19 | 23:05      | 24:00    | 0.92  | 2872        | 3123      | Drilling      | Drilling - (WOB:45;GPM :900;RPM:80)         |



SDI Job #: ID2386-1  
 COMPANY: Advance Energy Partners ,LLC  
 LOCATION: Lea County, New Mexico  
 RIG NAME: H&P466 Flex 3  
 STATE: New Mexico  
 COUNTY: Lea Co.  
 WELL NAME: Wool Head 20 State Com 554H  
 Lead Directional : Bill Corley

Report Time: 2400 4 of 5  
 API JOB # 30-025-46483  
 WORK ORDER# ID2386  
 FIELD: Delaware Basin  
 Sec-Twn-Rng: 20-21S-33E  
 Range/Section NM0092  
 Company Man TJ Nash  
 2nd Dir Hand : Jason Greer

**From November 18, 2019 at 0000 to November 18, 2019 at 2400**

| DAILY TOTALS    |          | Assembly Totals        |                    |            |           |            |               |                                                                                                                                                                                                     |           |          |         |
|-----------------|----------|------------------------|--------------------|------------|-----------|------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|---------|
| Start Depth     | 3123.00  | BHA #                  | Motor SN / R.S. SN | Slide Ftg  | Slide Hrs | Rotate Ftg | Rotate Hrs    | Circ Hrs                                                                                                                                                                                            | D & C Hrs | BHA Ftg  | Avg ROP |
| End Depth       | 5257.00  | 2                      | XSH80014           | 118.00     | 1.25      | 2,782.00   | 13.67         | 4.00                                                                                                                                                                                                | 18.92     | 2,900.00 | 153.30  |
| Below Rot Hrs.  | 23.98    | 3                      | XSH80014           | 0.00       | 0.00      | 519.00     | 3.00          | 1.25                                                                                                                                                                                                | 4.25      | 519.00   | 0.00    |
| Total Drilled:  | 2134.00  | Drilling Parameters    |                    | Mud Record |           | Bit Record |               | Current BHA # 3                                                                                                                                                                                     |           |          |         |
| Avg. Total ROP: | 184.23   |                        |                    | WBM        |           | Bit No: 3  |               | 12 1/4" Baker D506TWX<br>8" 7/8, 5.9 FBH@1.5° w/12"<br>12" Nortrak Stab<br>8" UBHO<br>8" NMDC<br>8" NMDC<br>X/O (6 5/8 P x XH B)<br>18 - 6.5" D.C.<br>X/O (ED54B x 4 1/2XH P)<br>30 Jts 5 1/2" HWDP |           |          |         |
| Slide Footage:  | 80.00    | WOB:                   | 70                 | Weight:    | 8.4       | Model      | 12 1/4" Baker |                                                                                                                                                                                                     |           |          |         |
| Slide Hours     | 0.92     | Rot Wt:                | 180                | Visc:      | 28        | SN.:       | 5299142       |                                                                                                                                                                                                     |           |          |         |
| Avg. Slide ROP: | 87.27    | Pick UP:               | 185                | Chlorides: | 0         | MFG.       | BAKER         |                                                                                                                                                                                                     |           |          |         |
| Rotate Footage: | 2054.00  | Slack Off:             | 170                | YP:        | 0         | Type       | PDC           |                                                                                                                                                                                                     |           |          |         |
| Rotary Hours    | 10.67    | SPP:                   | 3700               | PV:        | 0         | IADC       |               |                                                                                                                                                                                                     |           |          |         |
| Avg. Rot ROP:   | 192.56   | Flow:                  | 900 - 900          | PH:        | 9.5       | JETS       | 6-12          |                                                                                                                                                                                                     |           |          |         |
| Circ Hours      | 1.75     | SPM:                   | 279                | GAS:       | 0         | TFA:       | 0.662         |                                                                                                                                                                                                     |           |          |         |
| Ream Hours      | 0.00     | Rot. RPM               | 80 - 80            | SAND:      | 0         | Hole ID:   | 12 1/4        |                                                                                                                                                                                                     |           |          |         |
| Rotary Hrs%:    | 92.09    | Mot RPM:               | 0 - 80             | WL:        | 0         | Bit Hrs:   |               |                                                                                                                                                                                                     |           |          |         |
| Slide Hrs%:     | 7.91     | Incl. In:              | 2.37               | SOLID:     | 0         | Bit Ftg:   |               |                                                                                                                                                                                                     |           |          |         |
| Rotary Ftg%:    | 96.25    | Azm. In:               | 88.41              | BHT°:      | 92        | Pumps      |               |                                                                                                                                                                                                     |           |          |         |
| Slide Ftg%:     | 3.75     | Incl. Out:             | 1.45               | Flow T°:   | 0         | Liner      | 0             | 0                                                                                                                                                                                                   |           |          |         |
| Cost Detail     |          | Azm. Out:              | 88.94              | Oil %:     | 0         | Stroke     | 0             | 0                                                                                                                                                                                                   |           |          |         |
| Descr.          | Price    | Cost Breakdown         |                    |            |           | Effic.     | 95.00%        | 95.00%                                                                                                                                                                                              |           |          |         |
| DAY RATE        | 8,150.00 | Total Daily \$8,150.00 |                    |            |           | Gal/Stk    | 0.00          | 0.00                                                                                                                                                                                                |           |          |         |
|                 |          | Total Job \$18,306.00  |                    |            |           | BBL/Stk    | 0.000         | 0.000                                                                                                                                                                                               |           |          |         |

**GENERAL COMMENT**

| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP    | Activity Code | COMMENT                             |
|------------|----------|-------|-------------|-----------|-------------|--------|---------------|-------------------------------------|
| 00:00      | 00:15    | 0.25  | 3123        | 3133      | 10          | 40.00  | Drilling      | Drilling - (WOB:42;GPM :900;RPM:80) |
| 00:15      | 00:25    | 0.17  | 3133        | 3153      | 20          | 120.00 | Sliding       | Sliding - (WOB:35; :725;TFO:270M))  |
| 00:25      | 01:35    | 1.17  | 3153        | 3402      | 249         | 213.43 | Drilling      | Drilling - (WOB:45;GPM :900;RPM:80) |
| 01:35      | 01:50    | 0.25  | 3402        | 3427      | 25          | 100.00 | Sliding       | Sliding - (WOB:35; :725;TFO:270M))  |
| 01:50      | 07:20    | 5.50  | 3427        | 4658      | 1231        | 223.82 | Drilling      | Drilling - (WOB:65; :900;RPM:80)    |
| 07:20      | 07:50    | 0.50  | 4658        | 4693      | 35          | 70.00  | Sliding       | Sliding - (WOB:40; :725;TFO:250M))  |
| 07:50      | 08:35    | 0.75  | 4693        | 4738      | 45          | 60.00  | Drilling      | Drilling - (WOB:70;GPM :900;RPM:80) |
| 08:35      | 09:05    | 0.50  | 4738        | 4738      | 0           | .00    | Circulating   | Circulating To TOH due to low ROP   |
| 09:05      | 14:30    | 5.42  | 4738        | 4738      | 0           | .00    | POOH          | POOH                                |
| 14:30      | 15:00    | 0.50  | 4738        | 4738      | 0           | .00    | Change BHA    | Change BHA                          |
| 15:00      | 19:00    | 4.00  | 4738        | 4738      | 0           | .00    | TIH           | TIH                                 |
| 19:00      | 22:00    | 3.00  | 4738        | 5257      | 519         | 173.00 | Drilling      | Drilling - (WOB:70;GPM :900;RPM:80) |
| 22:00      | 23:15    | 1.25  | 5257        | 5257      | 0           | .00    | Circulating   | Circulating                         |
| 23:15      | 23:59    | 0.73  | 5257        | 5257      | 0           | .00    | POOH          | POOH T/4,100'                       |



**SDI Job #:** ID2386-1  
**COMPANY:** Advance Energy Partners ,LLC  
**LOCATION:** Lea County, New Mexico  
**RIG NAME:** H&P466 Flex 3  
**STATE:** New Mexico  
**COUNTY:** Lea Co.  
**WELL NAME:** Wool Head 20 State Com 554H  
**Lead Directional :** Bill Corley

**Report Time:** 2400 **5 of 5**  
**API JOB #** 30-025-46483  
**WORK ORDER#** ID2386  
**FIELD:** Delaware Basin  
**Sec-Twn-Rng:** 20-21S-33E  
**Range/Section** NM0092  
**Company Man** TJ Nash  
**2nd Dir Hand :** James Meredith

**From November 19, 2019 at 0000 to November 19, 2019 at 2400**

| DAILY TOTALS    |         | Assembly Totals     |                    |            |           |            |               |                                                                                                                                                                                                     |           |         |         |
|-----------------|---------|---------------------|--------------------|------------|-----------|------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------|---------|
| Start Depth     | 5257.00 | BHA #               | Motor SN / R.S. SN | Slide Ftg  | Slide Hrs | Rotate Ftg | Rotate Hrs    | Circ Hrs                                                                                                                                                                                            | D & C Hrs | BHA Ftg | Avg ROP |
| End Depth       | 5257.00 | 3                   | XSH80014           |            |           | 519.00     | 3.00          | 1.25                                                                                                                                                                                                | 4.25      | 519.00  | 122.12  |
| Below Rot Hrs.  | 17.25   |                     |                    |            |           |            |               |                                                                                                                                                                                                     |           |         |         |
| Total Drilled:  | 0.00    | Drilling Parameters |                    | Mud Record |           | Bit Record |               | Current BHA # 3                                                                                                                                                                                     |           |         |         |
| Avg. Total ROP: | NA      |                     |                    | WBM        |           | Bit No: 3  |               | 12 1/4" Baker D506TWX<br>8" 7/8, 5.9 FBH@1.5° w/12"<br>12" Nortrak Stab<br>8" UBHO<br>8" NMDC<br>8" NMDC<br>X/O (6 5/8 P x XH B)<br>18 - 6.5" D.C.<br>X/O (ED54B x 4 1/2XH P)<br>30 Jts 5 1/2" HWDP |           |         |         |
| Slide Footage:  | 0.00    | WOB:                | 70                 | Weight:    | 8.4       | Model      | 12 1/4" Baker |                                                                                                                                                                                                     |           |         |         |
| Slide Hours     | 0.00    | Rot Wt:             | 180                | Visc:      | 28        | SN.:       | 5299142       |                                                                                                                                                                                                     |           |         |         |
| Avg. Slide ROP: | NA      | Pick UP:            | 185                | Chlorides: | 0         | MFG.       | BAKER         |                                                                                                                                                                                                     |           |         |         |
| Rotate Footage: | 0.00    | Slack Off:          | 170                | YP:        | 0         | Type       | PDC           |                                                                                                                                                                                                     |           |         |         |
| Rotary Hours    | 0.00    | SPP:                | 3700               | PV:        | 0         | IADC       |               |                                                                                                                                                                                                     |           |         |         |
| Avg. Rot ROP:   | NA      | Flow:               | 900 - 900          | PH:        | 9.5       | JETS       | 6-12          |                                                                                                                                                                                                     |           |         |         |
| Circ Hours      | 0.00    | SPM:                | 279                | GAS:       | 0         | TFA:       | 0.662         |                                                                                                                                                                                                     |           |         |         |
| Ream Hours      | 0.00    | Rot. RPM            | -                  | SAND:      | 0         | Hole ID:   | 12 1/4        |                                                                                                                                                                                                     |           |         |         |
| Rotary Hrs%:    | NA      | Mot RPM:            | -                  | WL:        | 0         | Bit Hrs:   |               |                                                                                                                                                                                                     |           |         |         |
| Slide Hrs%:     | NA      | Incl. In:           | 1.45               | SOLID:     | 0         | Bit Ftg:   |               |                                                                                                                                                                                                     |           |         |         |
| Rotary Ftg%:    | NA      | Azm. In:            | 88.94              | BHT°:      | 92        | Pumps      |               |                                                                                                                                                                                                     |           |         |         |
| Slide Ftg%:     | NA      | Incl. Out:          | 0                  | Flow T°:   | 0         | Liner      | 0             | 0                                                                                                                                                                                                   |           |         |         |
| Cost Detail     |         | Azm. Out:           | 0                  | Oil %:     | 0         | Stroke     | 0             | 0                                                                                                                                                                                                   |           |         |         |
| Descr.          | Price   | Cost Breakdown      |                    |            |           | Effic.     | 95.00%        | 95.00%                                                                                                                                                                                              |           |         |         |
|                 |         | Total Daily         |                    |            |           | Gal/Stk    | 0.00          | 0.00                                                                                                                                                                                                |           |         |         |
|                 |         | Total Job           |                    |            |           | BBL/Stk    | 0.000         | 0.000                                                                                                                                                                                               |           |         |         |
|                 |         | \$18,306.00         |                    |            |           |            |               |                                                                                                                                                                                                     |           |         |         |



SDI Job #: ID2386-2  
 COMPANY: Advance Energy Partners ,LLC  
 LOCATION: Lea County, New Mexico  
 RIG NAME: H&P466 Flex 3  
 STATE: New Mexico  
 COUNTY: Lea Co.  
 WELL NAME: Wool Head 20 State Com 554H  
 Lead Directional : Bill Corley

Report Time: 2400 6 of 6  
 API JOB # 30-025-46483  
 WORK ORDER# ID2386  
 FIELD: Delaware Basin  
 Sec-Twn-Rng: 20-21S-33E  
 Range/Section NM0092  
 Company Man Frank Calhoun  
 2nd Dir Hand : James Meredith

From November 26, 2019 at 0000 to November 26, 2019 at 2400

| DAILY TOTALS    |          | Assembly Totals     |                    |            |           |            |             |                                                                                                                                                                                                    |           |          |         |
|-----------------|----------|---------------------|--------------------|------------|-----------|------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|---------|
| Start Depth     | 5257.00  | BHA #               | Motor SN / R.S. SN | Slide Ftg  | Slide Hrs | Rotate Ftg | Rotate Hrs  | Circ Hrs                                                                                                                                                                                           | D & C Hrs | BHA Ftg  | Avg ROP |
| End Depth       | 7861.00  | 3                   | XSH80014           |            |           | 519.00     | 3.00        | 1.25                                                                                                                                                                                               | 4.25      | 519.00   | 122.12  |
| Below Rot Hrs.  | 18.98    | 4                   | XSS72004           | 74.00      | 1.75      | 2,530.00   | 10.15       | 2.08                                                                                                                                                                                               | 13.98     | 2,604.00 | 0.00    |
| Total Drilled:  | 2604.00  | Drilling Parameters |                    | Mud Record |           | Bit Record |             | Current BHA # 4                                                                                                                                                                                    |           |          |         |
| Avg. Total ROP: | 218.82   |                     |                    | WBM        |           | Bit No: 4  |             | 8 1/2" Reed TKC66<br>7" 7/8 8.5 FBH @ 1.83 w/ 8<br>8 1/4" Nortrak Stab<br>UBHO<br>NMDC<br>NMDC<br>X-O (4 1/2 IF P x 4 1/2 XH B)<br>18 - 6.5" D.C.<br>X/O (ED54B x 4 1/2XH P)<br>30 jts -5 1/2 HWDP |           |          |         |
| Slide Footage:  | 74.00    | WOB:                | 39                 | Weight:    | 8.4       | Model      | 8 1/2" Reed |                                                                                                                                                                                                    |           |          |         |
| Slide Hours     | 1.75     | Rot Wt:             | 180                | Visc:      | 28        | SN.:       | E268032     |                                                                                                                                                                                                    |           |          |         |
| Avg. Slide ROP: | 42.29    | Pick UP:            | 185                | Chlorides: | 0         | MFG.       | REED        |                                                                                                                                                                                                    |           |          |         |
| Rotate Footage: | 2530.00  | Slack Off:          | 170                | YP:        | 0         | Type       | PDC         |                                                                                                                                                                                                    |           |          |         |
| Rotary Hours    | 10.15    | SPP:                | 2600               | PV:        | 0         | IADC       |             |                                                                                                                                                                                                    |           |          |         |
| Avg. Rot ROP:   | 249.26   | Flow:               | 600 - 900          | PH:        | 9.5       | JETS       | 6-15        |                                                                                                                                                                                                    |           |          |         |
| Circ Hours      | 2.08     | SPM:                | 186                | GAS:       | 0         | TFA:       | 1.035       |                                                                                                                                                                                                    |           |          |         |
| Ream Hours      | 0.00     | Rot. RPM            | 40 - 40            | SAND:      | 0         | Hole ID:   | 8.5         |                                                                                                                                                                                                    |           |          |         |
| Rotary Hrs%:    | 85.29    | Mot RPM:            | 40 - 40            | WL:        | 0         | Bit Hrs:   | 11.90       |                                                                                                                                                                                                    |           |          |         |
| Slide Hrs%:     | 14.71    | Incl. In:           | 0                  | SOLID:     | 0         | Bit Ftg:   | 2604.00     |                                                                                                                                                                                                    |           |          |         |
| Rotary Ftg%:    | 97.16    | Azm. In:            | 0                  | BHT°:      | 92        | Pumps      |             |                                                                                                                                                                                                    |           |          |         |
| Slide Ftg%:     | 2.84     | Incl. Out:          | 4.26               | Flow T°:   | 0         | Liner      | 0           | 0                                                                                                                                                                                                  |           |          |         |
| Cost Detail     |          | Azm. Out:           | 130.77             | Oil %:     | 0         | Stroke     | 0           | 0                                                                                                                                                                                                  |           |          |         |
| Descr.          | Price    | Cost Breakdown      |                    |            |           | Effic.     | 95.00%      | 95.00%                                                                                                                                                                                             |           |          |         |
| DAY RATE        | 8,150.00 | Total Daily         |                    |            |           | Gal/Stk    | 0.00        | 0.00                                                                                                                                                                                               |           |          |         |
| Motor Redress   | 3,600.00 | Total Job           |                    |            |           | BBL/Stk    | 0.000       | 0.000                                                                                                                                                                                              |           |          |         |
| Stabilizers     | 2,006.00 |                     |                    |            |           |            |             |                                                                                                                                                                                                    |           |          |         |

#### GENERAL COMMENT

| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP    | Activity Code | COMMENT                               |
|------------|----------|-------|-------------|-----------|-------------|--------|---------------|---------------------------------------|
| 03:30      | 05:00    | 1.50  | 5257        | 5257      | 0           | .00    | N/U BOPS      | N/U & Test BOP's                      |
| 05:00      | 05:50    | 0.83  | 5257        | 5257      | 0           | .00    | Change BHA    | P/U BHA # 4                           |
| 05:50      | 07:50    | 2.00  | 5257        | 5257      | 0           | .00    | TIH           | TIH                                   |
| 07:50      | 10:00    | 2.17  | 5257        | 5257      | 0           | .00    | Other         | Slip-n-cut, Rig Service, Test Casing  |
| 10:00      | 12:05    | 2.08  | 5257        | 5257      | 0           | .00    | Circulating   | Circulating                           |
| 12:05      | 12:55    | 0.83  | 5257        | 5400      | 143         | 171.60 | Drilling      | Drilling - (WOB:35;GPM :900;RPM:40)   |
| 12:55      | 13:45    | 0.83  | 5400        | 5428      | 28          | 33.60  | Sliding       | Sliding - (WOB:12;GPM :900;TFO:165M)) |
| 13:45      | 15:15    | 1.50  | 5428        | 5741      | 313         | 208.67 | Drilling      | Drilling - (WOB:35;GPM :600;RPM:40)   |
| 15:15      | 15:35    | 0.33  | 5741        | 5760      | 19          | 57.00  | Sliding       | Sliding - (WOB:15;GPM :600;TFO:140M)) |
| 15:35      | 16:30    | 0.92  | 5760        | 6010      | 250         | 272.73 | Drilling      | Drilling - (WOB:35;GPM :600;RPM:40)   |
| 16:30      | 16:55    | 0.42  | 6010        | 6022      | 12          | 28.80  | Sliding       | Sliding - (WOB:15;GPM :600;TFO:140M)) |
| 16:55      | 17:50    | 0.92  | 6022        | 6202      | 180         | 196.36 | Drilling      | Drilling - (WOB:35;GPM :600;RPM:40)   |
| 17:50      | 18:00    | 0.17  | 6202        | 6217      | 15          | 90.00  | Sliding       | Sliding - (WOB:15;GPM :600;TFO:60M))  |
| 18:00      | 23:59    | 5.98  | 6217        | 7861      | 1644        | 274.76 | Drilling      | Drilling - (WOB:39;GPM :600;RPM:40)   |



SDI Job #: ID2386-2  
 COMPANY: Advance Energy Partners ,LLC  
 LOCATION: Lea County, New Mexico  
 RIG NAME: H&P466 Flex 3  
 STATE: New Mexico  
 COUNTY: Lea Co.  
 WELL NAME: Wool Head 20 State Com 554H  
 Lead Directional : Bill Corley

Report Time: 2400 7 of 7  
 API JOB # 30-025-46483  
 WORK ORDER# ID2386  
 FIELD: Delaware Basin  
 Sec-Twn-Rng: 20-21S-33E  
 Range/Section NM0092  
 Company Man Frank Calhoun  
 2nd Dir Hand : James Meredith

**From November 27, 2019 at 0000 to November 27, 2019 at 2400**

| DAILY TOTALS    |          | Assembly Totals     |                    |              |           |                      |            |                                                                                                                                                                                                    |           |          |         |
|-----------------|----------|---------------------|--------------------|--------------|-----------|----------------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|---------|
| Start Depth     | 7861.00  | BHA #               | Motor SN / R.S. SN | Slide Ftg    | Slide Hrs | Rotate Ftg           | Rotate Hrs | Circ Hrs                                                                                                                                                                                           | D & C Hrs | BHA Ftg  | Avg ROP |
| End Depth       | 10207.00 | 4                   | XSS72004           | 163.00       | 5.33      | 4,787.00             | 30.55      | 2.08                                                                                                                                                                                               | 37.97     | 4,950.00 | 130.38  |
| Below Rot Hrs.  | 23.98    |                     |                    |              |           |                      |            |                                                                                                                                                                                                    |           |          |         |
| Total Drilled:  | 2346.00  | Drilling Parameters |                    | Mud Record   |           | Bit Record           |            | Current BHA # 4                                                                                                                                                                                    |           |          |         |
| Avg. Total ROP: | 97.82    |                     |                    |              |           |                      |            |                                                                                                                                                                                                    |           |          |         |
| Slide Footage:  | 89.00    | WOB: 42             |                    | WBM          |           | Bit No: 4            |            | 8 1/2" Reed TKC66<br>7" 7/8 8.5 FBH @ 1.83 w/ 8<br>8 1/4" Nortrak Stab<br>UBHO<br>NMDC<br>NMDC<br>X-O (4 1/2 IF P x 4 1/2 XH B)<br>18 - 6.5" D.C.<br>X/O (ED54B x 4 1/2XH P)<br>30 jts -5 1/2 HWDP |           |          |         |
| Slide Hours     | 3.58     | Rot Wt: 265         |                    | Weight: 8.4  |           | Model 8 1/2" Reed    |            |                                                                                                                                                                                                    |           |          |         |
| Avg. Slide ROP: | 24.84    | Pick UP: 300        |                    | Visc: 28     |           | SN.: E268032         |            |                                                                                                                                                                                                    |           |          |         |
| Rotate Footage: | 2257.00  | Slack Off: 240      |                    | Chlorides: 0 |           | MFG. REED            |            |                                                                                                                                                                                                    |           |          |         |
| Rotary Hours    | 20.40    | SPP: 2500           |                    | YP: 0        |           | Type PDC             |            |                                                                                                                                                                                                    |           |          |         |
| Avg. Rot ROP:   | 110.64   | Flow: 630 - 650     |                    | PV: 0        |           | IADC                 |            |                                                                                                                                                                                                    |           |          |         |
| Circ Hours      | 0.00     | SPM: 195            |                    | PH: 9.5      |           | JETS 6-15            |            |                                                                                                                                                                                                    |           |          |         |
| Ream Hours      | 0.00     | Rot. RPM 30 - 30    |                    | GAS: 0       |           | TFA: 1.035           |            |                                                                                                                                                                                                    |           |          |         |
| Rotary Hrs%:    | 85.06    | Mot RPM: 30 - 30    |                    | SAND: 0      |           | Hole ID: 8.5         |            |                                                                                                                                                                                                    |           |          |         |
| Slide Hrs%:     | 14.94    | Incl. In: 4.26      |                    | WL: 0        |           | Bit Hrs: 35.88       |            |                                                                                                                                                                                                    |           |          |         |
| Rotary Ftg%:    | 96.21    | Azm. In: 130.77     |                    | SOLID: 0     |           | Bit Ftg: 4950.00     |            |                                                                                                                                                                                                    |           |          |         |
| Slide Ftg%:     | 3.79     | Incl. Out: 2.55     |                    | BHT°: 92     |           | Pumps                |            |                                                                                                                                                                                                    |           |          |         |
| Cost Detail     |          | Azm. Out: 137.36    |                    | Flow T°: 0   |           | Liner 0 0            |            |                                                                                                                                                                                                    |           |          |         |
| Descr.          | Price    | Oil %: 0            |                    | Flow T°: 0   |           | Stroke 0 0           |            |                                                                                                                                                                                                    |           |          |         |
| DAY RATE        | 8,150.00 |                     |                    |              |           |                      |            |                                                                                                                                                                                                    |           |          |         |
| Cost Breakdown  |          |                     |                    |              |           | Effic. 95.00% 95.00% |            |                                                                                                                                                                                                    |           |          |         |
| Total Daily     |          |                     |                    | \$8,150.00   |           | Gal/Stk 0.00 0.00    |            |                                                                                                                                                                                                    |           |          |         |
| Total Job       |          |                     |                    | \$21,257.00  |           | BBL/Stk 0.000 0.000  |            |                                                                                                                                                                                                    |           |          |         |

**GENERAL COMMENT**

| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP    | Activity Code | COMMENT                               |
|------------|----------|-------|-------------|-----------|-------------|--------|---------------|---------------------------------------|
| 00:00      | 02:40    | 2.67  | 7861        | 8425      | 564         | 211.50 | Drilling      | Drilling - (WOB:40;GPM :650;RPM:30)   |
| 02:40      | 03:10    | 0.50  | 8425        | 8442      | 17          | 34.00  | Sliding       | Sliding - (WOB:20;GPM :650;TFO:90M))  |
| 03:10      | 06:50    | 3.67  | 8442        | 8969      | 527         | 143.73 | Drilling      | Drilling - (WOB:40;GPM :650;RPM:30)   |
| 06:50      | 07:35    | 0.75  | 8969        | 8984      | 15          | 20.00  | Sliding       | Sliding - (WOB:15;GPM :650;TFO:70M))  |
| 07:35      | 11:30    | 3.92  | 8984        | 9324      | 340         | 86.81  | Drilling      | Drilling - (WOB:40;GPM :630;RPM:30)   |
| 11:30      | 12:25    | 0.92  | 9324        | 9339      | 15          | 16.36  | Sliding       | Sliding - (WOB:25;GPM :630;TFO:110M)) |
| 12:25      | 14:00    | 1.58  | 9339        | 9505      | 166         | 104.84 | Drilling      | Drilling - (WOB:42;GPM :630;RPM:30)   |
| 14:00      | 14:50    | 0.83  | 9505        | 9525      | 20          | 24.00  | Sliding       | Sliding - (WOB:13;GPM :630;TFO:900M)) |
| 14:50      | 18:00    | 3.17  | 9525        | 9773      | 248         | 78.32  | Drilling      | Drilling - (WOB:42;GPM :630;RPM:30)   |
| 18:00      | 18:35    | 0.58  | 9773        | 9795      | 22          | 37.71  | Sliding       | Sliding - (WOB:32;GPM :630;TFO:900M)) |
| 18:35      | 23:59    | 5.40  | 9795        | 10207     | 412         | 76.30  | Drilling      | Drilling - (WOB:42;GPM :630;RPM:30)   |



|                   |                              |                            |                |        |
|-------------------|------------------------------|----------------------------|----------------|--------|
| <b>SDI Job #:</b> | ID2386-2                     | <b>Report Time:</b>        | 2400           | 8 of 8 |
| <b>COMPANY:</b>   | Advance Energy Partners ,LLC | <b>API JOB #</b>           | 30-025-46483   |        |
| <b>LOCATION:</b>  | Lea County, New Mexico       | <b>WORK ORDER#</b>         | ID2386         |        |
| <b>RIG NAME:</b>  | H&P466 Flex 3                | <b>FIELD:</b>              | Delaware Basin |        |
| <b>STATE:</b>     | New Mexico                   | <b>Sec-Twn-Rng:</b>        | 20-21S-33E     |        |
| <b>COUNTY:</b>    | Lea Co.                      | <b>AFE# &amp; District</b> | NM0092         |        |
| <b>WELL NAME:</b> | Wool Head 20 State Com 554H  |                            |                |        |

From November 28, 2019 at 0000 to November 28, 2019 at 2400

| DRILLING SUMMARY       |                 |                   |        | Drilling Parameters |       |           |      |                   |           |             |    |
|------------------------|-----------------|-------------------|--------|---------------------|-------|-----------|------|-------------------|-----------|-------------|----|
| Start Depth            | 10207.00        | Rotary Hours      | 8.58   | WOB                 | 42    | Pick UP   | 300  | Slack Off         | 240       | SPM         |    |
| End Depth              | 10730.00        | Circulating Hours | 1.42   | RAB                 | 265   | SPP       | 2500 | FlowRate          | 630 - 630 | 195         |    |
| Total Drilled:         | 523.00          | Avg. Total ROP:   | 57.58  | Mud Data            |       |           |      |                   |           |             |    |
| Total Rotary Drilled:  | 511.00          | Avg. Rotary ROP:  | 59.53  | Type                | WBM   |           |      | PV                | 0         | SOLID       | 0  |
| Total Drilled Sliding: | 12.00           | Avg. Slide ROP:   | 24.00  | Weight              | 8.4   | GAS       | 0    | YP                | 0         | BHT°        | 92 |
| Slide Hours:           | 0.50            | Percent Rotary:   | 97.71  | Viscosity           | 28    | SAND      | 0    | PH                | 9.5       | Flow T°     | 0  |
| Below Rotary Hrs.      | 20.00           | Percent Slide:    | 2.29   | Chlorides           | 0     | WL        | 0    |                   |           | Oil %       | 0  |
| PERSONNEL              |                 |                   |        | Casing              |       |           |      | BHA               |           |             |    |
| Lead Directional :     | Jason Greer     |                   |        | Size                | Lb/ft | Set Depth |      | BHA # 5           |           |             |    |
| Second Directional :   | James Meredith  |                   |        | Signature:          |       |           |      |                   |           |             |    |
| MWD Operator1          | Miuchael Walton |                   |        |                     |       |           |      |                   |           |             |    |
| MWD Operator2          | Joe Hatley      |                   |        |                     |       |           |      |                   |           |             |    |
| Directional Company:   | Intrepid DDS    |                   |        |                     |       |           |      |                   |           |             |    |
| Geologist:             |                 |                   |        |                     |       |           |      |                   |           |             |    |
| Company Man:           | Frank Calhoun   |                   |        |                     |       |           |      | Daily Cost        |           |             |    |
| Incl. In:              | 2.55            | Azm. In:          | 137.36 | Incl. Out:          | 0     | Azm. Out: | 0    | Cummulative Cost: |           | \$21,257.00 |    |

#### GENERAL COMMENT

| Date      | Start Time | End Time | Hours | Start Depth | End Depth | Activity Code | COMMENT                              |
|-----------|------------|----------|-------|-------------|-----------|---------------|--------------------------------------|
| 28-Nov-19 | 00:00      | 01:30    | 1.50  | 10207       | 10309     | Drilling      | Drilling - (WOB:42;GPM :630;RPM:30)  |
| 28-Nov-19 | 01:30      | 02:00    | 0.50  | 10309       | 10321     | Sliding       | Sliding - (WOB:32;GPM :630;TFO:50M)) |
| 28-Nov-19 | 02:00      | 09:05    | 7.08  | 10321       | 10730     | Drilling      | Drilling - (WOB:42;GPM :630;RPM:30)  |
| 28-Nov-19 | 09:05      | 10:30    | 1.42  | 10730       | 10730     | Circulating   | Circulating                          |
| 28-Nov-19 | 10:30      | 15:30    | 5.00  | 10730       | 10730     | POOH          | POOH                                 |
| 28-Nov-19 | 15:30      | 16:00    | 0.50  | 10730       | 10730     | Change BHA    | R/B BHA #4                           |
| 28-Nov-19 | 16:00      | 20:00    | 4.00  | 10730       | 10730     | Other         | TIH , Set Packer , N/D BOP's         |





SDI Job #: ID2386-3  
 COMPANY: Advance Energy Partners ,LLC  
 LOCATION: Lea County, New Mexico  
 RIG NAME: H&P466 Flex 3  
 STATE: New Mexico  
 COUNTY: Lea Co.  
 WELL NAME: Wool Head 20 State Com 554H  
 Lead Directional : Jason Greer

Report Time: 2400 9 of 9  
 API JOB # 30-025-46483  
 WORK ORDER# ID2386  
 FIELD: Delaware Basin  
 Sec-Twn-Rng: 20-21S-33E  
 Range/Section NM0092  
 Company Man Frank Calhoun  
 2nd Dir Hand : Jason Mueller

From December 04, 2019 at 0000 to December 04, 2019 at 2400

| DAILY TOTALS     |          | Assembly Totals         |                    |                       |           |                      |            |                                                                                                                           |           |          |         |
|------------------|----------|-------------------------|--------------------|-----------------------|-----------|----------------------|------------|---------------------------------------------------------------------------------------------------------------------------|-----------|----------|---------|
| Start Depth      | 10730.00 | BHA #                   | Motor SN / R.S. SN | Slide Ftg             | Slide Hrs | Rotate Ftg           | Rotate Hrs | Circ Hrs                                                                                                                  | D & C Hrs | BHA Ftg  | Avg ROP |
| End Depth        | 11161.00 | 4                       | XSS72004           | 175.00                | 5.83      | 5,298.00             | 39.13      | 3.50                                                                                                                      | 48.47     | 5,473.00 | 112.92  |
| Below Rot Hrs.   | 17.50    | 5                       | XSS67069           | 367.00                | 5.75      | 64.00                | 1.25       | .17                                                                                                                       | 7.17      | 431.00   | 0.00    |
| Total Drilled:   | 431.00   | Drilling Parameters     |                    | Mud Record            |           | Bit Record           |            | Current BHA # 5                                                                                                           |           |          |         |
| Avg. Total ROP:  | 61.57    |                         |                    | OBM                   |           | Bit No: 5            |            | 8 1/2" Security GTD64C<br>6 3/4" 7/8 5.0 FBH@ 2.12° TS<br>APS RESISTIVITY TOOL<br>APS COLLAR<br>X-Over ED54B X 4 1/2 IF P |           |          |         |
| Slide Footage:   | 367.00   | Weight: 9.6             |                    | Model 8 1/2" Security |           |                      |            |                                                                                                                           |           |          |         |
| Slide Hours      | 5.75     | Visc: 40                |                    | SN.: 13291182         |           |                      |            |                                                                                                                           |           |          |         |
| Avg. Slide ROP:  | 63.83    | Chlorides: 0            |                    | MFG. Halliburton      |           |                      |            |                                                                                                                           |           |          |         |
| Rotate Footage:  | 64.00    | YP: 0                   |                    | Type PDC              |           |                      |            |                                                                                                                           |           |          |         |
| Rotary Hours     | 1.25     | PV: 0                   |                    | IADC                  |           |                      |            |                                                                                                                           |           |          |         |
| Avg. Rot ROP:    | 51.20    | PH: 9.5                 |                    | JETS 6-16             |           |                      |            |                                                                                                                           |           |          |         |
| Circ Hours       | 0.17     | GAS: 0                  |                    | TFA: 1.178            |           |                      |            |                                                                                                                           |           |          |         |
| Ream Hours       | 0.00     | SAND: 0                 |                    | Hole ID: 8.5          |           |                      |            |                                                                                                                           |           |          |         |
| Rotary Hrs%:     | 17.86    | WL: 0                   |                    | Bit Hrs: 7.00         |           |                      |            |                                                                                                                           |           |          |         |
| Slide Hrs%:      | 82.14    | SOLID: 0                |                    | Bit Ftg: 431.00       |           |                      |            |                                                                                                                           |           |          |         |
| Rotary Ftg%:     | 14.85    | BHT°: 92                |                    | Pumps                 |           |                      |            |                                                                                                                           |           |          |         |
| Slide Ftg%:      | 85.15    | Flow T°: 0              |                    | Liner 5.5 5.5         |           |                      |            |                                                                                                                           |           |          |         |
| Cost Detail      |          | Oil %: 0                |                    | Stroke 11 11          |           |                      |            |                                                                                                                           |           |          |         |
| Descr.           | Price    | Cost Breakdown          |                    |                       |           | Effic. 95.00% 95.00% |            |                                                                                                                           |           |          |         |
| DAY RATE         | 8,150.00 | Total Daily \$20,700.00 |                    |                       |           | Gal/Stk 3.22 3.22    |            |                                                                                                                           |           |          |         |
| Motor Inspection | 2,750.00 | Total Job \$20,700.00   |                    |                       |           | BBL/Stk 0.077 0.077  |            |                                                                                                                           |           |          |         |
| Motor Re-Line    | 9,800.00 |                         |                    |                       |           |                      |            |                                                                                                                           |           |          |         |

#### GENERAL COMMENT

| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP   | Activity Code  | COMMENT                                     |
|------------|----------|-------|-------------|-----------|-------------|-------|----------------|---------------------------------------------|
| 00:00      | 06:30    | 6.50  | 10730       | 10730     | 0           | .00   | Standby        | Standby - TIH to Retrieve Plug              |
| 06:30      | 08:00    | 1.50  | 10730       | 10730     | 0           | .00   | Change BHA     | P/U BHA #5                                  |
| 08:00      | 16:00    | 8.00  | 10730       | 10730     | 0           | .00   | TIH            | TIH                                         |
| 16:00      | 16:35    | 0.58  | 10730       | 10770     | 40          | 68.57 | Sliding        | Sliding - (WOB:45;GPM :600;TFO:345M))       |
| 16:35      | 16:45    | 0.17  | 10770       | 10770     | 0           | .00   | Survey & Conn. | Survey & Conn.@10723' Inc 1.6° Azm 154.82°  |
| 16:45      | 18:10    | 1.42  | 10770       | 10859     | 89          | 62.82 | Sliding        | Sliding - (WOB:45;GPM :600;TFO:345M)        |
| 18:10      | 18:20    | 0.17  | 10859       | 10859     | 0           | .00   | Survey & Conn. | Survey & Conn.@10812' Inc 12° Azm 348.32°   |
| 18:20      | 19:05    | 0.75  | 10859       | 10918     | 59          | 78.67 | Sliding        | Sliding - (WOB:45;GPM :600;TFO:40))         |
| 19:05      | 19:15    | 0.17  | 10918       | 10918     | 0           | .00   | Circulating    | Recycle Pmp - Pmp 3 Off Line                |
| 19:15      | 19:45    | 0.50  | 10918       | 10949     | 31          | 62.00 | Sliding        | Sliding - (WOB:45;GPM :600;TFO:10))         |
| 19:45      | 19:55    | 0.17  | 10949       | 10949     | 0           | .00   | Survey & Conn. | Survey & Conn.@10902' Inc 25.4° Azm 358.52° |
| 19:55      | 20:10    | 0.25  | 10949       | 10964     | 15          | 60.00 | Drilling       | Drilling - (WOB:35;GPM :630;RPM:25)         |
| 20:10      | 20:40    | 0.50  | 10964       | 10994     | 30          | 60.00 | Sliding        | Sliding - (WOB:47;GPM :630;TFO:HS))         |
| 20:40      | 21:00    | 0.33  | 10994       | 11009     | 15          | 45.00 | Drilling       | Drilling - (WOB:35;GPM :630;RPM:25)         |



| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP   | Activity Code  | COMMENT                                   |
|------------|----------|-------|-------------|-----------|-------------|-------|----------------|-------------------------------------------|
| 21:00      | 21:30    | 0.50  | 11009       | 11039     | 30          | 60.00 | Sliding        | Sliding - (WOB:47;GPM :600;TFO:HS))       |
| 21:30      | 21:40    | 0.17  | 11039       | 11039     | 0           | .00   | Survey & Conn. | Survey & Conn.@10992' Inc 31.6° Azm 2.92° |
| 21:40      | 21:50    | 0.17  | 11039       | 11049     | 10          | 60.00 | Drilling       | Drilling - (WOB:35;GPM :600;RPM:25)       |
| 21:50      | 22:30    | 0.67  | 11049       | 11084     | 35          | 52.50 | Sliding        | Sliding - (WOB:47;GPM :600;TFO:HS))       |
| 22:30      | 22:45    | 0.25  | 11084       | 11094     | 10          | 40.00 | Drilling       | Drilling - (WOB:35;GPM :600;RPM:25)       |
| 22:45      | 23:15    | 0.50  | 11094       | 11129     | 35          | 70.00 | Sliding        | Sliding - (WOB:47;GPM :600;TFO:HS))       |
| 23:15      | 23:25    | 0.17  | 11129       | 11129     | 0           | .00   | Survey & Conn. | Survey & Conn.@11082' Inc 37.4° Azm 6.82° |
| 23:25      | 23:40    | 0.25  | 11129       | 11143     | 14          | 56.00 | Drilling       | Drilling - (WOB:35;GPM :600;RPM:25)       |
| 23:40      | 24:00    | 0.33  | 11143       | 11161     | 18          | 54.00 | Sliding        | Sliding - (WOB:47;GPM :600;TFO:HS))       |



**SDI Job #:** ID2386-3  
**COMPANY:** Advance Energy Partners ,LLC  
**LOCATION:** Lea County, New Mexico  
**RIG NAME:** H&P466 Flex 3  
**STATE:** New Mexico  
**COUNTY:** Lea Co.  
**WELL NAME:** Wool Head 20 State Com 554H  
**Lead Directional :** Jason Greer

**Report Time:** 2400 **10 of 10**  
**API JOB #** 30-025-46483  
**WORK ORDER#** ID2386  
**FIELD:** Delaware Basin  
**Sec-Twn-Rng:** 20-21S-33E  
**Range/Section** NM0092  
**Company Man** Frank Calhoun  
**2nd Dir Hand :** Jason Mueller

**From December 05, 2019 at 0000 to December 05, 2019 at 2400**

| DAILY TOTALS    |          | Assembly Totals     |                    |            |           |            |                 |                                                                                                                           |           |          |         |
|-----------------|----------|---------------------|--------------------|------------|-----------|------------|-----------------|---------------------------------------------------------------------------------------------------------------------------|-----------|----------|---------|
| Start Depth     | 11161.00 | BHA #               | Motor SN / R.S. SN | Slide Ftg  | Slide Hrs | Rotate Ftg | Rotate Hrs      | Circ Hrs                                                                                                                  | D & C Hrs | BHA Ftg  | Avg ROP |
| End Depth       | 12115.00 | 5                   | XSS67069           | 811.00     | 16.67     | 574.00     | 9.75            | 1.08                                                                                                                      | 27.50     | 1,385.00 | 50.67   |
| Below Rot Hrs.  | 24.00    |                     |                    |            |           |            |                 |                                                                                                                           |           |          |         |
| Total Drilled:  | 954.00   | Drilling Parameters |                    | Mud Record |           | Bit Record |                 | Current BHA # 5                                                                                                           |           |          |         |
| Avg. Total ROP: | 49.13    |                     |                    | OBM        |           | Bit No: 5  |                 | 8 1/2" Security GTD64C<br>6 3/4" 7/8 5.0 FBH@ 2.12° TS<br>APS RESISTIVITY TOOL<br>APS COLLAR<br>X-Over ED54B X 4 1/2 IF P |           |          |         |
| Slide Footage:  | 444.00   | WOB:                | 60                 | Weight:    | 9.3       | Model      | 8 1/2" Security |                                                                                                                           |           |          |         |
| Slide Hours     | 10.92    | Rot Wt:             | 271                | Visc:      | 49        | SN.:       | 13291182        |                                                                                                                           |           |          |         |
| Avg. Slide ROP: | 40.67    | Pick UP:            | 303                | Chlorides: | 41000     | MFG.       | Halliburton     |                                                                                                                           |           |          |         |
| Rotate Footage: | 510.00   | Slack Off:          | 259                | YP:        | 6         | Type       | PDC             |                                                                                                                           |           |          |         |
| Rotary Hours    | 8.50     | SPP:                | 3025               | PV:        | 13        | IADC       |                 |                                                                                                                           |           |          |         |
| Avg. Rot ROP:   | 60.00    | Flow:               | 600 - 600          | PH:        | 9.5       | JETS       | 6-16            |                                                                                                                           |           |          |         |
| Circ Hours      | 0.92     | SPM:                | 186                | GAS:       | 0         | TFA:       | 1.178           |                                                                                                                           |           |          |         |
| Ream Hours      | 0.00     | Rot. RPM            | 25 - 50            | SAND:      | 0.1       | Hole ID:   | 8.5             |                                                                                                                           |           |          |         |
| Rotary Hrs%:    | 43.78    | Mot RPM:            | 0 - 50             | WL:        | 7.8       | Bit Hrs:   | 26.42           |                                                                                                                           |           |          |         |
| Slide Hrs%:     | 56.22    | Incl. In:           | 37.4               | SOLID:     | 11        | Bit Ftg:   | 1385.00         |                                                                                                                           |           |          |         |
| Rotary Ftg%:    | 53.46    | Azm. In:            | 6.82               | BHT°:      | 125       | Pumps      |                 |                                                                                                                           |           |          |         |
| Slide Ftg%:     | 46.54    | Incl. Out:          | 93                 | Flow T°:   | 114       | Liner      | 5.5             | 5.5                                                                                                                       |           |          |         |
| Cost Detail     |          | Azm. Out:           | 0.32               | Oil %:     | 73        | Stroke     | 11              | 11                                                                                                                        |           |          |         |
| Descr.          | Price    | Cost Breakdown      |                    |            |           | Effic.     | 95.00%          | 95.00%                                                                                                                    |           |          |         |
| DAY RATE        | 8,150.00 | Total Daily         |                    |            |           | Gal/Stk    | 3.22            | 3.22                                                                                                                      |           |          |         |
|                 |          | Total Job           |                    |            |           | BBL/Stk    | 0.077           | 0.077                                                                                                                     |           |          |         |
|                 |          | \$8,150.00          |                    |            |           |            |                 |                                                                                                                           |           |          |         |
|                 |          | \$28,850.00         |                    |            |           |            |                 |                                                                                                                           |           |          |         |

#### GENERAL COMMENT

| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP   | Activity Code  | COMMENT                                   |
|------------|----------|-------|-------------|-----------|-------------|-------|----------------|-------------------------------------------|
| 00:00      | 00:10    | 0.17  | 11161       | 11173     | 12          | 72.00 | Sliding        | Sliding - (WOB:47;GPM :600;TFO:-10))      |
| 00:10      | 00:25    | 0.25  | 11173       | 11187     | 14          | 56.00 | Drilling       | Drilling - (WOB:35;GPM :600;RPM:25)       |
| 00:25      | 01:00    | 0.58  | 11187       | 11218     | 31          | 53.14 | Sliding        | Sliding - (WOB:47;GPM :600;TFO:HS))       |
| 01:00      | 01:10    | 0.17  | 11218       | 11218     | 0           | .00   | Survey & Conn. | Survey & Conn.@11171' Inc 44.4° Azm 6.52° |
| 01:10      | 01:25    | 0.25  | 11218       | 11235     | 17          | 68.00 | Drilling       | Drilling - (WOB:35;GPM :600;RPM:25)       |
| 01:25      | 02:15    | 0.83  | 11235       | 11263     | 28          | 33.60 | Sliding        | Sliding - (WOB:50;GPM :600;TFO:-15))      |
| 02:15      | 02:35    | 0.33  | 11263       | 11278     | 15          | 45.00 | Drilling       | Drilling - (WOB:35;GPM :600;RPM:25)       |
| 02:35      | 03:05    | 0.50  | 11278       | 11308     | 30          | 60.00 | Sliding        | Sliding - (WOB:50;GPM :600;TFO:-30))      |
| 03:05      | 03:15    | 0.17  | 11308       | 11308     | 0           | .00   | Survey & Conn. | Survey & Conn.@11261' Inc 47.2° Azm 5.02° |
| 03:15      | 03:25    | 0.17  | 11308       | 11318     | 10          | 60.00 | Drilling       | Drilling - (WOB:35;GPM :600;RPM:25)       |
| 03:25      | 04:00    | 0.58  | 11318       | 11353     | 35          | 60.00 | Sliding        | Sliding - (WOB:50;GPM :600;TFO:-30))      |
| 04:00      | 04:15    | 0.25  | 11353       | 11363     | 10          | 40.00 | Drilling       | Drilling - (WOB:35;GPM :600;RPM:25)       |
| 04:15      | 04:50    | 0.58  | 11363       | 11397     | 34          | 58.29 | Sliding        | Sliding - (WOB:50;GPM :600;TFO:HS))       |
| 04:50      | 05:00    | 0.17  | 11397       | 11397     | 0           | .00   | Survey & Conn. | Survey & Conn.@11350' Inc 56.2° Azm 1.22° |

| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP   | Activity Code  | COMMENT                                      |
|------------|----------|-------|-------------|-----------|-------------|-------|----------------|----------------------------------------------|
| 05:00      | 05:20    | 0.33  | 11397       | 11417     | 20          | 60.00 | Drilling       | Drilling - (WOB:35;GPM :600;RPM:25)          |
| 05:20      | 05:50    | 0.50  | 11417       | 11442     | 25          | 50.00 | Sliding        | Sliding - (WOB:50;GPM :600;TFO:HS))          |
| 05:50      | 06:10    | 0.33  | 11442       | 11462     | 20          | 60.00 | Drilling       | Drilling - (WOB:35;GPM :600;RPM:25)          |
| 06:10      | 06:45    | 0.58  | 11462       | 11487     | 25          | 42.86 | Sliding        | Sliding - (WOB:50; :600;TFO:HS)              |
| 06:45      | 06:55    | 0.17  | 11487       | 11487     | 0           | .00   | Survey & Conn. | Survey & Conn.@11440' Inc 61.8° Azm 358.32°  |
| 06:55      | 07:10    | 0.25  | 11487       | 11492     | 5           | 20.00 | Drilling       | Drilling - (WOB:35; :600;RPM:25)             |
| 07:10      | 08:30    | 1.33  | 11492       | 11577     | 85          | 63.75 | Sliding        | Sliding - (WOB:50; :600;TFO:10R))            |
| 08:30      | 09:00    | 0.50  | 11577       | 11577     | 0           | .00   | Rig repair     | C/O Rotating Head                            |
| 09:00      | 09:10    | 0.17  | 11577       | 11577     | 0           | .00   | Survey & Conn. | Survey & Conn.@11530' Inc 72.1° Azm 355.62°  |
| 09:10      | 09:25    | 0.25  | 11577       | 11597     | 20          | 80.00 | Drilling       | Drilling - (WOB:35; :600;RPM:25)             |
| 09:25      | 10:05    | 0.67  | 11597       | 11615     | 18          | 27.00 | Sliding        | Sliding - (WOB:50; :600;TFO:0))              |
| 10:05      | 10:40    | 0.58  | 11615       | 11643     | 28          | 48.00 | Drilling       | Drilling - (WOB:35; :600;RPM:25)             |
| 10:40      | 11:25    | 0.75  | 11643       | 11666     | 23          | 30.67 | Sliding        | Sliding - (WOB:50; :600;TFO:45R))            |
| 11:25      | 11:40    | 0.25  | 11666       | 11666     | 0           | .00   | Survey & Conn. | Survey & Conn.@11619' Inc 80.8° Azm 354.42°  |
| 11:40      | 12:30    | 0.83  | 11666       | 11701     | 35          | 42.00 | Drilling       | Drilling - (WOB:45; :600;RPM:25)             |
| 12:30      | 13:05    | 0.58  | 11701       | 11716     | 15          | 25.71 | Sliding        | Sliding - (WOB:50; :600;TFO:60R))            |
| 13:05      | 13:30    | 0.42  | 11716       | 11736     | 20          | 48.00 | Drilling       | Drilling - (WOB:45; :600;RPM:30)             |
| 13:30      | 14:30    | 1.00  | 11736       | 11756     | 20          | 20.00 | Sliding        | Sliding - (WOB:50; :600;TFO:60R))            |
| 14:30      | 14:40    | 0.17  | 11756       | 11756     | 0           | .00   | Survey & Conn. | Survey & Conn.@11709' Inc 85.8° Azm 352.82°  |
| 14:40      | 15:20    | 0.67  | 11756       | 11801     | 45          | 67.50 | Drilling       | Drilling - (WOB:45; :600;RPM:30)             |
| 15:20      | 15:30    | 0.17  | 11801       | 11801     | 0           | .00   | Other          | CHECK SHOT                                   |
| 15:30      | 15:45    | 0.25  | 11801       | 11821     | 20          | 80.00 | Drilling       | Drilling - (WOB:45; :600;RPM:30)             |
| 15:45      | 16:40    | 0.92  | 11821       | 11846     | 25          | 27.27 | Sliding        | Sliding - (WOB:50; :600;TFO:60R)             |
| 16:40      | 16:50    | 0.17  | 11846       | 11846     | 0           | .00   | Survey & Conn. | Survey & Conn.@11799' Inc 87.1° Azm 352.62°  |
| 16:50      | 18:10    | 1.33  | 11846       | 11935     | 89          | 66.75 | Drilling       | Drilling - (WOB:60;GPM :600;RPM:30)          |
| 18:10      | 18:20    | 0.17  | 11935       | 11935     | 0           | .00   | Survey & Conn. | Survey & Conn.@11888' Inc 89.2° Azm 349.6°   |
| 18:20      | 18:30    | 0.17  | 11935       | 11948     | 13          | 78.00 | Drilling       | Drilling - (WOB:60;GPM :600;RPM:50)          |
| 18:30      | 19:25    | 0.92  | 11948       | 11978     | 30          | 32.73 | Sliding        | Sliding - (WOB:70;GPM :600;TFO:60R))         |
| 19:25      | 20:00    | 0.58  | 11978       | 12025     | 47          | 80.57 | Drilling       | Drilling - (WOB:60;GPM :600;RPM:30)          |
| 20:00      | 20:10    | 0.17  | 12025       | 12025     | 0           | .00   | Survey & Conn. | Survey & Conn.@11978' Inc 90.86° Azm 359.47° |
| 20:10      | 20:20    | 0.17  | 12025       | 12035     | 10          | 60.00 | Drilling       | Drilling - (WOB:60;GPM :600;RPM:50)          |
| 20:20      | 20:45    | 0.42  | 12035       | 12043     | 8           | 19.20 | Sliding        | Sliding - (WOB:70;GPM :600;TFO:60R))         |
| 20:45      | 21:50    | 1.08  | 12043       | 12115     | 72          | 66.46 | Drilling       | Drilling - (WOB:60;GPM :600;RPM:50)          |
| 21:50      | 22:00    | 0.17  | 12115       | 12115     | 0           | .00   | MWD Survey     | MWD Survey@12068' Inc 93° Azm 0.32°          |
| 22:00      | 22:45    | 0.75  | 12115       | 12115     | 0           | .00   | Circulating    | Circulating                                  |
| 22:45      | 24:00    | 1.25  | 12115       | 12115     | 0           | .00   | POOH           | POOH                                         |



SDI Job #: ID2386-3  
 COMPANY: Advance Energy Partners ,LLC  
 LOCATION: Lea County, New Mexico  
 RIG NAME: H&P466 Flex 3  
 STATE: New Mexico  
 COUNTY: Lea Co.  
 WELL NAME: Wool Head 20 State Com 554H  
 Lead Directional : Jason Greer

Report Time: 2400 11 of 11  
 API JOB # 30-025-46483  
 WORK ORDER# ID2386  
 FIELD: Delaware Basin  
 Sec-Twn-Rng: 20-21S-33E  
 Range/Section NM0092  
 Company Man Frank Calhoun  
 2nd Dir Hand : Jason Mueller

From December 06, 2019 at 0000 to December 06, 2019 at 2400

| DAILY TOTALS     |           | Assembly Totals     |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|------------------|-----------|---------------------|--------------------|----------------------|-----------|------------|------------|--------------------------------------------------------------------------------------------------------------------------------|-----------|----------|---------|
| Start Depth      | 12115.00  | BHA #               | Motor SN / R.S. SN | Slide Ftg            | Slide Hrs | Rotate Ftg | Rotate Hrs | Circ Hrs                                                                                                                       | D & C Hrs | BHA Ftg  | Avg ROP |
| End Depth        | 12336.00  | 5                   | XSS67069           | 811.00               | 16.67     | 574.00     | 9.75       | 1.08                                                                                                                           | 27.50     | 1,385.00 | 50.67   |
| Below Rot Hrs.   | 24.00     | 6                   | XSS70074           | 70.00                | 3.17      | 151.00     | 2.00       | 3.33                                                                                                                           | 8.50      | 221.00   | 0.00    |
| Total Drilled:   | 221.00    | Drilling Parameters |                    | Mud Record           |           | Bit Record |            | Current BHA # 6                                                                                                                |           |          |         |
| Avg. Total ROP:  | 42.77     |                     |                    | OBM                  |           | Bit No: 6  |            | 8 1/2" Baker DD506TWX w/ 7" 7/8 8.5 FBH @ 1.75 w/ 8 1/8" Nortrak Stab APS RESISTIVITY TOOL APS COLLAR X/O ED 54 B - 4 1/2 IF P |           |          |         |
| Slide Footage:   | 70.00     | Weight: 9.3         |                    | Model 8 1/2" Baker   |           |            |            |                                                                                                                                |           |          |         |
| Slide Hours      | 3.17      | Visc: 49            |                    | SN.: 5301253         |           |            |            |                                                                                                                                |           |          |         |
| Avg. Slide ROP:  | 22.11     | Chlorides: 41000    |                    | MFG. BAKER           |           |            |            |                                                                                                                                |           |          |         |
| Rotate Footage:  | 151.00    | YP: 6               |                    | Type PDC             |           |            |            |                                                                                                                                |           |          |         |
| Rotary Hours     | 2.00      | PV: 13              |                    | IADC                 |           |            |            |                                                                                                                                |           |          |         |
| Avg. Rot ROP:    | 75.50     | PH: 9.5             |                    | JETS 6-22            |           |            |            |                                                                                                                                |           |          |         |
| Circ Hours       | 3.33      | GAS: 0              |                    | TFA: 2.226           |           |            |            |                                                                                                                                |           |          |         |
| Ream Hours       | 0.75      | SAND: 0.1           |                    | Hole ID: 8 1/2       |           |            |            |                                                                                                                                |           |          |         |
| Rotary Hrs%:     | 38.71     | WL: 7.8             |                    | Bit Hrs: 5.17        |           |            |            |                                                                                                                                |           |          |         |
| Slide Hrs%:      | 61.29     | SOLID: 11           |                    | Bit Ftg: 221.00      |           |            |            |                                                                                                                                |           |          |         |
| Rotary Ftg%:     | 68.33     | BHT°: 125           |                    | Pumps                |           |            |            |                                                                                                                                |           |          |         |
| Slide Ftg%:      | 31.67     | Flow T°: 114        |                    | Liner 5.5 5.5        |           |            |            |                                                                                                                                |           |          |         |
| Cost Detail      |           | Oil %: 73           |                    | Stroke 11 11         |           |            |            |                                                                                                                                |           |          |         |
| Descr.           | Price     | Flow T°: 114        |                    | Effic. 95.00% 95.00% |           |            |            |                                                                                                                                |           |          |         |
| DAY RATE         | 8,150.00  | Oil %: 73           |                    | Gal/Stk 3.22 3.22    |           |            |            |                                                                                                                                |           |          |         |
| Motor Inspection | 3,600.00  | Oil %: 73           |                    | BBL/Stk 0.077 0.077  |           |            |            |                                                                                                                                |           |          |         |
| Motor Re-Line    | 12,438.00 | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
| Stab Redress     | 1,072.00  | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
| Stab Re-Drill    | 1,072.00  | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           | Oil %: 73           |                    |                      |           |            |            |                                                                                                                                |           |          |         |
|                  |           |                     |                    |                      |           |            |            |                                                                                                                                |           |          |         |

#### GENERAL COMMENT

| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP   | Activity Code | COMMENT                              |
|------------|----------|-------|-------------|-----------|-------------|-------|---------------|--------------------------------------|
| 00:00      | 05:00    | 5.00  | 12115       | 12115     | 0           | .00   | POOH          | POOH                                 |
| 05:00      | 06:00    | 1.00  | 12115       | 12115     | 0           | .00   | POOH          | L/D BHA #5                           |
| 06:00      | 07:00    | 1.00  | 12115       | 12115     | 0           | .00   | Change BHA    | P/U BHA #6                           |
| 07:00      | 07:30    | 0.50  | 12115       | 12115     | 0           | .00   | Other         | Downlink Resistivity MWD             |
| 07:30      | 10:30    | 3.00  | 12115       | 12115     | 0           | .00   | TIH           | TIH                                  |
| 10:30      | 12:00    | 1.50  | 12115       | 12115     | 0           | .00   | Other         | Slip and Cut Drilling Line           |
| 12:00      | 15:00    | 3.00  | 12115       | 12115     | 0           | .00   | TIH           | TIH                                  |
| 15:00      | 15:45    | 0.75  | 12115       | 12115     | 0           | .00   | Reaming       | Wash and Ream F/10,922 T/12115       |
| 15:45      | 18:00    | 2.25  | 12115       | 12115     | 0           | .00   | Circulating   | Downlink Resistivity MWD             |
| 18:00      | 18:15    | 0.25  | 12115       | 12129     | 14          | 56.00 | Drilling      | Drilling - (WOB:40;GPM :600;RPM:70)  |
| 18:15      | 18:25    | 0.17  | 12129       | 12129     | 0           | .00   | Connection    | Connection                           |
| 18:25      | 19:00    | 0.58  | 12129       | 12174     | 45          | 77.14 | Drilling      | Drilling - (WOB:40;GPM :705;RPM:70)  |
| 19:00      | 19:10    | 0.17  | 12174       | 12174     | 0           | .00   | Circulating   | Check Shot @ 12115 94.2 / .52        |
| 19:10      | 19:40    | 0.50  | 12174       | 12188     | 14          | 28.00 | Sliding       | Sliding - (WOB:35;GPM :705;TFO:150)) |

| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP    | Activity Code  | COMMENT                                   |
|------------|----------|-------|-------------|-----------|-------------|--------|----------------|-------------------------------------------|
| 19:40      | 20:00    | 0.33  | 12188       | 12219     | 31          | 93.00  | Drilling       | Drilling - (WOB:40;GPM :750;RPM:70)       |
| 20:00      | 20:10    | 0.17  | 12219       | 12219     | 0           | .00    | Survey & Conn. | Survey & Conn.@12160' Inc 95° Azm 0.62°   |
| 20:10      | 20:20    | 0.17  | 12219       | 12230     | 11          | 66.00  | Drilling       | Drilling - (WOB:40;GPM :750;RPM:70)       |
| 20:20      | 20:50    | 0.50  | 12230       | 12245     | 15          | 30.00  | Sliding        | Sliding - (WOB:40;GPM :705;TFO:LS))       |
| 20:50      | 21:00    | 0.17  | 12245       | 12263     | 18          | 108.00 | Drilling       | Drilling - (WOB:40;GPM :750;RPM:70)       |
| 21:00      | 21:10    | 0.17  | 12263       | 12263     | 0           | .00    | Circulating    | Check Shot @ 12204 95.4 / 2.42            |
| 21:10      | 22:05    | 0.92  | 12263       | 12283     | 20          | 21.82  | Sliding        | Sliding - (WOB:40;GPM :705;TFO:0))        |
| 22:05      | 22:30    | 0.42  | 12283       | 12308     | 25          | 60.00  | Drilling       | Drilling - (WOB:42;GPM :705;RPM:70)       |
| 22:30      | 22:40    | 0.17  | 12308       | 12308     | 0           | .00    | Survey & Conn. | Survey & Conn.@12249' Inc 95.1° Azm 3.82° |
| 22:40      | 22:45    | 0.08  | 12308       | 12315     | 7           | 84.00  | Drilling       | Drilling - (WOB:42;GPM :705;RPM:70)       |
| 22:45      | 24:00    | 1.25  | 12315       | 12336     | 21          | 16.80  | Sliding        | Sliding - (WOB:50;GPM :705;TFO:LS))       |



| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP   | Activity Code  | COMMENT                                   |
|------------|----------|-------|-------------|-----------|-------------|-------|----------------|-------------------------------------------|
| 07:15      | 07:25    | 0.17  | 12667       | 12667     | 0           | .00   | Survey & Conn. | Survey & Conn.@12608' Inc 91.1° Azm 2.02° |
| 07:25      | 08:35    | 1.17  | 12667       | 12757     | 90          | 77.14 | Drilling       | Drilling - (WOB:47;GPM :705;RPM:65)       |
| 08:35      | 08:45    | 0.17  | 12757       | 12757     | 0           | .00   | Survey & Conn. | Survey & Conn.@12698' Inc 92.4° Azm 2.32° |
| 08:45      | 09:00    | 0.25  | 12757       | 12767     | 10          | 40.00 | Drilling       | Drilling - (WOB:47;GPM :705;RPM:65)       |
| 09:00      | 09:45    | 0.75  | 12767       | 12782     | 15          | 20.00 | Sliding        | Sliding - (WOB:35;GPM :705;TFO:150L))     |
| 09:45      | 10:35    | 0.83  | 12782       | 12846     | 64          | 76.80 | Drilling       | Drilling - (WOB:47;GPM :705;RPM:40)       |
| 10:35      | 10:45    | 0.17  | 12846       | 12846     | 0           | .00   | Survey & Conn. | Survey & Conn.@12787' Inc 92.8° Azm 2.62° |
| 10:45      | 11:00    | 0.25  | 12846       | 12856     | 10          | 40.00 | Drilling       | Drilling - (WOB:47; :705;RPM:40)          |
| 11:00      | 12:15    | 1.25  | 12856       | 12881     | 25          | 20.00 | Sliding        | Sliding - (WOB:45; :705;TFO:150L))        |
| 12:15      | 13:00    | 0.75  | 12881       | 12936     | 55          | 73.33 | Drilling       | Drilling - (WOB:47; :705;RPM:40)          |
| 13:00      | 13:10    | 0.17  | 12936       | 12936     | 0           | .00   | Survey & Conn. | Survey & Conn.@12877' Inc 92.1° Azm 3.52° |
| 13:10      | 14:35    | 1.42  | 12936       | 13026     | 90          | 63.53 | Drilling       | Drilling - (WOB:47; :705;RPM:40)          |
| 14:35      | 14:45    | 0.17  | 13026       | 13026     | 0           | .00   | Survey & Conn. | Survey & Conn.@12967' Inc 93.6° Azm 3.82° |
| 14:45      | 15:00    | 0.25  | 13026       | 13031     | 5           | 20.00 | Drilling       | Drilling - (WOB:47; :705;RPM:40)          |
| 15:00      | 17:15    | 2.25  | 13031       | 13076     | 45          | 20.00 | Sliding        | Sliding - (WOB:45;GPM :705;TFO:135L))     |
| 17:15      | 17:45    | 0.50  | 13076       | 13116     | 40          | 80.00 | Drilling       | Drilling - (WOB:52;GPM :705;RPM:40)       |
| 17:45      | 17:55    | 0.17  | 13116       | 13116     | 0           | .00   | Survey & Conn. | Survey & Conn.@13057' Inc 92.4° Azm 5.62° |
| 17:55      | 18:05    | 0.17  | 13116       | 13126     | 10          | 60.00 | Drilling       | Drilling - (WOB:52;GPM :705;RPM:40)       |
| 18:05      | 19:35    | 1.50  | 13126       | 13160     | 34          | 22.67 | Sliding        | Sliding - (WOB:45;GPM :705;TFO:-115))     |
| 19:35      | 20:05    | 0.50  | 13160       | 13205     | 45          | 90.00 | Drilling       | Drilling - (WOB:52;GPM :705;RPM:40)       |
| 20:05      | 20:15    | 0.17  | 13205       | 13205     | 0           | .00   | Survey & Conn. | Survey & Conn.@13146' Inc 88.5° Azm 5.02° |
| 20:15      | 20:25    | 0.17  | 13205       | 13214     | 9           | 54.00 | Drilling       | Drilling - (WOB:52;GPM :705;RPM:40)       |
| 20:25      | 22:05    | 1.67  | 13214       | 13250     | 36          | 21.60 | Sliding        | Sliding - (WOB:45;GPM :705;TFO:-65))      |
| 22:05      | 22:15    | 0.17  | 13250       | 13250     | 0           | .00   | Circulating    | Check Shot @ 13191                        |
| 22:15      | 22:20    | 0.08  | 13250       | 13258     | 8           | 96.00 | Drilling       | Drilling - (WOB:52;GPM :705;RPM:40)       |
| 22:20      | 23:50    | 1.50  | 13258       | 13294     | 36          | 24.00 | Sliding        | Sliding - (WOB:45;GPM :705;TFO:-65))      |
| 23:50      | 24:00    | 0.17  | 13294       | 13294     | 0           | .00   | Survey & Conn. | Survey & Conn.@13235' Inc 87.1° Azm 1.72° |





**SDI Job #:** ID2386-3  
**COMPANY:** Advance Energy Partners ,LLC  
**LOCATION:** Lea County, New Mexico  
**RIG NAME:** H&P466 Flex 3  
**STATE:** New Mexico  
**COUNTY:** Lea Co.  
**WELL NAME:** Wool Head 20 State Com 554H  
**Lead Directional :** Jason Greer

**Report Time:** 2400 **13 of 13**  
**API JOB #** 30-025-46483  
**WORK ORDER#** ID2386  
**FIELD:** Delaware Basin  
**Sec-Twn-Rng:** 20-21S-33E  
**Range/Section** NM0092  
**Company Man** Frank Calhoun  
**2nd Dir Hand :** Jason Mueller

**From December 08, 2019 at 0000 to December 08, 2019 at 2400**

| DAILY TOTALS    |          | Assembly Totals        |                    |            |           |            |              |                                                                                                                                                            |           |          |         |     |
|-----------------|----------|------------------------|--------------------|------------|-----------|------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|---------|-----|
| Start Depth     | 13294.00 | BHA #                  | Motor SN / R.S. SN | Slide Ftg  | Slide Hrs | Rotate Ftg | Rotate Hrs   | Circ Hrs                                                                                                                                                   | D & C Hrs | BHA Ftg  | Avg ROP |     |
| End Depth       | 14101.00 | 6                      | XSS70074           | 510.00     | 26.50     | 1,476.00   | 22.08        | 4.75                                                                                                                                                       | 53.33     | 1,986.00 | 37.77   |     |
| Below Rot Hrs.  | 24.00    |                        |                    |            |           |            |              |                                                                                                                                                            |           |          |         |     |
| Total Drilled:  | 807.00   | Drilling Parameters    |                    | Mud Record |           | Bit Record |              | Current BHA # 6<br>8 1/2" Baker DD506TWX w/ 7" 7/8 8.5 FBH @ 1.75 w/ 8 1/8" Nortrak Stab<br>APS RESISTIVITY TOOL<br>APS COLLAR<br>X/O ED 54 B - 4 1/2 IF P |           |          |         |     |
| Avg. Total ROP: | 37.39    |                        |                    |            |           |            |              |                                                                                                                                                            |           |          |         |     |
| Slide Footage:  | 205.00   | WOB:                   | 52                 | Weight:    | 9.4       | Model      | 8 1/2" Baker |                                                                                                                                                            |           |          |         |     |
| Slide Hours     | 11.33    | Rot Wt:                | 280                | Visc:      | 52        | SN.:       | 5301253      |                                                                                                                                                            |           |          |         |     |
| Avg. Slide ROP: | 18.09    | Pick UP:               | 315                | Chlorides: | 45000     | MFG.       | BAKER        |                                                                                                                                                            |           |          |         |     |
| Rotate Footage: | 602.00   | Slack Off:             | 185                | YP:        | 7         | Type       | PDC          |                                                                                                                                                            |           |          |         |     |
| Rotary Hours    | 10.25    | SPP:                   | 3550               | PV:        | 17        | IADC       |              |                                                                                                                                                            |           |          |         |     |
| Avg. Rot ROP:   | 58.73    | Flow:                  | 705 - 705          | PH:        | 0         | JETS       | 6-22         |                                                                                                                                                            |           |          |         |     |
| Circ Hours      | 1.08     | SPM:                   | 219                | GAS:       | 0         | TFA:       | 2.226        |                                                                                                                                                            |           |          |         |     |
| Ream Hours      | 0.00     | Rot. RPM               | 40 - 40            | SAND:      | 0.1       | Hole ID:   | 8 1/2        |                                                                                                                                                            |           |          |         |     |
| Rotary Hrs%:    | 47.49    | Mot RPM:               | 0 - 40             | WL:        | 8         | Bit Hrs:   | 48.58        |                                                                                                                                                            |           |          |         |     |
| Slide Hrs%:     | 52.51    | Incl. In:              | 87.1               | SOLID:     | 9.9       | Bit Ftg:   | 1986.00      |                                                                                                                                                            |           |          |         |     |
| Rotary Ftg%:    | 74.60    | Azm. In:               | 1.72               | BHT°:      | 165       | Pumps      |              |                                                                                                                                                            |           |          |         |     |
| Slide Ftg%:     | 25.40    | Incl. Out:             | 90.2               | Flow T°:   | 122       |            |              |                                                                                                                                                            |           |          |         |     |
| Cost Detail     |          | Azm. Out:              | 359.12             | Oil %:     | 72        | Liner      | 5.5          |                                                                                                                                                            |           |          |         | 5.5 |
| Descr.          | Price    |                        |                    |            | Stroke    | 11         | 11           |                                                                                                                                                            |           |          |         |     |
| DAY RATE        | 8,150.00 |                        |                    |            | Effic.    | 95.00%     | 95.00%       |                                                                                                                                                            |           |          |         |     |
|                 |          | Cost Breakdown         |                    |            | Gal/Stk   | 3.22       | 3.22         |                                                                                                                                                            |           |          |         |     |
|                 |          | Total Daily \$8,150.00 |                    |            | BBL/Stk   | 0.077      | 0.077        |                                                                                                                                                            |           |          |         |     |
|                 |          | Total Job \$72,277.00  |                    |            |           |            |              |                                                                                                                                                            |           |          |         |     |

**GENERAL COMMENT**

| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP    | Activity Code  | COMMENT                                     |
|------------|----------|-------|-------------|-----------|-------------|--------|----------------|---------------------------------------------|
| 00:00      | 00:10    | 0.17  | 13294       | 13302     | 8           | 48.00  | Drilling       | Drilling - (WOB:52;GPM :705;RPM:40)         |
| 00:10      | 01:10    | 1.00  | 13302       | 13322     | 20          | 20.00  | Sliding        | Sliding - (WOB:45;GPM :705;TFO:HS))         |
| 01:10      | 01:20    | 0.17  | 13322       | 13322     | 0           | .00    | Circulating    | Check Shot @ 13263 86.4 / 359.22            |
| 01:20      | 02:10    | 0.83  | 13322       | 13339     | 17          | 20.40  | Sliding        | Sliding - (WOB:45;GPM :705;TFO:HS))         |
| 02:10      | 02:40    | 0.50  | 13339       | 13372     | 33          | 66.00  | Drilling       | Drilling - (WOB:52;GPM :705;RPM:40)         |
| 02:40      | 02:50    | 0.17  | 13372       | 13372     | 0           | .00    | Circulating    | Check Shot @ 13313 87 / 354.32              |
| 02:50      | 02:55    | 0.08  | 13372       | 13384     | 12          | 144.00 | Drilling       | Drilling - (WOB:52;GPM :705;RPM:40)         |
| 02:55      | 03:05    | 0.17  | 13384       | 13384     | 0           | .00    | Survey & Conn. | Survey & Conn.@13325' Inc 87.9° Azm 353.42° |
| 03:05      | 03:10    | 0.08  | 13384       | 13392     | 8           | 96.00  | Drilling       | Drilling - (WOB:52;GPM :705;RPM:40)         |
| 03:10      | 03:30    | 0.33  | 13392       | 13392     | 0           | .00    | Circulating    | Resync MWD Tool                             |
| 03:30      | 04:30    | 1.00  | 13392       | 13417     | 25          | 25.00  | Sliding        | Sliding - (WOB:45;GPM :705;TFO:60))         |
| 04:30      | 04:50    | 0.33  | 13417       | 13429     | 12          | 36.00  | Drilling       | Drilling - (WOB:52;GPM :705;RPM:40)         |
| 04:50      | 05:00    | 0.17  | 13429       | 13429     | 0           | .00    | Circulating    | Check Shot @ 13370 88.7 / 352.32            |
| 05:00      | 05:10    | 0.17  | 13429       | 13429     | 0           | .00    | Circulating    | Recycle - MWD Tool                          |

| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP    | Activity Code  | COMMENT                                     |
|------------|----------|-------|-------------|-----------|-------------|--------|----------------|---------------------------------------------|
| 05:10      | 05:45    | 0.58  | 13429       | 13441     | 12          | 20.57  | Sliding        | Sliding - (WOB:45;GPM :705;TFO:60)          |
| 05:45      | 06:15    | 0.50  | 13441       | 13474     | 33          | 66.00  | Drilling       | Drilling - (WOB:55;GPM :705;RPM:40)         |
| 06:15      | 06:25    | 0.17  | 13474       | 13474     | 0           | .00    | Survey & Conn. | Survey & Conn.@13415' Inc 92.2° Azm 352.12° |
| 06:25      | 07:10    | 0.75  | 13474       | 13505     | 31          | 41.33  | Drilling       | Drilling - (WOB:55;GPM :705;RPM:40)         |
| 07:10      | 08:30    | 1.33  | 13505       | 13530     | 25          | 18.75  | Sliding        | Sliding - (WOB:60;GPM :705;TFO:135R))       |
| 08:30      | 09:20    | 0.83  | 13530       | 13564     | 34          | 40.80  | Drilling       | Drilling - (WOB:55; :705;RPM:40)            |
| 09:20      | 09:30    | 0.17  | 13564       | 13564     | 0           | .00    | Survey & Conn. | Survey & Conn.@13505' Inc 94.8° Azm 354.22° |
| 09:30      | 09:50    | 0.33  | 13564       | 13574     | 10          | 30.00  | Drilling       | Drilling - (WOB:55; :705;RPM:40)            |
| 09:50      | 11:05    | 1.25  | 13574       | 13596     | 22          | 17.60  | Sliding        | Sliding - (WOB:65; :705;TFO:180))           |
| 11:05      | 12:20    | 1.25  | 13596       | 13653     | 57          | 45.60  | Drilling       | Drilling - (WOB:55; :705;RPM:40)            |
| 12:20      | 12:30    | 0.17  | 13653       | 13653     | 0           | .00    | Survey & Conn. | Survey & Conn.@13594' Inc 94.5° Azm 357.62° |
| 12:30      | 12:40    | 0.17  | 13653       | 13661     | 8           | 48.00  | Drilling       | Drilling - (WOB:55; :705;RPM:40)            |
| 12:40      | 14:00    | 1.33  | 13661       | 13685     | 24          | 18.00  | Sliding        | Sliding - (WOB:65; :705;TFO:160R))          |
| 14:00      | 14:40    | 0.67  | 13685       | 13702     | 17          | 25.50  | Drilling       | Drilling - (WOB:55; :705;RPM:40)            |
| 14:40      | 16:35    | 1.92  | 13702       | 13739     | 37          | 19.30  | Sliding        | Sliding - (WOB:65; :705;TFO:180))           |
| 16:35      | 16:50    | 0.25  | 13739       | 13743     | 4           | 16.00  | Drilling       | Drilling - (WOB:55; :705;RPM:40)            |
| 16:50      | 17:00    | 0.17  | 13743       | 13743     | 0           | .00    | Survey & Conn. | Survey & Conn.@13684' Inc 94.1° Azm 358.72° |
| 17:00      | 18:05    | 1.08  | 13743       | 13832     | 89          | 82.15  | Drilling       | Drilling - (WOB:55; :705;RPM:40)            |
| 18:05      | 18:15    | 0.17  | 13832       | 13832     | 0           | .00    | Survey & Conn. | Survey & Conn.@13773' Inc 89.6° Azm 0.02°   |
| 18:15      | 18:50    | 0.58  | 13832       | 13877     | 45          | 77.14  | Drilling       | Drilling - (WOB:52; :705;RPM:40)            |
| 18:50      | 18:55    | 0.08  | 13877       | 13877     | 0           | .00    | Circulating    | Check Shot @ 13818 90.1 / 359.42            |
| 18:55      | 19:25    | 0.50  | 13877       | 13922     | 45          | 90.00  | Drilling       | Drilling - (WOB:52;GPM :705;RPM:40)         |
| 19:25      | 19:35    | 0.17  | 13922       | 13922     | 0           | .00    | Survey & Conn. | Survey & Conn.@13863' Inc 90.5° Azm 359.42° |
| 19:35      | 19:40    | 0.08  | 13922       | 13934     | 12          | 144.00 | Drilling       | Drilling - (WOB:52;GPM :705;RPM:40)         |
| 19:40      | 20:10    | 0.50  | 13934       | 13944     | 10          | 20.00  | Sliding        | Sliding - (WOB:40;GPM :705;TFO:-130))       |
| 20:10      | 21:05    | 0.92  | 13944       | 14012     | 68          | 74.18  | Drilling       | Drilling - (WOB:52;GPM :705;RPM:40)         |
| 21:05      | 21:15    | 0.17  | 14012       | 14012     | 0           | .00    | Survey & Conn. | Survey & Conn.@13953' Inc 90.2° Azm 359.12° |
| 21:15      | 21:35    | 0.33  | 14012       | 14026     | 14          | 42.00  | Drilling       | Drilling - (WOB:52;GPM :705;RPM:40)         |
| 21:35      | 22:40    | 1.08  | 14026       | 14031     | 5           | 4.62   | Sliding        | Sliding - (WOB:40;GPM :705;TFO:45))         |
| 22:40      | 22:50    | 0.17  | 14031       | 14036     | 5           | 30.00  | Drilling       | Drilling - (WOB:52;GPM :705;RPM:40)         |
| 22:50      | 23:20    | 0.50  | 14036       | 14044     | 8           | 16.00  | Sliding        | Sliding - (WOB:35;GPM :705;TFO:45))         |
| 23:20      | 24:00    | 0.67  | 14044       | 14101     | 57          | 85.50  | Drilling       | Drilling - (WOB:52;GPM :705;RPM:40)         |



**SDI Job #:** ID2386-3  
**COMPANY:** Advance Energy Partners ,LLC  
**LOCATION:** Lea County, New Mexico  
**RIG NAME:** H&P466 Flex 3  
**STATE:** New Mexico  
**COUNTY:** Lea Co.  
**WELL NAME:** Wool Head 20 State Com 554H  
**Lead Directional :** Jason Greer

**Report Time:** 2400 **14 of 14**  
**API JOB #** 30-025-46483  
**WORK ORDER#** ID2386  
**FIELD:** Delaware Basin  
**Sec-Twn-Rng:** 20-21S-33E  
**Range/Section** NM0092  
**Company Man** Frank Calhoun  
**2nd Dir Hand :** Jason Mueller

