

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

SEP 29 2017
WV Department of
Environmental Protection

API 47 - 033 - 05702 County Harrison District Tenmile
Quad Salem 7.5' Pad Name Hubert Pad Field/Pool Name -----
Farm name Hubert Jr. & Lorena Bland Well Number Ford Unit 1H
Operator (as registered with the OOG) Antero Resources Corporation
Address 1615 Wynkoop Street City Denver State CO Zip 80202

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4344995.601m Easting 537953.880m
Landing Point of Curve Northing 4345357.090m Easting 538188.224m
Bottom Hole Northing 4347948.109m Easting 537394.041m

Elevation (ft) 1376' GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine

Mud Type(s) and Additive(s)
Air - Foam & 4% KCL
Mud - Polymer

APPROVED

NAME: Sam Ward

DATE: 11/13/2017

Date permit issued 12/27/2012 Date drilling commenced 03/22/2014 Date drilling ceased 08/23/2014
Date completion activities began 09/12/2014 Date completion activities ceased 06/23/2017
Verbal plugging (Y/N) N/A Date permission granted N/A Granted by N/A

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 364', 367' Open mine(s) (Y/N) depths No
Salt water depth(s) ft None Identified Void(s) encountered (Y/N) depths No
Coal depth(s) ft 1737' Cavern(s) encountered (Y/N) depths No
Is coal being mined in area (Y/N) No

Reviewed by: _____

API 47-033 - 05702 Farm name Hubert Jr. & Lorena Bland Well number Ford Unit 1H

| CASING STRINGS | Hole Size | Casing Size | Depth | New or Used | Grade wt/ft | Basket Depth(s) | Did cement circulate (Y/ N) * Provide details below* |
|---------------------------|---------------|-------------|--------|-------------|-------------|-----------------|---|
| Conductor | 24" | 20" | 40' | New | 94#, H-40 | N/A | Y |
| Surface | 17-1/2" | 13-3/8" | 539' | New | 48#, H-40 | N/A | Y |
| Coal | | | | | | | |
| Intermediate 1 | 12-1/4" | 9-5/8" | 2604' | New | 36#, J-55 | N/A | Y |
| Intermediate 2 | | | | | | | |
| Intermediate 3 | | | | | | | |
| Production | 8-3/4"/8-1/2" | 5-1/2" | 16966' | New | 23#, P-110 | N/A | Y |
| Tubing | | 2-3/8" | 7729' | | 4.7#, N-80 | | |
| Packer type and depth set | | N/A | | | | | |

Comment Details _____

| CEMENT DATA | Class/Type of Cement | Number of Sacks | Slurry wt (ppg) | Yield (ft ³ /sks) | Volume (ft ³) | Cement Top (MD) | WOC (hrs) |
|----------------|----------------------|--------------------------------|--------------------------|------------------------------|---------------------------|--------------------------------|-----------|
| Conductor | Class A | 185 sx | 15.6 | 1.18 | 218 | 0' | 8 Hrs. |
| Surface | Class A | 626 sx | 15.6 | 1.18 | 739 | 0' | 8 Hrs. |
| Coal | | | | | | | |
| Intermediate 1 | Class A | 947 sx | 15.6 | 1.18 | 1117 | 0' | 8 Hrs. |
| Intermediate 2 | | | | | | | |
| Intermediate 3 | | | | | | | |
| Production | Class H | 1224 sx (Lead), 1426 sx (Tail) | 14.5 (Lead), 15.2 (Tail) | 1.3 (Lead), 1.86 (Tail) | 4244 | -500' into Intermediate Casing | 8 Hrs. |
| Tubing | | | | | | | |

Drillers TD (ft) 16966' MD, 7546' TVD (BHL) & 7552' TVD (Deepest Point Drilled) Loggers TD (ft) 16909' MD
 Deepest formation penetrated Marcellus Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 7316'

** This is a subsequent well. Antero only runs wireline logs on one well on a multi-well pad (Nellie Unit 2H API# 47-033-05687). Please reference the wireline logs submitted with Form WR-35 for the Nellie Unit 2H. A Cement Bond Log has been included with this submittal.

Check all wireline logs run caliper density deviated/directional induction
 neutron resistivity gamma ray temperature sonic

Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING _____

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Conductor - 0
 Surface - 1 above guide shoe, 1 above insert float, 1 every 4th joint to surface
 Intermediate - 1 above float joint, 1 above float collar, 1 every 4th joint to surface
 Production - 1 above float joint, 1 below float collar, 1 every 3rd joint to top of cement

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WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED N/A

API 47- 033 - 05702 Farm name Hubert Jr. & Lorena Bland Well number Ford Unit 1H

PERFORATION RECORD

| Stage No. | Perforation date | Perforated from MD ft. | Perforated to MD ft. | Number of Perforations | Formation(s) |
|---------------------------------------|------------------|------------------------|----------------------|------------------------|--------------|
| *PLEASE SEE ATTACHED EXHIBIT 1 | | | | | |
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Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

| Stage No. | Stimulations Date | Ave Pump Rate (BPM) | Ave Treatment Pressure (PSI) | Max Breakdown Pressure (PSI) | ISIP (PSI) | Amount of Proppant (lbs) | Amount of Water (bbls) | Amount of Nitrogen/other (units) |
|---------------------------------------|-------------------|---------------------|------------------------------|------------------------------|------------|--------------------------|------------------------|----------------------------------|
| *PLEASE SEE ATTACHED EXHIBIT 2 | | | | | | | | |
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Please insert additional pages as applicable.

API 47- 033 - 05702 Farm name Hubert Jr. & Lorena Bland Well number Ford Unit 1H

| <u>PRODUCING FORMATION(S)</u> | <u>DEPTHS</u> | |
|-------------------------------|------------------------|-----------------------|
| <u>Marcellus</u> | <u>7433' (TOP)</u> TVD | <u>7803' (TOP)</u> MD |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 3600 psi Bottom Hole --- psi DURATION OF TEST --- hrs

OPEN FLOW Gas 14756 mcfpd Oil 2 bpd NGL --- bpd Water 299 bpd GAS MEASURED BY Estimated Orifice Pilot

| <u>LITHOLOGY/ FORMATION</u> | <u>TOP</u> | | <u>BOTTOM</u> | | <u>DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H₂S, ETC)</u> |
|---------------------------------|---------------------------------|----------------------------|---------------------------|---------------------------|--|
| | <u>DEPTH IN FT NAME TVD</u> | <u>DEPTH IN FT TVD</u> | <u>DEPTH IN FT MD</u> | <u>DEPTH IN FT MD</u> | |

***PLEASE SEE ATTACHED EXHIBIT 3**

| | | | | | |
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Please insert additional pages as applicable.

Drilling Contractor Patterson – UTI Drilling Company LLC
Address 207 Carlton Drive City Eighty Four State PA Zip 15330

Logging Company STRC
Address 1560 Good Hope Pike City Clarksburg State WV Zip 26301

Cementing Company Nabors Completion & Production Services, Co.
Address 1650 Hackers Creek City Jane Lew State WV Zip 26378

Stimulating Company US Well Services
Address 533 Industrial Park Drive City Jane Lew State WV Zip 26378

Please insert additional pages as applicable.

Completed by Samantha Klaas Telephone 303-357-6759
Signature *Samantha Klaas* Title Permitting Agent Date 09/27/2017

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Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

EXHIBIT 1

| Stage No. | Perforation Date | Perforated from MD ft. | Perforated to MD ft. | Number of Perforations | Formations |
|-----------|------------------|------------------------|----------------------|------------------------|------------|
| 1 | 9/12/2014 | 16693 | 16873 | 60 | Marcellus |
| 2 | 4/8/2017 | 16463 | 16639 | 60 | Marcellus |
| 3 | 4/8/2017 | 16255 | 16431 | 60 | Marcellus |
| 4 | 4/8/2017 | 16046 | 16222 | 60 | Marcellus |
| 5 | 4/9/2017 | 15837 | 16013 | 60 | Marcellus |
| 6 | 4/15/2017 | 15628 | 15804 | 60 | Marcellus |
| 7 | 4/15/2017 | 15419 | 15595 | 60 | Marcellus |
| 8 | 4/16/2017 | 15211 | 15387 | 60 | Marcellus |
| 9 | 4/16/2017 | 14931 | 15100 | 60 | Marcellus |
| 10 | 4/16/2017 | 14731 | 14900 | 60 | Marcellus |
| 11 | 4/17/2017 | 14531 | 14700 | 60 | Marcellus |
| 12 | 4/17/2017 | 14331 | 14500 | 60 | Marcellus |
| 13 | 4/17/2017 | 14131 | 14300 | 60 | Marcellus |
| 14 | 4/17/2017 | 13931 | 14100 | 60 | Marcellus |
| 15 | 4/18/2017 | 13731 | 13900 | 60 | Marcellus |
| 16 | 4/18/2017 | 13531 | 13700 | 60 | Marcellus |
| 17 | 4/18/2017 | 13331 | 13500 | 60 | Marcellus |
| 18 | 4/18/2017 | 13131 | 13300 | 60 | Marcellus |
| 19 | 4/19/2017 | 12931 | 13100 | 60 | Marcellus |
| 20 | 4/19/2017 | 12731 | 12900 | 60 | Marcellus |
| 21 | 4/19/2017 | 12531 | 12700 | 60 | Marcellus |
| 22 | 4/19/2017 | 12331 | 12499 | 60 | Marcellus |
| 23 | 5/20/2017 | 12131 | 12299 | 60 | Marcellus |
| 24 | 5/21/2017 | 11931 | 12099 | 60 | Marcellus |
| 25 | 5/21/2017 | 11731 | 11899 | 60 | Marcellus |
| 26 | 5/21/2017 | 11531 | 11699 | 60 | Marcellus |
| 27 | 5/21/2017 | 11331 | 11499 | 60 | Marcellus |
| 28 | 5/21/2017 | 11131 | 11299 | 60 | Marcellus |
| 29 | 5/22/2017 | 10931 | 11099 | 60 | Marcellus |
| 30 | 5/22/2017 | 10730 | 10899 | 60 | Marcellus |
| 31 | 5/22/2017 | 10530 | 10699 | 60 | Marcellus |
| 32 | 5/22/2017 | 10330 | 10499 | 60 | Marcellus |
| 33 | 5/23/2017 | 10130 | 10299 | 60 | Marcellus |
| 34 | 5/23/2017 | 9930 | 10099 | 60 | Marcellus |
| 35 | 5/23/2017 | 9730 | 9899 | 60 | Marcellus |
| 36 | 5/23/2017 | 9530 | 9699 | 60 | Marcellus |
| 37 | 5/23/2017 | 9330 | 9499 | 60 | Marcellus |
| 38 | 5/24/2017 | 8962 | 9150 | 60 | Marcellus |
| 39 | 5/24/2017 | 8739 | 8927 | 60 | Marcellus |
| 40 | 5/24/2017 | 8516 | 8704 | 60 | Marcellus |
| 41 | 5/24/2017 | 8292 | 8480 | 60 | Marcellus |
| 42 | 5/25/2017 | 8069 | 8257 | 60 | Marcellus |
| 43 | 5/25/2017 | 7846 | 8034 | 60 | Marcellus |

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EXHIBIT 2

| Stage No. | Stimulations Date | Avg Pump Rate | Avg Treatment Pressure (PSI) | Max Breakdown Pressure (PSI) | ISIP (PSI) | Amount of Proppant (lbs) | Amount of Water (bbls) | Amount of Nitrogen/ other (units) |
|-------------|-------------------|---------------|------------------------------|------------------------------|--------------|--------------------------|------------------------|-----------------------------------|
| 1 | 4/7/2017 | 61.8 | 7551 | 0 | 4752 | 371350 | 8782 | N/A |
| 2 | 4/8/2017 | 67.8 | 7701 | 6018 | 4686 | 365720 | 8067 | N/A |
| 3 | 4/8/2017 | 70.1 | 7676 | 6298 | 4868 | 371810 | 7948 | N/A |
| 4 | 4/8/2017 | 67.8 | 7536 | 6126 | 5352 | 373180 | 7982 | N/A |
| 5 | 4/9/2017 | 74.9 | 7739 | 6276 | 5051 | 368650 | 8073 | N/A |
| 6 | 4/15/2017 | 74.5 | 7712 | 5746 | 4779 | 369890 | 7864 | N/A |
| 7 | 4/15/2017 | 72.7 | 7765 | 5706 | 4380 | 370450 | 9871 | N/A |
| 8 | 4/16/2017 | 73.1 | 7767 | 5462 | 4690 | 369340 | 7816 | N/A |
| 9 | 4/16/2017 | 75.0 | 7514 | 5701 | 4637 | 374490 | 7780 | N/A |
| 10 | 4/16/2017 | 78.0 | 7872 | 5956 | 4476 | 372940 | 7779 | N/A |
| 11 | 4/17/2017 | 71.6 | 7976 | 5920 | 4303 | 374340 | 9356 | N/A |
| 12 | 4/17/2017 | 75.7 | 7838 | 6106 | 4623 | 374570 | 7803 | N/A |
| 13 | 4/17/2017 | 73.0 | 7543 | 5832 | 4822 | 374560 | 7718 | N/A |
| 14 | 4/17/2017 | 72.0 | 7603 | 6112 | 4632 | 373600 | 7692 | N/A |
| 15 | 4/18/2017 | 70.0 | 7275 | 5736 | 4499 | 372440 | 7740 | N/A |
| 16 | 4/18/2017 | 75.9 | 7389 | 5312 | 5192 | 373080 | 7662 | N/A |
| 17 | 4/18/2017 | 76.4 | 7523 | 5619 | 4300 | 372920 | 7667 | N/A |
| 18 | 4/18/2017 | 76.0 | 7808 | 5890 | 4401 | 372890 | 9193 | N/A |
| 19 | 4/19/2017 | 74.0 | 7613 | 6211 | 4775 | 372620 | 7653 | N/A |
| 20 | 4/19/2017 | 75.3 | 7472 | 5853 | 4872 | 373730 | 7651 | N/A |
| 21 | 4/19/2017 | 74.4 | 7439 | 6119 | 4867 | 372380 | 7624 | N/A |
| 22 | 4/19/2017 | 72.0 | 7427 | 5971 | 4500 | 351880 | 7413 | N/A |
| 23 | 5/20/2017 | 79.9 | 7461 | 5930 | 4986 | 373280 | 7638 | N/A |
| 24 | 5/21/2017 | 77.8 | 7666 | 5912 | 4709 | 372650 | 7723 | N/A |
| 25 | 5/21/2017 | 80.6 | 7159 | 6053 | 4387 | 373610 | 7645 | N/A |
| 26 | 5/21/2017 | 81.2 | 7217 | 5896 | 4793 | 371190 | 7565 | N/A |
| 27 | 5/21/2017 | 81.6 | 7257 | 6167 | 4845 | 372400 | 7566 | N/A |
| 28 | 5/21/2017 | 80.9 | 7167 | 6031 | 4783 | 372050 | 7550 | N/A |
| 29 | 5/22/2017 | 80.4 | 7170 | 5824 | 4605 | 371820 | 7482 | N/A |
| 30 | 5/22/2017 | 81.3 | 7233 | 6153 | 4934 | 370570 | 7565 | N/A |
| 31 | 5/22/2017 | 79.0 | 7392 | 6245 | 4934 | 372370 | 7567 | N/A |
| 32 | 5/22/2017 | 77.0 | 7490 | 6794 | 4906 | 373420 | 7512 | N/A |
| 33 | 5/23/2017 | 80.0 | 7531 | 6318 | 5160 | 372040 | 7686 | N/A |
| 34 | 5/23/2017 | 82.1 | 7328 | 5600 | 4893 | 371800 | 7498 | N/A |
| 35 | 5/23/2017 | 82.4 | 7203 | 5904 | 5220 | 375640 | 7176 | N/A |
| 36 | 5/23/2017 | 81.0 | 7666 | 6634 | 5447 | 372840 | 7496 | N/A |
| 37 | 5/23/2017 | 81.0 | 7494 | 6207 | 5558 | 372050 | 8058 | N/A |
| 38 | 5/24/2017 | 81.0 | 7227 | 6352 | 5130 | 373150 | 7459 | N/A |
| 39 | 5/24/2017 | 80.7 | 7475 | 6276 | 5074 | 379870 | 7466 | N/A |
| 40 | 5/24/2017 | 77.8 | 7397 | 6301 | 5004 | 372550 | 9001 | N/A |
| 41 | 5/24/2017 | 71.0 | 7849 | 6403 | 4945 | 372370 | 10170 | N/A |
| 42 | 5/25/2017 | 79.0 | 7404 | 6767 | 4926 | 372070 | 7434 | N/A |
| 43 | 5/25/2017 | 79.0 | 7310 | 6634 | 4677 | 371920 | 7602 | N/A |
| AVG= | | 76.2 | 7,508 | 5,916 | 4,823 | 15,996,490 | 339,993 | TOTAL |

