



Well: Keith Stern N-06 HM (slot S)  
 Site: Keith Stern  
 Project: Marshall County, West Virginia.  
 Design: rev4  
 Rig: Nabors X08

Geodetic System: Universal Transverse Mercator (US Survey Feet)  
 Datum: NAD83 West Virginia - HARN  
 Ellipsoid: GRS 1980  
 Zone: Zone 17N (84 W to 78 W)  
 System Datum: Mean Sea Level  
 Depth Reference: RKB=748+33 @ 781.00usft (Nabors X08)

| Northing    | Easting    | Latitude    | Longitude    |
|-------------|------------|-------------|--------------|
| 14444911.97 | 1726943.03 | 39.77488910 | -80.69204262 |

Total Corr (M->G): To convert a Magnetic Direction to a Grid Direction, Subtract 8.87°



Azimuths to Grid North  
 True North: -0.20°  
 Magnetic North: -8.87°

Magnetic Field  
 Strength: 51638.0nT  
 Dip Angle: 66.43°  
 Date: 6/21/2022  
 Model: IGRF2020

ANNOTATIONS SURVEYS

| MD       | Inc   | Azi     | TVD     | +N/-S   | +E/-W   | Vsect   | Annotation                              |
|----------|-------|---------|---------|---------|---------|---------|---|
| 197.00   | 0.64  | 316.680 | 197.00  | 0.80    | -0.75   | 0.90    | MWD surveys                             |
| 14050.00 | 88.53 | 328.370 | 6259.30 | 5390.99 | -763.14 | 5444.68 | Survey @ 14050.00 MD 6259.30 TVD        |
| 14106.00 | 88.53 | 328.370 | 6260.74 | 5438.66 | -792.50 | 5496.09 | Survey Proj. to 14106.00 MD 6260.74 TVD |

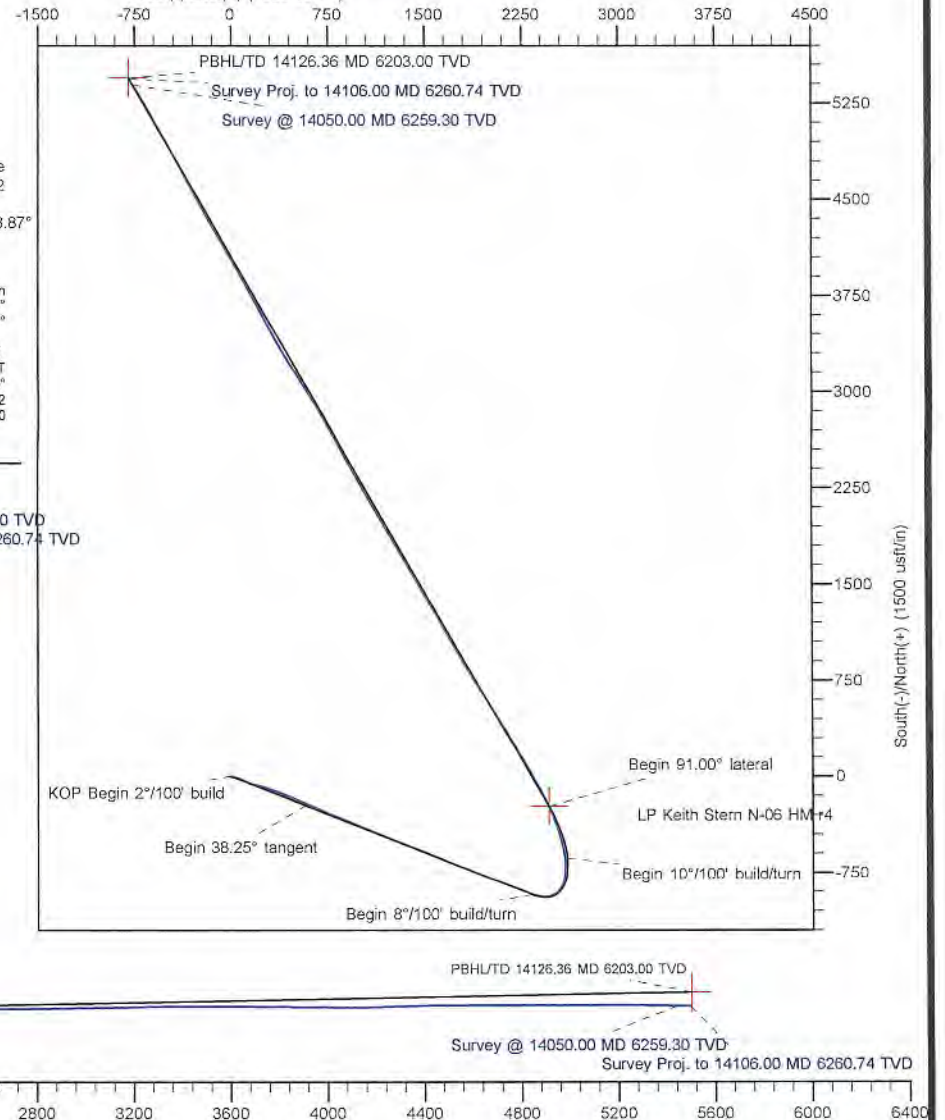
RECEIVED  
 Office of Oil and Gas  
 MAY 03 2023  
 WV Department of  
 Environmental Protection

SECTION DETAILS

| Sec | MD       | Inc   | Azi     | TVD     | +N/-S   | +E/-W   | Dleg   | TFace   | Vsect    | Annotation                      |
|-----|----------|-------|---------|---------|---------|---------|--------|---------|----------|---------------------------------|
| 1   | 0.00     | 0.00  | 0.000   | 0.00    | 0.00    | 0.00    | 0.000  | 0.00    | 0.00     |                                 |
| 2   | 1237.00  | 0.00  | 0.000   | 1237.00 | 0.00    | 0.00    | 0.000  | 0.00    | 0.00     | KOP Begin 2°/100' build         |
| 3   | 3149.66  | 38.25 | 111.649 | 3010.70 | -226.93 | 571.73  | 2.000  | 111.65  | -307.18  | Begin 38.25° tangent            |
| 4   | 6199.12  | 38.25 | 111.649 | 5405.38 | -923.47 | 2326.58 | 0.000  | 0.00    | -1250.02 | Begin 8°/100' build/turn        |
| 5   | 7111.06  | 50.00 | 355.146 | 6161.58 | -640.24 | 2596.98 | 8.000  | -134.19 | -1008.84 | Begin 10°/100' build/turn       |
| 6   | 7580.04  | 91.00 | 330.202 | 6317.00 | -234.90 | 2457.38 | 10.000 | -35.28  | -587.58  | Begin 91.00° lateral            |
| 7   | 14126.36 | 91.00 | 330.202 | 6203.00 | 5445.02 | -795.27 | 0.000  | 0.00    | 5502.79  | PBHL/TD 14126.36 MD 6203.00 TVD |