**From December 09, 2019 at 0000 to December 09, 2019 at 2400**

| DAILY TOTALS    |          | Assembly Totals     |                    |            |           |            |              |          |                                                                                                                                                            |          |         |
|-----------------|----------|---------------------|--------------------|------------|-----------|------------|--------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------|
| Start Depth     | 14101.00 | BHA #               | Motor SN / R.S. SN | Slide Ftg  | Slide Hrs | Rotate Ftg | Rotate Hrs   | Circ Hrs | D & C Hrs                                                                                                                                                  | BHA Ftg  | Avg ROP |
| End Depth       | 14842.00 | 6                   | XSS70074           | 672.00     | 38.50     | 2,055.00   | 31.08        | 6.25     | 75.83                                                                                                                                                      | 2,727.00 | 36.32   |
| Below Rot Hrs.  | 24.00    |                     |                    |            |           |            |              |          |                                                                                                                                                            |          |         |
| Total Drilled:  | 741.00   | Drilling Parameters |                    | Mud Record |           | Bit Record |              |          | Current BHA # 6<br>8 1/2" Baker DD506TWX w/ 7" 7/8 8.5 FBH @ 1.75 w/ 8 1/8" Nortrak Stab<br>APS RESISTIVITY TOOL<br>APS COLLAR<br>X/O ED 54 B - 4 1/2 IF P |          |         |
| Avg. Total ROP: | 35.29    |                     |                    |            |           |            |              |          |                                                                                                                                                            |          |         |
| Slide Footage:  | 162.00   | WOB:                | 60                 | Weight:    | 9.4       | Model      | 8 1/2" Baker |          |                                                                                                                                                            |          |         |
| Slide Hours     | 12.00    | Rot Wt:             | 280                | Visc:      | 52        | SN.:       | 5301253      |          |                                                                                                                                                            |          |         |
| Avg. Slide ROP: | 13.50    | Pick UP:            | 315                | Chlorides: | 45000     | MFG.       | BAKER        |          |                                                                                                                                                            |          |         |
| Rotate Footage: | 579.00   | Slack Off:          | 185                | YP:        | 7         | Type       | PDC          |          |                                                                                                                                                            |          |         |
| Rotary Hours    | 9.00     | SPP:                | 3900               | PV:        | 17        | IADC       |              |          |                                                                                                                                                            |          |         |
| Avg. Rot ROP:   | 64.33    | Flow:               | 705 - 705          | PH:        | 0         | JETS       | 6-22         |          |                                                                                                                                                            |          |         |
| Circ Hours      | 1.50     | SPM:                | 219                | GAS:       | 0         | TFA:       | 2.226        |          |                                                                                                                                                            |          |         |
| Ream Hours      | 0.00     | Rot. RPM            | 40 - 40            | SAND:      | 0.1       | Hole ID:   | 8 1/2        |          |                                                                                                                                                            |          |         |
| Rotary Hrs%:    | 42.86    | Mot RPM:            | 0 - 40             | WL:        | 8         | Bit Hrs:   | 69.58        |          |                                                                                                                                                            |          |         |
| Slide Hrs%:     | 57.14    | Incl. In:           | 95.4               | SOLID:     | 9.9       | Bit Ftg:   | 2727.00      |          |                                                                                                                                                            |          |         |
| Rotary Ftg%:    | 78.14    | Azm. In:            | 359.2              | BHT°:      | 165       | Pumps      |              |          |                                                                                                                                                            |          |         |
| Slide Ftg%:     | 21.86    | Incl. Out:          | 91.9               | Flow T°:   | 122       |            |              |          |                                                                                                                                                            |          |         |
| Cost Detail     |          | Azm. Out:           | 358.52             | Oil %:     | 72        | Liner      | 5.5          | 5.5      |                                                                                                                                                            |          |         |
| Descr.          | Price    |                     |                    |            |           | Stroke     | 11           | 11       |                                                                                                                                                            |          |         |
| DAY RATE        | 8,150.00 | Cost Breakdown      |                    |            |           | Effic.     | 95.00%       | 95.00%   |                                                                                                                                                            |          |         |
|                 |          | Total Daily         | \$8,150.00         |            | Gal/Stk   | 3.22       | 3.22         |          |                                                                                                                                                            |          |         |
|                 |          | Total Job           | \$80,427.00        |            | BBL/Stk   | 0.077      | 0.077        |          |                                                                                                                                                            |          |         |

#### GENERAL COMMENT

| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP   | Activity Code  | COMMENT                                                                            |
|------------|----------|-------|-------------|-----------|-------------|-------|----------------|------------------------------------------------------------------------------------|
| 00:00      | 01:00    | 1.00  | 14101       | 14101     | 0           | .00   | Circulating    | Retake Survey to confirm 5.8 Deg DL. / Rack back 1 Stnd to confirm previous Survey |
| 01:00      | 04:55    | 3.92  | 14101       | 14138     | 37          | 9.45  | Sliding        | Sliding - (WOB:55;GPM :705;TFO:-135))                                              |
| 04:55      | 05:05    | 0.17  | 14138       | 14138     | 0           | .00   | Survey & Conn. | Survey & Conn.@14042' Inc 95.4° Azm 359.2°                                         |
| 05:05      | 05:30    | 0.42  | 14138       | 14160     | 22          | 52.80 | Drilling       | Drilling - (WOB:55;GPM :705;RPM:40)                                                |
| 05:30      | 06:35    | 1.08  | 14160       | 14174     | 14          | 12.92 | Sliding        | Sliding - (WOB:55;GPM :705;TFO:180))                                               |
| 06:35      | 07:00    | 0.42  | 14174       | 14192     | 18          | 43.20 | Drilling       | Drilling - (WOB:55;GPM :705;RPM:40)                                                |
| 07:00      | 07:10    | 0.17  | 14192       | 14192     | 0           | .00   | Survey & Conn. | Survey & Conn.@14133' Inc 95.7° Azm 0.32°                                          |
| 07:10      | 07:30    | 0.33  | 14192       | 14200     | 8           | 24.00 | Drilling       | Drilling - (WOB:55;GPM :705;RPM:40)                                                |
| 07:30      | 08:30    | 1.00  | 14200       | 14221     | 21          | 21.00 | Sliding        | Sliding - (WOB:55;GPM :705;TFO:180))                                               |
| 08:30      | 09:25    | 0.92  | 14221       | 14236     | 15          | 16.36 | Drilling       | Drilling - (WOB:58;GPM :705;RPM:40)                                                |
| 09:25      | 11:30    | 2.08  | 14236       | 14267     | 31          | 14.88 | Sliding        | Sliding - (WOB:55;GPM :705;TFO:180))                                               |
| 11:30      | 11:50    | 0.33  | 14267       | 14282     | 15          | 45.00 | Drilling       | Drilling - (WOB:58;GPM :705;RPM:40)                                                |
| 11:50      | 12:00    | 0.17  | 14282       | 14282     | 0           | .00   | Survey & Conn. | Survey & Conn.@14223' Inc 91.7° Azm 1.62°                                          |
| 12:00      | 13:10    | 1.17  | 14282       | 14372     | 90          | 77.14 | Drilling       | Drilling - (WOB:58;GPM :705;RPM:40)                                                |

| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP    | Activity Code  | COMMENT                                     |
|------------|----------|-------|-------------|-----------|-------------|--------|----------------|---------------------------------------------|
| 13:10      | 13:20    | 0.17  | 14372       | 14372     | 0           | .00    | Survey & Conn. | Survey & Conn.@14313' Inc 88.4° Azm 1.52°   |
| 13:20      | 13:45    | 0.42  | 14372       | 14392     | 20          | 48.00  | Drilling       | Drilling - (WOB:58;GPM :705;RPM:40)         |
| 13:45      | 14:00    | 0.25  | 14392       | 14398     | 6           | 24.00  | Sliding        | Sliding - (WOB:60;GPM :705;TFO:0))          |
| 14:00      | 14:55    | 0.92  | 14398       | 14461     | 63          | 68.73  | Drilling       | Drilling - (WOB:60;GPM :705;RPM:40)         |
| 14:55      | 15:05    | 0.17  | 14461       | 14461     | 0           | .00    | Survey & Conn. | Survey & Conn.@14402' Inc 87.9° Azm 1.12°   |
| 15:05      | 15:20    | 0.25  | 14461       | 14466     | 5           | 20.00  | Drilling       | Drilling - (WOB:60;GPM :705;RPM:40)         |
| 15:20      | 17:30    | 2.17  | 14466       | 14501     | 35          | 16.15  | Sliding        | Sliding - (WOB:60;GPM :705;TFO:0))          |
| 17:30      | 18:10    | 0.67  | 14501       | 14551     | 50          | 75.00  | Drilling       | Drilling - (WOB:60;GPM :705;RPM:40)         |
| 18:10      | 18:20    | 0.17  | 14551       | 14551     | 0           | .00    | Survey & Conn. | Survey & Conn.@14492' Inc 90.4° Azm 359.92° |
| 18:20      | 18:30    | 0.17  | 14551       | 14563     | 12          | 72.00  | Drilling       | Drilling - (WOB:60;GPM :705;RPM:40)         |
| 18:30      | 18:40    | 0.17  | 14563       | 14563     | 0           | .00    | Circulating    | Check Shot @ 14504 91.3 / 359.52            |
| 18:40      | 19:30    | 0.83  | 14563       | 14641     | 78          | 93.60  | Drilling       | Drilling - (WOB:60;GPM :705;RPM:40)         |
| 19:30      | 19:40    | 0.17  | 14641       | 14641     | 0           | .00    | Survey & Conn. | Survey & Conn.@14582' Inc 91.6° Azm 359.42° |
| 19:40      | 20:30    | 0.83  | 14641       | 14730     | 89          | 106.80 | Drilling       | Drilling - (WOB:60;GPM :705;RPM:40)         |
| 20:30      | 20:40    | 0.17  | 14730       | 14730     | 0           | .00    | Survey & Conn. | Survey & Conn.@14671' Inc 90.2° Azm 358.92° |
| 20:40      | 21:00    | 0.33  | 14730       | 14744     | 14          | 42.00  | Drilling       | Drilling - (WOB:60;GPM :705;RPM:40)         |
| 21:00      | 22:00    | 1.00  | 14744       | 14756     | 12          | 12.00  | Sliding        | Sliding - (WOB:60;GPM :705;TFO:40))         |
| 22:00      | 22:10    | 0.17  | 14756       | 14756     | 0           | .00    | Circulating    | Recycle - MWD                               |
| 22:10      | 22:40    | 0.50  | 14756       | 14762     | 6           | 12.00  | Sliding        | Sliding - (WOB:60;GPM :705;TFO:30))         |
| 22:40      | 23:25    | 0.75  | 14762       | 14820     | 58          | 77.33  | Drilling       | Drilling - (WOB:60;GPM :705;RPM:40)         |
| 23:25      | 23:35    | 0.17  | 14820       | 14820     | 0           | .00    | Survey & Conn. | Survey & Conn.@14761' Inc 91.9° Azm 358.52° |
| 23:35      | 23:45    | 0.17  | 14820       | 14835     | 15          | 90.00  | Drilling       | Drilling - (WOB:60;GPM :705;RPM:40)         |
| 23:45      | 23:55    | 0.17  | 14835       | 14835     | 0           | .00    | Circulating    | Check Shot @ 14776 92.3 / 358.12            |
| 23:55      | 24:00    | 0.08  | 14835       | 14842     | 7           | 84.00  | Drilling       | Drilling - (WOB:60;GPM :705;RPM:40)         |



SDI Job #: ID2386-3  
 COMPANY: Advance Energy Partners ,LLC  
 LOCATION: Lea County, New Mexico  
 RIG NAME: H&P466 Flex 3  
 STATE: New Mexico  
 COUNTY: Lea Co.  
 WELL NAME: Wool Head 20 State Com 554H  
 Lead Directional : Jason Greer

Report Time: 2400 15 of 15  
 API JOB # 30-025-46483  
 WORK ORDER# ID2386  
 FIELD: Delaware Basin  
 Sec-Twn-Rng: 20-21S-33E  
 Range/Section NM0092  
 Company Man Frank Calhoun  
 2nd Dir Hand : Jason Mueller

From Tuesday, December 10, 2019 at 0000 to Tuesday, December 10, 2019 at 2400

| DAILY TOTALS        |           | Assembly Totals                                                                                                                                                                                                                         |                    |           |           |            |            |          |           |          |         |
|---------------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------|-----------|------------|------------|----------|-----------|----------|---------|
|                     |           | BHA #                                                                                                                                                                                                                                   | Motor SN / R.S. SN | Slide Ftg | Slide Hrs | Rotate Ftg | Rotate Hrs | Circ Hrs | D & C Hrs | BHA Ftg  | Avg ROP |
| Start Depth         | 14842.00  | 6                                                                                                                                                                                                                                       | XSS70074           | 683.00    | 39.08     | 2,248.00   | 35.17      | 6.75     | 81.00     | 2,931.00 | 36.52   |
| End Depth           | 15046.00  | 7                                                                                                                                                                                                                                       | XSS70078           | 0.00      | 0.00      | 0.00       | 0.00       | .58      | 0.58      | 0.00     | 0.00    |
| Below Rot Hrs.      | 24.00     |                                                                                                                                                                                                                                         |                    |           |           |            |            |          |           |          |         |
| Total Drilled:      | 204.00    |                                                                                                                                                                                                                                         |                    |           |           |            |            |          |           |          |         |
| Avg. Total ROP:     | 43.71     |                                                                                                                                                                                                                                         |                    |           |           |            |            |          |           |          |         |
| Slide Footage:      | 11.00     |                                                                                                                                                                                                                                         |                    |           |           |            |            |          |           |          |         |
| Slide Hours         | 0.58      |                                                                                                                                                                                                                                         |                    |           |           |            |            |          |           |          |         |
| Avg. Slide ROP:     | 18.86     |                                                                                                                                                                                                                                         |                    |           |           |            |            |          |           |          |         |
| Rotate Footage:     | 193.00    |                                                                                                                                                                                                                                         |                    |           |           |            |            |          |           |          |         |
| Rotary Hours        | 4.08      |                                                                                                                                                                                                                                         |                    |           |           |            |            |          |           |          |         |
| Avg. Rot ROP:       | 47.27     |                                                                                                                                                                                                                                         |                    |           |           |            |            |          |           |          |         |
| Circ Hours          | 1.08      |                                                                                                                                                                                                                                         |                    |           |           |            |            |          |           |          |         |
| Ream Hours          | 0.00      |                                                                                                                                                                                                                                         |                    |           |           |            |            |          |           |          |         |
| Rotary Hrs%:        | 87.50     |                                                                                                                                                                                                                                         |                    |           |           |            |            |          |           |          |         |
| Slide Hrs%:         | 12.50     |                                                                                                                                                                                                                                         |                    |           |           |            |            |          |           |          |         |
| Rotary Ftg%:        | 94.61     |                                                                                                                                                                                                                                         |                    |           |           |            |            |          |           |          |         |
| Slide Ftg%:         | 5.39      |                                                                                                                                                                                                                                         |                    |           |           |            |            |          |           |          |         |
| Cost Detail         |           | Current BHA # 7                                                                                                                                                                                                                         |                    |           |           |            |            |          |           |          |         |
| Descr.              | Price     | 8 1/2" Baker DD506TX w/<br>7" 7/8 8.5 FBH @ 1.83 w/ SS<br>APS RESISTIVITY TOOL<br>APS COLLAR<br>X/O ED 54 B - 4 1/2 IF P<br>39 stds. DP ( 78 jts.)<br>X/O ( ED 54 P x 4 1/2 IF B)<br>NOV 6 3/4" Agitator<br>X/O ( 4 1/2 IF P x ED 54 B) |                    |           |           |            |            |          |           |          |         |
| DAY RATE            | 8,150.00  |                                                                                                                                                                                                                                         |                    |           |           |            |            |          |           |          |         |
| Motors and Turbines | 3,600.00  |                                                                                                                                                                                                                                         |                    |           |           |            |            |          |           |          |         |
| Motors and Turbines | 12,438.00 |                                                                                                                                                                                                                                         |                    |           |           |            |            |          |           |          |         |
|                     |           |                                                                                                                                                                                                                                         |                    |           |           |            |            |          |           |          |         |
| Cost Breakdown      |           | Pumps                                                                                                                                                                                                                                   |                    |           |           |            |            |          |           |          |         |
| Total Daily         |           | \$24,188.00                                                                                                                                                                                                                             |                    |           |           |            |            |          |           |          |         |
| Total Job           |           | \$104,615.00                                                                                                                                                                                                                            |                    |           |           |            |            |          |           |          |         |

#### GENERAL COMMENT

| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP   | Activity Code  | COMMENT                                     |
|------------|----------|-------|-------------|-----------|-------------|-------|----------------|---------------------------------------------|
| 00:00      | 00:20    | 0.33  | 14842       | 14865     | 23          | 69.00 | Drilling       | Drilling - (WOB:60;GPM :705;RPM:40)         |
| 00:20      | 00:30    | 0.17  | 14865       | 14865     | 0           | .00   | Circulating    | Check Shot @ 14806 92.6 / 358.04            |
| 00:30      | 01:05    | 0.58  | 14865       | 14910     | 45          | 77.14 | Drilling       | Drilling - (WOB:60;GPM :705;RPM:40)         |
| 01:05      | 01:15    | 0.17  | 14910       | 14910     | 0           | .00   | Survey & Conn. | Survey & Conn.@14851' Inc 92.4° Azm 358.32° |
| 01:15      | 01:35    | 0.33  | 14910       | 14924     | 14          | 42.00 | Drilling       | Drilling - (WOB:60;GPM :705;RPM:40)         |
| 01:35      | 02:10    | 0.58  | 14924       | 14935     | 11          | 18.86 | Sliding        | Sliding - (WOB:60;GPM :705;TFO:30))         |
| 02:10      | 03:50    | 1.67  | 14935       | 14999     | 64          | 38.40 | Drilling       | Drilling - (WOB:60;GPM :705;RPM:40)         |
| 03:50      | 04:00    | 0.17  | 14999       | 14999     | 0           | .00   | Survey & Conn. | Survey & Conn.@14940' Inc 93° Azm 358.72°   |
| 04:00      | 05:10    | 1.17  | 14999       | 15046     | 47          | 40.29 | Drilling       | Drilling - (WOB:60;GPM :705;RPM:40)         |
| 05:10      | 05:30    | 0.33  | 15046       | 15046     | 0           | .00   | Circulating    | Circulating                                 |
| 05:30      | 13:10    | 7.67  | 15046       | 15046     | 0           | .00   | POOH           | POOH                                        |
| 13:10      | 15:00    | 1.83  | 15046       | 15046     | 0           | .00   | Change BHA     | L/D BHA #6 / P/U BHA #7                     |
| 15:00      | 15:15    | 0.25  | 15046       | 15046     | 0           | .00   | Circulating    | TEST RESISTIVITY MWD                        |
| 15:15      | 18:00    | 2.75  | 15046       | 15046     | 0           | .00   | TIH            | TIH                                         |

| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP | Activity Code | COMMENT                                                |
|------------|----------|-------|-------------|-----------|-------------|-----|---------------|--------------------------------------------------------|
| 18:00      | 18:20    | 0.33  | 15046       | 15046     | 0           | .00 | Circulating   | P/U & Test Agitator Below= 625 / Above=790 @ 300 gpm's |
| 18:20      | 24:00    | 5.67  | 15046       | 15046     | 0           | .00 | TIH           | TIH                                                    |





SDI Job #: ID2386-3  
 COMPANY: Advance Energy Partners ,LLC  
 LOCATION: Lea County, New Mexico  
 RIG NAME: H&P466 Flex 3  
 STATE: New Mexico  
 COUNTY: Lea Co.  
 WELL NAME: Wool Head 20 State Com 554H  
 Lead Directional : Jason Greer

Report Time: 2400 16 of 16  
 API JOB # 30-025-46483  
 WORK ORDER# ID2386  
 FIELD: Delaware Basin  
 Sec-Twn-Rng: 20-21S-33E  
 Range/Section NM0092  
 Company Man Frank Calhoun  
 2nd Dir Hand : Jason Mueller

From Wednesday, December 11, 2019 at 0000 to Wednesday, December 11, 2019 at 2400

| DAILY TOTALS    |          | Assembly Totals        |                    |            |           |            |              |                                                                                                                                                                                                                 |           |          |         |
|-----------------|----------|------------------------|--------------------|------------|-----------|------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|---------|
| Start Depth     | 15046.00 | BHA #                  | Motor SN / R.S. SN | Slide Ftg  | Slide Hrs | Rotate Ftg | Rotate Hrs   | Circ Hrs                                                                                                                                                                                                        | D & C Hrs | BHA Ftg  | Avg ROP |
| End Depth       | 16551.00 | 7                      | XSS70078           | 208.00     | 5.50      | 1,297.00   | 10.08        | 6.08                                                                                                                                                                                                            | 21.67     | 1,505.00 | 69.46   |
| Below Rot Hrs.  | 24.00    |                        |                    |            |           |            |              |                                                                                                                                                                                                                 |           |          |         |
| Total Drilled:  | 1505.00  | Drilling Parameters    |                    | Mud Record |           | Bit Record |              | Current BHA # 7                                                                                                                                                                                                 |           |          |         |
| Avg. Total ROP: | 96.58    |                        |                    | OBM        |           | Bit No: 7  |              | 8 1/2" Baker DD506TX w/ 7" 7/8 8.5 FBH @ 1.83 w/ SS APS RESISTIVITY TOOL APS COLLAR X/O ED 54 B - 4 1/2 IF P 39 stds. DP ( 78 jts.) X/O ( ED 54 P x 4 1/2 IF B) NOV 6 3/4" Agitator X/O ( 4 1/2 IF P x ED 54 B) |           |          |         |
| Slide Footage:  | 208.00   | WOB:                   | 60                 | Weight:    | 9.5       | Model      | 8 1/2" Baker |                                                                                                                                                                                                                 |           |          |         |
| Slide Hours     | 5.50     | Rot Wt:                | 280                | Visc:      | 61        | SN.:       | 5306332      |                                                                                                                                                                                                                 |           |          |         |
| Avg. Slide ROP: | 37.82    | Pick UP:               | 315                | Chlorides: | 47000     | MFG.       | REED         |                                                                                                                                                                                                                 |           |          |         |
| Rotate Footage: | 1297.00  | Slack Off:             | 185                | YP:        | 10        | Type       | PDC          |                                                                                                                                                                                                                 |           |          |         |
| Rotary Hours    | 10.08    | SPP:                   | 4550               | PV:        | 19        | IADC       |              |                                                                                                                                                                                                                 |           |          |         |
| Avg. Rot ROP:   | 128.63   | Flow:                  | 650 - 705          | PH:        | 0         | JETS       | 6-20         |                                                                                                                                                                                                                 |           |          |         |
| Circ Hours      | 5.50     | SPM:                   | 212                | GAS:       | 0         | TFA:       | 1.84         |                                                                                                                                                                                                                 |           |          |         |
| Ream Hours      | 0.00     | Rot. RPM               | 40 - 40            | SAND:      | 0.1       | Hole ID:   | 8 1/2        |                                                                                                                                                                                                                 |           |          |         |
| Rotary Hrs%:    | 64.71    | Mot RPM:               | 0 - 40             | WL:        | 7.8       | Bit Hrs:   | 15.58        |                                                                                                                                                                                                                 |           |          |         |
| Slide Hrs%:     | 35.29    | Incl. In:              | 93.7               | SOLID:     | 10.2      | Bit Ftg:   | 1505.00      |                                                                                                                                                                                                                 |           |          |         |
| Rotary Ftg%:    | 86.18    | Azm. In:               | 358.12             | BHT°:      | 180       | Pumps      |              |                                                                                                                                                                                                                 |           |          |         |
| Slide Ftg%:     | 13.82    | Incl. Out:             | 94.8               | Flow T°:   | 128       | Liner      | 5.5          | 5.5                                                                                                                                                                                                             |           |          |         |
| Cost Detail     |          | Azm. Out:              | 357.72             | Oil %:     | 70        | Stroke     | 11           | 11                                                                                                                                                                                                              |           |          |         |
| Descr.          | Price    | Cost Breakdown         |                    |            |           |            | Effic.       | 95.00%                                                                                                                                                                                                          | 95.00%    |          |         |
| DAY RATE        | 8,150.00 | Total Daily \$8,150.00 |                    |            |           |            | Gal/Stk      | 3.22                                                                                                                                                                                                            | 3.22      |          |         |
|                 |          | Total Job \$112,765.00 |                    |            |           |            | BBL/Stk      | 0.077                                                                                                                                                                                                           | 0.077     |          |         |



| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP    | Activity Code  | COMMENT                                     |
|------------|----------|-------|-------------|-----------|-------------|--------|----------------|---------------------------------------------|
| 08:45      | 09:05    | 0.33  | 15407       | 15475     | 68          | 204.00 | Drilling       | Drilling - (WOB:52;GPM :650;RPM:40)         |
| 09:05      | 09:15    | 0.17  | 15475       | 15475     | 0           | .00    | Survey & Conn. | Survey & Conn.@15420' Inc 94.5° Azm 358.72° |
| 09:15      | 09:30    | 0.25  | 15475       | 15485     | 10          | 40.00  | Drilling       | Drilling - (WOB:52;GPM :650;RPM:40)         |
| 09:30      | 10:20    | 0.83  | 15485       | 15505     | 20          | 24.00  | Sliding        | Sliding - (WOB:60;GPM :705;TFO:180))        |
| 10:20      | 10:45    | 0.42  | 15505       | 15565     | 60          | 144.00 | Sliding        | Sliding - (WOB:60;GPM :705;TFO:155R))       |
| 10:45      | 10:55    | 0.17  | 15565       | 15565     | 0           | .00    | Survey & Conn. | Survey & Conn.@15510' Inc 92.2° Azm 0.82°   |
| 10:55      | 11:25    | 0.50  | 15565       | 15654     | 89          | 178.00 | Drilling       | Drilling - (WOB:52;GPM :650;RPM:40)         |
| 11:25      | 11:35    | 0.17  | 15654       | 15654     | 0           | .00    | Survey & Conn. | Survey & Conn.@15599' Inc 92.6° Azm 1.52°   |
| 11:35      | 12:05    | 0.50  | 15654       | 15744     | 90          | 180.00 | Drilling       | Drilling - (WOB:52;GPM :650;RPM:40)         |
| 12:05      | 12:15    | 0.17  | 15744       | 15744     | 0           | .00    | Survey & Conn. | Survey & Conn.@15689' Inc 93.1° Azm 2.42°   |
| 12:15      | 12:50    | 0.58  | 15744       | 15833     | 89          | 152.57 | Drilling       | Drilling - (WOB:52; :650;RPM:40)            |
| 12:50      | 13:00    | 0.17  | 15833       | 15833     | 0           | .00    | Survey & Conn. | Survey & Conn.@15778' Inc 93° Azm 3.22°     |
| 13:00      | 13:10    | 0.17  | 15833       | 15843     | 10          | 60.00  | Drilling       | Drilling - (WOB:52; :650;RPM:40)            |
| 13:10      | 13:50    | 0.67  | 15843       | 15870     | 27          | 40.50  | Sliding        | Sliding - (WOB:60; :705;TFO:115L))          |
| 13:50      | 14:20    | 0.50  | 15870       | 15923     | 53          | 106.00 | Drilling       | Drilling - (WOB:52; :650;RPM:40)            |
| 14:20      | 14:30    | 0.17  | 15923       | 15923     | 0           | .00    | Survey & Conn. | Survey & Conn.@15868' Inc 89.2° Azm 0.82°   |
| 14:30      | 15:00    | 0.50  | 15923       | 16013     | 90          | 180.00 | Drilling       | Drilling - (WOB:52; :650;RPM:40)            |
| 15:00      | 15:10    | 0.17  | 16013       | 16013     | 0           | .00    | Survey & Conn. | Survey & Conn.@15958' Inc 88.5° Azm 0.32°   |
| 15:10      | 15:15    | 0.08  | 16013       | 16023     | 10          | 120.00 | Drilling       | Drilling - (WOB:52; :650;RPM:40)            |
| 15:15      | 16:05    | 0.83  | 16023       | 16048     | 25          | 30.00  | Sliding        | Sliding - (WOB:60; :705;TFO:30L))           |
| 16:05      | 16:20    | 0.25  | 16048       | 16048     | 0           | .00    | Other          | Recycle MWD                                 |
| 16:20      | 16:40    | 0.33  | 16048       | 16103     | 55          | 165.00 | Drilling       | Drilling - (WOB:52;GPM :650;RPM:40)         |
| 16:40      | 16:50    | 0.17  | 16103       | 16103     | 0           | .00    | Survey & Conn. | Survey & Conn.@16048' Inc 90° Azm 358.72°   |
| 16:50      | 17:00    | 0.17  | 16103       | 16113     | 10          | 60.00  | Drilling       | Drilling - (WOB:52;GPM :650;RPM:40)         |
| 17:00      | 17:45    | 0.75  | 16113       | 16138     | 25          | 33.33  | Sliding        | Sliding - (WOB:60;GPM :705;TFO:-15))        |
| 17:45      | 18:20    | 0.58  | 16138       | 16192     | 54          | 92.57  | Drilling       | Drilling - (WOB:58;GPM :705;RPM:40)         |
| 18:20      | 18:30    | 0.17  | 16192       | 16192     | 0           | .00    | Survey & Conn. | Survey & Conn.@16137' Inc 93.8° Azm 357.62° |
| 18:30      | 19:20    | 0.83  | 16192       | 16282     | 90          | 108.00 | Drilling       | Drilling - (WOB:60;GPM :700;RPM:40)         |
| 19:20      | 19:30    | 0.17  | 16282       | 16282     | 0           | .00    | Survey & Conn. | Survey & Conn.@16227' Inc 94° Azm 355.82°   |
| 19:30      | 19:35    | 0.08  | 16282       | 16295     | 13          | 156.00 | Drilling       | Drilling - (WOB:60;GPM :700;RPM:40)         |
| 19:35      | 20:15    | 0.67  | 16295       | 16307     | 12          | 18.00  | Sliding        | Sliding - (WOB:60;GPM :705;TFO:110))        |
| 20:15      | 21:00    | 0.75  | 16307       | 16372     | 65          | 86.67  | Drilling       | Drilling - (WOB:60;GPM :705;RPM:40)         |
| 21:00      | 21:10    | 0.17  | 16372       | 16372     | 0           | .00    | Survey & Conn. | Survey & Conn.@16317' Inc 93.7° Azm 356.52° |
| 21:10      | 21:50    | 0.67  | 16372       | 16462     | 90          | 135.00 | Drilling       | Drilling - (WOB:60;GPM :705;RPM:40)         |
| 21:50      | 22:00    | 0.17  | 16462       | 16462     | 0           | .00    | Survey & Conn. | Survey & Conn.@16407' Inc 94.3° Azm 356.22° |
| 22:00      | 22:10    | 0.17  | 16462       | 16476     | 14          | 84.00  | Drilling       | Drilling - (WOB:60;GPM :705;RPM:40)         |
| 22:10      | 22:25    | 0.25  | 16476       | 16476     | 0           | .00    | Circulating    | Recycle - Resync Tool                       |
| 22:25      | 22:40    | 0.25  | 16476       | 16476     | 0           | .00    | Circulating    | Recycle - Pmp #1 / Wear Plate               |
| 22:40      | 23:20    | 0.67  | 16476       | 16493     | 17          | 25.50  | Sliding        | Sliding - (WOB:60;GPM :682;TFO:120))        |
| 23:20      | 24:00    | 0.67  | 16493       | 16551     | 58          | 87.00  | Drilling       | Drilling - (WOB:60;GPM :682;RPM:40)         |



SDI Job #: ID2386-3  
 COMPANY: Advance Energy Partners ,LLC  
 LOCATION: Lea County, New Mexico  
 RIG NAME: H&P466 Flex 3  
 STATE: New Mexico  
 COUNTY: Lea Co.  
 WELL NAME: Wool Head 20 State Com 554H  
 Lead Directional : Jason Greer

Report Time: 2400 17 of 17  
 API JOB # 30-025-46483  
 WORK ORDER# ID2386  
 FIELD: Delaware Basin  
 Sec-Twn-Rng: 20-21S-33E  
 Range/Section NM0092  
 Company Man Frank Calhoun  
 2nd Dir Hand : Jason Mueller

From Thursday, December 12, 2019 at 0000 to Thursday, December 12, 2019 at 2400

| DAILY TOTALS    |          | Assembly Totals     |                    |                  |           |                      |            |                                                                                                                                                                                                                                         |           |          |         |
|-----------------|----------|---------------------|--------------------|------------------|-----------|----------------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|---------|
| Start Depth     | 16551.00 | BHA #               | Motor SN / R.S. SN | Slide Ftg        | Slide Hrs | Rotate Ftg           | Rotate Hrs | Circ Hrs                                                                                                                                                                                                                                | D & C Hrs | BHA Ftg  | Avg ROP |
| End Depth       | 17885.00 | 7                   | XSS70078           | 384.00           | 13.33     | 2,455.00             | 20.83      | 6.58                                                                                                                                                                                                                                    | 40.75     | 2,839.00 | 69.67   |
| Below Rot Hrs.  | 24.00    |                     |                    |                  |           |                      |            |                                                                                                                                                                                                                                         |           |          |         |
| Total Drilled:  | 1334.00  | Drilling Parameters |                    | Mud Record       |           | Bit Record           |            | Current BHA # 7                                                                                                                                                                                                                         |           |          |         |
| Avg. Total ROP: | 71.78    | WOB: 70             |                    | OBM              |           | Bit No: 7            |            | 8 1/2" Baker DD506TX w/<br>7" 7/8 8.5 FBH @ 1.83 w/ SS<br>APS RESISTIVITY TOOL<br>APS COLLAR<br>X/O ED 54 B - 4 1/2 IF P<br>39 stds. DP ( 78 jts.)<br>X/O ( ED 54 P x 4 1/2 IF B)<br>NOV 6 3/4" Agitator<br>X/O ( 4 1/2 IF P x ED 54 B) |           |          |         |
| Slide Footage:  | 176.00   | Rot Wt: 280         |                    | Weight: 9.4      |           | Model 8 1/2" Baker   |            |                                                                                                                                                                                                                                         |           |          |         |
| Slide Hours     | 7.83     | Pick UP: 315        |                    | Visc: 59         |           | SN.: 5306332         |            |                                                                                                                                                                                                                                         |           |          |         |
| Avg. Slide ROP: | 22.47    | Slack Off: 185      |                    | Chlorides: 50000 |           | MFG. REED            |            |                                                                                                                                                                                                                                         |           |          |         |
| Rotate Footage: | 1158.00  | SPP: 4975           |                    | YP: 12           |           | Type PDC             |            |                                                                                                                                                                                                                                         |           |          |         |
| Rotary Hours    | 10.75    | Flow: 682 - 725     |                    | PV: 15           |           | IADC                 |            |                                                                                                                                                                                                                                         |           |          |         |
| Avg. Rot ROP:   | 107.72   | SPM: 225            |                    | PH: 0            |           | JETS 6-20            |            |                                                                                                                                                                                                                                         |           |          |         |
| Circ Hours      | 0.50     | Rot. RPM 40 - 40    |                    | GAS: 0           |           | TFA: 1.84            |            |                                                                                                                                                                                                                                         |           |          |         |
| Ream Hours      | 0.00     | Mot RPM: 0 - 40     |                    | SAND: 0.1        |           | Hole ID: 8 1/2       |            |                                                                                                                                                                                                                                         |           |          |         |
| Rotary Hrs%:    | 57.85    | Incl. In: 94.8      |                    | WL: 7.8          |           | Bit Hrs: 34.17       |            |                                                                                                                                                                                                                                         |           |          |         |
| Slide Hrs%:     | 42.15    | Azm. In: 357.72     |                    | SOLID: 9.5       |           | Bit Ftg: 2839.00     |            |                                                                                                                                                                                                                                         |           |          |         |
| Rotary Ftg%:    | 86.81    | Incl. Out: 87.4     |                    | BHT°: 180        |           | Pumps                |            |                                                                                                                                                                                                                                         |           |          |         |
| Slide Ftg%:     | 13.19    | Azm. Out: 359.9     |                    | Flow T°: 132     |           | Liner 5.5 5.5        |            |                                                                                                                                                                                                                                         |           |          |         |
| Cost Detail     |          |                     |                    | Oil %: 68        |           | Stroke 11 11         |            |                                                                                                                                                                                                                                         |           |          |         |
| Descr.          | Price    |                     |                    |                  |           | Effic. 95.00% 95.00% |            |                                                                                                                                                                                                                                         |           |          |         |
| DAY RATE        | 8,150.00 |                     |                    |                  |           | Gal/Stk 3.22 3.22    |            |                                                                                                                                                                                                                                         |           |          |         |
|                 |          |                     |                    |                  |           | BBL/Stk 0.077 0.077  |            |                                                                                                                                                                                                                                         |           |          |         |
|                 |          |                     |                    |                  |           |                      |            |                                                                                                                                                                                                                                         |           |          |         |
|                 |          |                     |                    |                  |           |                      |            |                                                                                                                                                                                                                                         |           |          |         |
|                 |          |                     |                    |                  |           |                      |            |                                                                                                                                                                                                                                         |           |          |         |
|                 |          |                     |                    |                  |           |                      |            |                                                                                                                                                                                                                                         |           |          |         |
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| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP    | Activity Code      | COMMENT                                     |
|------------|----------|-------|-------------|-----------|-------------|--------|--------------------|---------------------------------------------|
| 05:00      | 05:10    | 0.17  | 16910       | 16910     | 0           | .00    | Survey & Conn.     | Survey & Conn.@16855' Inc 92.6° Azm 358.72° |
| 05:10      | 05:55    | 0.75  | 16910       | 17000     | 90          | 120.00 | Drilling           | Drilling - (WOB:60; :725;RPM:40)            |
| 05:55      | 06:05    | 0.17  | 17000       | 17000     | 0           | .00    | Survey & Conn.     | Survey & Conn.@16945' Inc 91.9° Azm 358.62° |
| 06:05      | 06:30    | 0.42  | 17000       | 17000     | 0           | .00    | Other              | DOWNLINK MWD                                |
| 06:30      | 07:10    | 0.67  | 17000       | 17090     | 90          | 135.00 | Drilling           | Drilling - (WOB:60;GPM :725;RPM:40)         |
| 07:10      | 07:30    | 0.33  | 17090       | 17090     | 0           | .00    | Other              | DOWNLINK MWD                                |
| 07:30      | 07:40    | 0.17  | 17090       | 17090     | 0           | .00    | Survey & Conn.     | Survey & Conn.@17035' Inc 90.1° Azm 358.52° |
| 07:40      | 07:50    | 0.17  | 17090       | 17100     | 10          | 60.00  | Drilling           | Drilling - (WOB:58;GPM :725;RPM:40)         |
| 07:50      | 08:25    | 0.58  | 17100       | 17120     | 20          | 34.29  | Sliding            | Sliding - (WOB:60;GPM :725;TFO:360))        |
| 08:25      | 09:05    | 0.67  | 17120       | 17180     | 60          | 90.00  | Drilling           | Drilling - (WOB:58;GPM :725;RPM:40)         |
| 09:05      | 09:15    | 0.17  | 17180       | 17180     | 0           | .00    | Survey & Conn.     | Survey & Conn.@17125' Inc 94.7° Azm 358.82° |
| 09:15      | 09:30    | 0.25  | 17180       | 17190     | 10          | 40.00  | Drilling           | Drilling - (WOB:58;GPM :725;RPM:40)         |
| 09:30      | 12:10    | 2.67  | 17190       | 17235     | 45          | 16.88  | Sliding            | Sliding - (WOB:60;GPM :725;TFO:160R))       |
| 12:10      | 12:30    | 0.33  | 17235       | 17269     | 34          | 102.00 | Drilling           | Drilling - (WOB:58;GPM :725;RPM:40)         |
| 12:30      | 12:40    | 0.17  | 17269       | 17269     | 0           | .00    | Survey & Conn.     | Survey & Conn.@17214' Inc 93.2° Azm 358.92° |
| 12:40      | 12:55    | 0.25  | 17269       | 17290     | 21          | 84.00  | Drilling           | Drilling - (WOB:58;GPM :725;RPM:40)         |
| 12:55      | 13:05    | 0.17  | 17290       | 17290     | 0           | .00    | Other              | CHECKSHOT                                   |
| 13:05      | 13:40    | 0.58  | 17290       | 17359     | 69          | 118.29 | Drilling           | Drilling - (WOB:58;GPM :725;RPM:40)         |
| 13:40      | 13:50    | 0.17  | 17359       | 17359     | 0           | .00    | Survey & Conn.     | Survey & Conn.@17304' Inc 92.6° Azm 0.12°   |
| 13:50      | 14:30    | 0.67  | 17359       | 17359     | 0           | .00    | Rig repair         | Rig repair - Electrical                     |
| 14:30      | 15:45    | 1.25  | 17359       | 17395     | 36          | 28.80  | Sliding            | Sliding - (WOB:60;GPM :725;TFO:180))        |
| 15:45      | 16:15    | 0.50  | 17395       | 17449     | 54          | 108.00 | Drilling           | Drilling - (WOB:58;GPM :725;RPM:40)         |
| 16:15      | 16:40    | 0.42  | 17449       | 17449     | 0           | .00    | Rig Service-Inhole | Rig Service-Inhole                          |
| 16:40      | 16:50    | 0.17  | 17449       | 17449     | 0           | .00    | Survey & Conn.     | Survey & Conn.@17394' Inc 89.1° Azm 0.82°   |
| 16:50      | 17:35    | 0.75  | 17449       | 17538     | 89          | 118.67 | Drilling           | Drilling - (WOB:58; :725;RPM:40)            |
| 17:35      | 17:50    | 0.25  | 17538       | 17538     | 0           | .00    | Survey & Conn.     | Survey & Conn.@17483' Inc 86.9° Azm 2.02°   |
| 17:50      | 18:00    | 0.17  | 17538       | 17550     | 12          | 72.00  | Drilling           | Drilling - (WOB:70; :725;RPM:40)            |
| 18:00      | 19:00    | 1.00  | 17550       | 17568     | 18          | 18.00  | Sliding            | Sliding - (WOB:75; :725;TFO:HS))            |
| 19:00      | 19:40    | 0.67  | 17568       | 17628     | 60          | 90.00  | Drilling           | Drilling - (WOB:55; :725;RPM:40)            |
| 19:40      | 19:55    | 0.25  | 17628       | 17628     | 0           | .00    | Survey & Conn.     | Survey & Conn.@17573' Inc 89° Azm 0.92°     |
| 19:55      | 20:05    | 0.17  | 17628       | 17646     | 18          | 108.00 | Drilling           | Drilling - (WOB:55; :725;RPM:40)            |
| 20:05      | 20:15    | 0.17  | 17646       | 17646     | 0           | .00    | Circulating        | Recycle - Resync Tool                       |
| 20:15      | 20:25    | 0.17  | 17646       | 17646     | 0           | .00    | Circulating        | Recycle - Pmp #1 Dwn                        |
| 20:25      | 21:15    | 0.83  | 17646       | 17718     | 72          | 86.40  | Drilling           | Drilling - (WOB:70; :725;RPM:40)            |
| 21:15      | 21:30    | 0.25  | 17718       | 17718     | 0           | .00    | Survey & Conn.     | Survey & Conn.@17663' Inc 88.4° Azm 0.52°   |
| 21:30      | 22:20    | 0.83  | 17718       | 17808     | 90          | 108.00 | Drilling           | Drilling - (WOB:70; :725;RPM:40)            |
| 22:20      | 22:35    | 0.25  | 17808       | 17808     | 0           | .00    | Survey & Conn.     | Survey & Conn.@17753' Inc 87.4° Azm 359.9°  |
| 22:35      | 22:40    | 0.08  | 17808       | 17821     | 13          | 156.00 | Drilling           | Drilling - (WOB:70; :725;RPM:40)            |
| 22:40      | 23:30    | 0.83  | 17821       | 17840     | 19          | 22.80  | Sliding            | Sliding - (WOB:75; :725;TFO:10))            |
| 23:30      | 24:00    | 0.50  | 17840       | 17885     | 45          | 90.00  | Drilling           | Drilling - (WOB:70; :725;RPM:40)            |



SDI Job #: ID2386-3  
 COMPANY: Advance Energy Partners ,LLC  
 LOCATION: Lea County, New Mexico  
 RIG NAME: H&P466 Flex 3  
 STATE: New Mexico  
 COUNTY: Lea Co.  
 WELL NAME: Wool Head 20 State Com 554H  
 Lead Directional : Jason Greer

Report Time: 2400 18 of 18  
 API JOB # 30-025-46483  
 WORK ORDER# ID2386  
 FIELD: Delaware Basin  
 Sec-Twn-Rng: 20-21S-33E  
 Range/Section NM0092  
 Company Man Frank Calhoun  
 2nd Dir Hand : Jason Mueller

From Friday, December 13, 2019 at 0000 to Friday, December 13, 2019 at 2400

| DAILY TOTALS    |          | Assembly Totals     |                    |                  |           |                      |            |                                                                                                                                                                                                                                         |           |          |         |
|-----------------|----------|---------------------|--------------------|------------------|-----------|----------------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|---------|
| Start Depth     | 17885.00 | BHA #               | Motor SN / R.S. SN | Slide Ftg        | Slide Hrs | Rotate Ftg           | Rotate Hrs | Circ Hrs                                                                                                                                                                                                                                | D & C Hrs | BHA Ftg  | Avg ROP |
| End Depth       | 18906.00 | 7                   | XSS70078           | 482.00           | 18.25     | 3,378.00             | 33.33      | 10.83                                                                                                                                                                                                                                   | 62.42     | 3,860.00 | 62.01   |
| Below Rot Hrs.  | 24.00    |                     |                    |                  |           |                      |            |                                                                                                                                                                                                                                         |           |          |         |
| Total Drilled:  | 1021.00  | Drilling Parameters |                    | Mud Record       |           | Bit Record           |            | Current BHA # 7                                                                                                                                                                                                                         |           |          |         |
| Avg. Total ROP: | 58.62    | WOB: 0              |                    | OBM              |           | Bit No: 7            |            | 8 1/2" Baker DD506TX w/<br>7" 7/8 8.5 FBH @ 1.83 w/ SS<br>APS RESISTIVITY TOOL<br>APS COLLAR<br>X/O ED 54 B - 4 1/2 IF P<br>39 stds. DP ( 78 jts.)<br>X/O ( ED 54 P x 4 1/2 IF B)<br>NOV 6 3/4" Agitator<br>X/O ( 4 1/2 IF P x ED 54 B) |           |          |         |
| Slide Footage:  | 98.00    | Rot Wt: 280         |                    | Weight: 9.4      |           | Model 8 1/2" Baker   |            |                                                                                                                                                                                                                                         |           |          |         |
| Slide Hours     | 4.92     | Pick UP: 315        |                    | Visc: 59         |           | SN.: 5306332         |            |                                                                                                                                                                                                                                         |           |          |         |
| Avg. Slide ROP: | 19.93    | Slack Off: 185      |                    | Chlorides: 52000 |           | MFG. REED            |            |                                                                                                                                                                                                                                         |           |          |         |
| Rotate Footage: | 923.00   | SPP: 4800           |                    | YP: 10           |           | Type PDC             |            |                                                                                                                                                                                                                                         |           |          |         |
| Rotary Hours    | 12.50    | Flow: 725 - 750     |                    | PV: 16           |           | IADC                 |            |                                                                                                                                                                                                                                         |           |          |         |
| Avg. Rot ROP:   | 73.84    | SPM: 234            |                    | PH: 0            |           | JETS 6-20            |            |                                                                                                                                                                                                                                         |           |          |         |
| Circ Hours      | 4.25     | Rot. RPM 30 - 40    |                    | GAS: 0           |           | TFA: 1.84            |            |                                                                                                                                                                                                                                         |           |          |         |
| Ream Hours      | 0.00     | Mot RPM: 0 - 30     |                    | SAND: 0.1        |           | Hole ID: 8 1/2       |            |                                                                                                                                                                                                                                         |           |          |         |
| Rotary Hrs%:    | 71.77    | Incl. In: 87.4      |                    | WL: 7.6          |           | Bit Hrs: 51.58       |            |                                                                                                                                                                                                                                         |           |          |         |
| Slide Hrs%:     | 28.23    | Azm. In: 359.9      |                    | SOLID: 8.9       |           | Bit Ftg: 3860.00     |            |                                                                                                                                                                                                                                         |           |          |         |
| Rotary Ftg%:    | 90.40    | Incl. Out: 91.3     |                    | BHT°: 192        |           | Pumps                |            |                                                                                                                                                                                                                                         |           |          |         |
| Slide Ftg%:     | 9.60     | Azm. Out: 356.72    |                    | Flow T°: 139     |           | Liner 5.5 5.5        |            |                                                                                                                                                                                                                                         |           |          |         |
| Cost Detail     |          |                     |                    | Oil %: 66        |           | Stroke 11 11         |            |                                                                                                                                                                                                                                         |           |          |         |
| Descr.          | Price    |                     |                    |                  |           | Effic. 95.00% 95.00% |            |                                                                                                                                                                                                                                         |           |          |         |
| DAY RATE        | 8,150.00 |                     |                    |                  |           | Gal/Stk 3.22 3.22    |            |                                                                                                                                                                                                                                         |           |          |         |
|                 |          |                     |                    |                  |           | BBL/Stk 0.077 0.077  |            |                                                                                                                                                                                                                                         |           |          |         |
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| Start Time | End Time | Hours | Start Depth | End Depth | Delta Depth | ROP    | Activity Code  | COMMENT                                     |
|------------|----------|-------|-------------|-----------|-------------|--------|----------------|---------------------------------------------|
| 08:00      | 09:15    | 1.25  | 18345       | 18525     | 180         | 144.00 | Drilling       | Drilling - (WOB:65;GPM :725;RPM:30)         |
| 09:15      | 09:25    | 0.17  | 18525       | 18525     | 0           | .00    | Survey & Conn. | Survey & Conn.@18470' Inc 93° Azm 354.32°   |
| 09:25      | 09:45    | 0.33  | 18525       | 18534     | 9           | 27.00  | Drilling       | Drilling - (WOB:65;GPM :725;RPM:30)         |
| 09:45      | 10:30    | 0.75  | 18534       | 18552     | 18          | 24.00  | Sliding        | Sliding - (WOB:75;GPM :725;TFO:90R))        |
| 10:30      | 11:30    | 1.00  | 18552       | 18615     | 63          | 63.00  | Drilling       | Drilling - (WOB:65;GPM :725;RPM:30)         |
| 11:30      | 11:40    | 0.17  | 18615       | 18615     | 0           | .00    | Survey & Conn. | Survey & Conn.@18560' Inc 93° Azm 355.62°   |
| 11:40      | 11:50    | 0.17  | 18615       | 18620     | 5           | 30.00  | Drilling       | Drilling - (WOB:65;GPM :725;RPM:30)         |
| 11:50      | 12:40    | 0.83  | 18620       | 18642     | 22          | 26.40  | Sliding        | Sliding - (WOB:75;GPM :725;TFO:120R))       |
| 12:40      | 13:45    | 1.08  | 18642       | 18705     | 63          | 58.15  | Drilling       | Drilling - (WOB:65;GPM :725;RPM:30)         |
| 13:45      | 13:55    | 0.17  | 18705       | 18705     | 0           | .00    | Survey & Conn. | Survey & Conn.@18650' Inc 91.2° Azm 355.72° |
| 13:55      | 15:40    | 1.75  | 18705       | 18737     | 32          | 18.29  | Sliding        | Sliding - (WOB:75;GPM :725;TFO:90R))        |
| 15:40      | 16:30    | 0.83  | 18737       | 18794     | 57          | 68.40  | Drilling       | Drilling - (WOB:65;GPM :725;RPM:40)         |
| 16:30      | 16:45    | 0.25  | 18794       | 18794     | 0           | .00    | Survey & Conn. | Survey & Conn.@18739' Inc 90.9° Azm 357.22° |
| 16:45      | 17:15    | 0.50  | 18794       | 18794     | 0           | .00    | Circulating    | Recycle - Resync Tool                       |
| 17:15      | 17:35    | 0.33  | 18794       | 18799     | 5           | 15.00  | Sliding        | Sliding - (WOB:75;GPM :725;TFO:90R))        |
| 17:35      | 18:05    | 0.50  | 18799       | 18799     | 0           | .00    | Circulating    | Recycle - Resync Tool                       |
| 18:05      | 19:20    | 1.25  | 18799       | 18820     | 21          | 16.80  | Sliding        | Sliding - (WOB:75;GPM :725;TFO:70))         |
| 19:20      | 20:30    | 1.17  | 18820       | 18884     | 64          | 54.86  | Drilling       | Drilling - (WOB:70;GPM :725;RPM:40)         |
| 20:30      | 20:40    | 0.17  | 18884       | 18884     | 0           | .00    | Survey & Conn. | Survey & Conn.@18829' Inc 91.2° Azm 357.02° |
| 20:40      | 21:00    | 0.33  | 18884       | 18906     | 22          | 66.00  | Drilling       | Drilling - (WOB:70;GPM :725;RPM:40)         |
| 21:00      | 21:10    | 0.17  | 18906       | 18906     | 0           | .00    | MWD Survey     | MWD Survey@18851' Inc 91.3° Azm 356.72°     |
| 21:10      | 24:00    | 2.83  | 18906       | 18906     | 0           | .00    | Circulating    | Circulating / Clean Hole for TOOH           |





**SDI Job #:** ID2386-3  
**COMPANY:** Advance Energy Partners ,LLC  
**LOCATION:** Lea County, New Mexico  
**RIG NAME:** H&P466 Flex 3  
**STATE:** New Mexico  
**COUNTY:** Lea Co.  
**WELL NAME:** Wool Head 20 State Com 554H  
**Lead Directional :** Jason Greer

**Report Time:** 2400 **19 of 19**  
**API JOB #** 30-025-46483  
**WORK ORDER#** ID2386  
**FIELD:** Delaware Basin  
**Sec-Twn-Rng:** 20-21S-33E  
**Range/Section** NM0092  
**Company Man** Frank Calhoun  
**2nd Dir Hand :** Jason Mueller

**From Saturday, December 14, 2019 at 0000 to Saturday, December 14, 2019 at 2400**

| DAILY TOTALS    |          | Assembly Totals     |                    |              |           |            |              |                                                                                                                                                                                                                 |           |          |         |
|-----------------|----------|---------------------|--------------------|--------------|-----------|------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|---------|
| Start Depth     | 18906.00 | BHA #               | Motor SN / R.S. SN | Slide Ftg    | Slide Hrs | Rotate Ftg | Rotate Hrs   | Circ Hrs                                                                                                                                                                                                        | D & C Hrs | BHA Ftg  | Avg ROP |
| End Depth       | 18906.00 | 7                   | XSS70078           | 482.00       | 18.25     | 3,378.00   | 33.33        | 11.33                                                                                                                                                                                                           | 62.92     | 3,860.00 | 61.51   |
| Below Rot Hrs.  | 24.00    |                     |                    |              |           |            |              |                                                                                                                                                                                                                 |           |          |         |
| Total Drilled:  | 0.00     | Drilling Parameters |                    | Mud Record   |           | Bit Record |              | Current BHA # 7                                                                                                                                                                                                 |           |          |         |
| Avg. Total ROP: | NA       |                     |                    | OBM          |           | Bit No: 7  |              | 8 1/2" Baker DD506TX w/ 7" 7/8 8.5 FBH @ 1.83 w/ SS APS RESISTIVITY TOOL APS COLLAR X/O ED 54 B - 4 1/2 IF P 39 stds. DP ( 78 jts.) X/O ( ED 54 P x 4 1/2 IF B) NOV 6 3/4" Agitator X/O ( 4 1/2 IF P x ED 54 B) |           |          |         |
| Slide Footage:  | 0.00     | WOB:                | 0                  | Weight:      | 9.4       | Model      | 8 1/2" Baker |                                                                                                                                                                                                                 |           |          |         |
| Slide Hours     | 0.00     | Rot Wt:             | 280                | Visc:        | 59        | SN.:       | 5306332      |                                                                                                                                                                                                                 |           |          |         |
| Avg. Slide ROP: | NA       | Pick UP:            | 330                | Chlorides:   | 52000     | MFG.       | REED         |                                                                                                                                                                                                                 |           |          |         |
| Rotate Footage: | 0.00     | Slack Off:          | 185                | YP:          | 10        | Type       | PDC          |                                                                                                                                                                                                                 |           |          |         |
| Rotary Hours    | 0.00     | SPP:                | 0                  | PV:          | 16        | IADC       |              |                                                                                                                                                                                                                 |           |          |         |
| Avg. Rot ROP:   | NA       | Flow:               | 0 - 750            | PH:          | 0         | JETS       | 6-20         |                                                                                                                                                                                                                 |           |          |         |
| Circ Hours      | 0.50     | SPM:                | 0                  | GAS:         | 0         | TFA:       | 1.84         |                                                                                                                                                                                                                 |           |          |         |
| Ream Hours      | 0.00     | Rot. RPM            | -                  | SAND:        | 0.1       | Hole ID:   | 8 1/2        |                                                                                                                                                                                                                 |           |          |         |
| Rotary Hrs%:    | NA       | Mot RPM:            | -                  | WL:          | 7.6       | Bit Hrs:   | 51.58        |                                                                                                                                                                                                                 |           |          |         |
| Slide Hrs%:     | NA       | Incl. In:           | 91.3               | SOLID:       | 8.9       | Bit Ftg:   | 3860.00      |                                                                                                                                                                                                                 |           |          |         |
| Rotary Ftg%:    | NA       | Azm. In:            | 356.72             | BHT°:        | 192       | Pumps      |              |                                                                                                                                                                                                                 |           |          |         |
| Slide Ftg%:     | NA       | Incl. Out:          | 91.3               | Flow T°:     | 139       |            |              |                                                                                                                                                                                                                 |           |          |         |
| Cost Detail     |          | Azm. Out:           |                    | 356.72       | Oil %:    | 66         | Liner        | 5.5                                                                                                                                                                                                             | 5.5       |          |         |
| Descr.          | Price    |                     |                    |              |           | Stroke     | 11           | 11                                                                                                                                                                                                              |           |          |         |
| DAY RATE        | 8,150.00 | Cost Breakdown      |                    |              |           |            | Effic.       | 95.00%                                                                                                                                                                                                          | 95.00%    |          |         |
|                 |          | Total Daily         |                    | \$8,150.00   |           | Gal/Stk    | 3.22         | 3.22                                                                                                                                                                                                            |           |          |         |
|                 |          | Total Job           |                    | \$137,215.00 |           | BBL/Stk    | 0.077        | 0.077                                                                                                                                                                                                           |           |          |         |



**BHA's**





## BHA # 1

## Intrepid Directional



SDI Job #: ID2386-3      Work Order: ID2386      FIELD: Delaware Basin  
 COMPANY: Advance Energy Partners ,LLC      Sec-Twn-Rng: 20-21S-33E  
 LOCATION: Lea County, New Mexico      PO #/ DISTRICT NM0092  
 RIG NAME: H&P466 Flex 3      Lead DD: Bill Corley  
 STATE: New Mexico      Co. Man: TJ Nash  
 COUNTY: Lea Co.      BHA TYPE: Steerable Assembly  
 WELL NAME: Wool Head 20 State Com 554H      BHA WT: 58428      Wt @ Jars: N/A

| Time and Depths                | Motor Data                 | Drilling Parameters      |
|--------------------------------|----------------------------|--------------------------|
| Date In: 11-Nov-19 @ 15:00     | 9 5/8, 7/8 5.9 ABH@1.5° w/ | SO/PU: 80 - 100 / 82-105 |
| Date Out: 17-Nov-19 @ 11:50    | MFG.: Intrepid             | Rot Strg Wt: 80-100      |
| Hrs In Hole: 38.83             | PAD OD: 10.45              | WOB: 28 - 50             |
| Start Depth: 145.00            | NB Stab: 14.5              | TORQ: 13000 - 26000      |
| End Depth: 1838.00             | Bit to Bend: 8.75          | SPP: 2250 - 3150         |
| Total Drilled: 1693.00         | Bent Hsg/Sub°: 1.5 / 1.5   | Motor RPM: 120 - 149     |
| Avg. Total ROP: 110.41         | Lobe/Stage: 7/8 / 5.9      | Rotary RPM: 70 - 70      |
| Circ Hrs: Tot/Only 16.00 / .67 | Rev/GAL: 0.166             | Flow Rate: 725 - 900     |
| Percent Slide: 7.68            | Rotor Jet: 0               | Avg Diff: 1100           |
| Percent Hrs: 19.02             | Prop BUR: 4                | Stall Pres.: 1330        |
| Slide Hours: 2.92              | Act BUR: 4                 | Off Bot Pres.:           |
| Total Sliding: 130.00          |                            |                          |
| Avg. Slide ROP: 44.57          |                            |                          |
| Percent Rotary: 92.32          |                            |                          |
| Percent Hrs: 80.98             |                            |                          |
| Rotary Hours: 12.42            |                            |                          |
| Total Rotary: 1563.00          |                            |                          |
| Avg. Rotary ROP: 125.88        |                            |                          |
| Reason POOH:                   |                            |                          |

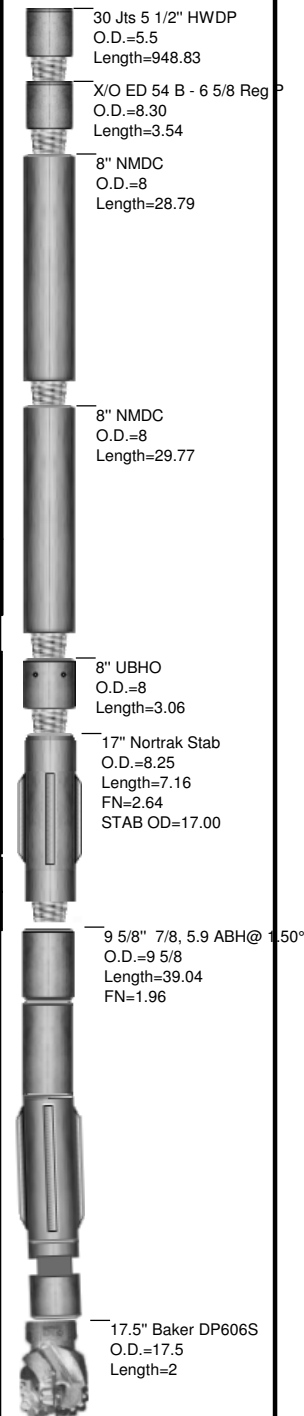
| MWD Spacing | Gamma: 0 | Restiv: 0 | Sensor: 68 | Last Casing | O.D.      |
|-------------|----------|-----------|------------|-------------|-----------|
|             | GYRO: 0  | DNSC: 145 | Sonic: 0   | Shoe @:     | Hanger @: |

INC IN: .0    INC OUT: .0    AZM IN: .00    AZM OUT: .00

9 5/8" MTR 7/8 5.9 ABH @ 1.50° w/ 14 1/2" NBS  
 BTB - 8.75  
 Flow: 400-900  
 RPM: 66-150  
 Max Diff: 1330 psi.  
 Max Torq: 22,020  
 RPG: 0.166  
 Bit to Sensor: 68'

## BHA Detail

| Description                | Serial # | I.D.   | O.D.  | Length | Sum     | Top Conn   | MFG.       |
|----------------------------|----------|--------|-------|--------|---------|------------|------------|
| 17.5" Baker DP606S         | 7046740  | 3      | 17.5  | 2.00   | 2.00    | 6 5/8 REGP | BAKER      |
| 9 5/8" 7/8, 5.9 ABH@ 1.50° | XSH96028 |        | 9 5/8 | 39.04  | 41.04   | 6 5/8 REGB | Intrepid   |
| 17" Nortrak Stab           | AWSS5143 | 2 7/8  | 8.25  | 7.16   | 48.20   | 6 5/8 REGB | Amega West |
| 8" UBHO                    | BT801172 | 3 1/4  | 8     | 3.06   | 51.26   | 6 5/8 REGB | Intrepid   |
| 8" NMDC                    | BT801135 | 3 3/8  | 8     | 29.77  | 81.03   | 6 5/8 REGB | Intrepid   |
| 8" NMDC                    | BT80655  | 3 7/16 | 8     | 28.79  | 109.82  | 6 5/8 REGB | Intrepid   |
| X/O ED 54 B - 6 5/8 Reg P  | RENTAL   | 2.75   | 8.30  | 3.54   | 113.36  | ED54B      | Rig        |
| 30 Jts 5 1/2" HWDP         | RIG      | 3.375  | 5.5   | 948.83 | 1062.19 | ED54B      | RIG        |



## BHA # 2

## Intrepid Directional



SDI Job #: ID2386-3      Work Order: ID2386      FIELD: Delaware Basin  
 COMPANY: Advance Energy Partners ,LLC      Sec-Twn-Rng: 20-21S-33E  
 LOCATION: Lea County, New Mexico      PO #/ DISTRICT NM0092  
 RIG NAME: H&P466 Flex 3      Lead DD: Bill Corley  
 STATE: New Mexico      Co. Man: TJ Nash  
 COUNTY: Lea Co.      BHA TYPE: Steerable Assembly  
 WELL NAME: Wool Head 20 State Com 554H      BHA WT: 108285      Wt @ Jars: N/A

| Time and Depths                 | Motor Data                  | Drilling Parameters        |
|---------------------------------|-----------------------------|----------------------------|
| Date In: 17-Nov-19 @ 11:50      | 8in. 7/8 5.9 FBH@1.5° w/ 12 | SO/PU: 100 - 170 / 105-185 |
| Date Out: 18-Nov-19 @ 15:00     | MFG.: Intrepid              | Rot Strg Wt: 100-180       |
| Hrs In Hole: 27.17              | PAD OD: 8 13/16             | WOB: 35 - 70               |
| Start Depth: 1838.00            | NB Stab: 12                 | TORQ: 12000 - 26000        |
| End Depth: 4738.00              | Bit to Bend: 5.83           | SPP: 2250 - 4500           |
| Total Drilled: 2900.00          | Bent Hsg/Sub°: 1.5 / 0      | Motor RPM: 120 - 149       |
| Avg. Total ROP: 194.41          | Lobe/Stage: 7/8 / 5.9       | Rotary RPM: 80 - 80        |
| Circ Hrs: Tot/Only 18.92 / 4.00 | Rev/GAL: 0.166              | Flow Rate: 725 - 900       |
| Percent Slide: 4.07             | Rotor Jet: 0                | Avg Diff: 1000             |
| Percent Hrs: 8.38               | Prop BUR: 6                 | Stall Pres.: 1330          |
| Slide Hours: 1.25               | Act BUR: 7.6                | Off Bot Pres.:             |
| Total Sliding: 118.00           |                             |                            |
| Avg. Slide ROP: 94.40           |                             |                            |
| Percent Rotary: 95.93           |                             |                            |
| Percent Hrs: 91.62              |                             |                            |
| Rotary Hours: 13.67             |                             |                            |
| Total Rotary: 2782.00           |                             |                            |
| Avg. Rotary ROP: 203.56         |                             |                            |
| Reason POOH:                    |                             |                            |

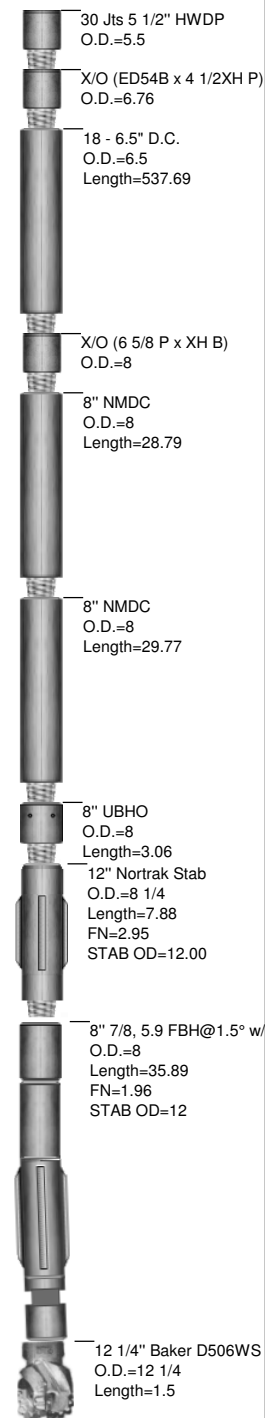
| MWD Spacing | Gamma: 0 | Restiv: 0  | Sensor: 65 | Last Casing | O.D.      |
|-------------|----------|------------|------------|-------------|-----------|
|             | GYRO: 0  | DNSC: 1838 | Sonic: 0   | Shoe @:     | Hanger @: |

INC IN: .0    INC OUT: .0    AZM IN: .00    AZM OUT: .00

8" MTR 7/8 5.9 ABH @ 1.50° w/ 12" NBS  
 BTB - 5.83  
 Flow: 400-900  
 RPM: 66-150  
 Max Diff: 1330 psi.  
 Max Torq: 22,020  
 RPG: 0.166  
 Bit to Sensor: 65'  
 Bit Runs - 1

## BHA Detail

| Description                               | Serial # | I.D.   | O.D.   | Length | Sum     | Top Conn   | MFG.     |
|-------------------------------------------|----------|--------|--------|--------|---------|------------|----------|
| 12 1/4" Baker D506WS                      | 5300026  |        | 12 1/4 | 1.50   | 1.50    | 6 5/8 REGP | BAKER    |
| 8" 7/8, 5.9 FBH@1.5° w/12" NBS (XSH80014) | XSH80014 |        | 8      | 35.89  | 37.39   | 6 5/8 REGB | Intrepid |
| 12" Nortrak Stab                          | BT801184 | 2 3/4  | 8 1/4  | 7.88   | 45.27   | 6 5/8 REGB | BT       |
| 8" UBHO                                   | BT801172 | 3 1/4  | 8      | 3.06   | 48.33   | 6 5/8 REGB | Intrepid |
| 8" NMDC                                   | BT801135 | 3 3/8  | 8      | 29.77  | 78.10   | 6 5/8 REGB | Intrepid |
| 8" NMDC                                   | BT80655  | 3 7/16 | 8      | 28.79  | 106.89  | 6 5/8 REGB | Intrepid |
| X/O (6 5/8 P x XH B)                      | BT80403  | 2.75   | 8      | 2.32   | 109.21  | 4 1/2 XHB  | Intrepid |
| 18 - 6.5" D.C.                            | Rig      |        | 6.5    | 537.69 | 646.90  | 4 1/2 XHB  | RIG      |
| X/O (ED54B x 4 1/2XH P)                   | BD15088  | 2.88   | 6.76   | 3.60   | 650.50  | ED54B      | Rig      |
| 30 Jts 5 1/2" HWDP                        | RIG      | 3.375  | 5.5    | 948.83 | 1599.33 | ED54B      | RIG      |



## BHA # 3

## Intrepid Directional



SDI Job #: ID2386-3      Work Order: ID2386      FIELD: Delaware Basin  
 COMPANY: Advance Energy Partners ,LLC      Sec-Twn-Rng: 20-21S-33E  
 LOCATION: Lea County, New Mexico      PO #/ DISTRICT NM0092  
 RIG NAME: H&P466 Flex 3      Lead DD: Bill Corley  
 STATE: New Mexico      Co. Man: Frank Calhoun  
 COUNTY: Lea Co.      BHA TYPE: Steerable Assembly  
 WELL NAME: Wool Head 20 State Com 554H      BHA WT: 97110      Wt @ Jars: N/A

| Time and Depths                | Motor Data                  | Drilling Parameters        |
|--------------------------------|-----------------------------|----------------------------|
| Date In: 18-Nov-19 @ 15:00     | 8in. 7/8 5.9 FBH@1.5° w/ 12 | SO/PU: 170 - 170 / 185-185 |
| Date Out: 26-Nov-19 @ 05:50    | MFG.: Intrepid              | Rot Strg Wt: 180-180       |
| Hrs In Hole: 27.07             | PAD OD: 8 13/16             | WOB: 70 - 70               |
| Start Depth: 4738.00           | NB Stab: 12                 | TORQ: 12000 - 12000        |
| End Depth: 5257.00             | Bit to Bend: 5.83           | SPP: 3700 - 3700           |
| Total Drilled: 519.00          | Bent Hsg/Sub°: 1.5 /        | Motor RPM: -               |
| Avg. Total ROP: 173.00         | Lobe/Stage: 7/8 / 5.9       | Rotary RPM: 80 - 80        |
| Circ Hrs: Tot/Only 4.25 / 1.25 | Rev/GAL: 0.166              | Flow Rate: 900 - 900       |
| Percent Slide: .00             | Rotor Jet: 0                | Avg Diff: 1990             |
| Percent Hrs: .00               | Prop BUR: 8                 | Stall Pres.: 1990          |
| Slide Hours: .00               | Act BUR: 8                  | Off Bot Pres.:             |
| Total Sliding: .00             |                             |                            |
| Avg. Slide ROP: NA             |                             |                            |
| Percent Rotary: 100.00         |                             |                            |
| Percent Hrs: 100.00            |                             |                            |
| Rotary Hours: 3.00             |                             |                            |
| Total Rotary: 519.00           |                             |                            |
| Avg. Rotary ROP: 173.00        |                             |                            |
| Reason POOH:                   |                             |                            |

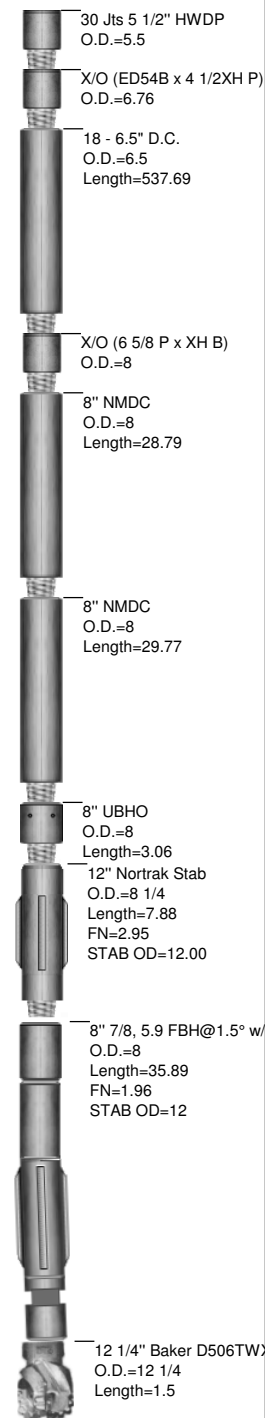
| MWD Spacing | Gamma: 0 | Restiv: 0  | Sensor: 65 | Last Casing | O.D.      |
|-------------|----------|------------|------------|-------------|-----------|
|             | GYRO: 0  | DNSC: 4738 | Sonic: 0   | Shoe @:     | Hanger @: |

INC IN: .0    INC OUT: .0    AZM IN: .00    AZM OUT: .00

8" MTR 7/8 5.9 ABH @ 1.50° w/ 12" NBS  
 BTB - 5.83  
 Flow: 400-900  
 RPM: 66-150  
 Max Diff: 1330 psi.  
 Max Torq: 22,020  
 RPG: 0.166  
 Bit to Sensor: 65'  
 Bit Runs - 1

## BHA Detail

| Description                               | Serial # | I.D.   | O.D.   | Length | Sum     | Top Conn   | MFG.     |
|-------------------------------------------|----------|--------|--------|--------|---------|------------|----------|
| 12 1/4" Baker D506TWX                     | 5299142  | 3      | 12 1/4 | 1.50   | 1.50    | 6 5/8 REGP | BAKER    |
| 8" 7/8, 5.9 FBH@1.5° w/12" NBS (XSH80014) | XSH80014 |        | 8      | 35.89  | 37.39   | 6 5/8 REGB | Intrepid |
| 12" Nortrak Stab                          | BT801184 | 2 3/4  | 8 1/4  | 7.88   | 45.27   | 6 5/8 REGB | BT       |
| 8" UBHO                                   | BT801172 | 3 1/4  | 8      | 3.06   | 48.33   | 6 5/8 REGB | Intrepid |
| 8" NMDC                                   | BT801135 | 3 3/8  | 8      | 29.77  | 78.10   | 6 5/8 REGB | Intrepid |
| 8" NMDC                                   | BT80655  | 3 7/16 | 8      | 28.79  | 106.89  | 6 5/8 REGB | Intrepid |
| X/O (6 5/8 P x XH B)                      | BT80403  | 2.75   | 8      | 2.32   | 109.21  | 4 1/2 XHB  | Intrepid |
| 18 - 6.5" D.C.                            | Rig      | 3      | 6.5    | 537.69 | 646.90  | 4 1/2 XHB  | RIG      |
| X/O (ED54B x 4 1/2XH P)                   | BD15088  | 2.88   | 6.76   | 3.60   | 650.50  | ED54B      | Rig      |
| 30 Jts 5 1/2" HWDP                        | RIG      | 3.375  | 5.5    | 948.83 | 1599.33 | ED54B      | RIG      |



## BHA # 4

## Intrepid Directional



SDI Job #: ID2386-3      Work Order: ID2386      FIELD: Delaware Basin  
 COMPANY: Advance Energy Partners ,LLC      Sec-Twn-Rng: 20-21S-33E  
 LOCATION: Lea County, New Mexico      PO #/ DISTRICT NM0092  
 RIG NAME: H&P466 Flex 3      Lead DD: Jason Greer  
 STATE: New Mexico      Co. Man: Frank Calhoun  
 COUNTY: Lea Co.      BHA TYPE: Steerable Assembly  
 WELL NAME: Wool Head 20 State Com 554H      BHA WT: 94680      Wt @ Jars: N/A

| Time and Depths                 | Motor Data                   | Drilling Parameters        |
|---------------------------------|------------------------------|----------------------------|
| Date In: 26-Nov-19 @ 05:50      | 7in. 7/8 8.5 FBH @ 1.83 w/ 8 | SO/PU: 170 - 240 / 185-300 |
| Date Out: 04-Dec-19 @ 08:00     | MFG.: Intrepid               | Rot Strg Wt: 180-265       |
| Hrs In Hole: 63.63              | PAD OD: 7 3/16               | WOB: 12 - 42               |
| Start Depth: 5257.00            | NB Stab: 8.25                | TORQ: 0 - 16000            |
| End Depth: 10730.00             | Bit to Bend: 4.05            | SPP: 2400 - 2900           |
| Total Drilled: 5473.00          | Bent Hsg/Sub°: 1.83 /        | Motor RPM: 156 - 169       |
| Avg. Total ROP: 121.71          | Lobe/Stage: 7/8 / 8.5        | Rotary RPM: 30 - 40        |
| Circ Hrs: Tot/Only 48.47 / 3.50 | Rev/GAL: 0.26                | Flow Rate: 600 - 650       |
| Percent Slide: 3.20             | Rotor Jet: 0                 | Avg Diff:                  |
| Percent Hrs: 12.97              | Prop BUR: 10                 | Stall Pres.:               |
| Slide Hours: 5.83               | Act BUR: 14                  | Off Bot Pres.:             |
| Total Sliding: 175.00           |                              |                            |
| Avg. Slide ROP: 30.00           |                              |                            |
| Percent Rotary: 96.80           |                              |                            |
| Percent Hrs: 87.03              |                              |                            |
| Rotary Hours: 39.13             |                              |                            |
| Total Rotary: 5298.00           |                              |                            |
| Avg. Rotary ROP: 135.38         |                              |                            |
| Reason POOH:                    |                              |                            |

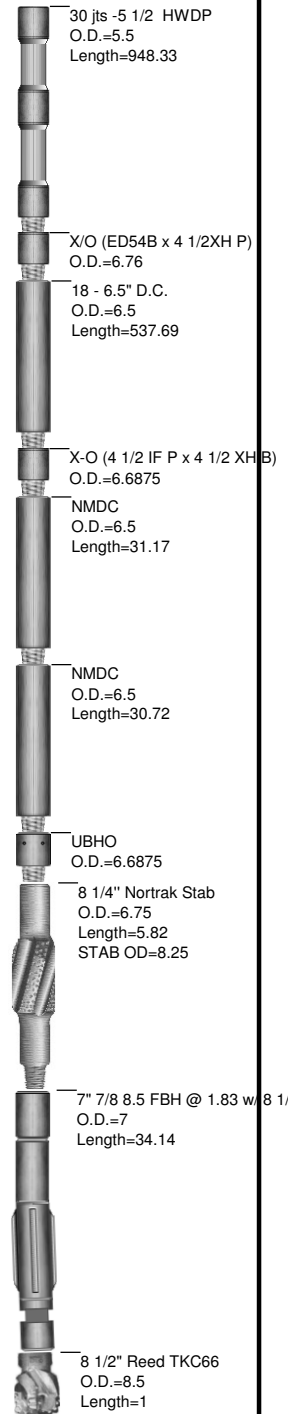
| MWD Spacing | Gamma: 0 | Restiv: 0  | Sensor: 0 | Last Casing | O.D.      |
|-------------|----------|------------|-----------|-------------|-----------|
|             | GYRO: 0  | DNSC: 5257 | Sonic: 0  | Shoe @:     | Hanger @: |

INC IN: .0    INC OUT: .0    AZM IN: .00    AZM OUT: .00

7" MTR 7/8 8.5 FBH @ 1.83° w/ 8.25" NBS  
 BTB - 4.05  
 Flow: 500-750  
 RPM: 130-200  
 Max Diff: 1910 psi.  
 Max Torq: 18,710  
 RPG: 0.26  
 Bit to Sensor: 63'  
 Bit Runs = 0

## BHA Detail

| Description                        | Serial #    | I.D.   | O.D.   | Length | Sum     | Top Conn   | MFG.     |
|------------------------------------|-------------|--------|--------|--------|---------|------------|----------|
| 8 1/2" Reed TKC66                  | E268032     | 2.8125 | 8.5    | 1.00   | 1.00    | 4 1/2 REGP | REED     |
| 7" 7/8 8.5 FBH @ 1.83 w/ 8 1/4 NBS | XSS72004    |        | 7      | 34.14  | 35.14   | 4 1/2 IFB  | Intrepid |
| 8 1/4" Nortrak Stab                | BT675261    | 2.75   | 6.75   | 5.82   | 40.96   | 4 1/2 IFB  | BT       |
| UBHO                               | X67UBO23    | 2.75   | 6.6875 | 3.54   | 44.50   | 4 1/2 IFB  | Intrepid |
| NMDC                               | BT675004    | 3.25   | 6.5    | 30.72  | 75.22   | 4 1/2 IFB  | BT       |
| NMDC                               | AMDC6021    | 3.25   | 6.5    | 31.17  | 106.39  | 4 1/2 IFB  | AWS      |
| X-O (4 1/2 IF P x 4 1/2 XH B)      | BT6751494   | 2.75   | 6.6875 | 3.11   | 109.50  | 4 1/2 XHB  | BT       |
| 18 - 6.5" D.C.                     | Rig         | 2.625  | 6.5    | 537.69 | 647.19  | 4 1/2 XHB  | RIG      |
| X/O (ED54B x 4 1/2XH P)            | BD15088     | 2.88   | 6.76   | 3.60   | 650.79  | ED54B      | Rig      |
| 30 jts -5 1/2 HWDP                 | HWDP-3.375- | 3.375  | 5.5    | 948.33 | 1599.12 | ED54B      | Rig      |
|                                    |             |        |        | 0.00   | 1599.12 |            |          |



## BHA # 5

## Intrepid Directional



SDI Job #: ID2386-3      Work Order: ID2386      FIELD: Delaware Basin  
 COMPANY: Advance Energy Partners ,LLC      Sec-Twn-Rng: 20-21S-33E  
 LOCATION: Lea County, New Mexico      PO #/ DISTRICT NM0092  
 RIG NAME: H&P466 Flex 3      Lead DD: Jason Greer  
 STATE: New Mexico      Co. Man: Frank Calhoun  
 COUNTY: Lea Co.      BHA TYPE: Building Assembly  
 WELL NAME: Wool Head 20 State Com 554H      BHA WT: 7485      Wt @ Jars: N/A

| Time and Depths                 | Motor Data                   | Drilling Parameters        |
|---------------------------------|------------------------------|----------------------------|
| Date In: 04-Dec-19 @ 08:00      | 6 3/4, 7/8 5.0 FBH @ 2.12 TS | SO/PU: 250 - 259 / 303-365 |
| Date Out: 06-Dec-19 @ 04:30     | MFG.: Intrepid               | Rot Strg Wt: 271-305       |
| Hrs In Hole: 44.50              | PAD OD: 7.07                 | WOB: 0 - 70                |
| Start Depth: 10730.00           | NB Stab: 0                   | TORQ: 14 - 17000           |
| End Depth: 12115.00             | Bit to Bend: 4.18            | SPP: 2550 - 3025           |
| Total Drilled: 1385.00          | Bent Hsg/Sub°: 2.12 / 2      | Motor RPM: 173             |
| Avg. Total ROP: 52.43           | Lobe/Stage: 7/8 / 5          | Rotary RPM: 25 - 50        |
| Circ Hrs: Tot/Only 27.50 / 1.08 | Rev/GAL: 0.288               | Flow Rate: 600 - 600       |
| Percent Slide: 58.56            | Rotor Jet: 0                 | Avg Diff: 500              |
| Percent Hrs: 63.09              | Prop BUR: 12                 | Stall Pres.: 1130          |
| Slide Hours: 16.67              | Act BUR: 14.5                | Off Bot Pres.: 2400        |
| Total Sliding: 811.00           |                              |                            |
| Avg. Slide ROP: 48.66           |                              |                            |
| Percent Rotary: 41.44           |                              |                            |
| Percent Hrs: 36.91              |                              |                            |
| Rotary Hours: 9.75              |                              |                            |
| Total Rotary: 574.00            |                              |                            |
| Avg. Rotary ROP: 58.87          |                              |                            |
| Reason POOH: BHA                |                              |                            |