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EXHIBIT 3

| LITHOLOGY/ FORMATION | TOP DEPTH (TVD) | BOTTOM DEPTH (TVD) | TOP DEPTH (MD) | BOTTOM DEPTH (MD) |
|----------------------|-----------------|--------------------|----------------|-------------------|
| | From Surface | From Surface | From Surface | From Surface |
| Fresh Water | 364' | N/A | 364' | N/A |
| Fresh Water | 367' | N/A | 367' | N/A |
| Siltstone | 0 | 97 | 0 | 97 |
| Sandy shale | est. 97 | 317 | est. 97 | 317 |
| Sandstone | est. 317 | 507 | est. 317 | 507 |
| Silty Sandstone | est. 507 | 657 | est. 507 | 657 |
| Sandstone | est. 657 | 1027 | est. 657 | 1027 |
| Limestone/Dolomite | est. 1027 | 1117 | est. 1027 | 1117 |
| Siltstone | est. 1117 | 1297 | est. 1117 | 1297 |
| Sandstone | est. 1297 | 1327 | est. 1297 | 1327 |
| Limey siltstone | est. 1327 | 1477 | est. 1327 | 1477 |
| Sandstone | est. 1477 | 1597 | est. 1477 | 1597 |
| Sandy Siltstone | est. 1597 | 1737 | est. 1597 | 1737 |
| Coal | est. 1737 | 1757 | est. 1737 | 1757 |
| Sandstone | est. 1757 | 1797 | est. 1757 | 1797 |
| Siltstone | est. 1797 | 1817 | est. 1797 | 1817 |
| Sandstone | est. 1817 | 2097 | est. 1817 | 2097 |
| Limey Shale | est. 2097 | 2322 | est. 2097 | 2322 |
| Big Lime | 2322 | 2461 | 2322 | 2461 |
| Big Injun | 2461 | 2807 | 2461 | 2807 |
| Gantz Sand | 2807 | 2908 | 2807 | 2908 |
| Fifty Foot Sandstone | 2908 | 3030 | 2908 | 3030 |
| Gordon | 3030 | 3352 | 3030 | 3352 |
| Fifth Sandstone | 3352 | 3393 | 3352 | 3393 |
| Bayard | 3393 | 3735 | 3393 | 3735 |
| Warren | 3735 | 3978 | 3735 | 3978 |
| Speechley | 3978 | 4489 | 3978 | 4489 |
| Baltown | 4489 | 4805 | 4489 | 4805 |
| Bradford | 4805 | 5328 | 4805 | 5348 |
| Benson | 5328 | 5619 | 5348 | 5665 |
| Alexander | 5619 | 5823 | 5665 | 5886 |
| Elk | 5823 | 6440 | 5886 | 6566 |
| Rhinestreet | 6440 | 6878 | 6566 | 7052 |
| Sycamore | 6878 | 7096 | 7052 | 7290 |
| Middlesex | 7096 | 7247 | 7290 | 7464 |
| Burkett | 7247 | 7275 | 7464 | 7499 |
| Tully | 7275 | 7433 | 7499 | 7803 |
| Marcellus | 7433 | NA | 7803 | NA |

*Please note Antero determines formation tops based on mud logs that are only run on one well on a multi-well pad. The measured depth (MD) data on subsequent wells may be slightly different due to the well's unique departure.

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Ford Unit 1H
Harrison County West Virginia
 Northing: 14254490.84
 Easting: 1764889.92
As Drilled



To convert Magnetic North to Grid, Subtract 8.90°
 To convert True North to Grid, Subtract 0.28°

Azimuths to Grid North
 True North: -0.28°
 Magnetic North: -8.90°

Magnetic Field
 Strength: 52205.6snT
 Dip Angle: 66.81°
 Date: 7/2/2014
 Model: BGGM2014

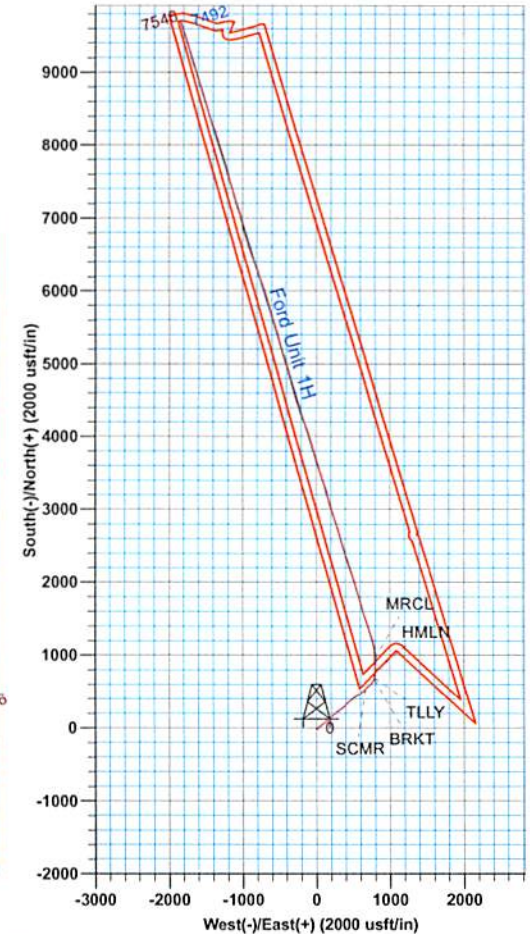
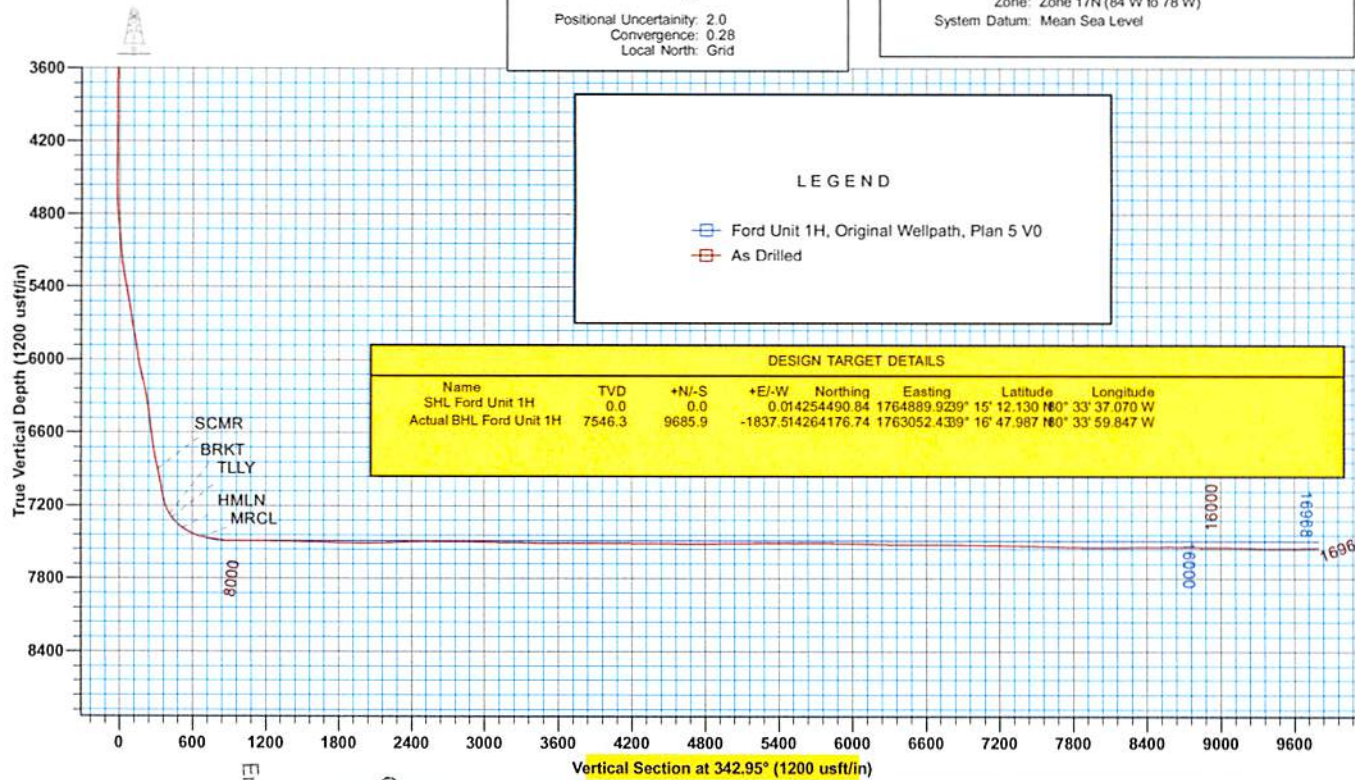
| WELL DETAILS | | | | | | |
|----------------------|-------|-------------|------------|------------------|------------------|--|
| Ground Level: 1374.0 | | | | | | |
| +N/-S | +E/-W | Northing | Easting | Latitude | Longitude | |
| 0.0 | 0.0 | 14254490.84 | 1764889.92 | 39° 15' 12.130 N | 80° 33' 37.070 W | |

Genie Lightfoot
 14.03, August 27 2014
 Scientific Drilling
 421 South Eagle Lane
 Oklahoma City, OK 73124

SITE DETAILS: Ruth/Norris/Nellie/Ford Pad
 Site Center: Ruth Unit 2H
 Site Centre Northing: 14254530.66
 Easting: 1764845.07
 Positional Uncertainty: 2.0
 Convergence: 0.28
 Local North: Grid

PROJECT DETAILS: Harrison County West Virginia
 Geodetic System: Universal Transverse Mercator (US Survey Feet)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: Zone 17N (84 W to 78 W)
 System Datum: Mean Sea Level

Patterson 340: GL 1374' + 24' RKB @ 1398.0usft
 1374.0



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| | | | |
|------------------|-------------------------------|-------------------------------------|--|
| Company: | Antero Resources | Local Co-ordinate Reference: | Well Ford Unit 1H |
| Project: | Harrison County West Virginia | TVD Reference: | Patterson 340: GL 1374' + 24' RKB @ 1398.0usft |
| Site: | Ruth/Norris/Nellie/Ford Pad | MD Reference: | Patterson 340: GL 1374' + 24' RKB @ 1398.0usft |
| Well: | Ford Unit 1H | North Reference: | Grid |
| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Oklahoma District |

| | | | |
|--------------------|---|----------------------|----------------|
| Project | Harrison County West Virginia, Harrison County, USA | | |
| Map System: | Universal Transverse Mercator (US Survey Feet) | System Datum: | Mean Sea Level |
| Geo Datum: | NAD 1927 (NADCON CONUS) | | |
| Map Zone: | Zone 17N (84 W to 78 W) | | |

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|-------------|-----------------------------|--|--|
| Site | Ruth/Norris/Nellie/Ford Pad | | |
|-------------|-----------------------------|--|--|

| | | | | | |
|------------------------------|----------|---------------------|--------------------|--------------------------|------------------|
| Site Position: | | Northing: | 14,254,530.66 usft | Latitude: | 39° 15' 12.526 N |
| From: | Map | Easting: | 1,764,845.07 usft | Longitude: | 80° 33' 37.638 W |
| Position Uncertainty: | 2.0 usft | Slot Radius: | 13-3/16" | Grid Convergence: | 0.28 ° |

| | | | | | | |
|-----------------------------|--------------|----------|----------------------------|--------------------|----------------------|------------------|
| Well | Ford Unit 1H | | | | | |
| Well Position | +N/-S | 0.0 usft | Northing: | 14,254,490.84 usft | Latitude: | 39° 15' 12.130 N |
| | +E/-W | 0.0 usft | Easting: | 1,764,889.92 usft | Longitude: | 80° 33' 37.070 W |
| Position Uncertainty | | 2.0 usft | Wellhead Elevation: | 1,398.0 usft | Ground Level: | 1,374.0 usft |

| | | | | | |
|-----------------|-------------------|--|--|--|--|
| Wellbore | Original Wellpath | | | | |
|-----------------|-------------------|--|--|--|--|

| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
|-----------|------------|-------------|-----------------|---------------|---------------------|
| | BGGM2014 | 7/2/2014 | -8.62 | 66.81 | 52,206 |

| | | | | | |
|---------------|------------|--|--|--|--|
| Design | As Drilled | | | | |
|---------------|------------|--|--|--|--|

| | | | | | |
|--------------------------|--------------------------------|---------------------|---------------------|----------------------|-----|
| Audit Notes: | | | | | |
| Version: | 1.0 | Phase: | ACTUAL | Tie On Depth: | 0.0 |
| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) | |
| | 0.0 | 0.0 | 0.0 | 342.95 | |

