

Confidentiality Requested:

Yes No

**KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION**

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

**WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE**

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

New Well Re-Entry Workover

Oil WSW SWD

Gas DH EOR

OG GSW

CM (Coal Bed Methane)

Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

Deepening Re-perf. Conv. to EOR Conv. to SWD

Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Recompletion Date _____ Date Reached TD _____ Completion Date or Recompletion Date _____

API No.: _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite: _____

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

Confidentiality Requested

Date: _____

Confidential Release Date: _____

Wireline Log Received Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

| | |
|--|---|
| Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: | <input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum |
|--|---|

| CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used | | | | | | | |
|---|-------------------|---------------------------|-------------------|---------------|----------------|--------------|----------------------------|
| Report all strings set-conductor, surface, intermediate, production, etc. | | | | | | | |
| Purpose of String | Size Hole Drilled | Size Casing Set (In O.D.) | Weight Lbs. / Ft. | Setting Depth | Type of Cement | # Sacks Used | Type and Percent Additives |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

| ADDITIONAL CEMENTING / SQUEEZE RECORD | | | | |
|--|------------------|----------------|--------------|----------------------------|
| Purpose: | Depth Top Bottom | Type of Cement | # Sacks Used | Type and Percent Additives |
| <input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone | | | | |
| | | | | |

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

| | | | | |
|---|--|---------|-------------|-----------------------|
| Date of first Production/Injection or Resumed Production/Injection: | Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____ | | | |
| Estimated Production Per 24 Hours | Oil Bbls. | Gas Mcf | Water Bbls. | Gas-Oil Ratio Gravity |

| | | |
|---|--|------------------------------------|
| DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i> | METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5) (Submit ACO-4)</i> | PRODUCTION INTERVAL: Top Bottom |
|---|--|------------------------------------|

| Shots Per Foot | Perforation Top | Perforation Bottom | Bridge Plug Type | Bridge Plug Set At | Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i> |
|----------------|-----------------|--------------------|------------------|--------------------|---|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| | | | | |
|----------------|-------|---------|------------|--|
| TUBING RECORD: | Size: | Set At: | Packer At: | |
|----------------|-------|---------|------------|--|

| | |
|-----------|---------------------------|
| Form | ACO1 - Well Completion |
| Operator | Merit Energy Company, LLC |
| Well Name | WOOD 34-1 |
| Doc ID | 1426286 |

All Electric Logs Run

| |
|--|
| |
| ANNULAR HOLE VOLUME LOG 5 CASING |
| ARRAY COMPENSATED TRUE RESISTIVITY LOG 1 |
| ARRAY COMPENSATED TRUE RESISTIVITY LOG 2 |
| ARRAY COMPENSATED TRUE RESISTIVITY LOG 5 |
| ARRAY TRUE RESISTIVITY SPECTRAL DENSITY DUAL SPACED NEUTRON BOREHOLE SONIC QUAD COMBO LOG |
| BOREHOLE COMPENSATED SONIC ARRAY LOG |
| MICROLOG |
| REPEAT SECTION LOG |
| SPECTRAL DENSITY DUAL SPACED NEUTRON LOG |

| | |
|-----------|---------------------------|
| Form | ACO1 - Well Completion |
| Operator | Merit Energy Company, LLC |
| Well Name | WOOD 34-1 |
| Doc ID | 1426286 |

Tops

| Name | Top | Datum |
|--------------|------|-------|
| HEEBNER | 3933 | |
| TORONTO | 3946 | |
| LANSING | 4027 | |
| SWOPE | 4363 | |
| HERTHA | 4410 | |
| MARMATON | 4521 | |
| CHEROKEE | 4645 | |
| ATOKA | 4741 | |
| MORROW | 4822 | |
| ST GENEVIEVE | 4879 | |
| ST LOUIS | 4921 | |

MERIT ENERGY COMPANY

FINNEY COUNTY, KANSAS (NAD27 - GRID)