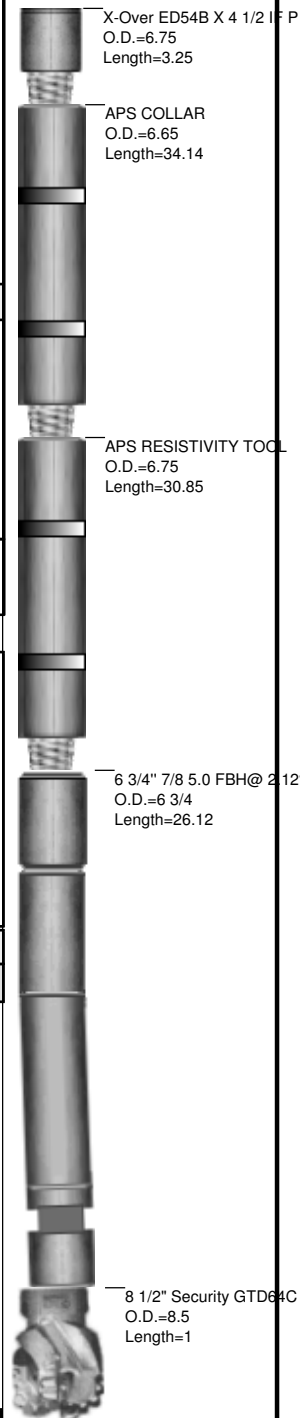
| MWD Spacing | Gamma: 41 | Restiv: 33   | Sensor: 47 | Last Casing | O.D. 9 5/8     |
|-------------|-----------|--------------|------------|-------------|----------------|
|             | GYRO: 0   | DNSSC: 10730 | Sonic: 0   | Shoe @:     | 5247 Hanger @: |

INC IN: .0    INC OUT: .0    AZM IN: .00    AZM OUT: .00

6 3/4" MTR 7/8 5.0 FBH @ 2.12° TS  
 BTB - 4.18  
 Flow: 300-600  
 RPM: 84-180  
 Max Diff: 1130 psi.  
 Max Torq: 10,460  
 RPG: 0.288  
 Bit to Sensor: 47'  
 Bit to Gamma: 41'    Bit Runs = 0  
 Resistivity: 33'  
 Bit Runs = 0

## BHA Detail

| Description                  | Serial # | I.D.   | O.D.  | Length | Sum   | Top Conn   | MFG.        |
|------------------------------|----------|--------|-------|--------|-------|------------|-------------|
| 8 1/2" Security GTD64C       | 13291182 | 2.8125 | 8.5   | 1.00   | 1.00  | 4 1/2 REGP | Halliburton |
| 6 3/4" 7/8 5.0 FBH@ 2.12° TS | XSS67069 |        | 6 3/4 | 26.12  | 27.12 | 4 1/2 IFB  | Intrepid    |
| APS RESISTIVITY TOOL         | 760      |        | 6.75  | 30.85  | 57.97 | 4 1/2 IFB  | OTHER       |
| APS COLLAR                   | 597825   |        | 6.65  | 34.14  | 92.11 | 4 1/2 IFB  | OTHER       |
| X-Over ED54B X 4 1/2 IF P    | Rental   | 2.88   | 6.75  | 3.25   | 95.36 | ED54B      |             |





## BHA # 6

## Intrepid Directional



SDI Job #: ID2386-3      Work Order: ID2386      FIELD: Delaware Basin  
 COMPANY: Advance Energy Partners ,LLC      Sec-Twn-Rng: 20-21S-33E  
 LOCATION: Lea County, New Mexico      PO #/ DISTRICT NM0092  
 RIG NAME: H&P466 Flex 3      Lead DD: Jason Greer  
 STATE: New Mexico      Co. Man: Frank Calhoun  
 COUNTY: Lea Co.      BHA TYPE: Steerable Assembly  
 WELL NAME: Wool Head 20 State Com 554H      BHA WT: 8758      Wt @ Jars: N/A

| Time and Depths                 | Motor Data                  | Drilling Parameters        |
|---------------------------------|-----------------------------|----------------------------|
| Date In: 06-Dec-19 @ 07:00      | 7/8 8.5 FBH @ 1.75 w/ 8 1/8 | SO/PU: 185 - 185 / 315-350 |
| Date Out: 08-Dec-19 @ 18:16     | MFG.: Intrepid              | Rot Strg Wt: 280-280       |
| Hrs In Hole: 59.27              | PAD OD: 7 3/16              | WOB: 0 - 65                |
| Start Depth: 12115.00           | NB Stab: 8.125              | TORQ: 0 - 17               |
| End Depth: 13833.00             | Bit to Bend: 4.25           | SPP: 3200 - 3550           |
| Total Drilled: 1718.00          | Bent Hsg/Sub°: 1.75 /       | Motor RPM: 183             |
| Avg. Total ROP: 39.71           | Lobe/Stage: 7/8 / 8.5       | Rotary RPM: 40 - 70        |
| Circ Hrs: Tot/Only 47.93 / 4.67 | Rev/GAL: 0.26               | Flow Rate: 705 - 750       |
| Percent Slide: 28.35            | Rotor Jet: 0                | Avg Diff:                  |
| Percent Hrs: 56.43              | Prop BUR: 8                 | Stall Pres.:               |
| Slide Hours: 24.42              | Act BUR:                    | Off Bot Pres.:             |
| Total Sliding: 487.00           |                             |                            |
| Avg. Slide ROP: 19.95           |                             |                            |
| Percent Rotary: 71.65           |                             |                            |
| Percent Hrs: 43.57              |                             |                            |
| Rotary Hours: 18.85             |                             |                            |
| Total Rotary: 1231.00           |                             |                            |
| Avg. Rotary ROP: 65.31          |                             |                            |
| Reason POOH:                    |                             |                            |

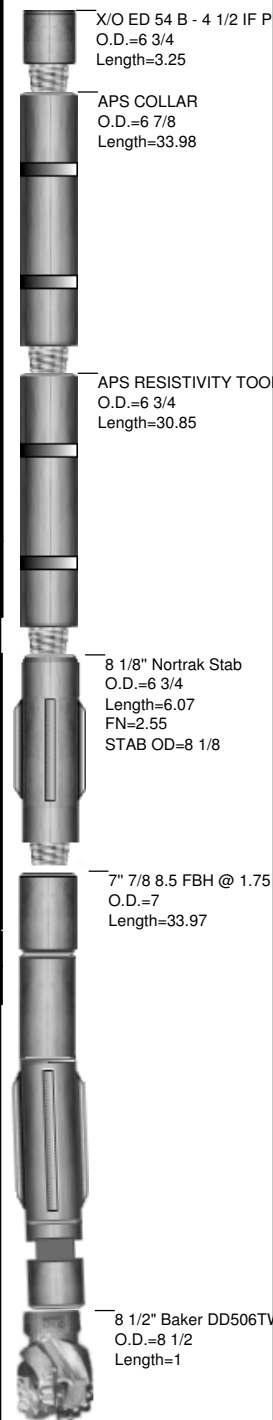
| MWD Spacing | Gamma: 55 | Restiv: 47  | Sensor: 59 | Last Casing | O.D. 9 5/8     |
|-------------|-----------|-------------|------------|-------------|----------------|
|             | GYRO: 0   | DNSC: 12115 | Sonic: 0   | Shoe @:     | 5247 Hanger @: |

INC IN: .0    INC OUT: .0    AZM IN: .00    AZM OUT: .00

7" MTR 7/8 8.5 FBH @ 1.75° w/ 8 1/8" NBS  
 BTB - 4.25  
 Flow: 500-750  
 RPM: 130-200  
 Max Diff: 1910 psi.  
 Max Torq: 18710  
 RPG: 0.26  
 Bit to Sensor: 59'  
 Bit to Gamma: 55'  
 Resistivity: 33'  
 Bit Runs = 0

## BHA Detail

| Description                        | Serial #  | I.D.  | O.D.  | Length | Sum    | Top Conn   | MFG.     |
|------------------------------------|-----------|-------|-------|--------|--------|------------|----------|
| 8 1/2" Baker DD506TWX w/ 6x22      | 5301253   | 2.8   | 8 1/2 | 1.00   | 1.00   | 4 1/2 REGP | BAKER    |
| 7" 7/8 8.5 FBH @ 1.75 w/ 8 1/8 NBS | XSS70074  |       | 7     | 33.97  | 34.97  | 4 1/2 IFB  | Intrepid |
| 8 1/8" Nortrak Stab                | BT6751379 | 3 1/4 | 6 3/4 | 6.07   | 41.04  | 4 1/2 IFB  | BT       |
| APS RESISTIVITY TOOL               | 760       |       | 6 3/4 | 30.85  | 71.89  | 4 1/2 IFB  | OTHER    |
| APS COLLAR                         | 65954-3   | 3 1/4 | 6 7/8 | 33.98  | 105.87 | 4 1/2 IFB  | OTHER    |
| X/O ED 54 B - 4 1/2 IF P           | Rig - 1   | 2.88  | 6 3/4 | 3.25   | 109.12 | ED54B      | Rig      |



# BHA # 7



SDI Job #: ID2386-3      Work Order: ID2386  
 COMPANY: Advance Energy Partners ,LLC  
 LOCATION: Lea County, New Mexico  
 RIG NAME: H&P466 Flex 3  
 STATE: New Mexico  
 COUNTY: Lea Co.  
 WELL NAME: Wool Head 20 State Com 554H

FIELD: Delaware Basin  
 Sec-Twn-Rng: 20-21S-33E  
 PO #/ DISTRICT: NM0092  
 Lead DD: Jason Greer  
 Co. Man: Frank Calhoun  
 BHA TYPE: Steerable Assembly  
 BHA WT: 253199      Wt @ Jars: N/A

| Time and Depths                  | Motor Data                 | Drilling Parameters        |
|----------------------------------|----------------------------|----------------------------|
| Date In: 10-Dec-19 @ 15:00       | 7/8 8.5 FBH @ 1.83 w/SS    | SO/PU: 185 - 185 / 315-330 |
| Date Out: 14-Dec-19 @ 24:00      | MFG.: Intrepid             | Rot Strg Wt: 280-280       |
| Hrs In Hole: 105.00              | PAD OD: 7.13               | WOB: 0 - 75                |
| Start Depth: 15046.00            | NB Stab: 0                 | TORQ: 0 - 42               |
| End Depth: 18906.00              | Bit to Bend: 4.25          | SPP: 790 - 4975            |
| Total Drilled: 3860.00           | Bent Hsg/Sub°: 1.83 / 1.83 | Motor RPM: 177 - 189       |
| Avg. Total ROP: 74.83            | Lobe/Stage: 7/8 / 8.5      | Rotary RPM: 30 - 40        |
| Circ Hrs: Tot/Only 62.92 / 11.33 | Rev/GAL: 0.26              | Flow Rate: 300 - 750       |
| Percent Slide: 12.49             | Rotor Jet: 0               | Avg Diff: 675              |
| Percent Hrs: 35.38               | Prop BUR: 8                | Stall Pres.: 1910          |
| Slide Hours: 18.25               | Act BUR: 10                | Off Bot Pres.: 3800        |
| Total Sliding: 482.00            |                            |                            |
| Avg. Slide ROP: 26.41            |                            |                            |
| Percent Rotary: 87.51            |                            |                            |
| Percent Hrs: 64.62               |                            |                            |
| Rotary Hours: 33.33              |                            |                            |
| Total Rotary: 3378.00            |                            |                            |
| Avg. Rotary ROP: 101.34          |                            |                            |
| Reason POOH: TD                  |                            |                            |

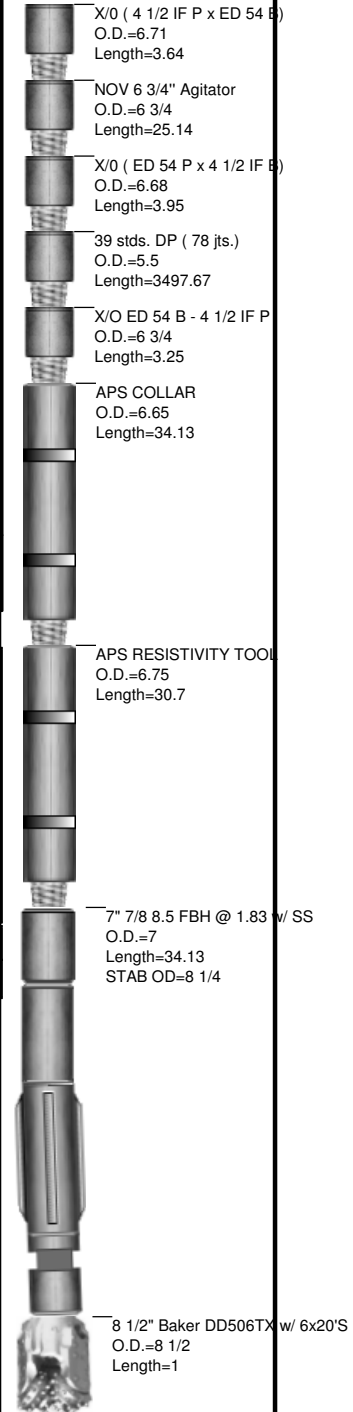
| MWD Spacing | Gamma: 48.96 | Restiv: 41.21 | Sensor: 55 | Last Casing | O.D. 9 5/8     |
|-------------|--------------|---------------|------------|-------------|----------------|
|             | GYRO: 0      | DNSC: 15046   | Sonic: 0   | Shoe @:     | 5247 Hanger @: |

INC IN: .0      INC OUT: .0      AZM IN: .00      AZM OUT: .00

7" MTR 7/8 8.5 FBH @ 1.83° w/ SS  
 BTB - 4.25  
 Flow: 500-750  
 RPM: 130-200  
 Max Diff: 1910 psi.  
 Max Torq: 18710  
 RPG: 0.26  
 Bit to Sensor: 55'  
 Bit to Gamma: 48.96'  
 Resistivity: 41.21'  
 Bit Runs = 0

## BHA Detail

| Description                    | Serial #  | I.D.    | O.D.  | Length   | Sum     | Top Conn   | MFG.     |
|--------------------------------|-----------|---------|-------|----------|---------|------------|----------|
| 8 1/2" Baker DD506TX w/ 6x20'S | 5306332   | 2.8     | 8 1/2 | 1.00     | 1.00    | 4 1/2 REGP | BAKER    |
| 7" 7/8 8.5 FBH @ 1.83 w/ SS    | XSS70078  |         | 7     | 34.13    | 35.13   | 4 1/2 IFB  | Intrepid |
| APS RESISTIVITY TOOL           | 609       |         | 6.75  | 30.70    | 65.83   | 4 1/2 IFB  | OTHER    |
| APS COLLAR                     | 597825    |         | 6.65  | 34.13    | 99.96   | 4 1/2 IFB  | OTHER    |
| X/O ED 54 B - 4 1/2 IF P       | Rig - 1   | 2.88    | 6 3/4 | 3.25     | 103.21  | ED54B      | Rig      |
| 39 stds. DP ( 78 jts.)         | RIG DP    |         | 5.5   | 3,497.67 | 3600.88 | ED54B      | RIG      |
| X/O ( ED 54 P x 4 1/2 IF B)    | BD8072    | 3 1/4   | 6.68  | 3.95     | 3604.83 | 4 1/2 IFB  | Rig      |
| NOV 6 3/4" Agitator            | 1243479-2 | 2 15/16 | 6 3/4 | 25.14    | 3629.97 | 4 1/2 IFB  | Other    |
| X/O ( 4 1/2 IF P x ED 54 B)    | BD15147   | 3 1/4   | 6.71  | 3.64     | 3633.61 | ED54B      | Rig      |





BHA # 1

## Mud Motor Report



SDI Job #: ID2386-3  
 COMPANY: Advance Energy Partners ,LLC  
 LOCATION: Lea County, New Mexico  
 RIG NAME: H&P466 Flex 3  
 STATE: New Mexico  
 COUNTY: Lea Co.

FIELD: Delaware Basin  
 Sec-Twn-Rng: 20-21S-33E  
 SD District  
 Lead DD: Bill Corley  
 Co. Man: TJ Nash

WELL NAME: Wool Head 20 State Com 554 **Motor Failed?: NO**

| Time and Depths (This BHA)     | Motor Data                            | Drilling Parameters         |
|--------------------------------|---------------------------------------|-----------------------------|
| Date In: 11-Nov-19 @ 15:00     | Desc: 9 5/8, 7/8 5.9 ABH@1.5° w/ 14.5 | SO/PU: 80 - 100 82-105      |
| Date Out: 17-Nov-19 @ 11:50    | MFG.: Intrepid                        | Rot Wt: 80-100              |
| Hrs In Hole: 38.83             | BHA Circ/ All BHA: 16.00 / 16.00      | WOB: 28 - 50                |
| Start Depth: 145.00            | Motor SN: XSH96028                    | TORQ: 13000 - 26000         |
| End Depth: 1838.00             | PAD OD: 10.45                         | SPP: 2250 - 3150            |
| Total Drilled: 1693.00         | NB Stab: 14.5                         | Motor RPM: 120 - 149        |
| Avg. Total ROP: 110.41         | Bit to Bend: 8.75                     | Rotary RPM: 70 - 70         |
| Circ Hrs:Tot/Only 16.00 / .67  | Bent Hsg / Sub: 1.5 / 1.5 °           | Flow Rate: 725 - 900        |
| Percent Slide: 7.68            | Lobe/Stage: 7/8 / 5.9                 | Avg Diff: 1100              |
| Percent Hrs: 19.02             | Rev/GAL: 0.166                        | Stall Pres.: 1330           |
| Slide Hours: 2.92              | Rotor Jet: 0                          | Off Bot Pres.:              |
| Total Sliding: 130.00          | Prop BUR: 4                           | Bit Record                  |
| Avg. Slide ROP: 44.57          | Act BUR: 4                            | Other / 17.5" Baker DP606S  |
| Percent Rotary: 92.32          | Stator Clearance:                     | Run #: 1                    |
| Percent Hrs: 80.98             | Lower Stab OD: 14.5                   | Type Bit: PDC               |
| Rot / Total Hrs: 12.42 / 15.33 | Upper Stab OD: 17                     | IADC#: TFA: 0.994           |
| Rotary Drilled: 1563.00        | Extended Motor? NO                    | JETS: 9-12                  |
| Avg. Rotary ROP: 125.88        | Number of Stalls: 3                   | Bit Drop: 634 PSI @ 900 GPM |
| Reason POOH:                   | Stall Duration: 1                     | Cond.:                      |

## Mud Data

Type WBM WT: 8.4 Vis: 28 WL: 0 PV: 0 Flow T °: 0  
 SAND 0 Chlor: 0 GAS 0 SOL: 0 Oil %: 0 YP: 0 PH: 9.5 Bottom Hole T °: 92

## Formation:

## EXPANDED REASON PULLED:

TD Surface Casing Point

## BHA PERFORMANCE:

BHA performed well allowing for maximum rotation period

## ADDITIONAL COMMENTS: (Expands to next page if necessary)

**BHA # 2****Mud Motor Report**

SDI Job #: ID2386-3  
COMPANY: Advance Energy Partners ,LLC  
LOCATION: Lea County, New Mexico  
RIG NAME: H&P466 Flex 3  
STATE: New Mexico  
COUNTY: Lea Co.  
WELL NAME: Wool Head 20 State Com 554 **Motor Failed?: NO**

FIELD: Delaware Basin  
Sec-Twn-Rng: 20-21S-33E  
SD District  
Lead DD: Bill Corley  
Co. Man: TJ Nash

| Time and Depths (This BHA)                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Motor Data                                                                                                                                                                                                                                                                                                                                                                                                                   | Drilling Parameters                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Date In: 17-Nov-19 @ 11:50<br>Date Out: 18-Nov-19 @ 15:00<br>Hrs In Hole: 27.17<br>Start Depth: 1838.00<br>End Depth: 4738.00<br>Total Drilled: 2900.00<br>Avg. Total ROP: 194.41<br>Circ Hrs:Tot/Only 18.92 / 4.00<br>Percent Slide: 4.07<br>Percent Hrs: 8.38<br>Slide Hours: 1.25<br>Total Sliding: 118.00<br>Avg. Slide ROP: 94.40<br>Percent Rotary: 95.93<br>Percent Hrs: 91.62<br>Rot / Total Hrs: 13.67 / 14.92<br>Rotary Drilled: 2782.00<br>Avg. Rotary ROP: 203.56<br>Reason POOH: | Desc: 8in. 7/8 5.9 FBH@1.5° w/ 12<br>MFG.: Intrepid<br>BHA Circ/ All BHA: 18.92 / 23.17<br>Motor SN: XSH80014<br>PAD OD: 8 13/16<br>NB Stab: 12<br>Bit to Bend: 5.83<br>Bent Hsg / Sub: 1.5 / 0 °<br>Lobe/Stage: 7/8 / 5.9<br>Rev/GAL: 0.166<br>Rotor Jet: 0<br>Prop BUR: 6<br>Act BUR: 7.6<br>Stator Clearance:<br>Lower Stab OD: 12<br>Upper Stab OD: 12<br>Extended Motor? NO<br>Number of Stalls: 0<br>Stall Duration: 0 | SO/PU: 100 - 170 105-185<br>Rot Wt: 100-180<br>WOB: 35 - 70<br>TORQ: 12000 - 26000<br>SPP: 2250 - 4500<br>Motor RPM: 120 - 149<br>Rotary RPM: 80 - 80<br>Flow Rate: 725 - 900<br>Avg Diff: 1000<br>Stall Pres.: 1330<br>Off Bot Pres.:<br><br><b>Bit Record</b><br>BAKER / 12 1/4" Baker D506WS<br>Run #: 2<br>Type Bit: PDC<br>IADC#: TFA: 0.662<br>JETS: 6-12<br>Bit Drop: 1430 PSI @ 900 GPM<br>Cond.: |

| Mud Data |     |        |   |     |   |      |     |        |    |     |   |     |     |                  |    |
|----------|-----|--------|---|-----|---|------|-----|--------|----|-----|---|-----|-----|------------------|----|
| Type     | WBM |        |   |     |   | WT:  | 8.4 | Vis:   | 28 | WL: | 0 | PV: | 0   | Flow T °:        | 0  |
| SAND     | 0   | Chlor: | 0 | GAS | 0 | SOL: | 0   | Oil %: | 0  | YP: | 0 | PH: | 9.5 | Bottom Hole T °: | 92 |

**Formation:****EXPANDED REASON PULLED:**

TOH due to Low ROP

**BHA PERFORMANCE:**

BHA perform well allowing for long rotation periods but would build when pushed on above 52 WOB. TOH early due to Low ROP

**ADDITIONAL COMMENTS:** (Expands to next page if necessary)

BHA # 3

## Mud Motor Report



SDI Job #: ID2386-3  
 COMPANY: Advance Energy Partners ,LLC  
 LOCATION: Lea County, New Mexico  
 RIG NAME: H&P466 Flex 3  
 STATE: New Mexico  
 COUNTY: Lea Co.

FIELD: Delaware Basin  
 Sec-Twn-Rng: 20-21S-33E  
 SD District  
 Lead DD: Bill Corley  
 Co. Man: Frank Calhoun

WELL NAME: Wool Head 20 State Com 554 **Motor Failed?: NO**

| Time and Depths (This BHA)    | Motor Data                        | Drilling Parameters      |
|-------------------------------|-----------------------------------|--------------------------|
| Date In: 18-Nov-19 @ 15:00    | Desc: 8in. 7/8 5.9 FBH@1.5° w/ 12 | SO/PU: 170 - 170 185-185 |
| Date Out: 26-Nov-19 @ 05:50   | MFG.: Intrepid                    | Rot Wt: 180-180          |
| Hrs In Hole: 27.07            | BHA Circ/ All BHA: 4.25 / 23.17   | WOB: 70 - 70             |
| Start Depth: 4738.00          | Motor SN: XSH80014                | TORQ: 12000 - 12000      |
| End Depth: 5257.00            | PAD OD: 8 13/16                   | SPP: 3700 - 3700         |
| Total Drilled: 519.00         | NB Stab: 12                       | Motor RPM: -             |
| Avg. Total ROP: 173.00        | Bit to Bend: 5.83                 | Rotary RPM: 80 - 80      |
| Circ Hrs:Tot/Only 4.25 / 1.25 | Bent Hsg / Sub: 1.5 /             | Flow Rate: 900 - 900     |
| Percent Slide: .00            | Lobe/Stage: 7/8 / 5.9             | Avg Diff:                |
| Percent Hrs: .00              | Rev/GAL: 0.166                    | Stall Pres.: 1990        |
| Slide Hours: .00              | Rotor Jet: 0                      | Off Bot Pres.:           |
| Total Sliding: .00            | Prop BUR: 8                       |                          |
| Avg. Slide ROP: NA            | Act BUR: 8                        |                          |
| Percent Rotary: 100.00        | Stator Clearance:                 |                          |
| Percent Hrs: 100.00           | Lower Stab OD: 12                 |                          |
| Rot / Total Hrs: 3.00 / 3.00  | Upper Stab OD: 12                 |                          |
| Rotary Drilled: 519.00        | Extended Motor? NO                |                          |
| Avg. Rotary ROP: 173.00       | Number of Stalls: 0               |                          |
| Reason POOH:                  | Stall Duration: 0                 |                          |

| Mud Data                     |          |         |         |                     |             |  |  |  |  |
|------------------------------|----------|---------|---------|---------------------|-------------|--|--|--|--|
| Type WBM                     | WT: 8.4  | Vis: 28 | WL: 0   | PV: 0               | Flow T °: 0 |  |  |  |  |
| SAND 0 Chlor: 0 GAS 0 SOL: 0 | Oil %: 0 | YP: 0   | PH: 9.5 | Bottom Hole T °: 92 |             |  |  |  |  |

Formation:

EXPANDED REASON PULLED:

Section TD/Casing

BHA PERFORMANCE:

AS Expected

ADDITIONAL COMMENTS: (Expands to next page if necessary)

BHA # 4

## Mud Motor Report



SDI Job #: ID2386-3  
 COMPANY: Advance Energy Partners ,LLC  
 LOCATION: Lea County, New Mexico  
 RIG NAME: H&P466 Flex 3  
 STATE: New Mexico  
 COUNTY: Lea Co.

FIELD: Delaware Basin  
 Sec-Twn-Rng: 20-21S-33E  
 SD District  
 Lead DD: Jason Greer  
 Co. Man: Frank Calhoun

WELL NAME: Wool Head 20 State Com 554 **Motor Failed?: NO**

| Time and Depths (This BHA)     | Motor Data                             | Drilling Parameters                                                                                                                                    |
|--------------------------------|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Date In: 26-Nov-19 @ 05:50     | Desc: 7in. 7/8 8.5 FBH @ 1.83 w/ 8 1/4 | SO/PU: 170 - 240 185-300                                                                                                                               |
| Date Out: 04-Dec-19 @ 08:00    | MFG.: Intrepid                         | Rot Wt: 180-265                                                                                                                                        |
| Hrs In Hole: 63.63             | BHA Circ/ All BHA: 48.47 / 48.47       | WOB: 12 - 42                                                                                                                                           |
| Start Depth: 5257.00           | Motor SN: XSS72004                     | TORQ: 0 - 16000                                                                                                                                        |
| End Depth: 10730.00            | PAD OD: 7 3/16                         | SPP: 2400 - 2900                                                                                                                                       |
| Total Drilled: 5473.00         | NB Stab: 8.25                          | Motor RPM: 156 - 169                                                                                                                                   |
| Avg. Total ROP: 121.71         | Bit to Bend: 4.05                      | Rotary RPM: 30 - 40                                                                                                                                    |
| Circ Hrs:Tot/Only 48.47 / 3.50 | Bent Hsg / Sub: 1.83 /                 | Flow Rate: 600 - 650                                                                                                                                   |
| Percent Slide: 3.20            | Lobe/Stage: 7/8 / 8.5                  | Avg Diff:                                                                                                                                              |
| Percent Hrs: 12.97             | Rev/GAL: 0.26                          | Stall Pres.:                                                                                                                                           |
| Slide Hours: 5.83              | Rotor Jet: 0                           | Off Bot Pres.:                                                                                                                                         |
| Total Sliding: 175.00          | Prop BUR: 10                           | <b>Bit Record</b><br>REED / 8 1/2" Reed TKC66<br>Run #: 4<br>Type Bit: PDC<br>IADC#: TFA: 1.035<br>JETS: 6-15<br>Bit Drop: 305 PSI @ 650 GPM<br>Cond.: |
| Avg. Slide ROP: 30.00          | Act BUR: 14                            |                                                                                                                                                        |
| Percent Rotary: 96.80          | Stator Clearance:                      |                                                                                                                                                        |
| Percent Hrs: 87.03             | Lower Stab OD:                         |                                                                                                                                                        |
| Rot / Total Hrs: 39.13 / 44.97 | Upper Stab OD:                         |                                                                                                                                                        |
| Rotary Drilled: 5298.00        | Extended Motor? NO                     |                                                                                                                                                        |
| Avg. Rotary ROP: 135.38        | Number of Stalls:                      |                                                                                                                                                        |
| Reason POOH:                   | Stall Duration:                        |                                                                                                                                                        |

## Mud Data

Type WBM WT: 8.4 Vis: 28 WL: 0 PV: 0 Flow T °: 0  
 SAND 0 Chlor: 0 GAS 0 SOL: 0 Oil %: 0 YP: 0 PH: 9.5 Bottom Hole T °: 92

Formation:

EXPANDED REASON PULLED:

BHA PERFORMANCE:

ADDITIONAL COMMENTS: (Expands to next page if necessary)

**BHA # 5****Mud Motor Report**

**SDI Job #:** ID2386-3  
**COMPANY:** Advance Energy Partners ,LLC  
**LOCATION:** Lea County, New Mexico  
**RIG NAME:** H&P466 Flex 3  
**STATE:** New Mexico  
**COUNTY:** Lea Co.  
**WELL NAME:** Wool Head 20 State Com 554 **Motor Failed?: NO**

**FIELD:** Delaware Basin  
**Sec-Twn-Rng:** 20-21S-33E  
**SD District**  
**Lead DD:** Jason Greer  
**Co. Man:** Frank Calhoun

| Time and Depths (This BHA)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Motor Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Drilling Parameters                                                                                                                                                                                                                                                                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Date In:</b> 04-Dec-19 @ 08:00<br><b>Date Out:</b> 06-Dec-19 @ 04:30<br><b>Hrs In Hole:</b> 44.50<br><b>Start Depth:</b> 10730.00<br><b>End Depth:</b> 12115.00<br><b>Total Drilled:</b> 1385.00<br><b>Avg. Total ROP:</b> 52.43<br><b>Circ Hrs:Tot/Only</b> 27.50 / 1.08<br><b>Percent Slide:</b> 58.56<br><b>Percent Hrs:</b> 63.09<br><b>Slide Hours:</b> 16.67<br><b>Total Sliding:</b> 811.00<br><b>Avg. Slide ROP:</b> 48.66<br><b>Percent Rotary:</b> 41.44<br><b>Percent Hrs:</b> 36.91<br><b>Rot / Total Hrs:</b> 9.75 / 26.42<br><b>Rotary Drilled:</b> 574.00<br><b>Avg. Rotary ROP:</b> 58.87<br><b>Reason POOH:</b> BHA | <b>Desc:</b> 6 3/4, 7/8 5.0 FBH @ 2.12 TS<br><b>MFG.:</b> Intrepid<br><b>BHA Circ/ All BHA:</b> 27.50 / 27.50<br><b>Motor SN:</b> XSS67069<br><b>PAD OD:</b> 7.07<br><b>NB Stab:</b> 0<br><b>Bit to Bend:</b> 4.18<br><b>Bent Hsg / Sub:</b> 2.12 / 2 °<br><b>Lobe/Stage:</b> 7/8 / 5<br><b>Rev/GAL:</b> 0.288<br><b>Rotor Jet:</b> 0<br><b>Prop BUR:</b> 12<br><b>Act BUR:</b> 14.5<br><b>Stator Clearance:</b><br><b>Lower Stab OD:</b><br><b>Upper Stab OD:</b><br><b>Extended Motor?</b> NO<br><b>Number of Stalls:</b> 2<br><b>Stall Duration:</b> 2 | <b>SO/PU:</b> 250 - 259 303-365<br><b>Rot Wt:</b> 271-305<br><b>WOB:</b> 0 - 70<br><b>TORQ:</b> 14 - 17000<br><b>SPP:</b> 2550 - 3025<br><b>Motor RPM:</b> 173<br><b>Rotary RPM:</b> 25 - 50<br><b>Flow Rate:</b> 600 - 600<br><b>Avg Diff:</b> 500<br><b>Stall Pres.:</b> 1130<br><b>Off Bot Pres.:</b> 2400 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Bit Record                                                                                                                                                                                                                                                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Halliburton / 8 1/2" Security GTD64C<br><b>Run #:</b> 5<br><b>Type Bit:</b> PDC<br><b>IADC#:</b> TFA: 1.178<br><b>JETS:</b> 6-16<br><b>Bit Drop:</b> 222 PSI @ 600 GPM<br><b>Cond.:</b> 2-4-RG-S-X-1-WT-BHA Bad                                                                                               |

**Mud Data**

**Type** OBM **WT:** 9.3 **Vis:** 49 **WL:** 7.8 **PV:** 13 **Flow T °:** 114  
**SAND** 0.1 **Chlor:** 41000 **GAS** 0 **SOL:** 11 **Oil %:** 73 **YP:** 6 **PH:** 9.5 **Bottom Hole T °:** 125

**Formation:****EXPANDED REASON PULLED:**

Curve section completed - P/U Lateral Assembly

**BHA PERFORMANCE:**

Very good - average yields around 14.5 - No Issues getting Build Rates - Started seeing High Torq. closer to Landing point

**ADDITIONAL COMMENTS: (Expands to next page if necessary)**

Motor Drained Good @ Surface - No Visual wear seen

**BHA # 6****Mud Motor Report**

**SDI Job #:** ID2386-3  
**COMPANY:** Advance Energy Partners ,LLC  
**LOCATION:** Lea County, New Mexico  
**RIG NAME:** H&P466 Flex 3  
**STATE:** New Mexico  
**COUNTY:** Lea Co.  
**WELL NAME:** Wool Head 20 State Com 554 **Motor Failed?: NO**

**FIELD:** Delaware Basin  
**Sec-Twn-Rng:** 20-21S-33E  
**SD District**  
**Lead DD:** Jason Greer  
**Co. Man:** Frank Calhoun

| Time and Depths (This BHA)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Motor Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Drilling Parameters                                                                                                                                                                                                                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Date In:</b> 06-Dec-19 @ 07:00<br><b>Date Out:</b> 10-Dec-19 @ 11:00<br><b>Hrs In Hole:</b> 100.00<br><b>Start Depth:</b> 12115.00<br><b>End Depth:</b> 15046.00<br><b>Total Drilled:</b> 2931.00<br><b>Avg. Total ROP:</b> 39.47<br><b>Circ Hrs:Tot/Only</b> 81.00 / 6.75<br><b>Percent Slide:</b> 23.30<br><b>Percent Hrs:</b> 52.64<br><b>Slide Hours:</b> 39.08<br><b>Total Sliding:</b> 683.00<br><b>Avg. Slide ROP:</b> 17.48<br><b>Percent Rotary:</b> 76.70<br><b>Percent Hrs:</b> 47.36<br><b>Rot / Total Hrs:</b> 35.17 / 74.25<br><b>Rotary Drilled:</b> 2248.00<br><b>Avg. Rotary ROP:</b> 63.92<br><b>Reason POOH:</b> | <b>Desc:</b> 7/8 8.5 FBH @ 1.75 w/ 8 1/8<br><b>MFG.:</b> Intrepid<br><b>BHA Circ/ All BHA:</b> 81.00 / 81.00<br><b>Motor SN:</b> XSS70074<br><b>PAD OD:</b> 7 3/16<br><b>NB Stab:</b> 8.125<br><b>Bit to Bend:</b> 4.25<br><b>Bent Hsg / Sub:</b> 1.75 / 1.75 °<br><b>Lobe/Stage:</b> 7/8 8.5 / 8.5<br><b>Rev/GAL:</b> 0.26<br><b>Rotor Jet:</b> 0<br><b>Prop BUR:</b> 8<br><b>Act BUR:</b> 9<br><b>Stator Clearance:</b><br><b>Lower Stab OD:</b> 8 1/8<br><b>Upper Stab OD:</b><br><b>Extended Motor?</b> NO<br><b>Number of Stalls:</b> 10<br><b>Stall Duration:</b> 10 | <b>SO/PU:</b> 185 - 185 315-350<br><b>Rot Wt:</b> 280-280<br><b>WOB:</b> 0 - 65<br><b>TORQ:</b> 0 - 34<br><b>SPP:</b> 3200 - 3900<br><b>Motor RPM:</b> 183<br><b>Rotary RPM:</b> 40 - 70<br><b>Flow Rate:</b> 705 - 750<br><b>Avg Diff:</b> 650<br><b>Stall Pres.:</b> 1910<br><b>Off Bot Pres.:</b> 3100 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Bit Record                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | BAKER / 8 1/2" Baker DD506TWX w/<br><b>Run #:</b> 6<br><b>Type Bit:</b> PDC<br><b>IADC#:</b> TFA: 2.226<br><b>JETS:</b> 6-22<br><b>Bit Drop:</b> 98 PSI @ 750 GPM<br><b>Cond.:</b>                                                                                                                        |

**Mud Data**

**Type** OBM **WT:** 9.4 **Vis:** 56 **WL:** 7.8 **PV:** 18 **Flow T °:** 128  
**SAND** 0.1 **Chlor:** 4700 **GAS** 0 **SOL:** 9.9 **Oil %:** 71 **YP:** 10 **PH:** 0 **Bottom Hole T °:** 165

**Formation:****EXPANDED REASON PULLED:**

Several Rotary Stalls w/ Pressure Spikes seen on Last 2 Stands, Rotary Torque set @ 34k

**BHA PERFORMANCE:**

Fair - Building in Rotation w/ Low ROP

**ADDITIONAL COMMENTS: (Expands to next page if necessary)**

Motor Drained ok at surface. Bearings had about a 1/2" of play. Bit was graded 1-3 with chipped cutters on the shoulder.

**BHA # 7****Mud Motor Report**

**SDI Job #:** ID2386-3  
**COMPANY:** Advance Energy Partners ,LLC  
**LOCATION:** Lea County, New Mexico  
**RIG NAME:** H&P466 Flex 3  
**STATE:** New Mexico  
**COUNTY:** Lea Co.  
**WELL NAME:** Wool Head 20 State Com 554H

**FIELD:** Delaware Basin  
**Sec-Twn-Rng:** 20-21S-33E  
**SD District**  
**Lead DD:** Jason Greer  
**Co. Man:** Frank Calhoun

**Motor Failed?: NO**

| Time and Depths (This BHA)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Motor Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Drilling Parameters                                                                                                                                                                                                                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Date In:</b> 10-Dec-19 @ 15:00<br><b>Date Out:</b> 14-Dec-19 @ 24:00<br><b>Hrs In Hole:</b> 105.00<br><b>Start Depth:</b> 15046.00<br><b>End Depth:</b> 18906.00<br><b>Total Drilled:</b> 3860.00<br><b>Avg. Total ROP:</b> 74.83<br><b>Circ Hrs:Tot/Only</b> 62.92 / 11.33<br><b>Percent Slide:</b> 12.49<br><b>Percent Hrs:</b> 35.38<br><b>Slide Hours:</b> 18.25<br><b>Total Sliding:</b> 482.00<br><b>Avg. Slide ROP:</b> 26.41<br><b>Percent Rotary:</b> 87.51<br><b>Percent Hrs:</b> 64.62<br><b>Rot / Total Hrs:</b> 33.33 / 51.58<br><b>Rotary Drilled:</b> 3378.00<br><b>Avg. Rotary ROP:</b> 101.34<br><b>Reason POOH:</b> TD | <b>Desc:</b> 7/8 8.5 FBH @ 1.83 w/SS<br><b>MFG.:</b> Intrepid<br><b>BHA Circ/ All BHA:</b> 62.92 / 62.92<br><b>Motor SN:</b> <b>XSS70078</b><br><b>PAD OD:</b> 7.13<br><b>NB Stab:</b> 0<br><b>Bit to Bend:</b> 4.25<br><b>Bent Hsg / Sub:</b> 1.83 / 1.83 °<br><b>Lobe/Stage:</b> 7/8 / 8.5<br><b>Rev/GAL:</b> 0.26<br><b>Rotor Jet:</b> 0<br><b>Prop BUR:</b> 8<br><b>Act BUR:</b> 10<br><b>Stator Clearance:</b><br><b>Lower Stab OD:</b><br><b>Upper Stab OD:</b><br><b>Extended Motor?</b> NO<br><b>Number of Stalls:</b> 4<br><b>Stall Duration:</b> 4 | <b>SO/PU:</b> 185 - 185 / 315-330<br><b>Rot Wt:</b> 280-280<br><b>WOB:</b> 0 - 75<br><b>TORQ:</b> 0 - 42<br><b>SPP:</b> 790 - 4975<br><b>Motor RPM:</b> 177 - 189<br><b>Rotary RPM:</b> 30 - 40<br><b>Flow Rate:</b> 300 - 750<br><b>Avg Diff:</b> 675<br><b>Stall Pres.:</b> 1910<br><b>Off Bot Pres.:</b> 3800 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Bit Record</b><br>REED / 8 1/2" Baker DD506TX w/<br><b>Run #:</b> 7<br><b>Type Bit:</b> PDC<br><b>IADC#:</b> <b>TFA:</b> 1.84<br><b>JETS:</b> 6-20<br><b>Bit Drop:</b> 144 PSI @ 750 GPM<br><b>Cond.:</b> 1-4-WT-S-X-8.43-WT-TD                                                                               |

**Mud Data**

**Type** OBM **WT:** 9.4 **Vis:** 59 **WL:** 7.6 **PV:** 16 **Flow T °:** 139  
**SAND:** 0.1 **Chlor:** 52000 **GAS:** 0 **SOL:** 8.9 **Oil %:** 66 **YP:** 10 **PH:** 0 **Bottom Hole T °:** 192

**Formation:****EXPANDED REASON PULLED:**

Well TD @ 18906'

**BHA PERFORMANCE:**

Very well, Good ROP & Tracked pretty good - Slides had good results when placed, Torque continued to be high but WOB was also increased from 50-70 & TD Rotary set @ 40

**ADDITIONAL COMMENTS: (Expands to next page if necessary)**

Motor drained fine, with minimal squat in bearings. Bit was Graded 1-4 with worn cutters on shoulder.





**SDI Job #:** ID2386-3  
**COMPANY:** Advance Energy Partners ,LLC  
**LOCATION:** Lea County, New Mexico  
**RIG NAME:** H&P466 Flex 3  
**STATE:** New Mexico  
**COUNTY:** Lea Co.  
**WELL NAME:** Wool Head 20 State Com 554H  
**Survey File:**

**FIELD:** Delaware Basin  
**Sec-Twn-Rng:** 20-21S-33E  
**Range/Section** /NM0092

#### MOTOR INFORMATION

**Desc:** 9 5/8, 7/8 5.9 ABH@1.5° w/ 14.5 NBS  
**Bent Hsg/Sub:** 1.5 1.5 **Bit to Bend:** 8.75  
**PAD OD:** 10.45 **NB Stab:** 14.5

### Slide Report for BHA # 1 with Surveys included

Note: Sliding and Drilling Surveys are LOGICAL expectations.

| # | Date   | Hrs  | Start MD | End MD | DMD | WOB | ROP   | RPM | Surf Torq | Flow Rate | SPP On B | SPP Off B | Delta SPP | TFO cTFO | Survey MD | INC  | AZM    | Surv DLS | Mot DLS | Rot DLS | Q | Drill Mode     |
|---|--------|------|----------|--------|-----|-----|-------|-----|-----------|-----------|----------|-----------|-----------|----------|-----------|------|--------|----------|---------|---------|---|----------------|
|   |        |      |          |        | 238 |     |       |     |           |           |          |           |           | 98       | 238       | 0.31 | 181.05 | 0.13     |         |         | 5 | Survey         |
|   |        |      |          |        | 91  |     |       |     |           |           |          |           |           | -88      | 329       | 0.48 | 239.41 | 0.45     |         |         | 5 | Survey         |
|   |        |      |          |        | 95  |     |       |     |           |           |          |           |           | 83       | 424       | 0.66 | 198.19 | 0.46     |         |         | 5 | Survey         |
|   |        |      |          |        | 95  |     |       |     |           |           |          |           |           | 149      | 519       | 0.84 | 230.27 | 0.47     |         |         | 5 | Survey         |
|   |        |      |          |        | 95  |     |       |     |           |           |          |           |           | -38      | 614       | 0.48 | 264.37 | 0.55     |         |         | 5 | Survey         |
|   |        |      |          |        | 96  |     |       |     |           |           |          |           |           | -6       | 710       | 1.01 | 243.27 | 0.61     |         |         | 5 | Survey         |
| 1 | 11-Nov | 3.42 | 145      | 804    | 659 | 30  | 216.0 | 70  | 13000     | 900       | 2900     | 2000      | 900       |          | 804       | 2.42 | 239.93 | 1.50     | 0.00    | 1.50    | 5 | Drilling       |
|   |        |      |          |        | 94  |     |       |     |           |           |          |           |           | -177     | 804       | 2.42 | 239.93 | 1.50     |         |         | 6 | Survey & Conn. |
|   |        |      | 804      | 883    | 79  | 30  | 216.0 | 70  | 13000     | 900       | 2900     | 2000      |           |          | 883       | 2.31 | 239.68 | 0.00     |         |         | 0 | Drilling       |
| 1 | 11-Nov | 0.50 | 883      | 899    | 16  | 28  | 70.0  | 0   | 13000     | 900       | 2900     | 2000      | 900       | 60M      | 899       | 1.27 | 237.38 | 1.21     | 0.00    | 0.00    | 5 | Sliding        |
|   |        |      |          |        | 95  |     |       |     |           |           |          |           |           | 172      | 899       | 1.27 | 237.38 | 1.21     |         |         | 6 | Survey & Conn. |
|   |        |      | 899      | 918    | 19  | 28  | 70.0  | 0   | 13000     | 900       | 2900     | 2000      |           | 60M      | 918       | 0.88 | 240.94 | 0.00     | 0.00    |         | 5 | Sliding        |
|   |        |      |          |        | 95  |     |       |     |           |           |          |           |           | 54       | 994       | 0.84 | 241.34 | 0.46     |         |         | 5 | Survey         |
| 1 | 11-Nov | 1.50 | 918      | 1084   | 166 | 35  | 163.3 | 70  | 15000     | 900       | 3150     | 2100      | 1050      |          | 1084      | 0.92 | 247.76 | 0.14     | 0.00    | 0.14    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -48      | 1084      | 0.92 | 247.76 | 0.14     |         |         | 6 | Survey & Conn. |
|   |        |      | 1084     | 1163   | 79  | 35  | 163.3 | 70  | 15000     | 900       | 3150     | 2100      |           |          | 1163      | 0.94 | 246.64 | 0.00     |         |         | 0 | Drilling       |
| 1 | 11-Nov | 0.33 | 1163     | 1173   | 10  | 30  | 90.0  | 0   | 15000     | 900       | 2800     | 2100      | 700       | 65M      | 1173      | 1.14 | 236.51 | 0.33     | 0.00    | 0.00    | 5 | Sliding        |
|   |        |      |          |        | 89  |     |       |     |           |           |          |           |           | -93      | 1173      | 1.14 | 236.51 | 0.33     |         |         | 6 | Survey & Conn. |
|   |        |      | 1173     | 1193   | 20  | 30  | 90.0  | 0   | 15000     | 900       | 2800     | 2100      |           | 65M      | 1193      | 1.14 | 230.81 | 0.00     |         |         | 0 | Sliding        |
| 1 | 11-Nov | 1.25 | 1193     | 1263   | 70  | 40  | 110.4 | 70  | 18000     | 900       | 3150     | 2100      | 1050      |          | 1263      | 1.14 | 230.18 | 0.14     | 0.00    | 0.00    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | 75       | 1263      | 1.14 | 230.18 | 0.14     |         |         | 6 | Survey & Conn. |
|   |        |      | 1263     | 1331   | 68  | 40  | 110.4 | 70  | 18000     | 900       | 3150     | 2100      |           |          | 1331      | 1.15 | 231.35 | 0.00     |         |         | 0 | Drilling       |
| 1 | 11-Nov | 0.75 | 1331     | 1352   | 21  | 30  | 46.7  | 0   | 18000     | 900       | 2750     | 2100      | 650       | 50M      | 1352      | 1.23 | 241.87 | 0.29     | 0.00    | 0.00    | 5 | Sliding        |
|   |        |      |          |        | 89  |     |       |     |           |           |          |           |           | -75      | 1352      | 1.23 | 241.87 | 0.29     |         |         | 6 | Survey & Conn. |
|   |        |      | 1352     | 1366   | 14  | 30  | 46.7  | 0   | 18000     | 900       | 2750     | 2100      |           | 50M      | 1366      | 1.27 | 236.80 | 0.00     |         |         | 0 | Sliding        |

# Slide Report for BHA # 1 with Surveys included

Note: Sliding and Drilling Surveys are LOGICAL expectations.

| # | Date   | Hrs  | Start MD | End MD | DMD | WOB | ROP   | RPM | Surf Torq | Flow Rate | SPP On B | SPP Off B | Delta SPP | TFO cTFO | Survey MD | INC  | AZM    | Surv DLS | Mot DLS | Rot DLS | Q | Drill Mode     |
|---|--------|------|----------|--------|-----|-----|-------|-----|-----------|-----------|----------|-----------|-----------|----------|-----------|------|--------|----------|---------|---------|---|----------------|
| 1 | 11-Nov | 1.00 | 1366     | 1442   | 76  | 40  | 115.0 | 70  | 18000     | 900       | 2750     | 2100      | 650       |          | 1442      | 1.27 | 236.24 | 0.14     | 0.00    | 0.00    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -1       | 1442      | 1.27 | 236.24 | 0.14     |         |         | 6 | Survey & Conn. |
|   |        |      | 1442     | 1481   | 39  | 40  | 115.0 | 70  | 18000     | 900       | 2750     | 2100      |           |          | 1481      | 1.29 | 236.23 | 0.00     |         |         | 0 | Drilling       |
| 1 | 12-Nov | 0.33 | 1481     | 1510   | 29  | 45  | 87.0  | 70  | 21000     | 725       | 2250     | 1350      | 900       |          | 1510      | 1.33 | 236.20 | 0.00     | 0.00    | 0.00    | 0 | Drilling       |
| 1 | 12-Nov | 1.33 | 1510     | 1531   | 21  | 38  | 22.5  | 0   | 26000     | 725       | 2250     | 1350      | 900       | 45M      | 1531      | 1.63 | 235.98 | 0.40     | 0.00    | 0.00    | 5 | Sliding        |
|   |        |      |          |        | 89  |     |       |     |           |           |          |           |           | 157      | 1531      | 1.63 | 235.98 | 0.40     |         |         | 6 | Survey & Conn. |
|   |        |      | 1531     | 1540   | 9   | 38  | 22.5  | 0   | 26000     | 725       | 2250     | 1350      |           | 45M      | 1540      | 1.27 | 243.33 | 0.00     |         |         | 0 | Sliding        |
|   |        |      |          |        | 89  |     |       |     |           |           |          |           |           | 6        | 1620      | 1.23 | 244.15 | 0.50     |         |         | 5 | Survey         |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | 61       | 1710      | 1.41 | 244.94 | 0.20     |         |         | 5 | Survey         |
| 1 | 12-Nov | 4.92 | 1540     | 1770   | 230 | 50  | 60.6  | 70  | 26000     | 725       | 2250     | 1350      | 900       |          | 1770      | 1.76 | 261.47 | 0.95     | 0.00    | 0.95    | 5 | Drilling       |
|   |        |      |          |        | 60  |     |       |     |           |           |          |           |           | 116      | 1770      | 1.76 | 261.47 | 0.95     |         |         | 6 | Survey & Conn. |
|   |        |      | 1770     | 1838   | 68  | 50  | 60.6  | 70  | 26000     | 725       | 2250     | 1350      |           |          | 1838      | 0.00 | 0.00   | 0.00     |         |         | 0 | Drilling       |

Total Drilled: 1693 Avg. Total ROP: 110.41

DEPTH% - TIME %

Total Rotary Drilled: 1563 Avg. Rotary ROP: 125.88

Percent Rotary: 92.32 - 80.98

Total Drilled Sliding: 130 Avg. Slide ROP: 44.57

Percent Slide: 7.68 - 19.02



SDI Job #: ID2386-3  
COMPANY: Advance Energy Partners ,LLC  
LOCATION: Lea County, New Mexico  
RIG NAME: H&P466 Flex 3  
STATE: New Mexico  
COUNTY: Lea Co.  
WELL NAME: Wool Head 20 State Com 554H  
Survey File:

FIELD: Delaware Basin  
Sec-Twn-Rng: 20-21S-33E  
Range/Section /NM0092

#### MOTOR INFORMATION

Desc: 8in. 7/8 5.9 FBH@1.5° w/ 12 NBS  
Bent Hsg/Sub: 1.5 0 Bit to Bend: 5.83  
PAD OD: 8 13/16 NB Stab: 12

### Slide Report for BHA # 2 with Surveys included

Note: Sliding and Drilling Surveys are LOGICAL expectations.

| # | Date   | Hrs  | Start MD | End MD | DMD | WOB | ROP   | RPM | Surf Torq | Flow Rate | SPP On B | SPP Off B | Delta SPP | TFO cTFO | Survey MD | INC  | AZM    | Surv DLS | Mot DLS | Rot DLS | Q | Drill Mode     |
|---|--------|------|----------|--------|-----|-----|-------|-----|-----------|-----------|----------|-----------|-----------|----------|-----------|------|--------|----------|---------|---------|---|----------------|
|   |        |      |          |        | 122 |     |       |     |           |           |          |           |           | 116      | 1892      | 1.58 | 285.64 | 0.59     |         |         | 5 | Survey         |
| 2 | 17-Nov | 1.33 | 1838     | 1982   | 144 | 40  | 166.5 | 80  | 26000     | 900       | 3600     | 2950      | 650       |          | 1982      | 1.49 | 294.25 | 0.27     | 0.00    | 0.27    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | 146      | 1982      | 1.49 | 294.25 | 0.27     |         |         | 6 | Survey & Conn. |
|   |        |      | 1982     | 2060   | 78  | 40  | 166.5 | 80  | 26000     | 900       | 3600     | 2950      |           |          | 2060      | 1.43 | 297.85 | 0.00     |         |         | 0 | Drilling       |
| 2 | 17-Nov | 0.17 | 2060     | 2071   | 11  | 35  | 120.0 | 0   | 26000     | 725       | 3500     | 2950      | 550       | 90M      | 2071      | 0.88 | 330.20 | 1.05     | 0.00    | 0.00    | 5 | Sliding        |
|   |        |      |          |        | 89  |     |       |     |           |           |          |           |           | 122      | 2071      | 0.88 | 330.20 | 1.05     |         |         | 6 | Survey & Conn. |
|   |        |      | 2071     | 2080   | 9   | 35  | 120.0 | 0   | 26000     | 725       | 3500     | 2950      |           | 90M      | 2080      | 0.80 | 52.15  | 0.00     | 0.00    |         | 4 | Sliding        |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -90      | 2161      | 0.79 | 21.26  | 0.80     |         |         | 5 | Survey         |
|   |        |      |          |        | 89  |     |       |     |           |           |          |           |           | 16       | 2250      | 0.79 | 20.56  | 0.01     |         |         | 5 | Survey         |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | 131      | 2340      | 1.05 | 24.69  | 0.30     |         |         | 5 | Survey         |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | 42       | 2430      | 0.92 | 35.32  | 0.25     |         |         | 5 | Survey         |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -101     | 2520      | 1.01 | 39.72  | 0.13     |         |         | 5 | Survey         |
|   |        |      |          |        | 89  |     |       |     |           |           |          |           |           | 180      | 2609      | 1.01 | 18.01  | 0.43     |         |         | 5 | Survey         |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | 109      | 2699      | 0.97 | 18.01  | 0.04     |         |         | 5 | Survey         |
| 2 | 17-Nov | 3.75 | 2080     | 2789   | 709 | 42  | 206.4 | 80  | 26000     | 900       | 3800     | 2950      | 850       |          | 2789      | 0.92 | 39.98  | 0.40     | 0.00    | 0.40    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | 71       | 2789      | 0.92 | 39.98  | 0.40     |         |         | 6 | Survey & Conn. |
|   |        |      | 2789     | 2854   | 65  | 42  | 206.4 | 80  | 26000     | 900       | 3800     | 2950      |           |          | 2854      | 0.99 | 43.85  | 0.00     |         |         | 0 | Drilling       |
| 2 | 17-Nov | 0.17 | 2854     | 2872   | 18  | 35  | 108.0 | 80  | 26000     | 725       | 3800     | 2950      | 850       | 130M     | 2872      | 1.63 | 78.65  | 0.00     | 0.00    | 0.00    | 0 | Sliding        |
|   |        |      |          |        | 89  |     |       |     |           |           |          |           |           | 30       | 2878      | 1.63 | 78.65  | 1.21     |         |         | 5 | Survey         |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | 9        | 2968      | 2.37 | 88.41  | 0.90     |         |         | 5 | Survey         |
| 2 | 17-Nov | 0.92 | 2872     | 3058   | 186 | 45  | 273.8 | 80  | 26000     | 900       | 4000     | 2950      | 1050      |          | 3058      | 2.99 | 90.26  | 0.70     | 0.00    | 0.70    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -165     | 3058      | 2.99 | 90.26  | 0.70     |         |         | 6 | Survey & Conn. |
|   |        |      | 3058     | 3123   | 65  | 45  | 273.8 | 80  | 26000     | 900       | 4000     | 2950      |           |          | 3123      | 2.96 | 90.05  | 0.00     |         |         | 0 | Drilling       |
| 2 | 18-Nov | 0.25 | 3123     | 3133   | 10  | 42  | 40.0  | 80  | 26000     | 900       | 4000     | 2950      | 1050      |          | 3133      | 2.92 | 89.80  | 0.00     | 0.00    | 0.00    | 0 | Drilling       |
| 2 | 18-Nov | 0.17 | 3133     | 3148   | 15  | 35  | 120.0 | 0   | 26000     | 900       | 3750     | 3250      | 500       | 270M     | 3148      | 2.59 | 87.79  | 0.46     | 0.00    | 0.00    | 5 | Sliding        |

# Slide Report for BHA # 2 with Surveys included

Note: Sliding and Drilling Surveys are LOGICAL expectations.

| # | Date   | Hrs  | Start MD | End MD | DMD  | WOB | ROP   | RPM | Surf Torq | Flow Rate | SPP On B | SPP Off B | Delta SPP | TFO cTFO | Survey MD | INC  | AZM   | Surv DLS | Mot DLS | Rot DLS | Q | Drill Mode     |
|---|--------|------|----------|--------|------|-----|-------|-----|-----------|-----------|----------|-----------|-----------|----------|-----------|------|-------|----------|---------|---------|---|----------------|
|   |        |      |          |        | 90   |     |       |     |           |           |          |           |           | 170      | 3148      | 2.59 | 87.79 | 0.46     |         |         | 6 | Survey & Conn. |
|   |        |      | 3148     | 3153   | 5    | 35  | 120.0 | 0   | 26000     | 900       | 3750     | 3250      |           | 270M     | 3153      | 2.04 | 90.56 | 0.00     | 0.00    |         | 5 | Sliding        |
|   |        |      |          |        | 89   |     |       |     |           |           |          |           |           | -49      | 3237      | 1.98 | 90.87 | 0.70     |         |         | 5 | Survey         |
| 2 | 18-Nov | 1.17 | 3153     | 3327   | 174  | 45  | 213.4 | 80  | 26000     | 900       | 4100     | 3200      | 900       |          | 3327      | 2.15 | 85.95 | 0.27     | 0.00    | 0.27    | 5 | Drilling       |
|   |        |      |          |        | 90   |     |       |     |           |           |          |           |           | 176      | 3327      | 2.15 | 85.95 | 0.27     |         |         | 6 | Survey & Conn. |
|   |        |      | 3327     | 3402   | 75   | 45  | 213.4 | 80  | 26000     | 900       | 4100     | 3200      |           |          | 3402      | 2.11 | 86.06 | 0.00     |         |         | 0 | Drilling       |
| 2 | 18-Nov | 0.25 | 3402     | 3417   | 15   | 35  | 100.0 | 0   | 26000     | 900       | 3800     | 3200      | 600       | 270M     | 3417      | 1.71 | 87.09 | 0.49     | 0.00    | 0.00    | 5 | Sliding        |
|   |        |      |          |        | 90   |     |       |     |           |           |          |           |           | -171     | 3417      | 1.71 | 87.09 | 0.49     |         |         | 6 | Survey & Conn. |
|   |        |      | 3417     | 3427   | 10   | 35  | 100.0 | 0   | 26000     | 900       | 3800     | 3200      |           | 270M     | 3427      | 0.77 | 73.56 | 0.00     |         |         | 0 | Sliding        |
|   |        |      |          |        | 89   |     |       |     |           |           |          |           |           | -140     | 3506      | 0.66 | 72.06 | 1.22     |         |         | 5 | Survey         |
|   |        |      |          |        | 90   |     |       |     |           |           |          |           |           | 73       | 3596      | 0.53 | 58.88 | 0.21     |         |         | 5 | Survey         |
|   |        |      |          |        | 90   |     |       |     |           |           |          |           |           | -74      | 3686      | 0.75 | 89.20 | 0.44     |         |         | 5 | Survey         |
|   |        |      |          |        | 90   |     |       |     |           |           |          |           |           | 125      | 3776      | 0.97 | 63.10 | 0.49     |         |         | 5 | Survey         |
|   |        |      |          |        | 89   |     |       |     |           |           |          |           |           | 52       | 3865      | 0.88 | 72.59 | 0.20     |         |         | 5 | Survey         |
|   |        |      |          |        | 90   |     |       |     |           |           |          |           |           | -48      | 3955      | 1.19 | 88.94 | 0.47     |         |         | 5 | Survey         |
|   |        |      |          |        | 90   |     |       |     |           |           |          |           |           | -33      | 4045      | 1.45 | 78.39 | 0.39     |         |         | 5 | Survey         |
|   |        |      |          |        | 90   |     |       |     |           |           |          |           |           | 64       | 4135      | 1.71 | 72.85 | 0.33     |         |         | 5 | Survey         |
|   |        |      |          |        | 89   |     |       |     |           |           |          |           |           | -160     | 4224      | 2.07 | 88.76 | 0.71     |         |         | 5 | Survey         |
|   |        |      |          |        | 90   |     |       |     |           |           |          |           |           | -172     | 4314      | 1.93 | 87.27 | 0.17     |         |         | 5 | Survey         |
|   |        |      |          |        | 90   |     |       |     |           |           |          |           |           | 107      | 4404      | 1.76 | 86.48 | 0.19     |         |         | 5 | Survey         |
|   |        |      |          |        | 89   |     |       |     |           |           |          |           |           | -82      | 4493      | 1.71 | 93.16 | 0.23     |         |         | 5 | Survey         |
| 2 | 18-Nov | 5.50 | 3427     | 4583   | 1156 | 65  | 223.8 | 80  | 26000     | 900       | 4500     | 3400      | 1100      |          | 4583      | 1.93 | 72.24 | 0.77     | 0.00    | 0.77    | 5 | Drilling       |
|   |        |      |          |        | 90   |     |       |     |           |           |          |           |           | -168     | 4583      | 1.93 | 72.24 | 0.77     |         |         | 6 | Survey & Conn. |
|   |        |      | 4583     | 4658   | 75   | 65  | 223.8 | 80  | 26000     | 900       | 4500     | 3400      |           |          | 4658      | 1.79 | 69.06 | 0.00     |         |         | 0 | Drilling       |
| 2 | 18-Nov | 0.50 | 4658     | 4673   | 15   | 40  | 70.0  | 80  | 26000     | 900       | 4500     | 3400      | 1100      | 250M     | 4673      | 0.57 | 40.42 | 1.64     | 0.00    | 0.00    | 5 | Sliding        |
|   |        |      |          |        | 90   |     |       |     |           |           |          |           |           | -133     | 4673      | 0.57 | 40.42 | 1.64     |         |         | 6 | Survey & Conn. |
|   |        |      | 4673     | 4693   | 20   | 40  | 70.0  | 80  | 26000     | 900       | 4500     | 3400      |           | 250M     | 4693      | 0.00 | 0.00  | 0.00     |         |         | 0 | Sliding        |
| 2 | 18-Nov | 0.75 | 4693     | 4738   | 45   | 70  | 60.0  | 80  | 12000     | 900       | 3700     | 3400      | 300       |          | 4738      | 0.00 | 0.00  | 0.00     | 0.00    | 0.00    | 0 | Drilling       |

Total Drilled: 2900 Avg. Total ROP: 194.41

DEPTH% - TIME %

Total Rotary Drilled: 2782 Avg. Rotary ROP: 203.56

Percent Rotary: 95.93 - 91.62

Total Drilled Sliding: 118 Avg. Slide ROP: 94.40

Percent Slide: 4.07 - 8.38



SDI Job #: ID2386-3  
COMPANY: Advance Energy Partners ,LLC  
LOCATION: Lea County, New Mexico  
RIG NAME: H&P466 Flex 3  
STATE: New Mexico  
COUNTY: Lea Co.  
WELL NAME: Wool Head 20 State Com 554H  
Survey File:

FIELD: Delaware Basin  
Sec-Twn-Rng: 20-21S-33E  
Range/Section /NM0092

#### MOTOR INFORMATION

Desc: 8in. 7/8 5.9 FBH@1.5° w/ 12 NBS  
Bent Hsg/Sub: 1.5 0 Bit to Bend: 5.83  
PAD OD: 8 13/16 NB Stab: 12

### Slide Report for BHA # 3 with Surveys included

Note: Sliding and Drilling Surveys are LOGICAL expectations.

| # | Date   | Hrs  | Start MD | End MD | DMD | WOB | ROP   | RPM | Surf Torq | Flow Rate | SPP On B | SPP Off B | Delta SPP | TFO cTFO | Survey MD | INC  | AZM    | Surv DLS | Mot DLS | Rot DLS | Q | Drill Mode     |
|---|--------|------|----------|--------|-----|-----|-------|-----|-----------|-----------|----------|-----------|-----------|----------|-----------|------|--------|----------|---------|---------|---|----------------|
|   |        |      |          |        | 89  |     |       |     |           |           |          |           |           | 2        | 4762      | 0.75 | 301.81 | 1.13     |         |         | 5 | Survey         |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -148     | 4852      | 0.84 | 301.98 | 0.10     |         |         | 5 | Survey         |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | 138      | 4942      | 0.57 | 282.65 | 0.40     |         |         | 5 | Survey         |
|   |        |      |          |        | 89  |     |       |     |           |           |          |           |           | 37       | 5031      | 0.53 | 286.69 | 0.06     |         |         | 5 | Survey         |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -134     | 5121      | 1.01 | 305.15 | 0.59     |         |         | 5 | Survey         |
| 3 | 18-Nov | 3.00 | 4738     | 5192   | 454 | 70  | 173.0 | 80  | 12000     | 900       | 3700     | 3400      | 300       |          | 5192      | 0.79 | 284.32 | 0.55     | 0.00    | 0.55    | 5 | Drilling       |
|   |        |      |          |        | 71  |     |       |     |           |           |          |           |           | -18      | 5192      | 0.79 | 284.32 | 0.55     |         |         | 6 | Survey & Conn. |
|   |        |      | 5192     | 5257   | 65  | 70  | 173.0 | 80  | 12000     | 900       | 3700     | 3400      |           |          | 5257      | 0.00 | 0.00   | 0.00     |         |         | 0 | Drilling       |

|                        |     |                  |        |                                 |
|------------------------|-----|------------------|--------|---------------------------------|
| Total Drilled:         | 519 | Avg. Total ROP:  | 173.00 | DEPTH% - TIME %                 |
| Total Rotary Drilled:  | 519 | Avg. Rotary ROP: | 173.00 | Percent Rotary: 100.00 - 100.00 |
| Total Drilled Sliding: | 0   | Avg. Slide ROP:  | NA     | Percent Slide: .00 - .00        |



**SDI Job #:** ID2386-3  
**COMPANY:** Advance Energy Partners ,LLC  
**LOCATION:** Lea County, New Mexico  
**RIG NAME:** H&P466 Flex 3  
**STATE:** New Mexico  
**COUNTY:** Lea Co.  
**WELL NAME:** Wool Head 20 State Com 554H  
**Survey File:**

**FIELD:** Delaware Basin  
**Sec-Twn-Rng:** 20-21S-33E  
**Range/Section** /NM0092

#### MOTOR INFORMATION

**Desc:** 7in. 7/8 8.5 FBH @ 1.83 w/ 8 1/4 NBS  
**Bent Hsg/Sub:** 1.83 0 **Bit to Bend:** 4.05  
**PAD OD:** 7 3/16 **NB Stab:**

### Slide Report for BHA # 4 with Surveys included

Note: Sliding and Drilling Surveys are LOGICAL expectations.

| # | Date   | Hrs  | Start MD | End MD | DMD | WOB | ROP   | RPM | Surf Torq | Flow Rate | SPP On B | SPP Off B | Delta SPP | TFO cTFO | Survey MD | INC  | AZM    | Surv DLS | Mot DLS | Rot DLS | Q | Drill Mode     |
|---|--------|------|----------|--------|-----|-----|-------|-----|-----------|-----------|----------|-----------|-----------|----------|-----------|------|--------|----------|---------|---------|---|----------------|
| 4 | 26-Nov | 0.83 | 5257     | 5392   | 111 | 35  | 171.6 | 40  | 15600     | 600       | 2600     | 1900      | 700       | -146     | 5303      | 1.19 | 278.28 | 0.37     |         |         | 5 | Survey         |
|   |        |      |          |        | 135 |     |       |     |           |           |          |           |           |          | 5392      | 0.92 | 265.86 | 0.40     | 0.00    | 0.40    | 5 | Drilling       |
|   |        |      |          |        | 89  |     |       |     |           |           |          |           |           | -97      | 5392      | 0.92 | 265.86 | 0.40     |         |         | 6 | Survey & Conn. |
| 4 | 26-Nov | 0.83 | 5392     | 5400   | 8   | 35  | 171.6 | 40  | 15600     | 600       | 2600     | 1900      | 700       |          | 5400      | 1.16 | 257.77 | 0.00     |         |         | 0 | Drilling       |
|   |        |      |          |        | 28  |     |       |     |           |           |          |           |           | 165M     | 5428      | 3.34 | 185.00 | 0.00     | 0.00    | 0.00    | 0 | Sliding        |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -131     | 5482      | 3.34 | 185.00 | 3.69     |         |         | 5 | Survey         |
| 4 | 26-Nov | 1.50 | 5428     | 5661   | 90  | 35  | 208.7 | 40  | 15600     | 600       | 2600     | 1900      | 700       | -157     | 5572      | 3.16 | 181.13 | 0.32     |         |         | 5 | Survey         |
|   |        |      |          |        | 233 |     |       |     |           |           |          |           |           |          | 5661      | 2.68 | 176.65 | 0.60     | 0.00    | 0.60    | 5 | Drilling       |
|   |        |      |          |        | 89  |     |       |     |           |           |          |           |           | -5       | 5661      | 2.68 | 176.65 | 0.60     |         |         | 6 | Survey & Conn. |
| 4 | 26-Nov | 0.33 | 5661     | 5741   | 80  | 35  | 208.7 | 40  | 15600     | 600       | 2600     | 1900      | 700       |          | 5741      | 2.80 | 176.51 | 0.00     |         |         | 0 | Drilling       |
|   |        |      |          |        | 10  |     |       |     |           |           |          |           |           | 140M     | 5751      | 3.87 | 175.25 | 1.33     | 0.00    | 0.00    | 5 | Sliding        |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -19      | 5751      | 3.87 | 175.25 | 1.33     |         |         | 6 | Survey & Conn. |
| 4 | 26-Nov | 0.92 | 5751     | 5760   | 9   | 15  | 57.0  | 40  | 15600     | 600       | 2600     | 1900      | 700       | 140M     | 5760      | 5.57 | 169.63 | 0.00     | 0.00    |         | 5 | Sliding        |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -165     | 5841      | 5.76 | 169.01 | 2.18     |         |         | 5 | Survey         |
|   |        |      |          |        | 170 |     |       |     |           |           |          |           |           |          | 5930      | 5.54 | 168.39 | 0.26     | 0.00    | 0.26    | 5 | Drilling       |
| 4 | 26-Nov | 0.42 | 5930     | 6010   | 89  | 35  | 272.7 | 40  | 15600     | 600       | 2600     | 1900      | 700       | -119     | 5930      | 5.54 | 168.39 | 0.26     |         |         | 6 | Survey & Conn. |
|   |        |      |          |        | 80  |     |       |     |           |           |          |           |           |          | 6010      | 5.51 | 167.82 | 0.00     |         |         | 0 | Drilling       |
|   |        |      |          |        | 10  |     |       |     |           |           |          |           |           | 140M     | 6020      | 5.27 | 162.68 | 0.67     | 0.00    | 0.00    | 5 | Sliding        |
| 4 | 26-Nov | 0.92 | 6010     | 6020   | 90  | 15  | 28.8  | 40  | 15600     | 600       | 2600     | 1900      | 700       | -46      | 6020      | 5.27 | 162.68 | 0.67     |         |         | 6 | Survey & Conn. |
|   |        |      |          |        | 2   |     |       |     |           |           |          |           |           | 140M     | 6022      | 5.67 | 158.72 | 0.00     | 0.00    |         | 5 | Sliding        |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -84      | 6110      | 5.71 | 158.28 | 0.68     |         |         | 5 | Survey         |
| 4 | 26-Nov | 0.17 | 6022     | 6199   | 177 | 35  | 196.4 | 40  | 15600     | 600       | 2600     | 1900      | 700       |          | 6199      | 5.89 | 148.70 | 1.11     | 0.00    | 1.11    | 5 | Drilling       |
|   |        |      |          |        | 89  |     |       |     |           |           |          |           |           | -76      | 6199      | 5.89 | 148.70 | 1.11     |         |         | 6 | Survey & Conn. |
|   |        |      |          |        | 3   |     |       |     |           |           |          |           |           |          | 6202      | 5.97 | 147.01 | 0.00     |         |         | 0 | Drilling       |
| 4 | 26-Nov | 0.17 | 6202     | 6217   | 15  | 15  | 90.0  | 40  | 15600     | 600       | 2600     | 1900      | 700       | 60M      | 6217      | 6.64 | 131.83 | 0.00     | 0.00    | 0.00    | 0 | Sliding        |

| Slide Report for BHA # 4 with Surveys included |        |      |          |        |        |     |       |     |           |                                       |          |           |           |          | Note: Sliding and Drilling Surveys are LOGICAL expectations. |      |        |          |         |         |   |                |
|------------------------------------------------|--------|------|----------|--------|--------|-----|-------|-----|-----------|---------------------------------------|----------|-----------|-----------|----------|--------------------------------------------------------------|------|--------|----------|---------|---------|---|----------------|
| #                                              | Date   | Hrs  | Start MD | End MD | DMD    | WOB | ROP   | RPM | Surf Torq | Flow Rate                             | SPP On B | SPP Off B | Delta SPP | TFO cTFO | Survey MD                                                    | INC  | AZM    | Surv DLS | Mot DLS | Rot DLS | Q | Drill Mode     |
|                                                |        |      |          |        | 90     |     |       |     |           |                                       |          |           |           | 156      | 6289                                                         | 6.64 | 131.83 | 2.20     |         |         | 5 | Survey         |
|                                                |        |      |          |        | 89     |     |       |     |           |                                       |          |           |           | 113      | 6378                                                         | 6.42 | 132.71 | 0.27     |         |         | 5 | Survey         |
|                                                |        |      |          |        | 90     |     |       |     |           |                                       |          |           |           | -60      | 6468                                                         | 6.29 | 135.70 | 0.40     |         |         | 5 | Survey         |
|                                                |        |      |          |        | 90     |     |       |     |           |                                       |          |           |           | -162     | 6558                                                         | 6.37 | 134.46 | 0.18     |         |         | 5 | Survey         |
|                                                |        |      |          |        | 90     |     |       |     |           |                                       |          |           |           | 149      | 6648                                                         | 5.98 | 133.23 | 0.46     |         |         | 5 | Survey         |
|                                                |        |      |          |        | 89     |     |       |     |           |                                       |          |           |           | -128     | 6737                                                         | 5.54 | 136.05 | 0.59     |         |         | 5 | Survey         |
|                                                |        |      |          |        | 90     |     |       |     |           |                                       |          |           |           | 83       | 6827                                                         | 5.45 | 134.82 | 0.16     |         |         | 5 | Survey         |
|                                                |        |      |          |        | 90     |     |       |     |           |                                       |          |           |           | -173     | 6917                                                         | 5.49 | 137.54 | 0.29     |         |         | 5 | Survey         |
|                                                |        |      |          |        | 90     |     |       |     |           |                                       |          |           |           | 14       | 7007                                                         | 5.05 | 136.93 | 0.49     |         |         | 5 | Survey         |
|                                                |        |      |          |        | 89     |     |       |     |           |                                       |          |           |           | -99      | 7096                                                         | 5.41 | 137.89 | 0.42     |         |         | 5 | Survey         |
|                                                |        |      |          |        | 90     |     |       |     |           |                                       |          |           |           | 158      | 7186                                                         | 5.36 | 132.97 | 0.52     |         |         | 5 | Survey         |
|                                                |        |      |          |        | 90     |     |       |     |           |                                       |          |           |           | -33      | 7276                                                         | 4.79 | 135.70 | 0.69     |         |         | 5 | Survey         |
|                                                |        |      |          |        | 90     |     |       |     |           |                                       |          |           |           | -91      | 7366                                                         | 4.92 | 134.73 | 0.17     |         |         | 5 | Survey         |
|                                                |        |      |          |        | 89     |     |       |     |           |                                       |          |           |           | 153      | 7455                                                         | 4.92 | 131.92 | 0.27     |         |         | 5 | Survey         |
|                                                |        |      |          |        | 90     |     |       |     |           |                                       |          |           |           | -100     | 7545                                                         | 4.31 | 136.13 | 0.77     |         |         | 5 | Survey         |
|                                                |        |      |          |        | 89     |     |       |     |           |                                       |          |           |           | 144      | 7634                                                         | 4.26 | 130.77 | 0.45     |         |         | 5 | Survey         |
|                                                |        |      |          |        | 90     |     |       |     |           |                                       |          |           |           | 51       | 7724                                                         | 4.13 | 132.09 | 0.18     |         |         | 5 | Survey         |
| 4                                              | 26-Nov | 5.98 | 6217     | 7814   | 1597   | 39  | 274.8 | 40  | 15600     | 600                                   | 2600     | 1900      | 700       |          | 7814                                                         | 4.22 | 133.59 | 0.16     | 0.00    | 0.16    | 5 | Drilling       |
|                                                |        |      |          |        | 90     |     |       |     |           |                                       |          |           |           | 70       | 7814                                                         | 4.22 | 133.59 | 0.16     |         |         | 6 | Survey & Conn. |
|                                                |        |      | 7814     | 7861   | 47     | 39  | 274.8 | 40  | 15600     | 600                                   | 2600     | 1900      |           |          | 7861                                                         | 4.23 | 134.01 | 0.00     |         | 0.00    | 4 | Drilling       |
|                                                |        |      |          |        | 90     |     |       |     |           |                                       |          |           |           | 121      | 7904                                                         | 4.35 | 137.80 | 0.38     |         |         | 5 | Survey         |
|                                                |        |      |          |        | 89     |     |       |     |           |                                       |          |           |           | 55       | 7993                                                         | 4.13 | 143.25 | 0.52     |         |         | 5 | Survey         |
|                                                |        |      |          |        | 90     |     |       |     |           |                                       |          |           |           | 147      | 8083                                                         | 4.31 | 146.59 | 0.34     |         |         | 5 | Survey         |
|                                                |        |      |          |        | 89     |     |       |     |           |                                       |          |           |           | 175      | 8172                                                         | 3.91 | 150.55 | 0.55     |         |         | 5 | Survey         |
|                                                |        |      |          |        | 90     |     |       |     |           |                                       |          |           |           | -78      | 8262                                                         | 3.03 | 152.04 | 0.98     |         |         | 5 | Survey         |
| 4                                              | 27-Nov | 2.67 | 7861     | 8352   | 491    | 40  | 211.5 | 30  | 15600     | 650                                   | 2900     | 2100      | 800       |          | 8352                                                         | 3.08 | 148.26 | 0.23     | 0.00    | 0.23    | 5 | Drilling       |
|                                                |        |      |          |        | 90     |     |       |     |           |                                       |          |           |           | -15      | 8352                                                         | 3.08 | 148.26 | 0.23     |         |         | 6 | Survey & Conn. |
|                                                |        |      | 8352     | 8425   | 73     | 40  | 211.5 | 30  | 15600     | 650                                   | 2900     | 2100      |           |          | 8425                                                         | 3.26 | 147.69 | 0.00     |         |         | 0 | Drilling       |
| 4                                              | 27-Nov | 0.50 | 8425     | 8442   | 17     | 20  | 34.0  |     |           | 650                                   | 2400     | 2100      | 300       | 90M      | 8442                                                         | 4.84 | 142.55 | 2.00     | 0.00    | 0.00    | 5 | Sliding        |
|                                                |        |      |          |        | 90     |     |       |     |           |                                       |          |           |           | -52      | 8442                                                         | 4.84 | 142.55 | 2.00     |         |         | 6 | Survey & Conn. |
|                                                |        |      |          |        | 89     |     |       |     |           |                                       |          |           |           | 104      | 8531                                                         | 5.14 | 138.42 | 0.53     |         |         | 5 | Survey         |
|                                                |        |      |          |        | 90     |     |       |     |           |                                       |          |           |           | 144      | 8621                                                         | 5.10 | 140.44 | 0.21     |         |         | 5 | Survey         |
|                                                |        |      |          |        | 89     |     |       |     |           |                                       |          |           |           | 146      | 8710                                                         | 4.44 | 146.95 | 0.96     |         |         | 5 | Survey         |
|                                                |        |      |          |        | 90     |     |       |     |           |                                       |          |           |           | 155      | 8800                                                         | 3.96 | 151.69 | 0.66     |         |         | 5 | Survey         |
| SDI BHA SLIDE REPORT                           |        |      |          |        | NP1553 |     |       |     |           | Slide Report for JOB# : - Page 2 of 4 |          |           |           |          |                                                              |      |        |          |         |         |   |                |



## Slide Report for BHA # 4 with Surveys included

Note: Sliding and Drilling Surveys are LOGICAL expectations.