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| Survey Program | Date 8/27/2014 | | | | |
|-----------------------|----------------|---|---------------------|--|--|
| From (usft) | To (usft) | Survey (Wellbore) | Tool Name | Description | |
| 95.7 | 7,174.9 | Survey #6 Gyro to KOP (Original Wellpath) | SDI Standard Keeper | Scientific Drilling Intl. Standard Wireline Keeper | |
| 7,175.0 | 16,966.0 | Survey #7 MWD (Original Wellpath) | SDI MWD | Scientific Drilling Intl. MWD - Standard ver 1.0.1 | |

WV Department of
Environmental Protection

| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) |
|-----------|---------|-------------------|------------|------------|------------|---------------|------------------|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 |
| 95.7 | 0.20 | 300.40 | 95.7 | 0.1 | -0.1 | 0.1 | 0.21 |
| 120.7 | 0.05 | 154.57 | 120.7 | 0.1 | -0.2 | 0.1 | 0.97 |
| 145.7 | 0.04 | 40.68 | 145.7 | 0.1 | -0.2 | 0.1 | 0.30 |
| 170.7 | 0.09 | 27.36 | 170.7 | 0.1 | -0.2 | 0.2 | 0.21 |
| 195.7 | 0.17 | 10.74 | 195.7 | 0.2 | -0.1 | 0.2 | 0.35 |
| 220.7 | 0.19 | 338.26 | 220.7 | 0.2 | -0.1 | 0.3 | 0.41 |
| 245.7 | 0.17 | 310.31 | 245.7 | 0.3 | -0.2 | 0.4 | 0.36 |
| 270.7 | 0.10 | 217.02 | 270.7 | 0.3 | -0.2 | 0.4 | 0.81 |
| 295.7 | 0.13 | 179.99 | 295.7 | 0.3 | -0.2 | 0.3 | 0.31 |
| 320.7 | 0.13 | 157.85 | 320.7 | 0.2 | -0.2 | 0.3 | 0.20 |

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EOW Completion Report

WV Department of
Environmental Protection

| | | | |
|------------------|-------------------------------|-------------------------------------|--|
| Company: | Antero Resources | Local Co-ordinate Reference: | Well Ford Unit 1H |
| Project: | Harrison County West Virginia | TVD Reference: | Patterson 340: GL 1374' + 24' RKB @ 1398.0usft |
| Site: | Ruth/Norris/Nellie/Ford Pad | MD Reference: | Patterson 340: GL 1374' + 24' RKB @ 1398.0usft |
| Well: | Ford Unit 1H | North Reference: | Grid |
| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Oklahoma District |

| Survey | | | | | | | | |
|-----------|---------|-------------------|------------|------------|------------|---------------|------------------|--|
| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) | |
| 345.7 | 0.10 | 123.60 | 345.7 | 0.2 | -0.2 | 0.2 | 0.29 | |
| 370.7 | 0.06 | 57.84 | 370.7 | 0.2 | -0.2 | 0.2 | 0.37 | |
| 395.7 | 0.05 | 19.44 | 395.7 | 0.2 | -0.2 | 0.2 | 0.15 | |
| 420.7 | 0.03 | 136.96 | 420.7 | 0.2 | -0.2 | 0.2 | 0.28 | |
| 445.7 | 0.21 | 166.83 | 445.7 | 0.1 | -0.1 | 0.2 | 0.74 | |
| 470.7 | 0.31 | 163.16 | 470.7 | 0.0 | -0.1 | 0.1 | 0.41 | |
| 495.7 | 0.27 | 148.34 | 495.7 | -0.1 | -0.1 | -0.1 | 0.34 | |
| 520.7 | 0.28 | 134.67 | 520.7 | -0.2 | 0.0 | -0.2 | 0.26 | |
| 545.7 | 0.28 | 123.61 | 545.7 | -0.2 | 0.1 | -0.3 | 0.22 | |
| 570.7 | 0.25 | 123.13 | 570.7 | -0.3 | 0.2 | -0.4 | 0.12 | |
| 595.7 | 0.13 | 130.57 | 595.7 | -0.4 | 0.3 | -0.4 | 0.49 | |
| 620.7 | 0.22 | 177.71 | 620.7 | -0.4 | 0.3 | -0.5 | 0.65 | |
| 645.7 | 0.23 | 171.23 | 645.7 | -0.5 | 0.3 | -0.6 | 0.11 | |
| 670.7 | 0.32 | 169.77 | 670.7 | -0.6 | 0.3 | -0.7 | 0.36 | |
| 695.7 | 0.37 | 149.49 | 695.7 | -0.8 | 0.4 | -0.9 | 0.52 | |
| 720.7 | 0.34 | 142.36 | 720.7 | -0.9 | 0.5 | -1.0 | 0.21 | |
| 745.7 | 0.40 | 139.24 | 745.7 | -1.0 | 0.6 | -1.2 | 0.25 | |
| 770.7 | 0.26 | 127.50 | 770.7 | -1.1 | 0.7 | -1.3 | 0.62 | |
| 795.7 | 0.14 | 133.14 | 795.7 | -1.2 | 0.7 | -1.4 | 0.49 | |
| 820.7 | 0.11 | 170.14 | 820.7 | -1.2 | 0.8 | -1.4 | 0.34 | |
| 845.7 | 0.13 | 164.31 | 845.7 | -1.3 | 0.8 | -1.5 | 0.09 | |
| 870.7 | 0.17 | 186.97 | 870.7 | -1.4 | 0.8 | -1.5 | 0.28 | |
| 895.7 | 0.23 | 199.28 | 895.7 | -1.4 | 0.8 | -1.6 | 0.29 | |
| 920.7 | 0.25 | 180.03 | 920.7 | -1.5 | 0.7 | -1.7 | 0.33 | |
| 945.7 | 0.31 | 183.57 | 945.7 | -1.7 | 0.7 | -1.8 | 0.25 | |
| 970.7 | 0.28 | 164.03 | 970.7 | -1.8 | 0.8 | -1.9 | 0.42 | |
| 995.7 | 0.20 | 130.30 | 995.7 | -1.9 | 0.8 | -2.0 | 0.64 | |
| 1,020.7 | 0.09 | 108.88 | 1,020.7 | -1.9 | 0.9 | -2.1 | 0.48 | |
| 1,045.7 | 0.08 | 105.80 | 1,045.7 | -1.9 | 0.9 | -2.1 | 0.04 | |
| 1,070.7 | 0.02 | 236.99 | 1,070.7 | -1.9 | 0.9 | -2.1 | 0.38 | |
| 1,095.7 | 0.08 | 274.73 | 1,095.7 | -1.9 | 0.9 | -2.1 | 0.26 | |
| 1,120.7 | 0.10 | 224.46 | 1,120.7 | -1.9 | 0.8 | -2.1 | 0.31 | |
| 1,145.7 | 0.15 | 230.29 | 1,145.7 | -2.0 | 0.8 | -2.1 | 0.21 | |
| 1,170.7 | 0.21 | 171.98 | 1,170.7 | -2.0 | 0.8 | -2.2 | 0.73 | |
| 1,195.7 | 0.07 | 138.98 | 1,195.7 | -2.1 | 0.8 | -2.2 | 0.62 | |
| 1,220.7 | 0.05 | 196.16 | 1,220.7 | -2.1 | 0.8 | -2.3 | 0.24 | |
| 1,245.7 | 0.03 | 115.94 | 1,245.7 | -2.1 | 0.8 | -2.3 | 0.22 | |
| 1,270.7 | 0.05 | 23.17 | 1,270.7 | -2.1 | 0.8 | -2.3 | 0.24 | |
| 1,295.7 | 0.08 | 302.54 | 1,295.7 | -2.1 | 0.8 | -2.3 | 0.35 | |
| 1,320.7 | 0.17 | 274.29 | 1,320.7 | -2.1 | 0.8 | -2.2 | 0.43 | |
| 1,345.7 | 0.08 | 232.82 | 1,345.7 | -2.1 | 0.7 | -2.2 | 0.49 | |
| 1,370.7 | 0.17 | 238.70 | 1,370.7 | -2.1 | 0.7 | -2.2 | 0.36 | |
| 1,395.7 | 0.15 | 217.58 | 1,395.7 | -2.2 | 0.6 | -2.3 | 0.25 | |
| 1,420.7 | 0.22 | 185.01 | 1,420.7 | -2.3 | 0.6 | -2.3 | 0.49 | |

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EOW Completion Report

WV Department of
Environmental Protection



Scientific Drilling

| | | | |
|------------------|-------------------------------|-------------------------------------|--|
| Company: | Antero Resources | Local Co-ordinate Reference: | Well Ford Unit 1H |
| Project: | Harrison County West Virginia | TVD Reference: | Patterson 340: GL 1374' + 24' RKB @ 1398.0usft |
| Site: | Ruth/Norris/Nellie/Ford Pad | MD Reference: | Patterson 340: GL 1374' + 24' RKB @ 1398.0usft |
| Well: | Ford Unit 1H | North Reference: | Grid |
| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Oklahoma District |

| Survey | | | | | | | | |
|-----------|---------|-------------------|------------|------------|-----------|---------------|------------------|--|
| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | EW (usft) | V. Sec (usft) | DLeg (°/100usft) | |
| 1,445.7 | 0.09 | 191.34 | 1,445.7 | -2.3 | 0.6 | -2.4 | 0.52 | |
| 1,470.7 | 0.04 | 73.85 | 1,470.7 | -2.3 | 0.6 | -2.4 | 0.46 | |
| 1,495.7 | 0.09 | 308.90 | 1,495.7 | -2.3 | 0.6 | -2.4 | 0.47 | |
| 1,520.7 | 0.12 | 265.91 | 1,520.7 | -2.3 | 0.5 | -2.4 | 0.33 | |
| 1,545.7 | 0.16 | 242.12 | 1,545.7 | -2.3 | 0.5 | -2.4 | 0.28 | |
| 1,570.7 | 0.22 | 243.96 | 1,570.7 | -2.4 | 0.4 | -2.4 | 0.24 | |
| 1,595.7 | 0.36 | 224.99 | 1,595.7 | -2.4 | 0.3 | -2.4 | 0.67 | |
| 1,620.7 | 0.29 | 207.18 | 1,620.7 | -2.6 | 0.2 | -2.5 | 0.49 | |
| 1,645.7 | 0.26 | 199.80 | 1,645.7 | -2.7 | 0.2 | -2.6 | 0.19 | |
| 1,670.7 | 0.23 | 184.31 | 1,670.7 | -2.8 | 0.2 | -2.7 | 0.29 | |
| 1,695.7 | 0.15 | 159.18 | 1,695.7 | -2.8 | 0.2 | -2.8 | 0.45 | |
| 1,720.7 | 0.08 | 241.73 | 1,720.7 | -2.9 | 0.2 | -2.8 | 0.64 | |
| 1,745.7 | 0.17 | 229.94 | 1,745.7 | -2.9 | 0.1 | -2.8 | 0.37 | |
| 1,770.7 | 0.28 | 252.56 | 1,770.7 | -3.0 | 0.0 | -2.8 | 0.56 | |
| 1,795.7 | 0.31 | 238.81 | 1,795.7 | -3.0 | -0.1 | -2.9 | 0.31 | |
| 1,820.7 | 0.34 | 235.71 | 1,820.7 | -3.1 | -0.2 | -2.9 | 0.14 | |
| 1,845.7 | 0.23 | 213.46 | 1,845.7 | -3.2 | -0.3 | -2.9 | 0.62 | |
| 1,870.7 | 0.37 | 214.29 | 1,870.7 | -3.3 | -0.4 | -3.0 | 0.56 | |
| 1,895.7 | 0.44 | 207.89 | 1,895.7 | -3.4 | -0.5 | -3.2 | 0.33 | |
| 1,920.7 | 0.39 | 207.49 | 1,920.7 | -3.6 | -0.5 | -3.3 | 0.20 | |
| 1,945.7 | 0.30 | 191.18 | 1,945.7 | -3.7 | -0.6 | -3.4 | 0.53 | |
| 1,970.7 | 0.28 | 187.98 | 1,970.7 | -3.9 | -0.6 | -3.5 | 0.10 | |
| 1,995.7 | 0.15 | 214.33 | 1,995.7 | -3.9 | -0.6 | -3.6 | 0.64 | |
| 2,020.7 | 0.22 | 222.07 | 2,020.7 | -4.0 | -0.7 | -3.6 | 0.30 | |
| 2,045.7 | 0.28 | 209.75 | 2,045.7 | -4.1 | -0.8 | -3.7 | 0.32 | |
| 2,070.7 | 0.28 | 211.54 | 2,070.7 | -4.2 | -0.8 | -3.8 | 0.03 | |
| 2,095.7 | 0.36 | 211.59 | 2,095.7 | -4.3 | -0.9 | -3.9 | 0.32 | |
| 2,120.7 | 0.40 | 202.54 | 2,120.7 | -4.5 | -1.0 | -4.0 | 0.29 | |
| 2,145.7 | 0.38 | 190.51 | 2,145.7 | -4.6 | -1.0 | -4.1 | 0.34 | |
| 2,170.7 | 0.37 | 181.22 | 2,170.7 | -4.8 | -1.0 | -4.3 | 0.25 | |
| 2,195.7 | 0.46 | 160.67 | 2,195.7 | -5.0 | -1.0 | -4.5 | 0.69 | |
| 2,220.7 | 0.27 | 176.59 | 2,220.7 | -5.1 | -1.0 | -4.6 | 0.85 | |
| 2,245.7 | 0.30 | 148.30 | 2,245.7 | -5.2 | -0.9 | -4.7 | 0.57 | |
| 2,270.7 | 0.20 | 146.22 | 2,270.7 | -5.3 | -0.9 | -4.8 | 0.40 | |
| 2,295.7 | 0.25 | 149.93 | 2,295.7 | -5.4 | -0.8 | -4.9 | 0.21 | |
| 2,320.7 | 0.25 | 148.60 | 2,320.7 | -5.5 | -0.8 | -5.0 | 0.02 | |
| 2,345.7 | 0.20 | 150.39 | 2,345.7 | -5.6 | -0.7 | -5.1 | 0.20 | |
| 2,370.7 | 0.18 | 163.03 | 2,370.7 | -5.7 | -0.7 | -5.2 | 0.19 | |
| 2,395.7 | 0.21 | 180.73 | 2,395.7 | -5.8 | -0.7 | -5.3 | 0.27 | |
| 2,420.7 | 0.32 | 193.19 | 2,420.7 | -5.9 | -0.7 | -5.4 | 0.49 | |
| 2,445.7 | 0.16 | 188.26 | 2,445.7 | -6.0 | -0.7 | -5.5 | 0.64 | |
| 2,470.7 | 0.27 | 165.37 | 2,470.7 | -6.1 | -0.7 | -5.6 | 0.55 | |
| 2,495.7 | 0.40 | 168.64 | 2,495.7 | -6.2 | -0.7 | -5.7 | 0.53 | |
| 2,520.7 | 0.48 | 169.30 | 2,520.7 | -6.4 | -0.6 | -5.9 | 0.32 | |
| 2,545.7 | 0.36 | 149.99 | 2,545.7 | -6.6 | -0.6 | -6.1 | 0.74 | |