SW NW SEC. 34 T24S R32W

WOOD 34-1

JOB #18-012

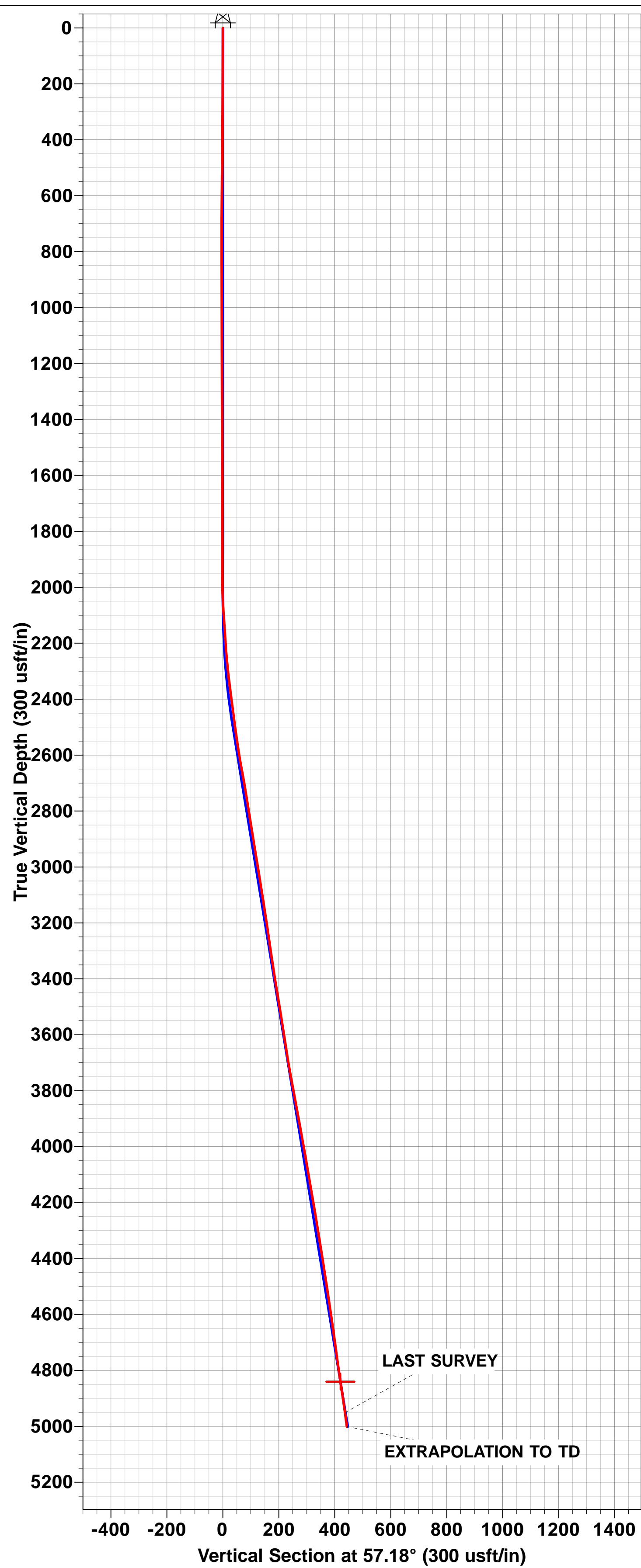
21 August, 2018

Survey: FINAL SURVEYS





Project: FINNEY COUNTY, KANSAS (NAD27 - GRID)
 Site: SW NW SEC. 34 T24S R32W
 Well: WOOD 34-1
 Wellbore: JOB #18-012
 Design: FINAL SURVEYS



PROJECT DETAILS: FINNEY COUNTY, KANSAS (NAD27 - GRID)

Geodetic System: US State Plane 1927 (Exact solution)

Datum: NAD 1927 (NADCON CONUS)

Ellipsoid: Clarke 1866

Zone: Kansas South 1502

Padsite: SW NW SEC. 34 T24S R32W

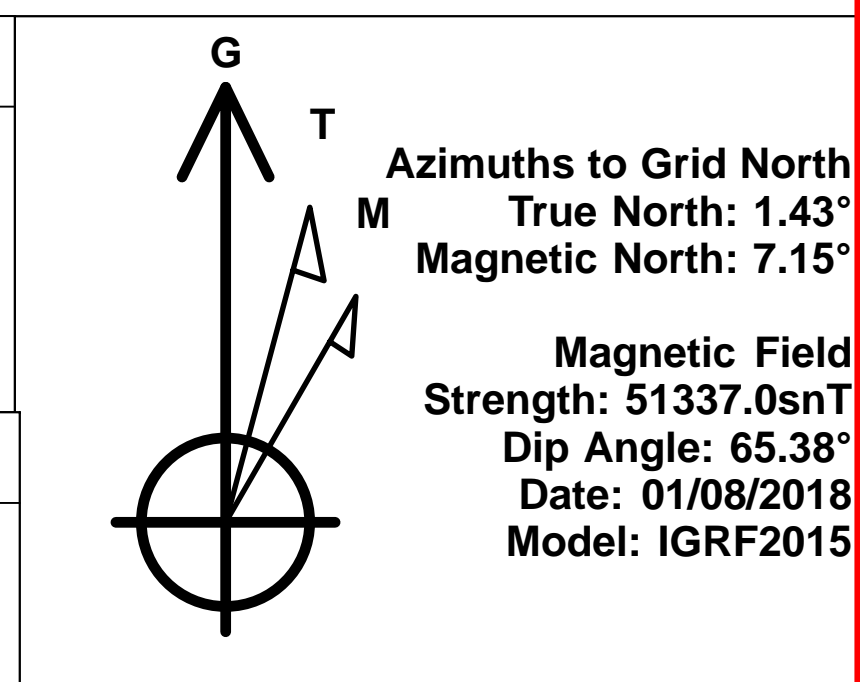
WELL DETAILS: WOOD 34-1

Ground Level: 2869.70

| +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
|-------|-------|-----------|------------|-----------|-------------|
| 0.00 | 0.00 | 466905.19 | 1328572.71 | 37.925948 | -100.828015 |