DESIGN TARGET DETAILS

| Name   | TVD     | +N/-S   | +E/-W   | Northing    | Easting    | Latitude    | Longitude    |
|--|---------|---------|---------|-------------|------------|-------------|--------------|
| BHL Keith Stern N-06 HM r4<br>- plan hits target center  | 6203.00 | 5445.02 | -795.27 | 14450356.88 | 1726147.76 | 39.78985000 | -80.69480700 |
| LP Keith Stern N-06 HM r4<br>- plan misses target center by 0.18usft at 7579.95usft MD (6317.00 TVD, -234.98 N, 2457.43 E) | 6317.00 | -235.07 | 2457.27 | 14444676.79 | 1729400.30 | 39.77422000 | -80.68330000 |



Vertical Section at 351.690° (800 usft/in)



Survey Report - Geographic



|                  |                                 |                                     |                                      |
|------------------|---------------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>  | Tug Hill Operating LLC          | <b>Local Co-ordinate Reference:</b> | Well Keith Stern N-06 HM (slot S)    |
| <b>Project:</b>  | Marshall County, West Virginia. | <b>TVD Reference:</b>               | RKB=748+33 @ 781.00usft (Nabors X08) |
| <b>Site:</b>     | Keith Stern                     | <b>MD Reference:</b>                | RKB=748+33 @ 781.00usft (Nabors X08) |
| <b>Well:</b>     | Keith Stern N-06 HM (slot S)    | <b>North Reference:</b>             | Grid                                 |
| <b>Wellbore:</b> | Original Hole                   | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Design:</b>   | Surveys Original Hole           | <b>Database:</b>                    | DB_Feb2822                           |

|                    |  |                      |                |
|--------------------|--|----------------------|----------------|
| <b>Project</b>     | Marshall County, West Virginia.                |                      |                |
| <b>Map System:</b> | Universal Transverse Mercator (US Survey Feet) | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | NAD83 West Virginia - HARN                     |                      |                |
| <b>Map Zone:</b>   | Zone 17N (84 W to 78 W)                        |                      |                |

|                              |             |                     |                    |                          |              |
|------------------------------|-------------|---------------------|--------------------|--------------------------|--------------|
| <b>Site</b>                  | Keith Stern |                     |                    |                          |              |
| <b>Site Position:</b>        |             | <b>Northing:</b>    | 14,444,890.33 usft | <b>Latitude:</b>         | 39.77483004  |
| <b>From:</b>                 | Lat/Long    | <b>Easting:</b>     | 1,726,932.47 usft  | <b>Longitude:</b>        | -80.69208048 |
| <b>Position Uncertainty:</b> | 0.00 usft   | <b>Slot Radius:</b> | 13-3/16 "          | <b>Grid Convergence:</b> | 0.20 °       |

|                             |                              |           |                            |                    |                      |              |
|-----------------------------|------------------------------|-----------|----------------------------|--------------------|----------------------|--------------|
| <b>Well</b>                 | Keith Stern N-06 HM (slot S) |           |                            |                    |                      |              |
| <b>Well Position</b>        | <b>+N/-S</b>                 | 0.00 usft | <b>Northing:</b>           | 14,444,911.87 usft | <b>Latitude:</b>     | 39.77488910  |
|                             | <b>+E/-W</b>                 | 0.00 usft | <b>Easting:</b>            | 1,726,943.03 usft  | <b>Longitude:</b>    | -80.69204262 |
| <b>Position Uncertainty</b> | 0.00 usft                    |           | <b>Wellhead Elevation:</b> | usft               | <b>Ground Level:</b> | 748.00 usft  |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | Original Hole     |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | IGRF2020          | 6/21/2022          | -8.67                  | 66.43                | 51,637.96588095            |

|                          |                                |                     |                     |                      |      |
|--------------------------|--------------------------------|---------------------|---------------------|----------------------|------|
| <b>Design</b>            | Surveys Original Hole          |                     |                     |                      |      |
| <b>Audit Notes:</b>      |                                |                     |                     |                      |      |
| <b>Version:</b>          | 1.0                            | <b>Phase:</b>       | ACTUAL              | <b>Tie On Depth:</b> | 0.00 |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (usft)</b> | <b>+N/-S (usft)</b> | <b>+E/-W (usft)</b> | <b>Direction (°)</b> |      |
|                          | 0.00                           | 0.00                | 0.00                | 351.690              |      |

|                       |                  |                            |                  |                    |  |
|-----------------------|------------------|----------------------------|------------------|--------------------|--|
| <b>Survey Program</b> | <b>Date</b>      | 7/3/2022                   |                  |                    |  |
| <b>From (usft)</b>    | <b>To (usft)</b> | <b>Survey (Wellbore)</b>   | <b>Tool Name</b> | <b>Description</b> |  |
| 197.00                | 549.00           | MWD surf (Original Hole)   | MWD              | MWD - Standard     | <b>RECEIVED</b><br>Office of Oil and Gas<br><b>MAY 03 2023</b> |
| 615.00                | 2,306.00         | MWD int (Original Hole)    | MWD              | MWD - Standard     |  |
| 2,403.00              | 14,050.00        | MWD (Original Hole)        | MWD              | MWD - Standard     |  |
| 14,106.00             | 14,106.00        | Projection (Original Hole) | MWD              | MWD - Standard     |  |

| <b>Survey</b>         |                 |             |                       |              |              |                     |                    |             |              | WV Department of Environmental Protection |  |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|---------------------|--------------------|-------------|--------------|---|--|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Map Northing (usft) | Map Easting (usft) | Latitude    | Longitude    |   |  |
| 0.00                  | 0.00            | 0.000       | 0.00                  | 0.00         | 0.00         | 14,444,911.87       | 1,726,943.03       | 39.77488910 | -80.69204262 |   |  |
| 197.00                | 0.64            | 316.680     | 197.00                | 0.80         | -0.75        | 14,444,912.67       | 1,726,942.28       | 39.77489131 | -80.69204530 |   |  |
| <b>MWD surveys</b>    |                 |             |                       |              |              |                     |                    |             |              |   |  |
| 227.00                | 0.49            | 328.680     | 226.99                | 1.03         | -0.94        | 14,444,912.90       | 1,726,942.10       | 39.77489194 | -80.69204594 |   |  |
| 257.00                | 0.54            | 327.410     | 256.99                | 1.26         | -1.08        | 14,444,913.13       | 1,726,941.95       | 39.77489257 | -80.69204645 |   |  |
| 287.00                | 0.48            | 321.770     | 286.99                | 1.48         | -1.23        | 14,444,913.35       | 1,726,941.80       | 39.77489317 | -80.69204699 |   |  |
| 317.00                | 0.44            | 312.890     | 316.99                | 1.66         | -1.40        | 14,444,913.52       | 1,726,941.64       | 39.77489366 | -80.69204757 |   |  |
| 347.00                | 0.40            | 332.400     | 346.99                | 1.83         | -1.53        | 14,444,913.69       | 1,726,941.51       | 39.77489413 | -80.69204804 |   |  |
| 377.00                | 0.46            | 329.060     | 376.99                | 2.02         | -1.64        | 14,444,913.89       | 1,726,941.39       | 39.77489467 | -80.69204843 |   |  |