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|------------------|-------------------------------|-------------------------------------|--|
| Company: | Antero Resources | Local Co-ordinate Reference: | Well Ford Unit 1H |
| Project: | Harrison County West Virginia | TVD Reference: | Patterson 340: GL 1374' + 24' RKB @ 1398.0usft |
| Site: | Ruth/Norris/Nellie/Ford Pad | MD Reference: | Patterson 340: GL 1374' + 24' RKB @ 1398.0usft |
| Well: | Ford Unit 1H | North Reference: | Grid |
| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Oklahoma District |

| Survey | | | | | | | | |
|-----------|---------|-------------------|------------|------------|------------|---------------|------------------|--|
| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) | |
| 2,570.7 | 0.42 | 147.82 | 2,570.7 | -6.7 | -0.5 | -6.3 | 0.25 | |
| 2,595.7 | 0.34 | 142.99 | 2,595.7 | -6.8 | -0.4 | -6.4 | 0.34 | |
| 2,620.7 | 0.29 | 159.55 | 2,620.7 | -7.0 | -0.3 | -6.6 | 0.41 | |
| 2,645.7 | 0.36 | 174.90 | 2,645.7 | -7.1 | -0.3 | -6.7 | 0.44 | |
| 2,670.7 | 0.43 | 178.03 | 2,670.7 | -7.3 | -0.3 | -6.9 | 0.29 | |
| 2,695.7 | 0.39 | 159.04 | 2,695.7 | -7.4 | -0.2 | -7.0 | 0.56 | |
| 2,720.7 | 0.54 | 164.33 | 2,720.7 | -7.6 | -0.2 | -7.2 | 0.62 | |
| 2,745.7 | 0.56 | 156.19 | 2,745.7 | -7.9 | -0.1 | -7.5 | 0.32 | |
| 2,770.7 | 0.56 | 156.89 | 2,770.7 | -8.1 | 0.0 | -7.7 | 0.03 | |
| 2,795.7 | 0.52 | 148.14 | 2,795.7 | -8.3 | 0.1 | -8.0 | 0.37 | |
| 2,820.7 | 0.49 | 140.99 | 2,820.7 | -8.5 | 0.2 | -8.2 | 0.28 | |
| 2,845.7 | 0.41 | 147.56 | 2,845.7 | -8.6 | 0.3 | -8.4 | 0.38 | |
| 2,870.7 | 0.36 | 165.00 | 2,870.7 | -8.8 | 0.4 | -8.5 | 0.51 | |
| 2,895.7 | 0.46 | 170.27 | 2,895.7 | -9.0 | 0.5 | -8.7 | 0.43 | |
| 2,920.7 | 0.53 | 162.28 | 2,920.7 | -9.2 | 0.5 | -8.9 | 0.39 | |
| 2,945.7 | 0.60 | 154.59 | 2,945.7 | -9.4 | 0.6 | -9.2 | 0.41 | |
| 2,970.7 | 0.60 | 142.95 | 2,970.7 | -9.6 | 0.7 | -9.4 | 0.49 | |
| 2,995.7 | 0.59 | 136.36 | 2,995.7 | -9.8 | 0.9 | -9.6 | 0.28 | |
| 3,020.7 | 0.48 | 128.48 | 3,020.7 | -10.0 | 1.1 | -9.9 | 0.53 | |
| 3,045.7 | 0.49 | 141.25 | 3,045.7 | -10.1 | 1.2 | -10.0 | 0.43 | |
| 3,070.7 | 0.44 | 151.97 | 3,070.7 | -10.3 | 1.3 | -10.2 | 0.40 | |
| 3,095.7 | 0.51 | 157.00 | 3,095.7 | -10.5 | 1.4 | -10.4 | 0.33 | |
| 3,120.7 | 0.50 | 154.61 | 3,120.7 | -10.7 | 1.5 | -10.7 | 0.09 | |
| 3,145.7 | 0.54 | 149.92 | 3,145.7 | -10.9 | 1.6 | -10.9 | 0.23 | |
| 3,170.7 | 0.62 | 143.32 | 3,170.7 | -11.1 | 1.8 | -11.1 | 0.42 | |
| 3,195.7 | 0.57 | 141.31 | 3,195.7 | -11.3 | 1.9 | -11.4 | 0.22 | |
| 3,220.7 | 0.58 | 128.86 | 3,220.7 | -11.5 | 2.1 | -11.6 | 0.50 | |
| 3,245.7 | 0.53 | 125.29 | 3,245.7 | -11.6 | 2.3 | -11.8 | 0.24 | |
| 3,270.7 | 0.44 | 127.92 | 3,270.7 | -11.7 | 2.5 | -11.9 | 0.37 | |
| 3,295.7 | 0.40 | 145.86 | 3,295.7 | -11.9 | 2.6 | -12.1 | 0.55 | |
| 3,320.7 | 0.36 | 151.78 | 3,320.7 | -12.0 | 2.7 | -12.3 | 0.22 | |
| 3,345.7 | 0.43 | 140.29 | 3,345.7 | -12.2 | 2.8 | -12.4 | 0.42 | |
| 3,370.7 | 0.43 | 149.75 | 3,370.7 | -12.3 | 2.9 | -12.6 | 0.28 | |
| 3,395.7 | 0.56 | 137.75 | 3,395.7 | -12.5 | 3.0 | -12.8 | 0.66 | |
| 3,420.7 | 0.53 | 135.62 | 3,420.7 | -12.7 | 3.2 | -13.0 | 0.14 | |
| 3,445.7 | 0.39 | 121.67 | 3,445.7 | -12.8 | 3.3 | -13.2 | 0.71 | |
| 3,470.7 | 0.35 | 140.36 | 3,470.7 | -12.9 | 3.4 | -13.3 | 0.51 | |
| 3,495.7 | 0.40 | 138.86 | 3,495.7 | -13.0 | 3.5 | -13.5 | 0.20 | |
| 3,520.7 | 0.40 | 142.28 | 3,520.7 | -13.1 | 3.7 | -13.6 | 0.10 | |
| 3,545.7 | 0.42 | 159.90 | 3,545.7 | -13.3 | 3.7 | -13.8 | 0.51 | |
| 3,570.7 | 0.45 | 147.58 | 3,570.7 | -13.5 | 3.8 | -14.0 | 0.39 | |
| 3,595.7 | 0.44 | 148.70 | 3,595.7 | -13.6 | 3.9 | -14.2 | 0.05 | |
| 3,620.7 | 0.39 | 144.32 | 3,620.7 | -13.8 | 4.0 | -14.4 | 0.24 | |
| 3,645.7 | 0.38 | 140.62 | 3,645.7 | -13.9 | | -14.5 | 0.11 | |

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| Company: | Antero Resources | Local Co-ordinate Reference: | Well Ford Unit 1H |
| Project: | Harrison County West Virginia | TVD Reference: | Patterson 340: GL 1374' + 24' RKB @ 1398.0usft |
| Site: | Ruth/Norris/Nellie/Ford Pad | MD Reference: | Patterson 340: GL 1374' + 24' RKB @ 1398.0usft |
| Well: | Ford Unit 1H | North Reference: | Grid |
| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Oklahoma District |

Survey

| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) |
|-----------|---------|-------------------|------------|------------|------------|---------------|------------------|
| 3,670.7 | 0.37 | 142.29 | 3,670.7 | -14.0 | 4.2 | -14.7 | 0.06 |
| 3,695.7 | 0.41 | 137.50 | 3,695.7 | -14.2 | 4.3 | -14.8 | 0.21 |
| 3,720.7 | 0.40 | 137.63 | 3,720.7 | -14.3 | 4.5 | -15.0 | 0.04 |
| 3,745.7 | 0.37 | 126.86 | 3,745.6 | -14.4 | 4.6 | -15.1 | 0.31 |
| 3,770.7 | 0.42 | 119.46 | 3,770.6 | -14.5 | 4.7 | -15.3 | 0.29 |
| 3,795.7 | 0.41 | 113.92 | 3,795.6 | -14.6 | 4.9 | -15.4 | 0.17 |
| 3,820.7 | 0.42 | 119.98 | 3,820.6 | -14.7 | 5.0 | -15.5 | 0.18 |
| 3,845.7 | 0.49 | 117.19 | 3,845.6 | -14.8 | 5.2 | -15.7 | 0.29 |
| 3,870.7 | 0.34 | 125.15 | 3,870.6 | -14.9 | 5.4 | -15.8 | 0.64 |
| 3,895.7 | 0.35 | 123.95 | 3,895.6 | -14.9 | 5.5 | -15.9 | 0.05 |
| 3,920.7 | 0.28 | 143.81 | 3,920.6 | -15.0 | 5.6 | -16.0 | 0.51 |
| 3,945.7 | 0.31 | 141.93 | 3,945.6 | -15.1 | 5.7 | -16.1 | 0.13 |
| 3,970.7 | 0.42 | 138.73 | 3,970.6 | -15.3 | 5.8 | -16.3 | 0.45 |
| 3,995.7 | 0.37 | 150.40 | 3,995.6 | -15.4 | 5.9 | -16.5 | 0.38 |
| 4,020.7 | 0.62 | 140.54 | 4,020.6 | -15.6 | 6.0 | -16.7 | 1.05 |
| 4,045.7 | 0.63 | 133.34 | 4,045.6 | -15.8 | 6.2 | -16.9 | 0.32 |
| 4,070.7 | 0.63 | 126.86 | 4,070.6 | -16.0 | 6.4 | -17.1 | 0.28 |
| 4,095.7 | 0.55 | 113.33 | 4,095.6 | -16.1 | 6.6 | -17.3 | 0.64 |
| 4,120.7 | 0.50 | 124.14 | 4,120.6 | -16.2 | 6.8 | -17.5 | 0.44 |
| 4,145.7 | 0.41 | 127.54 | 4,145.6 | -16.3 | 7.0 | -17.6 | 0.38 |
| 4,170.7 | 0.51 | 120.95 | 4,170.6 | -16.4 | 7.2 | -17.8 | 0.45 |
| 4,195.7 | 0.57 | 131.25 | 4,195.6 | -16.6 | 7.3 | -18.0 | 0.46 |
| 4,220.7 | 0.65 | 125.52 | 4,220.6 | -16.7 | 7.5 | -18.2 | 0.40 |
| 4,245.7 | 0.72 | 120.45 | 4,245.6 | -16.9 | 7.8 | -18.4 | 0.37 |
| 4,270.7 | 0.70 | 118.39 | 4,270.6 | -17.0 | 8.1 | -18.7 | 0.13 |
| 4,295.7 | 0.63 | 115.05 | 4,295.6 | -17.2 | 8.3 | -18.9 | 0.32 |
| 4,320.7 | 0.58 | 117.42 | 4,320.6 | -17.3 | 8.6 | -19.0 | 0.22 |
| 4,345.7 | 0.60 | 124.26 | 4,345.6 | -17.4 | 8.8 | -19.2 | 0.29 |
| 4,370.7 | 0.70 | 123.86 | 4,370.6 | -17.6 | 9.0 | -19.4 | 0.40 |
| 4,395.7 | 0.70 | 113.55 | 4,395.6 | -17.7 | 9.3 | -19.7 | 0.50 |
| 4,420.7 | 0.60 | 110.90 | 4,420.6 | -17.8 | 9.5 | -19.8 | 0.42 |
| 4,445.7 | 0.45 | 126.66 | 4,445.6 | -17.9 | 9.7 | -20.0 | 0.83 |
| 4,470.7 | 0.39 | 132.21 | 4,470.6 | -18.1 | 9.9 | -20.2 | 0.29 |
| 4,495.7 | 0.82 | 125.57 | 4,495.6 | -18.2 | 10.1 | -20.4 | 1.74 |
| 4,520.7 | 0.88 | 124.71 | 4,520.6 | -18.4 | 10.4 | -20.7 | 0.25 |
| 4,545.7 | 0.66 | 114.62 | 4,545.6 | -18.6 | 10.7 | -20.9 | 1.03 |
| 4,570.7 | 0.74 | 108.63 | 4,570.6 | -18.7 | 11.0 | -21.1 | 0.43 |
| 4,595.7 | 0.89 | 105.84 | 4,595.6 | -18.8 | 11.3 | -21.3 | 0.62 |
| 4,620.7 | 1.16 | 75.61 | 4,620.6 | -18.8 | 11.7 | -21.4 | 2.38 |
| 4,645.7 | 1.93 | 57.11 | 4,645.6 | -18.5 | 12.3 | -21.3 | 3.63 |
| 4,670.7 | 3.16 | 47.10 | 4,670.6 | -17.8 | 13.2 | -20.9 | 5.21 |
| 4,695.7 | 4.50 | 42.35 | 4,695.5 | -16.6 | 14.4 | -20.1 | 5.50 |
| 4,720.7 | 5.80 | 39.73 | 4,720.4 | -14.9 | 15.8 | -18.9 | 5.28 |
| 4,745.7 | 6.87 | 38.32 | 4,745.3 | -12.8 | 17.6 | -17.4 | 4.32 |