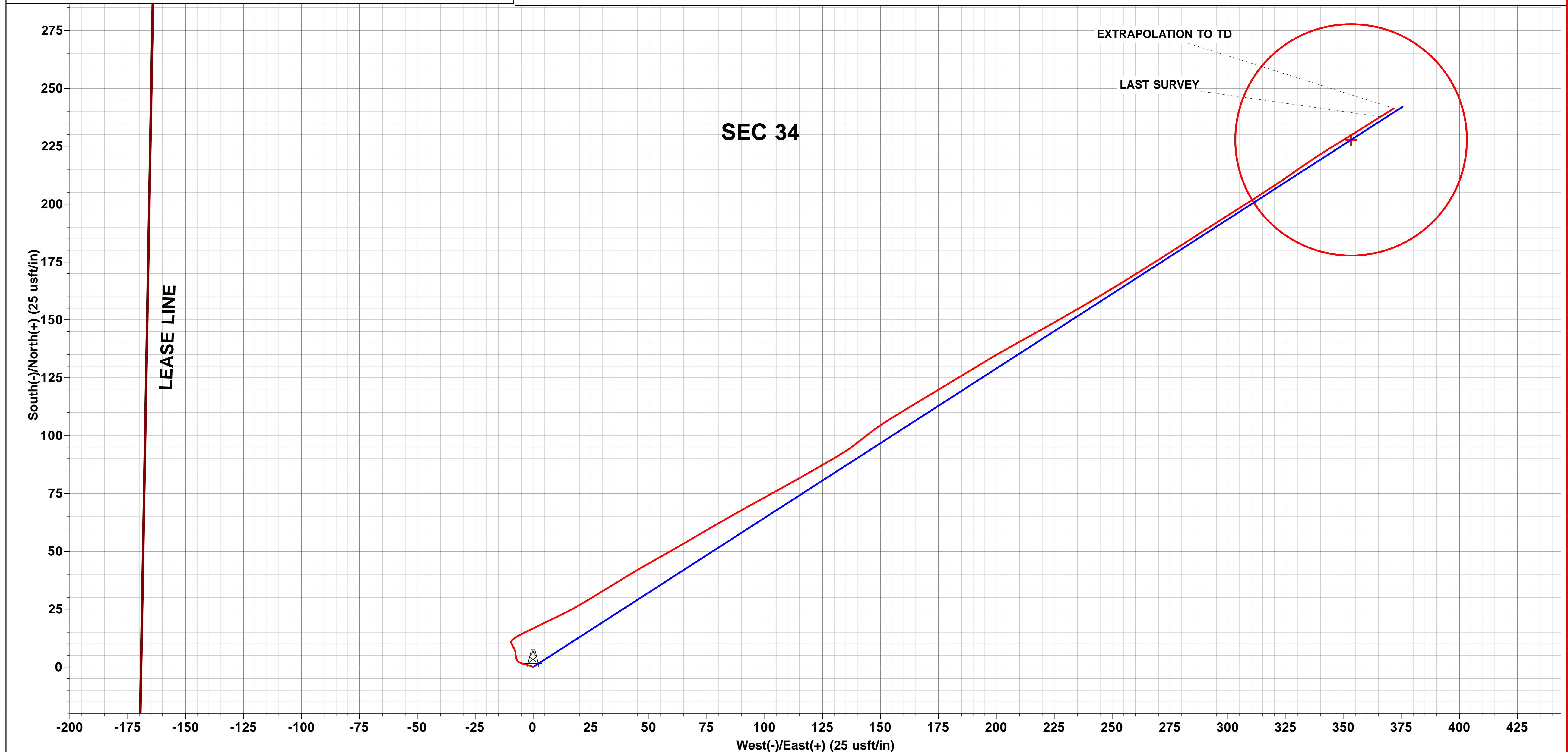
DESIGN TARGET DETAILS

| Name | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
|-----------------|---------|--------|--------|-----------|------------|-----------|-------------|
| TGT - WOOD 34-1 | 4840.00 | 227.75 | 353.16 | 467132.93 | 1328925.85 | 37.926597 | -100.826811 |



ANNOTATIONS

| TVD | MD | Inc | Azi | +N/-S | +E/-W | VSec | Departure | Annotation |
|---------|---------|------|-------|--------|--------|--------|-----------|---------------------|
| 4951.05 | 4985.00 | 7.90 | 58.10 | 237.76 | 365.85 | 436.32 | 455.77 | LAST SURVEY |
| 5000.58 | 5035.00 | 7.90 | 58.10 | 241.39 | 371.68 | 443.19 | 462.64 | EXTRAPOLATION TO TD |



