

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

API 47 - 017 - 06270 County Doddridge District Grant  
Quad Smithburg 7.5' Pad Name Revival Pad Field/Pool Name \_\_\_\_\_  
Farm name Williams, Larry et al Well Number Milo 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 4,352,793m Easting 526,716m  
Landing Point of Curve Northing 4,353,020.34m Easting 527,027.58m  
Bottom Hole Northing 4,354,936m Easting 526,374m

Elevation (ft) 1,376' 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

Date permit issued 06/28/2013 Date drilling commenced 08/01/2014 Date drilling ceased 09/21/2014  
Date completion activities began 11/12/2014 Date completion activities ceased 02/05/2015  
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 427' Open mine(s) (Y/N) depths No  
Salt water depth(s) ft 1,687' Void(s) encountered (Y/N) depths None  
Coal depth(s) ft None Identified Cavern(s) encountered depths None  
Is coal being mined in area (Y/N) No

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API 47-017 - 06270 Farm name Williams, Larry et al Well number Milo Unit 1H

| CASING STRINGS            | Hole Size       | Casing Size | Depth   | New or Used | Grade wt/ft | Basket Depth(s) | Did cement circulate (Y/N)<br>* Provide details below* |
|---------------------------|-----------------|-------------|---------|-------------|-------------|-----------------|--------------------------------------------------------|
| Conductor                 | 24"             | 20"         | 40'     | New         | 94#; H-40   | N/A             | Yes                                                    |
| Surface                   | 17 1/2"         | 13 3/8"     | 484'    | New         | 48#; H-40   | N/A             | Yes*                                                   |
| Coal                      |                 |             |         |             |             |                 |                                                        |
| Intermediate 1            | 12 1/4"         | 9 5/8"      | 2,569'  | New         | 36#; J-55   | N/A             | Yes                                                    |
| Intermediate 2            |                 |             |         |             |             |                 |                                                        |
| Intermediate 3            |                 |             |         |             |             |                 |                                                        |
| Production                | 8 3/4" & 8 1/2" | 5 1/2"      | 14,537' | New         | 20#; P-110  | N/A             | Yes                                                    |
| Tubing                    |                 | 2 3/8"      | 7,562'  |             | 5.95#; N-80 | N/A             |                                                        |
| Packer type and depth set |                 | N/A         |         |             |             |                 |                                                        |

Comment Details \*Initial surface casing (675 sacks) failed to bring returns to surface. Top-off job (202 sacks) was performed, which was successful in bringing returns to surface.

| CEMENT DATA    | Class/Type of Cement | Number of Sacks                  | Slurry wt (ppg)          | Yield (ft <sup>3</sup> /sks) | Volume (ft <sup>3</sup> ) | Cement Top (MD)                | WOC (hrs) |
|----------------|----------------------|----------------------------------|--------------------------|------------------------------|---------------------------|--------------------------------|-----------|
| Conductor      | Class A              | 100 sx                           | 15.6                     | 1.18                         | 38                        | 0'                             | 8 Hrs.    |
| Surface        | Class A              | 877 sx*                          | 15.2                     | 1.3                          | 336                       | 0'                             | 8 Hrs.    |
| Coal           |                      |                                  |                          |                              |                           |                                |           |
| Intermediate 1 | Class A              | 949 sx                           | 15.6                     | 1.18                         | 805                       | 0'                             | 8 Hrs.    |
| Intermediate 2 |                      |                                  |                          |                              |                           |                                |           |
| Intermediate 3 |                      |                                  |                          |                              |                           |                                |           |
| Production     | Class H              | 1,136 sx (Lead); 1,130 sx (Tail) | 14.5 (Lead); 15.2 (Tail) | 1.3 (Lead); 1.86 (Tail)      | 2,856                     | ~500' into Intermediate Casing | 8 Hrs.    |
| Tubing         |                      |                                  |                          |                              |                           |                                |           |

Drillers TD (ft) 14,537' MD; 7,311' TVD (BHL); 7,318' TVD (Deepest Point Drilled) Loggers TD (ft) 14,483'  
 Deepest formation penetrated Marcellus Plug back to (ft) N/A  
 Plug back procedure N/A

Kick off depth (ft) 6,912'

\*\*This is a subsequent well. Antero only runs wireline logs on one well on a multi-well pad (Mt. Salem Revival Unit 1H, API #47-017-06269). Please reference the wireline logs submitted with Form WR-35 for the Mt. Salem Revival Unit 1H. A Cement Bond Log has been included with this submittal.