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|------------------|-------------------------------|-------------------------------------|--|
| Company: | Antero Resources | Local Co-ordinate Reference: | Well Ford Unit 1H |
| Project: | Harrison County West Virginia | TVD Reference: | Patterson 340: GL 1374' + 24' RKB @ 1398.0usft |
| Site: | Ruth/Norris/Nellie/Ford Pad | MD Reference: | Patterson 340: GL 1374' + 24' RKB @ 1398.0usft |
| Well: | Ford Unit 1H | North Reference: | Grid |
| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Oklahoma District |

| Survey | | | | | | | |
|-----------|---------|-------------------|------------|------------|------------|---------------|------------------|
| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) |
| 4,770.7 | 7.69 | 37.27 | 4,770.1 | -10.3 | 19.5 | -15.5 | 3.32 |
| 4,795.7 | 8.13 | 36.76 | 4,794.8 | -7.5 | 21.6 | -13.5 | 1.78 |
| 4,820.7 | 8.57 | 37.04 | 4,819.6 | -4.6 | 23.8 | -11.4 | 1.77 |
| 4,845.7 | 9.21 | 37.18 | 4,844.3 | -1.5 | 26.1 | -9.1 | 2.56 |
| 4,870.7 | 9.64 | 37.48 | 4,868.9 | 1.7 | 28.6 | -6.7 | 1.73 |
| 4,895.7 | 9.98 | 38.73 | 4,893.6 | 5.1 | 31.2 | -4.3 | 1.60 |
| 4,920.7 | 10.36 | 44.25 | 4,918.2 | 8.4 | 34.1 | -2.0 | 4.18 |
| 4,945.7 | 11.11 | 45.22 | 4,942.7 | 11.7 | 37.4 | 0.2 | 3.09 |
| 4,970.7 | 11.96 | 46.86 | 4,967.2 | 15.1 | 41.0 | 2.4 | 3.64 |
| 4,995.7 | 12.54 | 48.08 | 4,991.6 | 18.7 | 44.9 | 4.7 | 2.54 |
| 5,020.7 | 13.20 | 50.16 | 5,016.0 | 22.4 | 49.1 | 7.0 | 3.23 |
| 5,045.7 | 13.61 | 51.09 | 5,040.3 | 26.0 | 53.6 | 9.2 | 1.85 |
| 5,070.7 | 14.15 | 51.22 | 5,064.6 | 29.8 | 58.3 | 11.4 | 2.16 |
| 5,095.7 | 14.90 | 51.53 | 5,088.8 | 33.7 | 63.2 | 13.7 | 3.02 |
| 5,120.7 | 15.45 | 51.49 | 5,112.9 | 37.8 | 68.3 | 16.1 | 2.20 |
| 5,145.7 | 16.44 | 51.46 | 5,137.0 | 42.1 | 73.7 | 18.6 | 3.96 |
| 5,170.7 | 17.29 | 51.45 | 5,160.9 | 46.6 | 79.3 | 21.3 | 3.40 |
| 5,195.7 | 17.62 | 51.29 | 5,184.7 | 51.3 | 85.2 | 24.0 | 1.33 |
| 5,220.7 | 18.17 | 51.07 | 5,208.5 | 56.1 | 91.2 | 26.9 | 2.22 |
| 5,245.7 | 18.72 | 50.42 | 5,232.3 | 61.1 | 97.3 | 29.9 | 2.35 |
| 5,270.7 | 19.39 | 49.83 | 5,255.9 | 66.3 | 103.6 | 33.0 | 2.79 |
| 5,295.7 | 20.37 | 49.20 | 5,279.4 | 71.8 | 110.0 | 36.4 | 4.01 |
| 5,320.7 | 21.31 | 48.58 | 5,302.8 | 77.7 | 116.7 | 40.0 | 3.86 |
| 5,345.7 | 22.13 | 47.99 | 5,326.0 | 83.8 | 123.6 | 43.9 | 3.39 |
| 5,370.7 | 22.78 | 47.28 | 5,349.1 | 90.3 | 130.7 | 48.0 | 2.82 |
| 5,395.7 | 22.98 | 47.15 | 5,372.1 | 96.9 | 137.8 | 52.2 | 0.83 |
| 5,420.7 | 23.34 | 46.79 | 5,395.1 | 103.6 | 145.0 | 56.5 | 1.55 |
| 5,445.7 | 23.50 | 46.86 | 5,418.0 | 110.4 | 152.3 | 60.9 | 0.65 |
| 5,470.7 | 24.08 | 47.82 | 5,440.9 | 117.2 | 159.7 | 65.3 | 2.79 |
| 5,495.7 | 24.09 | 49.99 | 5,463.7 | 123.9 | 167.4 | 69.4 | 3.54 |
| 5,520.7 | 23.64 | 50.35 | 5,486.6 | 130.4 | 175.1 | 73.3 | 1.89 |
| 5,545.7 | 23.35 | 50.43 | 5,509.5 | 136.8 | 182.8 | 77.1 | 1.17 |
| 5,570.7 | 23.55 | 51.25 | 5,532.5 | 143.0 | 190.5 | 80.9 | 1.53 |
| 5,595.7 | 23.80 | 52.25 | 5,555.4 | 149.3 | 198.4 | 84.5 | 1.89 |
| 5,620.7 | 23.63 | 52.20 | 5,578.3 | 155.4 | 206.4 | 88.1 | 0.68 |
| 5,645.7 | 23.16 | 51.49 | 5,601.2 | 161.6 | 214.2 | 91.7 | 2.19 |
| 5,670.7 | 22.21 | 50.47 | 5,624.3 | 167.6 | 221.7 | 95.3 | 4.11 |
| 5,695.7 | 21.42 | 49.77 | 5,647.5 | 173.6 | 228.8 | 98.9 | 3.33 |
| 5,720.7 | 21.16 | 49.25 | 5,670.8 | 179.5 | 235.7 | 102.5 | 1.29 |
| 5,745.7 | 21.37 | 49.25 | 5,694.1 | 185.4 | 242.6 | 106.1 | 0.84 |
| 5,770.7 | 21.76 | 49.31 | 5,717.3 | 191.4 | 249.5 | 109.8 | 1.56 |
| 5,795.7 | 22.46 | 49.57 | 5,740.5 | 197.5 | 256.7 | 113.6 | 2.83 |
| 5,820.7 | 23.28 | 49.85 | 5,763.5 | 203.8 | 264.1 | 117.4 | 3.31 |
| 5,845.7 | 24.36 | 50.01 | 5,786.4 | 210.3 | 271.8 | 121.3 | 4.33 |

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|---|--|
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| Project: Harrison County West Virginia | TVD Reference: Patterson 340: GL 1374' + 24' RKB @ 1398.0usft |
| Site: Ruth/Norris/Nellie/Ford Pad | MD Reference: Patterson 340: GL 1374' + 24' RKB @ 1398.0usft |
| Well: Ford Unit 1H | North Reference: Grid |
| Wellbore: Original Wellpath | Survey Calculation Method: Minimum Curvature |
| Design: As Drilled | Database: Oklahoma District |

| Survey | | | | | | | | |
|-----------|---------|-------------------|------------|------------|------------|---------------|------------------|--|
| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) | |
| 5,870.7 | 24.91 | 49.98 | 5,809.1 | 217.0 | 279.8 | 125.4 | 2.20 | |
| 5,895.7 | 24.79 | 50.12 | 5,831.8 | 223.7 | 287.9 | 129.5 | 0.53 | |
| 5,920.7 | 24.93 | 51.40 | 5,854.5 | 230.4 | 296.0 | 133.5 | 2.22 | |
| 5,945.7 | 25.18 | 52.32 | 5,877.1 | 236.9 | 304.3 | 137.3 | 1.85 | |
| 5,970.7 | 25.07 | 53.07 | 5,899.8 | 243.3 | 312.8 | 140.9 | 1.35 | |
| 5,995.7 | 24.87 | 55.51 | 5,922.4 | 249.5 | 321.3 | 144.3 | 4.20 | |
| 6,020.7 | 24.70 | 56.11 | 5,945.1 | 255.4 | 330.0 | 147.4 | 1.21 | |
| 6,045.7 | 24.61 | 54.47 | 5,967.8 | 261.3 | 338.6 | 150.6 | 2.76 | |
| 6,070.7 | 25.07 | 52.86 | 5,990.5 | 267.6 | 347.0 | 154.0 | 3.27 | |
| 6,095.7 | 25.37 | 51.52 | 6,013.1 | 274.1 | 355.4 | 157.8 | 2.58 | |
| 6,120.7 | 25.44 | 49.35 | 6,035.7 | 280.9 | 363.7 | 161.9 | 3.73 | |
| 6,145.7 | 25.10 | 46.27 | 6,058.3 | 288.1 | 371.6 | 166.5 | 5.43 | |
| 6,170.7 | 24.85 | 43.61 | 6,081.0 | 295.6 | 379.1 | 171.4 | 4.60 | |
| 6,195.7 | 25.51 | 42.21 | 6,103.6 | 303.3 | 386.3 | 176.7 | 3.56 | |
| 6,220.7 | 26.04 | 41.80 | 6,126.1 | 311.4 | 393.6 | 182.3 | 2.24 | |
| 6,245.7 | 26.13 | 42.20 | 6,148.6 | 319.6 | 400.9 | 188.0 | 0.79 | |
| 6,270.7 | 26.23 | 42.57 | 6,171.0 | 327.7 | 408.4 | 193.6 | 0.77 | |
| 6,295.7 | 25.91 | 43.52 | 6,193.5 | 335.8 | 415.9 | 199.1 | 2.10 | |
| 6,320.7 | 25.83 | 44.52 | 6,216.0 | 343.6 | 423.5 | 204.3 | 1.77 | |
| 6,345.7 | 25.58 | 45.91 | 6,238.5 | 351.2 | 431.2 | 209.4 | 2.61 | |
| 6,370.7 | 25.27 | 47.91 | 6,261.1 | 358.6 | 439.0 | 214.1 | 3.65 | |
| 6,395.7 | 24.60 | 49.40 | 6,283.8 | 365.5 | 446.9 | 218.4 | 3.67 | |
| 6,420.7 | 23.70 | 51.25 | 6,306.6 | 372.1 | 454.8 | 222.4 | 4.70 | |
| 6,445.7 | 23.14 | 53.02 | 6,329.5 | 378.2 | 462.6 | 225.9 | 3.60 | |
| 6,470.7 | 22.77 | 54.18 | 6,352.5 | 384.0 | 470.5 | 229.1 | 2.34 | |
| 6,495.7 | 22.42 | 54.01 | 6,375.6 | 389.6 | 478.2 | 232.2 | 1.42 | |
| 6,520.7 | 22.17 | 53.29 | 6,398.7 | 395.2 | 485.9 | 235.4 | 1.48 | |
| 6,545.7 | 22.25 | 51.88 | 6,421.9 | 401.0 | 493.4 | 238.7 | 2.16 | |
| 6,570.7 | 22.72 | 50.79 | 6,445.0 | 406.9 | 500.8 | 242.2 | 2.51 | |
| 6,595.7 | 23.04 | 50.82 | 6,468.0 | 413.1 | 508.4 | 245.9 | 1.28 | |
| 6,620.7 | 22.99 | 52.39 | 6,491.0 | 419.1 | 516.0 | 249.4 | 2.46 | |
| 6,645.7 | 23.01 | 53.96 | 6,514.0 | 425.0 | 523.9 | 252.7 | 2.46 | |
| 6,670.7 | 23.23 | 55.46 | 6,537.0 | 430.7 | 531.9 | 255.8 | 2.51 | |
| 6,695.7 | 23.59 | 56.81 | 6,560.0 | 436.2 | 540.1 | 258.7 | 2.58 | |
| 6,720.7 | 24.15 | 58.52 | 6,582.8 | 441.6 | 548.7 | 261.3 | 3.56 | |
| 6,745.7 | 24.67 | 59.19 | 6,605.6 | 447.0 | 557.5 | 263.8 | 2.36 | |
| 6,770.7 | 25.37 | 59.46 | 6,628.3 | 452.3 | 566.6 | 266.3 | 2.84 | |
| 6,795.7 | 26.13 | 59.08 | 6,650.8 | 457.9 | 575.9 | 268.9 | 3.11 | |
| 6,820.7 | 27.19 | 58.39 | 6,673.1 | 463.7 | 585.5 | 271.7 | 4.42 | |
| 6,845.7 | 27.23 | 58.01 | 6,695.3 | 469.7 | 595.2 | 274.6 | 0.71 | |
| 6,870.7 | 27.32 | 56.55 | 6,717.6 | 475.9 | 604.9 | 277.7 | 2.70 | |
| 6,895.7 | 26.98 | 54.92 | 6,739.8 | 482.4 | 614.3 | 281.0 | 3.27 | |
| 6,920.7 | 26.80 | 52.73 | 6,762.1 | 489.0 | 623.4 | 284.7 | 4.03 | |
| 6,945.7 | 27.21 | 50.19 | 6,784.4 | 496.1 | 632.3 | 288.9 | 4.90 | |

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| Well: | Ford Unit 1H | North Reference: | Grid |
| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Oklahoma District |

Survey

| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) |
|-------------|---------|-------------------|------------|------------|------------|---------------|------------------|
| 6,970.7 | 25.89 | 47.82 | 6,806.7 | 503.4 | 640.7 | 293.4 | 6.77 |
| 6,995.7 | 26.38 | 45.67 | 6,829.2 | 511.0 | 648.8 | 298.3 | 4.26 |
| 7,020.7 | 25.44 | 42.84 | 6,851.7 | 518.8 | 656.4 | 303.5 | 6.21 |
| 7,045.7 | 25.30 | 40.41 | 6,874.3 | 526.8 | 663.5 | 309.1 | 4.20 |
| 7,070.7 | 25.04 | 40.45 | 6,896.9 | 534.9 | 670.4 | 314.8 | 1.04 |
| 7,075.0 | 25.09 | 40.78 | 6,900.8 | 536.3 | 671.6 | 315.8 | 3.50 |
| SCMR | | | | | | | |
| 7,095.7 | 25.34 | 42.38 | 6,919.5 | 542.9 | 677.4 | 320.4 | 3.50 |
| 7,120.7 | 24.13 | 44.63 | 6,942.2 | 550.5 | 684.6 | 325.5 | 6.13 |
| 7,145.7 | 23.26 | 45.59 | 6,965.1 | 557.6 | 691.7 | 330.2 | 3.81 |
| 7,170.7 | 22.77 | 47.18 | 6,988.1 | 564.3 | 698.8 | 334.6 | 3.17 |
| 7,174.9 | 22.69 | 47.48 | 6,992.0 | 565.4 | 700.0 | 335.3 | 3.32 |
| 7,226.0 | 22.69 | 50.95 | 7,039.1 | 578.3 | 714.9 | 343.2 | 2.62 |
| 7,256.0 | 22.45 | 50.85 | 7,066.8 | 585.5 | 723.9 | 347.5 | 0.81 |
| 7,286.0 | 22.93 | 47.25 | 7,094.5 | 593.1 | 732.6 | 352.2 | 4.90 |
| 7,316.0 | 23.99 | 42.87 | 7,122.0 | 601.5 | 741.0 | 357.8 | 6.80 |
| 7,346.0 | 25.73 | 39.29 | 7,149.3 | 611.1 | 749.3 | 364.5 | 7.67 |
| 7,376.0 | 27.62 | 37.32 | 7,176.1 | 621.6 | 757.7 | 372.2 | 6.95 |
| 7,406.0 | 29.84 | 34.84 | 7,202.4 | 633.3 | 766.1 | 380.8 | 8.40 |
| 7,436.0 | 32.12 | 28.89 | 7,228.1 | 646.4 | 774.3 | 391.0 | 12.72 |
| 7,466.0 | 34.21 | 21.52 | 7,253.2 | 661.2 | 781.2 | 403.1 | 15.13 |
| 7,487.0 | 36.56 | 16.84 | 7,270.3 | 672.7 | 785.2 | 412.9 | 17.07 |
| BRKT | | | | | | | |
| 7,496.0 | 37.62 | 15.00 | 7,277.5 | 677.9 | 786.7 | 417.5 | 17.07 |
| 7,522.0 | 40.87 | 10.74 | 7,297.7 | 694.0 | 790.3 | 431.7 | 16.22 |
| TLLY | | | | | | | |
| 7,526.0 | 41.38 | 10.14 | 7,300.7 | 696.6 | 790.8 | 434.1 | 16.22 |
| 7,556.0 | 44.19 | 7.14 | 7,322.7 | 716.7 | 793.8 | 452.4 | 11.57 |
| 7,586.0 | 46.34 | 4.39 | 7,343.8 | 737.9 | 796.0 | 472.1 | 9.68 |
| 7,616.0 | 49.93 | 1.90 | 7,363.8 | 760.2 | 797.2 | 493.0 | 13.47 |
| 7,646.0 | 54.84 | 0.39 | 7,382.1 | 783.9 | 797.6 | 515.6 | 16.84 |
| 7,647.0 | 54.95 | 0.36 | 7,382.7 | 784.8 | 797.7 | 516.4 | 11.79 |
| HMLN | | | | | | | |
| 7,676.0 | 58.29 | 359.45 | 7,398.7 | 809.0 | 797.6 | 539.6 | 11.79 |
| 7,706.0 | 61.82 | 358.54 | 7,413.6 | 835.0 | 797.1 | 564.5 | 12.06 |
| 7,736.0 | 65.40 | 358.25 | 7,427.0 | 861.8 | 796.4 | 590.4 | 11.96 |
| 7,766.0 | 69.34 | 358.22 | 7,438.5 | 889.5 | 795.5 | 617.1 | 13.13 |
| 7,796.0 | 73.62 | 358.43 | 7,448.0 | 917.9 | 794.7 | 644.6 | 14.28 |
| 7,826.0 | 75.84 | 358.62 | 7,455.9 | 946.9 | 794.0 | 672.4 | 7.43 |
| MRCL | | | | | | | |
| 7,856.0 | 76.80 | 359.29 | 7,463.0 | 976.0 | 793.4 | 700.5 | 3.87 |
| 7,886.0 | 78.30 | 0.15 | 7,469.5 | 1,005.3 | 793.3 | 728.5 | 5.73 |
| 7,916.0 | 80.11 | 358.26 | 7,475.1 | 1,034.8 | 792.9 | 756.8 | 8.64 |
| 7,946.0 | 80.93 | 354.92 | 7,480.1 | 1,064.3 | 791.1 | 785.5 | 11.32 |
| 7,976.0 | 81.37 | 352.05 | 7,484.7 | 1,093.7 | 787.0 | 814.7 | 9.57 |



