

WR-35
Rev (9-11)

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

DATE: 8/5/2013
API #: 47-033-05649

Farm name: Coffman, Thelma Operator Well No.: Lanham Unit 1H

LOCATION: Elevation: 1,169' Quadrangle: Wolf Summit

District: Union County: Harrison
Latitude: 6,673' Feet South of 39 Deg. 17 Min. 30 Sec.
Longitude 14,669' Feet West of 80 Deg. 25 Min. 00 Sec.

Company: Antero Resources Corporation

| Address: | Casing & Tubing | Used in drilling | Left in well | Cement fill up Cu. Ft. |
|--|-----------------|------------------|--------------|------------------------|
| 1625 17th Street Denver, CO 80202 | 20" 94# | 40' | 40' | 38 Cu. Ft. Class A |
| Agent: CT Corporation System | 13 3/8" 48# | 501' | 501' | 696 Cu. Ft. Class A |
| Inspector: Sam Ward | 9 5/8" 36# | 2,575' | 2,575' | 1048 Cu. Ft. Class A |
| Date Permit Issued: 9/11/2012 | 5 1/2" 20# | 16,566' | 16,566' | 4120 Cu. Ft. Class H |
| Date Well Work Commenced: 9/26/2012 | | | | |
| Date Well Work Completed: 3/9/2013 | 2 3/8" 4.7# | 7,041' | | |
| Verbal Plugging: N/A | | | | |
| Date Permission granted on: N/A | | | | |
| Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/> | | | | |
| Total Vertical Depth (ft): 7043' TVD | | | | |
| Total Measured Depth (ft): 16,566' MD | | | | |
| Fresh Water Depth (ft.): 279' | | | | |
| Salt Water Depth (ft.): None Available | | | | |
| Is coal being mined in area (N/Y)? No | | | | |
| Coal Depths (ft.): None Available | | | | |
| Void(s) encountered (N/Y) Depth(s) None | | | | |

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Marcellus Pay zone depth (ft) 6,811' (Top)

Gas: Initial open flow ----- MCF/d Oil: Initial open flow ---- B
Final open flow 5,777 MCF/d Final open flow ---- Bbl/d
Time of open flow between initial and final tests --- Hours
Static rock Pressure 3600 psig (surface pressure) after ----- Hours

Second producing formation _____ Pay zone depth (ft) _____

Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

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I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Karen Buck
Signature

12/4/2013 01/17/2014
Date

Were core samples taken? Yes _____ No X

Were cuttings caught during drilling? Yes _____ No X

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Yes- CBL

This is a subsequent well. Antero only runs wireline logs on the first well on a multi-well pad (Yates Unit 1H API#47-033-05484). Please reference the wireline logs submitted with Form WR-35 for Yates Unit 1H.

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

Perforations: 7,149' - 16,499' MD (1,728 holes)

Frac'd w/ 14,000 gals 15% HCL Acid, 271,515 bbls Slick Water carrying 1,323,990# 100 mesh, 5,292,840# 40/70 sand and 2,894,835# 20/40 sand.

Plug Back Details Including Plug Type and Depth(s): N/A

| <u>Formations Encountered:</u> | <u>Top Depth</u> | <u>Bottom Depth</u> |
|--------------------------------|------------------|---------------------|
| <u>Surface:</u> | | |
| Big Lime | est. 1367' | 1486' |
| Big Injun | est. 1487' | 1893' |
| Fifty Foot Sandstone | est. 1894' | 2036' |
| Gordon | est. 2037' | 2299' |
| Fifth Sandstone | est. 2300' | 2349' |
| Bayard | est. 2350' | 3000' |
| Speechley | est. 3001' | 3218' |
| Balltown | est. 3219' | 3770' |
| Bradford | est. 3771' | 4369' |
| Benson | est. 4370' | 4676' |
| Alexander | est. 4677' | 4899' |
| Elk | est. 4900' | 6124' |
| Sycamore | est. 6125' | 6474' |
| West River Shale | 6475' | 6575' |
| Burkett | 6576' | 6604' |
| Tully | 6605' | 6728' |
| Hamilton | 6729' | 6810' |
| Marcellus | 6811' | 7043' TVD |