Survey Report



| | | | |
|------------------|-------------------------------|-------------------------------------|-------------------------------|
| Company: | MERIT ENERGY COMPANY | Local Co-ordinate Reference: | Well WOOD 34-1 |
| Project: | FINNEY COUNTY, KANSAS (NAD27) | TVD Reference: | KB 12' @ 2881.70usft (DUKE 9) |
| Site: | SW NW SEC. 34 T24S R32W | MD Reference: | KB 12' @ 2881.70usft (DUKE 9) |
| Well: | WOOD 34-1 | North Reference: | Grid |
| Wellbore: | JOB #18-012 | Survey Calculation Method: | Minimum Curvature |
| Design: | FINAL SURVEYS | Database: | EDM 5000.1 Single User Db |

| | | | |
|--------------------|--------------------------------------|----------------------|-----------------------------|
| Project | FINNEY COUNTY, KANSAS (NAD27 - GRID) | | |
| Map System: | US State Plane 1927 (Exact solution) | System Datum: | Mean Sea Level |
| Geo Datum: | NAD 1927 (NADCON CONUS) | | |
| Map Zone: | Kansas South 1502 | | Using geodetic scale factor |

| | | | | | |
|------------------------------|-------------------------|---------------------|-------------------|--------------------------|-------------|
| Site | SW NW SEC. 34 T24S R32W | | | | |
| Site Position: | | Northing: | 466,905.19 usft | Latitude: | 37.925948 |
| From: | Map | Easting: | 1,328,572.71 usft | Longitude: | -100.828015 |
| Position Uncertainty: | 0.00 usft | Slot Radius: | 1.10000ft | Grid Convergence: | -1.43 ° |

| | | | | | | |
|-----------------------------|-------------|-----------|----------------------------|-------------------|----------------------|---------------|
| Well | WOOD 34-1 | | | | | |
| Well Position | +N-S | 0.00 usft | Northing: | 466,905.19 usft | Latitude: | 37.925948 |
| | +E-W | 0.00 usft | Easting: | 1,328,572.71 usft | Longitude: | -100.828015 |
| Position Uncertainty | | 0.00 usft | Wellhead Elevation: | usft | Ground Level: | 2,869.70 usft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | JOB #18-012 | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2015 | 01/08/2018 | 5.72 | 65.38 | 51,337 |

| | | | | | |
|--------------------------|---------------|--------------------------------|--------------------|----------------------|----------------------|
| Design | FINAL SURVEYS | | | | |
| Audit Notes: | | | | | |
| Version: | 1.0 | Phase: | ACTUAL | Tie On Depth: | 0.00 |
| Vertical Section: | | Depth From (TVD) (usft) | +N-S (usft) | +E-W (usft) | Direction (°) |
| | | 0.00 | 0.00 | 0.00 | 57.18 |

| | | | | | |
|-----------------------|------------------|-----------------------------|------------------|--------------------|--|
| Survey Program | Date | 21/08/2018 | | | |
| From (usft) | To (usft) | Survey (Wellbore) | Tool Name | Description | |
| 252.00 | 5,035.00 | FINAL SURVEYS (JOB #18-012) | MWD | MWD - Standard | |

| Survey | | | | | | | | | | | |
|-----------------------|-----------------|-------------|-----------------------|---------------------|-------------|-------------|-------------------------|-------------------------|------------------------|-----------------------|--|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | Subsea Depth (usft) | +N-S (usft) | +E-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | |
| 0.00 | 0.00 | 0.00 | 0.00 | 2,881.70 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 252.00 | 0.50 | 293.90 | 252.00 | 2,629.70 | 0.45 | -1.01 | -0.60 | 0.20 | 0.20 | 0.00 | |
| 373.00 | 0.70 | 281.02 | 372.99 | 2,508.71 | 0.80 | -2.21 | -1.43 | 0.20 | 0.17 | -10.64 | |
| 525.00 | 1.10 | 288.20 | 524.97 | 2,356.73 | 1.43 | -4.51 | -3.01 | 0.27 | 0.26 | 4.72 | |
| 681.00 | 0.40 | 307.52 | 680.96 | 2,200.74 | 2.23 | -6.37 | -4.14 | 0.47 | -0.45 | 12.38 | |
| 839.00 | 0.60 | 336.92 | 838.95 | 2,042.75 | 3.33 | -7.13 | -4.18 | 0.20 | 0.13 | 18.61 | |
| 1,185.00 | 0.20 | 17.12 | 1,184.94 | 1,696.76 | 5.57 | -7.66 | -3.42 | 0.13 | -0.12 | 11.62 | |
| 1,342.00 | 0.20 | 5.92 | 1,341.94 | 1,539.76 | 6.11 | -7.55 | -3.03 | 0.02 | 0.00 | -7.13 | |
| 1,498.00 | 0.50 | 340.72 | 1,497.94 | 1,383.76 | 7.02 | -7.75 | -2.71 | 0.21 | 0.19 | -16.15 | |
| 1,656.00 | 0.40 | 327.82 | 1,655.93 | 1,225.77 | 8.14 | -8.27 | -2.54 | 0.09 | -0.06 | -8.16 | |
| 1,728.00 | 0.50 | 327.32 | 1,727.93 | 1,153.77 | 8.62 | -8.57 | -2.53 | 0.14 | 0.14 | -0.69 | |
| 1,848.00 | 0.70 | 336.30 | 1,847.92 | 1,033.78 | 9.73 | -9.15 | -2.42 | 0.18 | 0.17 | 7.48 | |
| 1,943.00 | 0.60 | 333.40 | 1,942.92 | 938.78 | 10.70 | -9.61 | -2.27 | 0.11 | -0.11 | -3.05 | |