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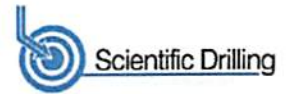
Survey

| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) |
|-----------|---------|-------------------|------------|------------|------------|---------------|------------------|
| 8,012.0 | 83.80 | 348.64 | 7,489.3 | 1,128.9 | 781.8 | 850.1 | 11.57 |
| 8,070.0 | 90.20 | 344.08 | 7,492.4 | 1,185.2 | 768.1 | 907.9 | 13.54 |
| 8,166.0 | 90.34 | 341.52 | 7,491.9 | 1,276.9 | 739.7 | 1,003.8 | 2.67 |
| 8,260.0 | 89.93 | 341.49 | 7,491.7 | 1,366.0 | 709.9 | 1,097.8 | 0.44 |
| 8,354.0 | 89.16 | 342.20 | 7,492.4 | 1,455.3 | 680.6 | 1,191.8 | 1.11 |
| 8,447.0 | 88.83 | 342.68 | 7,494.1 | 1,544.0 | 652.6 | 1,284.8 | 0.63 |
| 8,542.0 | 88.42 | 342.27 | 7,496.3 | 1,634.5 | 624.0 | 1,379.7 | 0.61 |
| 8,636.0 | 89.06 | 343.49 | 7,498.4 | 1,724.3 | 596.3 | 1,473.7 | 1.47 |
| 8,730.0 | 88.39 | 345.30 | 7,500.5 | 1,814.9 | 571.0 | 1,567.7 | 2.05 |
| 8,824.0 | 87.92 | 342.71 | 7,503.5 | 1,905.2 | 545.1 | 1,661.6 | 2.80 |
| 8,919.0 | 88.63 | 342.48 | 7,506.4 | 1,995.8 | 516.7 | 1,756.5 | 0.79 |
| 9,013.0 | 89.19 | 340.06 | 7,508.2 | 2,084.8 | 486.6 | 1,850.5 | 2.64 |
| 9,106.0 | 88.81 | 341.61 | 7,509.8 | 2,172.6 | 456.0 | 1,943.4 | 1.72 |
| 9,200.0 | 89.03 | 342.76 | 7,511.6 | 2,262.1 | 427.3 | 2,037.4 | 1.25 |
| 9,294.0 | 92.11 | 343.12 | 7,510.6 | 2,351.9 | 399.7 | 2,131.4 | 3.30 |
| 9,388.0 | 93.49 | 343.61 | 7,506.0 | 2,441.9 | 372.8 | 2,225.2 | 1.56 |
| 9,482.0 | 92.85 | 344.44 | 7,500.8 | 2,532.1 | 347.0 | 2,319.1 | 1.11 |
| 9,576.0 | 92.21 | 344.90 | 7,496.7 | 2,622.7 | 322.2 | 2,412.9 | 0.84 |
| 9,670.0 | 88.99 | 341.91 | 7,495.7 | 2,712.7 | 295.3 | 2,506.9 | 4.67 |
| 9,763.0 | 89.60 | 340.57 | 7,496.9 | 2,800.8 | 265.4 | 2,599.9 | 1.58 |
| 9,858.0 | 90.37 | 341.72 | 7,496.9 | 2,890.7 | 234.7 | 2,694.8 | 1.46 |
| 9,951.0 | 89.30 | 344.07 | 7,497.1 | 2,979.6 | 207.4 | 2,787.8 | 2.78 |
| 10,045.0 | 89.60 | 345.55 | 7,498.1 | 3,070.3 | 182.8 | 2,881.7 | 1.61 |
| 10,137.0 | 88.09 | 345.51 | 7,499.9 | 3,159.3 | 159.8 | 2,973.6 | 1.64 |
| 10,230.0 | 88.02 | 342.59 | 7,503.1 | 3,248.7 | 134.2 | 3,066.5 | 3.14 |
| 10,325.0 | 88.89 | 341.44 | 7,505.6 | 3,339.0 | 104.9 | 3,161.5 | 1.52 |
| 10,419.0 | 89.93 | 342.05 | 7,506.6 | 3,428.3 | 75.5 | 3,255.5 | 1.28 |
| 10,513.0 | 87.71 | 344.17 | 7,508.5 | 3,518.2 | 48.2 | 3,349.4 | 3.27 |
| 10,607.0 | 89.46 | 343.16 | 7,510.8 | 3,608.4 | 21.7 | 3,443.4 | 2.15 |
| 10,701.0 | 91.01 | 343.61 | 7,510.5 | 3,698.4 | -5.1 | 3,537.4 | 1.72 |
| 10,795.0 | 89.46 | 342.56 | 7,510.1 | 3,788.4 | -32.5 | 3,631.4 | 1.99 |
| 10,889.0 | 90.27 | 343.86 | 7,510.3 | 3,878.4 | -59.6 | 3,725.4 | 1.63 |
| 10,982.0 | 89.73 | 343.36 | 7,510.3 | 3,967.6 | -85.9 | 3,818.4 | 0.79 |
| 11,076.0 | 89.83 | 340.39 | 7,510.7 | 4,056.9 | -115.1 | 3,912.3 | 3.16 |
| 11,171.0 | 90.23 | 340.22 | 7,510.6 | 4,146.3 | -147.1 | 4,007.2 | 0.46 |
| 11,265.0 | 89.70 | 339.90 | 7,510.7 | 4,234.7 | -179.2 | 4,101.1 | 0.66 |
| 11,358.0 | 89.50 | 342.15 | 7,511.3 | 4,322.6 | -209.4 | 4,194.1 | 2.43 |
| 11,452.0 | 89.93 | 339.41 | 7,511.8 | 4,411.4 | -240.4 | 4,288.0 | 2.95 |
| 11,546.0 | 89.29 | 343.65 | 7,512.4 | 4,500.5 | -270.1 | 4,381.9 | 4.56 |
| 11,640.0 | 89.50 | 342.40 | 7,513.4 | 4,590.4 | -297.6 | 4,475.9 | 1.35 |
| 11,734.0 | 89.46 | 345.48 | 7,514.3 | 4,680.7 | -323.6 | 4,569.9 | 3.28 |
| 11,828.0 | 90.00 | 345.69 | 7,514.7 | 4,771.8 | -347.0 | 4,663.8 | 0.62 |
| 11,922.0 | 89.93 | 344.70 | 7,514.8 | 4,862.7 | -371.0 | 4,757.7 | 1.06 |
| 12,016.0 | 90.40 | 342.32 | 7,514.5 | 4,952.8 | -397.7 | 4,851.7 | 2.58 |

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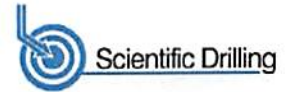
SEP 29 2017 COMPASS 5000.1 Build 70

WV Department of
Environmental Protection



| | | | |
|------------------|-------------------------------|-------------------------------------|--|
| Company: | Antero Resources | Local Co-ordinate Reference: | Well Ford Unit 1H |
| Project: | Harrison County West Virginia | TVD Reference: | Patterson 340: GL 1374' + 24' RKB @ 1398.0usft |
| Site: | Ruth/Norris/Nellie/Ford Pad | MD Reference: | Patterson 340: GL 1374' + 24' RKB @ 1398.0usft |
| Well: | Ford Unit 1H | North Reference: | Grid |
| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Oklahoma District |

| Survey | | | | | | | | |
|-----------|---------|-------------------|------------|------------|------------|---------------|------------------|--|
| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) | |
| 12,109.0 | 90.92 | 341.52 | 7,513.4 | 5,041.2 | -426.5 | 4,944.7 | 1.03 | |
| 12,200.0 | 90.47 | 343.44 | 7,512.3 | 5,128.0 | -453.9 | 5,035.7 | 2.17 | |
| 12,290.0 | 89.83 | 345.32 | 7,512.1 | 5,214.6 | -478.2 | 5,125.6 | 2.21 | |
| 12,381.0 | 90.40 | 346.96 | 7,511.9 | 5,303.0 | -500.0 | 5,216.5 | 1.91 | |
| 12,472.0 | 88.79 | 343.99 | 7,512.6 | 5,391.0 | -522.8 | 5,307.4 | 3.71 | |
| 12,563.0 | 90.91 | 342.28 | 7,512.8 | 5,478.1 | -549.2 | 5,398.4 | 2.99 | |
| 12,654.0 | 89.80 | 340.90 | 7,512.2 | 5,564.5 | -577.9 | 5,489.4 | 1.95 | |
| 12,745.0 | 90.50 | 344.12 | 7,512.0 | 5,651.2 | -605.3 | 5,580.3 | 3.62 | |
| 12,835.0 | 90.00 | 344.12 | 7,511.6 | 5,737.8 | -629.9 | 5,670.3 | 0.56 | |
| 12,926.0 | 89.63 | 346.52 | 7,511.9 | 5,825.8 | -653.0 | 5,761.2 | 2.67 | |
| 13,017.0 | 89.03 | 343.26 | 7,513.0 | 5,913.7 | -676.7 | 5,852.2 | 3.64 | |
| 13,108.0 | 89.33 | 341.56 | 7,514.3 | 6,000.4 | -704.2 | 5,943.1 | 1.90 | |
| 13,199.0 | 90.00 | 342.81 | 7,514.8 | 6,087.0 | -732.0 | 6,034.1 | 1.56 | |
| 13,293.0 | 88.69 | 342.43 | 7,515.9 | 6,176.7 | -760.1 | 6,128.1 | 1.45 | |
| 13,387.0 | 88.46 | 340.69 | 7,518.2 | 6,265.9 | -789.8 | 6,222.1 | 1.87 | |
| 13,481.0 | 88.76 | 340.78 | 7,520.5 | 6,354.6 | -820.8 | 6,316.0 | 0.33 | |
| 13,575.0 | 90.23 | 336.87 | 7,521.3 | 6,442.2 | -854.8 | 6,409.7 | 4.44 | |
| 13,670.0 | 90.24 | 340.67 | 7,520.9 | 6,530.8 | -889.2 | 6,504.4 | 4.00 | |
| 13,764.0 | 89.73 | 339.80 | 7,520.9 | 6,619.2 | -920.9 | 6,598.3 | 1.07 | |
| 13,858.0 | 90.07 | 345.14 | 7,521.1 | 6,708.8 | -949.2 | 6,692.3 | 5.69 | |
| 13,952.0 | 90.10 | 344.33 | 7,521.0 | 6,799.5 | -974.0 | 6,786.2 | 0.86 | |
| 14,046.0 | 90.40 | 346.13 | 7,520.6 | 6,890.4 | -998.0 | 6,880.2 | 1.94 | |
| 14,140.0 | 87.95 | 344.42 | 7,521.9 | 6,981.3 | -1,021.8 | 6,974.1 | 3.18 | |
| 14,234.0 | 87.82 | 343.99 | 7,525.4 | 7,071.7 | -1,047.4 | 7,068.0 | 0.48 | |
| 14,328.0 | 89.36 | 343.16 | 7,527.7 | 7,161.8 | -1,074.0 | 7,161.9 | 1.86 | |
| 14,422.0 | 89.46 | 343.93 | 7,528.7 | 7,251.9 | -1,100.6 | 7,255.9 | 0.83 | |
| 14,516.0 | 88.05 | 343.46 | 7,530.7 | 7,342.1 | -1,127.0 | 7,349.9 | 1.58 | |
| 14,610.0 | 88.52 | 343.86 | 7,533.5 | 7,432.3 | -1,153.4 | 7,443.8 | 0.66 | |
| 14,704.0 | 88.76 | 344.76 | 7,535.7 | 7,522.8 | -1,178.8 | 7,537.8 | 0.99 | |
| 14,798.0 | 89.66 | 344.44 | 7,537.0 | 7,613.4 | -1,203.8 | 7,631.7 | 1.02 | |
| 14,892.0 | 88.36 | 344.42 | 7,538.7 | 7,703.9 | -1,229.0 | 7,725.7 | 1.38 | |
| 14,986.0 | 89.56 | 344.86 | 7,540.4 | 7,794.6 | -1,253.9 | 7,819.6 | 1.36 | |
| 15,080.0 | 87.85 | 342.79 | 7,542.5 | 7,884.8 | -1,280.1 | 7,913.6 | 2.86 | |
| 15,174.0 | 90.74 | 342.14 | 7,543.7 | 7,974.4 | -1,308.4 | 8,007.6 | 3.15 | |
| 15,268.0 | 91.94 | 342.33 | 7,541.5 | 8,063.9 | -1,337.1 | 8,101.5 | 1.29 | |
| 15,362.0 | 90.10 | 342.63 | 7,539.8 | 8,153.5 | -1,365.4 | 8,195.5 | 1.98 | |
| 15,456.0 | 89.53 | 340.65 | 7,540.1 | 8,242.7 | -1,395.0 | 8,289.5 | 2.19 | |
| 15,550.0 | 90.64 | 340.22 | 7,539.9 | 8,331.3 | -1,426.5 | 8,383.4 | 1.27 | |
| 15,644.0 | 91.11 | 342.71 | 7,538.5 | 8,420.4 | -1,456.3 | 8,477.3 | 2.70 | |
| 15,738.0 | 89.53 | 345.32 | 7,538.0 | 8,510.8 | -1,482.2 | 8,571.3 | 3.25 | |
| 15,832.0 | 88.93 | 344.17 | 7,539.3 | 8,601.4 | -1,506.9 | 8,665.3 | 1.38 | |
| 15,926.0 | 89.63 | 343.23 | 7,540.4 | 8,691.7 | -1,533.3 | 8,759.2 | 1.25 | |
| 16,020.0 | 89.73 | 342.27 | 7,541.0 | 8,781.4 | -1,561.2 | 8,853.2 | 1.03 | |
| 16,114.0 | 88.96 | 342.21 | 7,542.0 | 8,870.9 | -1,589.9 | 8,947.2 | 0.82 | |
| 16,208.0 | 89.87 | 344.75 | 7,543.0 | 8,961.0 | -1,616.6 | 9,041.2 | 2.87 | |