| # | Date   | Hrs  | Start MD | End MD | DMD | WOB | ROP   | RPM | Surf Torq | Flow Rate | SPP On B | SPP Off B | Delta SPP | TFO cTFO | Survey MD | INC  | AZM    | Surv DLS | Mot DLS | Rot DLS | Q | Drill Mode     |
|---|--------|------|----------|--------|-----|-----|-------|-----|-----------|-----------|----------|-----------|-----------|----------|-----------|------|--------|----------|---------|---------|---|----------------|
| 4 | 27-Nov | 3.67 | 8442     | 8890   | 448 | 40  | 143.7 | 30  | 16000     | 650       | 2800     | 2100      | 700       |          | 8890      | 3.69 | 153.62 | 0.33     | 0.00    | 0.33    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -77      | 8890      | 3.69 | 153.62 | 0.33     |         |         | 6 | Survey & Conn. |
|   |        |      | 8890     | 8969   | 79  | 40  | 143.7 | 30  | 16000     | 650       | 2800     | 2100      |           |          | 8969      | 3.74 | 151.78 | 0.00     |         |         | 0 | Drilling       |
| 4 | 27-Nov | 0.75 | 8969     | 8979   | 10  | 15  | 20.0  | 30  | 16000     | 650       | 2800     | 2100      | 700       | 70M      | 8979      | 4.22 | 135.26 | 1.53     | 0.00    | 0.00    | 5 | Sliding        |
|   |        |      |          |        | 89  |     |       |     |           |           |          |           |           | -36      | 8979      | 4.22 | 135.26 | 1.53     |         |         | 6 | Survey & Conn. |
|   |        |      | 8979     | 8984   | 5   | 15  | 20.0  | 30  | 16000     | 650       | 2800     | 2100      |           | 70M      | 8984      | 4.65 | 131.46 | 0.00     |         |         | 0 | Sliding        |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | 152      | 9069      | 4.70 | 131.04 | 0.65     |         |         | 5 | Survey         |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | 156      | 9159      | 3.96 | 136.93 | 0.96     |         |         | 5 | Survey         |
| 4 | 27-Nov | 3.92 | 8984     | 9248   | 264 | 40  | 86.8  | 30  | 16000     | 630       | 2500     | 1900      | 600       |          | 9248      | 2.81 | 147.82 | 1.47     | 0.00    | 1.47    | 5 | Drilling       |
|   |        |      |          |        | 89  |     |       |     |           |           |          |           |           | -10      | 9248      | 2.81 | 147.82 | 1.47     |         |         | 6 | Survey & Conn. |
|   |        |      | 9248     | 9324   | 76  | 40  | 86.8  | 30  | 16000     | 630       | 2500     | 1900      |           |          | 9324      | 2.88 | 147.64 | 0.00     |         |         | 0 | Drilling       |
| 4 | 27-Nov | 0.92 | 9324     | 9338   | 14  | 25  | 16.4  | 30  | 16000     | 630       | 2500     | 1900      | 600       | 110M     | 9338      | 3.47 | 145.98 | 0.74     | 0.00    | 0.00    | 5 | Sliding        |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | 177      | 9338      | 3.47 | 145.98 | 0.74     |         |         | 6 | Survey & Conn. |
|   |        |      | 9338     | 9339   | 1   | 25  | 16.4  | 30  | 16000     | 630       | 2500     | 1900      |           | 110M     | 9339      | 3.07 | 146.38 | 0.00     |         |         | 0 | Sliding        |
| 4 | 27-Nov | 1.58 | 9339     | 9428   | 89  | 42  | 104.8 | 30  | 15000     | 630       | 2500     | 1900      | 600       |          | 9428      | 3.03 | 146.42 | 0.49     | 0.00    | 0.00    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -73      | 9428      | 3.03 | 146.42 | 0.49     |         |         | 6 | Survey & Conn. |
|   |        |      | 9428     | 9505   | 77  | 42  | 104.8 | 30  | 15000     | 630       | 2500     | 1900      |           |          | 9505      | 3.05 | 145.42 | 0.00     |         |         | 0 | Drilling       |
| 4 | 27-Nov | 0.83 | 9505     | 9518   | 13  | 13  | 24.0  | 30  | 15000     | 630       | 2500     | 1900      | 600       | 900M     | 9518      | 3.25 | 136.39 | 0.66     | 0.00    | 0.00    | 5 | Sliding        |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -11      | 9518      | 3.25 | 136.39 | 0.66     |         |         | 6 | Survey & Conn. |
|   |        |      | 9518     | 9525   | 7   | 13  | 24.0  | 30  | 15000     | 630       | 2500     | 1900      |           | 900M     | 9525      | 4.01 | 134.42 | 0.00     | 0.00    |         | 5 | Sliding        |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | 143      | 9608      | 4.09 | 134.20 | 0.95     |         |         | 5 | Survey         |
| 4 | 27-Nov | 3.17 | 9525     | 9697   | 172 | 42  | 78.3  | 30  | 15000     | 630       | 2500     | 1900      | 600       |          | 9697      | 3.30 | 145.36 | 1.20     | 0.00    | 1.20    | 5 | Drilling       |
|   |        |      |          |        | 89  |     |       |     |           |           |          |           |           | -82      | 9697      | 3.30 | 145.36 | 1.20     |         |         | 6 | Survey & Conn. |
|   |        |      | 9697     | 9773   | 76  | 42  | 78.3  | 30  | 15000     | 630       | 2500     | 1900      |           |          | 9773      | 3.33 | 143.66 | 0.00     |         |         | 0 | Drilling       |
| 4 | 27-Nov | 0.58 | 9773     | 9788   | 15  | 32  | 37.7  | 30  | 15000     | 630       | 2500     | 1900      | 600       | 100M     | 9788      | 3.60 | 128.40 | 1.16     | 0.00    | 0.00    | 5 | Sliding        |
|   |        |      |          |        | 91  |     |       |     |           |           |          |           |           | -27      | 9788      | 3.60 | 128.40 | 1.16     |         |         | 6 | Survey & Conn. |
|   |        |      | 9788     | 9795   | 7   | 32  | 37.7  | 30  | 15000     | 630       | 2500     | 1900      |           | 100M     | 9795      | 3.96 | 125.79 | 0.00     | 0.00    |         | 4 | Sliding        |
|   |        |      |          |        | 89  |     |       |     |           |           |          |           |           | -165     | 9877      | 4.00 | 125.50 | 0.50     |         |         | 5 | Survey         |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | 125      | 9967      | 3.34 | 122.51 | 0.76     |         |         | 5 | Survey         |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | 127      | 10057     | 3.16 | 127.52 | 0.37     |         |         | 5 | Survey         |
| 4 | 27-Nov | 5.40 | 9795     | 10147  | 352 | 42  | 76.3  | 30  | 15000     | 630       | 2500     | 1900      | 600       |          | 10147     | 2.81 | 138.42 | 0.74     | 0.00    | 0.74    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -170     | 10147     | 2.81 | 138.42 | 0.74     |         |         | 6 | Survey & Conn. |
|   |        |      | 10147    | 10207  | 60  | 42  | 76.3  | 30  | 15000     | 630       | 2500     | 1900      |           |          | 10207     | 2.79 | 138.35 | 0.00     |         | 0.00    | 4 | Drilling       |
| 4 | 28-Nov | 1.50 | 10207    | 10236  | 29  | 42  | 68.0  | 30  | 15000     | 630       | 2500     | 1900      | 600       |          | 10236     | 2.55 | 137.36 | 0.30     | 0.00    | 0.30    | 5 | Drilling       |

# Slide Report for BHA # 4 with Surveys included

Note: Sliding and Drilling Surveys are LOGICAL expectations.

| # | Date   | Hrs  | Start MD | End MD | DMD | WOB | ROP  | RPM | Surf Torq | Flow Rate | SPP On B | SPP Off B | Delta SPP | TFO cTFO | Survey MD | INC  | AZM    | Surv DLS | Mot DLS | Rot DLS | Q | Drill Mode     |
|---|--------|------|----------|--------|-----|-----|------|-----|-----------|-----------|----------|-----------|-----------|----------|-----------|------|--------|----------|---------|---------|---|----------------|
|   |        |      |          |        | 89  |     |      |     |           |           |          |           |           | -86      | 10236     | 2.55 | 137.36 | 0.30     |         |         | 6 | Survey & Conn. |
|   |        |      | 10236    | 10309  | 73  | 42  | 68.0 | 30  | 15000     | 630       | 2500     | 1900      |           |          | 10309     | 2.56 | 135.95 | 0.00     |         |         | 0 | Drilling       |
| 4 | 28-Nov | 0.50 | 10309    | 10321  | 12  | 32  | 24.0 |     |           | 630       | 2500     | 1900      | 600       | 50M      | 10321     | 2.68 | 123.30 | 0.00     | 0.00    | 0.00    | 0 | Sliding        |
|   |        |      |          |        | 90  |     |      |     |           |           |          |           |           | -145     | 10326     | 2.68 | 123.30 | 0.73     |         |         | 5 | Survey         |
|   |        |      |          |        | 90  |     |      |     |           |           |          |           |           | 126      | 10416     | 2.37 | 117.85 | 0.44     |         |         | 5 | Survey         |
|   |        |      |          |        | 90  |     |      |     |           |           |          |           |           | -117     | 10506     | 1.93 | 150.20 | 1.41     |         |         | 5 | Survey         |
|   |        |      |          |        | 89  |     |      |     |           |           |          |           |           | 91       | 10595     | 1.80 | 140.44 | 0.39     |         |         | 5 | Survey         |
|   |        |      |          |        | 72  |     |      |     |           |           |          |           |           | -179     | 10667     | 1.85 | 155.03 | 0.65     |         |         | 5 | Survey         |
| 4 | 28-Nov | 7.08 | 10321    | 10723  | 402 | 42  | 57.7 | 30  | 0         | 630       | 2500     | 1900      | 600       |          | 10723     | 1.60 | 154.82 | 0.45     | 0.00    | 0.45    | 5 | Drilling       |
|   |        |      |          |        | 56  |     |      |     |           |           |          |           |           | -168     | 10723     | 1.60 | 154.82 | 0.45     |         |         | 6 | Survey & Conn. |
|   |        |      | 10723    | 10730  | 7   | 42  | 57.7 | 30  | 0         | 630       | 2500     | 1900      |           |          | 10730     | 0.00 | 0.00   | 0.00     |         |         | 0 | Drilling       |

|                               |      |                         |        |                                      |
|-------------------------------|------|-------------------------|--------|--------------------------------------|
| <b>Total Drilled:</b>         | 5473 | <b>Avg. Total ROP:</b>  | 121.71 | <b>DEPTH% - TIME %</b>               |
| <b>Total Rotary Drilled:</b>  | 5298 | <b>Avg. Rotary ROP:</b> | 135.38 | <b>Percent Rotary:</b> 96.80 - 87.03 |
| <b>Total Drilled Sliding:</b> | 175  | <b>Avg. Slide ROP:</b>  | 30.00  | <b>Percent Slide:</b> 3.20 - 12.97   |



**SDI Job #:** ID2386-3  
**COMPANY:** Advance Energy Partners ,LLC  
**LOCATION:** Lea County, New Mexico  
**RIG NAME:** H&P466 Flex 3  
**STATE:** New Mexico  
**COUNTY:** Lea Co.  
**WELL NAME:** Wool Head 20 State Com 554H  
**Survey File:**

**FIELD:** Delaware Basin  
**Sec-Twn-Rng:** 20-21S-33E  
**Range/Section** /NM0092

**MOTOR INFORMATION**

**Desc:** 6 3/4, 7/8 5.0 FBH @ 2.12 TS  
**Bent Hsg/Sub:** 2.12 2 **Bit to Bend:** 4.18  
**PAD OD:** 7.07 **NB Stab:**

**Slide Report for BHA # 5 with Surveys included**

Note: Sliding and Drilling Surveys are LOGICAL expectations.

| # | Date  | Hrs  | Start MD | End MD | DMD | WOB | ROP  | RPM | Surf Torq | Flow Rate | SPP On B | SPP Off B | Delta SPP | TFO cTFO | Survey MD | INC   | AZM    | Surv DLS | Mot DLS | Rot DLS | Q | Drill Mode     |
|---|-------|------|----------|--------|-----|-----|------|-----|-----------|-----------|----------|-----------|-----------|----------|-----------|-------|--------|----------|---------|---------|---|----------------|
| 5 | 4-Dec | 0.58 | 10730    | 10770  | 40  | 45  | 68.6 | 0   | 6000      | 600       | 2550     | 2000      | 550       | 345M     | 10770     | 4.57  | 84.95  | 15.24    | 0.00    | 0.00    | 0 | Sliding        |
| 5 | 4-Dec | 1.42 | 10770    | 10812  | 42  | 45  | 62.8 | 0   | 6000      | 600       | 2550     | 2000      | 550       | 359M     | 10812     | 13.93 | 259.10 | 15.24    | 0.00    | 0.00    | 5 | Sliding        |
|   |       |      |          |        | 89  |     |      |     |           |           |          |           |           | 19       | 10812     | 12.00 | 348.32 | 15.24    |         |         | 6 | Survey & Conn. |
|   |       |      | 10812    | 10859  | 47  | 45  | 62.8 | 0   | 6000      | 600       | 2550     | 2000      |           | 359M     | 10859     | 18.30 | 353.11 | 15.27    | 15.27   |         | 4 | Sliding        |
| 5 | 4-Dec | 0.75 | 10859    | 10902  | 43  | 45  | 78.7 | 0   | 0         | 600       | 2910     | 2370      | 540       | 40       | 10902     | 30.36 | 2.29   | 15.27    | 15.27   | 0.00    | 5 | Sliding        |
|   |       |      |          |        | 90  |     |      |     |           |           |          |           |           | 21       | 10902     | 25.40 | 358.52 | 15.27    |         |         | 6 | Survey & Conn. |
|   |       |      | 10902    | 10918  | 16  | 45  | 78.7 | 0   | 0         | 600       | 2910     | 2370      |           | 40       | 10918     | 26.59 | 290.24 | 7.27     |         |         | 0 | Sliding        |
| 5 | 4-Dec | 0.50 | 10918    | 10949  | 31  | 45  | 62.0 | 0   | 0         | 600       | 2910     | 2370      | 540       | 10       | 10949     | 29.52 | 122.09 | 7.27     | 0.00    | 0.00    | 0 | Sliding        |
| 5 | 4-Dec | 0.25 | 10949    | 10964  | 15  | 35  | 60.0 | 25  | 14        | 600       | 2910     | 2370      | 540       |          | 10964     | 30.14 | 86.53  | 7.27     | 0.00    | 0.00    | 0 | Drilling       |
| 5 | 4-Dec | 0.50 | 10964    | 10992  | 28  | 47  | 60.0 | 0   | 0         | 600       | 2910     | 2370      | 540       | HS       | 10992     | 35.72 | 126.49 | 7.27     | 0.00    | 0.00    | 5 | Sliding        |
|   |       |      |          |        | 90  |     |      |     |           |           |          |           |           | 22       | 10992     | 31.60 | 2.92   | 7.27     |         |         | 6 | Survey & Conn. |
|   |       |      | 10992    | 10994  | 2   | 47  | 60.0 | 0   | 0         | 600       | 2910     | 2370      |           | HS       | 10994     | 31.76 | 3.03   | 6.89     |         |         | 0 | Sliding        |
| 5 | 4-Dec | 0.33 | 10994    | 11009  | 15  | 35  | 45.0 | 25  | 14        | 600       | 2910     | 2370      | 540       |          | 11009     | 32.11 | 3.26   | 6.89     | 0.00    | 0.00    | 0 | Drilling       |
| 5 | 4-Dec | 0.50 | 11009    | 11039  | 30  | 47  | 60.0 | 0   | 0         | 600       | 2910     | 2370      | 540       | HS       | 11039     | 34.59 | 4.93   | 6.89     | 0.00    | 0.00    | 0 | Sliding        |
| 5 | 4-Dec | 0.17 | 11039    | 11049  | 10  | 35  | 60.0 | 25  | 14        | 600       | 2910     | 2370      | 540       |          | 11049     | 35.17 | 5.32   | 6.89     | 0.00    | 0.00    | 0 | Drilling       |
| 5 | 4-Dec | 0.67 | 11049    | 11082  | 33  | 47  | 52.5 | 0   | 0         | 600       | 2910     | 2370      | 540       | HS       | 11082     | 40.39 | 8.83   | 6.89     | 0.00    | 0.00    | 5 | Sliding        |
|   |       |      |          |        | 90  |     |      |     |           |           |          |           |           | -2       | 11082     | 37.40 | 6.82   | 6.89     |         |         | 6 | Survey & Conn. |
|   |       |      | 11082    | 11084  | 2   | 47  | 52.5 | 0   | 0         | 600       | 2910     | 2370      |           | HS       | 11084     | 37.59 | 6.81   | 7.87     |         |         | 0 | Sliding        |
| 5 | 4-Dec | 0.25 | 11084    | 11094  | 10  | 35  | 40.0 | 25  | 14        | 600       | 2910     | 2370      | 540       |          | 11094     | 37.89 | 6.80   | 7.87     | 0.00    | 0.00    | 0 | Drilling       |
| 5 | 4-Dec | 0.50 | 11094    | 11129  | 35  | 47  | 70.0 | 0   | 0         | 600       | 2910     | 2370      | 540       | HS       | 11129     | 41.39 | 6.65   | 7.87     | 0.00    | 0.00    | 0 | Sliding        |
| 5 | 4-Dec | 0.25 | 11129    | 11143  | 14  | 35  | 56.0 | 25  | 14        | 600       | 2910     | 2370      | 540       |          | 11143     | 42.09 | 6.62   | 7.87     | 0.00    | 0.00    | 0 | Drilling       |
| 5 | 4-Dec | 0.33 | 11143    | 11161  | 18  | 47  | 54.0 | 0   | 0         | 600       | 2910     | 2370      | 540       | HS       | 11161     | 46.14 | 6.45   | 7.87     | 0.00    | 0.00    | 0 | Sliding        |
| 5 | 5-Dec | 0.17 | 11161    | 11171  | 10  | 47  | 72.0 | 0   | 0         | 600       | 2910     | 2370      | 540       | -10      | 11171     | 52.44 | 6.18   | 7.87     | 0.00    | 0.00    | 5 | Sliding        |
|   |       |      |          |        | 89  |     |      |     |           |           |          |           |           | -22      | 11171     | 44.40 | 6.52   | 7.87     |         |         | 6 | Survey & Conn. |
|   |       |      | 11171    | 11173  | 2   | 47  | 72.0 | 0   | 0         | 600       | 2910     | 2370      |           | -10      | 11173     | 44.49 | 6.47   | 3.33     |         |         | 0 | Sliding        |

# Slide Report for BHA # 5 with Surveys included

Note: Sliding and Drilling Surveys are LOGICAL expectations.

| # | Date  | Hrs  | Start MD | End MD | DMD | WOB | ROP  | RPM | Surf Torq | Flow Rate | SPP On B | SPP Off B | Delta SPP | TFO cTFO | Survey MD | INC   | AZM    | Surv DLS | Mot DLS | Rot DLS | Q | Drill Mode     |
|---|-------|------|----------|--------|-----|-----|------|-----|-----------|-----------|----------|-----------|-----------|----------|-----------|-------|--------|----------|---------|---------|---|----------------|
| 5 | 5-Dec | 0.25 | 11173    | 11187  | 14  | 35  | 56.0 | 25  | 14        | 600       | 2910     | 2370      | 540       |          | 11187     | 44.61 | 6.41   | 3.33     | 0.00    | 0.00    | 0 | Drilling       |
| 5 | 5-Dec | 0.58 | 11187    | 11218  | 31  | 47  | 53.1 | 0   | 0         | 600       | 2910     | 2370      | 540       | HS       | 11218     | 45.98 | 5.67   | 3.33     | 0.00    | 0.00    | 0 | Sliding        |
| 5 | 5-Dec | 0.25 | 11218    | 11235  | 17  | 35  | 68.0 | 25  | 14        | 600       | 2850     | 2400      | 450       |          | 11235     | 46.26 | 5.52   | 3.33     | 0.00    | 0.00    | 0 | Drilling       |
| 5 | 5-Dec | 0.83 | 11235    | 11261  | 26  | 50  | 33.6 | 0   | 0         | 600       | 2850     | 2400      | 450       | -15      | 11261     | 47.20 | 5.02   | 3.33     | 0.00    | 0.00    | 5 | Sliding        |
|   |       |      |          |        | 90  |     |      |     |           |           |          |           |           | -20      | 11261     | 47.20 | 5.02   | 3.33     |         |         | 6 | Survey & Conn. |
|   |       |      | 11261    | 11263  | 2   | 50  | 33.6 | 0   | 0         | 600       | 2850     | 2400      |           | -15      | 11263     | 47.45 | 4.91   | 10.65    |         |         | 0 | Sliding        |
| 5 | 5-Dec | 0.33 | 11263    | 11278  | 15  | 35  | 45.0 | 25  | 14        | 600       | 2850     | 2400      | 450       |          | 11278     | 47.99 | 4.69   | 10.65    | 0.00    | 0.00    | 0 | Drilling       |
| 5 | 5-Dec | 0.50 | 11278    | 11308  | 30  | 50  | 60.0 | 0   | 0         | 600       | 2850     | 2400      | 450       | -30      | 11308     | 51.91 | 3.03   | 10.65    | 0.00    | 0.00    | 0 | Sliding        |
| 5 | 5-Dec | 0.17 | 11308    | 11318  | 10  | 35  | 60.0 | 25  | 14        | 600       | 2850     | 2400      | 450       |          | 11318     | 52.81 | 2.65   | 10.65    | 0.00    | 0.00    | 0 | Drilling       |
| 5 | 5-Dec | 0.58 | 11318    | 11350  | 32  | 50  | 60.0 | 0   | 0         | 600       | 2850     | 2400      | 450       | -30      | 11350     | 60.91 | 359.23 | 10.65    | 0.00    | 0.00    | 5 | Sliding        |
|   |       |      |          |        | 89  |     |      |     |           |           |          |           |           | -25      | 11350     | 56.20 | 1.22   | 10.65    |         |         | 6 | Survey & Conn. |
|   |       |      | 11350    | 11353  | 3   | 50  | 60.0 | 0   | 0         | 600       | 2850     | 2400      |           | -30      | 11353     | 56.45 | 17.29  | 6.81     |         |         | 0 | Sliding        |
| 5 | 5-Dec | 0.25 | 11353    | 11363  | 10  | 35  | 40.0 | 25  | 14        | 600       | 2850     | 2400      | 450       |          | 11363     | 56.64 | 29.19  | 6.81     | 0.00    | 0.00    | 0 | Drilling       |
| 5 | 5-Dec | 0.58 | 11363    | 11397  | 34  | 50  | 58.3 | 0   | 0         | 600       | 2850     | 2400      | 450       | HS       | 11397     | 59.64 | 220.90 | 6.81     | 0.00    | 0.00    | 0 | Sliding        |
| 5 | 5-Dec | 0.33 | 11397    | 11417  | 20  | 35  | 60.0 | 25  | 14        | 600       | 2850     | 2400      | 450       |          | 11417     | 60.20 | 256.61 | 6.81     | 0.00    | 0.00    | 0 | Drilling       |
| 5 | 5-Dec | 0.50 | 11417    | 11440  | 23  | 50  | 50.0 | 0   | 0         | 600       | 2850     | 2400      | 450       | HS       | 11440     | 61.80 | 358.32 | 6.81     | 0.00    | 0.00    | 5 | Sliding        |
|   |       |      |          |        | 90  |     |      |     |           |           |          |           |           | -14      | 11440     | 61.80 | 358.32 | 6.81     |         |         | 6 | Survey & Conn. |
|   |       |      | 11440    | 11442  | 2   | 50  | 50.0 | 0   | 0         | 600       | 2850     | 2400      |           | HS       | 11442     | 62.09 | 358.25 | 11.77    |         |         | 0 | Sliding        |
| 5 | 5-Dec | 0.33 | 11442    | 11462  | 20  | 35  | 60.0 | 25  | 14        | 600       | 2850     | 2400      | 450       |          | 11462     | 62.91 | 358.03 | 11.77    | 0.00    | 0.00    | 0 | Drilling       |
| 5 | 5-Dec | 0.58 | 11462    | 11487  | 25  | 50  | 42.9 | 25  | 14        | 600       | 2850     | 2400      | 450       | HS       | 11487     | 66.59 | 357.06 | 11.77    | 0.00    | 0.00    | 0 | Sliding        |
| 5 | 5-Dec | 0.25 | 11487    | 11492  | 5   | 35  | 20.0 | 25  | 14        | 600       | 2850     | 2400      | 450       |          | 11492     | 67.62 | 356.80 | 11.77    | 0.00    | 0.00    | 0 | Drilling       |
| 5 | 5-Dec | 1.33 | 11492    | 11530  | 38  | 50  | 63.8 | 25  | 14        | 600       | 2850     | 2400      | 450       | 10R      | 11530     | 72.10 | 355.62 | 11.77    | 0.00    | 0.00    | 5 | Sliding        |
|   |       |      |          |        | 90  |     |      |     |           |           |          |           |           | -8       | 11530     | 72.10 | 355.62 | 11.77    |         |         | 6 | Survey & Conn. |
|   |       |      | 11530    | 11577  | 47  | 50  | 63.8 | 25  | 14        | 600       | 2850     | 2400      |           | 10R      | 11577     | 77.76 | 354.84 | 9.86     |         |         | 0 | Sliding        |
| 5 | 5-Dec | 0.25 | 11577    | 11597  | 20  | 35  | 80.0 | 25  | 14        | 600       | 2850     | 2400      | 450       |          | 11597     | 78.49 | 354.74 | 9.86     | 0.00    | 0.00    | 0 | Drilling       |
| 5 | 5-Dec | 0.67 | 11597    | 11615  | 18  | 50  | 27.0 | 25  | 14        | 600       | 2850     | 2400      | 450       |          | 11615     | 86.32 | 353.66 | 9.86     | 0.00    | 0.00    | 0 | Sliding        |
| 5 | 5-Dec | 0.58 | 11615    | 11619  | 4   | 35  | 48.0 | 25  | 14        | 600       | 2850     | 2400      | 450       |          | 11619     | 80.80 | 354.42 | 9.86     | 0.00    | 0.00    | 5 | Drilling       |
|   |       |      |          |        | 89  |     |      |     |           |           |          |           |           | -18      | 11619     | 80.80 | 354.42 | 9.86     |         |         | 6 | Survey & Conn. |
|   |       |      | 11619    | 11643  | 24  | 35  | 48.0 | 25  | 14        | 600       | 2850     | 2400      |           |          | 11643     | 81.00 | 354.35 | 5.83     |         |         | 0 | Drilling       |
| 5 | 5-Dec | 0.75 | 11643    | 11666  | 23  | 50  | 30.7 | 25  | 14        | 600       | 2850     | 2400      | 450       | 45R      | 11666     | 84.34 | 353.29 | 5.83     | 0.00    | 0.00    | 0 | Sliding        |
| 5 | 5-Dec | 0.83 | 11666    | 11701  | 35  | 45  | 42.0 | 30  | 14        | 600       | 2850     | 2400      | 450       |          | 11701     | 84.84 | 353.13 | 5.83     | 0.00    | 0.00    | 0 | Drilling       |
| 5 | 5-Dec | 0.58 | 11701    | 11709  | 8   | 50  | 25.7 | 30  | 14        | 600       | 2850     | 2400      | 450       | 60R      | 11709     | 85.80 | 352.82 | 5.83     | 0.00    | 0.00    | 5 | Sliding        |
|   |       |      |          |        | 90  |     |      |     |           |           |          |           |           | -9       | 11709     | 85.80 | 352.82 | 5.83     |         |         | 6 | Survey & Conn. |
|   |       |      | 11709    | 11716  | 7   | 50  | 25.7 | 30  | 14        | 600       | 2850     | 2400      |           | 60R      | 11716     | 86.10 | 352.77 | 1.46     |         |         | 0 | Sliding        |

# Slide Report for BHA # 5 with Surveys included

Note: Sliding and Drilling Surveys are LOGICAL expectations.

| # | Date  | Hrs  | Start MD | End MD | DMD | WOB | ROP  | RPM | Surf Torq | Flow Rate | SPP On B | SPP Off B | Delta SPP | TFO cTFO | Survey MD | INC   | AZM    | Surv DLS | Mot DLS | Rot DLS | Q | Drill Mode     |
|---|-------|------|----------|--------|-----|-----|------|-----|-----------|-----------|----------|-----------|-----------|----------|-----------|-------|--------|----------|---------|---------|---|----------------|
| 5 | 5-Dec | 0.42 | 11716    | 11736  | 20  | 45  | 48.0 | 30  | 14        | 600       | 2850     | 2400      | 450       |          | 11736     | 86.14 | 352.77 | 1.46     | 0.00    | 0.00    | 0 | Drilling       |
| 5 | 5-Dec | 1.00 | 11736    | 11756  | 20  | 50  | 20.0 |     | 17000     | 600       | 2850     | 2400      | 450       | 60R      | 11756     | 87.31 | 352.59 | 1.46     | 0.00    | 0.00    | 0 | Sliding        |
| 5 | 5-Dec | 0.67 | 11756    | 11799  | 43  | 45  | 67.5 | 30  | 17000     | 600       | 2850     | 2400      | 450       |          | 11799     | 87.10 | 352.62 | 1.46     | 0.00    | 0.00    | 5 | Drilling       |
|   |       |      |          |        | 90  |     |      |     |           |           |          |           |           | -55      | 11799     | 87.10 | 352.62 | 1.46     |         |         | 6 | Survey & Conn. |
|   |       |      | 11799    | 11801  | 2   | 45  | 67.5 | 30  | 17000     | 600       | 2850     | 2400      |           |          | 11801     | 87.11 | 352.61 | 4.13     |         |         | 0 | Drilling       |
| 5 | 5-Dec | 0.25 | 11801    | 11821  | 20  | 45  | 80.0 | 30  | 17000     | 600       | 2850     | 2400      | 450       |          | 11821     | 87.17 | 352.51 | 4.13     | 0.00    | 0.00    | 0 | Drilling       |
| 5 | 5-Dec | 0.92 | 11821    | 11846  | 25  | 50  | 27.3 | 30  | 17000     | 600       | 2850     | 2400      | 450       | 60R      | 11846     | 89.06 | 349.80 | 4.13     | 0.00    | 0.00    | 0 | Sliding        |
| 5 | 5-Dec | 1.33 | 11846    | 11888  | 42  | 60  | 66.8 | 30  | 19        | 600       | 3025     | 2500      | 525       |          | 11888     | 89.20 | 349.60 | 4.13     | 0.00    | 0.00    | 5 | Drilling       |
|   |       |      |          |        | 89  |     |      |     |           |           |          |           |           | 80       | 11888     | 89.20 | 349.60 | 4.13     |         |         | 6 | Survey & Conn. |
|   |       |      | 11888    | 11935  | 47  | 60  | 66.8 | 30  | 19        | 600       | 3025     | 2500      |           |          | 11935     | 89.33 | 350.37 | 11.12    |         |         | 0 | Drilling       |
| 5 | 5-Dec | 0.17 | 11935    | 11948  | 13  | 60  | 78.0 | 50  | 19.5      | 600       | 3025     | 2500      | 525       |          | 11948     | 89.50 | 351.36 | 11.12    | 0.00    | 0.00    | 0 | Drilling       |
| 5 | 5-Dec | 0.92 | 11948    | 11978  | 30  | 70  | 32.7 | 30  | 19.5      | 600       | 3025     | 2500      | 525       | 60       | 11978     | 90.86 | 359.47 | 11.12    | 0.00    | 0.00    | 5 | Sliding        |
|   |       |      |          |        | 90  |     |      |     |           |           |          |           |           | 22       | 11978     | 90.86 | 359.47 | 11.12    |         |         | 6 | Survey & Conn. |
| 5 | 5-Dec | 0.58 | 11978    | 12025  | 47  | 60  | 80.6 | 50  | 19.5      | 600       | 3025     | 2500      | 525       |          | 12025     | 91.04 | 329.86 | 2.56     | 0.00    | 0.00    | 0 | Drilling       |
| 5 | 5-Dec | 0.17 | 12025    | 12035  | 10  | 60  | 60.0 | 50  | 19.5      | 600       | 3025     | 2500      | 525       |          | 12035     | 91.25 | 293.94 | 2.56     | 0.00    | 0.00    | 0 | Drilling       |
| 5 | 5-Dec | 0.42 | 12035    | 12043  | 8   | 70  | 19.2 | 50  | 19.5      | 600       | 3025     | 2500      | 525       | 35       | 12043     | 93.18 | 330.71 | 2.56     | 0.00    | 0.00    | 5 | Sliding        |
|   |       |      |          |        | 90  |     |      |     |           |           |          |           |           |          | 12068     | 93.00 | 0.32   | 2.56     |         |         | 5 | Survey         |
| 5 | 5-Dec | 1.08 | 12043    | 12115  | 72  | 60  | 66.5 | 50  | 19.5      | 600       | 3025     | 2500      | 525       |          | 12115     | 93.00 | 0.32   | 0.00     | 0.00    | 0.00    | 5 | Drilling       |
|   |       |      |          |        | 47  |     |      |     |           |           |          |           |           |          | 12115     | 93.00 | 0.32   | 0.00     |         |         | 6 | Survey & Conn. |

Total Drilled: 1385 Avg. Total ROP: 52.43

DEPTH% - TIME %

Total Rotary Drilled: 574 Avg. Rotary ROP: 58.87

Percent Rotary: 41.44 - 36.91

Total Drilled Sliding: 811 Avg. Slide ROP: 48.66

Percent Slide: 58.56 - 63.09



**SDI Job #:** ID2386-3  
**COMPANY:** Advance Energy Partners ,LLC  
**LOCATION:** Lea County, New Mexico  
**RIG NAME:** H&P466 Flex 3  
**STATE:** New Mexico  
**COUNTY:** Lea Co.  
**WELL NAME:** Wool Head 20 State Com 554H  
**Survey File:**

**FIELD:** Delaware Basin  
**Sec-Twn-Rng:** 20-21S-33E  
**Range/Section** /NM0092

**MOTOR INFORMATION**

**Desc:** 7/8 8.5 FBH @ 1.75 w/ 8 1/8 NBS  
**Bent Hsg/Sub:** 1.75 0 **Bit to Bend:** 4.25  
**PAD OD:** 7 3/16 **NB Stab:**

**Slide Report for BHA # 6 with Surveys included**

Note: Sliding and Drilling Surveys are LOGICAL expectations.

| # | Date  | Hrs  | Start MD | End MD | DMD | WOB | ROP   | RPM | Surf Torq | Flow Rate | SPP On B | SPP Off B | Delta SPP | TFO cTFO | Survey MD | INC   | AZM  | Surv DLS | Mot DLS | Rot DLS | Q | Drill Mode     |
|---|-------|------|----------|--------|-----|-----|-------|-----|-----------|-----------|----------|-----------|-----------|----------|-----------|-------|------|----------|---------|---------|---|----------------|
| 6 | 6-Dec | 0.25 | 12115    | 12129  | 14  | 40  | 56.0  | 70  | 16.5      | 750       | 3550     | 3200      | 350       |          | 12129     | 0.06  | 0.01 | 2.20     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 6-Dec | 0.58 | 12129    | 12160  | 31  | 40  | 77.1  | 70  | 16.5      | 705       | 3400     | 2900      | 500       |          | 12160     | 95.00 | 0.62 | 2.20     | 0.00    | 0.00    | 5 | Drilling       |
|   |       |      |          |        | 92  |     |       |     |           |           |          |           |           | 88       | 12160     | 95.00 | 0.62 | 2.20     |         |         | 6 | Survey & Conn. |
|   |       |      | 12160    | 12174  | 14  | 40  | 77.1  | 70  | 16.5      | 705       | 3400     | 2900      |           |          | 12174     | 95.00 | 0.69 | 3.58     |         |         | 0 | Drilling       |
| 6 | 6-Dec | 0.50 | 12174    | 12188  | 14  | 35  | 28.0  | 0   | 0         | 705       | 3400     | 2900      | 500       | -150     | 12188     | 95.05 | 2.09 | 3.58     | 0.00    | 0.00    | 0 | Sliding        |
| 6 | 6-Dec | 0.33 | 12188    | 12219  | 31  | 40  | 93.0  | 70  | 16.5      | 705       | 3400     | 2900      | 500       |          | 12219     | 95.05 | 2.30 | 3.58     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 6-Dec | 0.17 | 12219    | 12230  | 11  | 40  | 66.0  | 70  | 16.5      | 705       | 3400     | 2900      | 500       |          | 12230     | 95.06 | 2.54 | 3.58     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 6-Dec | 0.50 | 12230    | 12245  | 15  | 40  | 30.0  | 0   | 0         | 705       | 3400     | 2900      | 500       | LS       | 12245     | 95.15 | 5.42 | 3.58     | 0.00    | 0.00    | 0 | Sliding        |
| 6 | 6-Dec | 0.17 | 12245    | 12249  | 4   | 40  | 108.0 | 70  | 16.5      | 705       | 3400     | 2900      | 500       |          | 12249     | 95.10 | 3.82 | 3.58     | 0.00    | 0.00    | 5 | Drilling       |
|   |       |      |          |        | 89  |     |       |     |           |           |          |           |           | 166      | 12249     | 95.10 | 3.82 | 3.58     |         |         | 6 | Survey & Conn. |
|   |       |      | 12249    | 12263  | 14  | 40  | 108.0 | 70  | 16.5      | 705       | 3400     | 2900      |           |          | 12263     | 94.99 | 3.85 | 4.12     |         |         | 0 | Drilling       |
| 6 | 6-Dec | 0.92 | 12263    | 12283  | 20  | 40  | 21.8  | 0   | 0         | 705       | 3400     | 2900      | 500       | LS       | 12283     | 93.52 | 4.22 | 4.12     | 0.00    | 0.00    | 0 | Sliding        |
| 6 | 6-Dec | 0.42 | 12283    | 12308  | 25  | 42  | 60.0  | 70  | 17        | 705       | 3400     | 2900      | 500       |          | 12308     | 93.24 | 4.29 | 4.12     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 6-Dec | 0.08 | 12308    | 12315  | 7   | 42  | 84.0  | 70  | 17        | 705       | 3400     | 2900      | 500       |          | 12315     | 92.88 | 4.38 | 4.12     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 6-Dec | 1.25 | 12315    | 12336  | 21  | 50  | 16.8  | 0   | 0         | 705       | 3400     | 2900      | 500       | LS       | 12336     | 90.04 | 5.08 | 4.12     | 0.00    | 0.00    | 0 | Sliding        |
| 6 | 7-Dec | 0.17 | 12336    | 12339  | 3   | 55  | 24.0  | 0   | 0         | 705       | 3400     | 2900      | 500       | LS       | 12339     | 91.50 | 4.72 | 4.12     | 0.00    | 0.00    | 5 | Sliding        |
|   |       |      |          |        | 90  |     |       |     |           |           |          |           |           | -90      | 12339     | 91.50 | 4.72 | 4.12     |         |         | 6 | Survey & Conn. |
|   |       |      | 12339    | 12340  | 1   | 55  | 24.0  | 0   | 0         | 705       | 3400     | 2900      |           | LS       | 12340     | 91.50 | 4.66 | 1.44     |         |         | 0 | Sliding        |
| 6 | 7-Dec | 0.25 | 12340    | 12353  | 13  | 42  | 52.0  | 70  | 17        | 705       | 3450     | 2900      | 550       |          | 12353     | 91.50 | 4.64 | 1.44     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 7-Dec | 0.83 | 12353    | 12398  | 45  | 42  | 54.0  | 70  | 17        | 705       | 3450     | 2900      | 550       |          | 12398     | 91.50 | 4.53 | 1.44     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 7-Dec | 0.25 | 12398    | 12410  | 12  | 42  | 48.0  | 70  | 17        | 705       | 3450     | 2900      | 550       |          | 12410     | 91.50 | 4.40 | 1.44     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 7-Dec | 1.42 | 12410    | 12429  | 19  | 55  | 14.1  | 0   | 0         | 705       | 3450     | 2900      | 550       | -110     | 12429     | 91.50 | 3.42 | 1.44     | 0.00    | 0.00    | 5 | Sliding        |
|   |       |      |          |        | 90  |     |       |     |           |           |          |           |           | -6       | 12429     | 91.50 | 3.42 | 1.44     |         |         | 6 | Survey & Conn. |
|   |       |      | 12429    | 12430  | 1   | 55  | 14.1  | 0   | 0         | 705       | 3450     | 2900      |           | -110     | 12430     | 91.70 | 3.40 | 1.02     |         |         | 0 | Sliding        |
| 6 | 7-Dec | 0.58 | 12430    | 12488  | 58  | 42  | 99.4  | 70  | 17        | 705       | 3450     | 2900      | 550       |          | 12488     | 91.76 | 3.39 | 1.02     | 0.00    | 0.00    | 0 | Drilling       |

Note: Sliding and Drilling Surveys are LOGICAL expectations.

SDI BHA SLIDE REPORT NP1553 Slide Report for JOB# :ID2386-3 - Page 2 of 6



# Slide Report for BHA # 6 with Surveys included

Note: Sliding and Drilling Surveys are LOGICAL expectations.

| # | Date  | Hrs  | Start MD | End MD | DMD | WOB | ROP   | RPM | Surf Torq | Flow Rate | SPP On B | SPP Off B | Delta SPP | TFO cTFO | Survey MD | INC   | AZM    | Surv DLS | Mot DLS | Rot DLS | Q | Drill Mode     |
|---|-------|------|----------|--------|-----|-----|-------|-----|-----------|-----------|----------|-----------|-----------|----------|-----------|-------|--------|----------|---------|---------|---|----------------|
| 6 | 7-Dec | 0.17 | 13205    | 13214  | 9   | 52  | 54.0  | 40  | 17        | 705       | 3550     | 2900      | 650       |          | 13214     | 87.74 | 3.23   | 4.03     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 7-Dec | 1.67 | 13214    | 13235  | 21  | 45  | 21.6  | 0   | 0         | 705       | 3550     | 2900      | 650       | -65      | 13235     | 87.10 | 1.72   | 4.03     | 0.00    | 0.00    | 5 | Sliding        |
|   |       |      |          |        | 89  |     |       |     |           |           |          |           |           | -85      | 13235     | 87.10 | 1.72   | 4.03     |         |         | 6 | Survey & Conn. |
|   |       |      | 13235    | 13250  | 15  | 45  | 21.6  | 0   | 0         | 705       | 3550     | 2900      |           | -65      | 13250     | 87.25 | 65.88  | 9.26     |         |         | 0 | Sliding        |
| 6 | 7-Dec | 0.08 | 13250    | 13258  | 8   | 52  | 96.0  | 40  | 17        | 705       | 3550     | 2900      | 650       |          | 13258     | 87.29 | 83.47  | 9.26     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 7-Dec | 1.50 | 13258    | 13294  | 36  | 45  | 24.0  | 40  | 17        | 705       | 3550     | 2900      | 650       | -65      | 13294     | 87.73 | 276.60 | 9.26     | 0.00    | 0.00    | 0 | Sliding        |
| 6 | 8-Dec | 0.17 | 13294    | 13302  | 8   | 52  | 48.0  | 40  | 17        | 705       | 3550     | 2900      | 650       |          | 13302     | 87.81 | 311.77 | 9.26     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 8-Dec | 1.00 | 13302    | 13322  | 20  | 45  | 20.0  | 0   | 0         | 705       | 3550     | 2900      | 650       | HS       | 13322     | 88.43 | 227.02 | 9.26     | 0.00    | 0.00    | 0 | Sliding        |
| 6 | 8-Dec | 0.83 | 13322    | 13325  | 3   | 45  | 20.4  | 0   | 0         | 705       | 3550     | 2900      | 650       | HS       | 13325     | 87.90 | 353.42 | 9.26     | 0.00    | 0.00    | 5 | Sliding        |
|   |       |      |          |        | 90  |     |       |     |           |           |          |           |           | -17      | 13325     | 87.90 | 353.42 | 9.26     |         |         | 6 | Survey & Conn. |
|   |       |      | 13325    | 13339  | 14  | 45  | 20.4  | 0   | 0         | 705       | 3550     | 2900      |           | HS       | 13339     | 89.36 | 352.98 | 4.99     |         |         | 0 | Sliding        |
| 6 | 8-Dec | 0.50 | 13339    | 13372  | 33  | 52  | 66.0  | 40  | 17        | 705       | 3550     | 2900      | 650       |          | 13372     | 89.63 | 352.90 | 4.99     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 8-Dec | 0.08 | 13372    | 13384  | 12  | 52  | 144.0 | 40  | 17        | 705       | 3550     | 2900      | 650       |          | 13384     | 89.89 | 352.82 | 4.99     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 8-Dec | 0.08 | 13384    | 13392  | 8   | 52  | 96.0  | 40  | 17        | 705       | 3550     | 2900      | 650       |          | 13392     | 90.32 | 352.69 | 4.99     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 8-Dec | 1.00 | 13392    | 13415  | 23  | 45  | 25.0  | 0   | 0         | 705       | 3550     | 2900      | 650       | 60       | 13415     | 92.20 | 352.12 | 4.99     | 0.00    | 0.00    | 5 | Sliding        |
|   |       |      |          |        | 90  |     |       |     |           |           |          |           |           | 39       | 13415     | 92.20 | 352.12 | 4.99     |         |         | 6 | Survey & Conn. |
|   |       |      | 13415    | 13417  | 2   | 45  | 25.0  | 0   | 0         | 705       | 3550     | 2900      |           | 60       | 13417     | 92.53 | 352.39 | 3.71     |         |         | 0 | Sliding        |
| 6 | 8-Dec | 0.33 | 13417    | 13429  | 12  | 52  | 36.0  | 40  | 0         | 705       | 3550     | 2900      | 650       |          | 13429     | 92.58 | 352.42 | 3.71     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 8-Dec | 0.58 | 13429    | 13441  | 12  | 45  | 20.6  | 40  | 0         | 705       | 3550     | 2900      | 650       | 60       | 13441     | 94.92 | 354.31 | 3.71     | 0.00    | 0.00    | 0 | Sliding        |
| 6 | 8-Dec | 0.50 | 13441    | 13474  | 33  | 55  | 66.0  | 40  | 0         | 705       | 3550     | 2900      | 650       |          | 13474     | 95.05 | 354.42 | 3.71     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 8-Dec | 0.75 | 13474    | 13505  | 31  | 55  | 41.3  | 40  | 0         | 705       | 3550     | 2900      | 650       |          | 13505     | 94.80 | 354.22 | 3.71     | 0.00    | 0.00    | 5 | Drilling       |
|   |       |      |          |        | 90  |     |       |     |           |           |          |           |           | 95       | 13505     | 94.80 | 354.22 | 3.71     |         |         | 6 | Survey & Conn. |
| 6 | 8-Dec | 1.33 | 13505    | 13530  | 25  | 60  | 18.8  | 40  | 0         | 705       | 3550     | 2900      | 650       | 135R     | 13530     | 94.65 | 355.92 | 3.82     | 0.00    | 0.00    | 0 | Sliding        |
| 6 | 8-Dec | 0.83 | 13530    | 13564  | 34  | 55  | 40.8  | 40  | 0         | 705       | 3550     | 2900      | 650       |          | 13564     | 94.63 | 356.18 | 3.82     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 8-Dec | 0.33 | 13564    | 13574  | 10  | 55  | 30.0  | 40  | 0         | 705       | 3550     | 2900      | 650       |          | 13574     | 94.60 | 356.52 | 3.82     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 8-Dec | 1.25 | 13574    | 13594  | 20  | 65  | 17.6  | 40  | 0         | 705       | 3550     | 2900      | 650       | 180      | 13594     | 94.50 | 357.62 | 3.82     | 0.00    | 0.00    | 5 | Sliding        |
|   |       |      |          |        | 89  |     |       |     |           |           |          |           |           | 110      | 13594     | 94.50 | 357.62 | 3.82     |         |         | 6 | Survey & Conn. |
|   |       |      | 13594    | 13596  | 2   | 65  | 17.6  | 40  | 0         | 705       | 3550     | 2900      |           | 180      | 13596     | 94.47 | 357.70 | 1.30     |         |         | 0 | Sliding        |
| 6 | 8-Dec | 1.25 | 13596    | 13653  | 57  | 55  | 45.6  | 40  | 0         | 705       | 3550     | 2900      | 650       |          | 13653     | 94.44 | 357.80 | 1.30     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 8-Dec | 0.17 | 13653    | 13661  | 8   | 55  | 48.0  | 40  | 0         | 705       | 3550     | 2900      | 650       |          | 13661     | 94.40 | 357.91 | 1.30     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 8-Dec | 1.33 | 13661    | 13684  | 23  | 65  | 18.0  | 40  | 0         | 705       | 3550     | 2900      | 650       | 160R     | 13684     | 94.10 | 358.72 | 1.30     | 0.00    | 0.00    | 5 | Sliding        |
|   |       |      |          |        | 90  |     |       |     |           |           |          |           |           | 164      | 13684     | 94.10 | 358.72 | 1.30     |         |         | 6 | Survey & Conn. |
|   |       |      | 13684    | 13685  | 1   | 65  | 18.0  | 40  | 0         | 705       | 3550     | 2900      |           | 160R     | 13685     | 93.99 | 350.22 | 5.26     |         |         | 0 | Sliding        |
| 6 | 8-Dec | 0.67 | 13685    | 13702  | 17  | 55  | 25.5  | 40  | 0         | 705       | 3550     | 2900      | 650       |          | 13702     | 93.84 | 338.27 | 5.26     | 0.00    | 0.00    | 0 | Drilling       |

# Slide Report for BHA # 6 with Surveys included

Note: Sliding and Drilling Surveys are LOGICAL expectations.

| # | Date  | Hrs  | Start MD | End MD | DMD | WOB | ROP   | RPM | Surf Torq | Flow Rate | SPP On B | SPP Off B | Delta SPP | TFO cTFO | Survey MD | INC   | AZM    | Surv DLS | Mot DLS | Rot DLS | Q | Drill Mode     |
|---|-------|------|----------|--------|-----|-----|-------|-----|-----------|-----------|----------|-----------|-----------|----------|-----------|-------|--------|----------|---------|---------|---|----------------|
| 6 | 8-Dec | 1.92 | 13702    | 13739  | 37  | 65  | 19.3  | 40  | 0         | 705       | 3550     | 2900      | 650       | 180      | 13739     | 89.79 | 15.44  | 5.26     | 0.00    | 0.00    | 0 | Sliding        |
| 6 | 8-Dec | 0.25 | 13739    | 13743  | 4   | 55  | 16.0  | 40  | 0         | 705       | 3550     | 2900      | 650       |          | 13743     | 89.74 | 11.22  | 5.26     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 8-Dec | 1.08 | 13743    | 13773  | 30  | 55  | 82.2  | 40  | 24        | 705       | 3550     | 2900      | 650       |          | 13773     | 89.60 | 0.02   | 5.26     | 0.00    | 0.00    | 5 | Drilling       |
|   |       |      |          |        | 89  |     |       |     |           |           |          |           |           | -34      | 13773     | 89.60 | 0.02   | 5.26     |         |         | 6 | Survey & Conn. |
|   |       |      | 13773    | 13832  | 59  | 55  | 82.2  | 40  | 24        | 705       | 3550     | 2900      |           |          | 13832     | 89.66 | 23.58  | 1.20     |         | 1.20    | 4 | Drilling       |
| 6 | 8-Dec | 0.58 | 13832    | 13863  | 31  | 52  | 77.1  | 40  | 24        | 705       | 3550     | 2900      | 650       |          | 13863     | 90.50 | 359.42 | 1.20     | 0.00    | 1.20    | 5 | Drilling       |
|   |       |      |          |        | 90  |     |       |     |           |           |          |           |           | -135     | 13863     | 90.50 | 359.42 | 1.20     |         |         | 6 | Survey & Conn. |
|   |       |      | 13863    | 13877  | 14  | 52  | 77.1  | 40  | 24        | 705       | 3550     | 2900      |           |          | 13877     | 90.49 | 359.41 | 0.47     |         |         | 0 | Drilling       |
| 6 | 8-Dec | 0.50 | 13877    | 13922  | 45  | 52  | 90.0  | 40  | 24        | 705       | 3550     | 2900      | 650       |          | 13922     | 90.47 | 359.39 | 0.47     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 8-Dec | 0.08 | 13922    | 13934  | 12  | 52  | 144.0 | 40  | 24        | 705       | 3550     | 2900      | 650       |          | 13934     | 90.46 | 359.38 | 0.47     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 8-Dec | 0.50 | 13934    | 13944  | 10  | 40  | 20.0  | 0   | 0         | 705       | 3550     | 2900      | 650       | -130     | 13944     | 90.19 | 359.11 | 0.47     | 0.00    | 0.00    | 0 | Sliding        |
| 6 | 8-Dec | 0.92 | 13944    | 13953  | 9   | 52  | 74.2  | 40  | 24        | 705       | 3550     | 2900      | 650       |          | 13953     | 90.20 | 359.12 | 0.47     | 0.00    | 0.00    | 5 | Drilling       |
|   |       |      |          |        | 90  |     |       |     |           |           |          |           |           | 1        | 13953     | 90.20 | 359.12 | 0.47     |         |         | 6 | Survey & Conn. |
|   |       |      | 13953    | 14012  | 59  | 52  | 74.2  | 40  | 24        | 705       | 3550     | 2900      |           |          | 14012     | 90.59 | 359.13 | 5.84     |         |         | 0 | Drilling       |
| 6 | 8-Dec | 0.33 | 14012    | 14026  | 14  | 52  | 42.0  | 40  | 24        | 705       | 3550     | 2900      | 650       |          | 14026     | 90.98 | 359.13 | 5.84     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 8-Dec | 1.08 | 14026    | 14031  | 5   | 40  | 4.6   | 0   | 0         | 705       | 3550     | 2900      | 650       | 45       | 14031     | 93.10 | 359.16 | 5.84     | 0.00    | 0.00    | 0 | Sliding        |
| 6 | 8-Dec | 0.17 | 14031    | 14036  | 5   | 52  | 30.0  | 40  | 24        | 705       | 3550     | 2900      | 650       |          | 14036     | 93.62 | 359.17 | 5.84     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 8-Dec | 0.50 | 14036    | 14042  | 6   | 35  | 16.0  | 0   | 0         | 705       | 3550     | 2900      | 650       | 45       | 14042     | 95.40 | 359.20 | 5.84     | 0.00    | 0.00    | 5 | Sliding        |
|   |       |      |          |        | 89  |     |       |     |           |           |          |           |           | 75       | 14042     | 95.40 | 359.20 | 5.84     |         |         | 6 | Survey & Conn. |
|   |       |      | 14042    | 14044  | 2   | 35  | 16.0  | 0   | 0         | 705       | 3550     | 2900      |           | 45       | 14044     | 95.42 | 340.20 | 1.27     |         |         | 0 | Sliding        |
| 6 | 8-Dec | 0.67 | 14044    | 14101  | 57  | 52  | 85.5  | 40  | 24        | 705       | 3550     | 2900      | 650       |          | 14101     | 95.45 | 304.31 | 1.27     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 9-Dec | 3.92 | 14101    | 14133  | 32  | 55  | 9.4   | 40  | 24        | 705       | 3550     | 2900      | 650       | -135     | 14133     | 95.70 | 0.32   | 1.27     | 0.00    | 0.00    | 5 | Sliding        |
|   |       |      |          |        | 91  |     |       |     |           |           |          |           |           | 162      | 14133     | 95.70 | 0.32   | 1.27     |         |         | 6 | Survey & Conn. |
|   |       |      | 14133    | 14138  | 5   | 55  | 9.4   | 40  | 24        | 705       | 3550     | 2900      |           | -135     | 14138     | 95.25 | 0.47   | 4.67     |         |         | 0 | Sliding        |
| 6 | 9-Dec | 0.42 | 14138    | 14160  | 22  | 55  | 52.8  | 40  | 24        | 705       | 3550     | 2900      | 650       |          | 14160     | 95.07 | 0.52   | 4.67     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 9-Dec | 1.08 | 14160    | 14174  | 14  | 55  | 12.9  | 0   | 0         | 705       | 3550     | 2900      | 650       | 180      | 14174     | 93.63 | 0.99   | 4.67     | 0.00    | 0.00    | 0 | Sliding        |
| 6 | 9-Dec | 0.42 | 14174    | 14192  | 18  | 55  | 43.2  | 40  | 24        | 705       | 3550     | 2900      | 650       |          | 14192     | 93.38 | 1.08   | 4.67     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 9-Dec | 0.33 | 14192    | 14200  | 8   | 55  | 24.0  | 40  | 24        | 705       | 3550     | 2900      | 650       |          | 14200     | 93.06 | 1.18   | 4.67     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 9-Dec | 1.00 | 14200    | 14221  | 21  | 55  | 21.0  | 0   | 0         | 705       | 3550     | 2900      | 650       | 180      | 14221     | 89.46 | 2.35   | 4.67     | 0.00    | 0.00    | 0 | Sliding        |
| 6 | 9-Dec | 0.92 | 14221    | 14223  | 2   | 58  | 16.4  | 40  | 24        | 705       | 3550     | 2900      | 650       |          | 14223     | 91.70 | 1.62   | 4.67     | 0.00    | 0.00    | 5 | Drilling       |
|   |       |      |          |        | 90  |     |       |     |           |           |          |           |           | -178     | 14223     | 91.70 | 1.62   | 4.67     |         |         | 6 | Survey & Conn. |
|   |       |      | 14223    | 14236  | 13  | 58  | 16.4  | 40  | 24        | 705       | 3550     | 2900      |           |          | 14236     | 91.63 | 1.62   | 3.67     |         |         | 0 | Drilling       |
| 6 | 9-Dec | 2.08 | 14236    | 14267  | 31  | 55  | 14.9  | 0   | 0         | 705       | 3550     | 2900      | 650       | 180      | 14267     | 88.66 | 1.53   | 3.67     | 0.00    | 0.00    | 0 | Sliding        |
| 6 | 9-Dec | 0.33 | 14267    | 14282  | 15  | 58  | 45.0  | 40  | 24        | 705       | 3550     | 2900      | 650       |          | 14282     | 88.55 | 1.52   | 3.67     | 0.00    | 0.00    | 0 | Drilling       |

# Slide Report for BHA # 6 with Surveys included

Note: Sliding and Drilling Surveys are LOGICAL expectations.

| # | Date   | Hrs  | Start MD | End MD | DMD | WOB | ROP   | RPM | Surf Torq | Flow Rate | SPP On B | SPP Off B | Delta SPP | TFO cTFO | Survey MD | INC   | AZM    | Surv DLS | Mot DLS | Rot DLS | Q | Drill Mode     |
|---|--------|------|----------|--------|-----|-----|-------|-----|-----------|-----------|----------|-----------|-----------|----------|-----------|-------|--------|----------|---------|---------|---|----------------|
| 6 | 9-Dec  | 1.17 | 14282    | 14313  | 31  | 58  | 77.1  | 40  | 24        | 705       | 3550     | 2900      | 650       |          | 14313     | 88.40 | 1.52   | 3.67     | 0.00    | 0.00    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -141     | 14313     | 88.40 | 1.52   | 3.67     |         |         | 6 | Survey & Conn. |
|   |        |      | 14313    | 14372  | 59  | 58  | 77.1  | 40  | 24        | 705       | 3550     | 2900      |           |          | 14372     | 88.36 | 1.49   | 0.72     |         |         | 0 | Drilling       |
| 6 | 9-Dec  | 0.42 | 14372    | 14392  | 20  | 58  | 48.0  | 40  | 24        | 705       | 3550     | 2900      | 650       |          | 14392     | 88.32 | 1.46   | 0.72     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 9-Dec  | 0.25 | 14392    | 14398  | 6   | 60  | 24.0  | 0   | 0         | 705       | 3550     | 2900      | 650       |          | 14398     | 87.87 | 1.10   | 0.72     | 0.00    | 0.00    | 0 | Sliding        |
| 6 | 9-Dec  | 0.92 | 14398    | 14402  | 4   | 60  | 68.7  | 40  | 28        | 705       | 3550     | 2900      | 650       |          | 14402     | 87.90 | 1.12   | 0.72     | 0.00    | 0.00    | 5 | Drilling       |
|   |        |      |          |        | 89  |     |       |     |           |           |          |           |           | -26      | 14402     | 87.90 | 1.12   | 0.72     |         |         | 6 | Survey & Conn. |
|   |        |      | 14402    | 14461  | 59  | 60  | 68.7  | 40  | 28        | 705       | 3550     | 2900      |           |          | 14461     | 88.13 | 34.20  | 3.08     |         |         | 0 | Drilling       |
| 6 | 9-Dec  | 0.25 | 14461    | 14466  | 5   | 60  | 20.0  | 40  | 28        | 705       | 3550     | 2900      | 650       |          | 14466     | 88.38 | 70.08  | 3.08     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 9-Dec  | 2.17 | 14466    | 14492  | 26  | 60  | 16.2  | 0   | 0         | 705       | 3550     | 2900      | 650       |          | 14492     | 90.40 | 359.92 | 3.08     | 0.00    | 0.00    | 5 | Sliding        |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -23      | 14492     | 90.40 | 359.92 | 3.08     |         |         | 6 | Survey & Conn. |
|   |        |      | 14492    | 14501  | 9   | 60  | 16.2  | 0   | 0         | 705       | 3550     | 2900      |           | -23~Cal  | 14501     | 91.48 | 359.47 | 1.44     |         |         | 0 | Sliding        |
| 6 | 9-Dec  | 0.67 | 14501    | 14551  | 50  | 60  | 75.0  | 40  | 34        | 705       | 3900     | 3225      | 675       |          | 14551     | 91.55 | 359.44 | 1.44     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 9-Dec  | 0.17 | 14551    | 14563  | 12  | 60  | 72.0  | 40  | 34        | 705       | 3900     | 3225      | 675       |          | 14563     | 91.60 | 359.42 | 1.44     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 9-Dec  | 0.83 | 14563    | 14582  | 19  | 60  | 93.6  | 40  | 34        | 705       | 3900     | 3225      | 675       |          | 14582     | 91.60 | 359.42 | 1.44     | 0.00    | 0.00    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -160     | 14582     | 91.60 | 359.42 | 1.44     |         |         | 6 | Survey & Conn. |
|   |        |      | 14582    | 14641  | 59  | 60  | 93.6  | 40  | 34        | 705       | 3900     | 3225      |           |          | 14641     | 91.51 | 359.39 | 1.67     |         | 1.67    | 4 | Drilling       |
| 6 | 9-Dec  | 0.83 | 14641    | 14671  | 30  | 60  | 106.8 | 40  | 34        | 705       | 3900     | 3225      | 675       |          | 14671     | 90.20 | 358.92 | 1.67     | 0.00    | 1.67    | 5 | Drilling       |
|   |        |      |          |        | 89  |     |       |     |           |           |          |           |           | -13      | 14671     | 90.20 | 358.92 | 1.67     |         |         | 6 | Survey & Conn. |
|   |        |      | 14671    | 14730  | 59  | 60  | 106.8 | 40  | 34        | 705       | 3900     | 3225      |           |          | 14730     | 90.34 | 358.89 | 1.94     |         |         | 0 | Drilling       |
| 6 | 9-Dec  | 0.33 | 14730    | 14744  | 14  | 60  | 42.0  | 40  | 34        | 705       | 3900     | 3225      | 675       |          | 14744     | 90.51 | 358.85 | 1.94     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 9-Dec  | 1.00 | 14744    | 14756  | 12  | 60  | 12.0  | 0   | 0         | 705       | 3900     | 3225      | 675       | 40       | 14756     | 91.59 | 358.59 | 1.94     | 0.00    | 0.00    | 0 | Sliding        |
| 6 | 9-Dec  | 0.50 | 14756    | 14761  | 5   | 60  | 12.0  | 40  | 34        | 705       | 3900     | 3225      | 675       | 30       | 14761     | 91.90 | 358.52 | 1.94     | 0.00    | 0.00    | 5 | Sliding        |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -22      | 14761     | 91.90 | 358.52 | 1.94     |         |         | 6 | Survey & Conn. |
|   |        |      | 14761    | 14762  | 1   | 60  | 12.0  | 40  | 34        | 705       | 3900     | 3225      |           | 30       | 14762     | 92.35 | 358.34 | 0.60     |         |         | 0 | Sliding        |
| 6 | 9-Dec  | 0.75 | 14762    | 14820  | 58  | 60  | 77.3  | 40  | 34        | 705       | 3900     | 3225      | 675       |          | 14820     | 92.38 | 358.33 | 0.60     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 9-Dec  | 0.17 | 14820    | 14835  | 15  | 60  | 90.0  | 40  | 34        | 705       | 3900     | 3225      | 675       |          | 14835     | 92.41 | 358.32 | 0.60     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 9-Dec  | 0.08 | 14835    | 14842  | 7   | 60  | 84.0  | 40  | 34        | 705       | 3900     | 3225      | 675       |          | 14842     | 92.43 | 358.31 | 0.60     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 10-Dec | 0.33 | 14842    | 14851  | 9   | 60  | 69.0  | 40  | 34        | 705       | 3900     | 3225      | 675       |          | 14851     | 92.40 | 358.32 | 0.60     | 0.00    | 0.00    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | 34       | 14851     | 92.40 | 358.32 | 0.60     |         |         | 6 | Survey & Conn. |
|   |        |      | 14851    | 14865  | 14  | 60  | 69.0  | 40  | 34        | 705       | 3900     | 3225      |           |          | 14865     | 92.41 | 358.33 | 0.81     |         |         | 0 | Drilling       |
| 6 | 10-Dec | 0.58 | 14865    | 14910  | 45  | 60  | 77.1  | 40  | 34        | 705       | 3900     | 3225      | 675       |          | 14910     | 92.45 | 358.36 | 0.81     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 10-Dec | 0.33 | 14910    | 14924  | 14  | 60  | 42.0  | 40  | 34        | 705       | 3900     | 3225      | 675       |          | 14924     | 92.50 | 358.38 | 0.81     | 0.00    | 0.00    | 0 | Drilling       |
| 6 | 10-Dec | 0.58 | 14924    | 14935  | 11  | 60  | 18.9  | 0   | 0         | 705       | 3900     | 3225      | 675       | 30       | 14935     | 93.04 | 358.74 | 0.81     | 0.00    | 0.00    | 0 | Sliding        |

# Slide Report for BHA # 6 with Surveys included

Note: Sliding and Drilling Surveys are LOGICAL expectations.

| # | Date   | Hrs  | Start MD | End MD | DMD | WOB | ROP  | RPM | Surf Torq | Flow Rate | SPP On B | SPP Off B | Delta SPP | TFO cTFO | Survey MD | INC   | AZM    | Surv DLS | Mot DLS | Rot DLS | Q | Drill Mode     |
|---|--------|------|----------|--------|-----|-----|------|-----|-----------|-----------|----------|-----------|-----------|----------|-----------|-------|--------|----------|---------|---------|---|----------------|
| 6 | 10-Dec | 1.67 | 14935    | 14940  | 5   | 60  | 38.4 | 40  | 34        | 705       | 3900     | 3225      | 675       |          | 14940     | 93.00 | 358.72 | 0.81     | 0.00    | 0.00    | 5 | Drilling       |
|   |        |      |          |        | 89  |     |      |     |           |           |          |           |           |          | 14940     | 93.00 | 358.72 | 0.81     |         |         | 6 | Survey & Conn. |
|   |        |      | 14940    | 14999  | 59  | 60  | 38.4 | 40  | 34        | 705       | 3900     | 3225      |           |          | 14999     | 93.00 | 358.72 | 0.00     |         | 0.00    | 4 | Drilling       |
| 6 | 10-Dec | 0.50 | 14999    | 15015  | 16  | 60  | 32.0 | 40  | 34        | 705       | 3900     | 3225      | 675       |          | 15015     | 93.00 | 358.72 | 0.00     | 0.00    | 0.00    | 5 | Drilling       |
|   |        |      |          |        | 75  |     |      |     |           |           |          |           |           |          | 15015     | 93.00 | 358.72 | 0.00     |         |         | 6 | Survey & Conn. |

**Total Drilled:** 2900 **Avg. Total ROP:** 39.41 **DEPTH% - TIME %**

**Total Rotary Drilled:** 2217 **Avg. Rotary ROP:** 64.26 **Percent Rotary:** 76.45 - 46.89

**Total Drilled Sliding:** 683 **Avg. Slide ROP:** 17.48 **Percent Slide:** 23.55 - 53.11



**SDI Job #:** ID2386-3  
**COMPANY:** Advance Energy Partners ,LLC  
**LOCATION:** Lea County, New Mexico  
**RIG NAME:** H&P466 Flex 3  
**STATE:** New Mexico  
**COUNTY:** Lea Co.  
**WELL NAME:** Wool Head 20 State Com 554H  
**Survey File:**

**FIELD:** Delaware Basin  
**Sec-Twn-Rng:** 20-21S-33E  
**Range/Section** /NM0092

### MOTOR INFORMATION

**Desc:** 7/8 8.5 FBH @ 1.83 w/SS  
**Bent Hsg/Sub:** 1.83 0 **Bit to Bend:** 4.25  
**PAD OD:** 7.13 **NB Stab:**

## Slide Report for BHA # 7 with Surveys included

Note: Sliding and Drilling Surveys are LOGICAL expectations.

| # | Date   | Hrs  | Start MD | End MD | DMD | WOB | ROP   | RPM | Surf Torq | Flow Rate | SPP On B | SPP Off B | Delta SPP | TFO cTFO | Survey MD | INC   | AZM    | Surv DLS | Mot DLS | Rot DLS | Q | Drill Mode     |
|---|--------|------|----------|--------|-----|-----|-------|-----|-----------|-----------|----------|-----------|-----------|----------|-----------|-------|--------|----------|---------|---------|---|----------------|
| 7 | 11-Dec | 0.67 | 15046    | 15061  | 15  | 50  | 105.0 | 40  | 30        | 650       | 4483     | 3400      | 1083      |          | 15061     | 92.60 | 357.32 | 1.84     | 0.00    | 0.00    | 5 | Drilling       |
|   |        |      |          |        | 74  |     |       |     |           |           |          |           |           | -5       | 15061     | 92.60 | 357.32 | 1.84     |         |         | 6 | Survey & Conn. |
|   |        |      | 15061    | 15116  | 55  | 50  | 105.0 | 40  | 30        | 650       | 4483     | 3400      |           |          | 15116     | 92.68 | 357.31 | 1.34     |         |         | 0 | Drilling       |
| 7 | 11-Dec | 0.17 | 15116    | 15130  | 14  | 52  | 84.0  | 40  | 30        | 650       | 4483     | 3400      | 1083      |          | 15130     | 92.75 | 357.31 | 1.34     | 0.00    | 0.00    | 0 | Drilling       |
| 7 | 11-Dec | 0.25 | 15130    | 15140  | 10  | 60  | 40.0  | 40  | 30        | 705       | 4483     | 3400      | 1083      |          | 15140     | 93.83 | 357.22 | 1.34     | 0.00    | 0.00    | 0 | Sliding        |
| 7 | 11-Dec | 0.33 | 15140    | 15151  | 11  | 52  | 198.0 | 40  | 30        | 650       | 4483     | 3400      | 1083      |          | 15151     | 93.80 | 357.22 | 1.34     | 0.00    | 0.00    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -117     | 15151     | 93.80 | 357.22 | 1.34     |         |         | 6 | Survey & Conn. |
|   |        |      | 15151    | 15206  | 55  | 52  | 198.0 | 40  | 30        | 650       | 4483     | 3400      |           |          | 15206     | 93.79 | 357.21 | 0.25     |         | 0.25    | 4 | Drilling       |
| 7 | 11-Dec | 0.75 | 15206    | 15241  | 35  | 52  | 120.0 | 40  | 30        | 650       | 4483     | 3400      | 1083      |          | 15241     | 93.70 | 357.02 | 0.25     | 0.00    | 0.25    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -17      | 15241     | 93.70 | 357.02 | 0.25     |         |         | 6 | Survey & Conn. |
|   |        |      | 15241    | 15296  | 55  | 52  | 120.0 | 40  | 30        | 650       | 4483     | 3400      |           |          | 15296     | 93.78 | 357.00 | 1.53     |         | 1.53    | 4 | Drilling       |
| 7 | 11-Dec | 0.42 | 15296    | 15330  | 34  | 52  | 213.6 | 40  | 30        | 650       | 4483     | 3400      | 1083      |          | 15330     | 95.00 | 356.62 | 1.53     | 0.00    | 1.53    | 5 | Drilling       |
|   |        |      |          |        | 89  |     |       |     |           |           |          |           |           | 103      | 15330     | 95.00 | 356.62 | 1.53     |         |         | 6 | Survey & Conn. |
|   |        |      | 15330    | 15385  | 55  | 52  | 213.6 | 40  | 30        | 650       | 4483     | 3400      |           |          | 15385     | 94.96 | 356.77 | 2.39     |         |         | 0 | Drilling       |
| 7 | 11-Dec | 0.08 | 15385    | 15395  | 10  | 52  | 120.0 | 40  | 30        | 650       | 4483     | 3400      | 1083      |          | 15395     | 94.94 | 356.86 | 2.39     | 0.00    | 0.00    | 0 | Drilling       |
| 7 | 11-Dec | 0.42 | 15395    | 15407  | 12  | 60  | 28.8  | 40  | 30        | 705       | 4483     | 3400      | 1083      | 155R     | 15407     | 94.49 | 358.75 | 2.39     | 0.00    | 0.00    | 0 | Sliding        |
| 7 | 11-Dec | 0.33 | 15407    | 15420  | 13  | 52  | 204.0 | 40  | 30        | 650       | 4483     | 3400      | 1083      |          | 15420     | 94.50 | 358.72 | 2.39     | 0.00    | 0.00    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | 138      | 15420     | 94.50 | 358.72 | 2.39     |         |         | 6 | Survey & Conn. |
|   |        |      | 15420    | 15475  | 55  | 52  | 204.0 | 40  | 30        | 650       | 4483     | 3400      |           |          | 15475     | 94.31 | 328.44 | 3.46     |         |         | 0 | Drilling       |
| 7 | 11-Dec | 0.25 | 15475    | 15485  | 10  | 52  | 40.0  | 40  | 30        | 650       | 4483     | 3400      | 1083      |          | 15485     | 94.08 | 292.65 | 3.46     | 0.00    | 0.00    | 0 | Drilling       |
| 7 | 11-Dec | 0.83 | 15485    | 15505  | 20  | 60  | 24.0  | 40  | 30        | 705       | 4483     | 3400      | 1083      | 180      | 15505     | 92.42 | 34.96  | 3.46     | 0.00    | 0.00    | 0 | Sliding        |
| 7 | 11-Dec | 0.42 | 15505    | 15510  | 5   | 60  | 144.0 | 40  | 30        | 705       | 4483     | 3400      | 1083      | 155R     | 15510     | 92.20 | 0.82   | 3.46     | 0.00    | 0.00    | 5 | Sliding        |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | 60       | 15510     | 92.20 | 0.82   | 3.46     |         |         | 6 | Survey & Conn. |
|   |        |      | 15510    | 15565  | 55  | 60  | 144.0 | 40  | 30        | 705       | 4483     | 3400      |           | 155R     | 15565     | 92.56 | 1.45   | 0.91     |         |         | 0 | Sliding        |
| 7 | 11-Dec | 0.50 | 15565    | 15599  | 34  | 52  | 178.0 | 40  | 30        | 650       | 4483     | 3400      | 1083      |          | 15599     | 92.60 | 1.52   | 0.91     | 0.00    | 0.00    | 5 | Drilling       |

# Slide Report for BHA # 7 with Surveys included

Note: Sliding and Drilling Surveys are LOGICAL expectations.

| # | Date   | Hrs  | Start MD | End MD | DMD | WOB | ROP   | RPM | Surf Torq | Flow Rate | SPP On B | SPP Off B | Delta SPP | TFO cTFO | Survey MD | INC   | AZM    | Surv DLS | Mot DLS | Rot DLS | Q | Drill Mode     |
|---|--------|------|----------|--------|-----|-----|-------|-----|-----------|-----------|----------|-----------|-----------|----------|-----------|-------|--------|----------|---------|---------|---|----------------|
|   |        |      |          |        | 89  |     |       |     |           |           |          |           |           | 61       | 15599     | 92.60 | 1.52   | 0.91     |         |         | 6 | Survey & Conn. |
|   |        |      | 15599    | 15654  | 55  | 52  | 178.0 | 40  | 30        | 650       | 4483     | 3400      |           |          | 15654     | 92.63 | 1.58   | 1.14     |         | 1.14    | 4 | Drilling       |
| 7 | 11-Dec | 0.50 | 15654    | 15689  | 35  | 52  | 180.0 | 40  | 30        | 650       | 4483     | 3400      | 1083      |          | 15689     | 93.10 | 2.42   | 1.14     | 0.00    | 1.14    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | 97       | 15689     | 93.10 | 2.42   | 1.14     |         |         | 6 | Survey & Conn. |
|   |        |      | 15689    | 15744  | 55  | 52  | 180.0 | 40  | 30        | 650       | 4483     | 3400      |           |          | 15744     | 93.09 | 2.47   | 0.90     |         | 0.90    | 4 | Drilling       |
| 7 | 11-Dec | 0.58 | 15744    | 15778  | 34  | 52  | 152.6 | 40  | 30        | 650       | 4483     | 3400      | 1083      |          | 15778     | 93.00 | 3.22   | 0.90     | 0.00    | 0.90    | 5 | Drilling       |
|   |        |      |          |        | 89  |     |       |     |           |           |          |           |           | -148     | 15778     | 93.00 | 3.22   | 0.90     |         |         | 6 | Survey & Conn. |
|   |        |      | 15778    | 15833  | 55  | 52  | 152.6 | 40  | 30        | 650       | 4483     | 3400      |           |          | 15833     | 92.68 | 3.02   | 4.99     |         |         | 0 | Drilling       |
| 7 | 11-Dec | 0.17 | 15833    | 15843  | 10  | 52  | 60.0  | 40  | 30        | 650       | 4483     | 3400      | 1083      |          | 15843     | 92.30 | 2.78   | 4.99     | 0.00    | 0.00    | 0 | Drilling       |
| 7 | 11-Dec | 0.67 | 15843    | 15868  | 25  | 60  | 40.5  | 40  | 30        | 705       | 4483     | 3400      | 1083      | 115L     | 15868     | 89.20 | 0.82   | 4.99     | 0.00    | 0.00    | 5 | Sliding        |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -144     | 15868     | 89.20 | 0.82   | 4.99     |         |         | 6 | Survey & Conn. |
|   |        |      | 15868    | 15870  | 2   | 60  | 40.5  | 40  | 30        | 705       | 4483     | 3400      |           | 115L     | 15870     | 88.57 | 0.37   | 0.96     |         |         | 0 | Sliding        |
| 7 | 11-Dec | 0.50 | 15870    | 15923  | 53  | 52  | 106.0 | 40  | 30        | 650       | 4483     | 3400      | 1083      |          | 15923     | 88.53 | 0.34   | 0.96     | 0.00    | 0.00    | 0 | Drilling       |
| 7 | 11-Dec | 0.50 | 15923    | 15958  | 35  | 52  | 180.0 | 40  | 30        | 650       | 4483     | 3400      | 1083      |          | 15958     | 88.50 | 0.32   | 0.96     | 0.00    | 0.00    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -47      | 15958     | 88.50 | 0.32   | 0.96     |         |         | 6 | Survey & Conn. |
|   |        |      | 15958    | 16013  | 55  | 52  | 180.0 | 40  | 30        | 650       | 4483     | 3400      |           |          | 16013     | 88.63 | 30.65  | 2.44     |         |         | 0 | Drilling       |
| 7 | 11-Dec | 0.08 | 16013    | 16023  | 10  | 52  | 120.0 | 40  | 30        | 650       | 4483     | 3400      | 1083      |          | 16023     | 88.78 | 66.49  | 2.44     | 0.00    | 0.00    | 0 | Drilling       |
| 7 | 11-Dec | 0.83 | 16023    | 16048  | 25  | 60  | 30.0  | 40  | 30        | 705       | 4483     | 3400      | 1083      | 30L      | 16048     | 90.00 | 358.72 | 2.44     | 0.00    | 0.00    | 5 | Sliding        |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -16      | 16048     | 90.00 | 358.72 | 2.44     |         |         | 6 | Survey & Conn. |
| 7 | 11-Dec | 0.33 | 16048    | 16103  | 55  | 52  | 165.0 | 40  | 30        | 650       | 4483     | 3400      | 1083      |          | 16103     | 90.32 | 358.63 | 4.44     | 0.00    | 0.00    | 0 | Drilling       |
| 7 | 11-Dec | 0.17 | 16103    | 16113  | 10  | 52  | 60.0  | 40  | 30        | 650       | 4483     | 3400      | 1083      |          | 16113     | 90.70 | 358.52 | 4.44     | 0.00    | 0.00    | 0 | Drilling       |
| 7 | 11-Dec | 0.75 | 16113    | 16137  | 24  | 60  | 33.3  | 0   | 0         | 705       | 4500     | 3900      | 600       | -15      | 16137     | 93.80 | 357.62 | 4.44     | 0.00    | 0.00    | 5 | Sliding        |
|   |        |      |          |        | 89  |     |       |     |           |           |          |           |           | -84      | 16137     | 93.80 | 357.62 | 4.44     |         |         | 6 | Survey & Conn. |
|   |        |      | 16137    | 16138  | 1   | 60  | 33.3  | 0   | 0         | 705       | 4500     | 3900      |           | -15      | 16138     | 93.98 | 356.00 | 2.01     |         |         | 0 | Sliding        |
| 7 | 11-Dec | 0.58 | 16138    | 16192  | 54  | 58  | 92.6  | 40  | 30        | 705       | 4500     | 3900      | 600       |          | 16192     | 93.99 | 355.89 | 2.01     | 0.00    | 0.00    | 0 | Drilling       |
| 7 | 11-Dec | 0.83 | 16192    | 16227  | 35  | 60  | 108.0 | 40  | 38        | 705       | 4800     | 3925      | 875       |          | 16227     | 94.00 | 355.82 | 2.01     | 0.00    | 0.00    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | 113      | 16227     | 94.00 | 355.82 | 2.01     |         |         | 6 | Survey & Conn. |
|   |        |      | 16227    | 16282  | 55  | 60  | 108.0 | 40  | 38        | 705       | 4800     | 3925      |           |          | 16282     | 93.98 | 355.87 | 0.84     |         |         | 0 | Drilling       |
| 7 | 11-Dec | 0.08 | 16282    | 16295  | 13  | 60  | 156.0 | 40  | 38        | 705       | 4800     | 3925      | 875       |          | 16295     | 93.96 | 355.91 | 0.84     | 0.00    | 0.00    | 0 | Drilling       |
| 7 | 11-Dec | 0.67 | 16295    | 16307  | 12  | 60  | 18.0  | 0   | 0         | 705       | 4800     | 3925      | 875       | 110      | 16307     | 93.69 | 356.54 | 0.84     | 0.00    | 0.00    | 0 | Sliding        |
| 7 | 11-Dec | 0.75 | 16307    | 16317  | 10  | 60  | 86.7  | 40  | 38        | 705       | 4650     | 3925      | 725       |          | 16317     | 93.70 | 356.52 | 0.84     | 0.00    | 0.00    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -26      | 16317     | 93.70 | 356.52 | 0.84     |         |         | 6 | Survey & Conn. |
|   |        |      | 16317    | 16372  | 55  | 60  | 86.7  | 40  | 38        | 705       | 4650     | 3925      |           |          | 16372     | 93.74 | 356.50 | 0.74     |         | 0.74    | 4 | Drilling       |
| 7 | 11-Dec | 0.67 | 16372    | 16407  | 35  | 60  | 135.0 | 40  | 38        | 705       | 4650     | 3925      | 725       |          | 16407     | 93.80 | 356.47 | 0.74     | 0.00    | 0.74    | 5 | Drilling       |

# Slide Report for BHA # 7 with Surveys included

Note: Sliding and Drilling Surveys are LOGICAL expectations.