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

Well cored  Yes  No Conventional Sidewall Were cuttings collected  Yes  No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING \_\_\_\_\_

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

WAS WELL COMPLETED AS SHOT HOLE  Yes  No DETAILS \_\_\_\_\_

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WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS \_\_\_\_\_

WERE TRACERS USED  Yes  No TYPE OF TRACER(S) USED \_\_\_\_\_

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API 47- 017 - 06270 Farm name Williams, Larry et al Well number Milo Unit 1H

| PRODUCING FORMATION(S) | DEPTHS                  |                        |
|------------------------|-------------------------|------------------------|
| <u>Marcellus</u>       | <u>7,196' (top)</u> TVD | <u>7,623' (top)</u> MD |
| _____                  | _____                   | _____                  |
| _____                  | _____                   | _____                  |
| _____                  | _____                   | _____                  |

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface 3,550 psi Bottom Hole \_\_\_\_\_ psi DURATION OF TEST \_\_\_\_\_ hrs

OPEN FLOW Gas 9,970 mcfpd Oil 3 bpd NGL \_\_\_\_\_ bpd Water 7 bpd GAS MEASURED BY  Estimated  Orifice  Pilot

| LITHOLOGY/<br>FORMATION                | TOP<br>DEPTH IN FT<br>NAME TVD | BOTTOM<br>DEPTH IN FT<br>TVD | TOP<br>DEPTH IN FT<br>MD | BOTTOM<br>DEPTH IN FT<br>MD | DESCRIBE ROCK TYPE AND RECORD QUANTITY AND<br>TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H <sub>2</sub> S, ETC) |
|----------------------------------------|--------------------------------|------------------------------|--------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------|
|                                        | <u>0</u>                       |                              | <u>0</u>                 |                             |                                                                                                                  |
|                                        |                                |                              |                          |                             |                                                                                                                  |
|                                        |                                |                              |                          |                             |                                                                                                                  |
|                                        |                                |                              |                          |                             |                                                                                                                  |
| <b>* PLEASE SEE ATTACHED EXHIBIT 3</b> |                                |                              |                          |                             |                                                                                                                  |
|                                        |                                |                              |                          |                             |                                                                                                                  |
|                                        |                                |                              |                          |                             |                                                                                                                  |
|                                        |                                |                              |                          |                             |                                                                                                                  |
|                                        |                                |                              |                          |                             |                                                                                                                  |
|                                        |                                |                              |                          |                             |                                                                                                                  |
|                                        |                                |                              |                          |                             |                                                                                                                  |

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 Baker Hughes  
Address 837 Philippi plke City Clarksburg State WV Zip 26301

Please insert additional pages as applicable.

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Completed by Megan Darling Telephone 303-357-7230  
Signature Megan C Darling Title Permitting Agent Date 08/14/2015 **AUG 17 2015**