Survey Report - Geographic



|                  |                                 |                                     |                                      |
|------------------|---------------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>  | Tug Hill Operating LLC          | <b>Local Co-ordinate Reference:</b> | Well Keith Stern N-06 HM (slot S)    |
| <b>Project:</b>  | Marshall County, West Virginia. | <b>TVD Reference:</b>               | RKB=748+33 @ 781.00usft (Nabors X08) |
| <b>Site:</b>     | Keith Stern                     | <b>MD Reference:</b>                | RKB=748+33 @ 781.00usft (Nabors X08) |
| <b>Well:</b>     | Keith Stern N-06 HM (slot S)    | <b>North Reference:</b>             | Grid                                 |
| <b>Wellbore:</b> | Original Hole                   | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Design:</b>   | Surveys Original Hole           | <b>Database:</b>                    | DB_Feb2822                           |

| Survey                |                 |             |                       |              |              |                     |                    |             |              |  |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|---------------------|--------------------|-------------|--------------|--|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Map Northing (usft) | Map Easting (usft) | Latitude    | Longitude    |  |
| 408.00                | 0.50            | 319.390     | 407.99                | 2.23         | -1.79        | 14,444,914.10       | 1,726,941.24       | 39.77489525 | -80.69204897 |  |
| 438.00                | 0.55            | 322.300     | 437.99                | 2.45         | -1.96        | 14,444,914.31       | 1,726,941.07       | 39.77489584 | -80.69204958 |  |
| 468.00                | 1.11            | 307.800     | 467.98                | 2.74         | -2.28        | 14,444,914.61       | 1,726,940.75       | 39.77489664 | -80.69205071 |  |
| 498.00                | 0.95            | 302.940     | 497.98                | 3.05         | -2.72        | 14,444,914.92       | 1,726,940.31       | 39.77489751 | -80.69205226 |  |
| 528.00                | 1.03            | 307.360     | 527.97                | 3.35         | -3.14        | 14,444,915.22       | 1,726,939.89       | 39.77489833 | -80.69205377 |  |
| 549.00                | 0.85            | 317.810     | 548.97                | 3.58         | -3.40        | 14,444,915.45       | 1,726,939.64       | 39.77489896 | -80.69205467 |  |
| 615.00                | 0.73            | 301.670     | 614.97                | 4.16         | -4.08        | 14,444,916.03       | 1,726,938.95       | 39.77490057 | -80.69205711 |  |
| 706.00                | 0.07            | 217.740     | 705.96                | 4.42         | -4.61        | 14,444,916.29       | 1,726,938.42       | 39.77490129 | -80.69205898 |  |
| 800.00                | 0.48            | 149.980     | 799.96                | 4.04         | -4.45        | 14,444,915.91       | 1,726,938.58       | 39.77490023 | -80.69205841 |  |
| 894.00                | 0.96            | 153.340     | 893.95                | 2.99         | -3.90        | 14,444,914.86       | 1,726,939.13       | 39.77489736 | -80.69205646 |  |
| 988.00                | 0.93            | 146.590     | 987.94                | 1.65         | -3.13        | 14,444,913.52       | 1,726,939.91       | 39.77489367 | -80.69205373 |  |
| 1,083.00              | 0.97            | 157.030     | 1,082.93              | 0.27         | -2.39        | 14,444,912.14       | 1,726,940.65       | 39.77489886 | -80.69205112 |  |
| 1,177.00              | 0.94            | 153.010     | 1,176.92              | -1.15        | -1.73        | 14,444,910.72       | 1,726,941.31       | 39.77488596 | -80.69204878 |  |
| 1,271.00              | 2.42            | 121.410     | 1,270.87              | -2.87        | 0.32         | 14,444,909.00       | 1,726,943.35       | 39.77488121 | -80.69204153 |  |
| 1,365.00              | 4.63            | 102.330     | 1,364.69              | -4.72        | 5.72         | 14,444,907.15       | 1,726,948.75       | 39.77487609 | -80.69202233 |  |
| 1,459.00              | 6.70            | 97.780      | 1,458.23              | -6.27        | 14.86        | 14,444,905.60       | 1,726,957.89       | 39.77487174 | -80.69198982 |  |
| 1,553.00              | 8.86            | 96.120      | 1,551.36              | -7.78        | 27.49        | 14,444,904.08       | 1,726,970.52       | 39.77486746 | -80.69194488 |  |
| 1,647.00              | 9.81            | 103.560     | 1,644.12              | -10.43       | 42.47        | 14,444,901.43       | 1,726,985.51       | 39.77486005 | -80.69189158 |  |
| 1,742.00              | 10.58           | 115.840     | 1,737.63              | -16.13       | 58.19        | 14,444,895.73       | 1,727,001.23       | 39.77484424 | -80.69183571 |  |
| 1,837.00              | 12.19           | 118.900     | 1,830.76              | -24.78       | 74.82        | 14,444,887.09       | 1,727,017.86       | 39.77482033 | -80.69177662 |  |
| 1,930.00              | 12.72           | 114.600     | 1,921.57              | -33.79       | 92.73        | 14,444,878.08       | 1,727,035.76       | 39.77479543 | -80.69171300 |  |
| 2,024.00              | 14.97           | 110.150     | 2,012.83              | -42.28       | 113.54       | 14,444,869.59       | 1,727,056.57       | 39.77477191 | -80.69163904 |  |
| 2,118.00              | 16.35           | 110.580     | 2,103.34              | -51.12       | 137.33       | 14,444,860.75       | 1,727,080.36       | 39.77474743 | -80.69155450 |  |
| 2,213.00              | 17.58           | 108.030     | 2,194.21              | -60.26       | 163.49       | 14,444,851.61       | 1,727,106.52       | 39.77472208 | -80.69146150 |  |
| 2,306.00              | 17.91           | 104.030     | 2,282.79              | -68.07       | 190.72       | 14,444,843.80       | 1,727,133.75       | 39.77470036 | -80.69136468 |  |
| 2,403.00              | 20.04           | 103.800     | 2,374.51              | -75.65       | 221.33       | 14,444,836.22       | 1,727,164.36       | 39.77467925 | -80.69125582 |  |
| 2,497.00              | 23.35           | 105.510     | 2,461.84              | -84.48       | 254.93       | 14,444,827.39       | 1,727,197.96       | 39.77465469 | -80.69113634 |  |
| 2,591.00              | 28.25           | 108.640     | 2,546.45              | -96.58       | 293.98       | 14,444,815.29       | 1,727,237.02       | 39.77462110 | -80.69099749 |  |
| 2,685.00              | 31.49           | 109.620     | 2,627.95              | -111.94      | 338.20       | 14,444,799.93       | 1,727,281.23       | 39.77457850 | -80.69084031 |  |
| 2,780.00              | 34.03           | 112.690     | 2,707.84              | -130.52      | 386.11       | 14,444,781.34       | 1,727,329.14       | 39.77452699 | -80.69067004 |  |
| 2,874.00              | 34.92           | 112.920     | 2,785.33              | -151.15      | 435.16       | 14,444,760.72       | 1,727,378.19       | 39.77446989 | -80.69049573 |  |
| 2,969.00              | 36.39           | 111.530     | 2,862.52              | -172.08      | 486.42       | 14,444,739.79       | 1,727,429.45       | 39.77441191 | -80.69031354 |  |
| 3,063.00              | 36.49           | 113.710     | 2,938.15              | -193.55      | 537.95       | 14,444,718.31       | 1,727,480.98       | 39.77435245 | -80.69013040 |  |
| 3,158.00              | 38.07           | 113.530     | 3,013.73              | -216.61      | 590.67       | 14,444,695.26       | 1,727,533.70       | 39.77428864 | -80.68994305 |  |
| 3,252.00              | 38.94           | 114.610     | 3,087.29              | -240.48      | 644.10       | 14,444,671.39       | 1,727,587.13       | 39.77422257 | -80.68975319 |  |
| 3,347.00              | 38.14           | 115.490     | 3,161.60              | -265.54      | 697.72       | 14,444,646.33       | 1,727,640.76       | 39.77415325 | -80.68956265 |  |
| 3,441.00              | 38.69           | 113.610     | 3,235.25              | -289.80      | 750.85       | 14,444,622.07       | 1,727,693.88       | 39.77408612 | -80.68937388 |  |
| 3,535.00              | 37.40           | 111.240     | 3,309.28              | -311.91      | 804.38       | 14,444,599.96       | 1,727,747.41       | 39.77402489 | -80.68918363 |  |
| 3,630.00              | 37.87           | 111.690     | 3,384.52              | -333.14      | 858.37       | 14,444,578.73       | 1,727,801.40       | 39.77396607 | -80.68899175 |  |
| 3,724.00              | 39.39           | 113.700     | 3,457.95              | -355.79      | 912.49       | 14,444,556.08       | 1,727,855.52       | 39.77390334 | -80.68879940 |  |
| 3,817.00              | 37.65           | 110.730     | 3,530.71              | -377.71      | 966.09       | 14,444,534.16       | 1,727,909.12       | 39.77384264 | -80.68860893 |  |
| 3,911.00              | 37.63           | 111.700     | 3,605.15              | -398.48      | 1,019.60     | 14,444,513.39       | 1,727,962.63       | 39.77378508 | -80.68841873 |  |
| 4,005.00              | 38.41           | 112.510     | 3,679.20              | -420.27      | 1,073.24     | 14,444,491.60       | 1,728,016.27       | 39.77372473 | -80.68822810 |  |
| 4,099.00              | 38.58           | 112.570     | 3,752.77              | -442.70      | 1,127.28     | 14,444,469.17       | 1,728,070.31       | 39.77366262 | -80.68803605 |  |
| 4,194.00              | 39.69           | 113.620     | 3,826.46              | -466.23      | 1,182.43     | 14,444,445.64       | 1,728,125.46       | 39.77359748 | -80.68784007 |  |
| 4,289.00              | 38.15           | 110.690     | 3,900.38              | -488.75      | 1,237.68     | 14,444,423.12       | 1,728,180.71       | 39.77353510 | -80.68764371 |  |
| 4,385.00              | 37.28           | 111.830     | 3,976.32              | -510.04      | 1,292.41     | 14,444,401.83       | 1,728,235.44       | 39.77347611 | -80.68744919 |  |
| 4,479.00              | 36.35           | 111.230     | 4,051.57              | -530.71      | 1,344.80     | 14,444,381.16       | 1,728,287.84       | 39.77341883 | -80.68726297 |  |
| 4,573.00              | 38.00           | 112.020     | 4,126.47              | -551.65      | 1,397.60     | 14,444,360.22       | 1,728,340.63       | 39.77336082 | -80.68707533 |  |
| 4,668.00              | 38.25           | 111.250     | 4,201.20              | -573.27      | 1,452.12     | 14,444,338.60       | 1,728,395.15       | 39.77330092 | -80.68688157 |  |
| 4,762.00              | 38.02           | 110.500     | 4,275.14              | -593.96      | 1,506.35     | 14,444,317.91       | 1,728,449.39       | 39.77324359 | -80.68668880 |  |
| 4,856.00              | 37.74           | 113.090     | 4,349.34              | -615.38      | 1,559.94     | 14,444,296.49       | 1,728,502.97       | 39.77318425 | -80.68649837 |  |
| 4,951.00              | 37.36           | 112.380     | 4,424.66              | -637.76      | 1,613.33     | 14,444,274.11       | 1,728,556.37       | 39.77312228 | -80.68630861 |  |
| 5,045.00              | 37.73           | 113.490     | 4,499.19              | -660.08      | 1,666.09     | 14,444,251.79       | 1,728,609.12       | 39.77306047 | -80.68612115 |  |
| 5,140.00              | 38.52           | 111.790     | 4,573.92              | -682.65      | 1,720.21     | 14,444,229.22       | 1,728,663.25       | 39.77299797 | -80.68592878 |  |