| # | Date   | Hrs  | Start MD | End MD | DMD | WOB | ROP   | RPM | Surf Torq | Flow Rate | SPP On B | SPP Off B | Delta SPP | TFO cTFO | Survey MD | INC   | AZM    | Surv DLS | Mot DLS | Rot DLS | Q | Drill Mode     |
|---|--------|------|----------|--------|-----|-----|-------|-----|-----------|-----------|----------|-----------|-----------|----------|-----------|-------|--------|----------|---------|---------|---|----------------|
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | 71       | 16407     | 94.30 | 356.22 | 0.74     |         |         | 6 | Survey & Conn. |
|   |        |      | 16407    | 16462  | 55  | 60  | 135.0 | 40  | 38        | 705       | 4650     | 3925      |           |          | 16462     | 94.34 | 356.33 | 1.77     |         |         | 0 | Drilling       |
| 7 | 11-Dec | 0.17 | 16462    | 16476  | 14  | 60  | 84.0  | 40  | 38        | 705       | 4650     | 3925      | 725       |          | 16476     | 94.38 | 356.46 | 1.77     | 0.00    | 0.00    | 0 | Drilling       |
| 7 | 11-Dec | 0.67 | 16476    | 16493  | 17  | 60  | 25.5  | 0   | 0         | 682       | 3950     | 3725      | 225       | 120      | 16493     | 94.83 | 357.81 | 1.77     | 0.00    | 0.00    | 0 | Sliding        |
| 7 | 11-Dec | 0.67 | 16493    | 16496  | 3   | 60  | 87.0  | 40  | 0         | 682       | 4550     | 3725      | 825       |          | 16496     | 94.80 | 357.72 | 1.77     | 0.00    | 0.00    | 5 | Drilling       |
|   |        |      |          |        | 89  |     |       |     |           |           |          |           |           | 173      | 16496     | 94.80 | 357.72 | 1.77     |         |         | 6 | Survey & Conn. |
|   |        |      | 16496    | 16551  | 55  | 60  | 87.0  | 40  | 0         | 682       | 4550     | 3725      |           |          | 16551     | 94.66 | 357.74 | 1.90     |         |         | 0 | Drilling       |
| 7 | 12-Dec | 0.33 | 16551    | 16565  | 14  | 60  | 42.0  | 40  | 0         | 682       | 4550     | 3725      | 825       |          | 16565     | 94.49 | 357.76 | 1.90     | 0.00    | 0.00    | 0 | Drilling       |
| 7 | 12-Dec | 0.83 | 16565    | 16586  | 21  | 60  | 26.4  | 0   | 0         | 682       | 4550     | 3725      | 825       | LS       | 16586     | 92.96 | 357.94 | 1.90     | 0.00    | 0.00    | 5 | Sliding        |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | 135      | 16586     | 93.10 | 357.92 | 1.90     |         |         | 6 | Survey & Conn. |
|   |        |      | 16586    | 16587  | 1   | 60  | 26.4  | 0   | 0         | 682       | 4550     | 3725      |           | LS       | 16587     | 93.02 | 358.00 | 2.36     |         |         | 0 | Sliding        |
| 7 | 12-Dec | 0.42 | 16587    | 16641  | 54  | 60  | 129.6 | 40  | 38        | 682       | 4680     | 3800      | 880       |          | 16641     | 92.91 | 358.11 | 2.36     | 0.00    | 0.00    | 0 | Drilling       |
| 7 | 12-Dec | 0.08 | 16641    | 16655  | 14  | 60  | 168.0 | 40  | 38        | 725       | 4975     | 4150      | 825       |          | 16655     | 92.80 | 358.22 | 2.36     | 0.00    | 0.00    | 0 | Drilling       |
| 7 | 12-Dec | 0.67 | 16655    | 16671  | 16  | 60  | 24.0  | 0   | 0         | 725       | 4975     | 4150      | 825       | LS       | 16671     | 91.45 | 359.57 | 2.36     | 0.00    | 0.00    | 0 | Sliding        |
| 7 | 12-Dec | 0.42 | 16671    | 16676  | 5   | 60  | 144.0 | 40  | 38        | 725       | 4975     | 4150      | 825       |          | 16676     | 91.30 | 359.72 | 2.36     | 0.00    | 0.00    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -74      | 16676     | 91.60 | 359.42 | 2.36     |         |         | 6 | Survey & Conn. |
|   |        |      | 16676    | 16731  | 55  | 60  | 144.0 | 40  | 38        | 725       | 4975     | 4150      |           |          | 16731     | 91.61 | 359.38 | 0.81     |         | 0.81    | 4 | Drilling       |
| 7 | 12-Dec | 0.08 | 16731    | 16744  | 13  | 60  | 156.0 | 40  | 38        | 725       | 4975     | 4150      | 825       |          | 16744     | 91.62 | 359.35 | 0.81     | 0.00    | 0.81    | 4 | Drilling       |
| 7 | 12-Dec | 0.58 | 16744    | 16766  | 22  | 60  | 132.0 | 40  | 38        | 725       | 4975     | 4150      | 825       |          | 16766     | 91.64 | 359.28 | 0.81     | 0.00    | 0.81    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           |          | 16766     | 91.80 | 358.72 | 0.81     |         |         | 6 | Survey & Conn. |
|   |        |      | 16766    | 16821  | 55  | 60  | 132.0 | 40  | 38        | 725       | 4975     | 4150      |           |          | 16821     | 91.85 | 358.72 | 0.90     |         | 0.90    | 4 | Drilling       |
| 7 | 12-Dec | 0.67 | 16821    | 16855  | 34  | 60  | 133.5 | 40  | 38        | 725       | 4975     | 4150      | 825       |          | 16855     | 91.93 | 358.72 | 0.90     | 0.00    | 0.90    | 5 | Drilling       |
|   |        |      |          |        | 89  |     |       |     |           |           |          |           |           | -172     | 16855     | 92.60 | 358.72 | 0.90     |         |         | 6 | Survey & Conn. |
|   |        |      | 16855    | 16910  | 55  | 60  | 133.5 | 40  | 38        | 725       | 4975     | 4150      |           |          | 16910     | 92.56 | 358.71 | 0.79     |         | 0.79    | 4 | Drilling       |
| 7 | 12-Dec | 0.75 | 16910    | 16945  | 35  | 60  | 120.0 | 40  | 38        | 725       | 4975     | 4150      | 825       |          | 16945     | 91.90 | 358.62 | 0.79     | 0.00    | 0.79    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -177     | 16945     | 91.90 | 358.62 | 0.79     |         |         | 6 | Survey & Conn. |
|   |        |      | 16945    | 17000  | 55  | 60  | 120.0 | 40  | 38        | 725       | 4975     | 4150      |           |          | 17000     | 91.79 | 358.61 | 2.00     |         | 2.00    | 4 | Drilling       |
| 7 | 12-Dec | 0.67 | 17000    | 17035  | 35  | 60  | 135.0 | 40  | 38        | 725       | 4975     | 4150      | 825       |          | 17035     | 90.10 | 358.52 | 2.00     | 0.00    | 2.00    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | 4        | 17035     | 90.10 | 358.52 | 2.00     |         |         | 6 | Survey & Conn. |
|   |        |      | 17035    | 17090  | 55  | 60  | 135.0 | 40  | 38        | 725       | 4975     | 4150      |           |          | 17090     | 90.46 | 358.54 | 5.12     |         |         | 0 | Drilling       |
| 7 | 12-Dec | 0.17 | 17090    | 17100  | 10  | 58  | 60.0  | 40  | 38        | 725       | 4975     | 4150      | 825       |          | 17100     | 90.77 | 358.56 | 5.12     | 0.00    | 0.00    | 0 | Drilling       |
| 7 | 12-Dec | 0.58 | 17100    | 17120  | 20  | 60  | 34.3  | 40  | 38        | 725       | 4975     | 4150      | 825       | 360      | 17120     | 94.91 | 358.83 | 5.12     | 0.00    | 0.00    | 0 | Sliding        |
| 7 | 12-Dec | 0.67 | 17120    | 17125  | 5   | 58  | 90.0  | 40  | 38        | 725       | 4975     | 4150      | 825       |          | 17125     | 94.70 | 358.82 | 5.12     | 0.00    | 0.00    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | 176      | 17125     | 94.70 | 358.82 | 5.12     |         |         | 6 | Survey & Conn. |



# Slide Report for BHA # 7 with Surveys included

Note: Sliding and Drilling Surveys are LOGICAL expectations.

| # | Date   | Hrs  | Start MD | End MD | DMD | WOB | ROP   | RPM | Surf Torq | Flow Rate | SPP On B | SPP Off B | Delta SPP | TFO cTFO | Survey MD | INC   | AZM    | Surv DLS | Mot DLS | Rot DLS | Q | Drill Mode     |
|---|--------|------|----------|--------|-----|-----|-------|-----|-----------|-----------|----------|-----------|-----------|----------|-----------|-------|--------|----------|---------|---------|---|----------------|
|   |        |      | 17125    | 17180  | 55  | 58  | 90.0  | 40  | 38        | 725       | 4975     | 4150      |           |          | 17180     | 94.57 | 358.83 | 1.69     |         |         | 0 | Drilling       |
| 7 | 12-Dec | 0.25 | 17180    | 17190  | 10  | 58  | 40.0  | 40  | 38        | 725       | 4975     | 4150      | 825       |          | 17190     | 94.42 | 358.84 | 1.69     | 0.00    | 0.00    | 0 | Drilling       |
| 7 | 12-Dec | 2.67 | 17190    | 17214  | 24  | 60  | 16.9  | 40  | 38        | 725       | 4975     | 4150      | 825       | 160R     | 17214     | 93.20 | 358.92 | 1.69     | 0.00    | 0.00    | 5 | Sliding        |
|   |        |      |          |        | 89  |     |       |     |           |           |          |           |           | 117      | 17214     | 93.20 | 358.92 | 1.69     |         |         | 6 | Survey & Conn. |
|   |        |      | 17214    | 17235  | 21  | 60  | 16.9  | 40  | 38        | 725       | 4975     | 4150      |           | 160R     | 17235     | 92.66 | 36.00  | 1.49     |         |         | 0 | Sliding        |
| 7 | 12-Dec | 0.33 | 17235    | 17269  | 34  | 58  | 102.0 | 40  | 38        | 725       | 4975     | 4150      | 825       |          | 17269     | 92.63 | 18.32  | 1.49     | 0.00    | 0.00    | 0 | Drilling       |
| 7 | 12-Dec | 0.25 | 17269    | 17290  | 21  | 58  | 84.0  | 40  | 38        | 725       | 4975     | 4150      | 825       |          | 17290     | 92.59 | 356.79 | 1.49     | 0.00    | 0.00    | 0 | Drilling       |
| 7 | 12-Dec | 0.58 | 17290    | 17304  | 14  | 58  | 118.3 | 40  | 38        | 725       | 4975     | 4150      | 825       |          | 17304     | 92.60 | 0.12   | 1.49     | 0.00    | 0.00    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | 169      | 17304     | 92.60 | 0.12   | 1.49     |         |         | 6 | Survey & Conn. |
|   |        |      | 17304    | 17359  | 55  | 58  | 118.3 | 40  | 38        | 725       | 4975     | 4150      |           |          | 17359     | 92.25 | 0.19   | 3.97     |         |         | 0 | Drilling       |
| 7 | 12-Dec | 1.25 | 17359    | 17394  | 35  | 60  | 28.8  | 40  | 38        | 725       | 4975     | 4150      | 825       | 180      | 17394     | 89.10 | 0.82   | 3.97     | 0.00    | 0.00    | 5 | Sliding        |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | 151      | 17394     | 89.10 | 0.82   | 3.97     |         |         | 6 | Survey & Conn. |
|   |        |      | 17394    | 17395  | 1   | 60  | 28.8  | 40  | 38        | 725       | 4975     | 4150      |           | 180      | 17395     | 87.12 | 1.90   | 2.82     |         |         | 0 | Sliding        |
| 7 | 12-Dec | 0.50 | 17395    | 17449  | 54  | 58  | 108.0 | 40  | 38        | 725       | 4975     | 4150      | 825       |          | 17449     | 86.98 | 1.97   | 2.82     | 0.00    | 0.00    | 0 | Drilling       |
| 7 | 12-Dec | 0.75 | 17449    | 17483  | 34  | 58  | 118.7 | 40  | 38        | 725       | 4975     | 4150      | 825       |          | 17483     | 86.90 | 2.02   | 2.82     | 0.00    | 0.00    | 5 | Drilling       |
|   |        |      |          |        | 89  |     |       |     |           |           |          |           |           | -28      | 17483     | 86.90 | 2.02   | 2.82     |         |         | 6 | Survey & Conn. |
|   |        |      | 17483    | 17538  | 55  | 58  | 118.7 | 40  | 38        | 725       | 4975     | 4150      |           |          | 17538     | 87.06 | 1.94   | 2.63     |         |         | 0 | Drilling       |
| 7 | 12-Dec | 0.17 | 17538    | 17550  | 12  | 70  | 72.0  | 40  | 38        | 725       | 4975     | 4150      | 825       |          | 17550     | 87.21 | 1.86   | 2.63     | 0.00    | 0.00    | 0 | Drilling       |
| 7 | 12-Dec | 1.00 | 17550    | 17568  | 18  | 75  | 18.0  | 0   | 0         | 725       | 4975     | 4300      | 675       | HS       | 17568     | 89.10 | 0.87   | 2.63     | 0.00    | 0.00    | 0 | Sliding        |
| 7 | 12-Dec | 0.67 | 17568    | 17573  | 5   | 55  | 90.0  | 40  | 38        | 725       | 4975     | 4300      | 675       |          | 17573     | 89.31 | 0.76   | 2.63     | 0.00    | 0.00    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -146     | 17573     | 89.00 | 0.92   | 2.63     |         |         | 6 | Survey & Conn. |
|   |        |      | 17573    | 17628  | 55  | 55  | 90.0  | 40  | 38        | 725       | 4975     | 4300      |           |          | 17628     | 88.96 | 0.90   | 0.80     |         | 0.80    | 4 | Drilling       |
| 7 | 12-Dec | 0.17 | 17628    | 17646  | 18  | 55  | 108.0 | 40  | 38        | 725       | 4975     | 4300      | 675       |          | 17646     | 88.93 | 0.87   | 0.80     | 0.00    | 0.80    | 4 | Drilling       |
| 7 | 12-Dec | 0.83 | 17646    | 17663  | 17  | 70  | 86.4  | 40  | 38        | 725       | 4975     | 4300      | 675       |          | 17663     | 88.87 | 0.83   | 0.80     | 0.00    | 0.80    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -149     | 17663     | 88.40 | 0.52   | 0.80     |         |         | 6 | Survey & Conn. |
|   |        |      | 17663    | 17718  | 55  | 70  | 86.4  | 40  | 38        | 725       | 4975     | 4300      |           |          | 17718     | 88.34 | 22.48  | 1.30     |         | 1.30    | 4 | Drilling       |
| 7 | 12-Dec | 0.83 | 17718    | 17753  | 35  | 70  | 108.0 | 40  | 38        | 725       | 4975     | 4300      | 675       |          | 17753     | 88.24 | 58.42  | 1.30     | 0.00    | 1.30    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -12      | 17753     | 87.40 | 359.92 | 1.30     |         |         | 6 | Survey & Conn. |
|   |        |      | 17753    | 17808  | 55  | 70  | 108.0 | 40  | 38        | 725       | 4975     | 4300      |           |          | 17808     | 87.63 | 359.87 | 3.33     |         |         | 0 | Drilling       |
| 7 | 12-Dec | 0.08 | 17808    | 17821  | 13  | 70  | 156.0 | 40  | 38        | 725       | 4975     | 4300      | 675       |          | 17821     | 87.88 | 359.82 | 3.33     | 0.00    | 0.00    | 0 | Drilling       |
| 7 | 12-Dec | 0.83 | 17821    | 17840  | 19  | 75  | 22.8  | 0   | 0         | 725       | 4975     | 4300      | 675       | 10       | 17840     | 90.49 | 359.28 | 3.33     | 0.00    | 0.00    | 0 | Sliding        |
| 7 | 12-Dec | 0.50 | 17840    | 17842  | 2   | 70  | 90.0  | 40  | 0         | 725       | 4975     | 4300      | 675       |          | 17842     | 90.30 | 359.32 | 3.33     | 0.00    | 0.00    | 5 | Drilling       |
|   |        |      |          |        | 89  |     |       |     |           |           |          |           |           | -13      | 17842     | 90.30 | 359.32 | 3.33     |         |         | 6 | Survey & Conn. |
|   |        |      | 17842    | 17885  | 43  | 70  | 90.0  | 40  | 0         | 725       | 4975     | 4300      |           |          | 17885     | 90.41 | 359.30 | 2.51     |         | 2.51    | 4 | Drilling       |

# Slide Report for BHA # 7 with Surveys included

Note: Sliding and Drilling Surveys are LOGICAL expectations.

| # | Date   | Hrs  | Start MD | End MD | DMD | WOB | ROP   | RPM | Surf Torq | Flow Rate | SPP On B | SPP Off B | Delta SPP | TFO cTFO | Survey MD | INC   | AZM    | Surv DLS | Mot DLS | Rot DLS | Q | Drill Mode     |
|---|--------|------|----------|--------|-----|-----|-------|-----|-----------|-----------|----------|-----------|-----------|----------|-----------|-------|--------|----------|---------|---------|---|----------------|
| 7 | 13-Dec | 0.08 | 17885    | 17897  | 12  | 65  | 144.0 | 40  | 40        | 725       | 4975     | 4300      | 675       |          | 17897     | 90.46 | 359.28 | 2.51     | 0.00    | 2.51    | 4 | Drilling       |
| 7 | 13-Dec | 0.25 | 17897    | 17911  | 14  | 65  | 56.0  | 40  | 40        | 725       | 4975     | 4300      | 675       |          | 17911     | 90.55 | 359.26 | 2.51     | 0.00    | 2.51    | 4 | Drilling       |
| 7 | 13-Dec | 1.08 | 17911    | 17932  | 21  | 65  | 70.2  | 40  | 40        | 725       | 4975     | 4300      | 675       |          | 17932     | 90.77 | 359.21 | 2.51     | 0.00    | 2.51    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -106     | 17932     | 92.50 | 358.82 | 2.51     |         |         | 6 | Survey & Conn. |
|   |        |      | 17932    | 17987  | 55  | 65  | 70.2  | 40  | 40        | 725       | 4975     | 4300      |           |          | 17987     | 92.49 | 358.78 | 0.81     |         | 0.81    | 4 | Drilling       |
| 7 | 13-Dec | 1.00 | 17987    | 18022  | 35  | 65  | 90.0  | 30  | 40        | 725       | 4975     | 4300      | 675       |          | 18022     | 92.30 | 358.12 | 0.81     | 0.00    | 0.81    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -85      | 18022     | 92.30 | 358.12 | 0.81     |         |         | 6 | Survey & Conn. |
|   |        |      | 18022    | 18077  | 55  | 65  | 90.0  | 30  | 40        | 725       | 4975     | 4300      |           |          | 18077     | 92.31 | 358.05 | 1.35     |         | 1.35    | 4 | Drilling       |
| 7 | 13-Dec | 1.00 | 18077    | 18111  | 34  | 65  | 89.0  | 30  | 40        | 725       | 4975     | 4300      | 675       |          | 18111     | 92.32 | 357.93 | 1.35     | 0.00    | 1.35    | 5 | Drilling       |
|   |        |      |          |        | 89  |     |       |     |           |           |          |           |           | -107     | 18111     | 92.40 | 356.92 | 1.35     |         |         | 6 | Survey & Conn. |
|   |        |      | 18111    | 18166  | 55  | 65  | 89.0  | 30  | 40        | 725       | 4975     | 4300      |           |          | 18166     | 92.38 | 356.86 | 1.16     |         | 1.16    | 4 | Drilling       |
| 7 | 13-Dec | 0.83 | 18166    | 18201  | 35  | 65  | 108.0 | 30  | 40        | 725       | 4975     | 4300      | 675       |          | 18201     | 92.10 | 355.92 | 1.16     | 0.00    | 1.16    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -169     | 18201     | 92.10 | 355.92 | 1.16     |         |         | 6 | Survey & Conn. |
|   |        |      | 18201    | 18256  | 55  | 65  | 108.0 | 30  | 40        | 725       | 4975     | 4300      |           |          | 18256     | 92.07 | 355.91 | 0.57     |         | 0.57    | 4 | Drilling       |
| 7 | 13-Dec | 2.08 | 18256    | 18290  | 34  | 65  | 42.7  | 30  | 40        | 725       | 4975     | 4300      | 675       |          | 18290     | 91.60 | 355.82 | 0.57     | 0.00    | 0.57    | 5 | Drilling       |
|   |        |      |          |        | 89  |     |       |     |           |           |          |           |           | -38      | 18290     | 91.60 | 355.82 | 0.57     |         |         | 6 | Survey & Conn. |
|   |        |      | 18290    | 18345  | 55  | 65  | 42.7  | 30  | 40        | 725       | 4975     | 4300      |           |          | 18345     | 91.69 | 355.75 | 1.27     |         | 1.27    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | -58      | 18380     | 92.50 | 355.12 | 1.27     |         |         | 5 | Survey         |
| 7 | 13-Dec | 1.25 | 18345    | 18470  | 125 | 65  | 144.0 | 30  | 40        | 725       | 4975     | 4300      | 675       |          | 18470     | 93.00 | 354.32 | 1.05     | 0.00    | 1.05    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | 90       | 18470     | 93.00 | 354.32 | 1.05     |         |         | 6 | Survey & Conn. |
|   |        |      | 18470    | 18525  | 55  | 65  | 144.0 | 30  | 40        | 725       | 4975     | 4300      |           |          | 18525     | 93.00 | 354.42 | 1.44     |         |         | 0 | Drilling       |
| 7 | 13-Dec | 0.33 | 18525    | 18534  | 9   | 65  | 27.0  | 30  | 40        | 725       | 4975     | 4300      | 675       |          | 18534     | 93.00 | 354.49 | 1.44     | 0.00    | 0.00    | 0 | Drilling       |
| 7 | 13-Dec | 0.75 | 18534    | 18552  | 18  | 75  | 24.0  | 30  | 40        | 725       | 4975     | 4300      | 675       | 90R      | 18552     | 93.00 | 355.66 | 1.44     | 0.00    | 0.00    | 0 | Sliding        |
| 7 | 13-Dec | 1.00 | 18552    | 18560  | 8   | 65  | 63.0  | 30  | 40        | 725       | 4975     | 4300      | 675       |          | 18560     | 93.00 | 355.62 | 1.44     | 0.00    | 0.00    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | 177      | 18560     | 93.00 | 355.62 | 1.44     |         |         | 6 | Survey & Conn. |
|   |        |      | 18560    | 18615  | 55  | 65  | 63.0  | 30  | 40        | 725       | 4975     | 4300      |           |          | 18615     | 92.85 | 355.63 | 2.00     |         |         | 0 | Drilling       |
| 7 | 13-Dec | 0.17 | 18615    | 18620  | 5   | 65  | 30.0  | 30  | 40        | 725       | 4975     | 4300      | 675       |          | 18620     | 92.79 | 355.63 | 2.00     | 0.00    | 0.00    | 0 | Drilling       |
| 7 | 13-Dec | 0.83 | 18620    | 18642  | 22  | 75  | 26.4  | 30  | 40        | 725       | 4975     | 4300      | 675       | 120R     | 18642     | 91.17 | 355.72 | 2.00     | 0.00    | 0.00    | 0 | Sliding        |
| 7 | 13-Dec | 1.08 | 18642    | 18650  | 8   | 65  | 58.2  | 30  | 40        | 725       | 4975     | 4300      | 675       |          | 18650     | 91.20 | 355.72 | 2.00     | 0.00    | 0.00    | 5 | Drilling       |
|   |        |      |          |        | 90  |     |       |     |           |           |          |           |           | 101      | 18650     | 91.20 | 355.72 | 2.00     |         |         | 6 | Survey & Conn. |
|   |        |      | 18650    | 18705  | 55  | 65  | 58.2  | 30  | 40        | 725       | 4975     | 4300      |           |          | 18705     | 91.17 | 355.86 | 1.72     |         |         | 0 | Drilling       |
| 7 | 13-Dec | 1.75 | 18705    | 18737  | 32  | 75  | 18.3  | 30  | 40        | 725       | 4975     | 4300      | 675       | 90R      | 18737     | 90.90 | 357.21 | 1.72     | 0.00    | 0.00    | 0 | Sliding        |
| 7 | 13-Dec | 0.83 | 18737    | 18739  | 2   | 70  | 68.4  | 40  | 42        | 725       | 4975     | 4300      | 675       |          | 18739     | 90.90 | 357.22 | 1.72     | 0.00    | 0.00    | 5 | Drilling       |
|   |        |      |          |        | 89  |     |       |     |           |           |          |           |           | -34      | 18739     | 90.90 | 357.22 | 1.72     |         |         | 6 | Survey & Conn. |

# Slide Report for BHA # 7 with Surveys included

Note: Sliding and Drilling Surveys are LOGICAL expectations.

| # | Date   | Hrs  | Start MD | End MD | DMD | WOB | ROP  | RPM | Surf Torq | Flow Rate | SPP On B | SPP Off B | Delta SPP | TFO cTFO | Survey MD | INC   | AZM    | Surv DLS | Mot DLS | Rot DLS | Q | Drill Mode     |
|---|--------|------|----------|--------|-----|-----|------|-----|-----------|-----------|----------|-----------|-----------|----------|-----------|-------|--------|----------|---------|---------|---|----------------|
|   |        |      | 18739    | 18794  | 55  | 70  | 68.4 | 40  | 42        | 725       | 4975     | 4300      |           |          | 18794     | 90.93 | 357.20 | 0.40     |         |         | 0 | Drilling       |
| 7 | 13-Dec | 0.33 | 18794    | 18799  | 5   | 75  | 15.0 | 0   | 0         | 725       | 4975     | 4300      | 675       | 90R      | 18799     | 90.98 | 357.17 | 0.40     | 0.00    | 0.00    | 0 | Sliding        |
| 7 | 13-Dec | 1.25 | 18799    | 18820  | 21  | 75  | 16.8 | 0   | 0         | 725       | 4975     | 4300      | 675       | 70       | 18820     | 91.25 | 356.99 | 0.40     | 0.00    | 0.00    | 5 | Sliding        |
|   |        |      |          |        | 90  |     |      |     |           |           |          |           |           | -72      | 18829     | 91.20 | 357.02 | 0.40     |         |         | 5 | Survey         |
| 7 | 13-Dec | 1.17 | 18820    | 18851  | 31  | 70  | 54.9 | 40  | 42        | 725       | 4975     | 4300      | 675       |          | 18851     | 91.30 | 356.72 | 1.44     | 0.00    | 1.44    | 5 | Drilling       |
|   |        |      |          |        | 22  |     |      |     |           |           |          |           |           |          | 18851     | 91.30 | 356.72 | 1.44     |         |         | 6 | Survey & Conn. |
|   |        |      | 18851    | 18884  | 33  | 70  | 54.9 | 40  | 42        | 725       | 4975     | 4300      |           |          | 18884     | 91.30 | 356.72 | 0.00     |         | 0.00    | 4 | Drilling       |
| 7 | 13-Dec | 0.33 | 18884    | 18906  | 22  | 70  | 66.0 | 40  | 42        | 725       | 4975     | 4300      | 675       |          | 18906     | 91.30 | 356.72 | 0.00     | 0.00    | 0.00    | 5 | Drilling       |
|   |        |      |          |        | 55  |     |      |     |           |           |          |           |           | -98      | 18906     | 91.30 | 356.72 | 0.00     |         |         | 6 | Survey & Conn. |

Total Drilled: 3860 Avg. Total ROP: 74.83

DEPTH% - TIME %

Total Rotary Drilled: 3378 Avg. Rotary ROP: 101.34 Percent Rotary: 87.51 - 64.62

Total Drilled Sliding: 482 Avg. Slide ROP: 26.41 Percent Slide: 12.49 - 35.38



# Final Logs





1:1200

**LWD****MD Log***Directional  
Gamma  
Resistivity*

Country : **USA**  
Field : **Delaware Basin**  
Location : **32°27'29.104 N**  
: **103°35'20.061 W**  
Well : **Wool Head 20 State Com**  
Company : **AEP**  
Rig : **H&P 466**

**LOCATION**

Company : **AEP**  
Rig : **H&P 466**  
Well : **Wool Head 20 State Com #554H**  
Field : **Delaware Basin**  
Country : **USA**  
Well ID : **30-025-46483**

Latitude : **32°27'29.104 N**  
Longitude : **103°35'20.061 W**  
**Eunice**

Other Services:

Permanent Datum : **MSL** Elevation: **3727**  
Log Measured From : **Drill Floor**

Elev. KB : **N/A**  
DF : **3752**  
GLWD : **3727**

Depth Logged : **10730** to : **18906**  
Date Logged : **12/4/19** to : **12/14/19**  
Total Depth MD : **8176.00** TVD : **-999.25**  
Spud Date : **11/12/19**

**FINAL PRINT**

Job Number:  
**WOOL HEAD 20 STATE COM 20**

| Run    |  | Borehole Record (MD)<br>Size From To |              | Run |  | Borehole Record (MD)<br>Size From To      |  |
|--------|--|--------------------------------------|--------------|-----|--|-------------------------------------------|--|
| 1<br>4 |  | 0                                    | 1838<br>5257 |     |  | Casing Record (MD)<br>Size Weight From To |  |
|        |  |                                      |              |     |  |                                           |  |
|        |  |                                      |              |     |  | 13 3/8<br>9 5/8                           |  |

**DISCLAIMER****LOGGING SUMMARY**

| Log Run        | WPR RUN #1 | WPR RUN #2 | WPR RUN #3 |  |  |
|----------------|------------|------------|------------|--|--|
| Bit Run        | RUN #5     | RUN #6     | Run #7     |  |  |
| Hole Size (in) | 8.50       | 8.50       | 8.50       |  |  |
| Sensor Suite   | WPR        | WPR        | WPR        |  |  |

**Measured Depth**

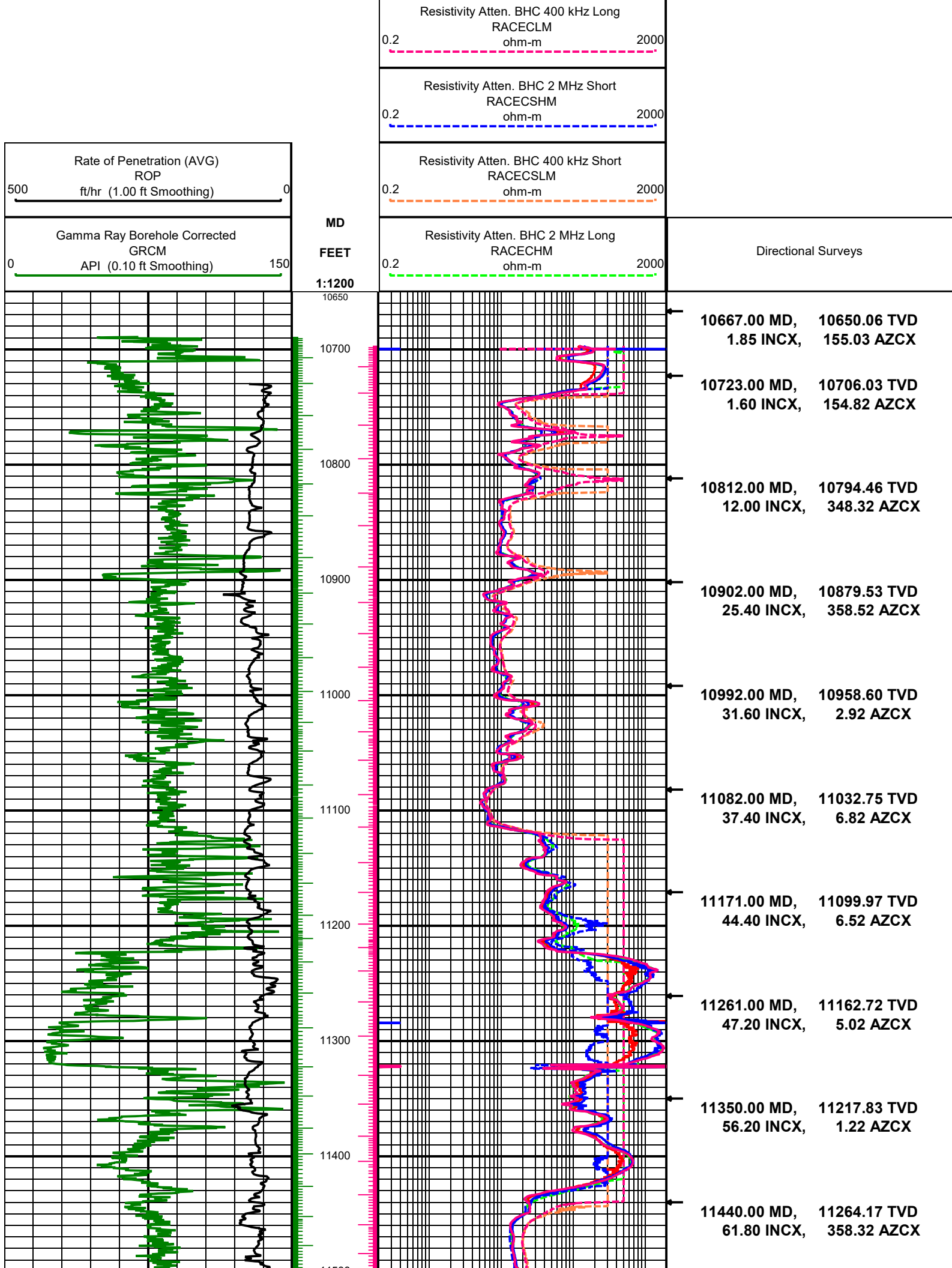
|              |          |          |          |  |  |
|--------------|----------|----------|----------|--|--|
| In Hole From | 10730    | 12115    | 15046    |  |  |
| In Hole To   | 12115    | 15045.99 | 18906    |  |  |
| Log From     | 10730.00 | 12115.00 | 15046.00 |  |  |
| Log To       | 12115.00 | 15045.99 | 18906.00 |  |  |

**Date/Time**

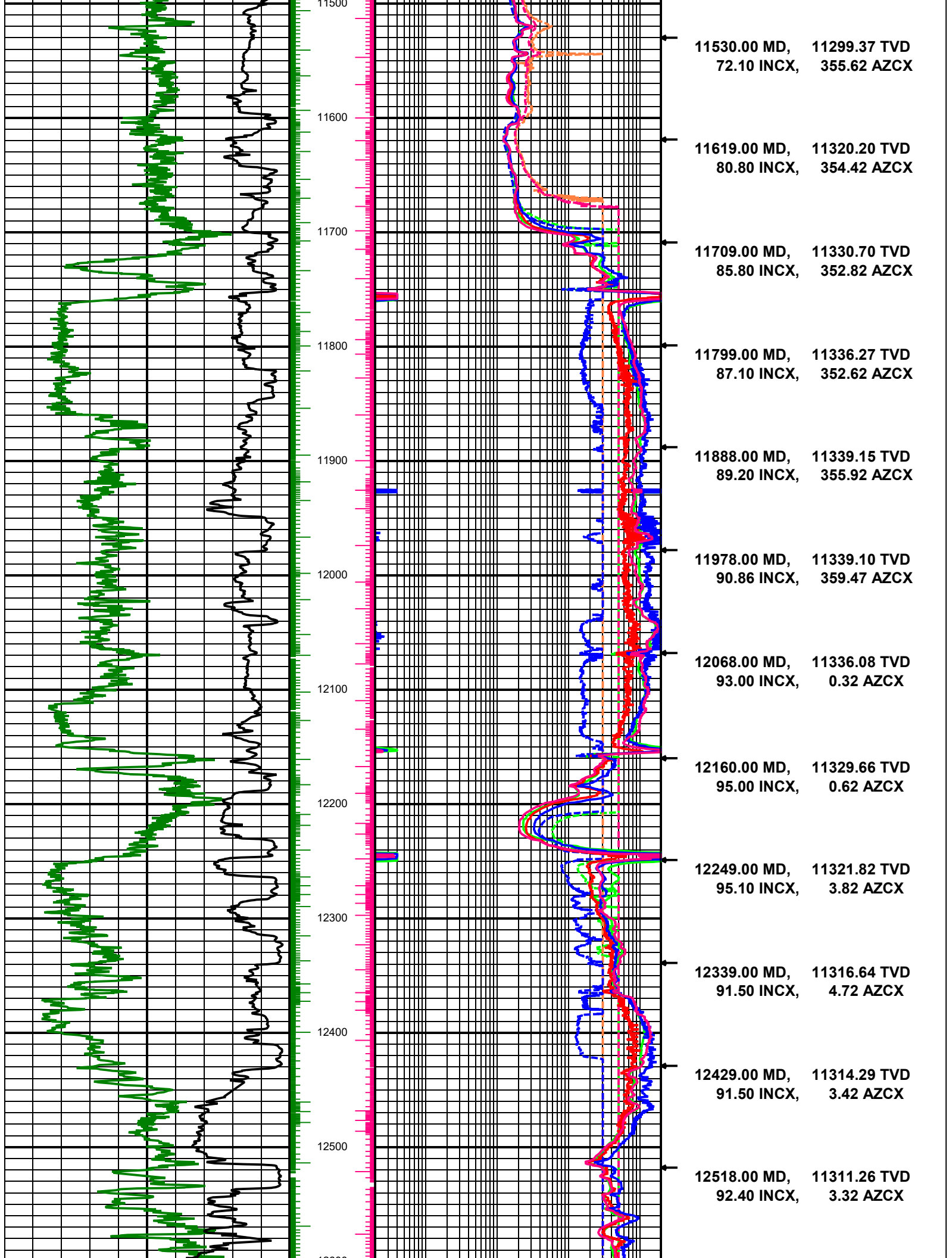
|                |            |            |            |  |  |
|----------------|------------|------------|------------|--|--|
| In Hole Date   | 2019-12-03 | 2019-12-06 | 2019-12-10 |  |  |
| In Hole Time   | 12:44:51   | 07:43:48   | 15:51:48   |  |  |
| Out Hole Date  | 2019-12-06 | 2019-12-10 | 2019-12-14 |  |  |
| Out Hole Time  | 07:43:47   | 15:51:47   | 09:30:00   |  |  |
| Begin Log Date | 2019-12-03 | 2019-12-06 | 2019-12-10 |  |  |
| Begin Log Time | 12:44:51   | 07:43:47   | 15:51:47   |  |  |
| End Log Date   | 2019-12-06 | 2019-12-13 | 2019-12-14 |  |  |
| End Log Time   | 13:28:55   | 21:33:26   | 09:30:00   |  |  |

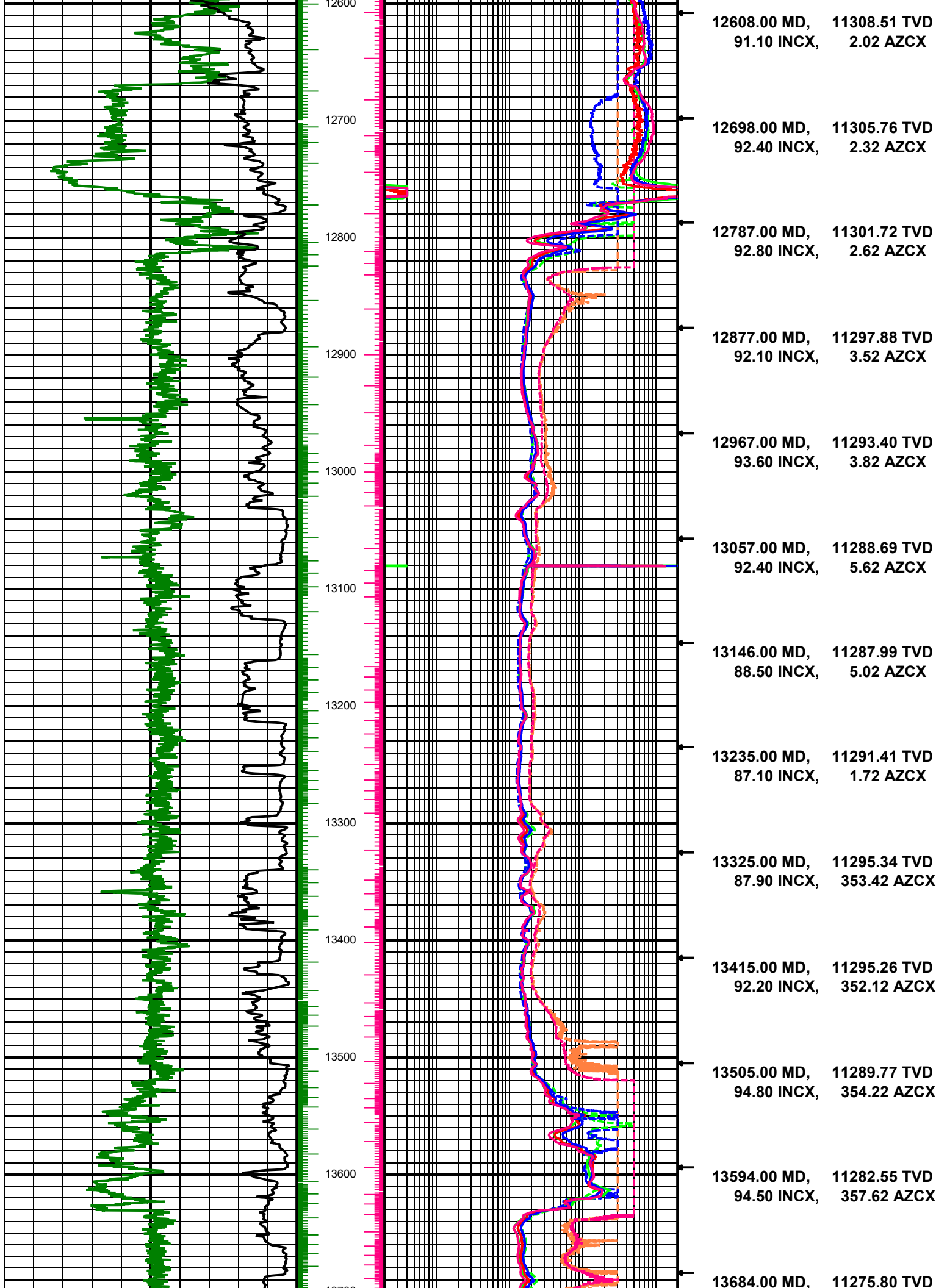
|                 |             |               |             |  |  |
|-----------------|-------------|---------------|-------------|--|--|
| LWD Engineer    | Ben Wallace | Joseph Hatley | Ben Wallace |  |  |
| Oil Company Rep | TJ Nash     | Frank Calhoun | TJ Nash     |  |  |

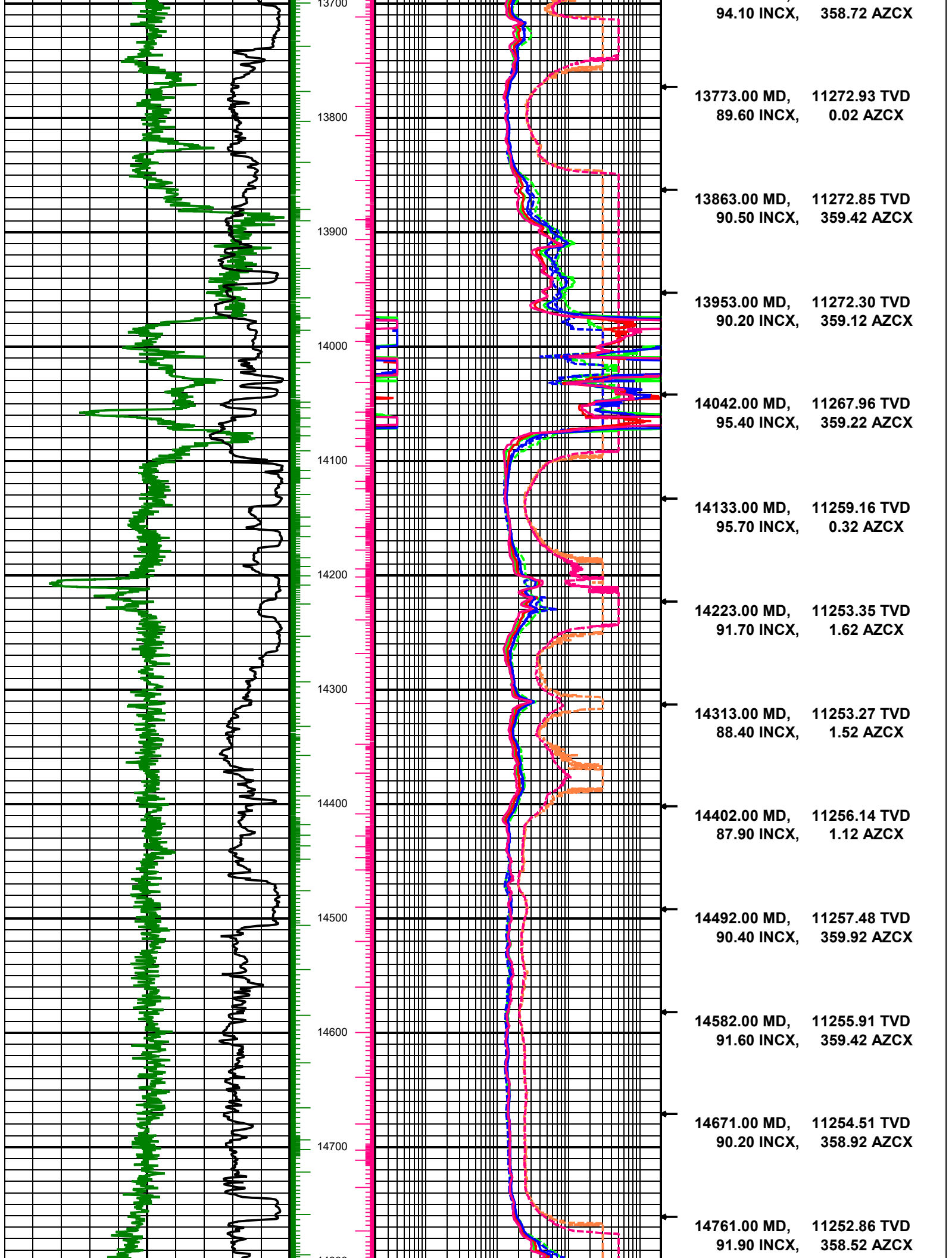
|                               |       |       |       |  |  |
|-------------------------------|-------|-------|-------|--|--|
|                               |       |       |       |  |  |
| <b>DRILLING FLUID SUMMARY</b> |       |       |       |  |  |
| <b>Mud Type</b>               | OBM   | OBM   | OBM   |  |  |
| <b>Density (lb/gal)</b>       | 9.30  | 9.50  | 9.40  |  |  |
| <b>Funnel Viscosity</b>       | 47    | 47    | 47    |  |  |
| <b>Plastic Viscosity</b>      | 14    | 14    | 14    |  |  |
| <b>Chlorides</b>              | 42000 | 43000 | 42000 |  |  |
| <b>Oil/Water Ratio</b>        | 73/27 | 73/27 | 73/27 |  |  |
| <b>Maximum Circ Temp (F)</b>  | 142   | 160   | 190   |  |  |

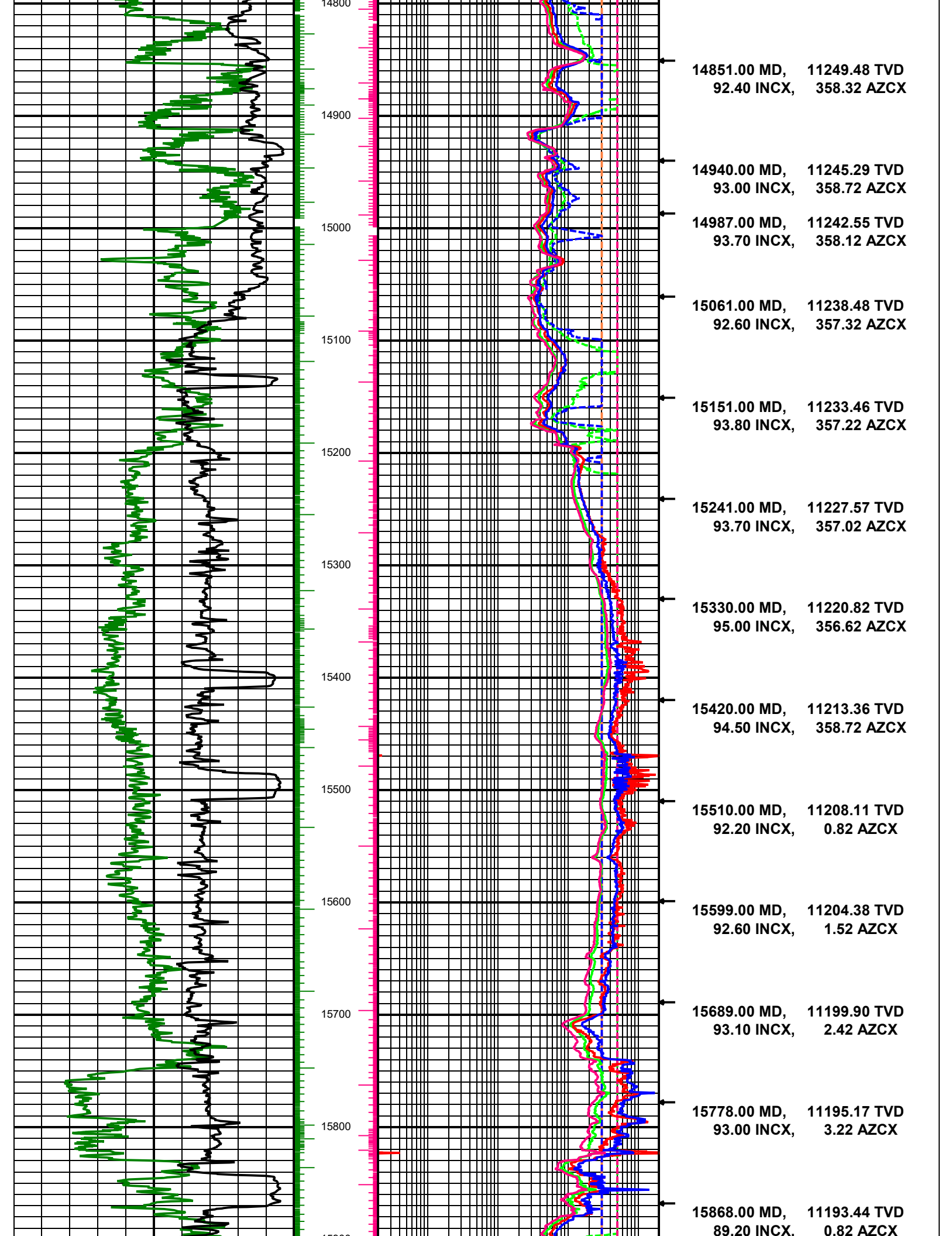


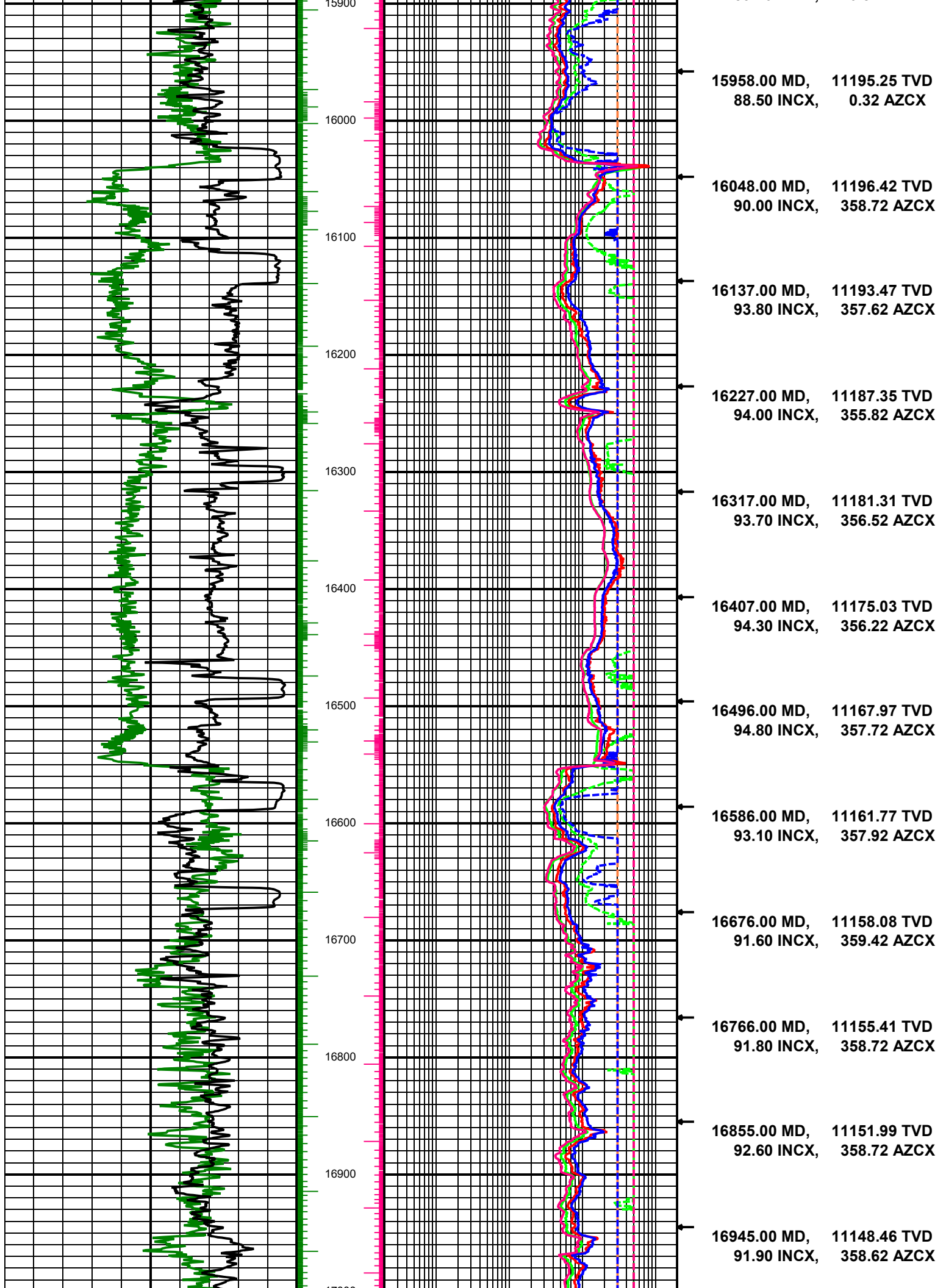


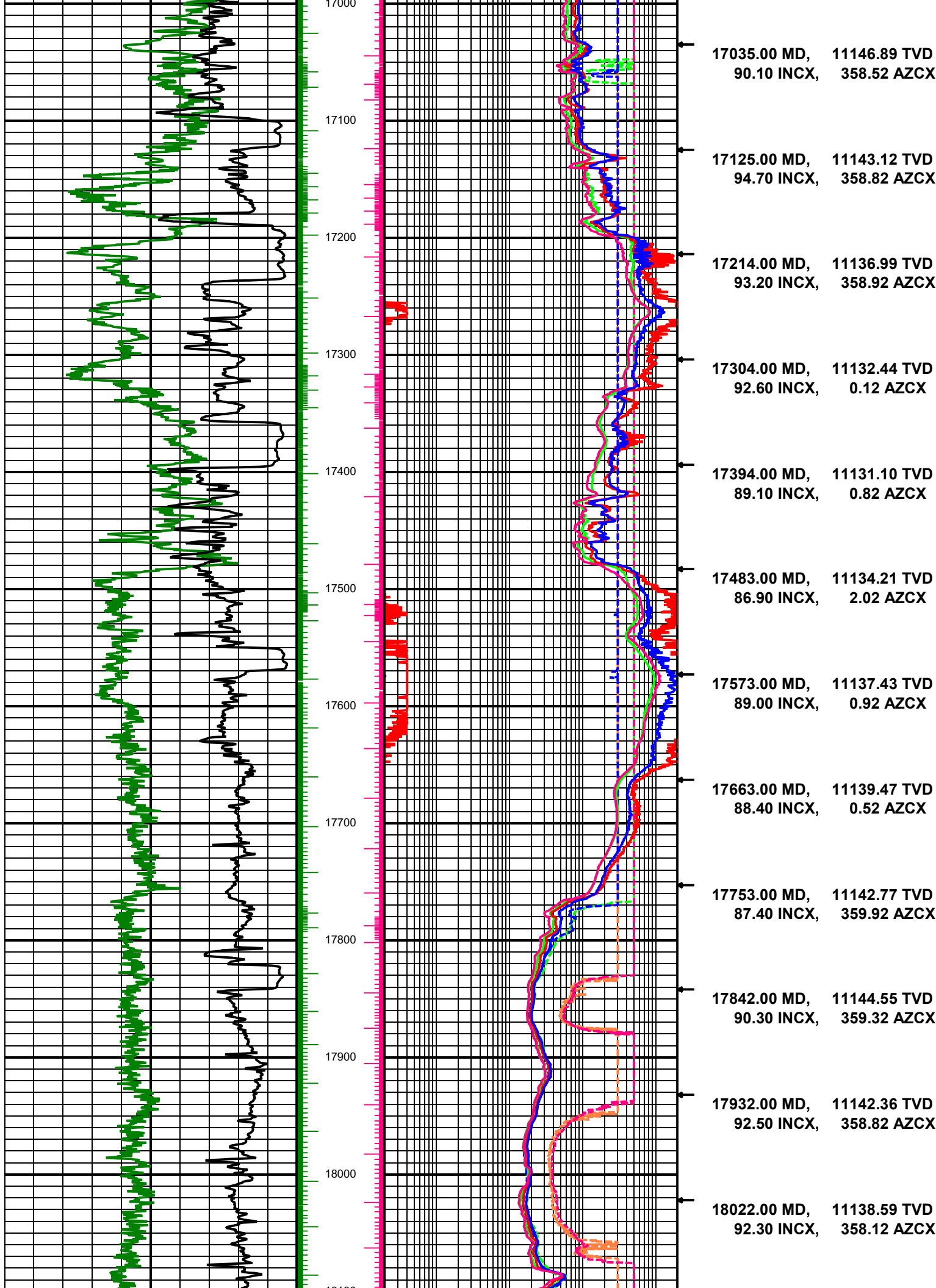


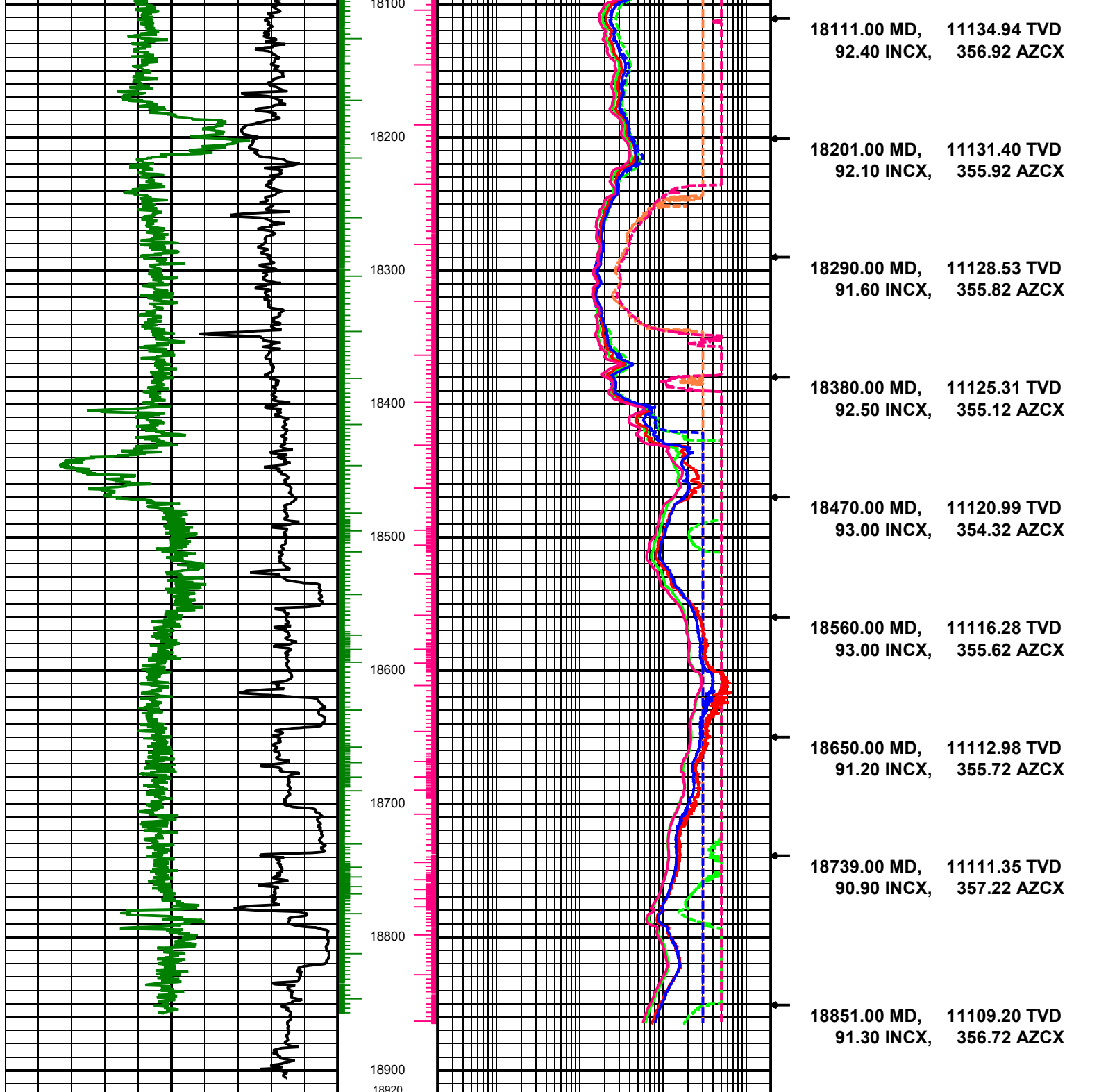






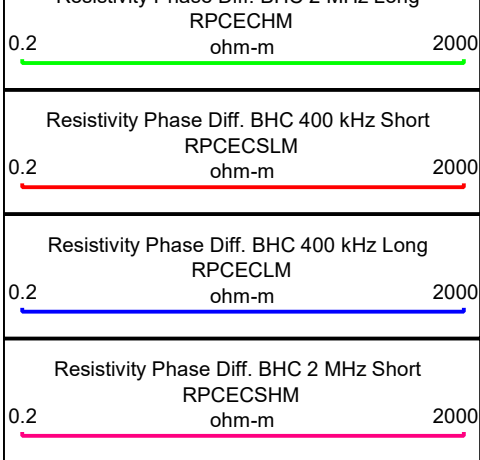






|                                                                                       |                               |                                                                                    |                            |
|---------------------------------------------------------------------------------------|-------------------------------|------------------------------------------------------------------------------------|----------------------------|
| <p>Gamma Ray Borehole Corrected<br/>GRCM<br/>API (0.10 ft Smoothing)</p> <p>0 150</p> | <p>1:1200<br/>FEET<br/>MD</p> | <p>Resistivity Atten. BHC 2 MHz Long<br/>RACECHM<br/>ohm-m</p> <p>0.2 2000</p>     | <p>Directional Surveys</p> |
| <p>Rate of Penetration (AVG)<br/>ROP<br/>ft/hr (1.00 ft Smoothing)</p> <p>500 0</p>   |                               | <p>Resistivity Atten. BHC 400 kHz Short<br/>RACECSLM<br/>ohm-m</p> <p>0.2 2000</p> |                            |
|                                                                                       |                               | <p>Resistivity Atten. BHC 2 MHz Short<br/>RACECSHM<br/>ohm-m</p> <p>0.2 2000</p>   |                            |
|                                                                                       |                               | <p>Resistivity Atten. BHC 400 kHz Long<br/>RACECLM<br/>ohm-m</p> <p>0.2 2000</p>   |                            |
|                                                                                       |                               | <p>Resistivity Phase Diff. BHC 2 MHz Long</p>                                      |                            |





### EQUIPMENT

|                       |                     |                     |                     |  |  |
|-----------------------|---------------------|---------------------|---------------------|--|--|
| Log Run               | WPR RUN #1          | WPR RUN #2          | WPR RUN #3          |  |  |
| Bit Run               | RUN #5              | RUN #6              | Run #7              |  |  |
| Start Date/Time       | 2019-12-03 12:44:51 | 2019-12-06 07:43:48 | 2019-12-10 15:51:48 |  |  |
| Start Depth (ft)      | 10730               | 12115               | 15046               |  |  |
| End Date/Time         | 2019-12-06 07:43:47 | 2019-12-10 15:51:47 | 2019-12-14 09:30:00 |  |  |
| End Depth (ft)        | 12115               | 15045.99            | 18906               |  |  |
| Serial Numbers        |                     |                     |                     |  |  |
| Surface Gear          | 1082                | 1082                | 1082                |  |  |
| Flow Sub              | 35467-2             | 15388-1             | 35467-2             |  |  |
| Pulser                | 2522                | 1720                | 1125                |  |  |
| Battery 1             | 1282/3695           | 4/3684              | 1282/3695           |  |  |
| Battery 2             | 3692/942            | 3419/877            | 3692/942            |  |  |
| Turbine Alternator    | N/A                 | N/A                 | N/A                 |  |  |
| Directional Sensor    | 640                 | 640                 | 1539                |  |  |
| Gamma Sensor          | 1049                | 1049                | 1042                |  |  |
| WPR Sensor            | 760                 | 760                 | 609                 |  |  |
| Vibration Sensor      | VMM sn: 640         | VMM sn: 640         | VMM sn: 1539        |  |  |
| Sensor Offsets To Bit |                     |                     |                     |  |  |
| Directional (ft)      | 45.36               | 59.28               | 53.36               |  |  |
| Gamma Ray (ft)        | 40.96               | 54.88               | 48.96               |  |  |
| WPR (ft)              | 33.21               | 47.13               | 41.21               |  |  |
| PWD (ft)              |                     |                     |                     |  |  |
| Vibration (ft)        | 45.36               | 59.28               | 53.36               |  |  |





1:1200

**LWD**

TVD Log

Directional  
Gamma  
ResistivityCountry : **USA**  
Field : **Delaware Basin**  
Location : **32°27'29.104 N**  
 : **103°35'20.061 W**  
Well : **Wool Head 20 State Com**  
Company : **AEP**  
Rig : **H&P 466****LOCATION**Company : **AEP**  
Rig : **H&P 466**  
Well : **Wool Head 20 State Com #554H**  
Field : **Delaware Basin**  
Country : **USA**  
Well ID : **30-025-46483**Latitude : **32°27'29.104 N**  
Longitude : **103°35'20.061 W**  
Eunice

Other Services:

Permanent Datum : **MSL** Elevation: **3727**  
Log Measured From : **Drill Floor**Elev. KB : **N/A**  
DF : **3752**  
GLWD : **3727**Depth Logged : **10730** to : **18906**  
Date Logged : **12/4/19** to : **12/14/19**  
Total Depth MD : **8176.00** TVD : **-999.25**  
Spud Date : **11/12/19****FINAL PRINT**Job Number:  
**WOOL HEAD 20 STATE COM 20**Run Borehole Record (MD)  
Size From To

1 4 0 1838 5257

Run Borehole Record (MD)  
Size From ToCasing Record (MD)  
Size Weight From To13 3/8  
9 5/8**DISCLAIMER****LOGGING SUMMARY**

| Log Run        | WPR RUN #1 | WPR RUN #2 | WPR RUN #3 |  |  |
|----------------|------------|------------|------------|--|--|
| Bit Run        | RUN #5     | RUN #6     | Run #7     |  |  |
| Hole Size (in) | 8.50       | 8.50       | 8.50       |  |  |
| Sensor Suite   | WPR        | WPR        | WPR        |  |  |

**Measured Depth**

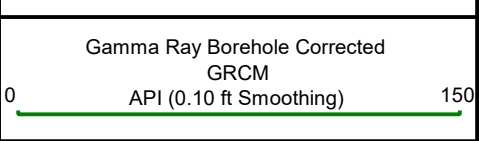
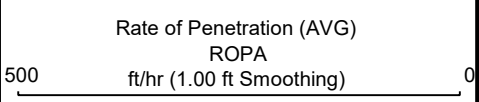
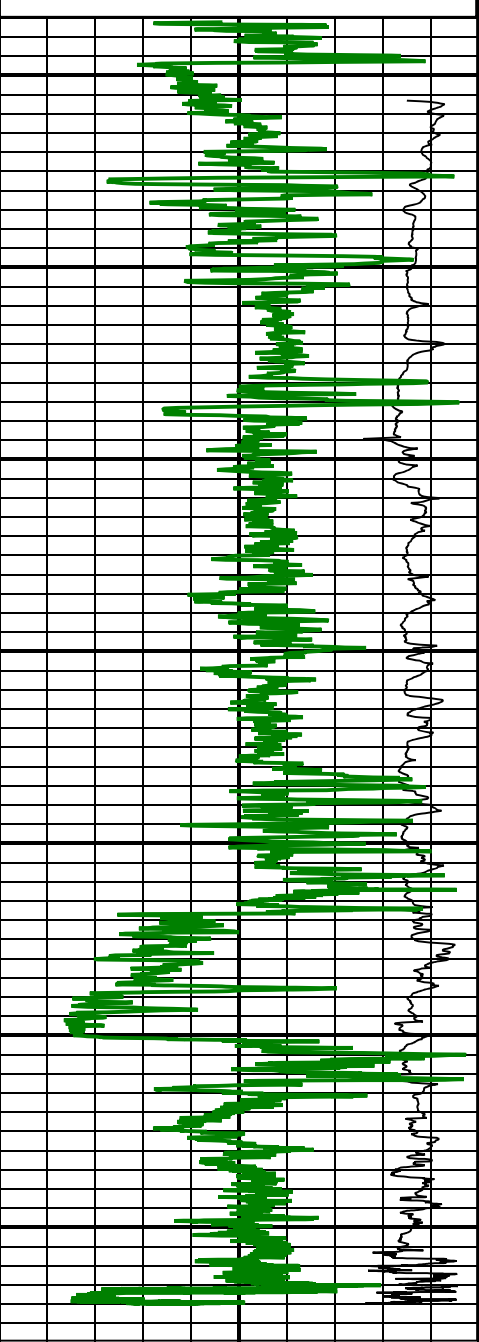
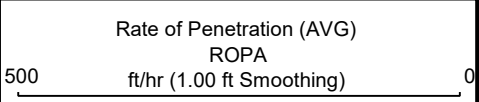
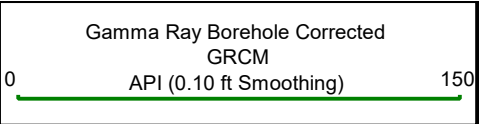
|              |          |          |          |  |  |
|--------------|----------|----------|----------|--|--|
| In Hole From | 10730    | 12115    | 15046    |  |  |
| In Hole To   | 12115    | 15045.99 | 18906    |  |  |
| Log From     | 10730.00 | 12115.00 | 15046.00 |  |  |
| Log To       | 12115.00 | 15045.99 | 18906.00 |  |  |

**Date/Time**

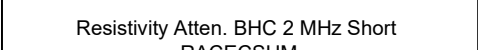
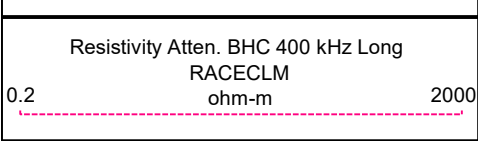
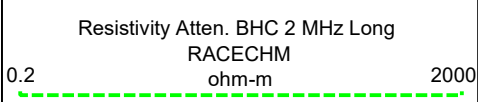
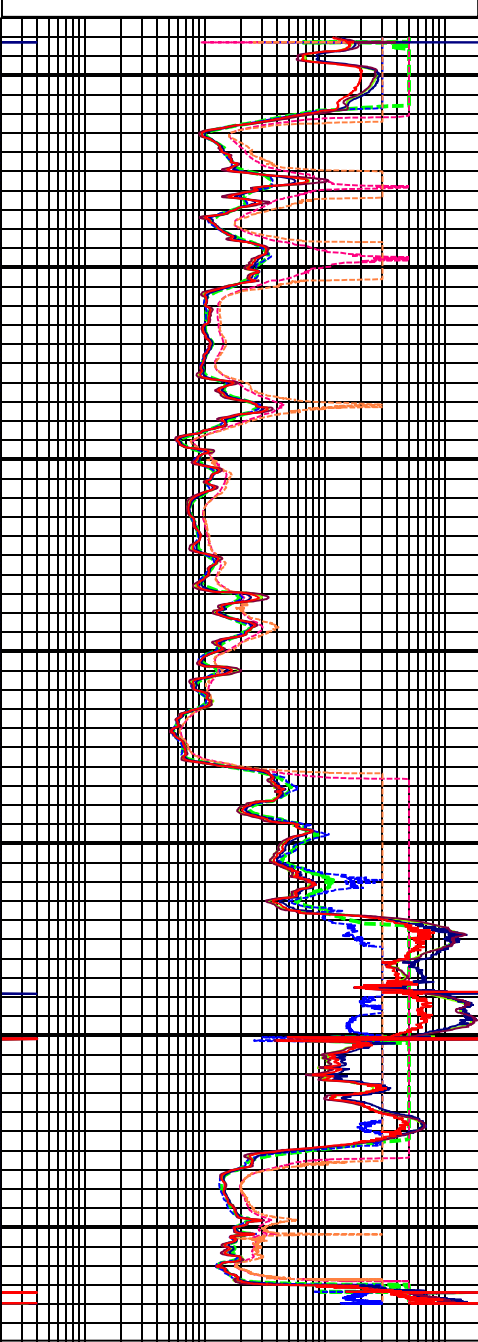
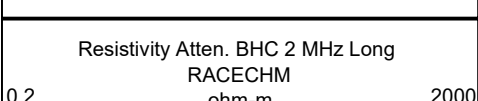
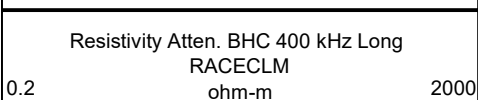
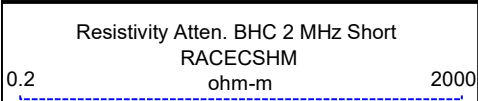
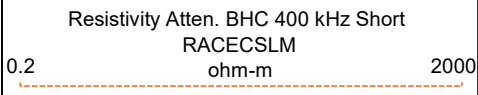
|                |            |            |            |  |  |
|----------------|------------|------------|------------|--|--|
| In Hole Date   | 2019-12-03 | 2019-12-06 | 2019-12-10 |  |  |
| In Hole Time   | 12:44:51   | 07:43:48   | 15:51:48   |  |  |
| Out Hole Date  | 2019-12-06 | 2019-12-10 | 2019-12-14 |  |  |
| Out Hole Time  | 07:43:47   | 15:51:47   | 09:30:00   |  |  |
| Begin Log Date | 2019-12-03 | 2019-12-06 | 2019-12-10 |  |  |
| Begin Log Time | 12:44:51   | 07:43:47   | 15:51:47   |  |  |
| End Log Date   | 2019-12-06 | 2019-12-13 | 2019-12-14 |  |  |
| End Log Time   | 13:28:55   | 21:33:26   | 09:30:00   |  |  |

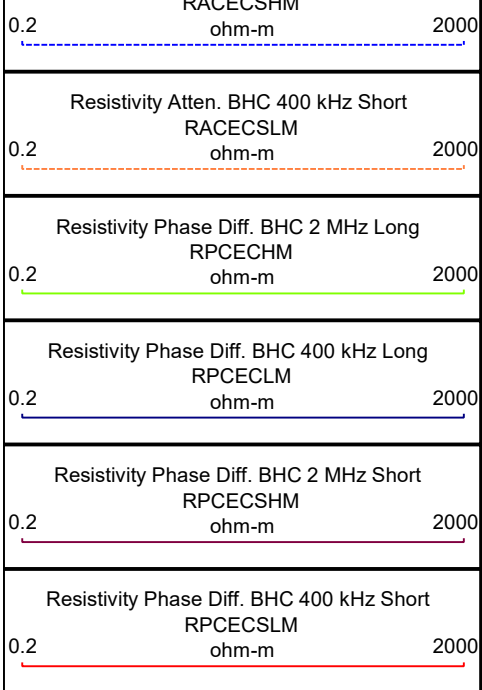
|                 |             |               |             |  |  |
|-----------------|-------------|---------------|-------------|--|--|
| LWD Engineer    | Ben Wallace | Joseph Hatley | Ben Wallace |  |  |
| Oil Company Rep | TJ Nash     | Frank Calhoun | TJ Nash     |  |  |

|                               |       |       |       |  |  |
|-------------------------------|-------|-------|-------|--|--|
|                               |       |       |       |  |  |
| <b>DRILLING FLUID SUMMARY</b> |       |       |       |  |  |
| <b>Mud Type</b>               | OBM   | OBM   | OBM   |  |  |
| <b>Density (lb/gal)</b>       | 9.30  | 9.50  | 9.40  |  |  |
| <b>Funnel Viscosity</b>       | 47    | 47    | 47    |  |  |
| <b>Plastic Viscosity</b>      | 14    | 14    | 14    |  |  |
| <b>Chlorides</b>              | 42000 | 43000 | 42000 |  |  |
| <b>Oil/Water Ratio</b>        | 73/27 | 73/27 | 73/27 |  |  |
| <b>Maximum Circ Temp (F)</b>  | 142   | 160   | 190   |  |  |



TVD  
FEET  
1:1200





| EQUIPMENT             |                     |                     |                     |  |  |
|-----------------------|---------------------|---------------------|---------------------|--|--|
| Log Run               | WPR RUN #1          | WPR RUN #2          | WPR RUN #3          |  |  |
| Bit Run               | RUN #5              | RUN #6              | Run #7              |  |  |
| Start Date/Time       | 2019-12-03 12:44:51 | 2019-12-06 07:43:48 | 2019-12-10 15:51:48 |  |  |
| Start Depth (ft)      | 10730               | 12115               | 15046               |  |  |
| End Date/Time         | 2019-12-06 07:43:47 | 2019-12-10 15:51:47 | 2019-12-14 09:30:00 |  |  |
| End Depth (ft)        | 12115               | 15045.99            | 18906               |  |  |
| Serial Numbers        |                     |                     |                     |  |  |
| Surface Gear          | 1082                | 1082                | 1082                |  |  |
| Flow Sub              | 35467-2             | 15388-1             | 35467-2             |  |  |
| Pulser                | 2522                | 1720                | 1125                |  |  |
| Battery 1             | 1282/3695           | 4/3684              | 1282/3695           |  |  |
| Battery 2             | 3692/942            | 3419/877            | 3692/942            |  |  |
| Turbine Alternator    | N/A                 | N/A                 | N/A                 |  |  |
| Directional Sensor    | 640                 | 640                 | 1539                |  |  |
| Gamma Sensor          | 1049                | 1049                | 1042                |  |  |
| WPR Sensor            | 760                 | 760                 | 609                 |  |  |
| Vibration Sensor      | VMM sn: 640         | VMM sn: 640         | VMM sn: 1539        |  |  |
| Sensor Offsets To Bit |                     |                     |                     |  |  |
| Directional (ft)      | 45.36               | 59.28               | 53.36               |  |  |
| Gamma Ray (ft)        | 40.96               | 54.88               | 48.96               |  |  |
| WPR (ft)              | 33.21               | 47.13               | 41.21               |  |  |
| PWD (ft)              |                     |                     |                     |  |  |
| Vibration (ft)        | 45.36               | 59.28               | 53.36               |  |  |
|                       |                     |                     |                     |  |  |







1:600

MD Log

**LWD**

Directional  
Gamma  
Resistivity

Country : **USA**  
Field : **Delaware Basin**  
Location : **32°27'29.104 N**  
              : **103°35'20.061 W**  
Well : **Wool Head 20 State Com**  
Company : **AEP**  
Rig : **H&P 466**

|         |                                       |
|---------|---------------------------------------|
| Company | : <b>AEP</b>                          |
| Rig     | : <b>H&amp;P 466</b>                  |
| Well    | : <b>Wool Head 20 State Com #554H</b> |
| Field   | : <b>Delaware Basin</b>               |
| Country | : <b>USA</b>                          |
| Well ID | : <b>30-025-46483</b>                 |

|          |                                    |                 |
|----------|------------------------------------|-----------------|
| LOCATION | Latitude : <b>32°27'29.104 N</b>   | Other Services: |
|          | Longitude : <b>103°35'20.061 W</b> |                 |
|          | Eunice                             |                 |

Permanent Datum : **MSL** Elevation: **3727** Elev. KB : **N/A**  
Log Measured From : **Drill Floor** DF : **3752**  
GLWD : **3727**

|                                 |                      |
|---------------------------------|----------------------|
| Depth Logged : <b>10730</b>     | to : <b>18906</b>    |
| Date Logged : <b>12/4/19</b>    | to : <b>12/14/19</b> |
| Total Depth MD : <b>8176.00</b> | TVD : <b>-999.25</b> |
| Spud Date : <b>11/12/19</b>     |                      |

Job Number:  
**WOOL HEAD 20 STATE COM 20**

**FINAL PRINT**

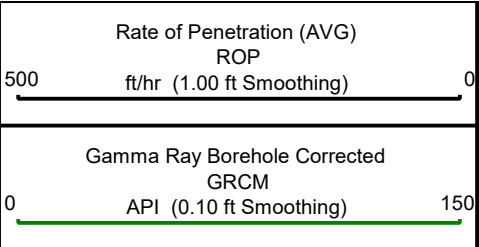
| Run    |  | Borehole Record (MD)<br>Size From To |              | Run |  | Borehole Record (MD)<br>Size From To      |  |
|--------|--|--------------------------------------|--------------|-----|--|-------------------------------------------|--|
| 1<br>4 |  | 0<br>0                               | 1838<br>5257 |     |  | Casing Record (MD)<br>Size Weight From To |  |
|        |  |                                      |              |     |  |                                           |  |
|        |  |                                      |              |     |  | 13 3/8<br>9 5/8                           |  |

DISCLAIMER

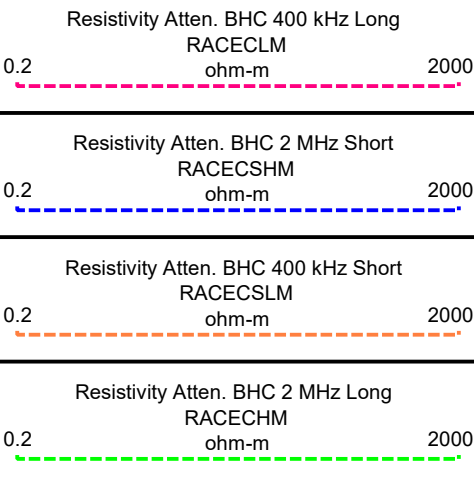
LOGGING SUMMARY

| Log Run         | WPR RUN #1  | WPR RUN #2    | WPR RUN #3  |  |  |
|-----------------|-------------|---------------|-------------|--|--|
| Bit Run         | RUN #5      | RUN #6        | Run #7      |  |  |
| Hole Size (in)  | 8.50        | 8.50          | 8.50        |  |  |
| Sensor Suite    | WPR         | WPR           | WPR         |  |  |
| Measured Depth  |             |               |             |  |  |
| In Hole From    | 10730       | 12115         | 15046       |  |  |
| In Hole To      | 12115       | 15045.99      | 18906       |  |  |
| Log From        | 10730.00    | 12115.00      | 15046.00    |  |  |
| Log To          | 12115.00    | 15045.99      | 18906.00    |  |  |
| Date/Time       |             |               |             |  |  |
| In Hole Date    | 2019-12-03  | 2019-12-06    | 2019-12-10  |  |  |
| In Hole Time    | 12:44:51    | 07:43:48      | 15:51:48    |  |  |
| Out Hole Date   | 2019-12-06  | 2019-12-10    | 2019-12-14  |  |  |
| Out Hole Time   | 07:43:47    | 15:51:47      | 09:30:00    |  |  |
| Begin Log Date  | 2019-12-03  | 2019-12-06    | 2019-12-10  |  |  |
| Begin Log Time  | 12:44:51    | 07:43:47      | 15:51:47    |  |  |
| End Log Date    | 2019-12-06  | 2019-12-13    | 2019-12-14  |  |  |
| End Log Time    | 13:28:55    | 21:33:26      | 09:30:00    |  |  |
| LWD Engineer    | Ben Wallace | Joseph Hatley | Ben Wallace |  |  |
| Oil Company Rep | TJ Nash     | Frank Calhoun | TJ Nash     |  |  |