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

**09/25/2015**

**API 47-017-06270 Farm Name Williams, Larry et al Well Number Milo Unit 1H**

**EXHIBIT 1**

| Stage No. | Perforation Date | Perforated from MD ft. | Perforated to MD ft. | Number of Perforations | Formations |
|-----------|------------------|------------------------|----------------------|------------------------|------------|
| 1         | 12-Nov-14        | 14,276                 | 14,445               | 60                     | Marcellus  |
| 2         | 3-Jan-15         | 14,076                 | 14,245               | 60                     | Marcellus  |
| 3         | 3-Jan-15         | 13,876                 | 14,045               | 60                     | Marcellus  |
| 4         | 3-Jan-15         | 13,676                 | 13,844               | 60                     | Marcellus  |
| 5         | 4-Jan-15         | 13,475                 | 13,644               | 60                     | Marcellus  |
| 6         | 4-Jan-15         | 13,275                 | 13,444               | 60                     | Marcellus  |
| 7         | 4-Jan-15         | 13,075                 | 13,244               | 60                     | Marcellus  |
| 8         | 5-Jan-15         | 12,874                 | 13,043               | 60                     | Marcellus  |
| 9         | 5-Jan-15         | 12,674                 | 12,843               | 60                     | Marcellus  |
| 10        | 5-Jan-15         | 12,474                 | 12,643               | 60                     | Marcellus  |
| 11        | 6-Jan-15         | 12,273                 | 12,442               | 60                     | Marcellus  |
| 12        | 6-Jan-15         | 12,073                 | 12,242               | 60                     | Marcellus  |
| 13        | 6-Jan-15         | 11,873                 | 12,042               | 60                     | Marcellus  |
| 14        | 8-Jan-15         | 11,672                 | 11,841               | 60                     | Marcellus  |
| 15        | 8-Jan-15         | 11,472                 | 11,641               | 60                     | Marcellus  |
| 16        | 9-Jan-15         | 11,272                 | 11,441               | 60                     | Marcellus  |
| 17        | 9-Jan-15         | 11,072                 | 11,240               | 60                     | Marcellus  |
| 18        | 9-Jan-15         | 10,871                 | 11,040               | 60                     | Marcellus  |
| 19        | 10-Jan-15        | 10,671                 | 10,840               | 60                     | Marcellus  |
| 20        | 10-Jan-15        | 10,471                 | 10,640               | 60                     | Marcellus  |
| 21        | 10-Jan-15        | 10,270                 | 10,439               | 60                     | Marcellus  |
| 22        | 10-Jan-15        | 10,070                 | 10,239               | 60                     | Marcellus  |
| 23        | 11-Jan-15        | 9,870                  | 10,039               | 60                     | Marcellus  |
| 24        | 11-Jan-15        | 9,669                  | 9,838                | 60                     | Marcellus  |
| 25        | 11-Jan-15        | 9,469                  | 9,638                | 60                     | Marcellus  |
| 26        | 11-Jan-15        | 9,269                  | 9,438                | 60                     | Marcellus  |
| 27        | 12-Jan-15        | 9,068                  | 9,237                | 60                     | Marcellus  |
| 28        | 12-Jan-15        | 8,868                  | 9,037                | 60                     | Marcellus  |
| 29        | 12-Jan-15        | 8,668                  | 8,837                | 60                     | Marcellus  |
| 30        | 13-Jan-15        | 8,467                  | 8,636                | 60                     | Marcellus  |
| 31        | 13-Jan-15        | 8,267                  | 8,436                | 60                     | Marcellus  |
| 32        | 13-Jan-15        | 8,067                  | 8,236                | 60                     | Marcellus  |
| 33        | 13-Jan-15        | 7,867                  | 8,035                | 60                     | Marcellus  |
| 34        | 14-Jan-15        | 7,666                  | 7,835                | 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 (bbbls) | Amount of Nitrogen/ other (units) |
|-----------|-------------------|---------------|------------------------------|------------------------------|------------|--------------------------|-------------------------|-----------------------------------|
| 1         | 2-Jan-15          | 65.0          | 6,832                        | 0                            | 5,186      | 79,500                   | 6,769                   | N/A                               |
| 2         | 3-Jan-15          | 64.0          | 6,957                        | 5,836                        | 5,112      | 247,493                  | 6,600                   | N/A                               |
| 3         | 3-Jan-15          | 67.0          | 7,171                        | 5,883                        | 5,345      | 247,181                  | 6,869                   | N/A                               |
| 4         | 3-Jan-15          | 66.0          | 7,056                        | 5,897                        | 4,949      | 249,453                  | 6,580                   | N/A                               |
| 5         | 4-Jan-15          | 65.0          | 6,912                        | 5,805                        | 4,992      | 243,605                  | 6,565                   | N/A                               |
| 6         | 4-Jan-15          | 70.4          | 7,136                        | 5,623                        | 4,862      | 243,928                  | 6,506                   | N/A                               |
| 7         | 4-Jan-15          | 69.0          | 7,092                        | 5,719                        | 5,335      | 243,856                  | 6,424                   | N/A                               |
| 8         | 5-Jan-15          | 65.0          | 6,747                        | 5,564                        | 4,674      | 247,641                  | 6,640                   | N/A                               |