Survey Report - Geographic



|                  |                                 |                                     |                                      |
|------------------|---------------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>  | Tug Hill Operating LLC          | <b>Local Co-ordinate Reference:</b> | Well Keith Stern N-06 HM (slot S)    |
| <b>Project:</b>  | Marshall County, West Virginia. | <b>TVD Reference:</b>               | RKB=748+33 @ 781.00usft (Nabors X08) |
| <b>Site:</b>     | Keith Stern                     | <b>MD Reference:</b>                | RKB=748+33 @ 781.00usft (Nabors X08) |
| <b>Well:</b>     | Keith Stern N-06 HM (slot S)    | <b>North Reference:</b>             | Grid                                 |
| <b>Wellbore:</b> | Original Hole                   | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Design:</b>   | Surveys Original Hole           | <b>Database:</b>                    | DB_Feb2822                           |

| Survey                |                 |             |                       |              |              |                     |                    |             |              |  |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|---------------------|--------------------|-------------|--------------|--|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Map Northing (usft) | Map Easting (usft) | Latitude    | Longitude    |  |
| 5,234.00              | 38.28           | 111.320     | 4,647.59              | -704.10      | 1,774.52     | 14,444,207.77       | 1,728,717.55       | 39.77293853 | -80.68573579 |  |
| 5,332.00              | 38.82           | 111.760     | 4,724.23              | -726.52      | 1,831.33     | 14,444,185.35       | 1,728,774.36       | 39.77287640 | -80.68553389 |  |
| 5,426.00              | 38.70           | 111.950     | 4,797.53              | -748.43      | 1,885.95     | 14,444,163.44       | 1,728,828.98       | 39.77281571 | -80.68533977 |  |
| 5,521.00              | 38.63           | 111.690     | 4,871.71              | -770.49      | 1,941.05     | 14,444,141.38       | 1,728,884.08       | 39.77275460 | -80.68514395 |  |
| 5,615.00              | 38.89           | 112.380     | 4,945.01              | -792.57      | 1,995.60     | 14,444,119.30       | 1,728,938.63       | 39.77269344 | -80.68495009 |  |
| 5,708.00              | 36.53           | 109.810     | 5,018.58              | -813.07      | 2,048.64     | 14,444,098.80       | 1,728,991.68       | 39.77263662 | -80.68476155 |  |
| 5,803.00              | 35.75           | 110.710     | 5,095.30              | -832.47      | 2,101.20     | 14,444,079.40       | 1,729,044.24       | 39.77258285 | -80.68457474 |  |
| 5,897.00              | 37.71           | 112.520     | 5,170.64              | -853.19      | 2,153.45     | 14,444,058.68       | 1,729,096.48       | 39.77252543 | -80.68438905 |  |
| 5,942.00              | 38.65           | 112.910     | 5,206.01              | -863.93      | 2,179.11     | 14,444,047.93       | 1,729,122.14       | 39.77249568 | -80.68429787 |  |
| 6,004.00              | 39.87           | 114.000     | 5,254.01              | -879.55      | 2,215.10     | 14,444,032.31       | 1,729,158.13       | 39.77245243 | -80.68416998 |  |
| 6,098.00              | 39.03           | 110.490     | 5,326.61              | -902.17      | 2,270.36     | 14,444,009.70       | 1,729,213.39       | 39.77238978 | -80.68397360 |  |
| 6,142.00              | 39.12           | 109.520     | 5,360.77              | -911.66      | 2,298.42     | 14,444,000.21       | 1,729,239.45       | 39.77236347 | -80.68388097 |  |
| 6,192.00              | 38.68           | 107.670     | 5,399.68              | -921.67      | 2,326.17     | 14,443,990.19       | 1,729,269.21       | 39.77233569 | -80.68377520 |  |
| 6,239.00              | 35.52           | 103.980     | 5,437.17              | -929.43      | 2,353.43     | 14,443,982.44       | 1,729,296.46       | 39.77231411 | -80.68367831 |  |
| 6,286.00              | 32.62           | 100.030     | 5,476.10              | -934.94      | 2,379.16     | 14,443,976.93       | 1,729,322.19       | 39.77229874 | -80.68358680 |  |
| 6,333.00              | 30.07           | 94.750      | 5,516.24              | -938.12      | 2,403.37     | 14,443,973.75       | 1,729,346.41       | 39.77228976 | -80.68350065 |  |
| 6,381.00              | 27.96           | 89.920      | 5,558.22              | -939.10      | 2,426.62     | 14,443,972.77       | 1,729,369.65       | 39.77228685 | -80.68341795 |  |
| 6,428.00              | 26.02           | 83.500      | 5,600.11              | -937.92      | 2,447.88     | 14,443,973.95       | 1,729,390.92       | 39.77228989 | -80.68334224 |  |
| 6,475.00              | 24.57           | 76.560      | 5,642.61              | -934.48      | 2,467.64     | 14,443,977.39       | 1,729,410.67       | 39.77229914 | -80.68327190 |  |
| 6,522.00              | 23.96           | 67.950      | 5,685.47              | -928.62      | 2,485.99     | 14,443,983.24       | 1,729,429.03       | 39.77231504 | -80.68320650 |  |
| 6,570.00              | 23.78           | 58.890      | 5,729.38              | -919.96      | 2,503.32     | 14,443,991.91       | 1,729,446.35       | 39.77233866 | -80.68314474 |  |
| 6,617.00              | 24.57           | 50.370      | 5,772.27              | -908.83      | 2,518.96     | 14,444,003.04       | 1,729,461.99       | 39.77236908 | -80.68308892 |  |
| 6,664.00              | 26.29           | 42.630      | 5,814.73              | -894.93      | 2,533.54     | 14,444,016.93       | 1,729,476.57       | 39.77240710 | -80.68303686 |  |
| 6,711.00              | 28.13           | 34.900      | 5,856.54              | -878.18      | 2,546.93     | 14,444,033.69       | 1,729,489.97       | 39.77245298 | -80.68298898 |  |