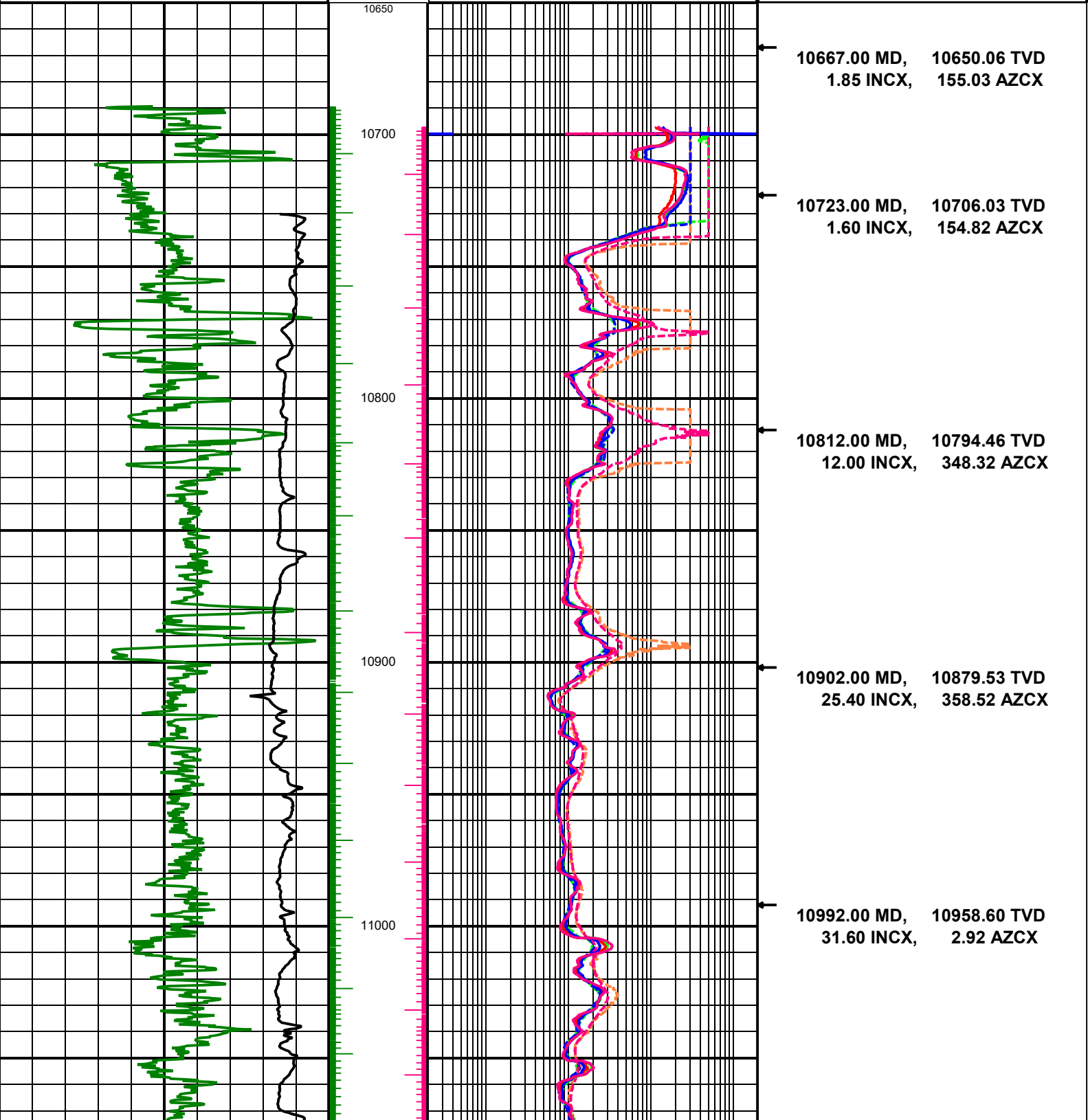
|                               |       |       |       |  |  |
|-------------------------------|-------|-------|-------|--|--|
|                               |       |       |       |  |  |
| <b>DRILLING FLUID SUMMARY</b> |       |       |       |  |  |
| <b>Mud Type</b>               | OBM   | OBM   | OBM   |  |  |
| <b>Density (lb/gal)</b>       | 9.30  | 9.50  | 9.40  |  |  |
| <b>Funnel Viscosity</b>       | 47    | 47    | 47    |  |  |
| <b>Plastic Viscosity</b>      | 14    | 14    | 14    |  |  |
| <b>Chlorides</b>              | 42000 | 43000 | 42000 |  |  |
| <b>Oil/Water Ratio</b>        | 73/27 | 73/27 | 73/27 |  |  |
| <b>Maximum Circ Temp (F)</b>  | 142   | 160   | 190   |  |  |

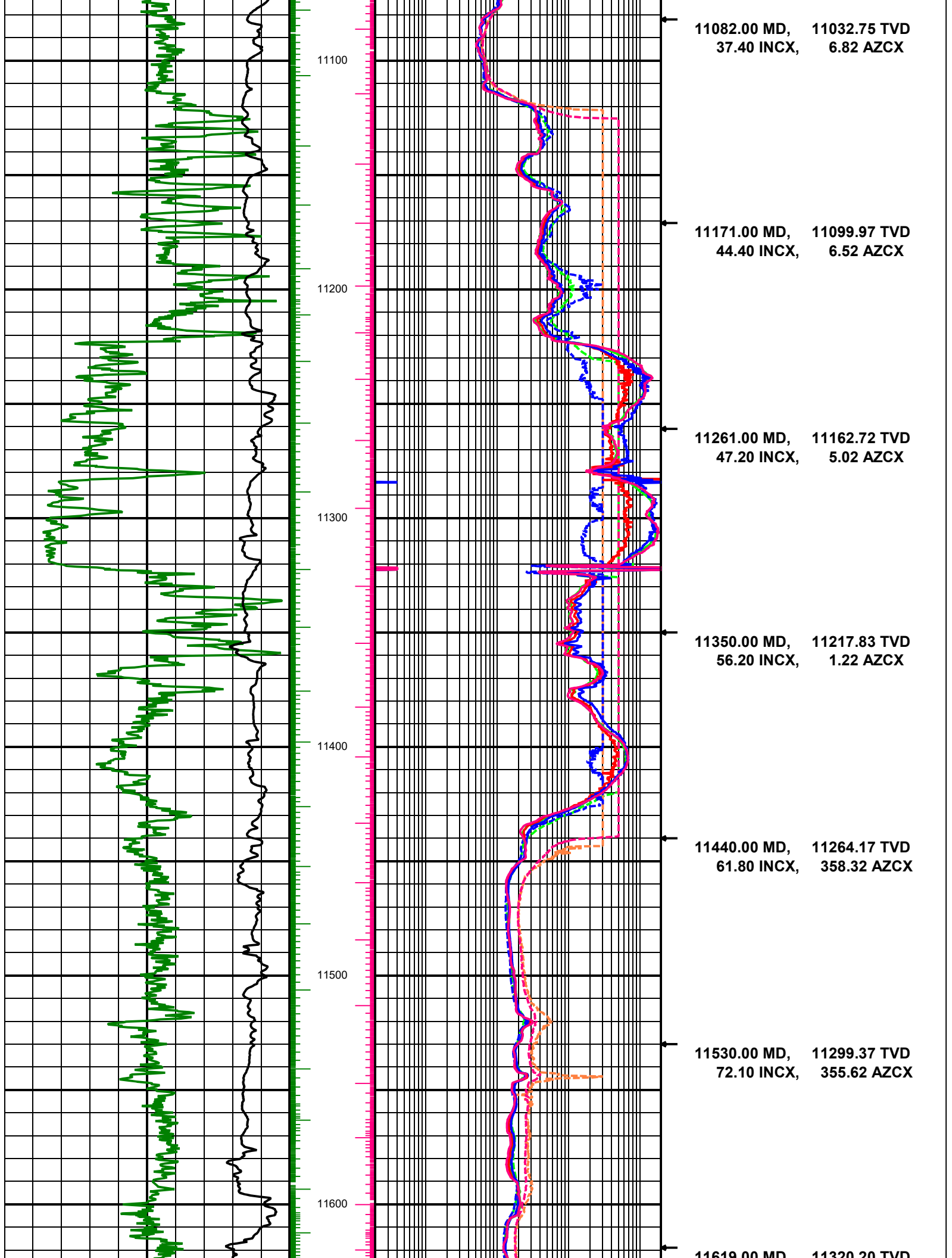


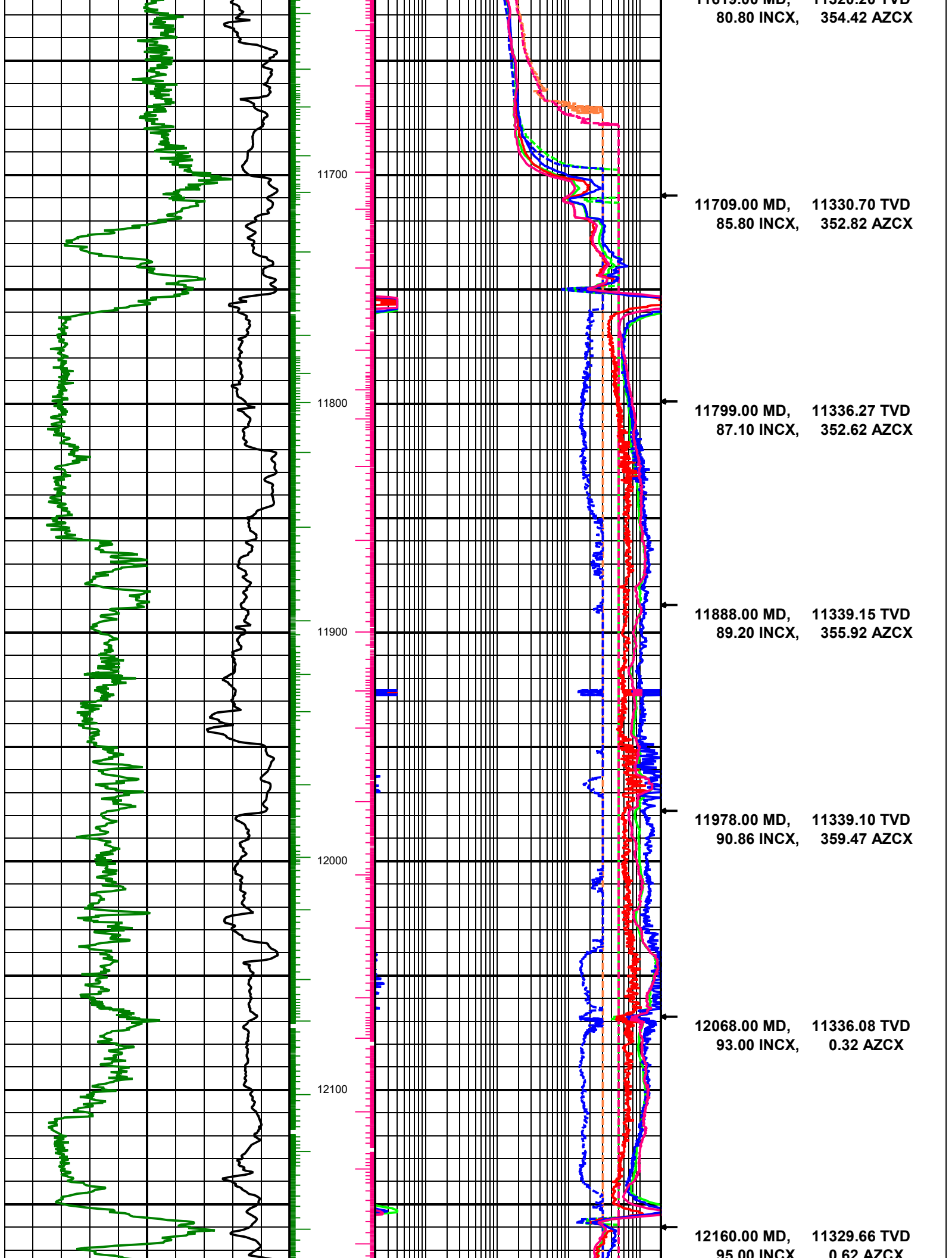
MD  
FEET  
1:600

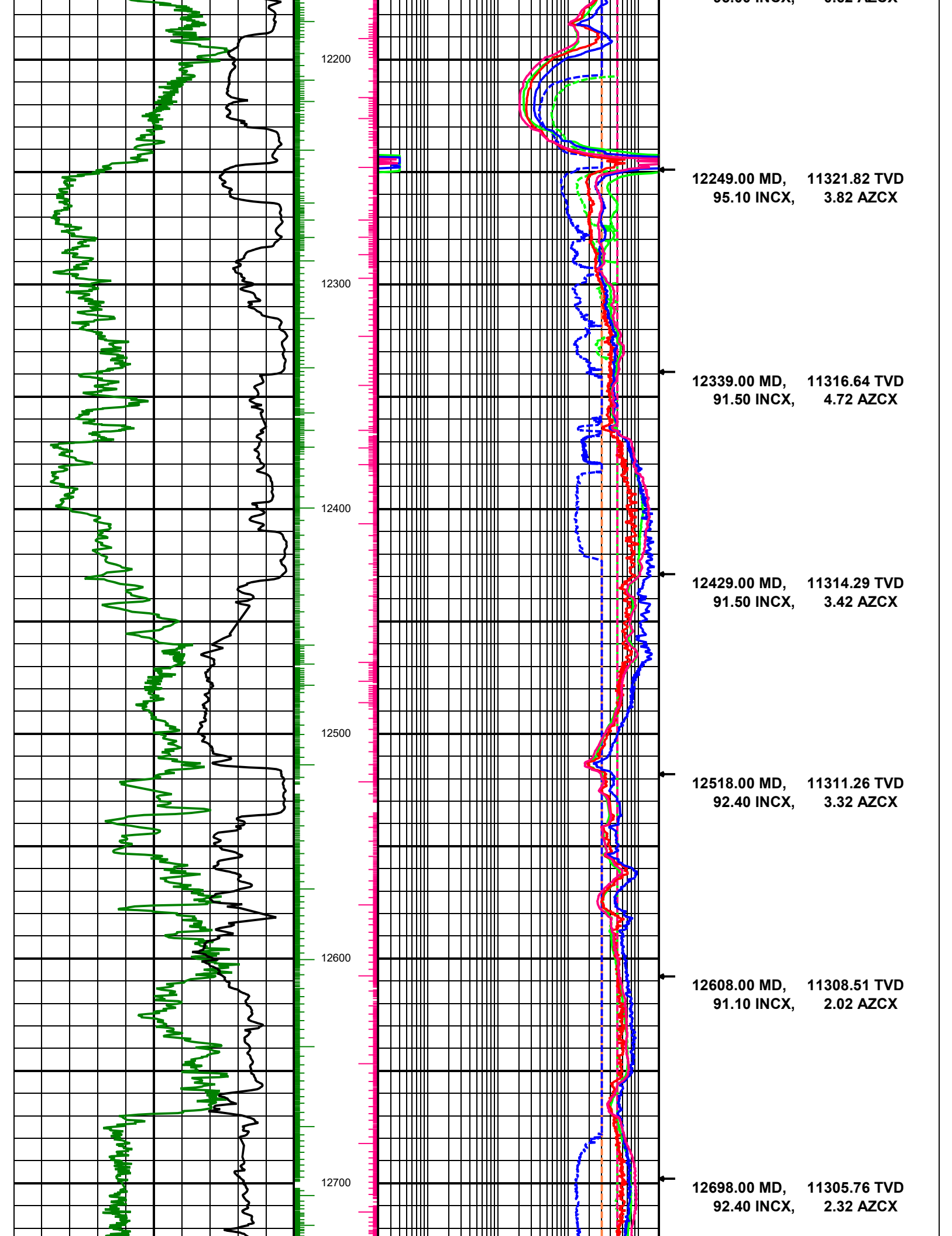


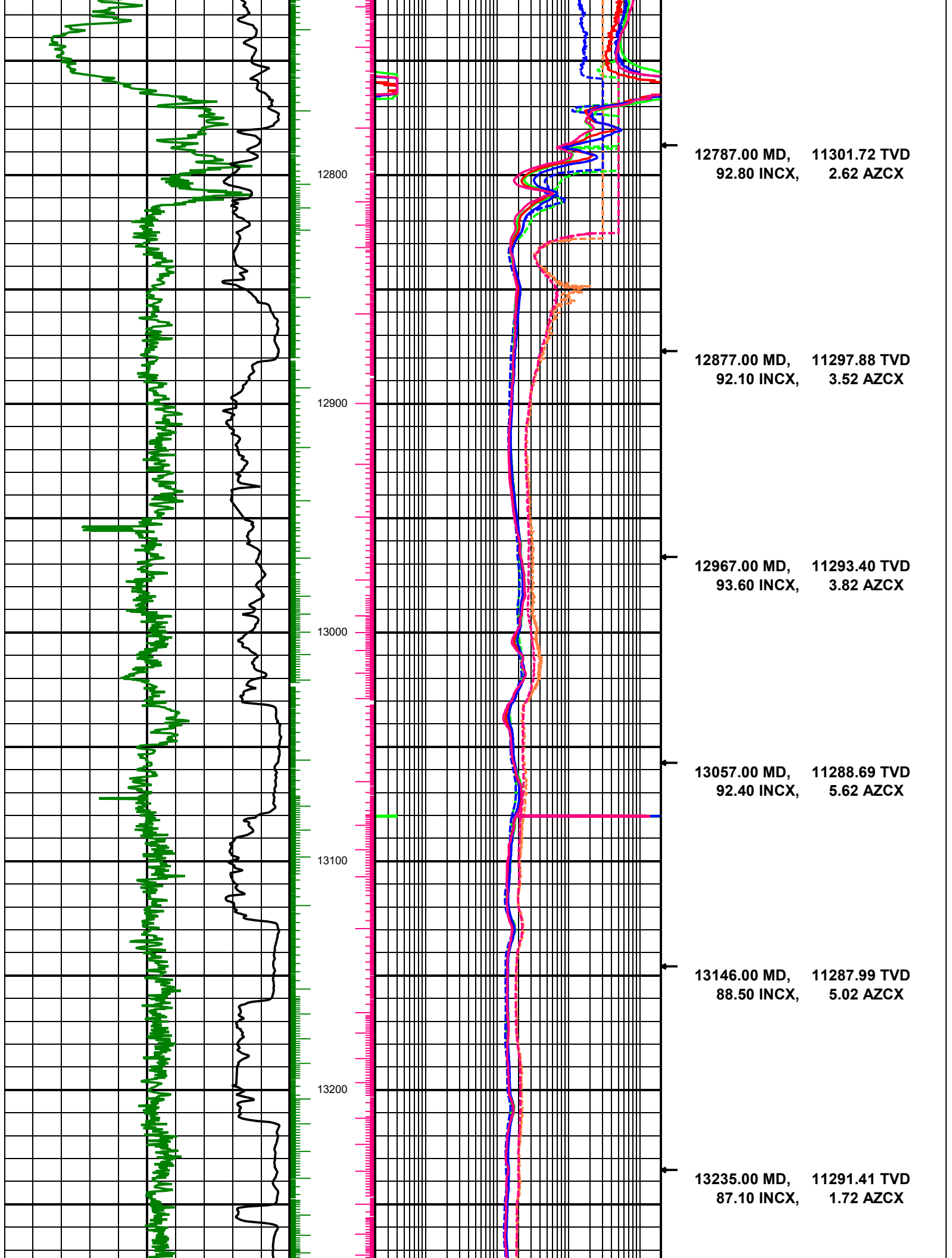
Directional Surveys



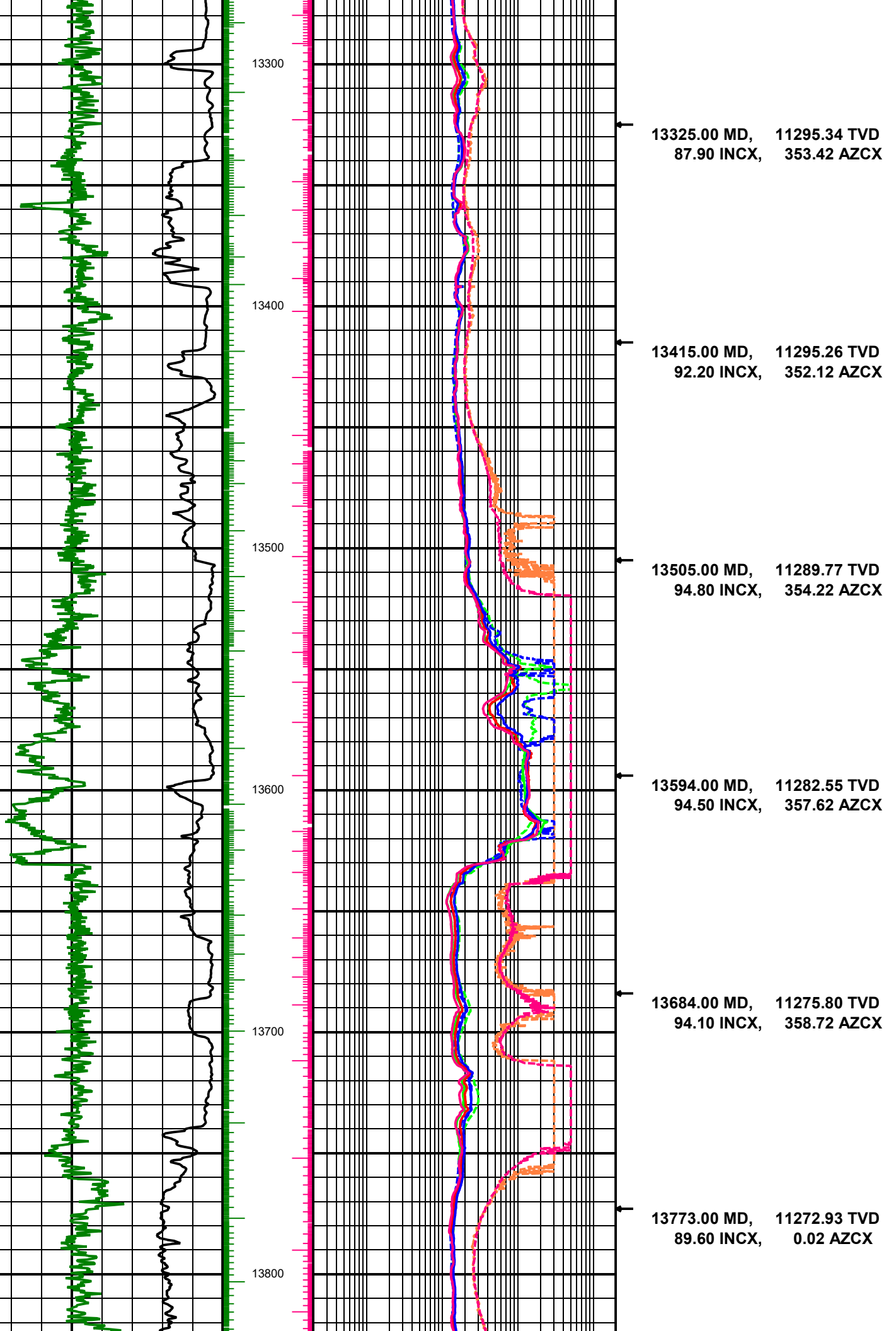


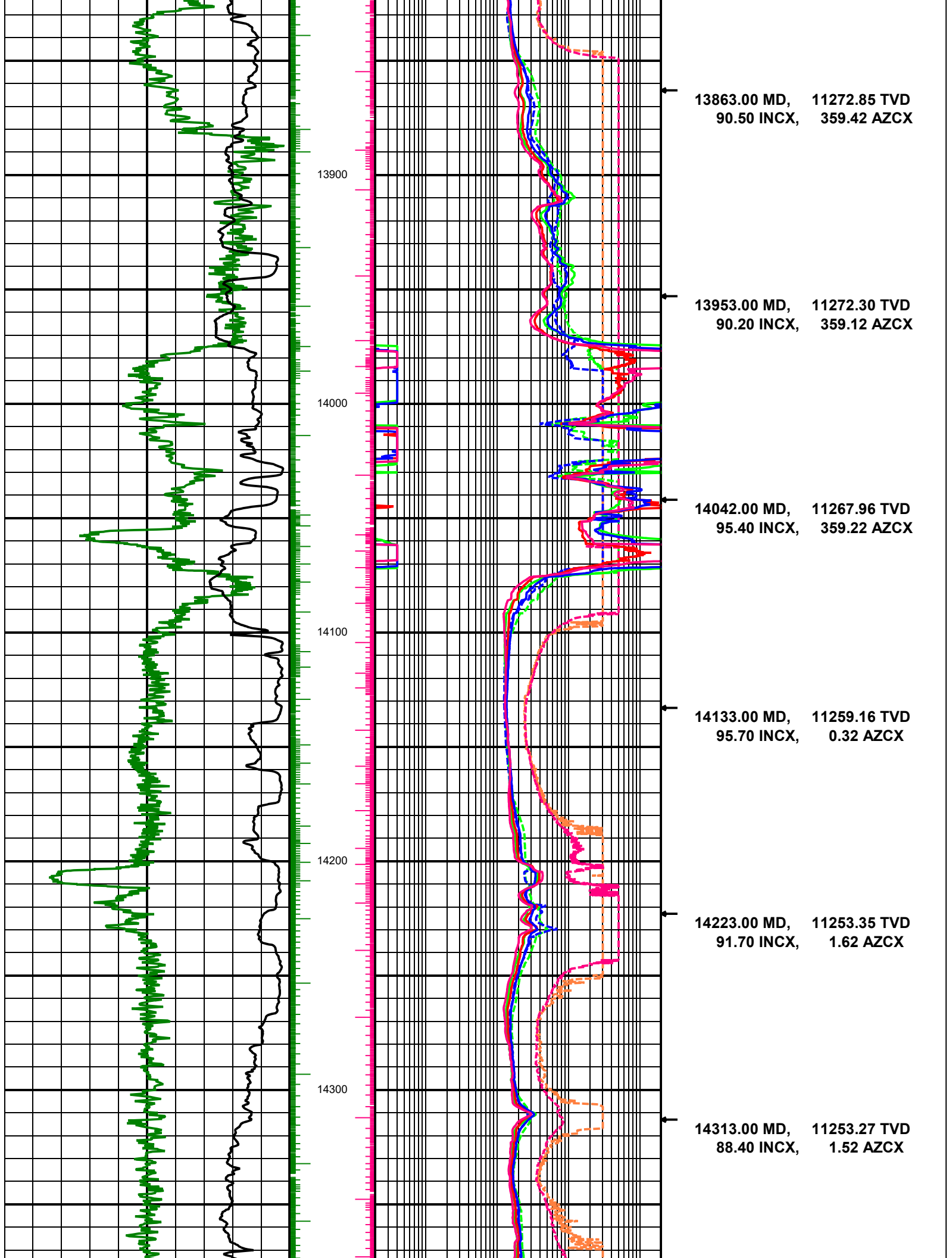


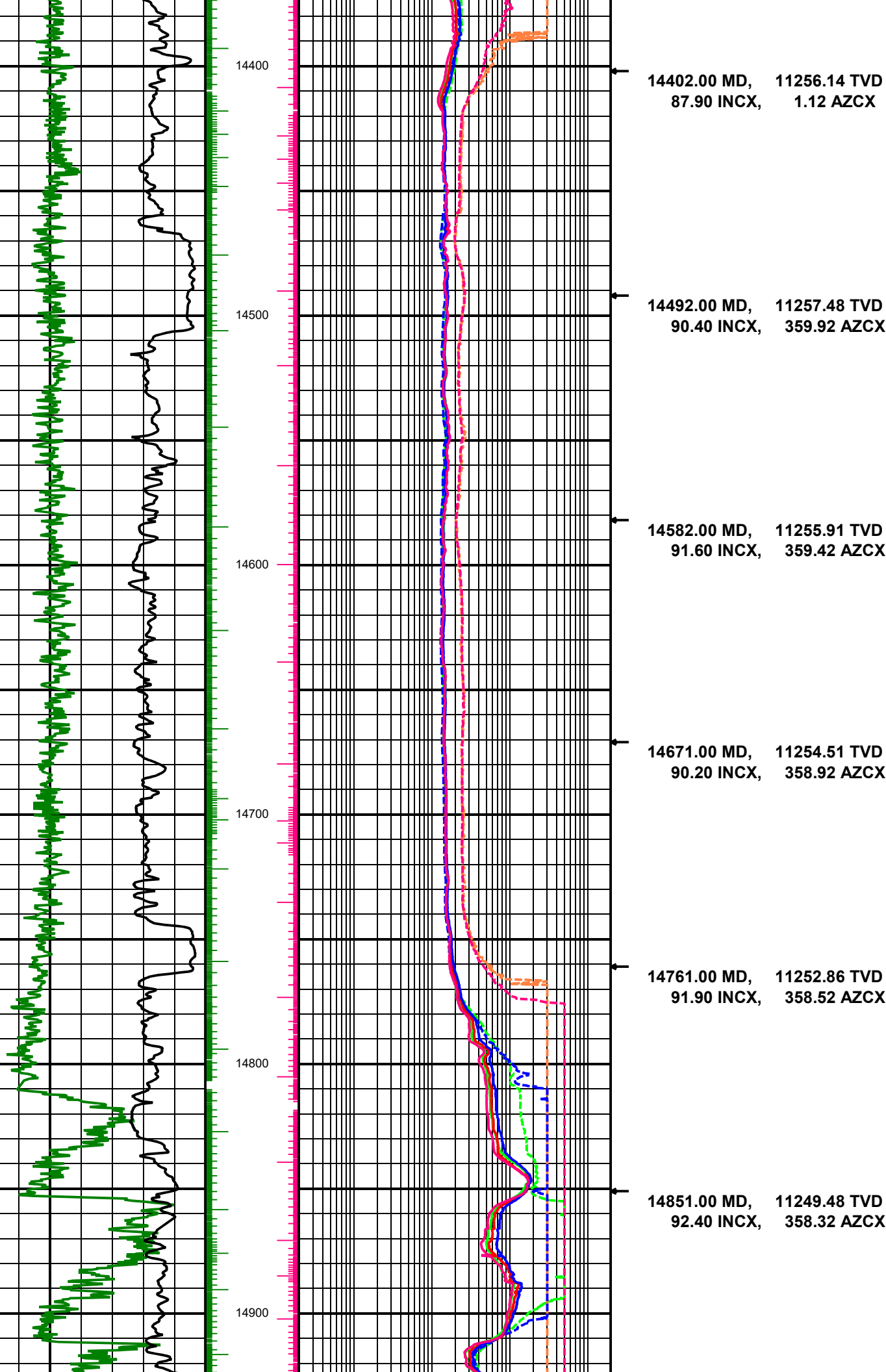


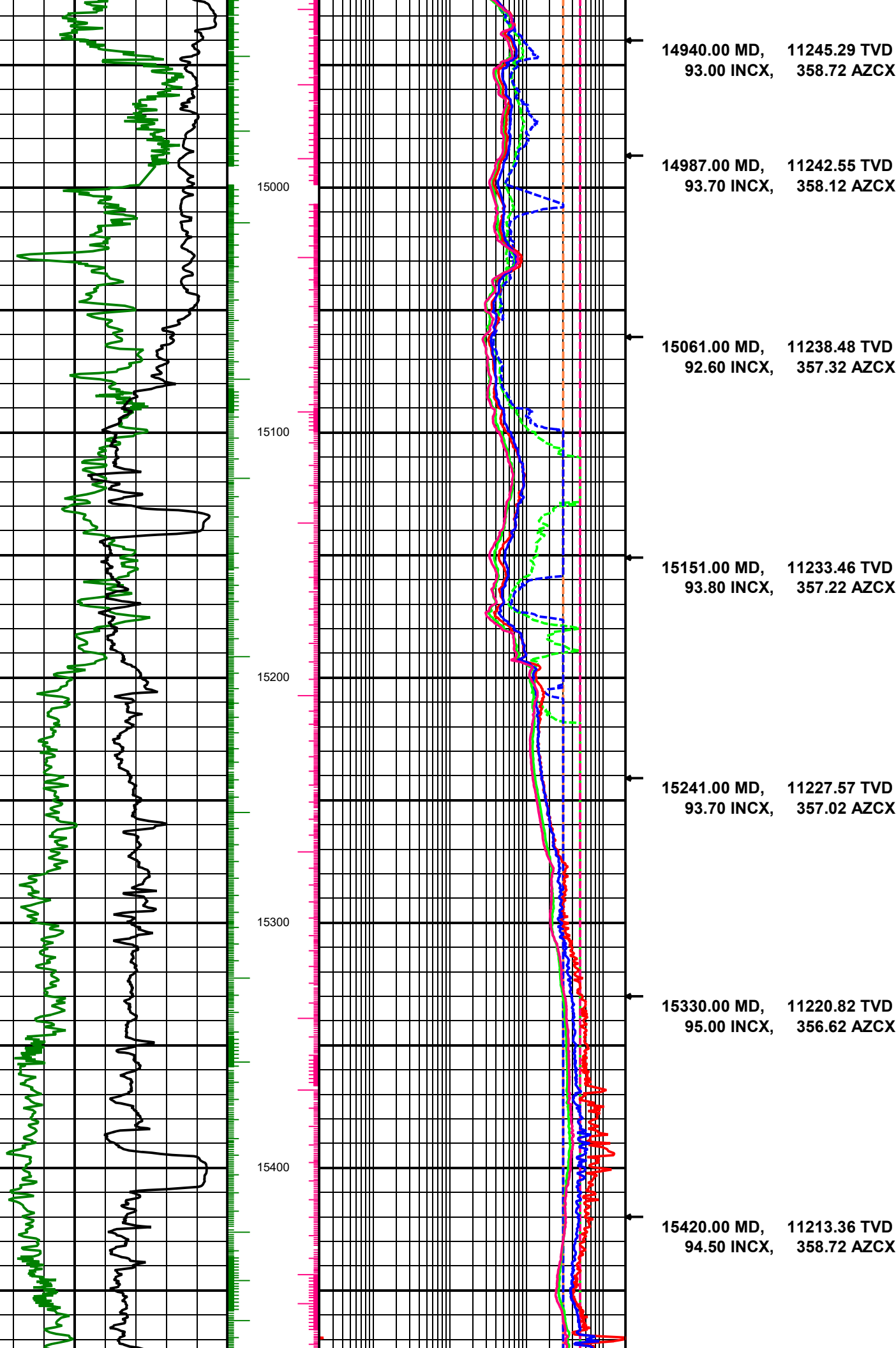


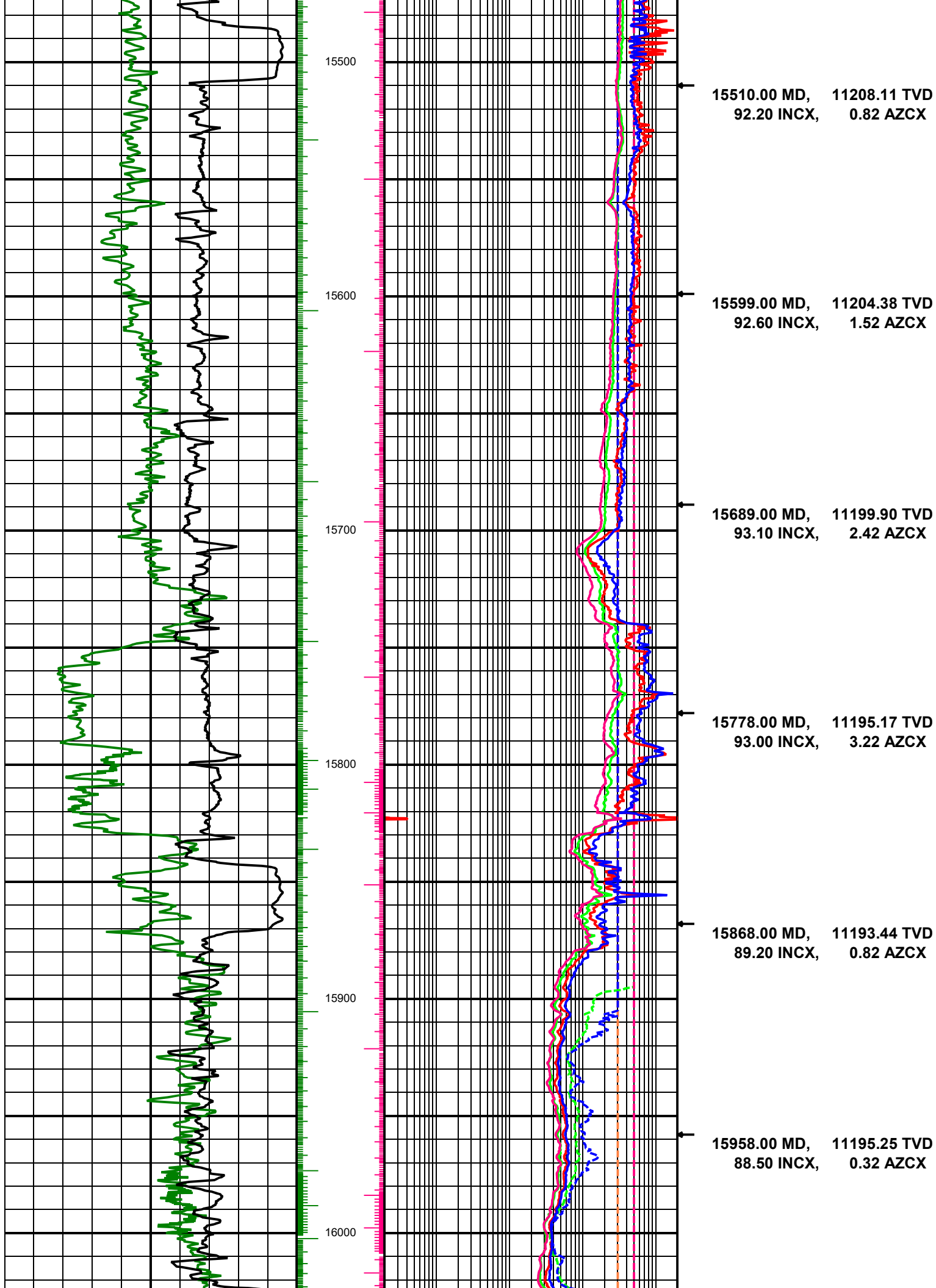


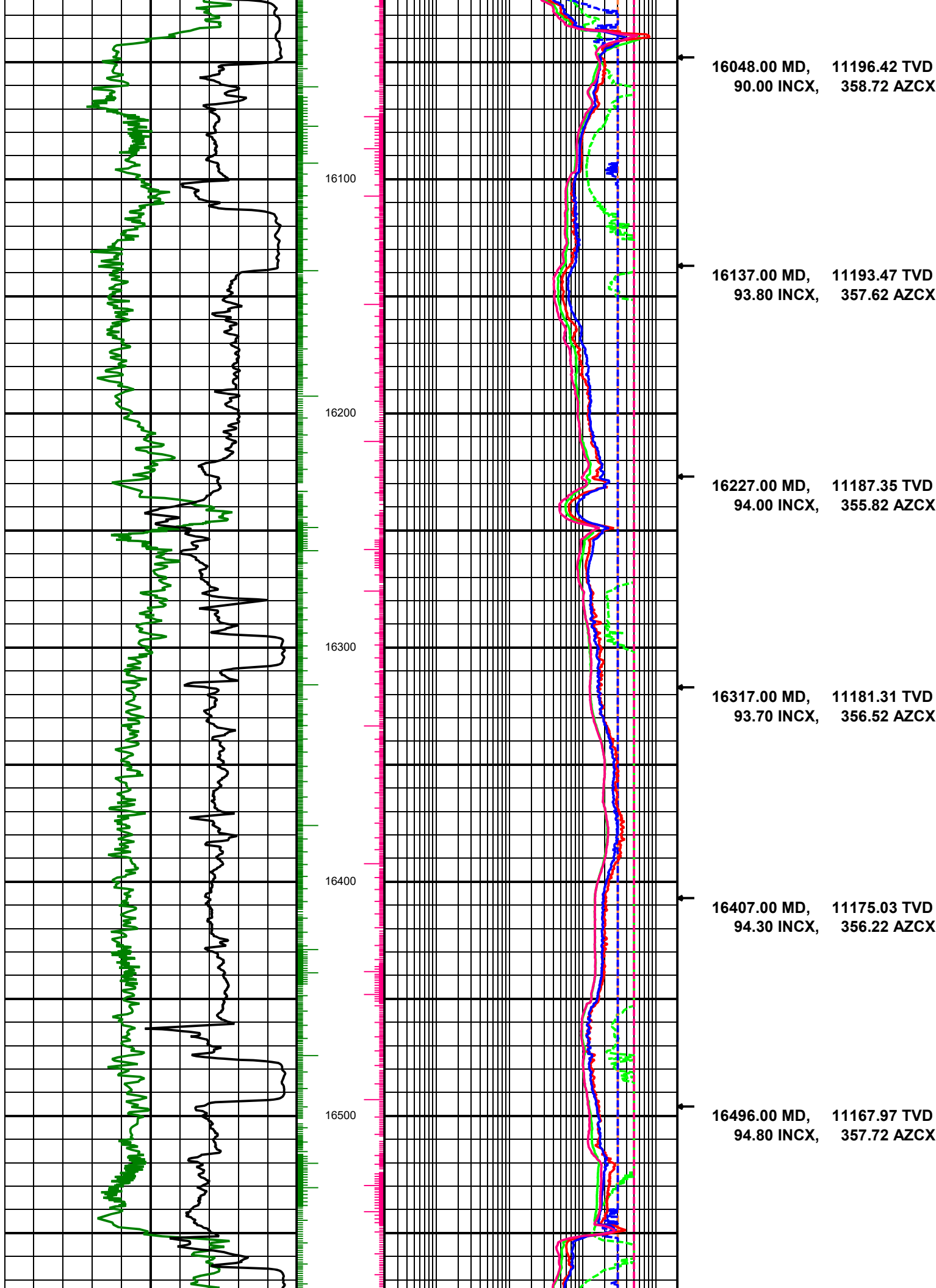


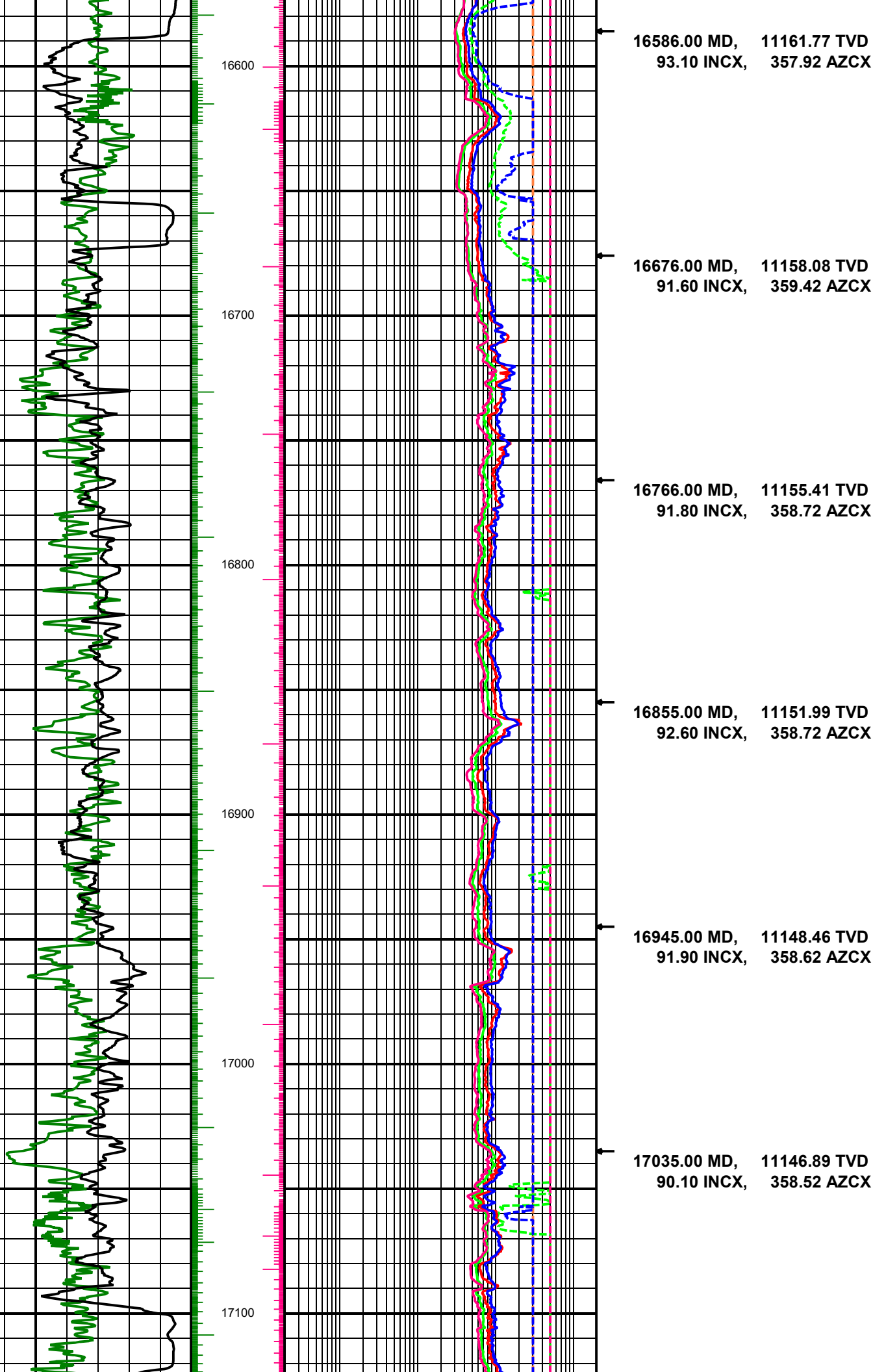




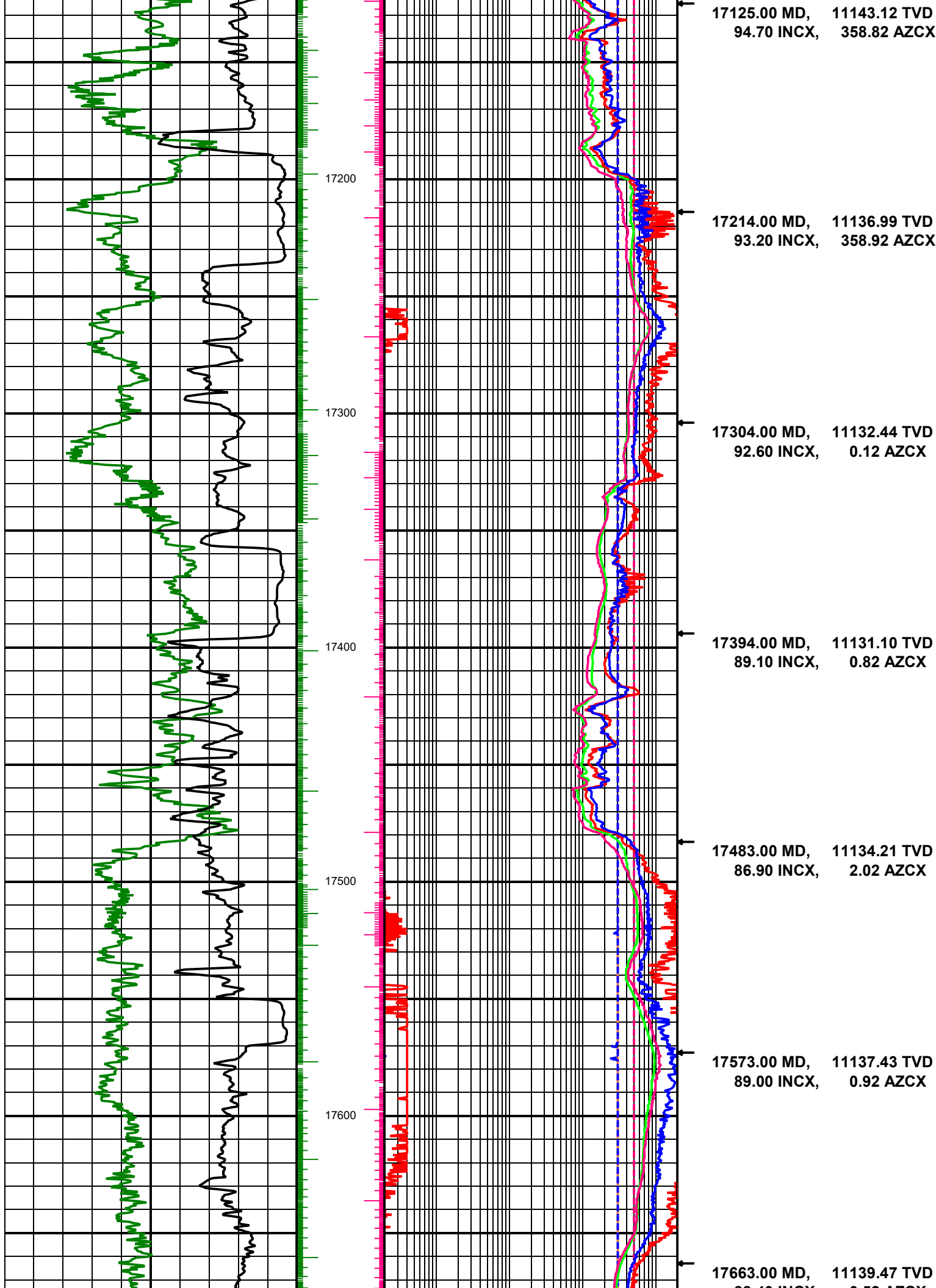


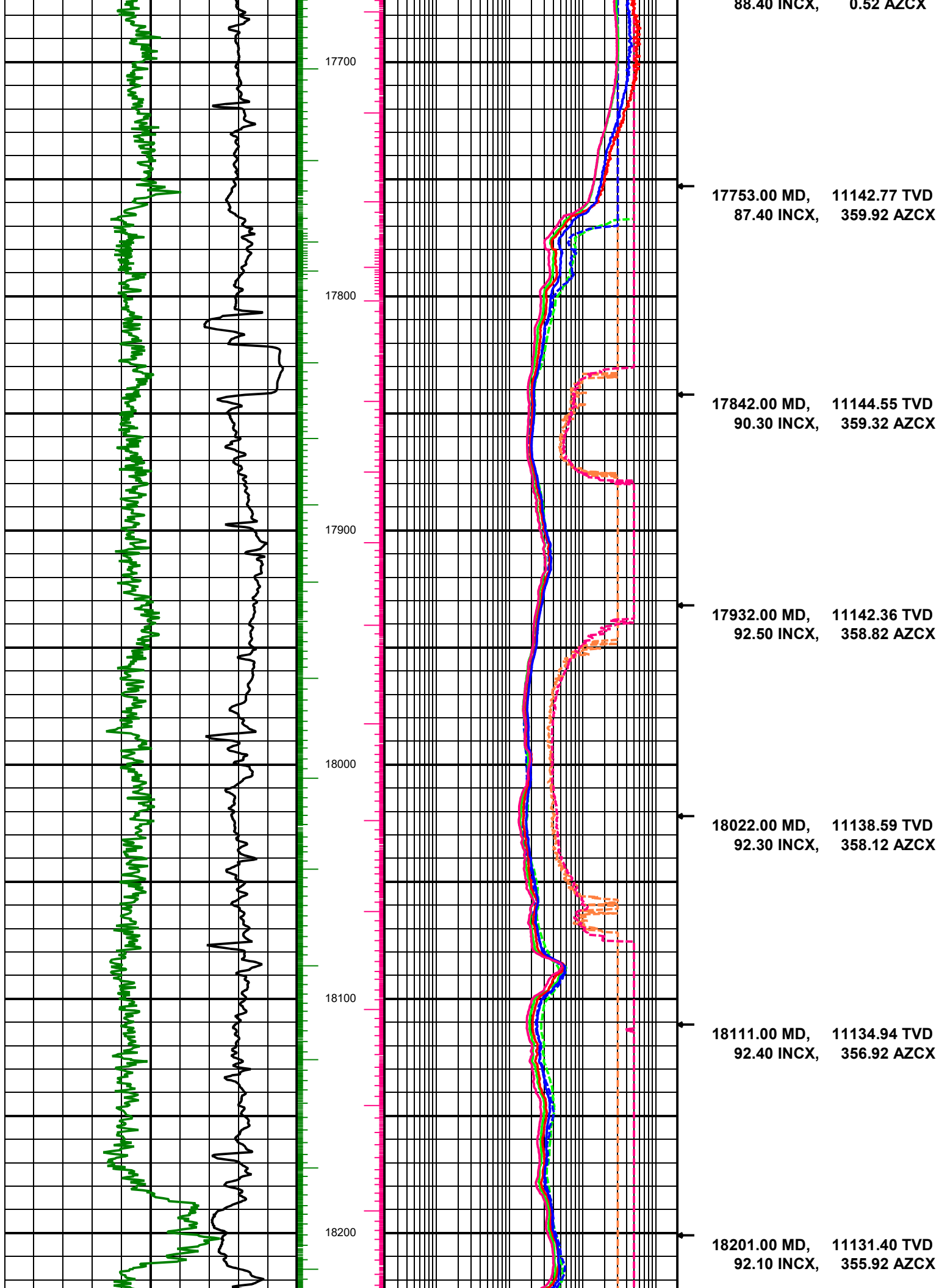


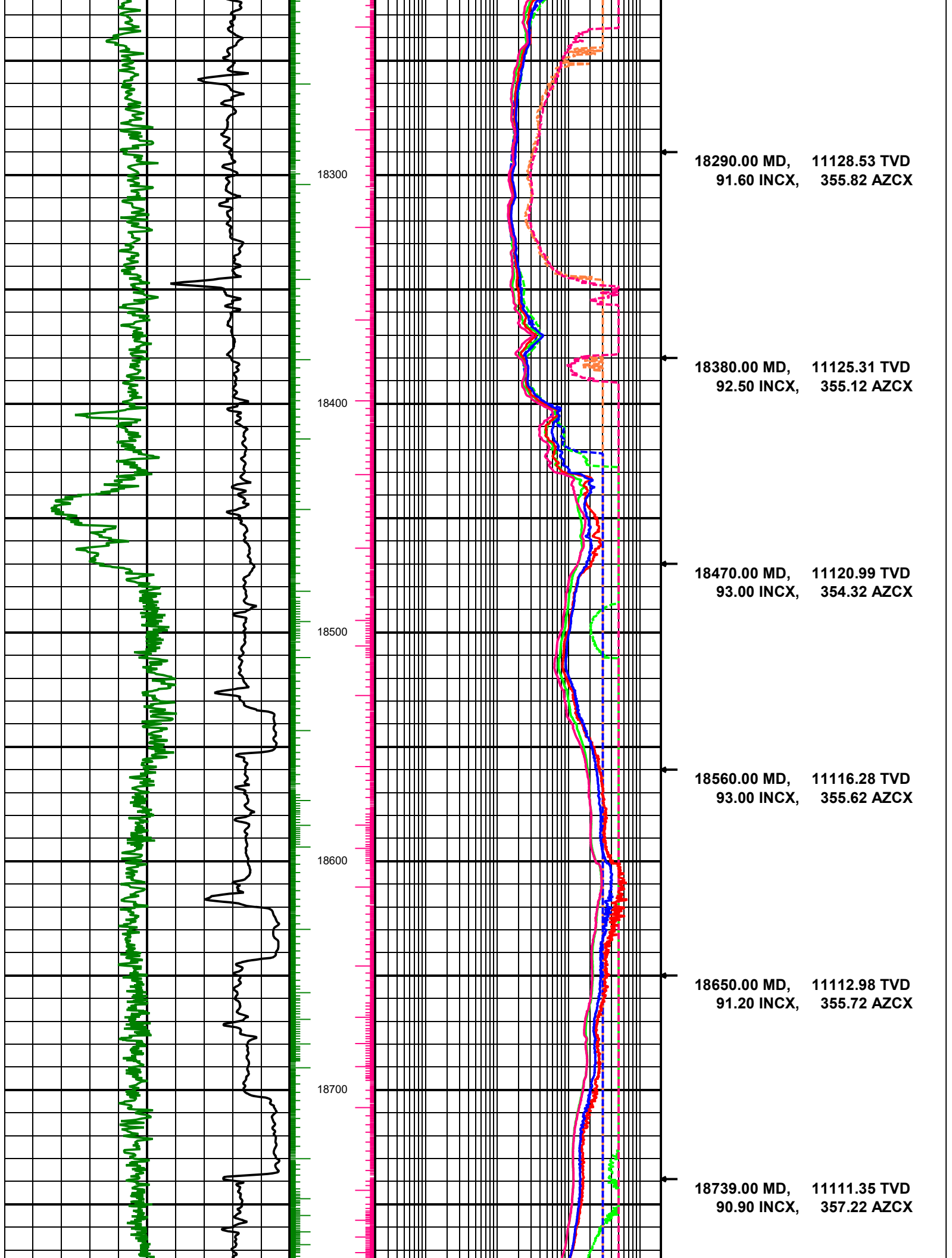


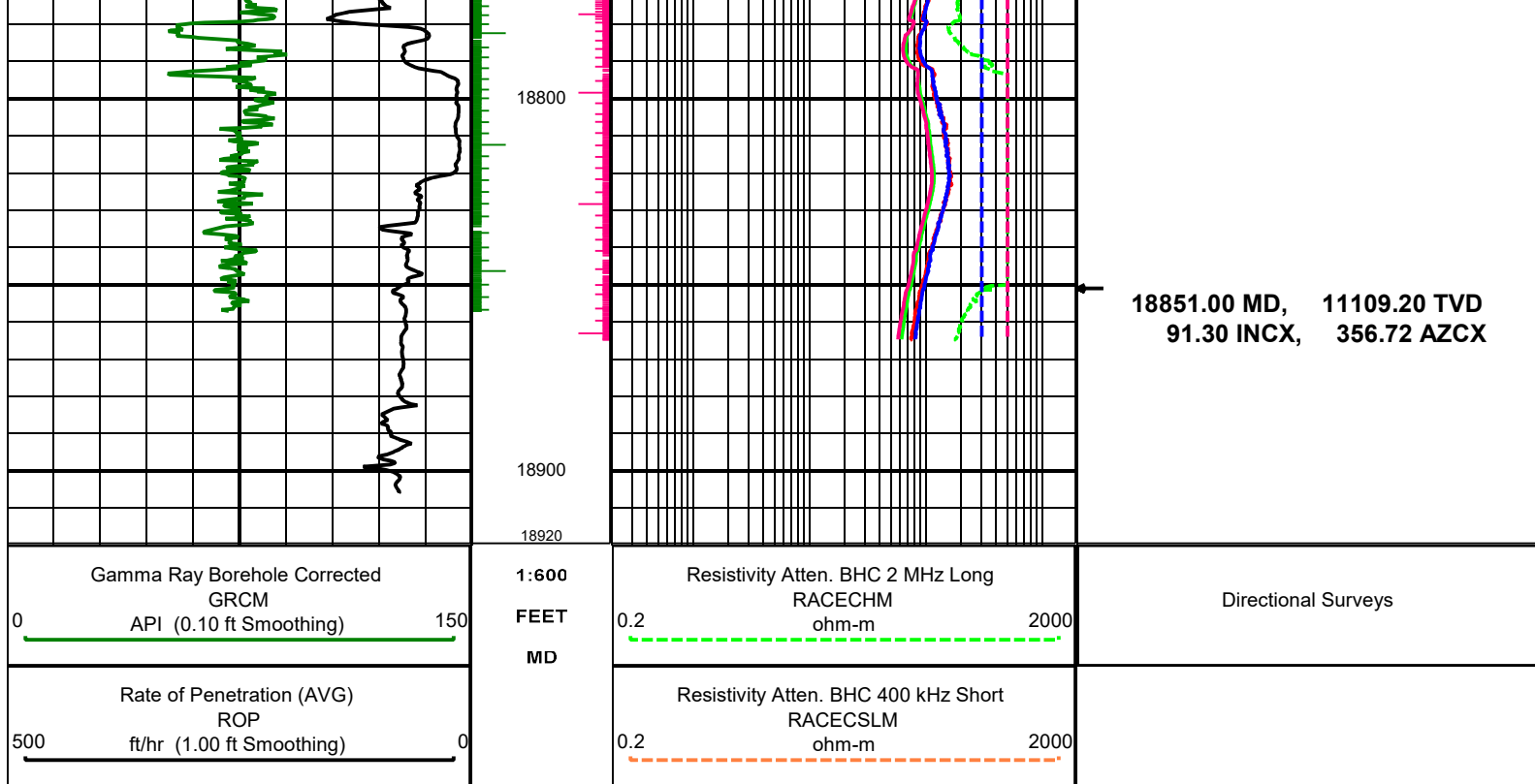












| EQUIPMENT          |                     |                     |                     |  |  |
|--------------------|---------------------|---------------------|---------------------|--|--|
| Log Run            | WPR RUN #1          | WPR RUN #2          | WPR RUN #3          |  |  |
| Bit Run            | RUN #5              | RUN #6              | Run #7              |  |  |
| Start Date/Time    | 2019-12-03 12:44:51 | 2019-12-06 07:43:48 | 2019-12-10 15:51:48 |  |  |
| Start Depth (ft)   | 10730               | 12115               | 15046               |  |  |
| End Date/Time      | 2019-12-06 07:43:47 | 2019-12-10 15:51:47 | 2019-12-14 09:30:00 |  |  |
| End Depth (ft)     | 12115               | 15045.99            | 18906               |  |  |
| Serial Numbers     |                     |                     |                     |  |  |
| Surface Gear       | 1082                | 1082                | 1082                |  |  |
| Flow Sub           | 35467-2             | 15388-1             | 35467-2             |  |  |
| Pulser             | 2522                | 1720                | 1125                |  |  |
| Battery 1          | 1282/3695           | 4/3684              | 1282/3695           |  |  |
| Battery 2          | 3692/942            | 3419/877            | 3692/942            |  |  |
| Turbine Alternator | N/A                 | N/A                 | N/A                 |  |  |
| Directional Sensor | 640                 | 640                 | 1520                |  |  |

|                              |             |             |              |  |  |
|------------------------------|-------------|-------------|--------------|--|--|
| Directional Sensor           | 640         | 640         | 1539         |  |  |
| Gamma Sensor                 | 1049        | 1049        | 1042         |  |  |
| WPR Sensor                   | 760         | 760         | 609          |  |  |
| Vibration Sensor             | VMM sn: 640 | VMM sn: 640 | VMM sn: 1539 |  |  |
| <b>Sensor Offsets To Bit</b> |             |             |              |  |  |
| Directional (ft)             | 45.36       | 59.28       | 53.36        |  |  |
| Gamma Ray (ft)               | 40.96       | 54.88       | 48.96        |  |  |
| WPR (ft)                     | 33.21       | 47.13       | 41.21        |  |  |
| PWD (ft)                     |             |             |              |  |  |
| Vibration (ft)               | 45.36       | 59.28       | 53.36        |  |  |



1:600

**LWD**

TVD Log

Directional  
Gamma  
ResistivityCountry : **USA**  
Field : **Delaware Basin**  
Location : **32°27'29.104 N**  
: **103°35'20.061 W**  
Well : **Wool Head 20 State Com**  
Company : **AEP**  
Rig : **H&P 466**

Company

: **AEP**

Rig

: **H&P 466**

Well

: **Wool Head 20 State Com #554H**

Field

: **Delaware Basin**

Country

: **USA**

Well ID

: **30-025-46483****LOCATION**Latitude : **32°27'29.104 N**  
Longitude : **103°35'20.061 W**  
Eunice

Other Services:

Permanent Datum : **MSL** Elevation: **3727**Elev. KB : **N/A**Log Measured From : **Drill Floor**DF : **3752**GLWD : **3727**Depth Logged : **10730** to : **18906**Date Logged : **12/4/19** to : **12/14/19**Total Depth MD : **8176.00** TVD : **-999.25**Spud Date : **11/12/19****FINAL PRINT**

Job Number:

**WOOL HEAD 20 STATE COM 20**Borehole Record (MD)  
Run Size From To1838  
0 5257Borehole Record (MD)  
Run Size From To

To

Casing Record (MD)  
Size Weight From To

To

13 3/8  
9 5/8**DISCLAIMER****LOGGING SUMMARY**

| Log Run        | WPR RUN #1 | WPR RUN #2 | WPR RUN #3 |  |  |
|----------------|------------|------------|------------|--|--|
| Bit Run        | RUN #5     | RUN #6     | Run #7     |  |  |
| Hole Size (in) | 8.50       | 8.50       | 8.50       |  |  |
| Sensor Suite   | WPR        | WPR        | WPR        |  |  |

**Measured Depth**

|              |          |          |          |  |  |
|--------------|----------|----------|----------|--|--|
| In Hole From | 10730    | 12115    | 15046    |  |  |
| In Hole To   | 12115    | 15045.99 | 18906    |  |  |
| Log From     | 10730.00 | 12115.00 | 15046.00 |  |  |
| Log To       | 12115.00 | 15045.99 | 18906.00 |  |  |

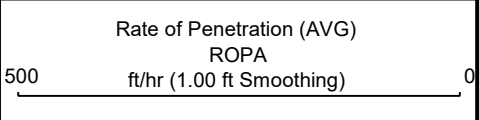
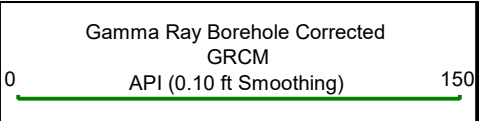
**Date/Time**

|                |            |            |            |  |  |
|----------------|------------|------------|------------|--|--|
| In Hole Date   | 2019-12-03 | 2019-12-06 | 2019-12-10 |  |  |
| In Hole Time   | 12:44:51   | 07:43:48   | 15:51:48   |  |  |
| Out Hole Date  | 2019-12-06 | 2019-12-10 | 2019-12-14 |  |  |
| Out Hole Time  | 07:43:47   | 15:51:47   | 09:30:00   |  |  |
| Begin Log Date | 2019-12-03 | 2019-12-06 | 2019-12-10 |  |  |
| Begin Log Time | 12:44:51   | 07:43:47   | 15:51:47   |  |  |
| End Log Date   | 2019-12-06 | 2019-12-13 | 2019-12-14 |  |  |
| End Log Time   | 13:28:55   | 21:33:26   | 09:30:00   |  |  |

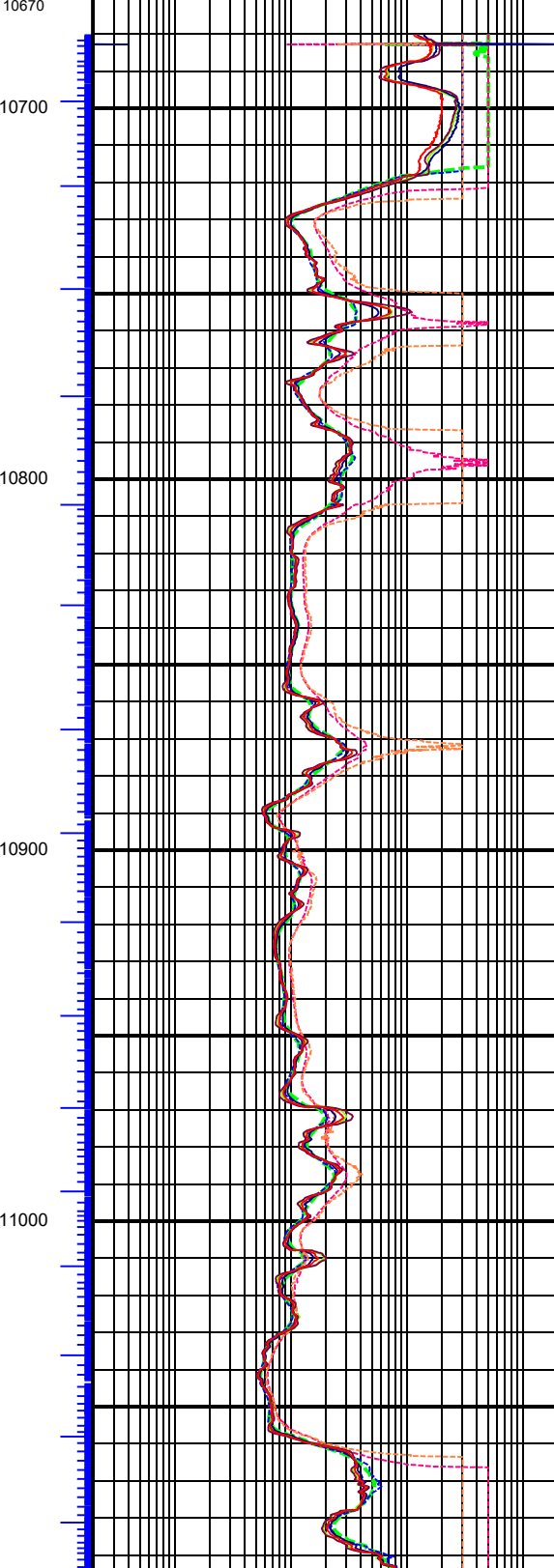
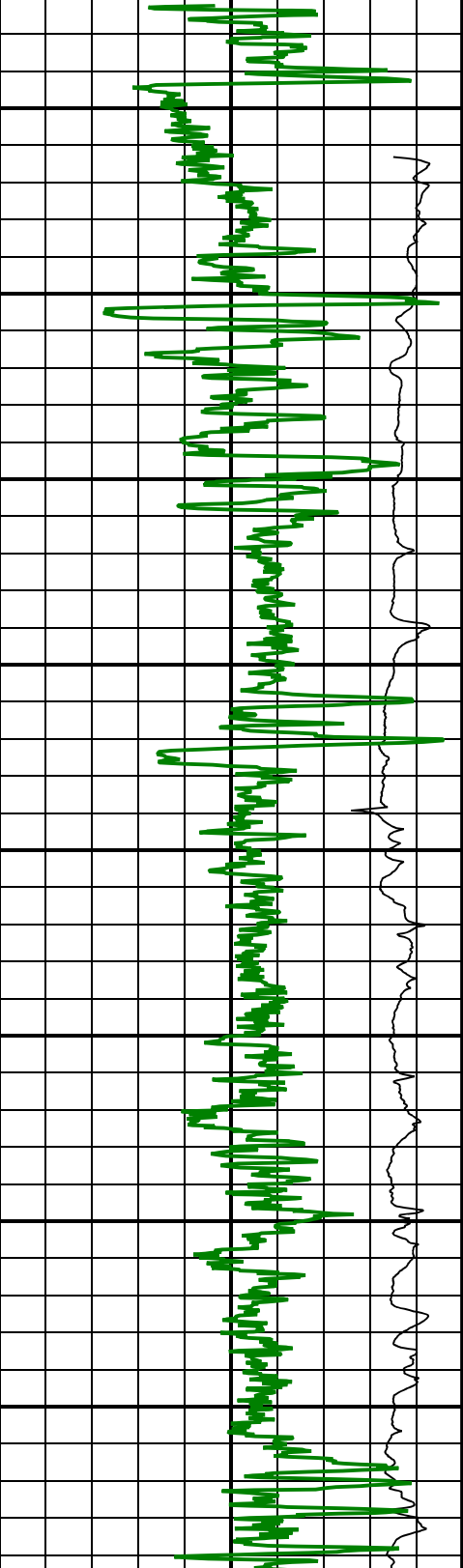
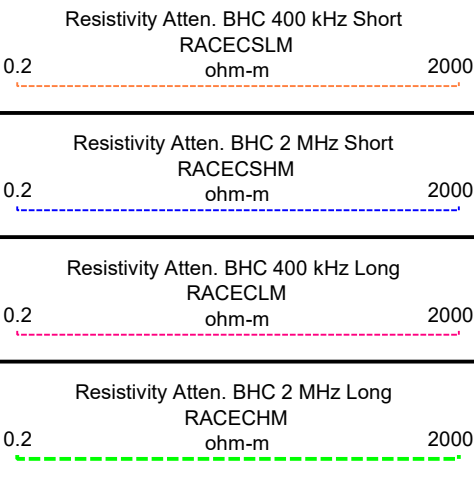
|                 |             |               |             |  |  |
|-----------------|-------------|---------------|-------------|--|--|
| LWD Engineer    | Ben Wallace | Joseph Hatley | Ben Wallace |  |  |
| Oil Company Rep | TJ Nash     | Frank Calhoun | TJ Nash     |  |  |

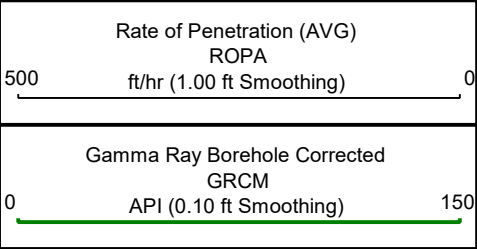
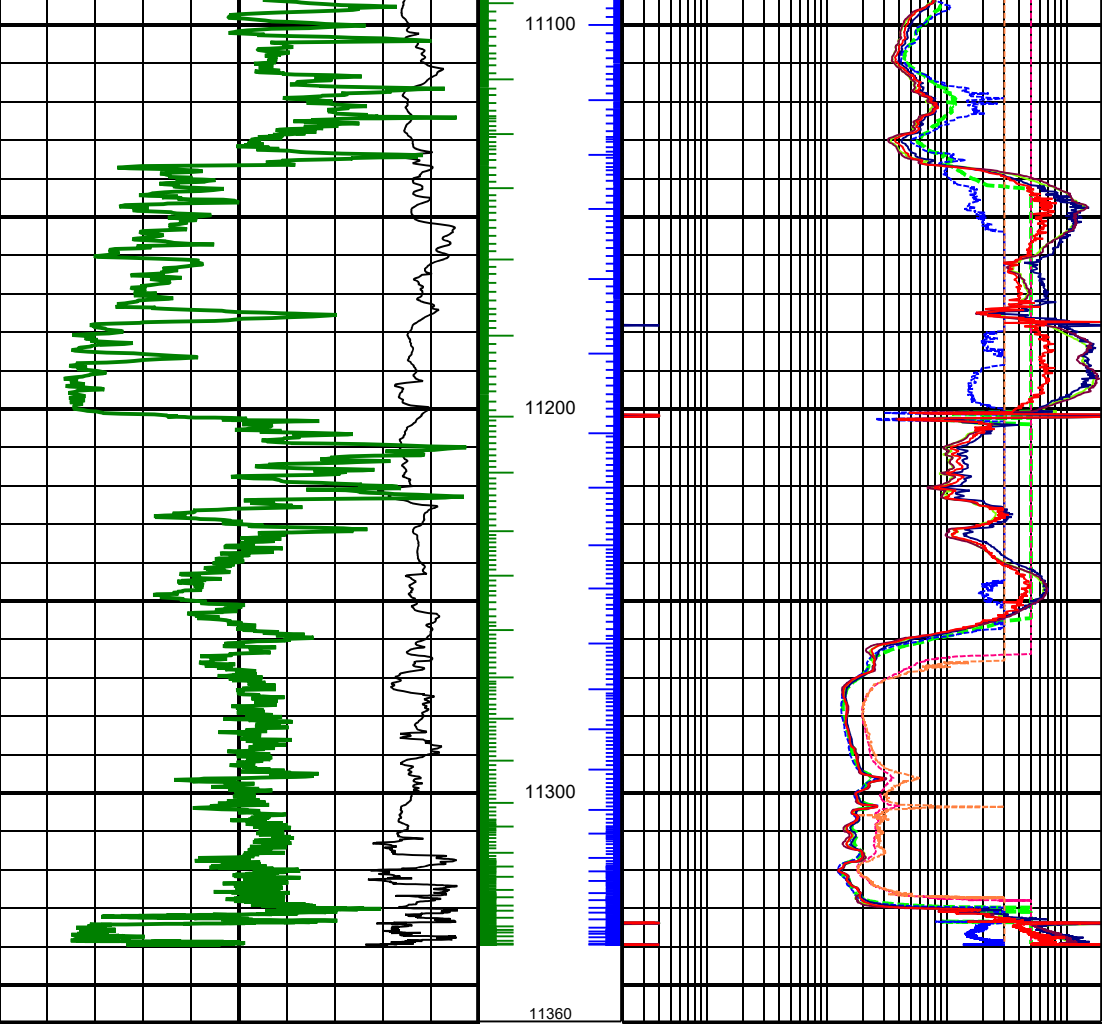
|                               |       |       |       |  |  |
|-------------------------------|-------|-------|-------|--|--|
|                               |       |       |       |  |  |
| <b>DRILLING FLUID SUMMARY</b> |       |       |       |  |  |
| <b>Mud Type</b>               | OBM   | OBM   | OBM   |  |  |
| <b>Density (lb/gal)</b>       | 9.30  | 9.50  | 9.40  |  |  |
| <b>Funnel Viscosity</b>       | 47    | 47    | 47    |  |  |
| <b>Plastic Viscosity</b>      | 14    | 14    | 14    |  |  |
| <b>Chlorides</b>              | 42000 | 43000 | 42000 |  |  |
| <b>Oil/Water Ratio</b>        | 73/27 | 73/27 | 73/27 |  |  |
| <b>Maximum Circ Temp (F)</b>  | 142   | 160   | 190   |  |  |



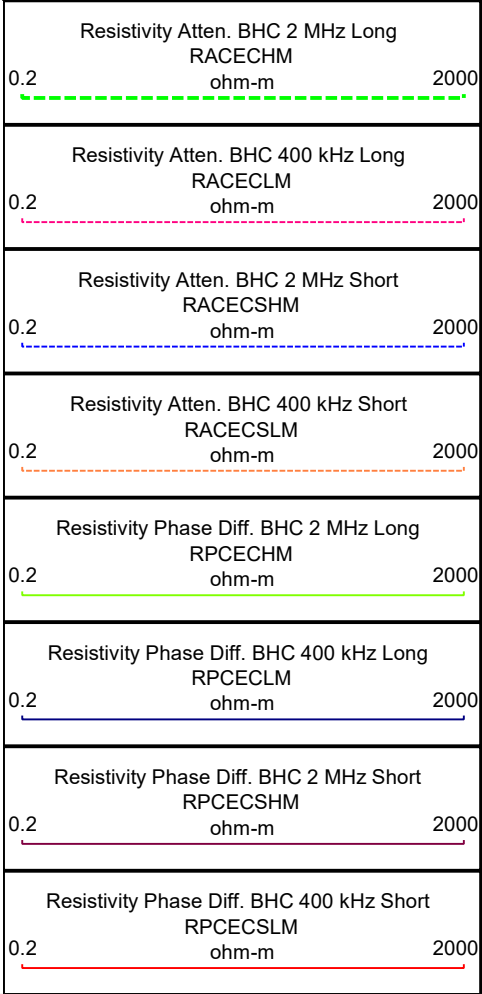


TVD  
FEET  
1:600





11360  
1:600  
FEET  
TVD



| EQUIPMENT |            |            |            |  |  |
|-----------|------------|------------|------------|--|--|
| Log Run   | WPR RUN #1 | WPR RUN #2 | WPR RUN #3 |  |  |
| Bit Run   | Run #5     | Run #6     | Run #7     |  |  |

|                              |                     |                     |                     |  |  |
|------------------------------|---------------------|---------------------|---------------------|--|--|
| <b>Bit Run</b>               | RUN #5              | RUN #6              | RUN #7              |  |  |
| <b>Start Date/Time</b>       | 2019-12-03 12:44:51 | 2019-12-06 07:43:48 | 2019-12-10 15:51:48 |  |  |
| <b>Start Depth (ft)</b>      | 10730               | 12115               | 15046               |  |  |
| <b>End Date/Time</b>         | 2019-12-06 07:43:47 | 2019-12-10 15:51:47 | 2019-12-14 09:30:00 |  |  |
| <b>End Depth (ft)</b>        | 12115               | 15045.99            | 18906               |  |  |
| <b>Serial Numbers</b>        |                     |                     |                     |  |  |
| <b>Surface Gear</b>          | 1082                | 1082                | 1082                |  |  |
| <b>Flow Sub</b>              | 35467-2             | 15388-1             | 35467-2             |  |  |
| <b>Pulser</b>                | 2522                | 1720                | 1125                |  |  |
| <b>Battery 1</b>             | 1282/3695           | 4/3684              | 1282/3695           |  |  |
| <b>Battery 2</b>             | 3692/942            | 3419/877            | 3692/942            |  |  |
| <b>Turbine Alternator</b>    | N/A                 | N/A                 | N/A                 |  |  |
| <b>Directional Sensor</b>    | 640                 | 640                 | 1539                |  |  |
| <b>Gamma Sensor</b>          | 1049                | 1049                | 1042                |  |  |
| <b>WPR Sensor</b>            | 760                 | 760                 | 609                 |  |  |
| <b>Vibration Sensor</b>      | VMM sn: 640         | VMM sn: 640         | VMM sn: 1539        |  |  |
| <b>Sensor Offsets To Bit</b> |                     |                     |                     |  |  |
| <b>Directional (ft)</b>      | 45.36               | 59.28               | 53.36               |  |  |
| <b>Gamma Ray (ft)</b>        | 40.96               | 54.88               | 48.96               |  |  |
| <b>WPR (ft)</b>              | 33.21               | 47.13               | 41.21               |  |  |
| <b>PWD (ft)</b>              |                     |                     |                     |  |  |
| <b>Vibration (ft)</b>        | 45.36               | 59.28               | 53.36               |  |  |
|                              |                     |                     |                     |  |  |





1:240

**LWD**

**MD Log**

*Directional  
Gamma  
Resistivity*

Country : **USA**  
Field : **Delaware Basin**  
Location : **32°27'29.104 N**  
: **103°35'20.061 W**  
Well : **Wool Head 20 State Com**  
Company : **AEP**  
Rig : **H&P 466**

**LOCATION**

Company : **AEP**  
Rig : **H&P 466**  
Well : **Wool Head 20 State Com #554H**  
Field : **Delaware Basin**  
Country : **USA**  
Well ID : **30-025-46483**

Latitude : **32°27'29.104 N**  
Longitude : **103°35'20.061 W**  
**Eunice**

Other Services:

Permanent Datum : **MSL** Elevation: **3727**  
Log Measured From : **Drill Floor**

Elev. KB : **N/A**  
DF : **3752**  
GLWD : **3727**

Depth Logged : **10730** to : **18906**  
Date Logged : **12/4/19** to : **12/14/19**  
Total Depth MD : **8176.00** TVD : **-999.25**  
Spud Date : **11/12/19**

**FINAL PRINT**

Job Number:  
**WOOL HEAD 20 STATE COM 20**

| Run    |  | Borehole Record (MD)<br>Size From To |              | Run |  | Borehole Record (MD)<br>Size From To      |  |
|--------|--|--------------------------------------|--------------|-----|--|-------------------------------------------|--|
| 1<br>4 |  | 0                                    | 1838<br>5257 |     |  | Casing Record (MD)<br>Size Weight From To |  |
|        |  |                                      |              |     |  |                                           |  |
|        |  |                                      |              |     |  | 13 3/8<br>9 5/8                           |  |

**DISCLAIMER**

**LOGGING SUMMARY**

| Log Run        | WPR RUN #1 | WPR RUN #2 | WPR RUN #3 |  |  |
|----------------|------------|------------|------------|--|--|
| Bit Run        | RUN #5     | RUN #6     | Run #7     |  |  |
| Hole Size (in) | 8.50       | 8.50       | 8.50       |  |  |
| Sensor Suite   | WPR        | WPR        | WPR        |  |  |

**Measured Depth**

|              |          |          |          |  |  |
|--------------|----------|----------|----------|--|--|
| In Hole From | 10730    | 12115    | 15046    |  |  |
| In Hole To   | 12115    | 15045.99 | 18906    |  |  |
| Log From     | 10730.00 | 12115.00 | 15046.00 |  |  |
| Log To       | 12115.00 | 15045.99 | 18906.00 |  |  |

**Date/Time**

|                |            |            |            |  |  |
|----------------|------------|------------|------------|--|--|
| In Hole Date   | 2019-12-03 | 2019-12-06 | 2019-12-10 |  |  |
| In Hole Time   | 12:44:51   | 07:43:48   | 15:51:48   |  |  |
| Out Hole Date  | 2019-12-06 | 2019-12-10 | 2019-12-14 |  |  |
| Out Hole Time  | 07:43:47   | 15:51:47   | 09:30:00   |  |  |
| Begin Log Date | 2019-12-03 | 2019-12-06 | 2019-12-10 |  |  |
| Begin Log Time | 12:44:51   | 07:43:47   | 15:51:47   |  |  |
| End Log Date   | 2019-12-06 | 2019-12-13 | 2019-12-14 |  |  |
| End Log Time   | 13:28:55   | 21:33:26   | 09:30:00   |  |  |

|                 |             |               |             |  |  |
|-----------------|-------------|---------------|-------------|--|--|
| LWD Engineer    | Ben Wallace | Joseph Hatley | Ben Wallace |  |  |
| Oil Company Rep | TJ Nash     | Frank Calhoun | TJ Nash     |  |  |

|                               |       |       |       |  |  |
|-------------------------------|-------|-------|-------|--|--|
|                               |       |       |       |  |  |
| <b>DRILLING FLUID SUMMARY</b> |       |       |       |  |  |
| <b>Mud Type</b>               | OBM   | OBM   | OBM   |  |  |
| <b>Density (lb/gal)</b>       | 9.30  | 9.50  | 9.40  |  |  |
| <b>Funnel Viscosity</b>       | 47    | 47    | 47    |  |  |
| <b>Plastic Viscosity</b>      | 14    | 14    | 14    |  |  |
| <b>Chlorides</b>              | 42000 | 43000 | 42000 |  |  |
| <b>Oil/Water Ratio</b>        | 73/27 | 73/27 | 73/27 |  |  |
| <b>Maximum Circ Temp (F)</b>  | 142   | 160   | 190   |  |  |

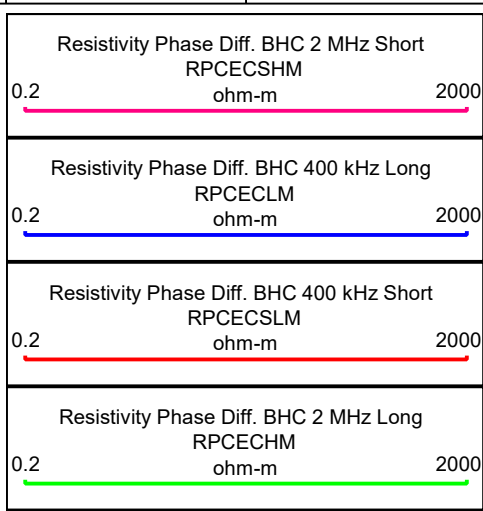
| CORRECTIONS      |                     |                     |                     |  |  |
|------------------|---------------------|---------------------|---------------------|--|--|
| Log Run          | WPR RUN #1          | WPR RUN #2          | WPR RUN #3          |  |  |
| Bit Run          | RUN #5              | RUN #6              | Run #7              |  |  |
| Start Date/Time  | 2019-12-04 15:35:39 | 2019-12-06 10:08:55 | 2019-12-10 18:30:00 |  |  |
| Start Depth (ft) | 10730               | 12115               | 15046               |  |  |
| End Date/Time    | 2019-12-06 10:08:54 | 2019-12-10 18:29:59 | 2019-12-14 09:30:01 |  |  |
| End Depth (ft)   | 12115               | 15046               | 18906               |  |  |