| | | | |
|------------------|-------------------------------|-------------------------------------|--|
| Company: | Antero Resources | Local Co-ordinate Reference: | Well Ford Unit 1H |
| Project: | Harrison County West Virginia | TVD Reference: | Patterson 340: GL 1374' + 24' RKB @ 1398.0usft |
| Site: | Ruth/Norris/Nellie/Ford Pad | MD Reference: | Patterson 340: GL 1374' + 24' RKB @ 1398.0usft |
| Well: | Ford Unit 1H | North Reference: | Grid |
| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Oklahoma District |

| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) |
|-----------|---------|-------------------|------------|------------|------------|---------------|------------------|
| 16,302.0 | 88.59 | 344.19 | 7,544.3 | 9,051.6 | -1,641.8 | 9,135.2 | 1.49 |
| 16,397.0 | 88.08 | 341.63 | 7,547.0 | 9,142.4 | -1,669.7 | 9,230.1 | 2.75 |
| 16,492.0 | 88.86 | 341.73 | 7,549.6 | 9,232.5 | -1,699.5 | 9,325.1 | 0.83 |
| 16,586.0 | 89.33 | 342.72 | 7,551.0 | 9,322.0 | -1,728.2 | 9,419.0 | 1.17 |
| 16,680.0 | 90.07 | 343.52 | 7,551.5 | 9,412.0 | -1,755.5 | 9,513.0 | 1.16 |
| 16,774.0 | 91.17 | 343.72 | 7,550.5 | 9,502.1 | -1,782.0 | 9,607.0 | 1.19 |
| 16,868.0 | 91.01 | 343.03 | 7,548.7 | 9,592.2 | -1,808.9 | 9,701.0 | 0.75 |
| 16,909.0 | 91.58 | 343.10 | 7,547.8 | 9,631.4 | -1,820.8 | 9,742.0 | 1.40 |
| 16,966.0 | 91.50 | 342.90 | 7,546.3 | 9,685.9 | -1,837.5 | 9,799.0 | 0.38 |

| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates | | Comment |
|-----------------------|-----------------------|-------------------|--------------|---------|
| | | +N/-S (usft) | +E/-W (usft) | |
| 7,075.0 | 6,900.8 | 536.3 | 671.6 | SCMR |
| 7,487.0 | 7,270.3 | 672.7 | 785.2 | BRKT |
| 7,522.0 | 7,297.7 | 694.0 | 790.3 | TLLY |
| 7,647.0 | 7,382.7 | 784.8 | 797.7 | HMLN |
| 7,826.0 | 7,455.9 | 946.9 | 794.0 | MRCL |

Checked By: _____ Approved By: _____ Date: _____

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SEP 29 2017

Hydraulic Fracturing Fluid Product Component Information Disclosure



| | |
|--------------------------------|------------------------------|
| Job Start Date: | 4/7/2017 |
| Job End Date: | 5/25/2017 |
| State: | West Virginia |
| County: | Harrison |
| API Number: | 47-033-05702-00-00 |
| Operator Name: | Antero Resources Corporation |
| Well Name and Number: | Ford 1H |
| Latitude: | 39.25336944 |
| Longitude: | -80.56029722 |
| Datum: | NAD83 |
| Federal Well: | NO |
| Indian Well: | NO |
| True Vertical Depth: | 7,551 |
| Total Base Water Volume (gal): | 14,746,718 |
| Total Base Non Water Volume: | 0 |

Hydraulic Fracturing Fluid Composition:

| Trade Name | Supplier | Purpose | Ingredients | Chemical Abstract Service Number (CAS #) | Maximum Ingredient Concentration in Additive (% by mass)** | Maximum Ingredient Concentration in HF Fluid (% by mass)** | Comments |
|------------------------|-------------------------|--------------------|--|--|--|--|----------|
| Water | Antero Resources | Carrier/Base Fluid | Water | 7732-18-5 | 100.00000 | 88.29823 | |
| Sand | U.S. Well Services, LLC | Proppant | Crystalline Silica, quartz | 14808-60-7 | 100.00000 | 11.48458 | |
| HCL Acid (12.6%-17.5%) | U.S. Well Services, LLC | Bulk Acid | Water | 7732-18-5 | 87.40000 | 0.13070 | |
| | | | Hydrogen Chloride | 7647-01-0 | 17.50000 | 0.03039 | |
| WFRA-500 | U.S. Well Services, LLC | Friction Reducer | 2-Propenoic acid, polymer with 2 propenamide | 9003-06-9 | 30.00000 | 0.01352 | |
| | | | Hydrated light distillate (petroleum) | 64742-47-8 | 30.00000 | 0.01088 | |
| LGC-15 | U.S. Well Services, LLC | Gelling Agents | Guar Gum | 9000-30-0 | 50.00000 | 0.01101 | |
| | | | Petroleum Distillates | 64742-47-8 | 60.00000 | 0.01043 | |
| | | | Suspending agent (solid) | 14808-60-7 | 3.00000 | 0.00168 | |
| | | | Surfactant | 68439-51-0 | 3.00000 | 0.00066 | |

| | | | | | | | |
|---------------|-------------------------|---------------------------|--|-------------|-----------|---------|--|
| Bioclear 2000 | U.S. Well Services, LLC | Anti-Bacterial Agent | | | | | |
| | | | 2,2-dibromo-3-nitrilopropionamide | 10222-01-2 | 20.00000 | 0.00424 | |
| | | | Deionized Water | 7732-18-5 | 28.00000 | 0.00242 | |
| SI-1200s | U.S. Well Services, LLC | Scale Inhibitor | | | | | |
| | | | Alkyl Phosphonic Acid | Proprietary | 5.00000 | 0.00063 | |
| | | | Ammonia | 7664-41-7 | 0.50000 | 0.00010 | |
| AP One | U.S. Well Services, LLC | Gel Breakers | | | | | |
| | | | Ammonium Persulfate | 7727-54-0 | 100.00000 | 0.00042 | |
| AI-303 | U.S. Well Services, LLC | Acid Corrosion Inhibitors | | | | | |
| | | | Ethylene glycol | 107-21-1 | 40.00000 | 0.00004 | |
| | | | Formic acid | 64-18-6 | 20.00000 | 0.00002 | |
| | | | Cinnamaldehyde | 104-55-2 | 20.00000 | 0.00002 | |
| | | | Butyl cellosolve | 111-76-2 | 20.00000 | 0.00001 | |
| | | | Polyether | 60828-78-6 | 10.00000 | 0.00001 | |
| | | | Acetophenone, thiourea, formaldehyde polymer | 68527-49-1 | 5.00000 | 0.00000 | |

Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.

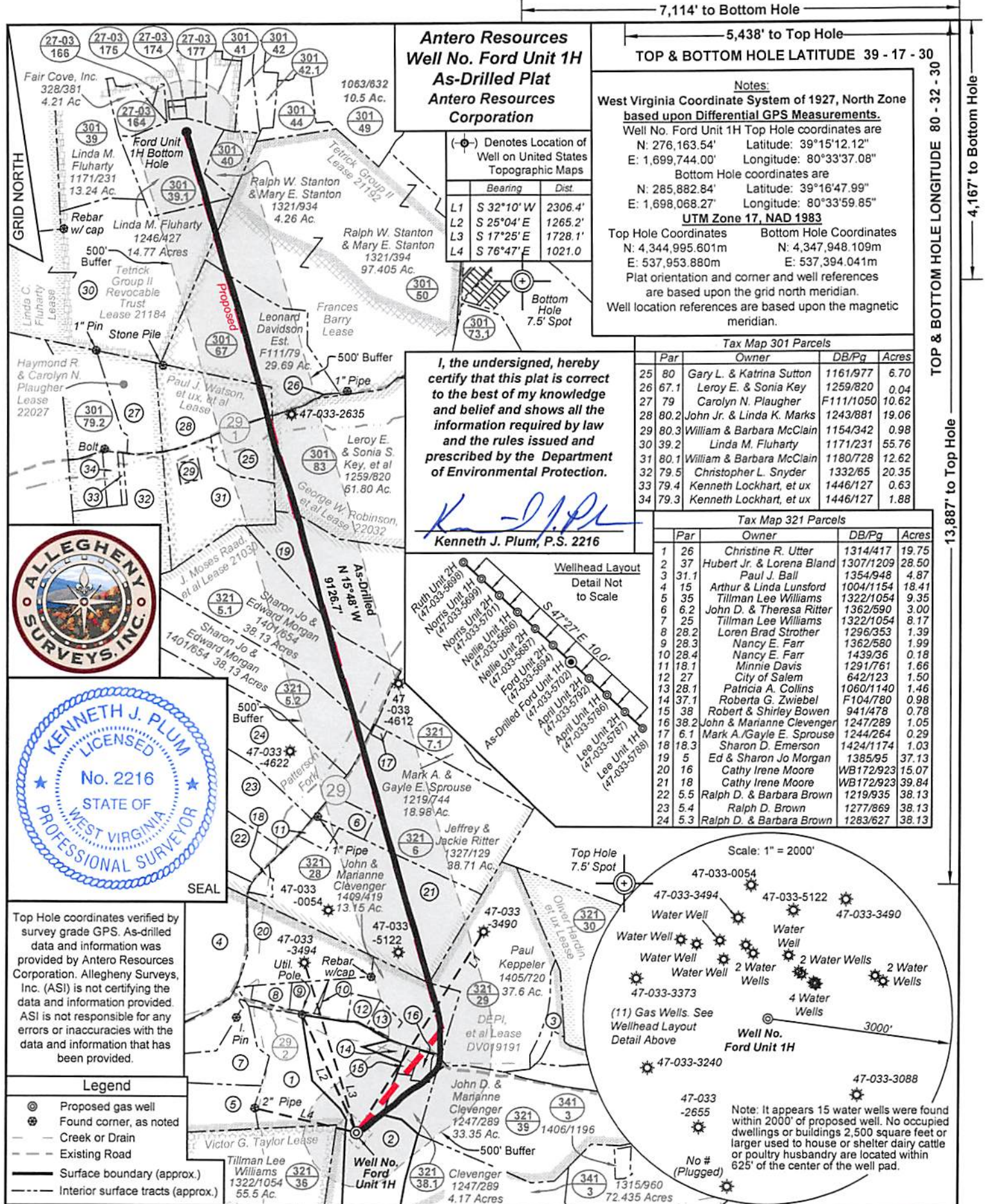
* Total Water Volume sources may include fresh water, produced water, and/or recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

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Environmental Protection
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**Antero Resources
Well No. Ford Unit 1H
As-Drilled Plat
Antero Resources
Corporation**

7,114' to Bottom Hole
5,438' to Top Hole
TOP & BOTTOM HOLE LATITUDE 39 - 17 - 30

Notes:
West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
Well No. Ford Unit 1H Top Hole coordinates are
N: 276,163.54' Latitude: 39°15'12.12"
E: 1,699,744.00' Longitude: 80°33'37.08"
Bottom Hole coordinates are
N: 285,882.84' Latitude: 39°16'47.99"
E: 1,698,068.27' Longitude: 80°33'59.85"
UTM Zone 17, NAD 1983
Top Hole Coordinates Bottom Hole Coordinates
N: 4,344,995.601m E: 537,953.880m N: 4,347,948.109m E: 537,953.880m
Plat orientation and corner and well references are based upon the grid north meridian.
Well location references are based upon the magnetic meridian.

(⊕) Denotes Location of Well on United States Topographic Maps

| | Bearing | Dist. |
|----|------------|---------|
| L1 | S 32°10' W | 2306.4' |
| L2 | S 25°04' E | 1265.2' |
| L3 | S 17°25' E | 1728.1' |
| L4 | S 76°47' E | 1021.0' |

I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

Kenneth J. Plum
Kenneth J. Plum, P.S. 2216

Tax Map 301 Parcels

| Par | Owner | DB/Pg | Acres |
|-----|--------------------------------|-----------|-------|
| 25 | 80 Gary L. & Katrina Sutton | 1161/977 | 6.70 |
| 26 | 67.1 Leroy E. & Sonia Key | 1259/820 | 0.04 |
| 27 | 79 Carolyn N. Plaugher | F111/1050 | 10.62 |
| 28 | 80.2 John Jr. & Linda K. Marks | 1243/881 | 19.06 |
| 29 | 80.3 William & Barbara McClain | 1154/342 | 0.98 |
| 30 | 39.2 Linda M. Fluharty | 1171/231 | 55.76 |
| 31 | 80.1 William & Barbara McClain | 1180/728 | 12.62 |
| 32 | 79.5 Christopher L. Snyder | 1332/65 | 20.35 |
| 33 | 79.4 Kenneth Lockhart, et ux | 1446/127 | 0.63 |
| 34 | 79.3 Kenneth Lockhart, et ux | 1446/127 | 1.88 |