Survey Report



| | | | |
|------------------|-------------------------------|-------------------------------------|-------------------------------|
| Company: | MERIT ENERGY COMPANY | Local Co-ordinate Reference: | Well WOOD 34-1 |
| Project: | FINNEY COUNTY, KANSAS (NAD27) | TVD Reference: | KB 12' @ 2881.70usft (DUKE 9) |
| Site: | SW NW SEC. 34 T24S R32W | MD Reference: | KB 12' @ 2881.70usft (DUKE 9) |
| Well: | WOOD 34-1 | North Reference: | Grid |
| Wellbore: | JOB #18-012 | Survey Calculation Method: | Minimum Curvature |
| Design: | FINAL SURVEYS | Database: | EDM 5000.1 Single User Db |

Survey

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | Subsea Depth (usft) | +N-S (usft) | +E-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|----------------------------|-----------------|--------------|-----------------------|---------------------|---------------|---------------|-------------------------|-------------------------|------------------------|-----------------------|
| 2,005.00 | 1.30 | 41.80 | 2,004.91 | 876.79 | 11.52 | -9.28 | -1.56 | 1.96 | 1.13 | 110.32 |
| 2,067.00 | 3.30 | 58.50 | 2,066.86 | 814.84 | 12.98 | -7.29 | 0.90 | 3.37 | 3.23 | 26.94 |
| 2,130.00 | 4.10 | 64.40 | 2,129.73 | 751.97 | 14.90 | -3.71 | 4.95 | 1.40 | 1.27 | 9.37 |
| 2,193.00 | 3.70 | 63.60 | 2,192.58 | 689.12 | 16.77 | 0.14 | 9.21 | 0.64 | -0.63 | -1.27 |
| 2,257.00 | 5.00 | 64.00 | 2,256.40 | 625.30 | 18.91 | 4.49 | 14.03 | 2.03 | 2.03 | 0.62 |
| 2,319.00 | 6.70 | 65.00 | 2,318.07 | 563.63 | 21.63 | 10.20 | 20.29 | 2.75 | 2.74 | 1.61 |
| 2,382.00 | 7.50 | 61.50 | 2,380.59 | 501.11 | 25.14 | 17.15 | 28.04 | 1.44 | 1.27 | -5.56 |
| 2,445.00 | 7.30 | 58.30 | 2,443.06 | 438.64 | 29.21 | 24.16 | 36.14 | 0.73 | -0.32 | -5.08 |
| 2,506.00 | 7.80 | 58.60 | 2,503.53 | 378.17 | 33.40 | 30.99 | 44.15 | 0.82 | 0.82 | 0.49 |
| 2,570.00 | 8.60 | 58.30 | 2,566.88 | 314.82 | 38.18 | 38.77 | 53.28 | 1.25 | 1.25 | -0.47 |
| 2,664.00 | 10.60 | 60.80 | 2,659.56 | 222.14 | 46.09 | 52.30 | 68.93 | 2.17 | 2.13 | 2.66 |
| 2,759.00 | 9.10 | 59.50 | 2,753.16 | 128.54 | 54.17 | 66.40 | 85.16 | 1.60 | -1.58 | -1.37 |
| 2,854.00 | 9.10 | 59.90 | 2,846.96 | 34.74 | 61.75 | 79.37 | 100.17 | 0.07 | 0.00 | 0.42 |
| 2,948.00 | 9.20 | 61.00 | 2,939.76 | -58.06 | 69.12 | 92.38 | 115.09 | 0.21 | 0.11 | 1.17 |
| 3,044.00 | 9.20 | 61.40 | 3,034.53 | -152.83 | 76.51 | 105.83 | 130.40 | 0.07 | 0.00 | 0.42 |
| 3,137.00 | 8.90 | 60.00 | 3,126.37 | -244.67 | 83.67 | 118.59 | 145.00 | 0.40 | -0.32 | -1.51 |
| 3,231.00 | 8.40 | 60.10 | 3,219.30 | -337.60 | 90.73 | 130.83 | 159.12 | 0.53 | -0.53 | 0.11 |
| 3,326.00 | 8.30 | 50.10 | 3,313.30 | -431.60 | 98.58 | 142.11 | 172.86 | 1.53 | -0.11 | -10.53 |
| 3,420.00 | 9.20 | 58.10 | 3,406.21 | -524.51 | 106.91 | 153.70 | 187.11 | 1.61 | 0.96 | 8.51 |
| 3,483.00 | 9.50 | 59.20 | 3,468.37 | -586.67 | 112.23 | 162.44 | 197.34 | 0.55 | 0.48 | 1.75 |
| 3,546.00 | 9.10 | 58.70 | 3,530.54 | -648.84 | 117.48 | 171.16 | 207.51 | 0.65 | -0.63 | -0.79 |
| 3,641.00 | 8.60 | 58.80 | 3,624.41 | -742.71 | 125.06 | 183.66 | 222.12 | 0.53 | -0.53 | 0.11 |
| 3,703.00 | 9.30 | 58.80 | 3,685.66 | -803.96 | 130.06 | 191.91 | 231.77 | 1.13 | 1.13 | 0.00 |
| 3,766.00 | 10.40 | 60.00 | 3,747.73 | -866.03 | 135.54 | 201.18 | 242.53 | 1.78 | 1.75 | 1.90 |
| 3,829.00 | 10.50 | 61.10 | 3,809.68 | -927.98 | 141.16 | 211.13 | 253.94 | 0.35 | 0.16 | 1.75 |
| 3,892.00 | 10.50 | 60.90 | 3,871.63 | -989.93 | 146.72 | 221.18 | 265.40 | 0.06 | 0.00 | -0.32 |
| 3,955.00 | 10.40 | 59.80 | 3,933.58 | -1,051.88 | 152.38 | 231.11 | 276.80 | 0.35 | -0.16 | -1.75 |
| 4,019.00 | 10.20 | 59.60 | 3,996.55 | -1,114.85 | 158.15 | 240.99 | 288.24 | 0.32 | -0.31 | -0.31 |
| 4,083.00 | 9.90 | 58.90 | 4,059.57 | -1,177.87 | 163.86 | 250.59 | 299.40 | 0.51 | -0.47 | -1.09 |
| 4,146.00 | 9.70 | 58.00 | 4,121.65 | -1,239.95 | 169.47 | 259.72 | 310.12 | 0.40 | -0.32 | -1.43 |
| 4,241.00 | 9.40 | 57.40 | 4,215.33 | -1,333.63 | 177.89 | 273.05 | 325.88 | 0.33 | -0.32 | -0.63 |
| 4,335.00 | 9.30 | 57.30 | 4,308.08 | -1,426.38 | 186.13 | 285.90 | 341.15 | 0.11 | -0.11 | -0.11 |
| 4,429.00 | 9.10 | 57.30 | 4,400.87 | -1,519.17 | 194.25 | 298.55 | 356.18 | 0.21 | -0.21 | 0.00 |
| 4,524.00 | 8.60 | 58.00 | 4,494.74 | -1,613.04 | 202.07 | 310.90 | 370.79 | 0.54 | -0.53 | 0.74 |
| 4,619.00 | 8.40 | 55.70 | 4,588.70 | -1,707.00 | 209.74 | 322.65 | 384.83 | 0.42 | -0.21 | -2.42 |
| 4,711.00 | 7.40 | 54.80 | 4,679.83 | -1,798.13 | 216.95 | 333.05 | 397.47 | 1.10 | -1.09 | -0.98 |
| 4,804.00 | 8.50 | 58.60 | 4,771.93 | -1,890.23 | 223.98 | 343.81 | 410.33 | 1.31 | 1.18 | 4.09 |
| 4,899.00 | 8.30 | 57.60 | 4,865.91 | -1,984.21 | 231.31 | 355.59 | 424.20 | 0.26 | -0.21 | -1.05 |
| LAST SURVEY | | | | | | | | | | |
| 4,985.00 | 7.90 | 58.10 | 4,951.05 | -2,069.35 | 237.76 | 365.85 | 436.32 | 0.47 | -0.47 | 0.58 |
| EXTRAPOLATION TO TD | | | | | | | | | | |
| 5,035.00 | 7.90 | 58.10 | 5,000.58 | -2,118.88 | 241.39 | 371.68 | 443.19 | 0.00 | 0.00 | 0.00 |