| 6,758.00              | 30.36           | 26.110      | 5,897.47              | -858.26      | 2,558.59     | 14,444,053.61       | 1,729,501.62       | 39.77250758 | -80.68294726 |  |
| 6,805.00              | 33.10           | 18.550      | 5,937.35              | -835.26      | 2,567.98     | 14,444,076.81       | 1,729,511.01       | 39.77257066 | -80.68291354 |  |
| 6,853.00              | 35.03           | 13.450      | 5,977.12              | -809.42      | 2,575.36     | 14,444,102.44       | 1,729,518.39       | 39.77264153 | -80.68288696 |  |
| 6,900.00              | 37.19           | 7.570       | 6,015.10              | -782.21      | 2,580.37     | 14,444,129.66       | 1,729,523.40       | 39.77271621 | -80.68286879 |  |
| 6,948.00              | 39.47           | 4.140       | 6,052.75              | -752.61      | 2,583.38     | 14,444,159.26       | 1,729,526.41       | 39.77279748 | -80.68285769 |  |
| 6,995.00              | 42.37           | 1.240       | 6,088.27              | -721.87      | 2,584.80     | 14,444,190.00       | 1,729,527.83       | 39.77288190 | -80.68285224 |  |
| 7,043.00              | 45.76           | 357.190     | 6,122.76              | -688.51      | 2,584.31     | 14,444,223.36       | 1,729,527.34       | 39.77297352 | -80.68285358 |  |
| 7,090.00              | 50.33           | 354.650     | 6,154.17              | -653.66      | 2,581.79     | 14,444,258.21       | 1,729,524.83       | 39.77306924 | -80.68286208 |  |
| 7,137.00              | 54.55           | 352.620     | 6,182.82              | -616.64      | 2,577.65     | 14,444,295.22       | 1,729,520.68       | 39.77317093 | -80.68287638 |  |
| 7,184.00              | 58.86           | 350.870     | 6,208.62              | -577.78      | 2,571.99     | 14,444,334.09       | 1,729,515.03       | 39.77327772 | -80.68289601 |  |
| 7,231.00              | 62.42           | 347.610     | 6,231.66              | -537.56      | 2,564.33     | 14,444,374.31       | 1,729,507.36       | 39.77338826 | -80.68292278 |  |
| 7,278.00              | 67.65           | 344.980     | 6,251.49              | -496.18      | 2,554.22     | 14,444,415.68       | 1,729,497.25       | 39.77350197 | -80.68295824 |  |
| 7,326.00              | 72.35           | 342.250     | 6,267.91              | -452.93      | 2,541.48     | 14,444,458.94       | 1,729,484.52       | 39.77362088 | -80.68300302 |  |
| 7,373.00              | 75.25           | 340.580     | 6,281.02              | -410.16      | 2,527.10     | 14,444,501.71       | 1,729,470.13       | 39.77373848 | -80.68305368 |  |
| 7,419.00              | 78.81           | 340.060     | 6,291.34              | -367.96      | 2,512.00     | 14,444,543.91       | 1,729,455.04       | 39.77385452 | -80.68310688 |  |
| 7,466.00              | 81.41           | 338.470     | 6,299.42              | -324.66      | 2,495.61     | 14,444,587.20       | 1,729,438.64       | 39.77397358 | -80.68316467 |  |
| 7,513.00              | 82.95           | 336.980     | 6,305.81              | -281.58      | 2,477.96     | 14,444,630.29       | 1,729,420.99       | 39.77409208 | -80.68322695 |  |
| 7,560.00              | 84.04           | 335.400     | 6,311.14              | -238.86      | 2,459.11     | 14,444,673.01       | 1,729,402.14       | 39.77420958 | -80.68329350 |  |
| 7,607.00              | 86.15           | 333.200     | 6,315.16              | -196.67      | 2,438.80     | 14,444,715.20       | 1,729,381.83       | 39.77432565 | -80.68336524 |  |
| 7,702.00              | 88.97           | 331.000     | 6,319.20              | -112.80      | 2,394.39     | 14,444,799.07       | 1,729,337.43       | 39.77455640 | -80.68352224 |  |
| 7,797.00              | 90.73           | 330.480     | 6,319.45              | -29.93       | 2,347.96     | 14,444,881.94       | 1,729,291.00       | 39.77478444 | -80.68368645 |  |
| 7,891.00              | 91.25           | 330.480     | 6,317.82              | 51.86        | 2,301.65     | 14,444,963.73       | 1,729,244.69       | 39.77500950 | -80.68385024 |  |
| 7,986.00              | 91.30           | 330.120     | 6,315.71              | 134.36       | 2,254.60     | 14,445,046.23       | 1,729,197.63       | 39.77523652 | -80.68401668 |  |
| 8,080.00              | 90.59           | 329.860     | 6,314.16              | 215.75       | 2,207.59     | 14,445,127.61       | 1,729,150.62       | 39.77546048 | -80.68418296 |  |
| 8,175.00              | 92.09           | 329.510     | 6,311.94              | 297.73       | 2,159.65     | 14,445,209.60       | 1,729,102.68       | 39.77568610 | -80.68435254 |  |
| 8,269.00              | 91.82           | 329.510     | 6,308.73              | 378.68       | 2,111.98     | 14,445,290.55       | 1,729,055.02       | 39.77590888 | -80.68452118 |  |
| 8,363.00              | 91.47           | 329.420     | 6,306.03              | 459.62       | 2,064.25     | 14,445,371.48       | 1,729,007.28       | 39.77613160 | -80.68469007 |  |
| 8,457.00              | 91.96           | 329.160     | 6,303.22              | 540.40       | 2,016.26     | 14,445,452.26       | 1,728,959.30       | 39.77635391 | -80.68485984 |  |
| 8,551.00              | 92.79           | 329.070     | 6,299.33              | 621.00       | 1,968.05     | 14,445,532.87       | 1,728,911.09       | 39.77657572 | -80.68503042 |  |
| 8,644.00              | 92.57           | 327.930     | 6,294.98              | 700.20       | 1,919.51     | 14,445,612.07       | 1,728,862.55       | 39.77679372 | -80.68520218 |  |
| 8,738.00              | 92.09           | 329.160     | 6,291.15              | 780.32       | 1,870.50     | 14,445,692.19       | 1,728,813.54       | 39.77701422 | -80.68537561 |  |