Tax Map 321 Parcels

| Par | Owner | DB/Pg | Acres |
|-----|--------------------------------|-----------|-------|
| 1 | 26 Christine R. Utter | 1314/417 | 19.75 |
| 2 | 37 Hubert Jr. & Lorena Bland | 1307/1209 | 28.50 |
| 3 | 31.1 Paul J. Ball | 1354/948 | 4.87 |
| 4 | 15 Arthur & Linda Lunsford | 1004/1154 | 18.41 |
| 5 | 35 Tillman Lee Williams | 1322/1054 | 9.35 |
| 6 | 6.2 John D. & Theresa Ritter | 1362/590 | 3.00 |
| 7 | 25 Tillman Lee Williams | 1322/1054 | 8.17 |
| 8 | 28.2 Loren Brad Strother | 1296/353 | 1.39 |
| 9 | 28.3 Nancy E. Farr | 1362/580 | 1.99 |
| 10 | 28.4 Nancy E. Farr | 1439/36 | 0.18 |
| 11 | 18.1 Minnie Davis | 1291/761 | 1.66 |
| 12 | 27 City of Salem | 642/123 | 1.50 |
| 13 | 28.1 Patricia A. Collins | 1060/1140 | 1.46 |
| 14 | 37.1 Roberta G. Zwiebel | F104/780 | 0.98 |
| 15 | 38 Robert & Shirley Bowen | 941/478 | 0.78 |
| 16 | 38.2 John & Marianne Clevenger | 1247/289 | 1.05 |
| 17 | 6.1 Mark A./Gayle E. Sprouse | 1244/264 | 0.29 |
| 18 | 18.3 Sharon D. Emerson | 1424/1174 | 1.03 |
| 19 | 5 Ed & Sharon Jo Morgan | 1385/95 | 37.13 |
| 20 | 16 Cathy Irene Moore | WB172/923 | 15.07 |
| 21 | 18 Cathy Irene Moore | WB172/923 | 39.84 |
| 22 | 5.5 Ralph D. & Barbara Brown | 1219/935 | 38.13 |
| 23 | 5.4 Ralph D. Brown | 1277/869 | 38.13 |
| 24 | 5.3 Ralph D. & Barbara Brown | 1283/627 | 38.13 |

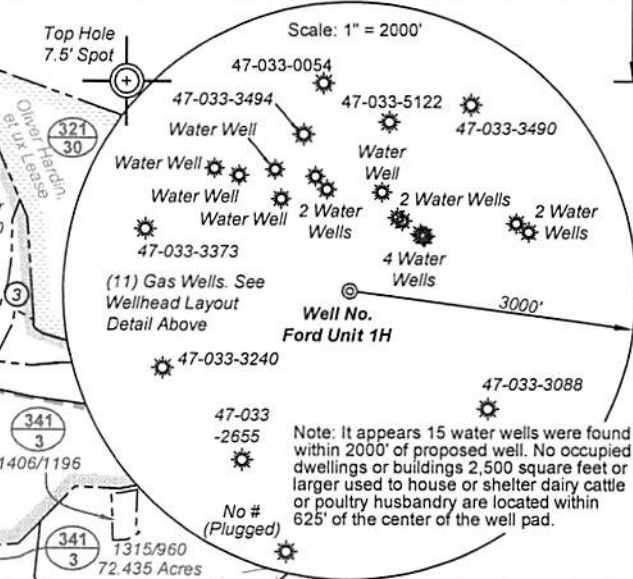


Top Hole coordinates verified by survey grade GPS. As-drilled data and information was provided by Antero Resources Corporation. Allegany Surveys, Inc. (ASI) is not certifying the data and information provided. ASI is not responsible for any errors or inaccuracies with the data and information that has been provided.

Legend

- ⊕ Proposed gas well
- ⊙ Found corner, as noted
- - - Creek or Drain
- - - Existing Road
- Surface boundary (approx.)
- - - Interior surface tracts (approx.)

Wellhead Layout
Detail Not to Scale



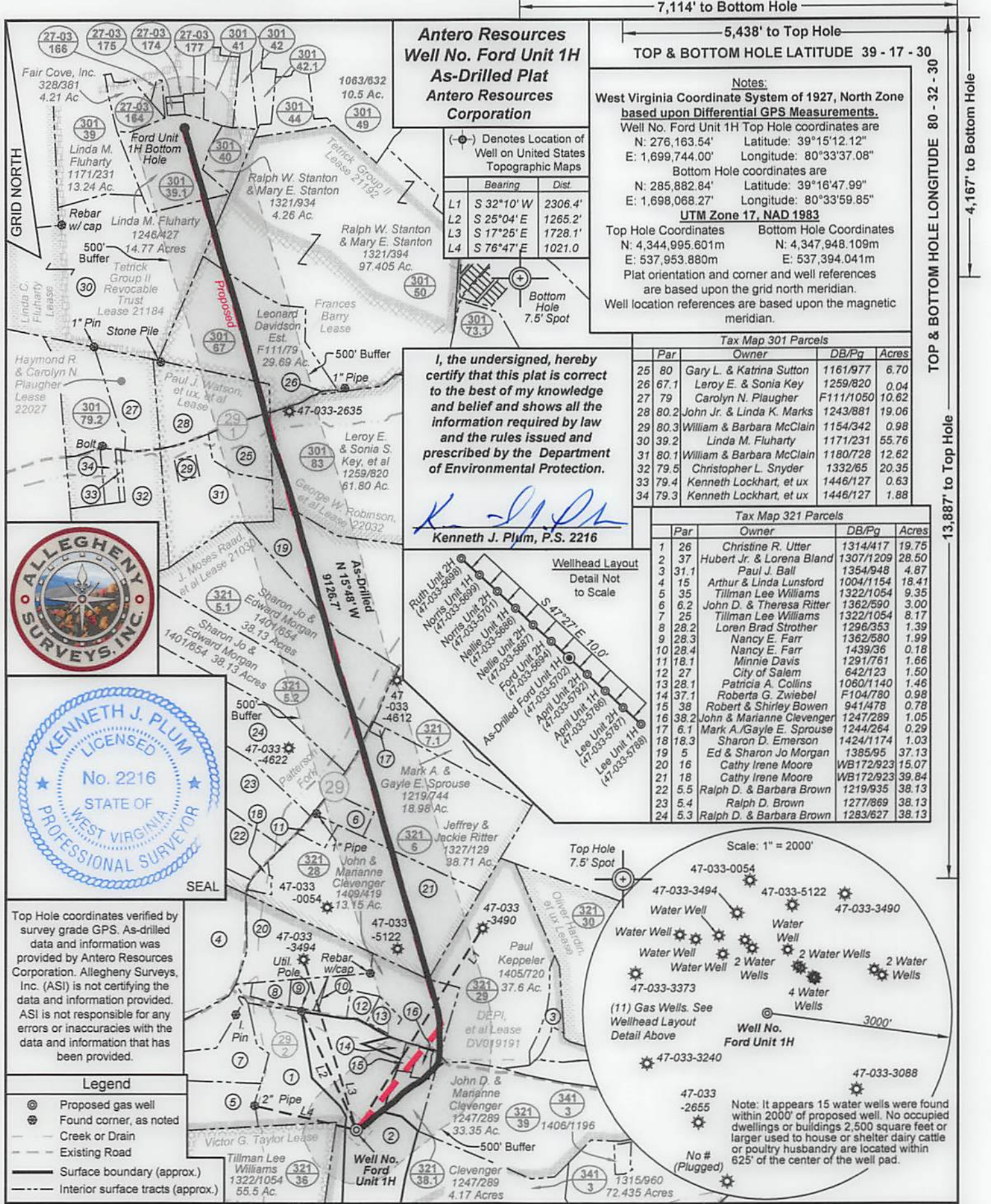
FILE NO: 11-36-TM-12
DRAWING NO: Ford 1H As-Drilled Plat
SCALE: 1" = 1200'
MINIMUM DEGREE OF ACCURACY: Submeter
PROVEN SOURCE OF ELEVATION: WVDOT, Bridgeport, WV

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

DATE: August 28 2017
OPERATOR'S WELL NO. Ford Unit 1H
API WELL NO
47 - 033 - 05702
STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
LOCATION: ELEVATION: Original Grade - 1395' Existing Grade - 1376' WATERSHED: Tenmile Creek QUADRANGLE: Salem
DISTRICT: Tenmile COUNTY: Harrison
SURFACE OWNER: Hubert Jr. & Lorena Bland Paul J. Watson, et ux, et al ACREAGE: 28.50 70.866
ROYALTY OWNER: DEPI, et al; Tetrick Group II Revocable Trust; J. Moses Raad, et al LEASE NO: DV019191; 21030 ACREAGE: 283; 447; 40 62; 108
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY)
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale DEPTH: 16,965 MD Gas

WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Dianna Stamper - CT Corporation System
ADDRESS: 1615 Wynkoop Street ADDRESS: 5400 D Big Tyler Road
Denver, CO 80202 Charleston, WV 25313



**Antero Resources
Well No. Ford Unit 1H
As-Drilled Plat
Antero Resources
Corporation**

(⊙) Denotes Location of Well on United States Topographic Maps

| Bearing | Dist. |
|---------------|---------|
| L1 S 32°10' W | 2306.4' |
| L2 S 25°04' E | 1265.2' |
| L3 S 17°25' E | 1728.1' |
| L4 S 76°47' E | 1021.0' |

7,114' to Bottom Hole

5,438' to Top Hole

TOP & BOTTOM HOLE LATITUDE 39 - 17 - 30

Notes:
West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
Well No. Ford Unit 1H Top Hole coordinates are
N: 276,163.54' Latitude: 39°15'12.12"
E: 1,699,744.00' Longitude: 80°33'37.08"
Bottom Hole coordinates are
N: 285,882.84' Latitude: 39°16'47.99"
E: 1,698,068.27' Longitude: 80°33'59.85"
UTM Zone 17, NAD 1983
Top Hole Coordinates N: 4,344,995.601m E: 537,953.880m
Bottom Hole Coordinates N: 4,347,948.109m E: 537,394.041m
Plat orientation and corner and well references are based upon the grid north meridian.
Well location references are based upon the magnetic meridian.

I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

Kenneth J. Plum
Kenneth J. Plum, P.S. 2216

Tax Map 301 Parcels

| Par | Owner | DB/Pg | Acres |
|-----|--------------------------------|-----------|-------|
| 25 | 80 Gary L. & Katrina Sutton | 1161/977 | 6.70 |
| 26 | 67.1 Leroy E. & Sonia Key | 1259/820 | 0.04 |
| 27 | 79 Carolyn N. Plaugher | F111/1050 | 10.62 |
| 28 | 80.2 John Jr. & Linda K. Marks | 1243/881 | 19.06 |
| 29 | 80.3 William & Barbara McClain | 1154/342 | 0.98 |
| 30 | 39.2 Linda M. Fluharty | 1171/231 | 55.76 |
| 31 | 80.1 William & Barbara McClain | 1180/728 | 12.62 |
| 32 | 79.5 Christopher L. Snyder | 1332/65 | 20.35 |
| 33 | 79.4 Kenneth Lockhart, et ux | 1446/127 | 0.63 |
| 34 | 79.3 Kenneth Lockhart, et ux | 1446/127 | 1.88 |

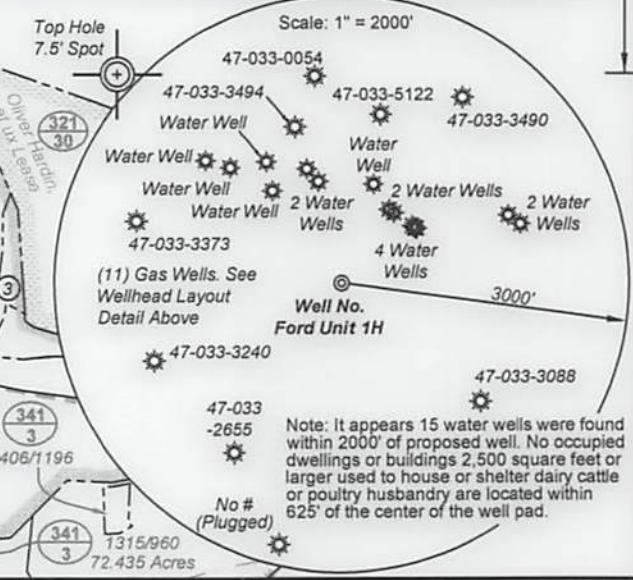
Tax Map 321 Parcels

| Par | Owner | DB/Pg | Acres |
|-----|--------------------------------|-----------|-------|
| 1 | 26 Christine R. Utter | 1314/417 | 19.75 |
| 2 | 37 Hubert Jr. & Lorena Bland | 1307/1209 | 28.50 |
| 3 | 31.1 Paul J. Ball | 1354/948 | 4.87 |
| 4 | 15 Arthur & Linda Lunsford | 1004/1154 | 18.41 |
| 5 | 35 Tillman Lee Williams | 1322/1054 | 9.35 |
| 6 | 6.2 John D. & Theresa Ritter | 1362/590 | 3.00 |
| 7 | 25 Tillman Lee Williams | 1322/1054 | 8.17 |
| 8 | 28.2 Loren Brad Strother | 1296/353 | 1.39 |
| 9 | 28.3 Nancy E. Farr | 1362/580 | 1.99 |
| 10 | 28.4 Nancy E. Farr | 1439/36 | 0.18 |
| 11 | 18.1 Minnie Davis | 1291/761 | 1.66 |
| 12 | 27 City of Salem | 642/123 | 1.50 |
| 13 | 28.1 Patricia A. Collins | 1060/1140 | 1.46 |
| 14 | 37.1 Roberta G. Zwiebel | F104/780 | 0.98 |
| 15 | 38 Robert & Shirley Bowen | 941/478 | 0.78 |
| 16 | 38.2 John & Marianne Clevenger | 1247/289 | 1.05 |
| 17 | 6.1 Mark A./Gayle E. Sprouse | 1244/264 | 0.29 |
| 18 | 18.3 Sharon D. Emerson | 1424/1174 | 1.03 |
| 19 | 5 Ed & Sharon Jo Morgan | 1385/95 | 37.13 |
| 20 | 16 Cathy Irene Moore | WB172/923 | 15.07 |
| 21 | 18 Cathy Irene Moore | WB172/923 | 39.84 |
| 22 | 5.5 Ralph D. & Barbara Brown | 1219/935 | 38.13 |
| 23 | 5.4 Ralph D. Brown | 1277/869 | 38.13 |
| 24 | 5.3 Ralph D. & Barbara Brown | 1283/627 | 38.13 |



Top Hole coordinates verified by survey grade GPS. As-drilled data and information was provided by Antero Resources Corporation. Allegheny Surveys, Inc. (ASI) is not certifying the data and information provided. ASI is not responsible for any errors or inaccuracies with the data and information that has been provided.

- Legend**
- ⊙ Proposed gas well
 - ⊙ Found corner, as noted
 - - - Creek or Drain
 - - - Existing Road
 - Surface boundary (approx.)
 - - - Interior surface tracts (approx.)



FILE NO: 11-36-TM-12
DRAWING NO: Ford 1H As-Drilled Plat
SCALE: 1" = 1200'
MINIMUM DEGREE OF ACCURACY: Submeter
PROVEN SOURCE OF ELEVATION: WVDOT, Bridgeport, WV

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

DATE: August 28 2017
OPERATOR'S WELL NO. Ford Unit 1H
API WELL NO
47 - 033 - 05702
STATE COUNTY PERMIT

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(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
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Existing Grade - 1376'
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ROYALTY OWNER: DEPI, et al; Tetrick Group II Revocable Trust; J. Moses Raad, et al LEASE NO: DV019191; 21030 ACREAGE: 283; 447; 40 62; 108
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 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____ 7.546' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale DEPTH: 16,966' MD

WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Dianna Stamper - CT Corporation System
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