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Hydraulic Fracturing Fluid Product Component Information Disclosure

| | |
|----------------------------|------------------|
| Fracture Date: | 2/6/2013 |
| State: | WV |
| County: | Harrison |
| API Number: | 47433-05660 |
| Operator Name: | Antero Resources |
| Well Name and Number: | Lanham Unit 1H |
| Longitude: | -80.4337 |
| Latitude: | 39.2513028 |
| Production Type: | NAD27 Gas |
| True Vertical Depth (TVD): | 7,043 |
| Total Water Volume* (gal): | 11,402,790 |

Hydraulic Fracturing Fluid Composition:

| Trade Name | Supplier | Purpose | Compositional or Formulary Components Disclosed | Chemical Abstract Service Number (CAS #) - If applicable | Maximum Component Concentration In Additive (% by mass) | Maximum Component Concentration In HF Fluid** (% by mass) | Comments |
|--------------------------|------------------|---------------------|---|--|---|---|----------|
| Freshwater | Antero Resources | | Water | 7732-18-5 | 100.00% | 89.79304% | |
| Hydrochloric Acid 10-15% | Reagent | Acid | Hydrochloric Acid | 7647-01-0 | 15.00% | 0.02048% | |
| 100 Mesh | US Silica | Proppant | Sand | 14808-60-7 | 100.00% | 1.39022% | |
| 40/70 White | US Silica | Proppant | Sand | 14808-60-7 | 100.00% | 5.56226% | |
| 20/40 White | US Silica | Proppant | Sand | 14808-60-7 | 100.00% | 3.04219% | |
| Sodium Persulfate | Chemplex | Breaker | Sodium Persulfate | 7775-27-1 | 100.00% | 0.00219% | |
| Ferriplex 66 | Chemplex | Iron Control | Acetic Acid | 64-19-7 | 50.00% | 0.00013% | |
| | | | Chitic Acid | 77-82-9 | 30.00% | 0.00008% | |
| | | | Water | 7732-18-5 | 35.00% | 0.00009% | |
| Pixobreak 145 | Chemplex | Non-emulsifier | Cocamide Diethanolamine Salt | 68603-42-9 | 10.00% | 0.00005% | |
| | | | Diethanolamine | 111-42-2 | 5.00% | 0.00002% | |
| | | | Ethylene Glycol Monobutyl Ether | 111-76-2 | 15.00% | 0.00007% | |
| | | | Methyl Alcohol | 67-58-1 | 15.00% | 0.00007% | |
| Pixobitb 256 | Chemplex | Corrosion Inhibitor | Water | 732-18-5 | 66.00% | 0.00030% | |
| | | | Alcohol Ethoxyate Surfactants | Trade Secret | 30.00% | 0.00012% | |
| | | | Methyl Alcohol | 67-56-1 | 70.00% | 0.00029% | |
| | | | n-octanes | Trade Secret | 10.00% | 0.00004% | |
| | | | Propargyl Alcohol | 107-19-7 | 8.00% | 0.00003% | |
| | | | thiourea-formaldehyde copolymer | 68527-49-1 | 30.00% | 0.00012% | |
| Pixacid 673 | Chemplex | Scale Inhibitor | Methyl Alcohol | 67-56-1 | 25.00% | 0.00073% | |
| | | | Sodium Salt of Phosphonodimethylated Diamine | Trade Secret | 5.00% | 0.00073% | |
| Pixacid 15G | Chemplex | Biocide | Water | 7732-18-5 | 85.00% | 0.41269% | |
| | | | Glutaraldehyde | 111-30-8 | 90.00% | 0.02206% | |
| | | | Didecyl Dimethyl Ammonium Chloride | 7173-51-5 | 3.00% | 0.00074% | |
| | | | Alkyl Dimethyl Benzyl Ammonium Chloride | 68424-85-1 | 3.00% | 0.00074% | |
| | | | Ethanol | 64-17-5 | 3.00% | 0.00074% | |
| Pixalick 921 E | Chemplex | Friction Reducer | Alcohol Ethoxyate Surfactants | Trade Secret | 8.00% | 0.00365% | |
| | | | Hydroxylated Petroleum Distillate | 64742-47-4 | 30.00% | 0.01566% | |
| | | | Polyacrylamide-co-acrylic acid | 6919003 | 32.00% | 0.01459% | |
| | | | Water | 7732-18-5 | 35.00% | 0.01595% | |
| Beta M-4.0 | PIP | Guar Gel | Guar Gum | 9000-30-0 | 50.00% | 0.06309% | |
| | | | Petroleum Distillate | 64742-47-4 | 55.00% | 0.06940% | |
| | | | Clay | 1302-78-9 | 5.00% | 0.00631% | |
| Pixalick 953 | Chemplex | Friction Reducer | Surfactant | 154518-36-2 | 1.00% | 0.00126% | |
| | | | Alcohol Ethoxyate Surfactants | Trade Secret | 8.00% | 0.00074% | |
| | | | Hydroxylated Petroleum Distillate | 64742-47-4 | 30.00% | 0.00279% | |
| | | | Polyacrylamide-co-acrylic acid | 6919003 | 32.00% | 0.00297% | |
| | | | Water | 7732-18-5 | 35.00% | 0.00325% | |