Survey Report - Geographic



|                  |                                 |                                     |                                      |
|------------------|---------------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>  | Tug Hill Operating LLC          | <b>Local Co-ordinate Reference:</b> | Well Keith Stern N-06 HM (slot S)    |
| <b>Project:</b>  | Marshall County, West Virginia. | <b>TVD Reference:</b>               | RKB=748+33 @ 781.00usft (Nabors X08) |
| <b>Site:</b>     | Keith Stern                     | <b>MD Reference:</b>                | RKB=748+33 @ 781.00usft (Nabors X08) |
| <b>Well:</b>     | Keith Stern N-06 HM (slot S)    | <b>North Reference:</b>             | Grid                                 |
| <b>Wellbore:</b> | Original Hole                   | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Design:</b>   | Surveys Original Hole           | <b>Database:</b>                    | DB_Feb2822                           |

| Survey                |                 |             |                       |              |              |                     |                    |             |              |  |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|---------------------|--------------------|-------------|--------------|--|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Map Northing (usft) | Map Easting (usft) | Latitude    | Longitude    |  |
| 8,832.00              | 91.56           | 328.890     | 6,288.16              | 860.88       | 1,822.15     | 14,445,772.75       | 1,728,765.18       | 39.77723590 | -80.68554671 |  |
| 8,926.00              | 92.18           | 329.600     | 6,285.09              | 941.61       | 1,774.11     | 14,445,853.48       | 1,728,717.14       | 39.77745809 | -80.68571669 |  |
| 9,021.00              | 91.47           | 329.680     | 6,282.07              | 1,023.54     | 1,726.12     | 14,445,935.41       | 1,728,669.15       | 39.77768355 | -80.68588648 |  |
| 9,116.00              | 91.89           | 331.880     | 6,279.45              | 1,106.42     | 1,679.76     | 14,446,018.29       | 1,728,622.80       | 39.77791159 | -80.68605043 |  |
| 9,211.00              | 89.45           | 330.920     | 6,278.50              | 1,189.82     | 1,634.29     | 14,446,101.68       | 1,728,577.33       | 39.77814106 | -80.68621123 |  |
| 9,305.00              | 89.23           | 329.950     | 6,279.59              | 1,271.57     | 1,587.91     | 14,446,183.44       | 1,728,530.95       | 39.77836603 | -80.68637528 |  |
| 9,399.00              | 88.62           | 329.770     | 6,281.35              | 1,352.85     | 1,540.72     | 14,446,264.71       | 1,728,483.76       | 39.77858969 | -80.68654223 |  |
| 9,493.00              | 89.63           | 330.040     | 6,282.79              | 1,434.16     | 1,493.60     | 14,446,346.03       | 1,728,436.63       | 39.77881346 | -80.68670896 |  |
| 9,586.00              | 91.16           | 330.390     | 6,282.14              | 1,514.87     | 1,447.40     | 14,446,426.74       | 1,728,390.43       | 39.77903555 | -80.68687237 |  |
| 9,680.00              | 92.88           | 329.770     | 6,278.83              | 1,596.29     | 1,400.55     | 14,446,508.16       | 1,728,343.58       | 39.77925960 | -80.68703813 |  |
| 9,774.00              | 92.84           | 329.510     | 6,274.14              | 1,677.30     | 1,353.09     | 14,446,589.17       | 1,728,296.13       | 39.77948252 | -80.68720602 |  |
| 9,867.00              | 91.69           | 329.680     | 6,270.47              | 1,757.45     | 1,306.06     | 14,446,669.31       | 1,728,249.10       | 39.77970308 | -80.68737242 |  |
| 9,961.00              | 91.47           | 329.950     | 6,267.87              | 1,838.67     | 1,258.82     | 14,446,750.54       | 1,728,201.85       | 39.77992659 | -80.68753956 |  |
| 10,054.00             | 90.33           | 329.160     | 6,266.41              | 1,918.83     | 1,211.70     | 14,446,830.70       | 1,728,154.74       | 39.78014719 | -80.68770628 |  |
| 10,149.00             | 88.79           | 329.330     | 6,267.14              | 2,000.47     | 1,163.13     | 14,446,912.34       | 1,728,106.16       | 39.78037185 | -80.68787816 |  |
| 10,243.00             | 88.53           | 329.600     | 6,269.34              | 2,081.41     | 1,115.38     | 14,446,993.28       | 1,728,058.41       | 39.78059459 | -80.68804710 |  |
| 10,337.00             | 88.04           | 329.420     | 6,272.15              | 2,162.38     | 1,067.71     | 14,447,074.24       | 1,728,010.74       | 39.78081740 | -80.68821578 |  |
| 10,432.00             | 88.44           | 330.830     | 6,275.07              | 2,244.71     | 1,020.41     | 14,447,156.58       | 1,727,963.44       | 39.78104396 | -80.68838311 |  |
| 10,526.00             | 87.74           | 330.560     | 6,278.20              | 2,326.63     | 974.43       | 14,447,238.50       | 1,727,917.46       | 39.78126939 | -80.68854577 |  |
| 10,620.00             | 90.42           | 330.830     | 6,279.71              | 2,408.59     | 928.43       | 14,447,320.46       | 1,727,871.46       | 39.78149489 | -80.68870848 |  |
| 10,714.00             | 91.96           | 331.710     | 6,277.76              | 2,490.99     | 883.26       | 14,447,402.86       | 1,727,826.29       | 39.78172163 | -80.68886825 |  |
| 10,808.00             | 91.38           | 331.710     | 6,275.02              | 2,573.73     | 838.73       | 14,447,485.60       | 1,727,781.76       | 39.78194927 | -80.68902573 |  |
| 10,902.00             | 91.08           | 331.530     | 6,273.00              | 2,656.41     | 794.06       | 14,447,568.28       | 1,727,737.09       | 39.78217677 | -80.68918371 |  |
| 10,996.00             | 90.29           | 329.770     | 6,271.88              | 2,738.34     | 747.99       | 14,447,650.21       | 1,727,691.02       | 39.78240219 | -80.68934667 |  |