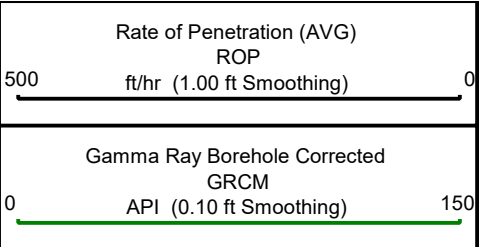
| <i>Gamma Ray Corrections</i> |
|------------------------------|
|                              |

|                             |      |      |       |  |  |
|-----------------------------|------|------|-------|--|--|
| <b>Collar Correction</b>    | 4.61 | 4.61 | 4.903 |  |  |
| <b>Mud Density (lb/gal)</b> | 9.5  | 9.5  | 9.5   |  |  |
| <b>Mud Correction</b>       | 1.27 | 1.27 | 1.259 |  |  |
| <b>Calibration</b>          | 1.04 | 1.04 | 1.19  |  |  |
| <b>%K</b>                   | 0    | 0    | 0     |  |  |

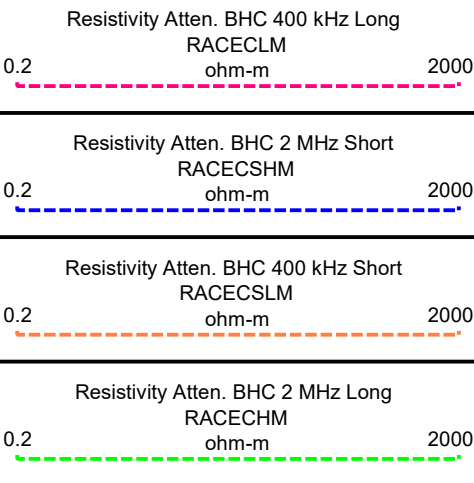
| WPR Corrections |  |
|-----------------|--|
|                 |  |

|                                  |         |         |         |  |  |
|----------------------------------|---------|---------|---------|--|--|
| <b>Effective Hole Diam (in)</b>  | 8.5     | 8.5     | 8.5     |  |  |
| <b>Surface Rm (ohm-m)</b>        | 1000    | 1000    | 1000    |  |  |
| <b>Surface Mud Temp (F)</b>      | 70      | 70      | 70      |  |  |
| <b>Bottom Hole Circ Temp (F)</b> | 250     | 250     | 250     |  |  |
| <b>Rm @ BHT</b>                  | 298.792 | 298.792 | 298.792 |  |  |

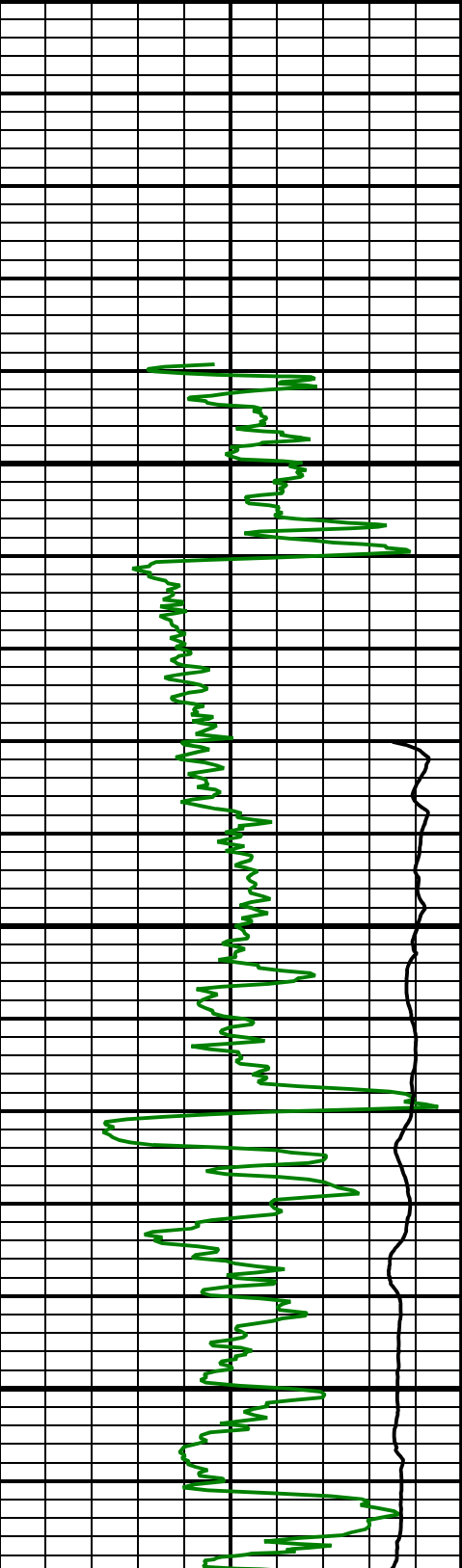




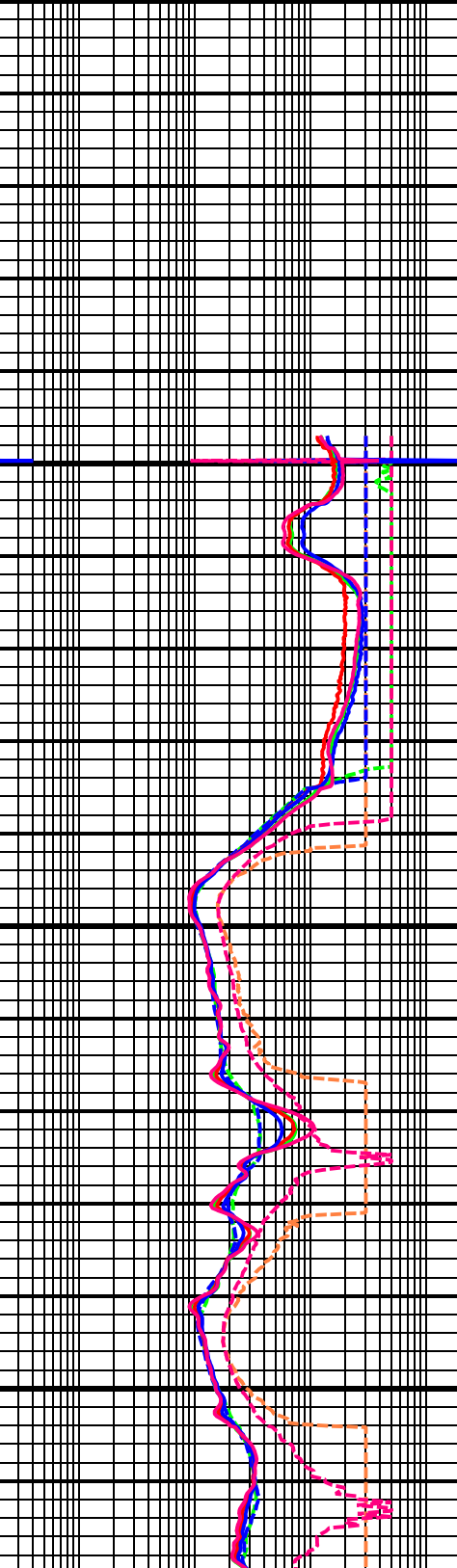
MD  
FEET  
1:240



Directional Surveys



10650  
10700  
10800

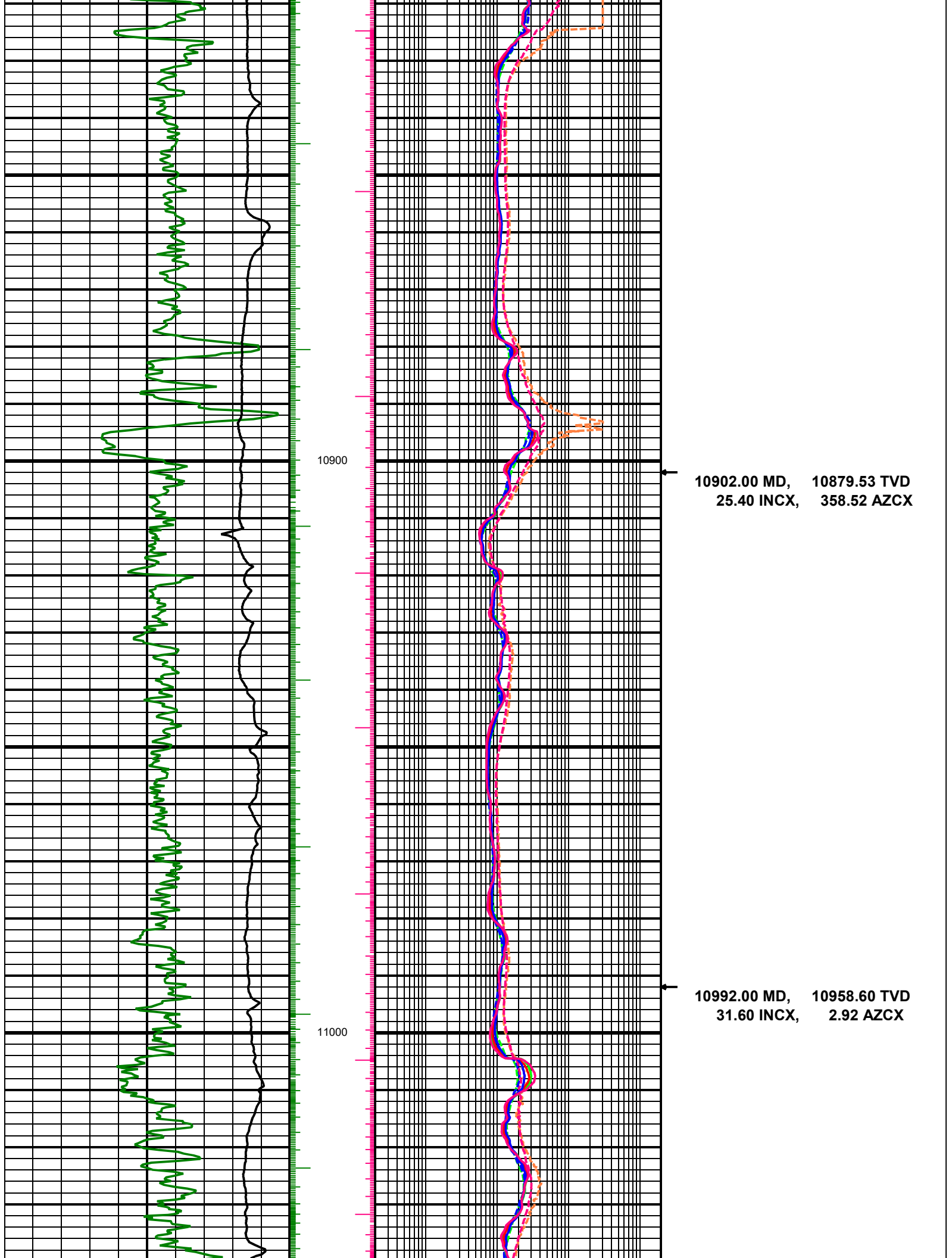


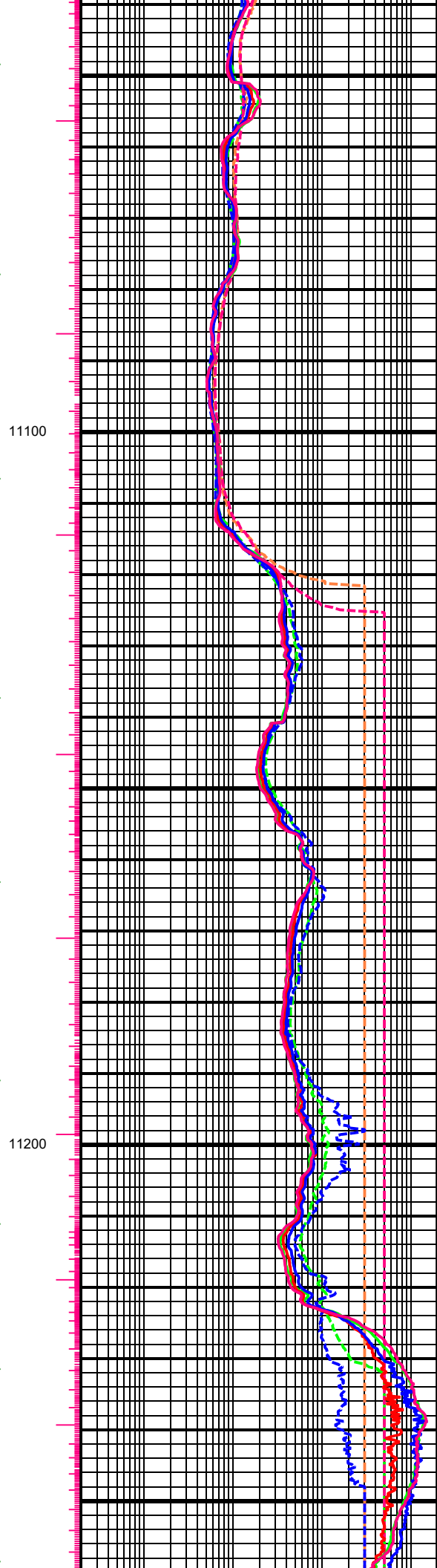
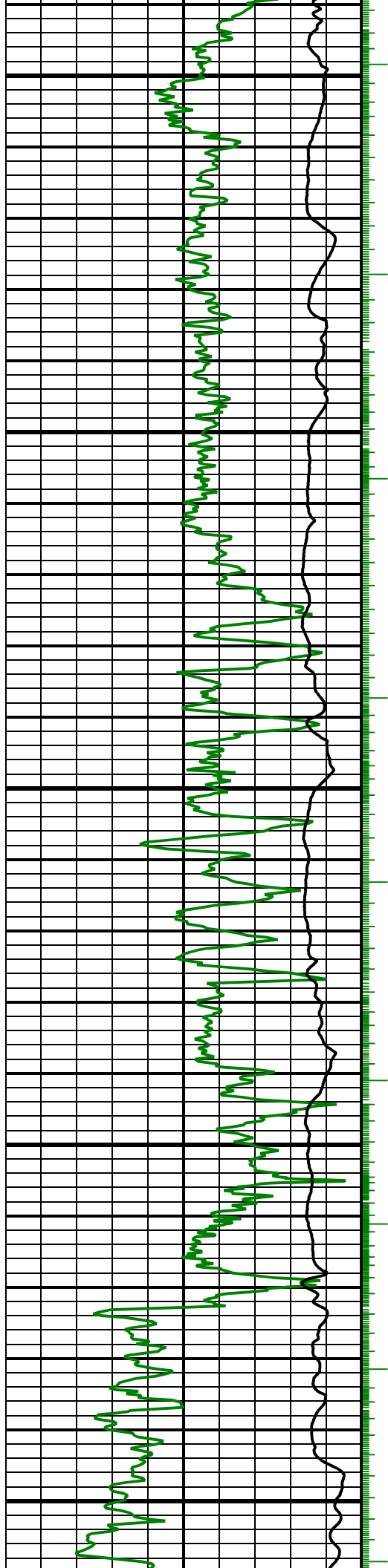
10667.00 MD, 10650.06 TVD  
1.85 INCX, 155.03 AZCX

10723.00 MD, 10706.03 TVD  
1.60 INCX, 154.82 AZCX

10812.00 MD, 10794.46 TVD  
12.00 INCX, 348.32 AZCX

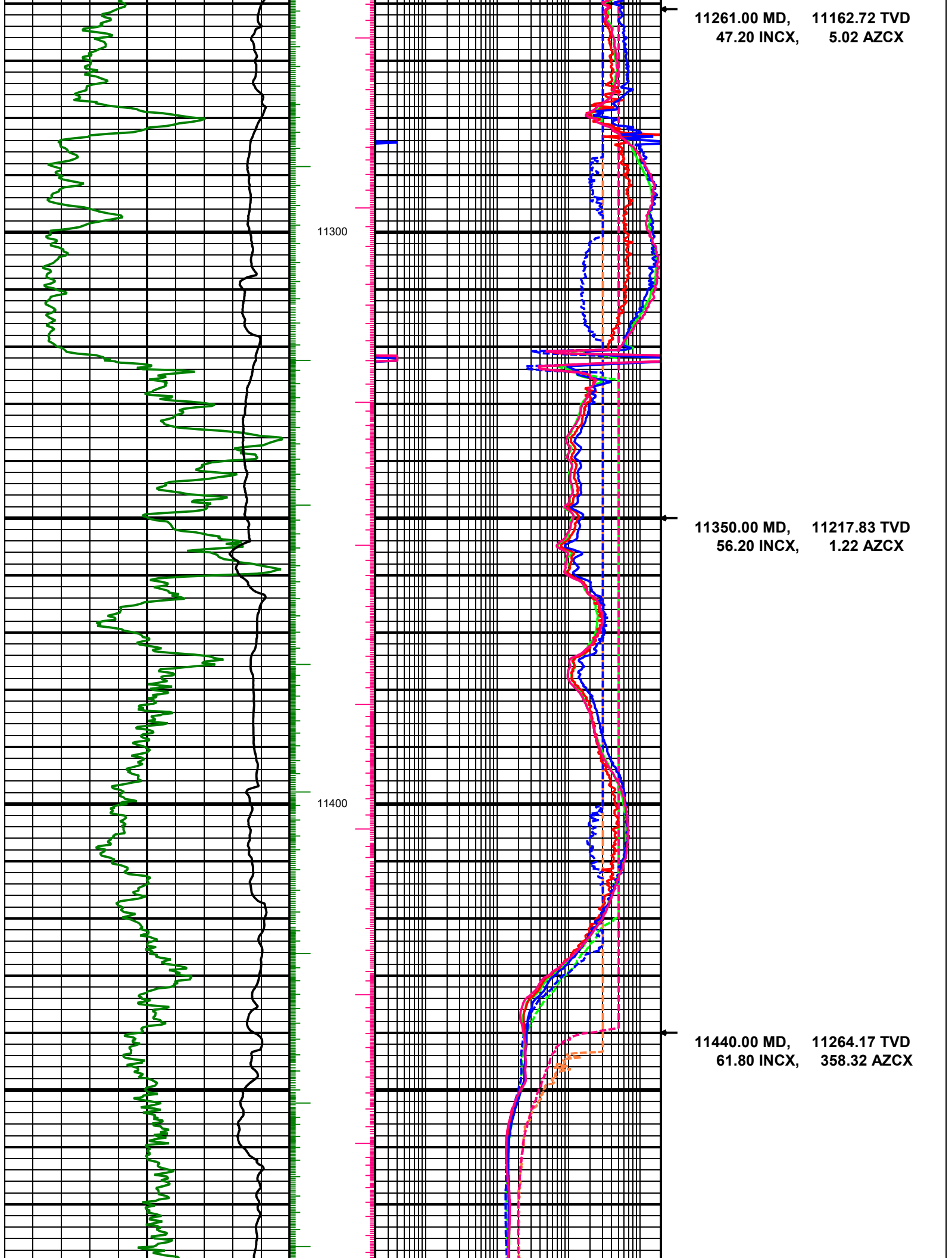


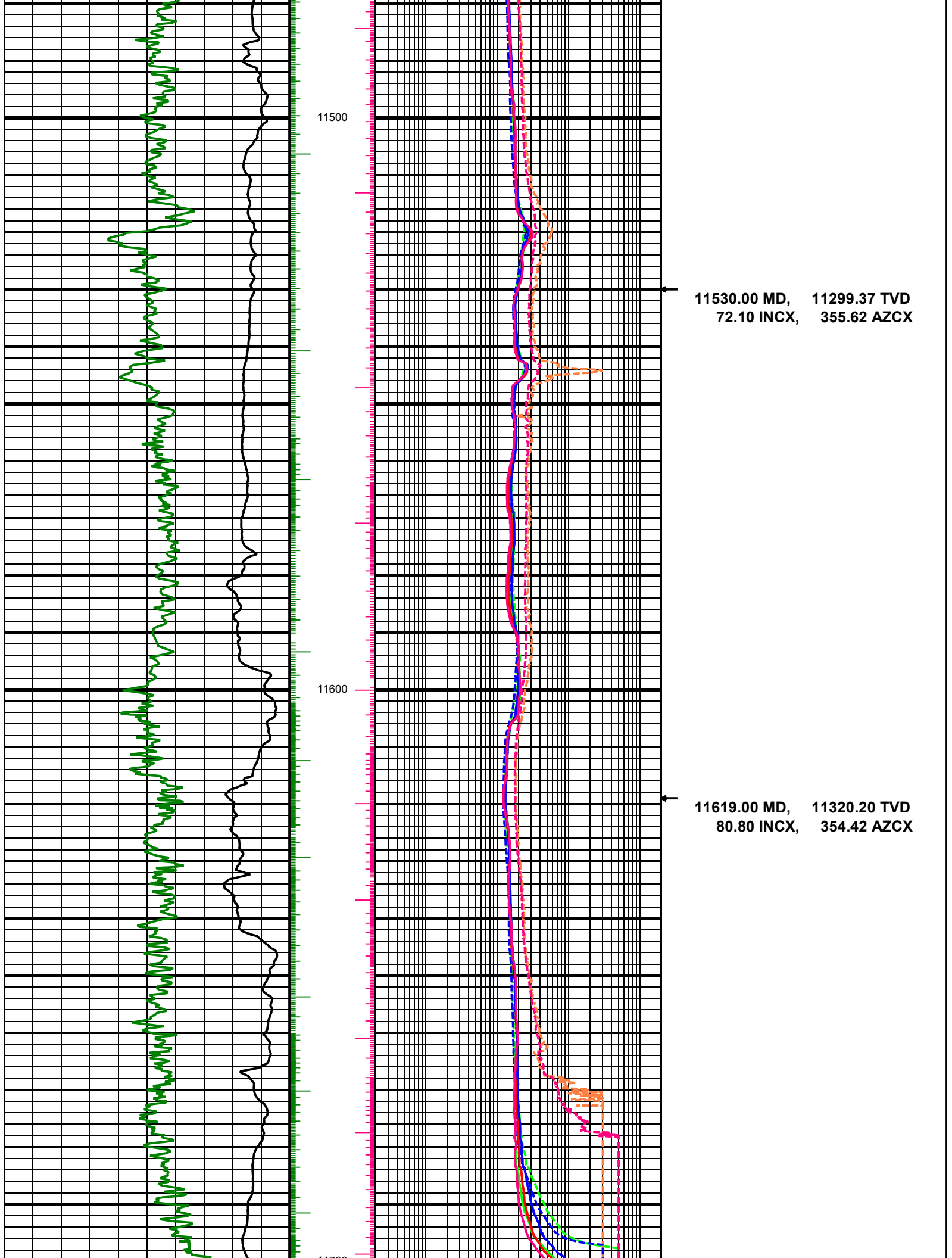


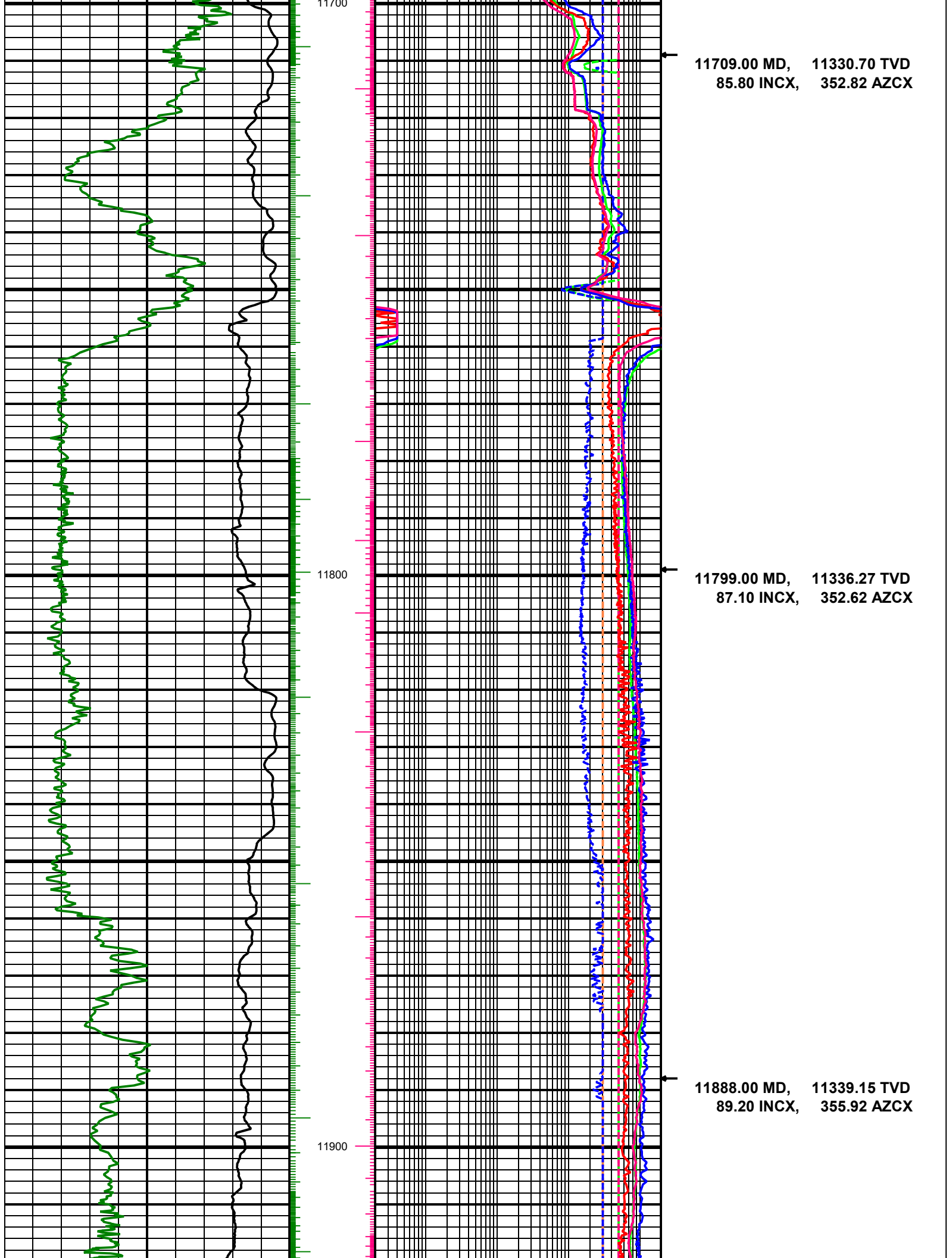


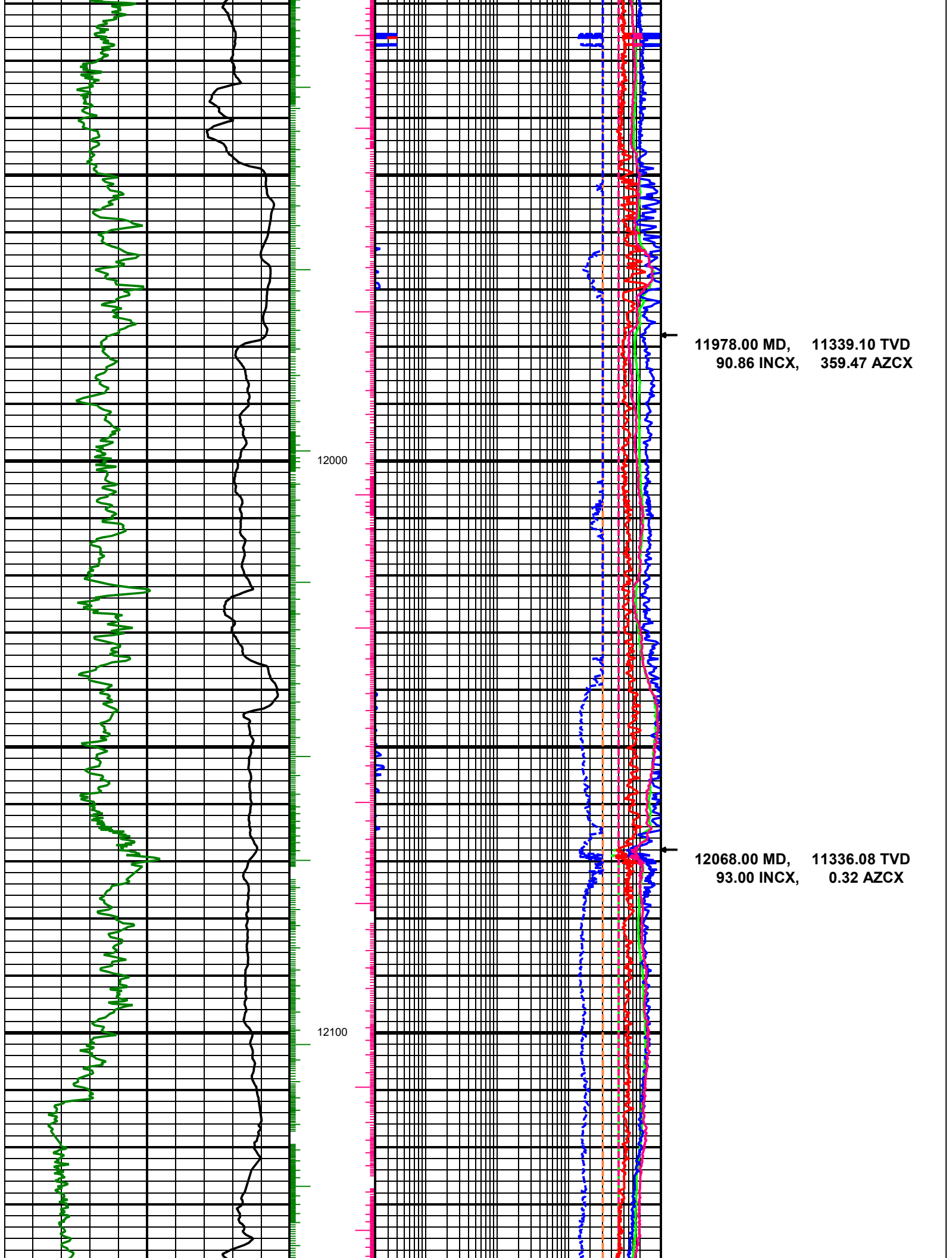
11082.00 MD, 11032.75 TVD  
37.40 INCX, 6.82 AZCX

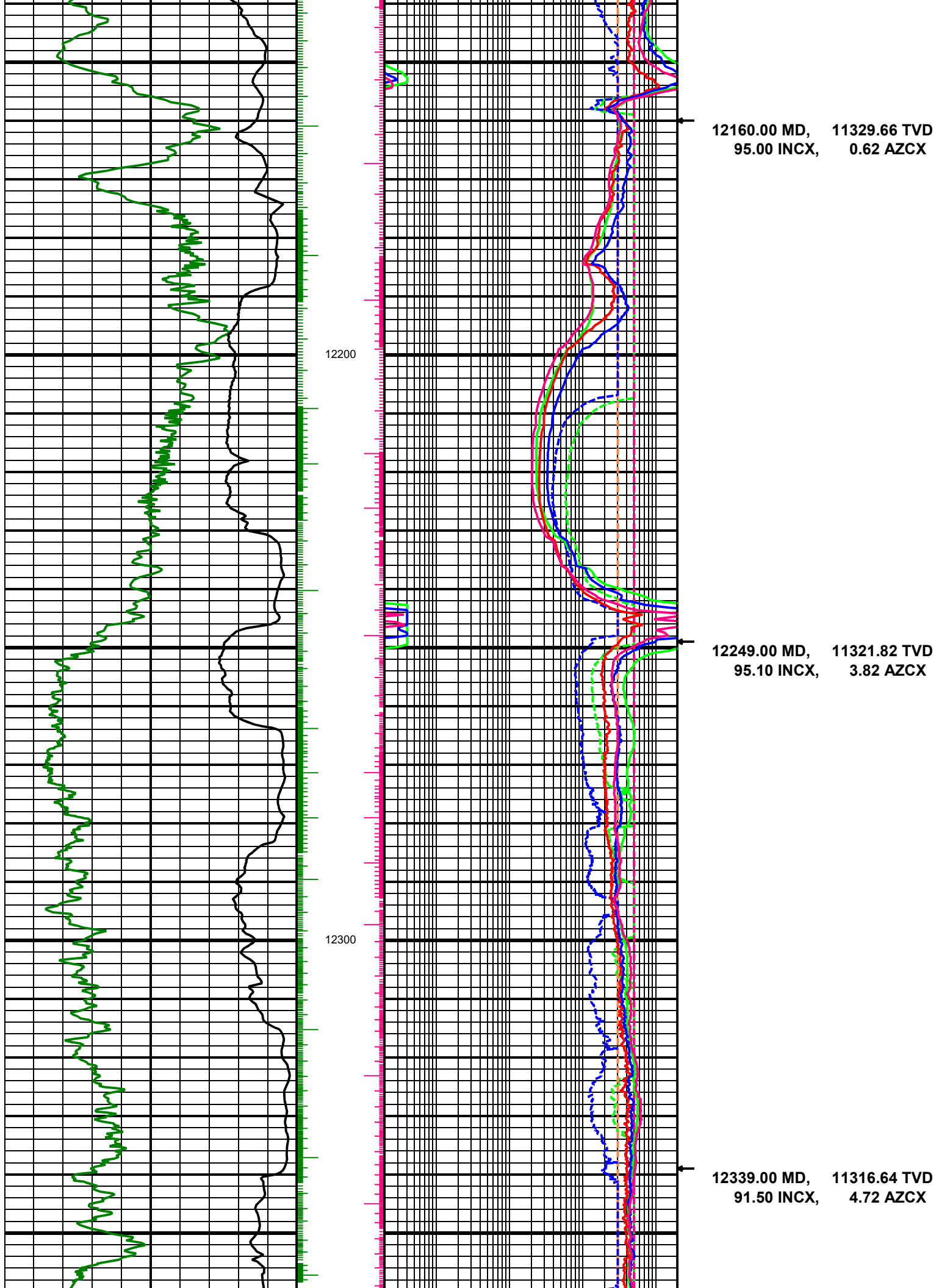
11171.00 MD, 11099.97 TVD  
44.40 INCX, 6.52 AZCX

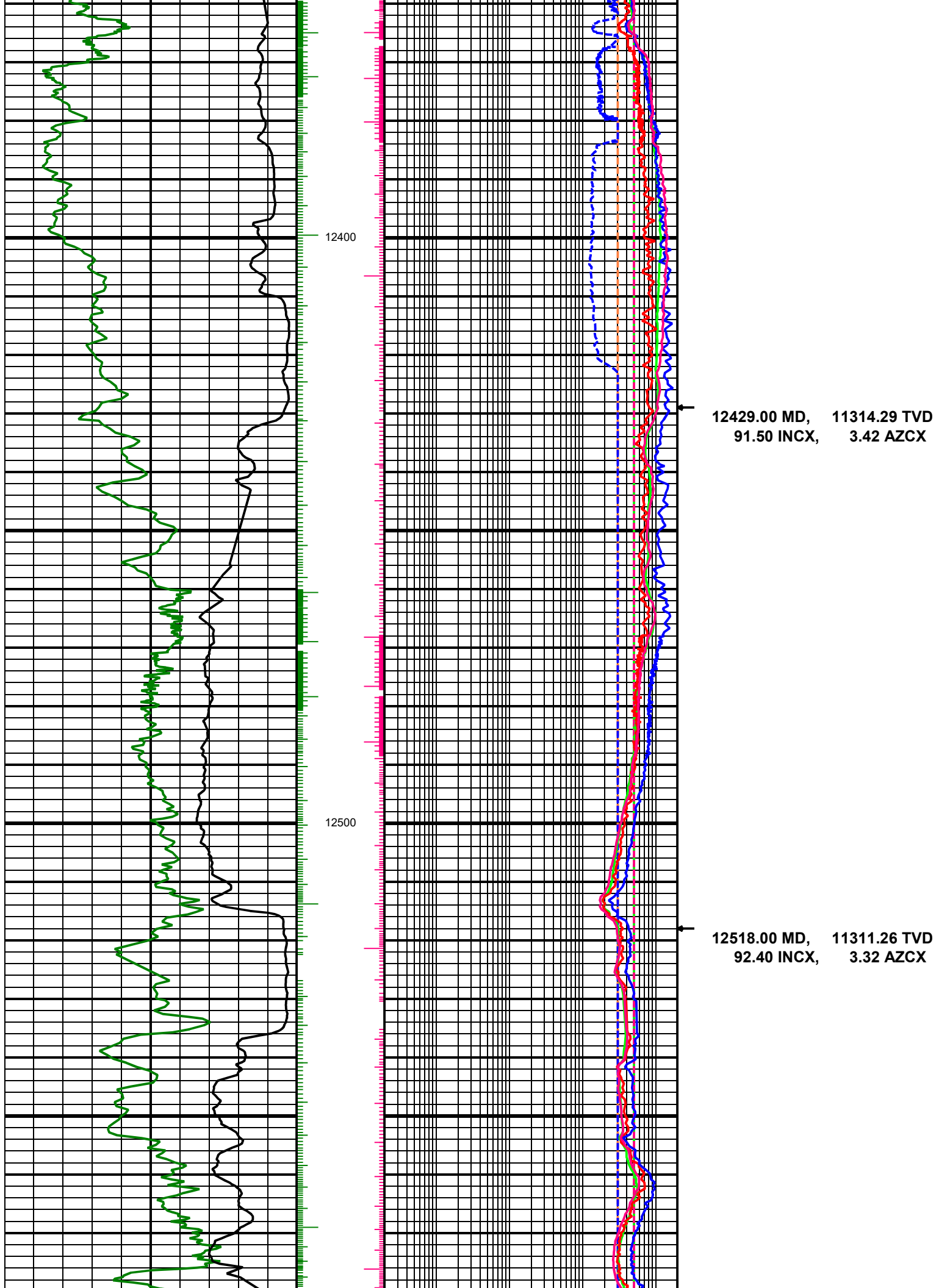




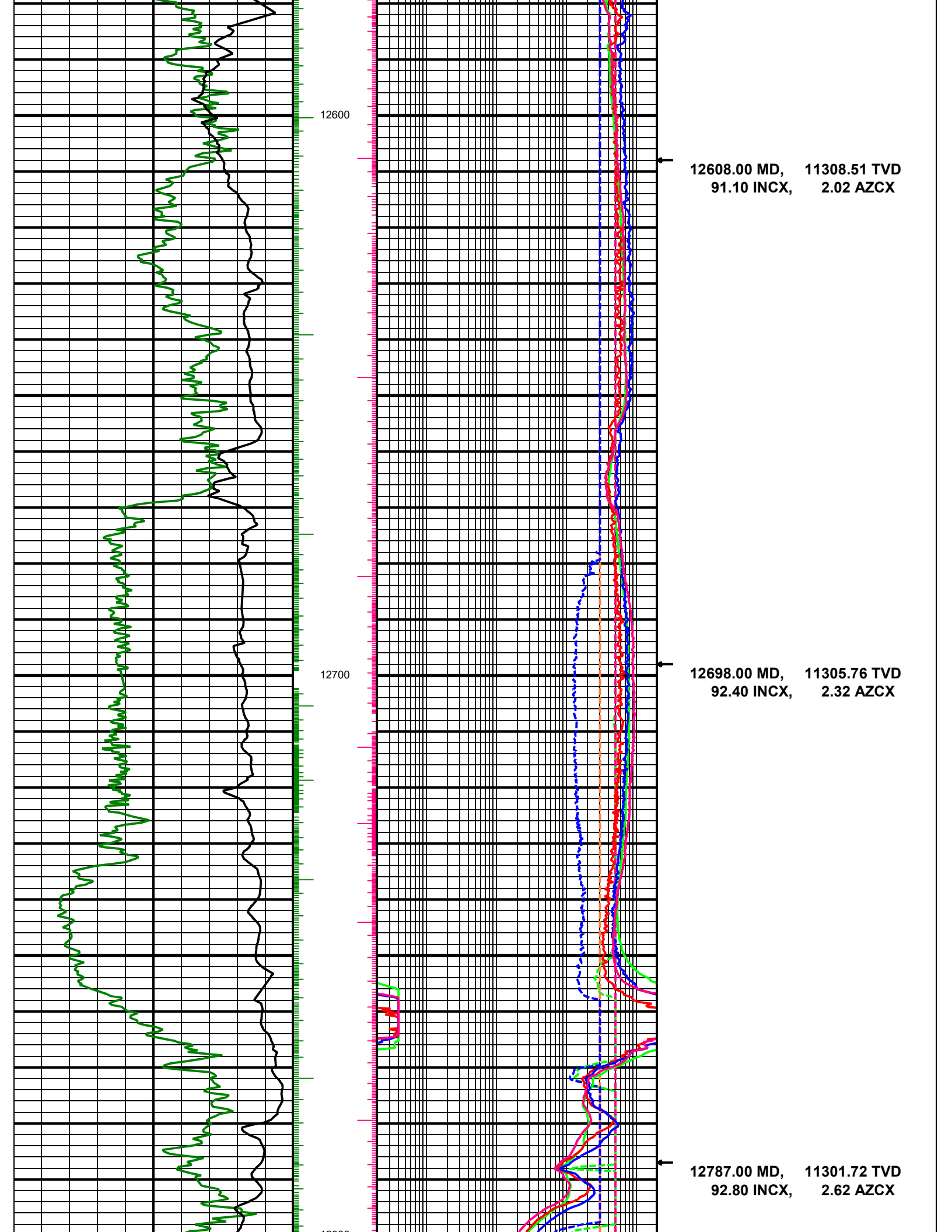


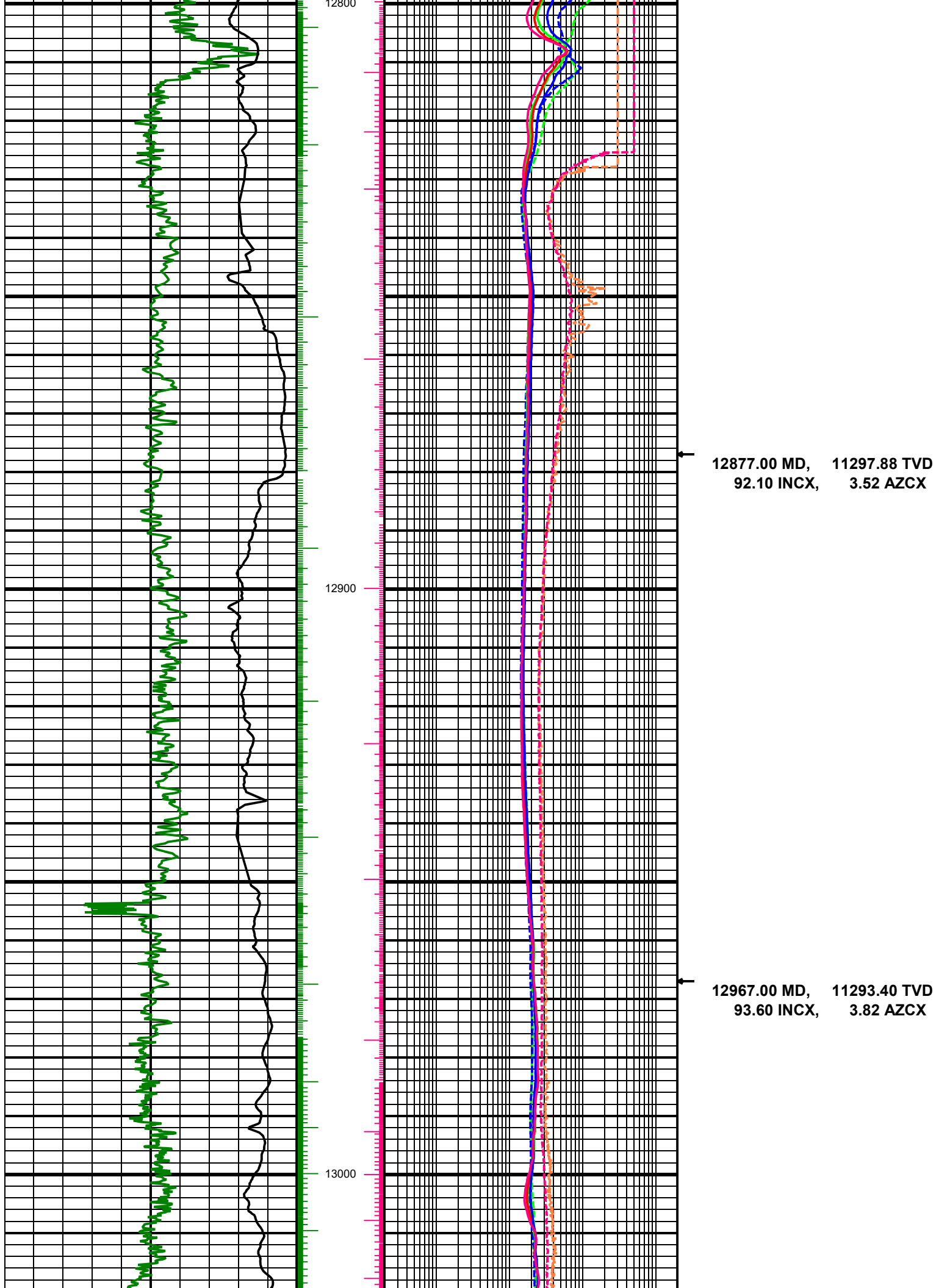


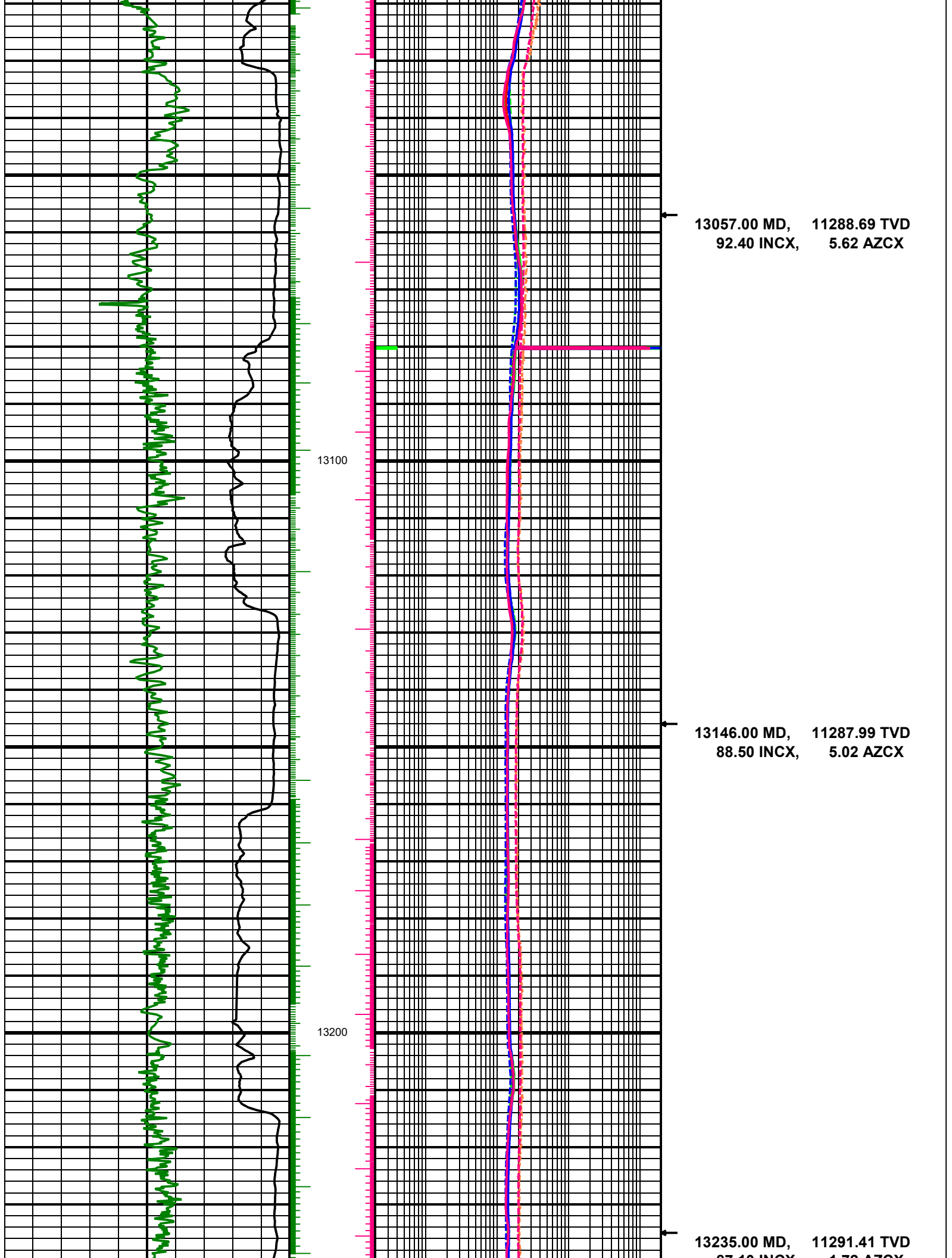




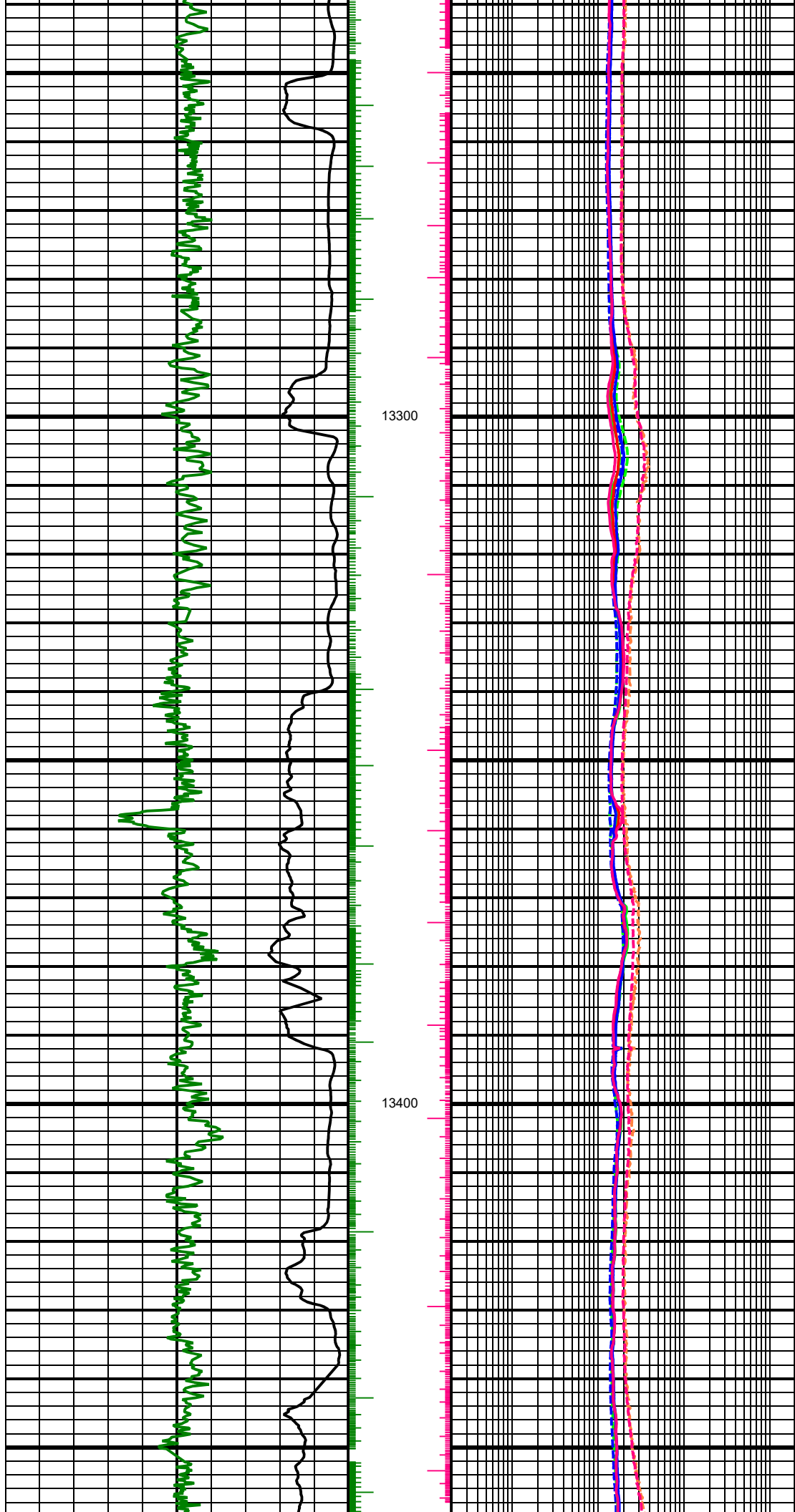






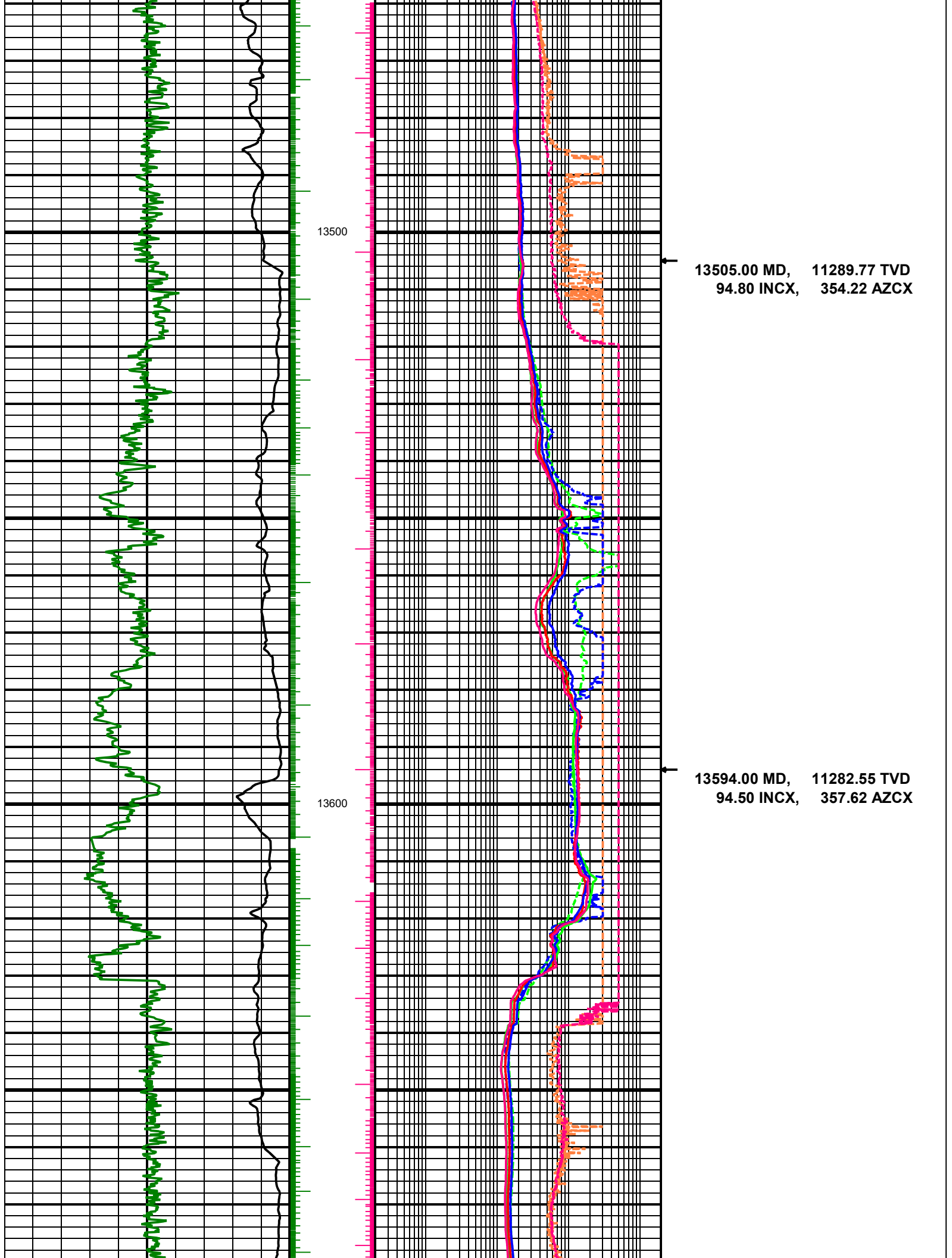


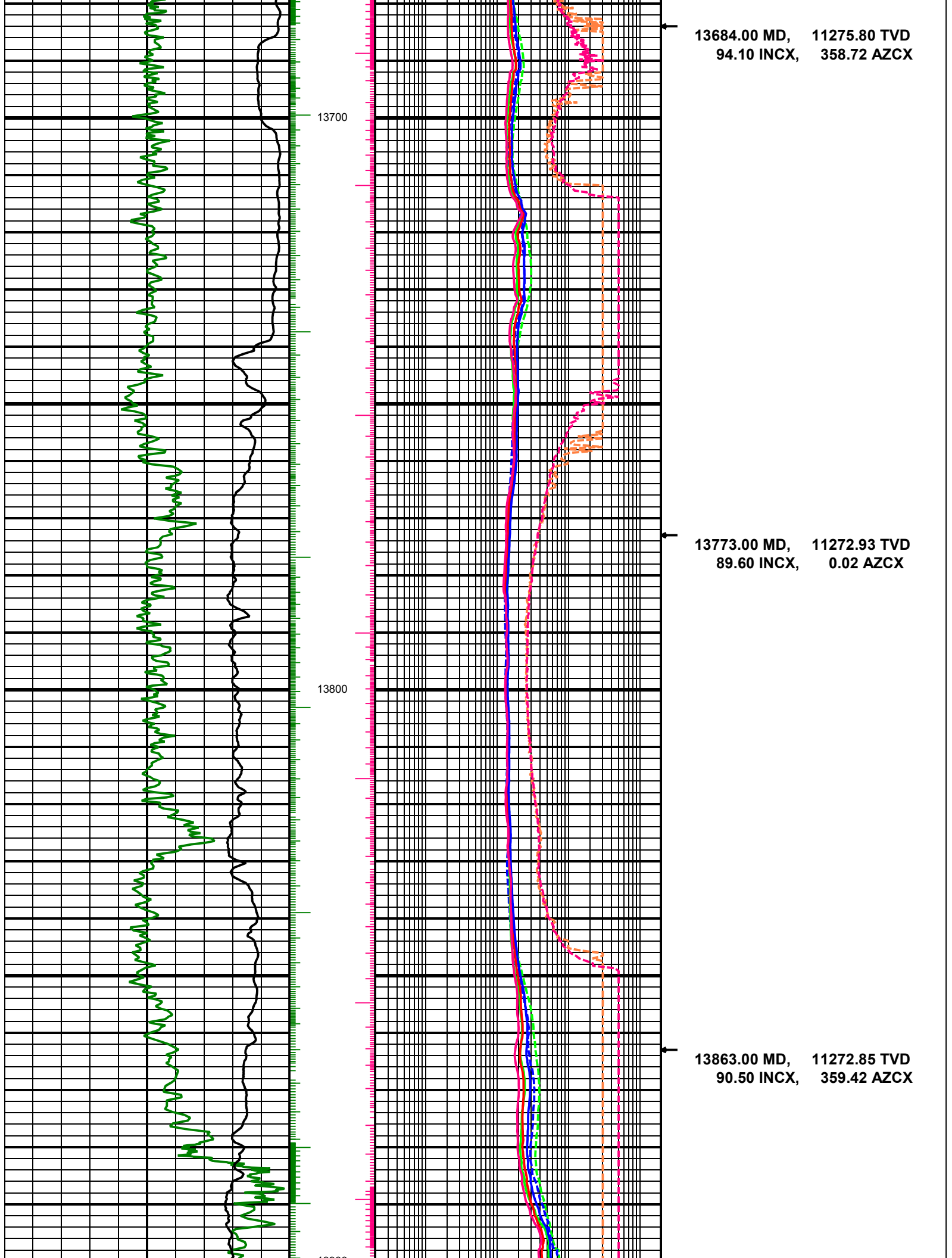
87.10 INCX, 1.72 AZCX

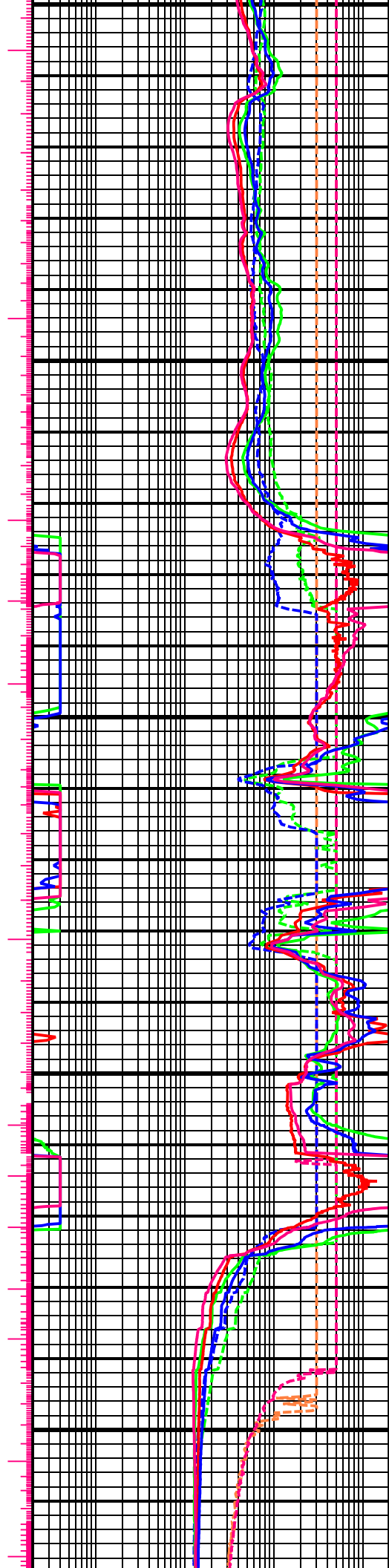
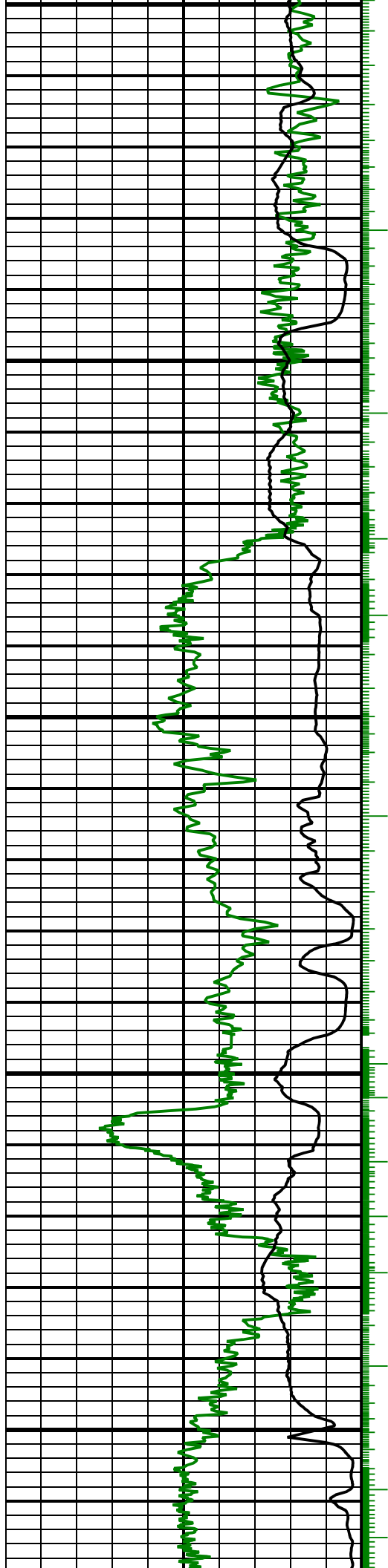


13325.00 MD, 11295.34 TVD  
87.90 INCX, 353.42 AZCX

13415.00 MD, 11295.26 TVD  
92.20 INCX, 352.12 AZCX

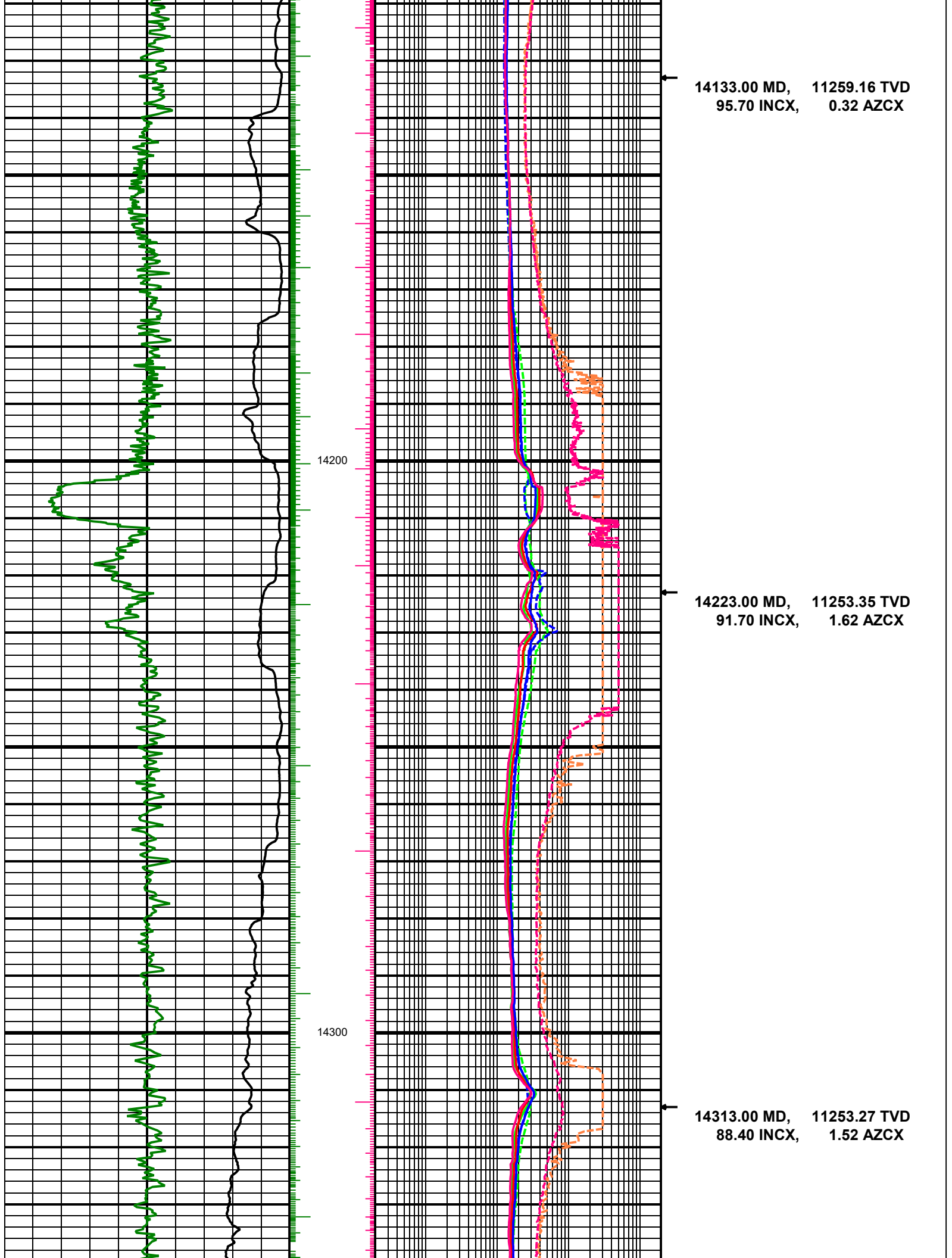




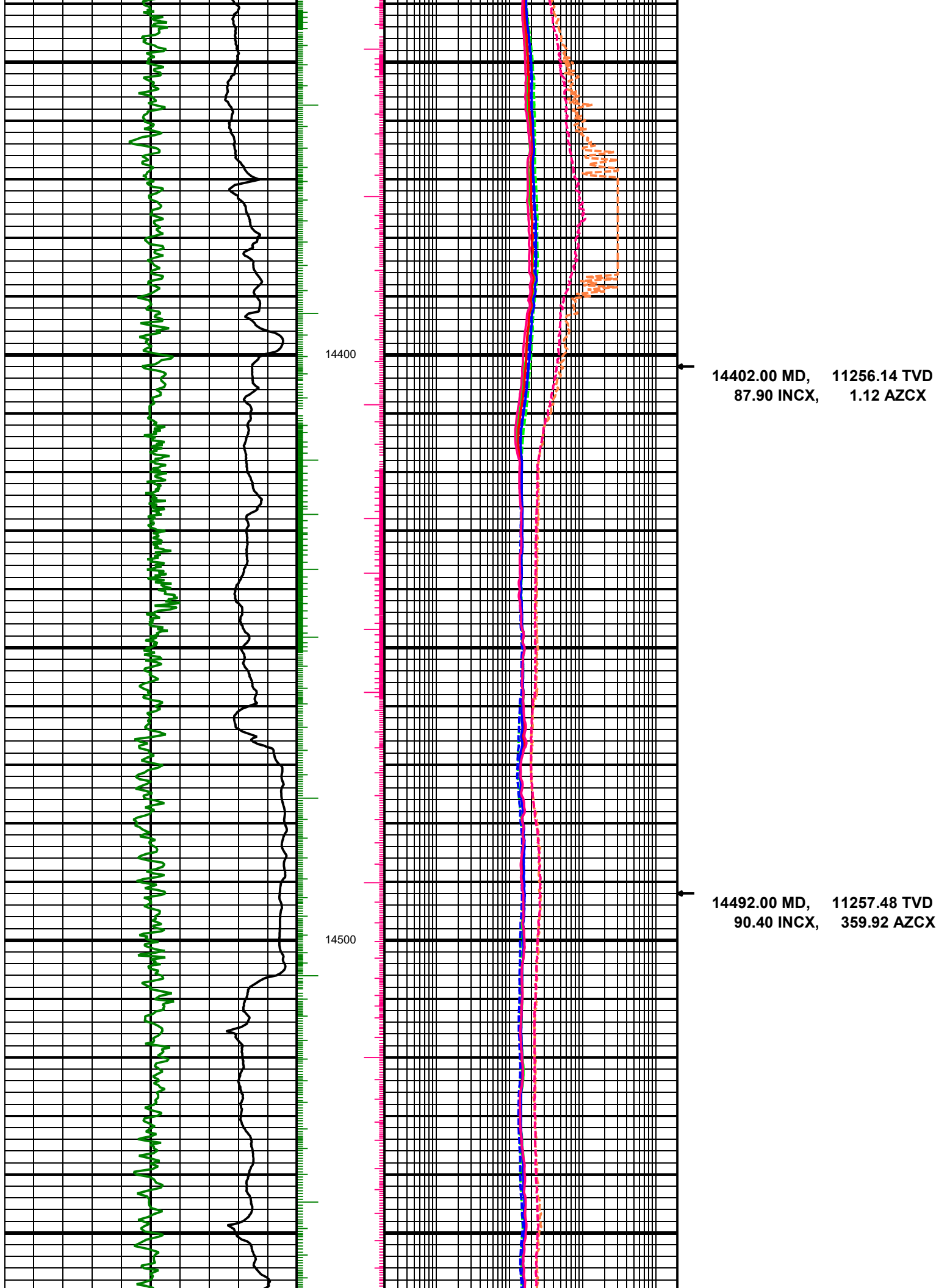


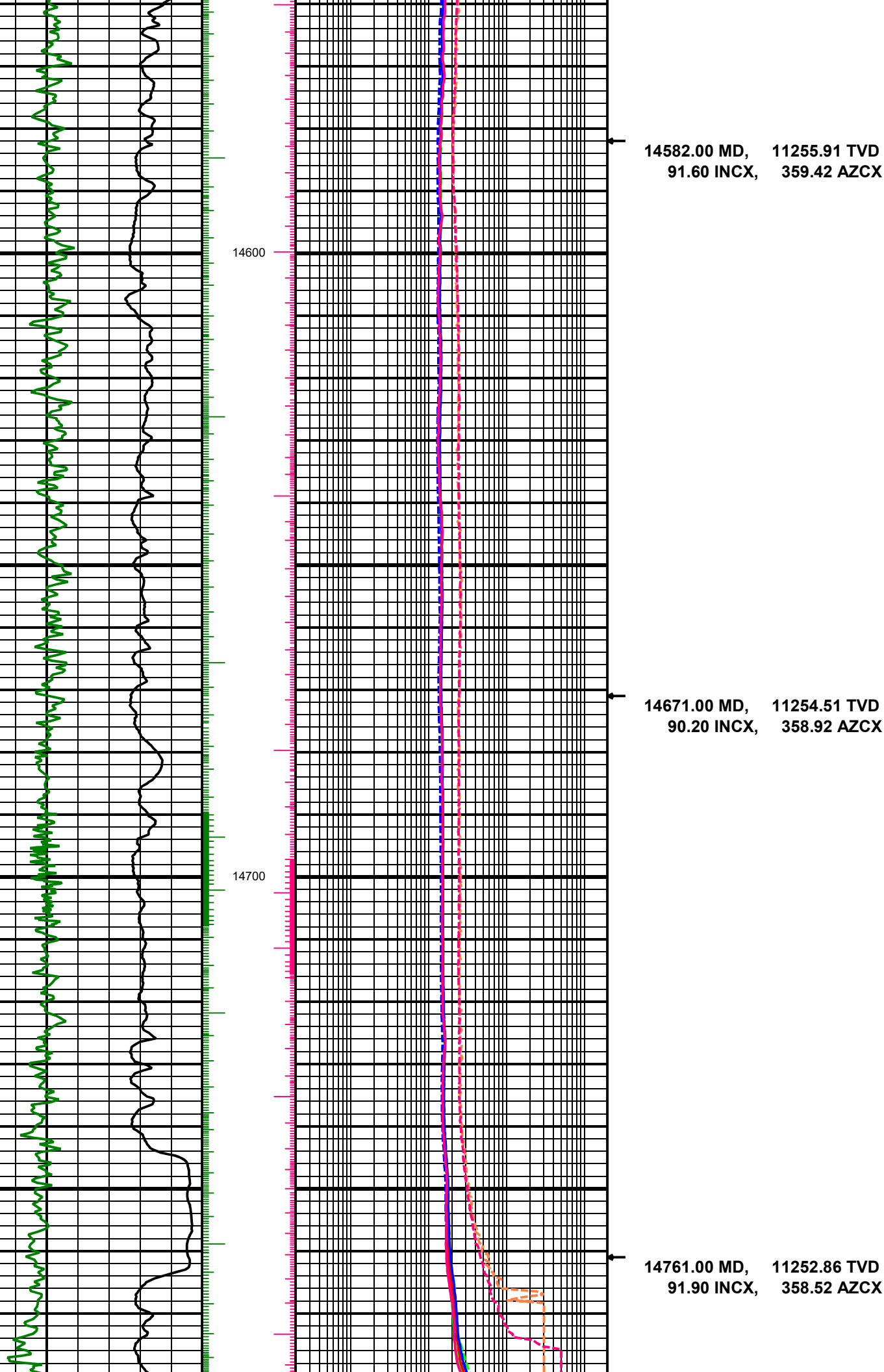
13953.00 MD, 11272.30 TVD  
90.20 INCX, 359.12 AZCX

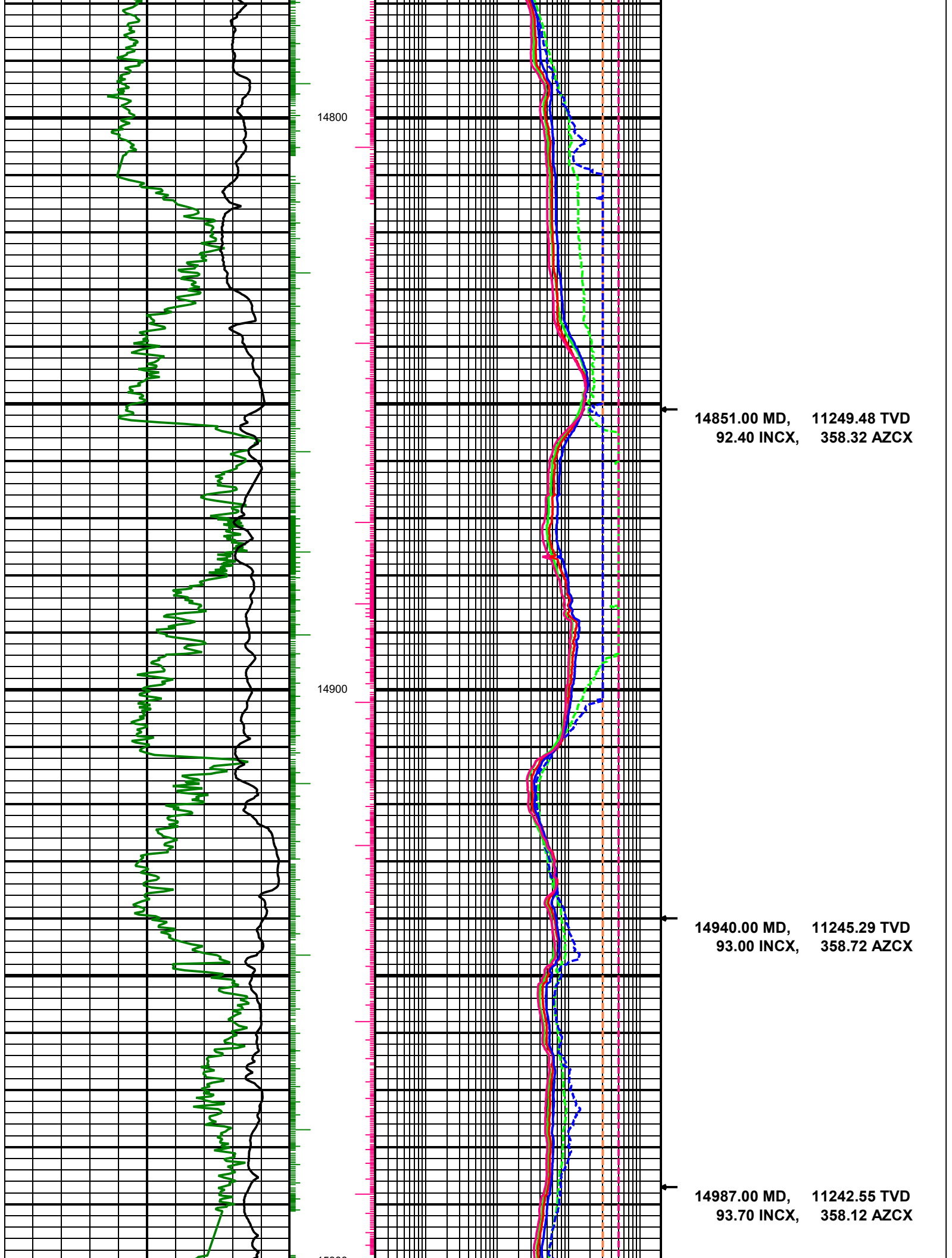
14042.00 MD, 11267.96 TVD  
95.40 INCX, 359.22 AZCX