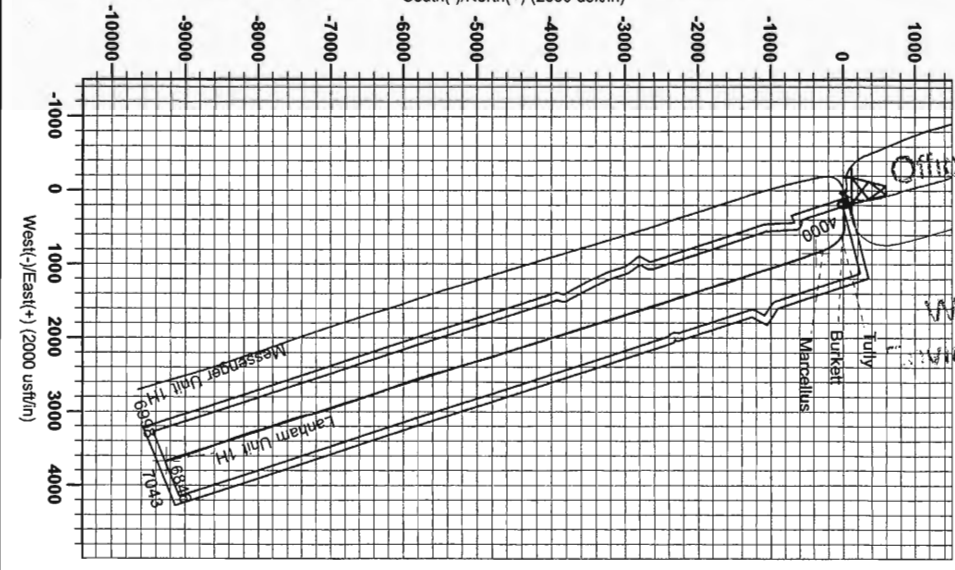
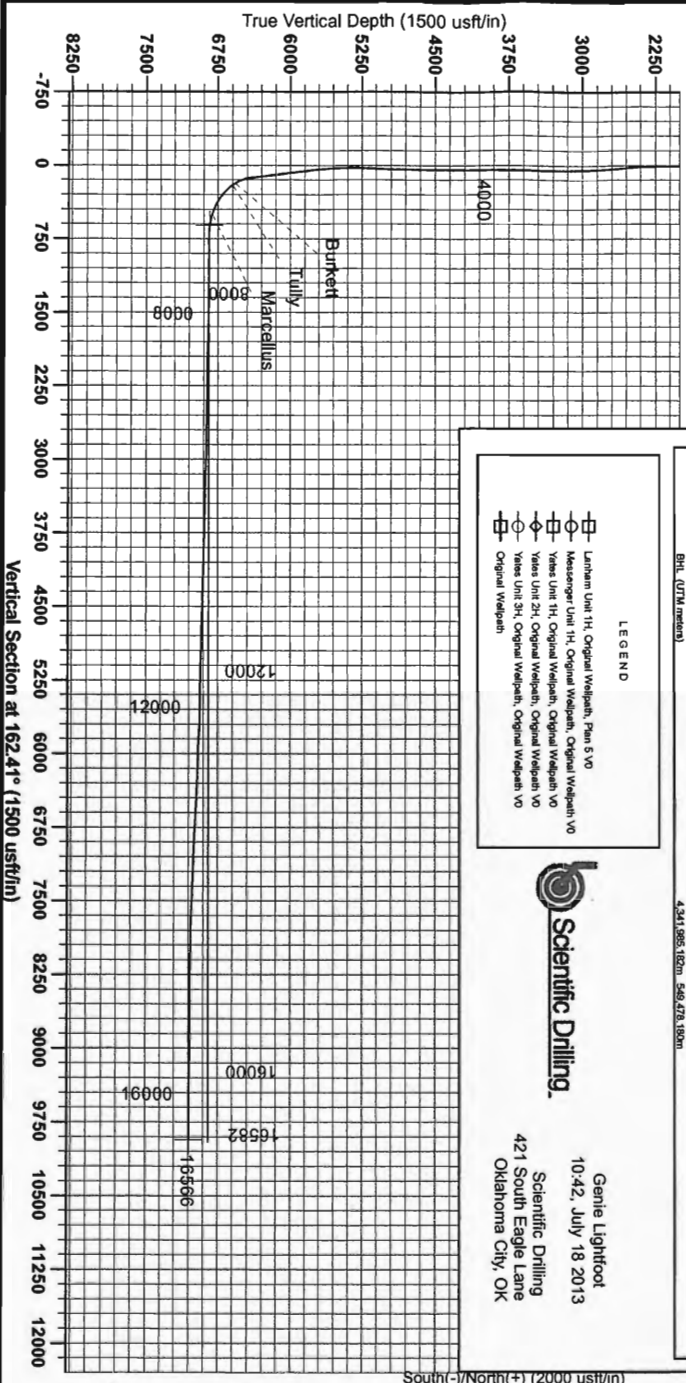
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*Total Water Volume sources may include fresh water, produced water, and/or recycled water
 ** Information is based on the maximum potential for concentration and thus the total may be over 100%
 Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)