| 11,090.00             | 89.41           | 328.890     | 6,272.13              | 2,819.19     | 700.04       | 14,447,731.06       | 1,727,643.07       | 39.78262468 | -80.68951634 |  |
| 11,185.00             | 91.30           | 328.980     | 6,271.54              | 2,900.56     | 651.02       | 14,447,812.43       | 1,727,594.06       | 39.78284861 | -80.68968982 |  |
| 11,279.00             | 90.95           | 329.160     | 6,269.69              | 2,981.18     | 602.72       | 14,447,893.04       | 1,727,545.75       | 39.78307047 | -80.68986076 |  |
| 11,373.00             | 90.46           | 327.050     | 6,268.54              | 3,060.97     | 553.06       | 14,447,972.84       | 1,727,496.09       | 39.78329008 | -80.69003654 |  |
| 11,467.00             | 90.73           | 326.870     | 6,267.56              | 3,139.77     | 501.81       | 14,448,051.64       | 1,727,444.84       | 39.78350696 | -80.69021799 |  |
| 11,561.00             | 91.52           | 328.010     | 6,265.71              | 3,218.98     | 451.23       | 14,448,130.84       | 1,727,394.26       | 39.78372497 | -80.69039705 |  |
| 11,655.00             | 90.51           | 329.860     | 6,264.05              | 3,299.48     | 402.74       | 14,448,211.35       | 1,727,345.77       | 39.78394651 | -80.69056888 |  |
| 11,749.00             | 91.38           | 331.880     | 6,262.50              | 3,381.57     | 356.99       | 14,448,293.44       | 1,727,300.02       | 39.78417239 | -80.69073052 |  |
| 11,843.00             | 90.42           | 332.320     | 6,261.02              | 3,464.63     | 313.01       | 14,448,376.50       | 1,727,256.04       | 39.78440092 | -80.69088604 |  |
| 11,938.00             | 89.71           | 332.060     | 6,260.91              | 3,548.66     | 268.69       | 14,448,460.53       | 1,727,211.72       | 39.78463210 | -80.69104277 |  |
| 12,033.00             | 89.36           | 331.710     | 6,261.68              | 3,632.45     | 223.92       | 14,448,544.32       | 1,727,166.95       | 39.78486263 | -80.69120109 |  |
| 12,127.00             | 89.45           | 331.710     | 6,262.66              | 3,715.22     | 179.37       | 14,448,627.09       | 1,727,122.41       | 39.78509035 | -80.69135865 |  |
| 12,222.00             | 89.93           | 331.350     | 6,263.18              | 3,798.73     | 134.09       | 14,448,710.59       | 1,727,077.12       | 39.78532012 | -80.69151882 |  |
| 12,315.00             | 89.63           | 330.920     | 6,263.53              | 3,880.17     | 89.19        | 14,448,792.04       | 1,727,032.22       | 39.78554421 | -80.69167763 |  |
| 12,410.00             | 89.41           | 330.560     | 6,264.33              | 3,963.05     | 42.76        | 14,448,874.92       | 1,726,985.79       | 39.78577225 | -80.69184190 |  |
| 12,504.00             | 89.80           | 330.210     | 6,264.98              | 4,044.77     | -3.69        | 14,448,956.63       | 1,726,939.34       | 39.78599711 | -80.69200624 |  |
| 12,598.00             | 90.11           | 329.600     | 6,265.05              | 4,126.09     | -50.83       | 14,449,037.96       | 1,726,892.21       | 39.78622090 | -80.69217303 |  |
| 12,691.00             | 90.99           | 329.950     | 6,264.16              | 4,206.45     | -97.64       | 14,449,118.31       | 1,726,845.39       | 39.78644201 | -80.69233869 |  |
| 12,786.00             | 90.81           | 329.330     | 6,262.66              | 4,288.41     | -145.65      | 14,449,200.28       | 1,726,797.38       | 39.78666755 | -80.69250858 |  |
| 12,880.00             | 91.78           | 330.650     | 6,260.54              | 4,369.78     | -192.65      | 14,449,281.65       | 1,726,750.38       | 39.78689147 | -80.69267490 |  |
| 12,974.00             | 91.56           | 331.090     | 6,257.80              | 4,451.86     | -238.39      | 14,449,363.73       | 1,726,704.65       | 39.78711730 | -80.69283671 |  |
| 13,067.00             | 89.98           | 331.790     | 6,256.55              | 4,533.53     | -282.84      | 14,449,445.40       | 1,726,660.19       | 39.78734201 | -80.69299396 |  |
| 13,162.00             | 90.51           | 331.710     | 6,256.15              | 4,617.21     | -327.81      | 14,449,529.08       | 1,726,615.22       | 39.78757225 | -80.69315300 |  |
| 13,256.00             | 89.32           | 332.060     | 6,256.28              | 4,700.12     | -372.10      | 14,449,611.99       | 1,726,570.93       | 39.78780035 | -80.69330967 |  |
| 13,350.00             | 89.63           | 331.880     | 6,257.15              | 4,783.09     | -416.28      | 14,449,694.96       | 1,726,526.76       | 39.78802863 | -80.69346590 |  |
| 13,444.00             | 90.02           | 330.920     | 6,257.43              | 4,865.62     | -461.27      | 14,449,777.49       | 1,726,481.76       | 39.78825569 | -80.69362507 |  |
| 13,538.00             | 90.24           | 330.850     | 6,257.22              | 4,947.66     | -507.15      | 14,449,859.53       | 1,726,435.88       | 39.78848143 | -80.69378739 |  |
| 13,633.00             | 90.11           | 331.000     | 6,256.93              | 5,030.61     | -553.46      | 14,449,942.48       | 1,726,389.57       | 39.78870966 | -80.69395124 |  |
| 13,727.00             | 90.59           | 330.560     | 6,256.36              | 5,112.65     | -599.35      | 14,450,024.51       | 1,726,343.68       | 39.78893539 | -80.69411358 |  |
| 13,821.00             | 89.80           | 329.600     | 6,256.04              | 5,194.12     | -646.23      | 14,450,105.98       | 1,726,296.80       | 39.78915956 | -80.69427950 |  |
| 13,916.00             | 89.10           | 329.680     | 6,256.95              | 5,276.08     | -694.25      | 14,450,187.95       | 1,726,248.79       | 39.78938512 | -80.69444942 |  |