Survey Report



| | | | |
|------------------|-------------------------------|-------------------------------------|-------------------------------|
| Company: | MERIT ENERGY COMPANY | Local Co-ordinate Reference: | Well WOOD 34-1 |
| Project: | FINNEY COUNTY, KANSAS (NAD27) | TVD Reference: | KB 12' @ 2881.70usft (DUKE 9) |
| Site: | SW NW SEC. 34 T24S R32W | MD Reference: | KB 12' @ 2881.70usft (DUKE 9) |
| Well: | WOOD 34-1 | North Reference: | Grid |
| Wellbore: | JOB #18-012 | Survey Calculation Method: | Minimum Curvature |
| Design: | FINAL SURVEYS | Database: | EDM 5000.1 Single User Db |

| Targets | | | | | | | | | | | |
|--|-------------------|---------|------------------|-----------------|---------------|----------------|----------------|--------------------|-------------------|-----------|-------------|
| Target Name | - hit/miss target | - Shape | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N-S (usft) | +E-W (usft) | Northing (usft) | Easting (usft) | Latitude | Longitude |
| TGT - WOOD 34-1 | | | 0.00 | 0.00 | 4,840.00 | 227.75 | 353.16 | 467,132.93 | 1,328,925.85 | 37.926597 | -100.826811 |
| - survey misses target center by 1.72usft at 4872.79usft MD (4839.98 TVD, 229.29 N, 352.38 E) - Circle (radius 50.00) | | | | | | | | | | | |

| Survey Annotations | | | | | | |
|--------------------------|--------------------------|-------------------|--|----------------|----------------|---------------------|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates | | +N-S (usft) | +E-W (usft) | Comment |
| 4,985.00 | 4,951.05 | | | 237.76 | 365.85 | LAST SURVEY |
| 5,035.00 | 5,000.58 | | | 241.39 | 371.68 | EXTRAPOLATION TO TD |