Antero Resources
 Lanham Unit 1H
 Harrison County West Virginia
 Northing: 14253890.60
 Easting: 1799034.08
 Original Wellpath



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To convert Magnetic North to Geographical North:
 To convert True North to Geographical North:
 Magnetic North: -9.00°
 True North: -0.32°
 Magnetic Field
 Strength: 52426.1nT
 Dip Angle: 68.89°
 Declination: 10.12°
 Model: IGRF2010

Admitted to O&G North
 Title No. 0-32°
 Magnetic North: -9.00°

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WELL DETAILS: Lanham Unit 1H

| | | | | | |
|-----|-----|-------------|--------------|------------------------------------|------|
| N-S | E-W | Northing | Ground Level | 1189.0 | Spot |
| 0.0 | 0.0 | 14253890.60 | 1799034.08 | 98° 15' 43.52" N 80° 28' 22.822" W | |

PROJECT DETAILS: Harrison County West Virginia

Geoid 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

REFERENCE INFORMATION

Geoid (NG) Reference: Well Lanham Unit 1H, 024 Meter
 Station (OS) Reference: Sta. 16.04, 0.85
 Method: Calculation Method: Minimum Curvature
 Calculation Method: Minimum Curvature

Well Location Coordinates (NAD 83)

| Name | TVD | N-S | E-W | Northing | Easting | Latitude | Longitude |
|--------------------|--------|---------|--------|---------------|-------------|------------------------------------|-----------|
| SHL Lanham Unit 1H | 0.0 | 0.0 | 0.0 | 14253890.60 | 1799034.08 | 98° 15' 43.52" N 80° 28' 22.822" W | |
| Aspen Unit 1H | 7042.7 | -4235.1 | 3073.1 | 14248110.00m | 1799034.08 | 98° 15' 43.52" N 80° 28' 22.822" W | |
| SHL (UTM meters) | | | | 4,344,813.00m | 568,991.32m | | |
| BHL (UTM meters) | | | | 4,341,985.10m | 568,478.10m | | |

LEGEND

- Lanham Unit 1H, Original Wellpath, Plan 5V0
- Messenger Unit 1H, Original Wellpath, Original Wellpath V0
- Yates Unit 1H, Original Wellpath, Original Wellpath V0
- Yates Unit 2H, Original Wellpath, Original Wellpath V0
- Yates Unit 3H, Original Wellpath, Original Wellpath V0
- Original Wellpath



Genie Lightfoot
 10-42, July 18 2013
 Scientific Drilling
 421 South Eagle Lane
 Oklahoma City, OK