|                  |                                 |                                     |                                      |
|------------------|---------------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>  | Tug Hill Operating LLC          | <b>Local Co-ordinate Reference:</b> | Well Keith Stern N-06 HM (slot S)    |
| <b>Project:</b>  | Marshall County, West Virginia. | <b>TVD Reference:</b>               | RKB=748+33 @ 781.00usft (Nabors X08) |
| <b>Site:</b>     | Keith Stern                     | <b>MD Reference:</b>                | RKB=748+33 @ 781.00usft (Nabors X08) |
| <b>Well:</b>     | Keith Stern N-06 HM (slot S)    | <b>North Reference:</b>             | Grid                                 |
| <b>Wellbore:</b> | Original Hole                   | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Design:</b>   | Surveys Original Hole           | <b>Database:</b>                    | DB_Feb2822                           |

| Measured Depth (usft)                          | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Map Northing (usft) | Map Easting (usft) | Latitude    | Longitude    |
|--|-----------------|-------------|-----------------------|--------------|--------------|---------------------|--------------------|-------------|--------------|
| 14,011.00                                      | 89.05           | 328.810     | 6,258.48              | 5,357.71     | -742.82      | 14,450,269.58       | 1,726,200.21       | 39.78960975 | -80.69462134 |
| 14,050.00                                      | 88.53           | 328.370     | 6,259.30              | 5,390.99     | -763.14      | 14,450,302.86       | 1,726,179.89       | 39.78970132 | -80.69469327 |
| <b>Survey @ 14050.00 MD 6259.30 TVD</b>        |                 |             |                       |              |              |                     |                    |             |              |
| 14,106.00                                      | 88.53           | 328.370     | 6,260.74              | 5,438.66     | -792.50      | 14,450,350.52       | 1,726,150.53       | 39.78983250 | -80.69479721 |
| <b>Survey Proj. to 14106.00 MD 6260.74 TVD</b> |                 |             |                       |              |              |                     |                    |             |              |

| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates |              | Comment                                 |
|-----------------------|-----------------------|-------------------|--------------|---|
|                       |                       | +N/-S (usft)      | +E/-W (usft) |   |
| 197.00                | 197.00                | 0.80              | -0.75        | MWD surveys                             |
| 14,050.00             | 6,259.30              | 5,390.99          | -763.14      | Survey @ 14050.00 MD 6259.30 TVD        |
| 14,106.00             | 6,260.74              | 5,438.66          | -792.50      | Survey Proj. to 14106.00 MD 6260.74 TVD |

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