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

10/25/2017

Customer Name Merit Energy
 Well Name Wood 34-1
 Job Type Conductor

District Liberal
 Supervisor Victor Corona-Maria
 Engineer Kevin Aldridge



| Seq No. | Start Date/Time | Category | Event | Equipment | Event ID | Density (lb/keil) | Pump Rate (bpm) | Pump Vol (bbl) | Pipe Pressure (feet) | Comments |
|---------|------------------|--------------|----------------------|-------------------|----------|-------------------|-----------------|----------------|----------------------|--|
| 1 | 8/14/2018 9:00pm | Mobilization | Arrive on Location | Cement Pump Truck | 48 | | | | | Arrived at location |
| 2 | | Operational | Other (See comments) | | 76 | | | | | rig crew was getting pipe down hole |
| 3 | | Operational | Rig Up | Cement Pump Truck | 53 | | | | | rig up to rig |
| 4 | 1:00 | Operational | Safety Meeting | | 53 | | | | | safety meeting with rig crew and B1 crew |
| 5 | 1:30 | Operational | Pressure Test | Cement Pump Truck | 54 | | | | 1500 | pressure test lines |
| 6 | 1:34 | Operational | Pump Spacer | Cement Pump Truck | 56 | 8.33 | 3 | 5 | 160 | 5bbls of fresh water |
| 7 | 1:38 | Operational | Pump Lead Cement | Cement Pump Truck | 58 | 15.6 | 4 | 38.5 | 280 | dumping lead cement 38.5bbls from 80bbls |
| 8 | | | | | | | | | | at 15.6lb @ 110' |
| 11 | | Operational | Other (See comments) | | 76 | | | | | wash pump and lines on top of cement |
| 12 | 1:58 | Operational | Pump Displacement | Cement Pump Truck | 64 | 8.33 | 4 | 10 | 80 | 10bbls note |
| 13 | 2:00 | Operational | Pump Displacement | Cement Pump Truck | 64 | 8.33 | 4 | 16 | 80 | 16bbls gone/ close valve |
| 38 | | | | | | | | | | had 20bbls of cement to surface |
| 39 | | | | | | | | | | |
| 40 | | | | | | | | | | rig down |
| 41 | | | | | | | | | | |
| 42 | | | | | | | | | | |
| 43 | | | | | | | | | | Crew and I thanked the company man and rig |
| 44 | | | | | | | | | | crew for job opportunity |
| 45 | | | | | | | | | | |
| 46 | | | | | | | | | | |
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10/25/2017

Customer Name Merit Energy
 Well Name Wood 3A-1
 Job Type Surface

District Liberal
 Supervisor Victor Corona-Marrs
 Engineer Kevin Aldridge



| Snd No. | Start Date/Time | Category | Event | Equipment | Event ID | Density (lb/cu ft) | Pump Rate (bpm) | Pump Vol (bbls) | Pipe Pressure (psi) | Comments |
|---------|-------------------|--------------|----------------------|-------------------|----------|--------------------|-----------------|-----------------|---------------------|---|
| 1 | 8/15/2018 10:00PM | Mobilization | Arrive on Location | Cement Pump Truck | 44 | | | | | Arrived at location |
| 2 | | Operational | Other (See comments) | | 76 | | | | | rig crew was getting pipe down hole |
| 3 | | Operational | Rig Up | Cement Pump Truck | 50 | | | | | rig up to rig |
| 4 | 11:30 | Operational | Safety Meeting | | 53 | | | | | safety meeting with rig crew and BU crew |
| 5 | 11:40 | Operational | Pressure Test | Cement Pump Truck | 54 | | | 1500 | | pressure test lines |
| 6 | 11:41 | Operational | Pump Spacer | Cement Pump Truck | 54 | 8.33 | 2 | 10 | 140 | 10bbls of fresh water spacer |
| 7 | 11:45 | Operational | Pump Lead Cement | Cement Pump Truck | 54 | 15.5 | 5 | 226.5 | 170 | pumping lead cement 226.5bbls from 4954ts |
| 8 | | | | | | | | | | at 12.1 lbs |
| 9 | | | | | | | | | | pumping tail cement 39bbls from 1754ts |
| 10 | | Operational | Pump Lead Cement | Cement Pump Truck | 59 | 15.2 | 5 | 39 | 220 | at 15.2 lbs |
| 11 | | Operational | Other (See comments) | | 76 | | | | | wash pump and lines on top of plug |
| 12 | 13:04 | Operational | Pump Displacement | Cement Pump Truck | 64 | 8.33 | 5 | 20 | 180 | 20bbls gone |
| 13 | 13:08 | Operational | Pump Displacement | Cement Pump Truck | 64 | 8.33 | 5 | 40 | 200 | 40bbls gone |
| 14 | 13:12 | Operational | Pump Displacement | Cement Pump Truck | 64 | 8.33 | 5 | 60 | 280 | 60bbls gone |
| 488 | 13:16 | Operational | pump displacement | Cement Pump Truck | 64 | 8.33 | 5 | 80 | 390 | 80bbls gone |
| 489 | 13:20 | Operational | pump displacement | Cement Pump Truck | 64 | 8.33 | 5 | 100 | 550 | 100bbls gone/slow down rate |
| 490 | 13:25 | Operational | pump displacement | Cement Pump Truck | 64 | 8.33 | 3 | 113 | 1290 | pump plug check if float holds |
| 494 | | | | | | | | | | had 50 bbls of cement to surface |
| 38 | | | | | | | | | | had 1 bbls on water returns |
| 39 | | | | | | | | | | |
| 40 | | | | | | | | | | rig down |
| 41 | | | | | | | | | | |
| 42 | | | | | | | | | | |
| 43 | | | | | | | | | | Crew and I thanked the company man and |
| 44 | | | | | | | | | | rig crew for job opportunity |
| 45 | | | | | | | | | | |
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10/25/2017