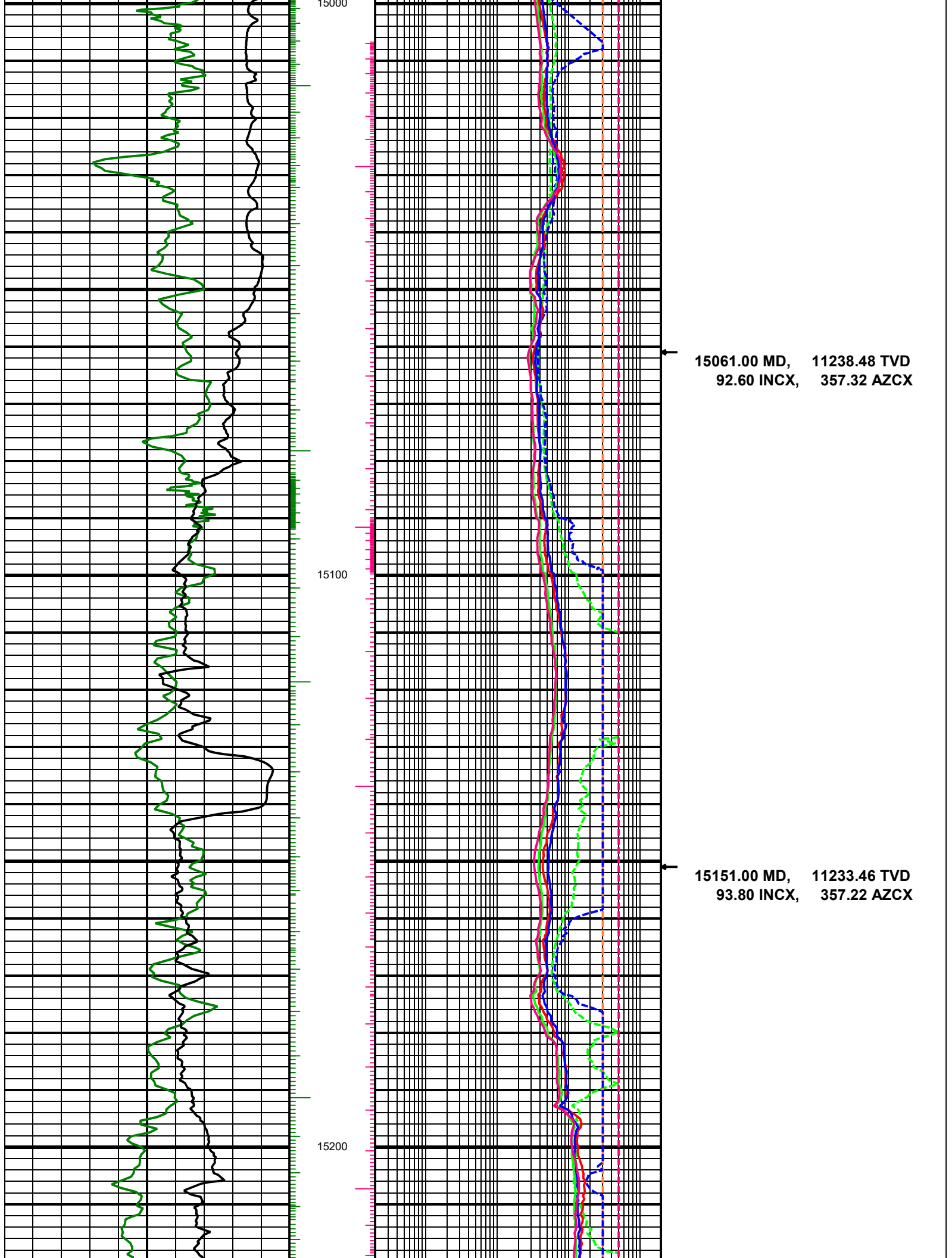


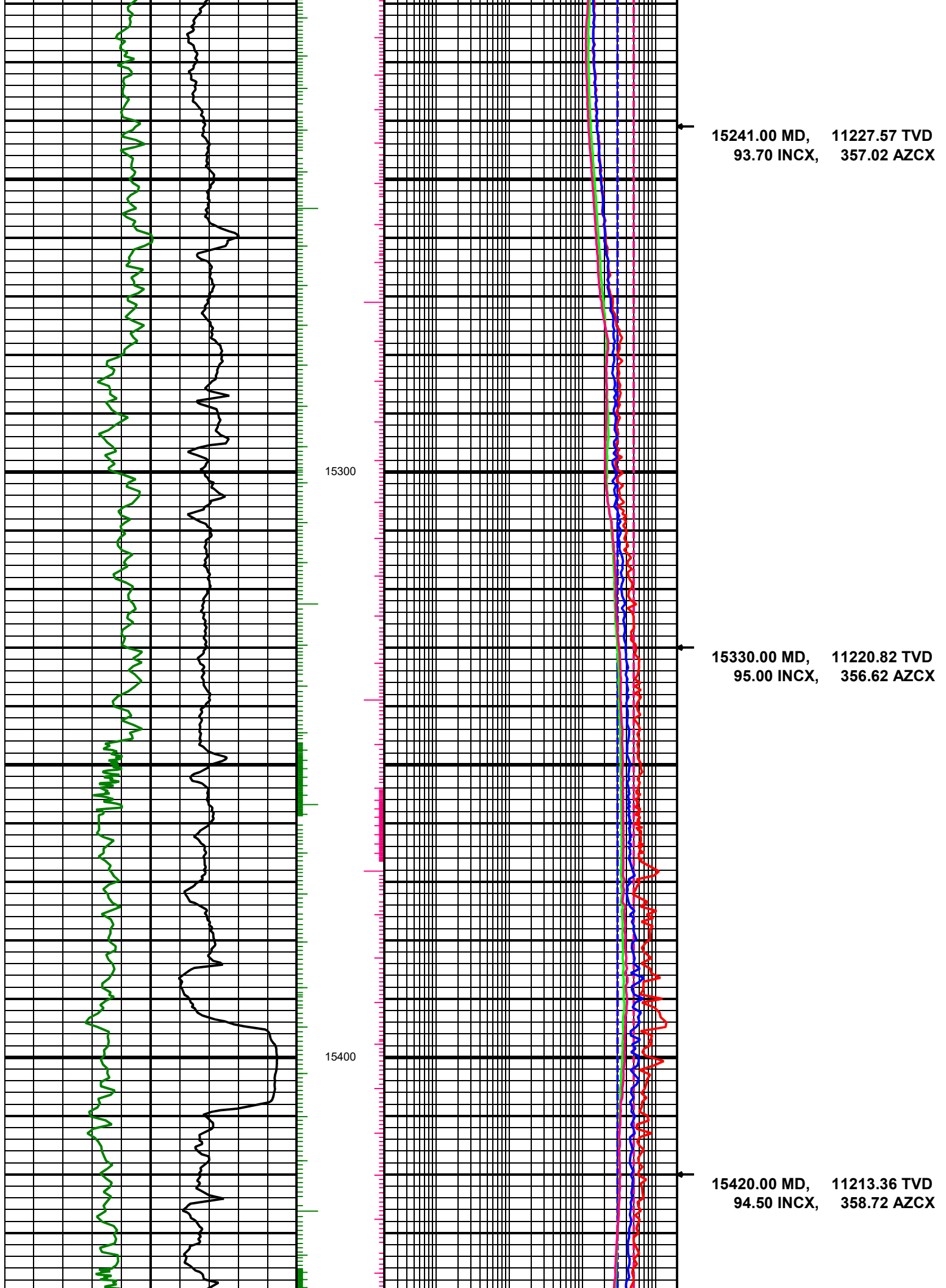


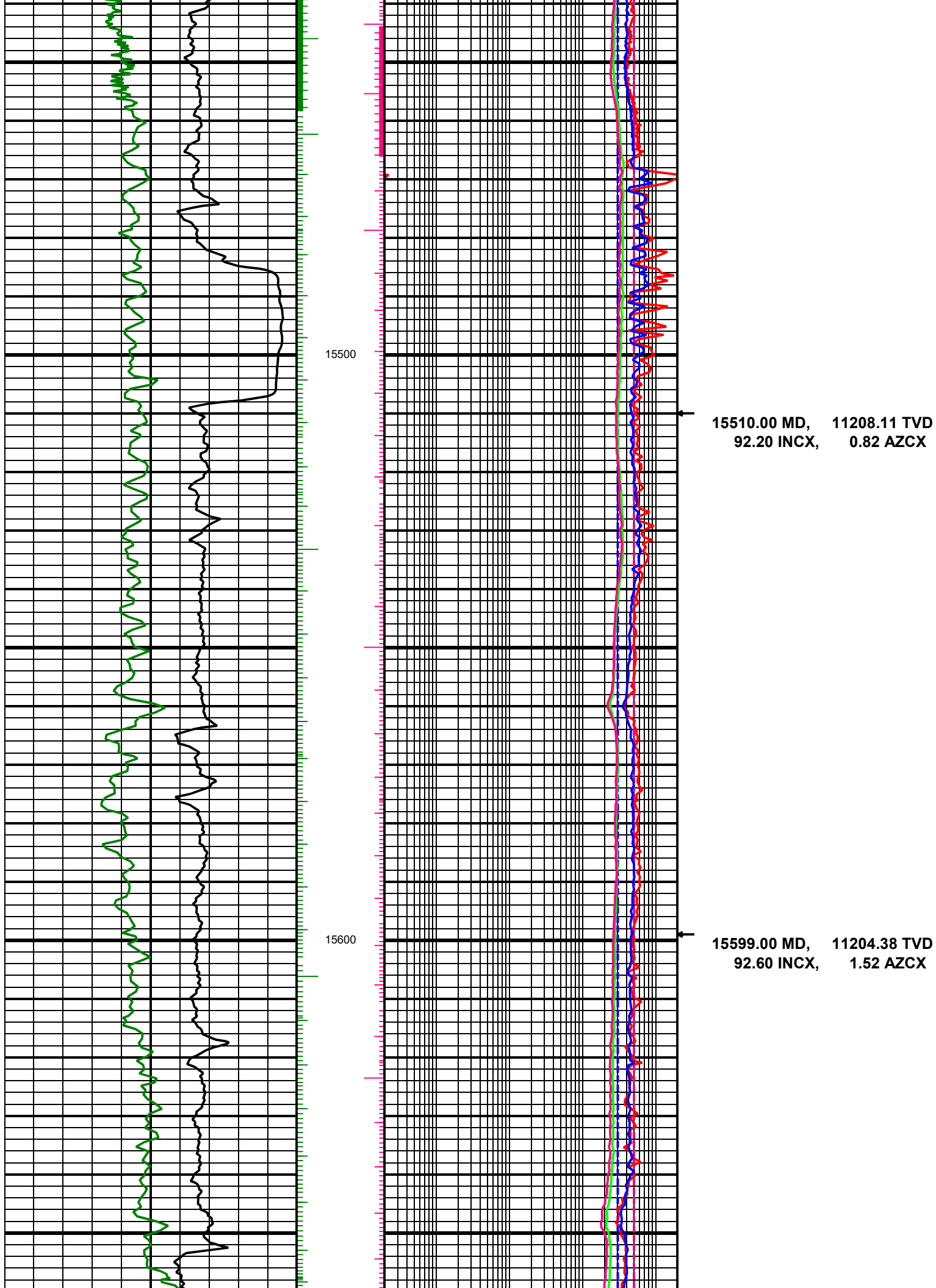


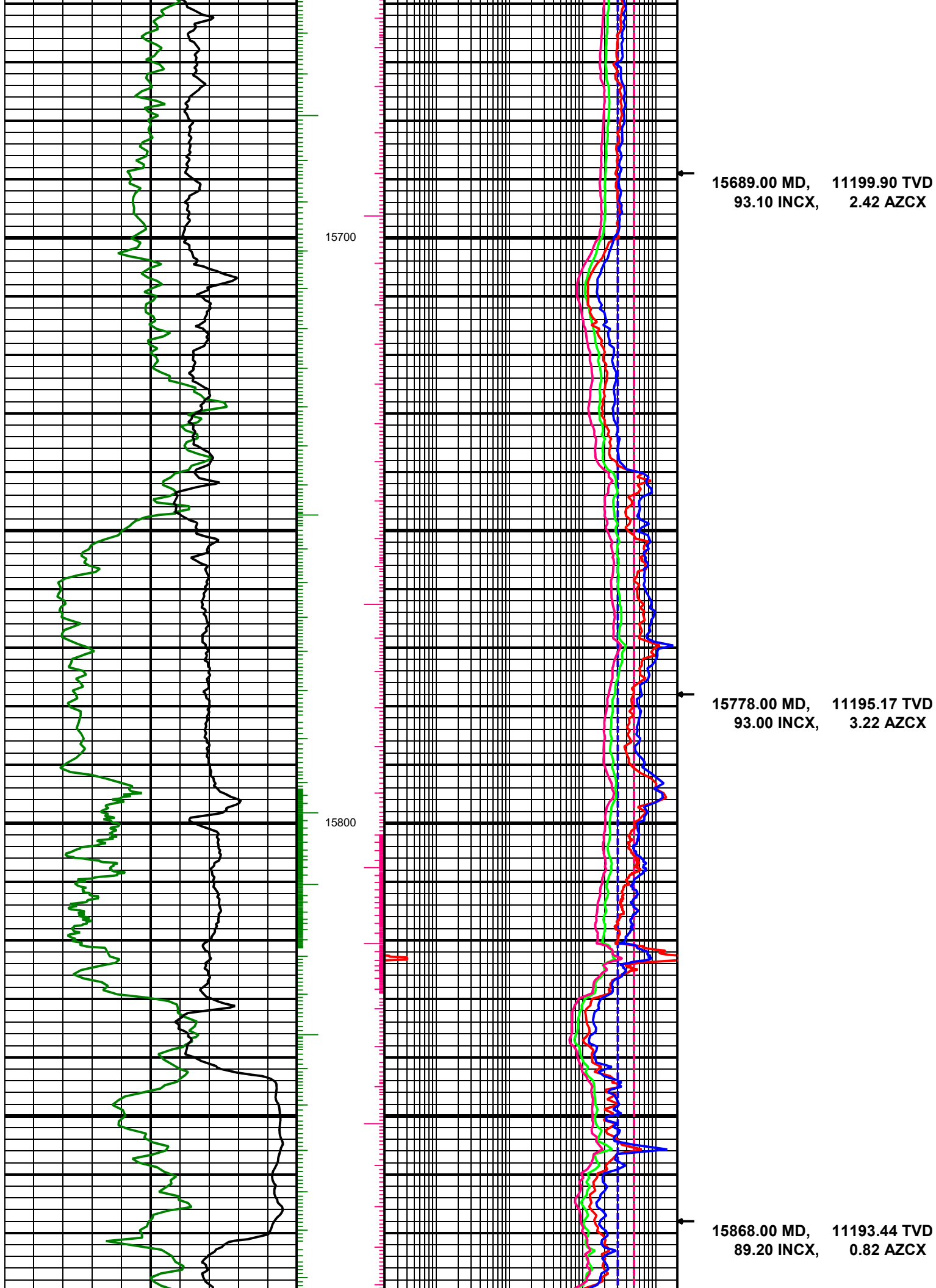


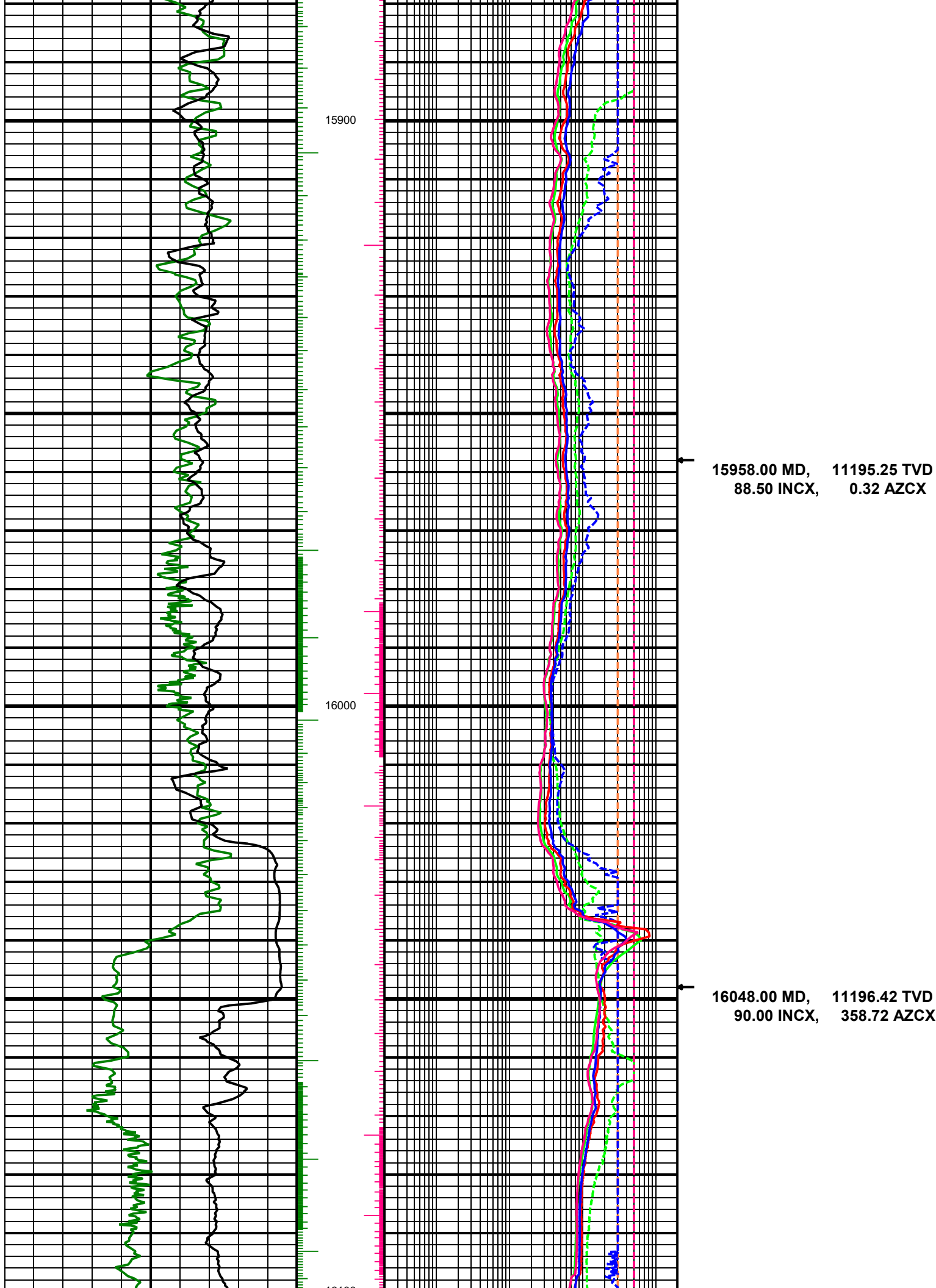




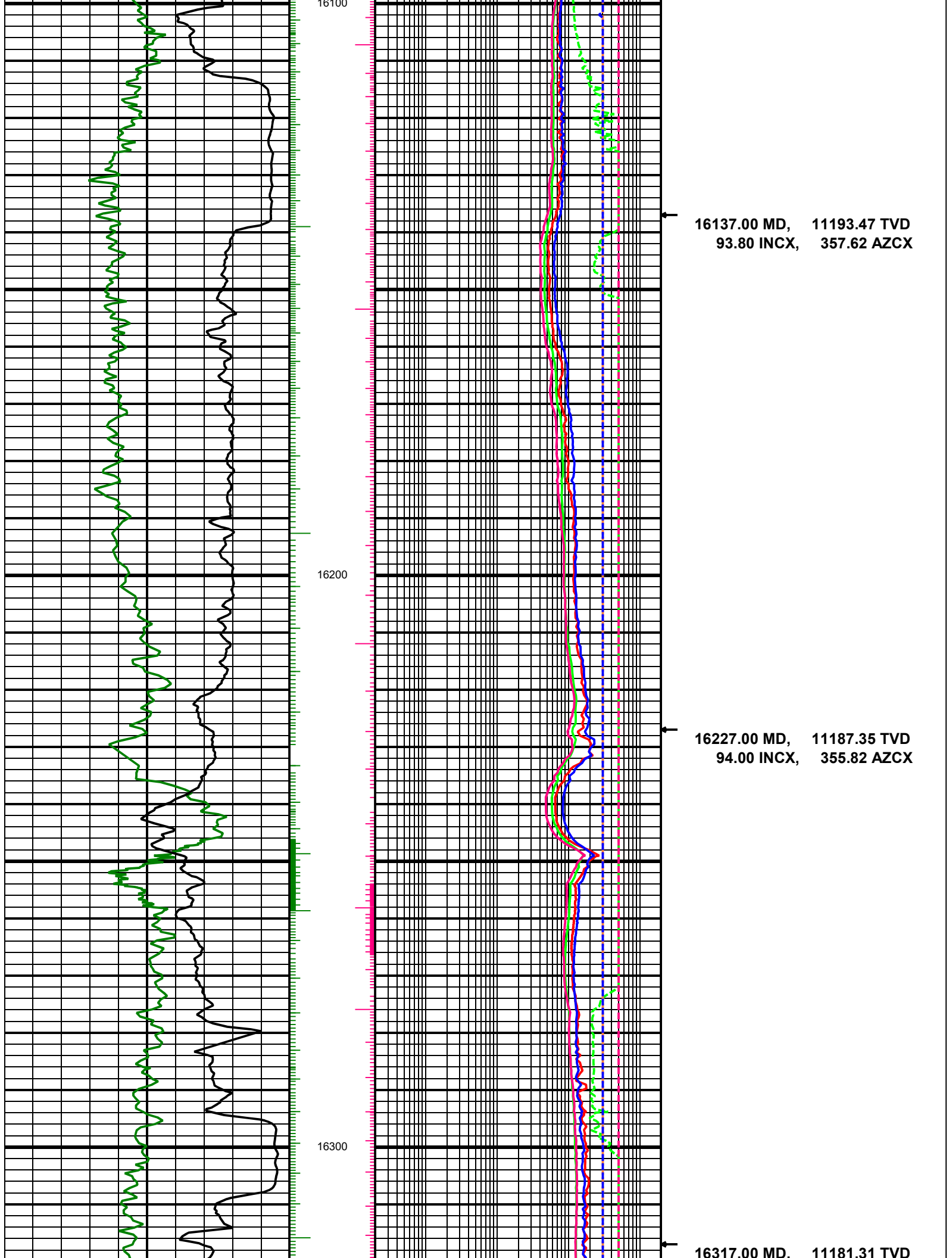




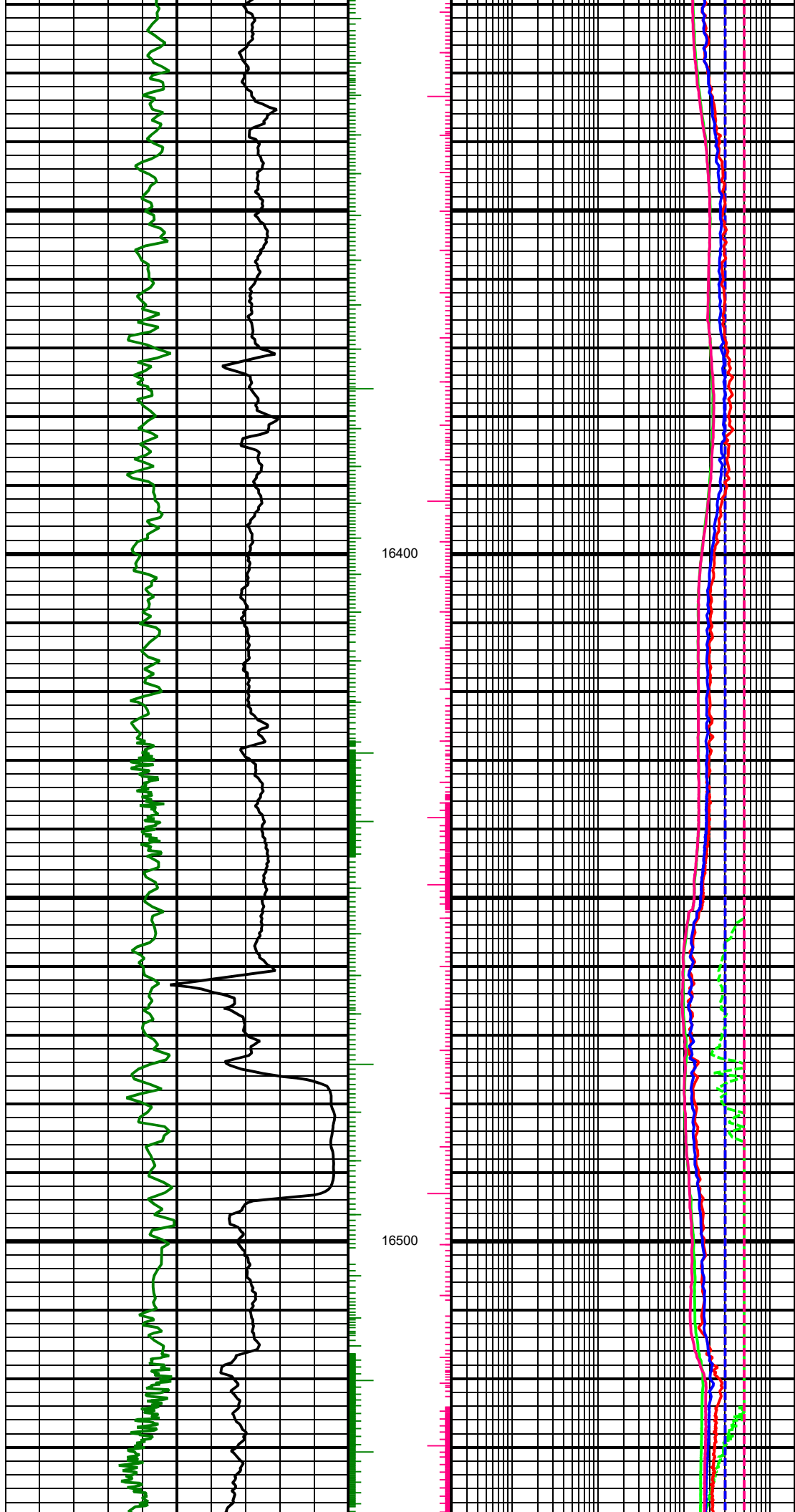








93.70 INCX, 356.52 AZCX

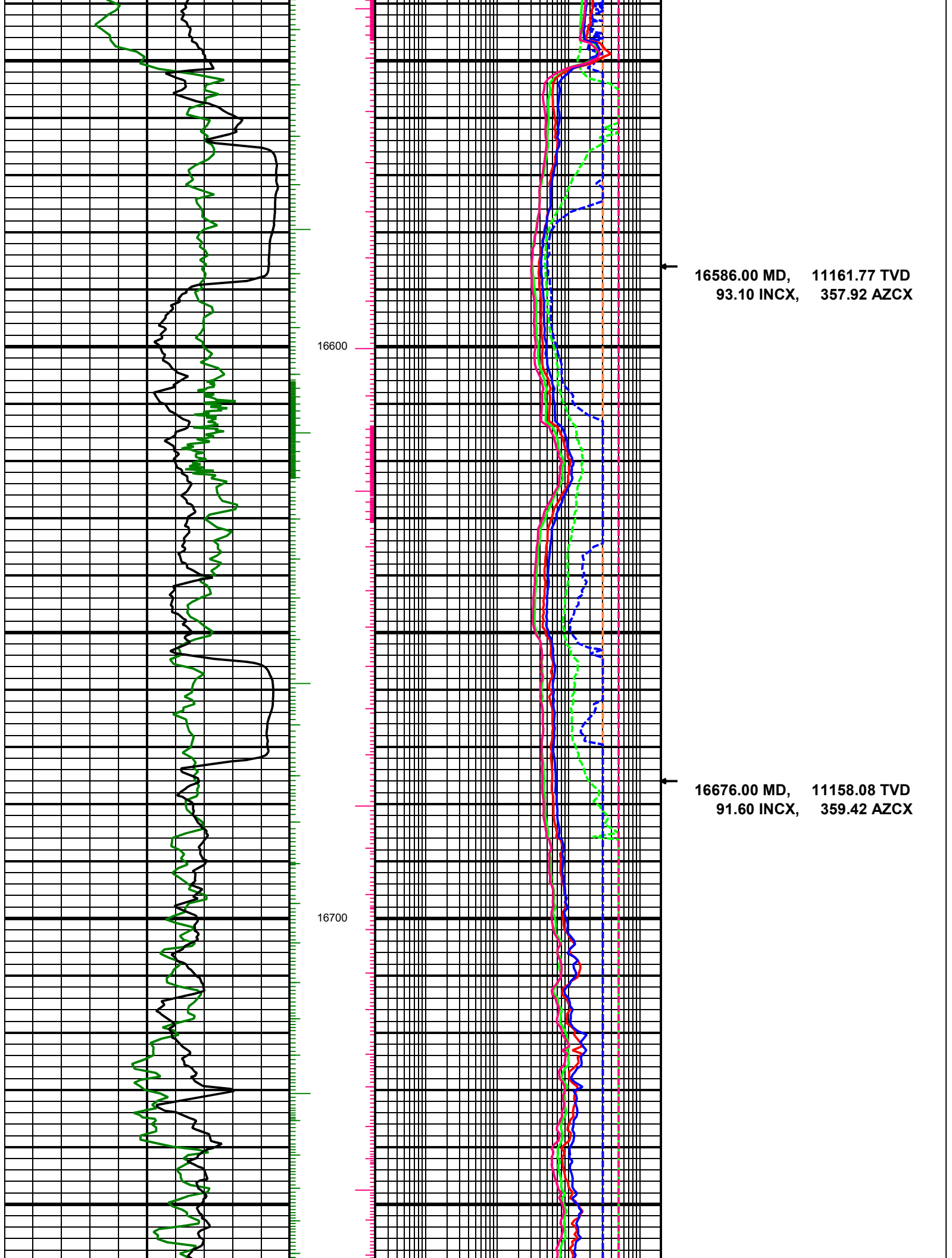


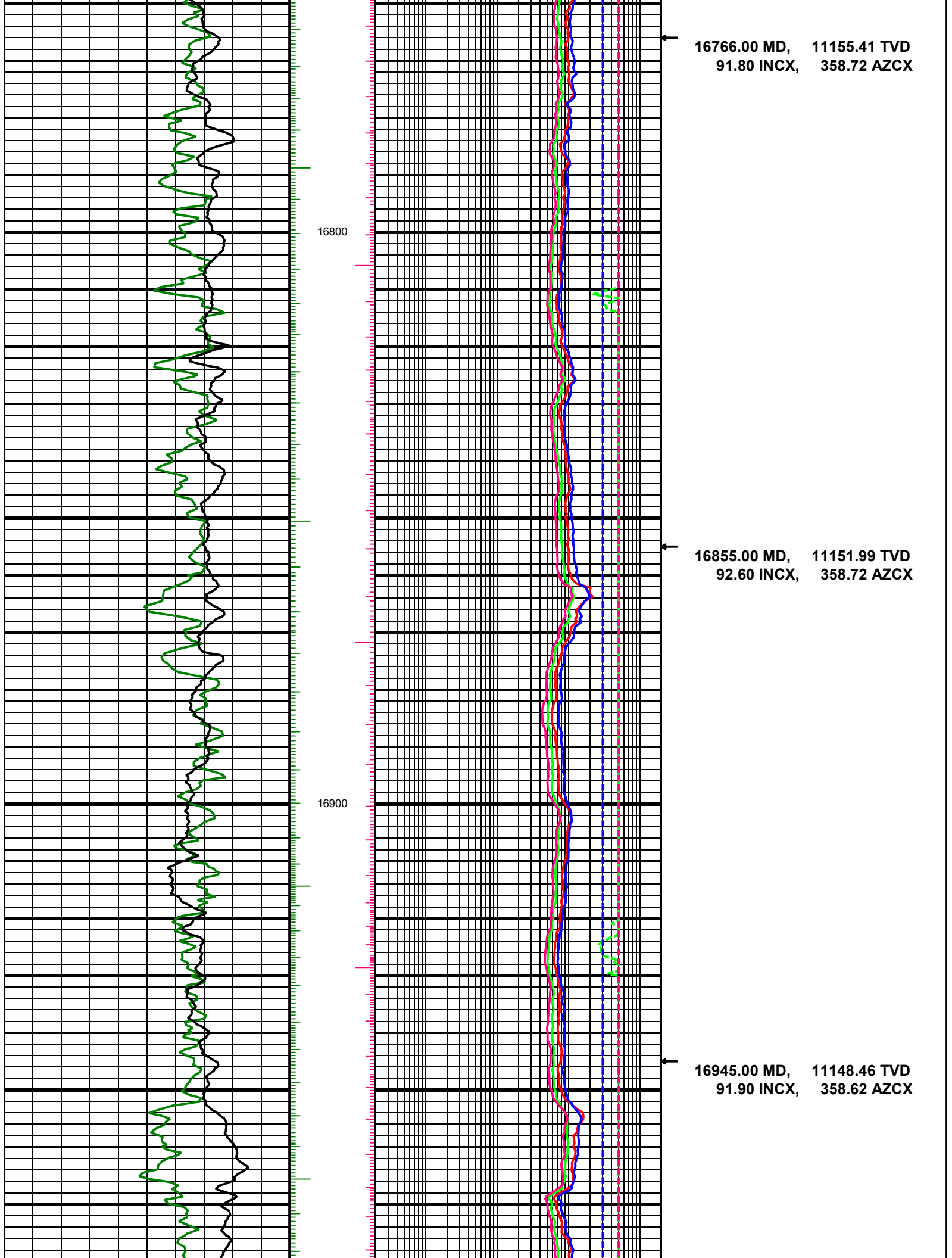
16400

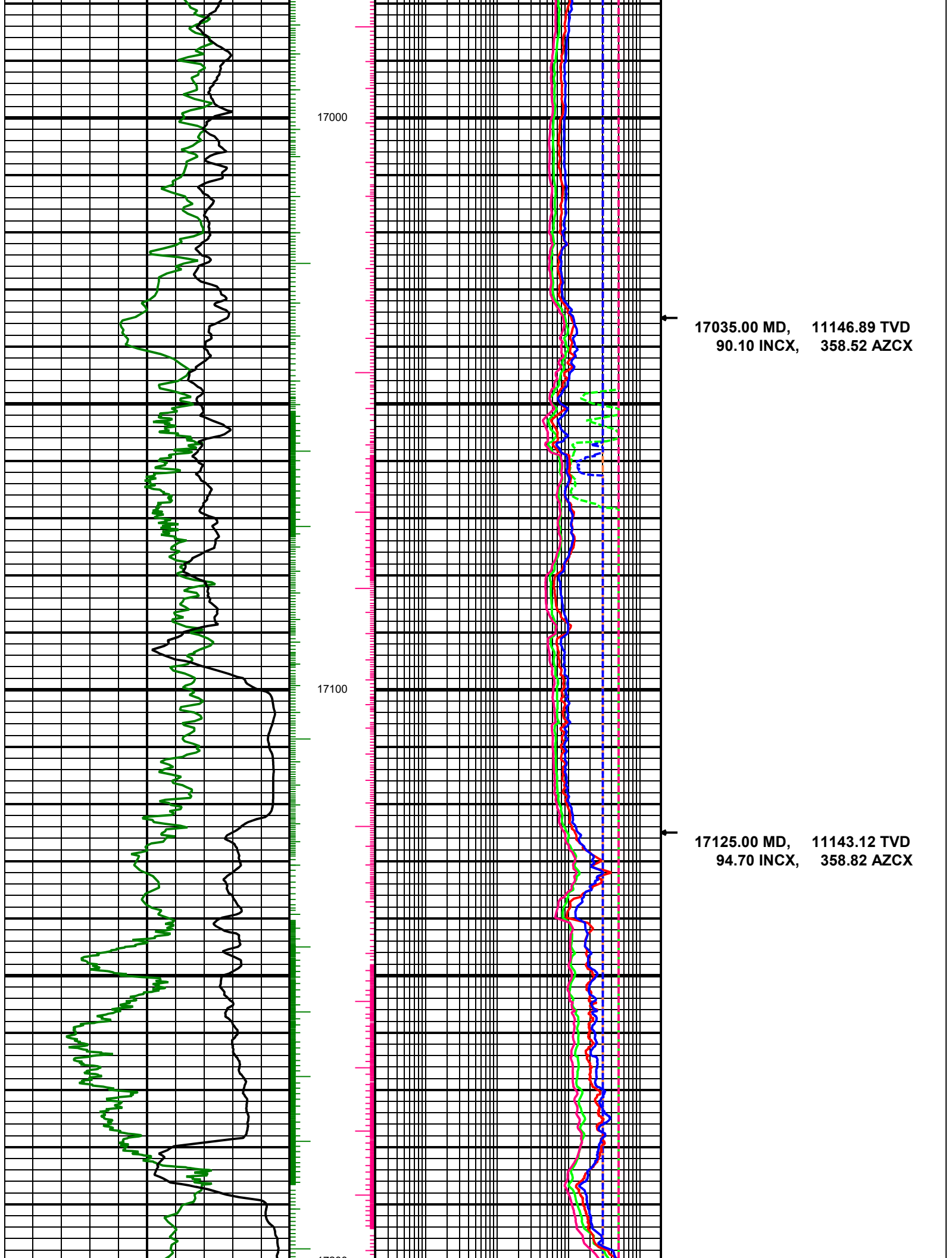
16407.00 MD, 11175.03 TVD  
94.30 INCX, 356.22 AZCX

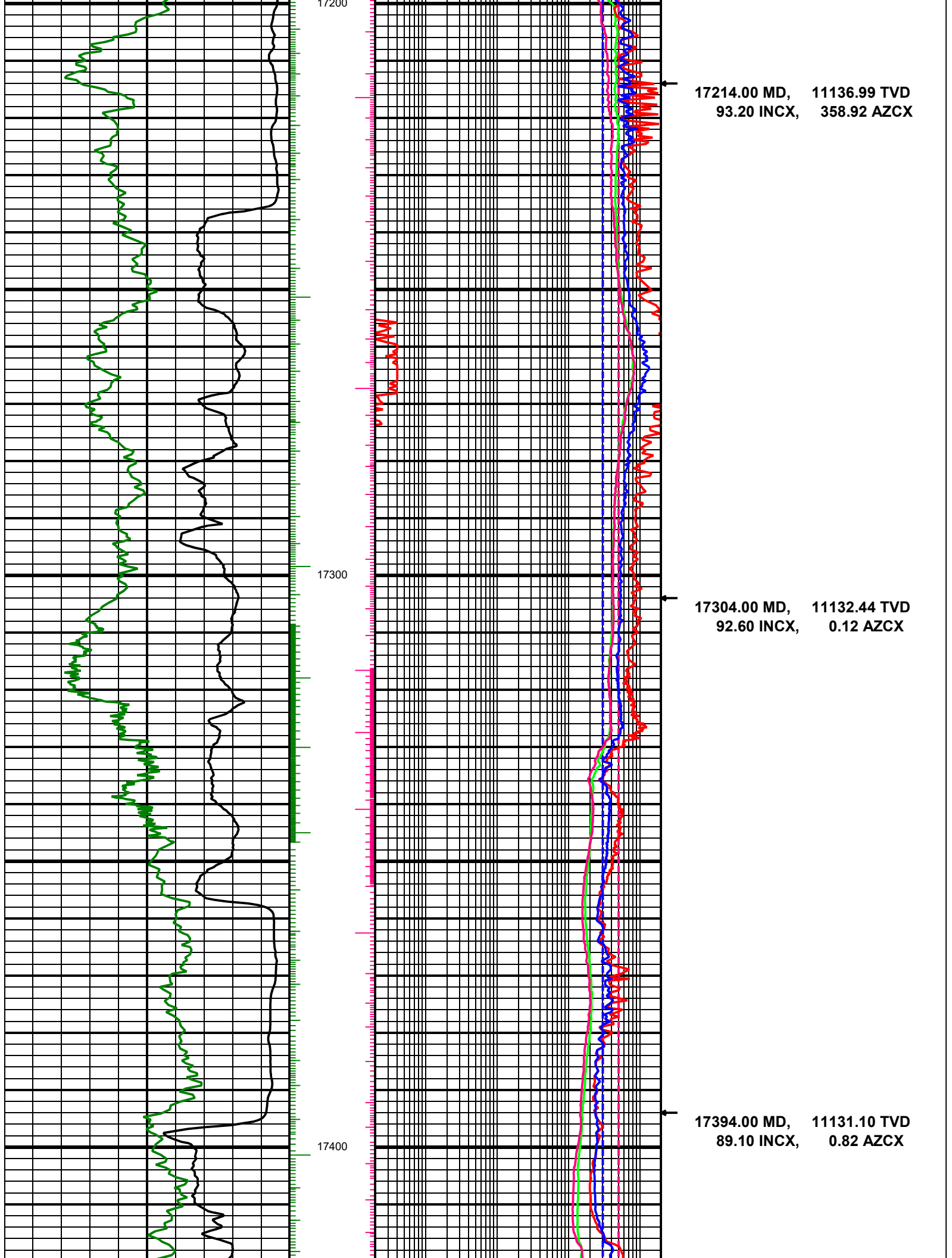
16500

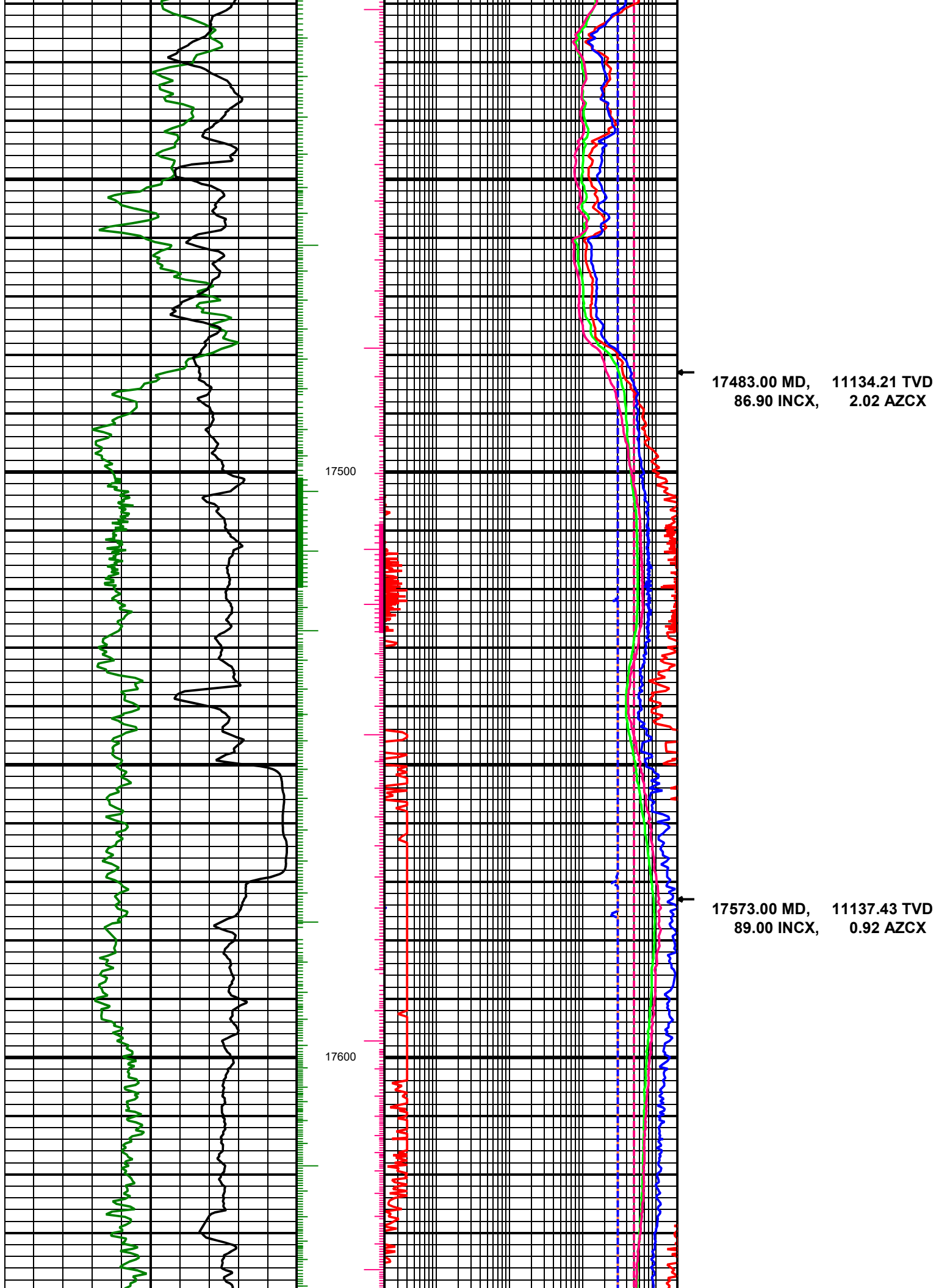
16496.00 MD, 11167.97 TVD  
94.80 INCX, 357.72 AZCX

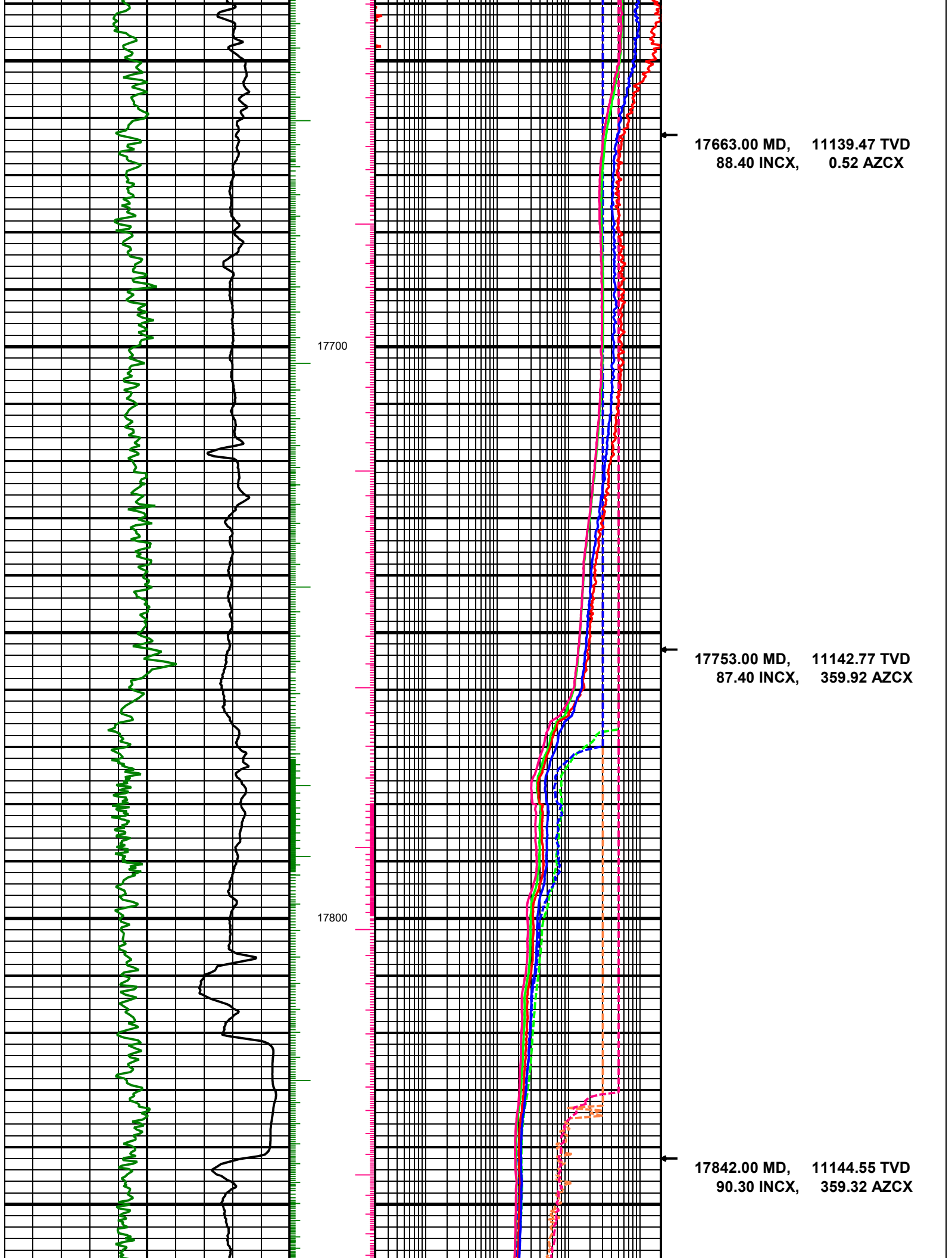




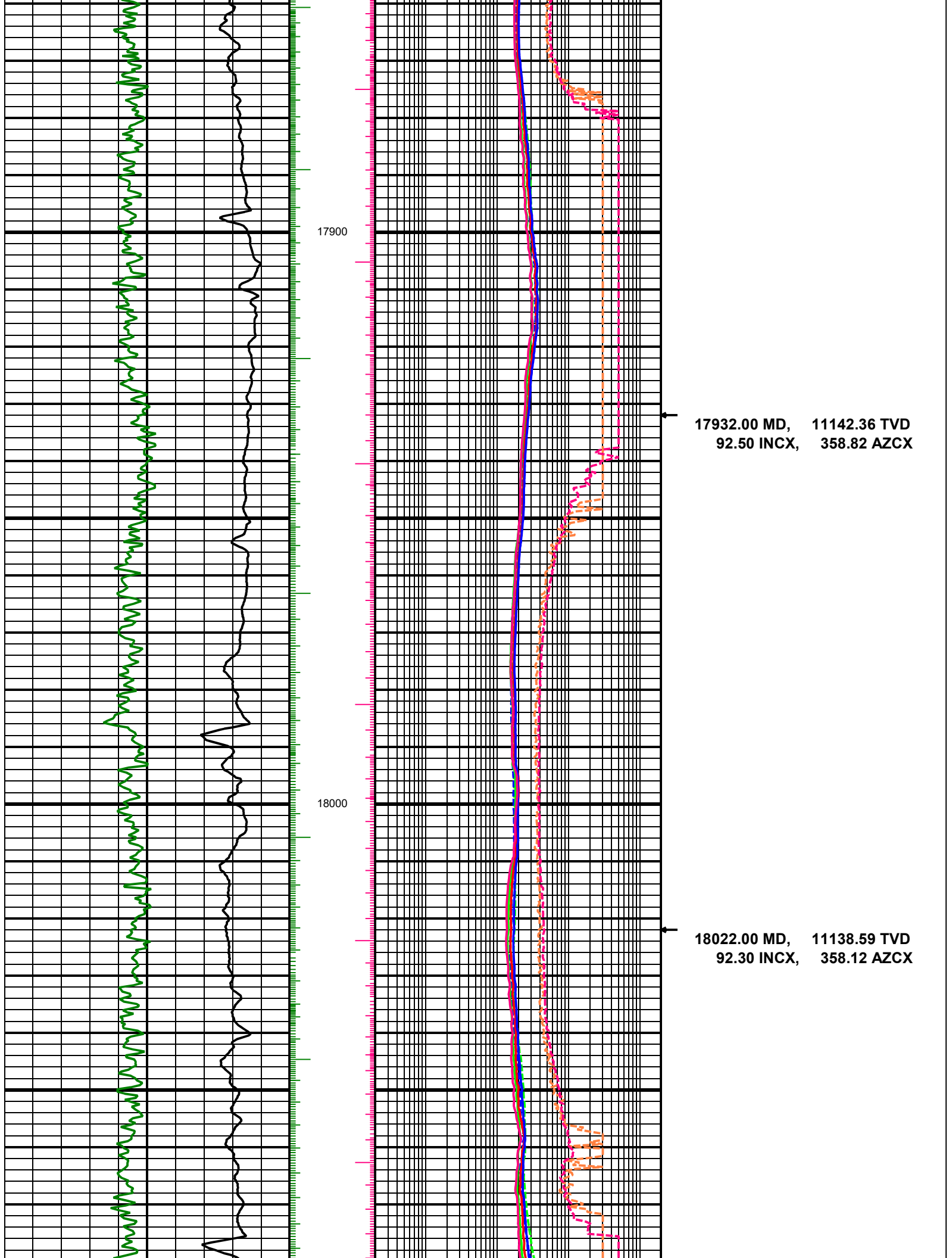


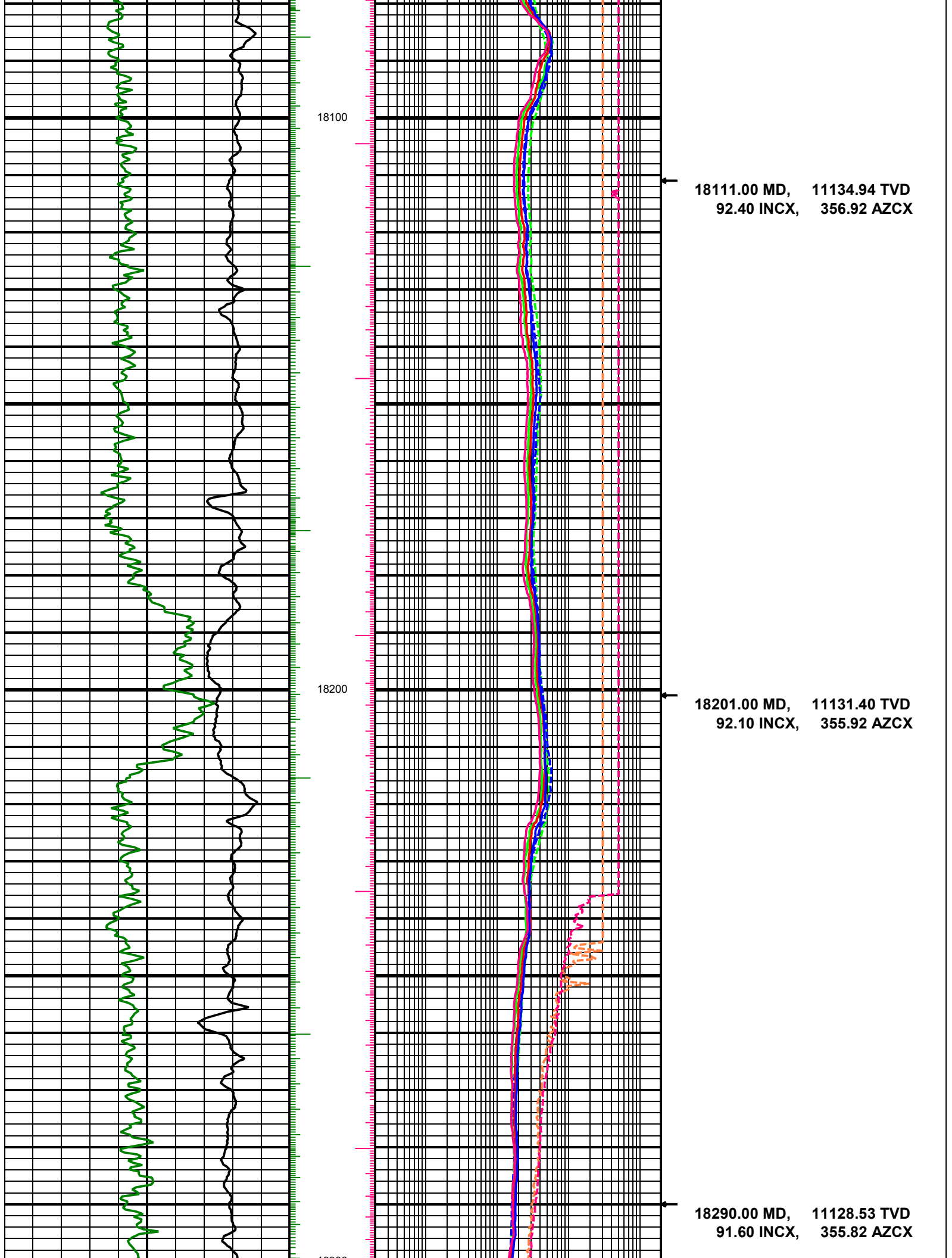


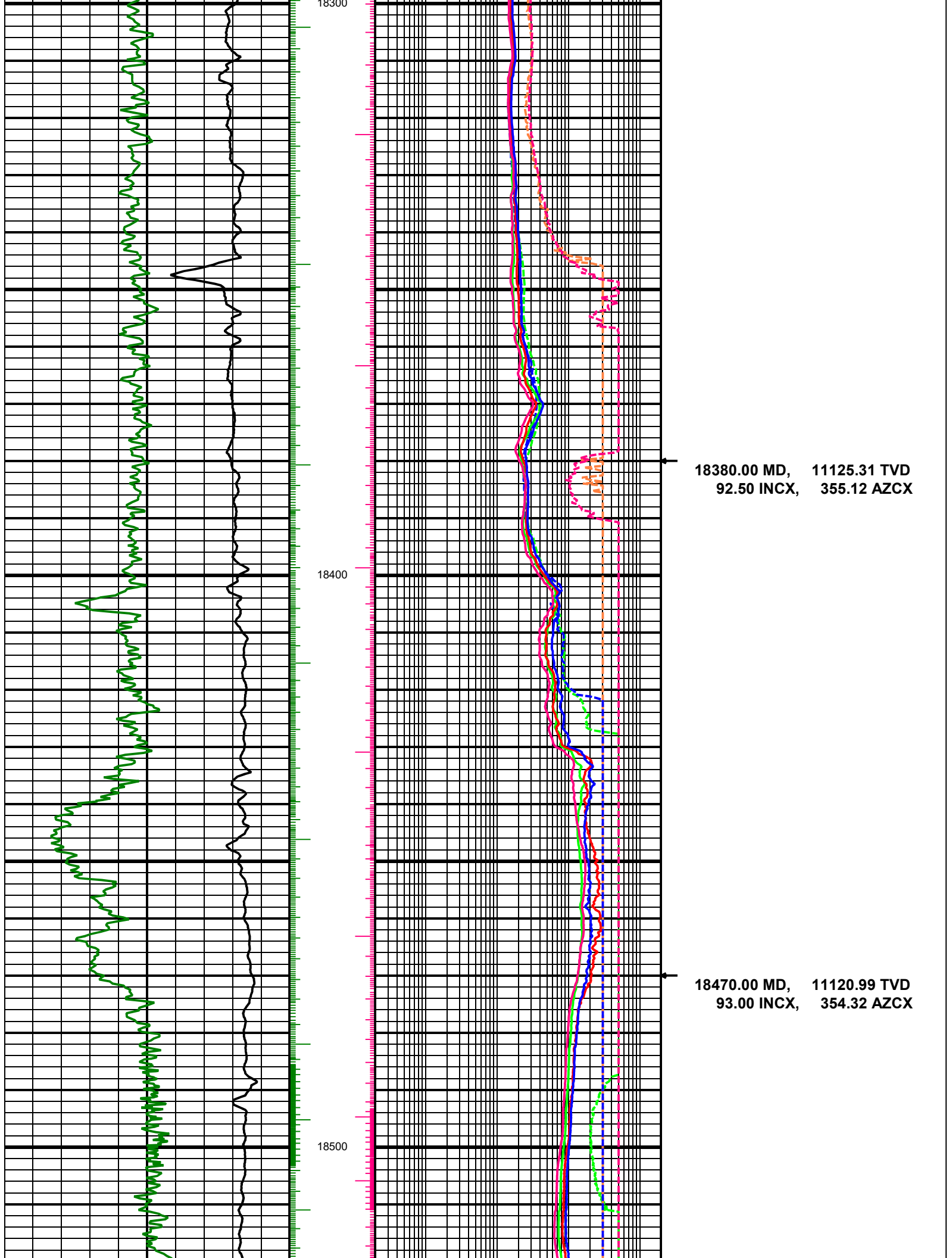


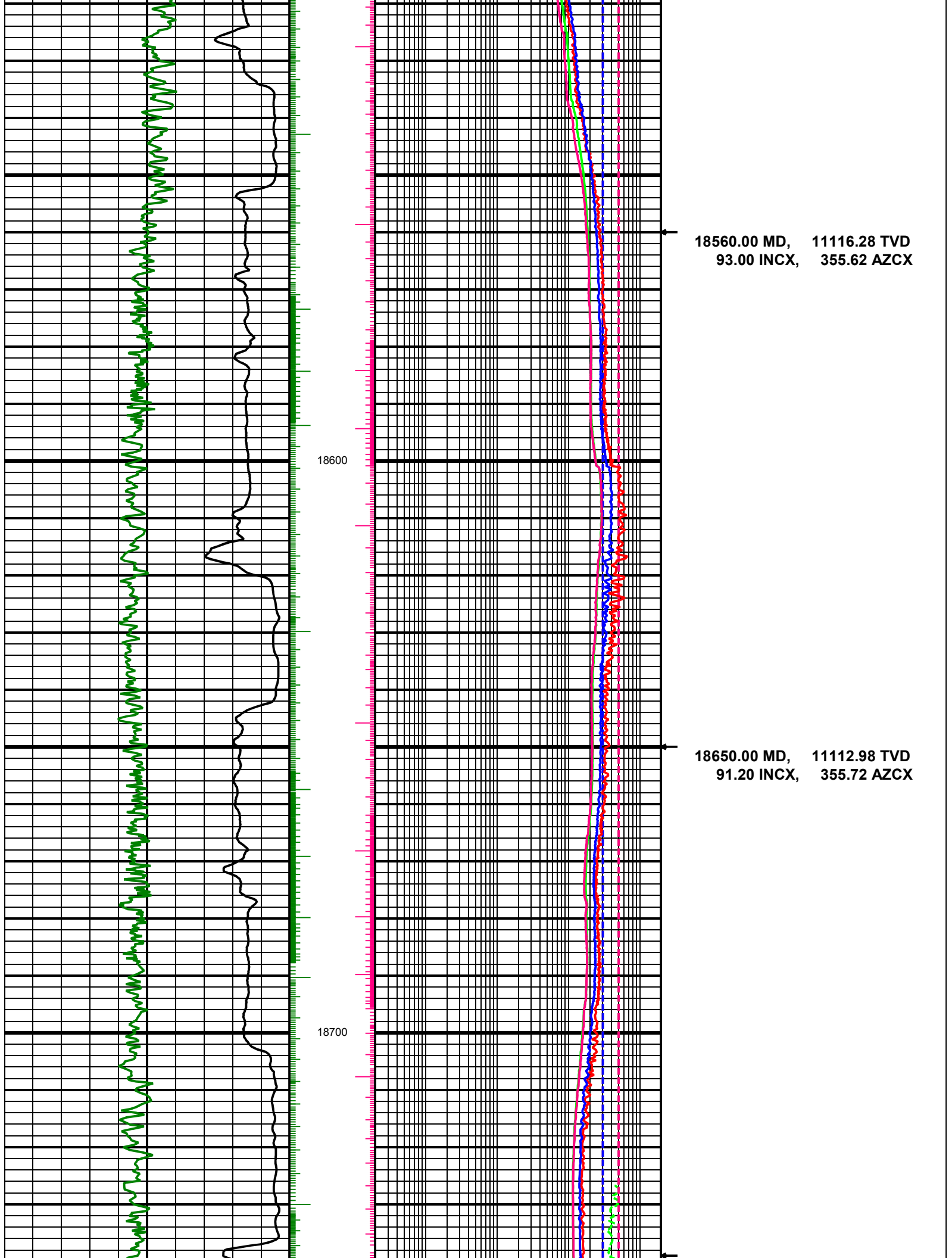












18739.00 MD, 11111.35 TVD  
90.90 INCX, 357.22 AZCX

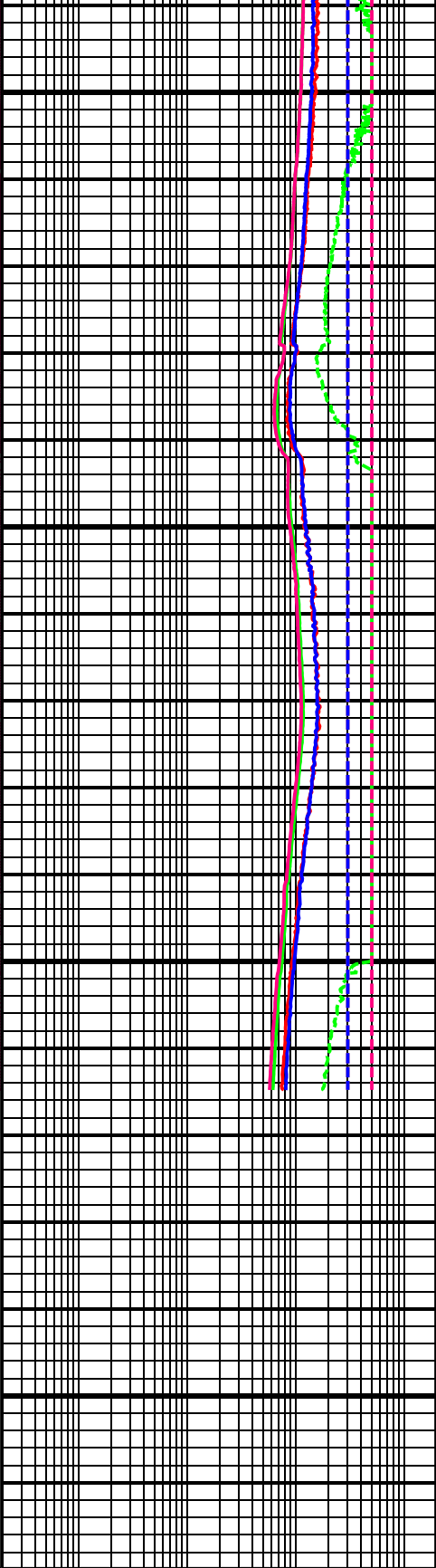


18800

18900

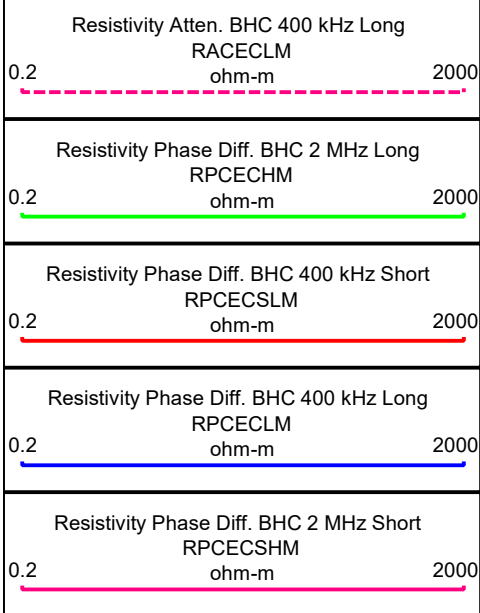
18920

1:240  
FEET  
MD



18851.00 MD, 11109.20 TVD  
91.30 INCX, 356.72 AZCX

Directional Surveys



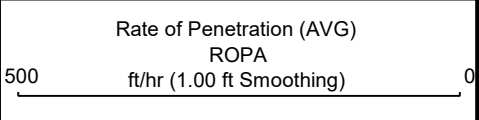
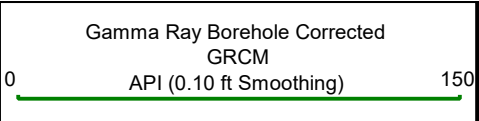
| EQUIPMENT             |                     |                     |                     |  |  |
|-----------------------|---------------------|---------------------|---------------------|--|--|
| Log Run               | WPR RUN #1          | WPR RUN #2          | WPR RUN #3          |  |  |
| Bit Run               | RUN #5              | RUN #6              | Run #7              |  |  |
| Start Date/Time       | 2019-12-03 12:44:51 | 2019-12-06 07:43:48 | 2019-12-10 15:51:48 |  |  |
| Start Depth (ft)      | 10730               | 12115               | 15046               |  |  |
| End Date/Time         | 2019-12-06 07:43:47 | 2019-12-10 15:51:47 | 2019-12-14 09:30:00 |  |  |
| End Depth (ft)        | 12115               | 15045.99            | 18906               |  |  |
| Serial Numbers        |                     |                     |                     |  |  |
| Surface Gear          | 1082                | 1082                | 1082                |  |  |
| Flow Sub              | 35467-2             | 15388-1             | 35467-2             |  |  |
| Pulser                | 2522                | 1720                | 1125                |  |  |
| Battery 1             | 1282/3695           | 4/3684              | 1282/3695           |  |  |
| Battery 2             | 3692/942            | 3419/877            | 3692/942            |  |  |
| Turbine Alternator    | N/A                 | N/A                 | N/A                 |  |  |
| Directional Sensor    | 640                 | 640                 | 1539                |  |  |
| Gamma Sensor          | 1049                | 1049                | 1042                |  |  |
| WPR Sensor            | 760                 | 760                 | 609                 |  |  |
| Vibration Sensor      | VMM sn: 640         | VMM sn: 640         | VMM sn: 1539        |  |  |
| Sensor Offsets To Bit |                     |                     |                     |  |  |
| Directional (ft)      | 45.36               | 59.28               | 53.36               |  |  |
| Gamma Ray (ft)        | 40.96               | 54.88               | 48.96               |  |  |
| WPR (ft)              | 33.21               | 47.13               | 41.21               |  |  |
| PWD (ft)              |                     |                     |                     |  |  |
| Vibration (ft)        | 45.36               | 59.28               | 53.36               |  |  |







|                               |       |       |       |  |  |
|-------------------------------|-------|-------|-------|--|--|
|                               |       |       |       |  |  |
| <b>DRILLING FLUID SUMMARY</b> |       |       |       |  |  |
| <b>Mud Type</b>               | OBM   | OBM   | OBM   |  |  |
| <b>Density (lb/gal)</b>       | 9.30  | 9.50  | 9.40  |  |  |
| <b>Funnel Viscosity</b>       | 47    | 47    | 47    |  |  |
| <b>Plastic Viscosity</b>      | 14    | 14    | 14    |  |  |
| <b>Chlorides</b>              | 42000 | 43000 | 42000 |  |  |
| <b>Oil/Water Ratio</b>        | 73/27 | 73/27 | 73/27 |  |  |
| <b>Maximum Circ Temp (F)</b>  | 142   | 160   | 190   |  |  |

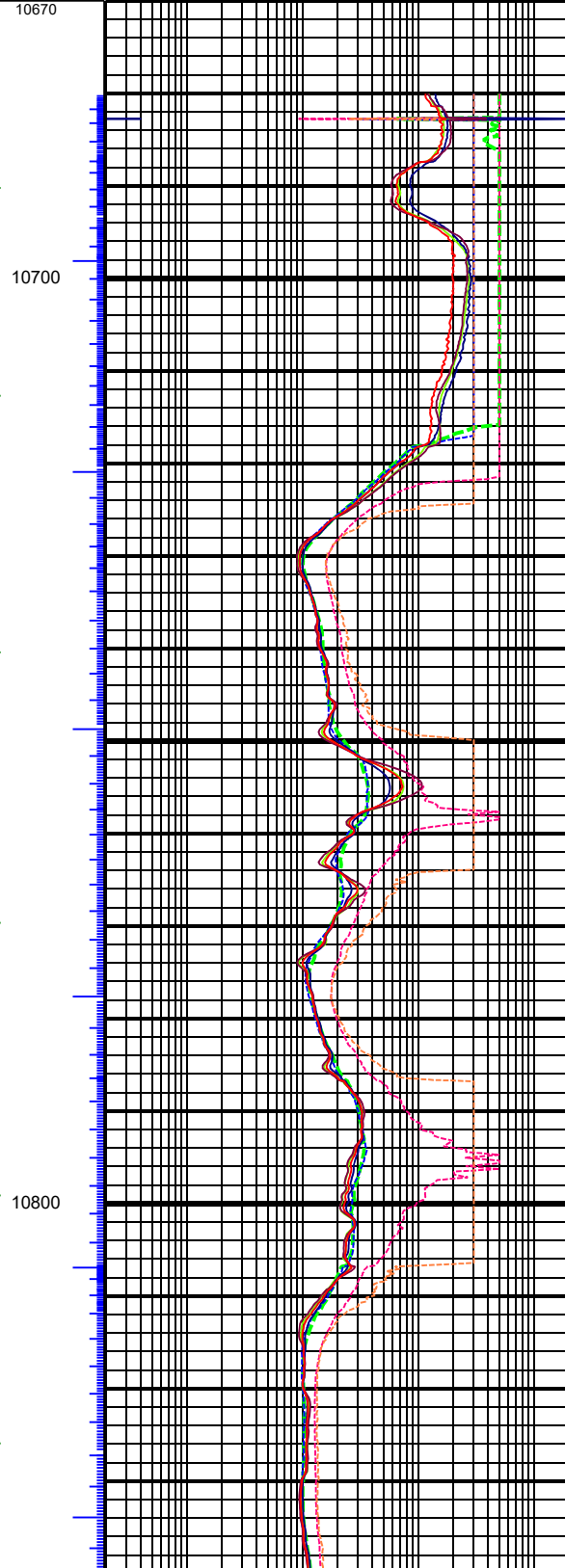
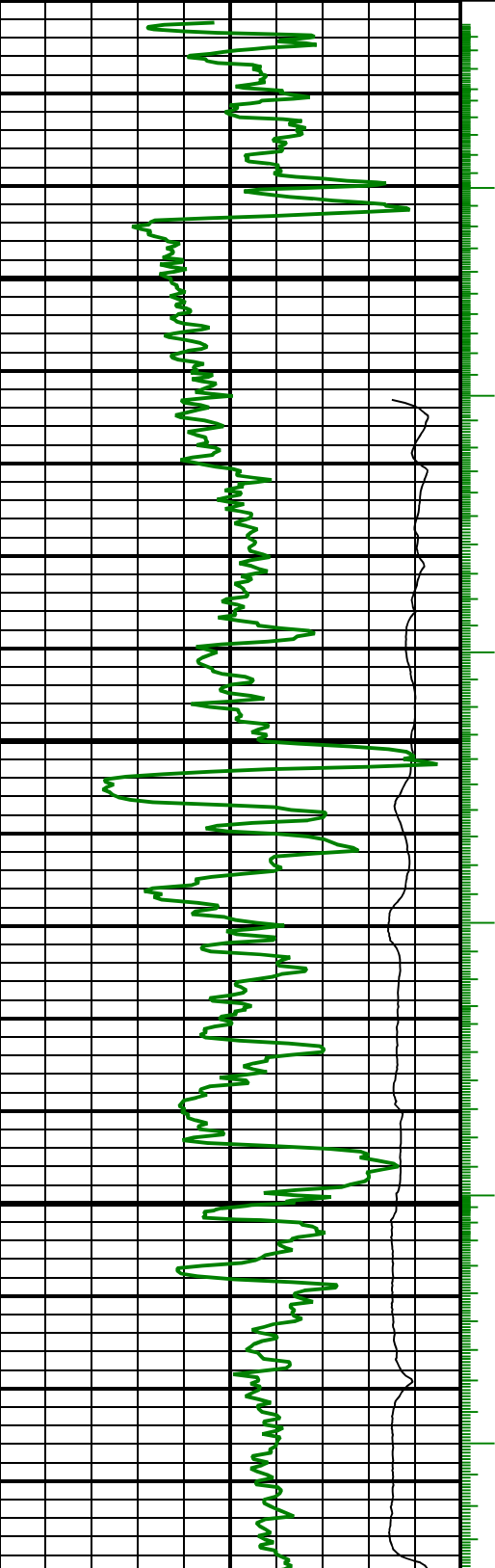
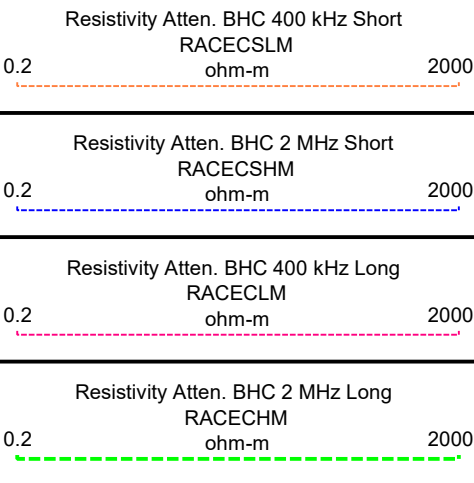


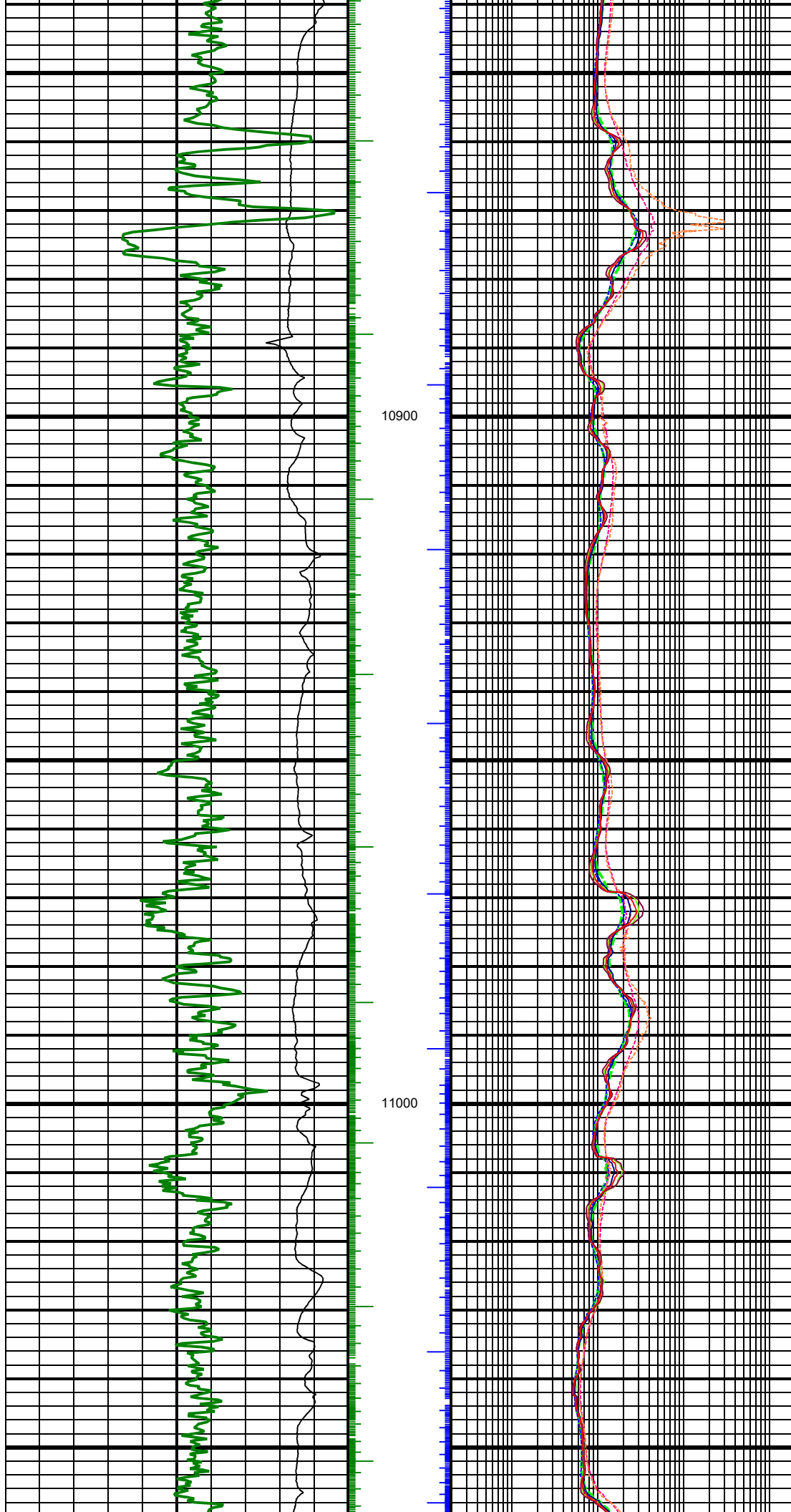
TVD  
FEET  
1:240

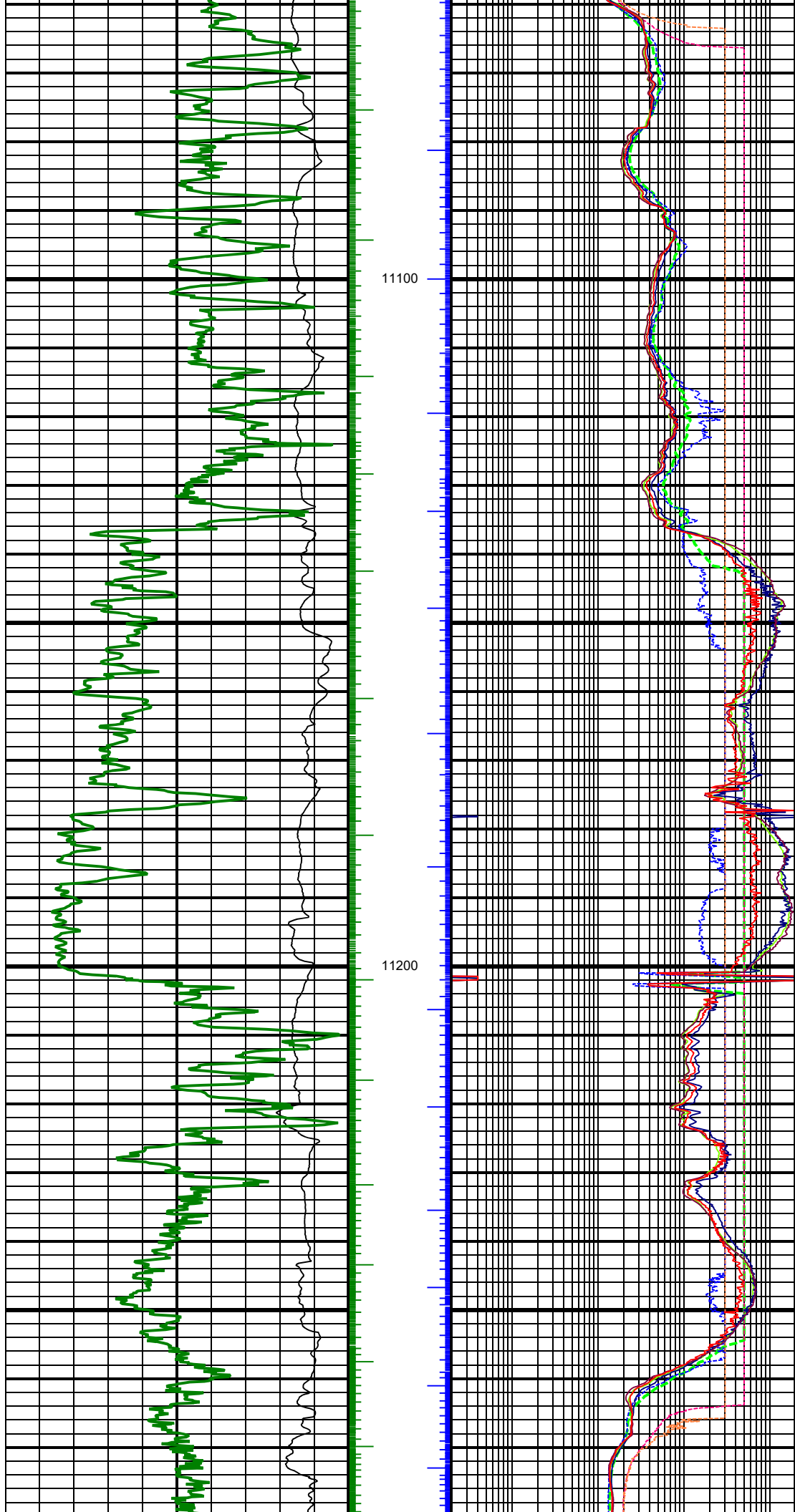
10670

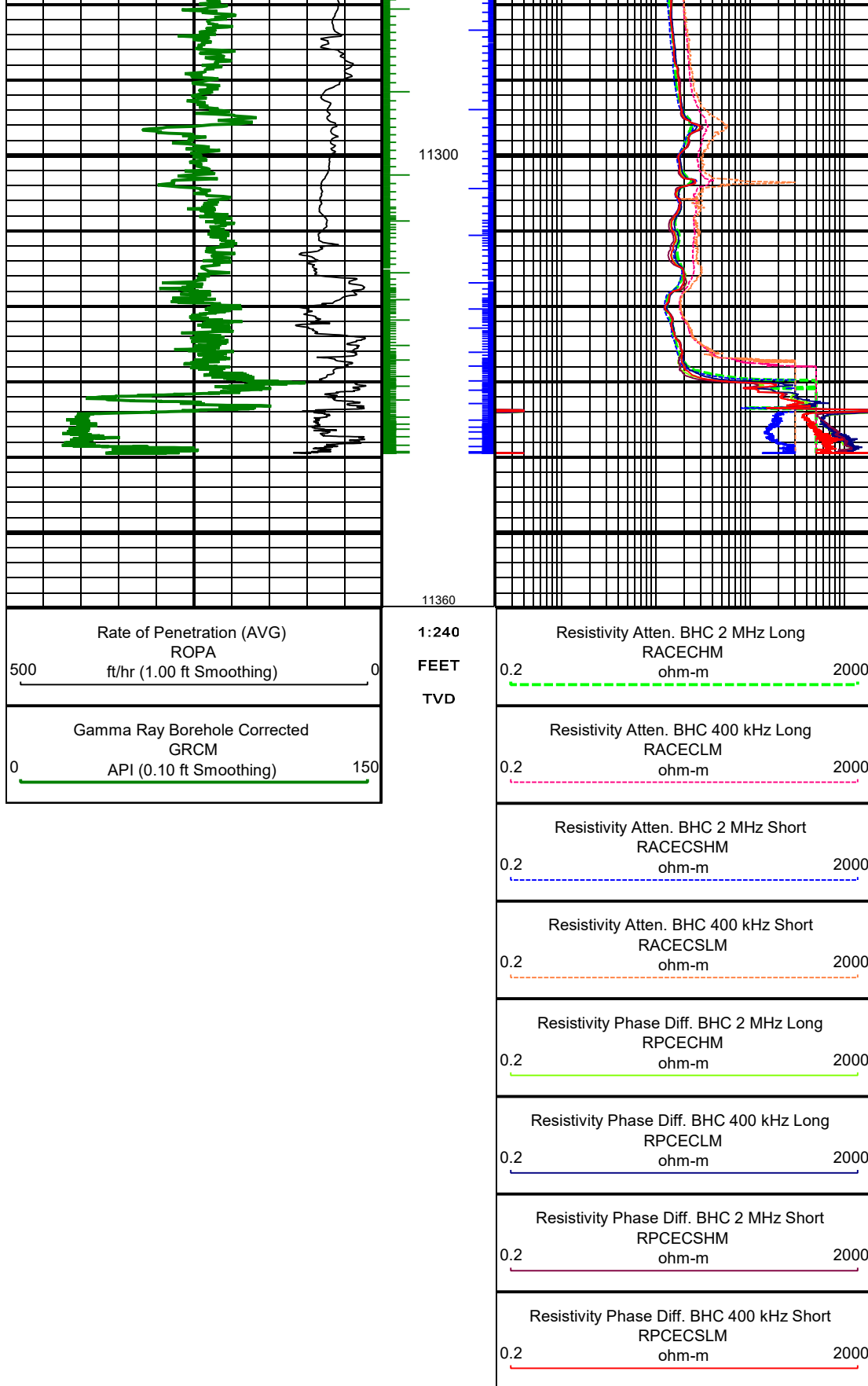
10700

10800









### EQUIPMENT

| Log Run          | WPR RUN #1          | WPR RUN #2          | WPR RUN #3          |  |  |
|------------------|---------------------|---------------------|---------------------|--|--|
| Bit Run          | RUN #5              | RUN #6              | Run #7              |  |  |
| Start Date/Time  | 2019-12-03 12:44:51 | 2019-12-06 07:43:48 | 2019-12-10 15:51:48 |  |  |
| Start Depth (ft) | 10730               | 12115               | 15046               |  |  |
| End Date/Time    | 2019-12-06 07:43:47 | 2019-12-10 15:51:47 | 2019-12-14 09:30:00 |  |  |
| End Depth (ft)   | 12115               | 15045.99            | 18906               |  |  |

### Serial Numbers

|              |      |      |      |  |  |
|--------------|------|------|------|--|--|
| Surface Gear | 1082 | 1082 | 1082 |  |  |
|--------------|------|------|------|--|--|

|                       |             |             |              |  |  |
|-----------------------|-------------|-------------|--------------|--|--|
| Flow Sub              | 35467-2     | 15388-1     | 35467-2      |  |  |
| Pulser                | 2522        | 1720        | 1125         |  |  |
| Battery 1             | 1282/3695   | 4/3684      | 1282/3695    |  |  |
| Battery 2             | 3692/942    | 3419/877    | 3692/942     |  |  |
| Turbine Alternator    | N/A         | N/A         | N/A          |  |  |
| Directional Sensor    | 640         | 640         | 1539         |  |  |
| Gamma Sensor          | 1049        | 1049        | 1042         |  |  |
| WPR Sensor            | 760         | 760         | 609          |  |  |
| Vibration Sensor      | VMM sn: 640 | VMM sn: 640 | VMM sn: 1539 |  |  |
| Sensor Offsets To Bit |             |             |              |  |  |
| Directional (ft)      | 45.36       | 59.28       | 53.36        |  |  |
| Gamma Ray (ft)        | 40.96       | 54.88       | 48.96        |  |  |
| WPR (ft)              | 33.21       | 47.13       | 41.21        |  |  |
| PWD (ft)              |             |             |              |  |  |
| Vibration (ft)        | 45.36       | 59.28       | 53.36        |  |  |
|                       |             |             |              |  |  |