Customer Name Merit Energy
Well Name WOOD 34.1
Job Type Long String

District Liberal
Supervisor Victor Corona-Marrs
Engineer Kevin Aldridge



| Seq No. | Start Date/Time | Category | Event | Equipment | Event ID | Density (lb/brl) | Pump Rate (bbl/m) | Pump Vol (bbl) | Pipe Pressure (psi) | Comments |
|---------|------------------|--------------|----------------------|-------------------|----------|------------------|-------------------|----------------|---------------------|---|
| 1 | 8/20/2018 1:00am | Mobilization | Arrive on location | Cement Pump Truck | 44 | | | | | Arrived at location. |
| 2 | | Operational | Other (See comments) | | 76 | | | | | casting crew was getting casing down hole |
| 3 | | Operational | Rig Up | Cement Pump Truck | 50 | | | | | rig up to rig |
| 4 | 4:00 | Operational | Safety Meeting | | 54 | | | | | safety meeting with rig crew and BJ crew |
| 5 | 4:18 | Operational | Pressure Test | Cement Pump Truck | 54 | | | 2500 | | pressure test lines |
| 6 | 4:22 | Operational | Pump Spacer | Cement Pump Truck | 56 | 8.33 | 2 | 12 | 270 | 120bbls of ultra flush spacer |
| 7 | 4:28 | Operational | Pumping Cement | Cement Pump Truck | 61 | 13.6 | 3 | 17.09 | 0 | pumping rat and mouse 17.09bbls from 50ftks |
| 8 | | | | | | | | | | at 13.6ftks |
| 9 | 4:47 | Operational | Pumping Cement | Cement Pump Truck | 61 | 13.6 | 5 | 46 | 310 | pumping tail cement 46bbls from 135ftks |
| 10 | | | | | | | | | | at 13.6ftks |
| 11 | 5:10 | Operational | Other (See comments) | | 76 | | | | | wash pump and lines on to pit |
| 12 | 5:18 | Operational | Pump Displacement | Cement Pump Truck | 64 | 8.4 | 5 | 20 | 90 | 20bbls gone |
| 13 | 5:22 | Operational | Pump Displacement | Cement Pump Truck | 64 | 8.4 | 5 | 40 | 120 | 40bbls gone |
| 14 | 5:25 | Operational | Pump Displacement | Cement Pump Truck | 64 | 8.4 | 5 | 60 | 100 | 60bbls gone |
| 488 | 5:29 | Operational | Pump Displacement | Cement Pump Truck | 64 | 8.4 | 5 | 80 | 390 | 80bbls gone |
| 489 | 5:33 | Operational | pump displacement | Cement Pump Truck | 64 | 8.4 | 5 | 100 | 710 | 100bbls gone/slow down rate |
| 490 | 5:36 | Operational | pump displacement | Cement Pump Truck | 64 | 8.4 | 3 | 115.6 | 1700 | 100bbls gone/slow down rate |
| 494 | | | | | | | | | | bump plug check if float holds |
| 39 | | | | | | | | | | had 5 bbls on water returns |
| 40 | | | | | | | | | | |
| 41 | | | | | | | | | | rig down |
| 42 | | | | | | | | | | |
| 43 | | | | | | | | | | Crew and I thanked the company man and |
| 44 | | | | | | | | | | rig crew for job opportunity |
| 45 | | | | | | | | | | |
| 46 | | | | | | | | | | Srt @ 5079 |
| 47 | | | | | | | | | | |
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