| 9         | 5-Jan-15          | 72.5          | 7,169                        | 5,731                        | 5,108      | 244,699                  | 6,454                   | N/A                               |
| 10        | 5-Jan-15          | 72.0          | 7,064                        | 5,630                        | 4,893      | 244,988                  | 6,616                   | N/A                               |
| 11        | 6-Jan-15          | 64.0          | 6,777                        | 5,683                        | 4,431      | 245,027                  | 6,597                   | N/A                               |
| 12        | 6-Jan-15          | 65.2          | 6,866                        | 5,711                        | 4,785      | 248,538                  | 6,364                   | N/A                               |
| 13        | 6-Jan-15          | 65.6          | 6,898                        | 5,658                        | 4,934      | 245,929                  | 6,546                   | N/A                               |
| 14        | 8-Jan-15          | 64.0          | 6,750                        | 5,548                        | 5,040      | 243,179                  | 6,704                   | N/A                               |
| 15        | 8-Jan-15          | 64.0          | 6,720                        | 5,495                        | 5,050      | 243,576                  | 6,882                   | N/A                               |
| 16        | 9-Jan-15          | 64.0          | 6,692                        | 5,724                        | 5,116      | 247,931                  | 6,771                   | N/A                               |
| 17        | 9-Jan-15          | 62.9          | 6,630                        | 5,511                        | 4,550      | 246,201                  | 6,547                   | N/A                               |
| 18        | 9-Jan-15          | 64.4          | 6,857                        | 5,538                        | 4,964      | 244,812                  | 6,459                   | N/A                               |
| 19        | 10-Jan-15         | 63.0          | 6,719                        | 5,583                        | 5,123      | 245,896                  | 6,489                   | N/A                               |
| 20        | 10-Jan-15         | 57.4          | 6,533                        | 5,599                        | 5,308      | 244,947                  | 6,545                   | N/A                               |
| 21        | 10-Jan-15         | 63.3          | 6,680                        | 5,402                        | 5,302      | 245,471                  | 6,313                   | N/A                               |
| 22        | 10-Jan-15         | 63.0          | 6,498                        | 5,409                        | 5,074      | 245,472                  | 6,460                   | N/A                               |
| 23        | 11-Jan-15         | 63.0          | 6,645                        | 5,590                        | 4,832      | 245,472                  | 6,400                   | N/A                               |
| 24        | 11-Jan-15         | 64.7          | 6,723                        | 5,317                        | 5,101      | 245,600                  | 6,320                   | N/A                               |
| 25        | 11-Jan-15         | 64.5          | 6,471                        | 5,413                        | 5,423      | 244,081                  | 6,120                   | N/A                               |
| 26        | 11-Jan-15         | 62.0          | 6,322                        | 5,487                        | 5,328      | 243,377                  | 6,171                   | N/A                               |
| 27        | 12-Jan-15         | 59.0          | 6,352                        | 5,479                        | 5,103      | 242,291                  | 6,082                   | N/A                               |
| 28        | 12-Jan-15         | 64.0          | 6,502                        | 5,445                        | 5,176      | 244,803                  | 6,068                   | N/A                               |
| 29        | 12-Jan-15         | 66.0          | 6,720                        | 5,504                        | 5,480      | 243,003                  | 6,068                   | N/A                               |
| 30        | 13-Jan-15         | 62.0          | 6,378                        | 5,644                        | 5,614      | 234,160                  | 6,691                   | N/A                               |
| 31        | 13-Jan-15         | 68.0          | 6,241                        | 5,446                        | 5,083      | 246,044                  | 6,386                   | N/A                               |
| 32        | 13-Jan-15         | 65.0          | 6,237                        | 5,353                        | 5,434      | 247,896                  | 6,120                   | N/A                               |
| 33        | 13-Jan-15         | 65.0          | 6,045                        | 5,271                        | 5,419      | 244,906                  | 6,227                   | N/A                               |
| 34        | 14-Jan-15         | 66.0          | 6,050                        | 5,755                        | 4,343      | 245,762                  | 6,138                   | N/A                               |
|           | AVG=              | 64.9          | 6,689                        | 5,419                        | 5,073      | 8,166,718                | 219,491                 | 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           | 427'            | N/A                | 427'           | N/A               |
| Shale                 | 0               | 337                | 0              | 337               |
| Siltstone/ Sandstone  | 337             | 597                | 337            | 597               |
| Shale                 | 597             | 707                | 597            | 707               |
| Sandstone             | 707             | 837                | 707            | 837               |
| Siltstone/ Shale      | 837             | 917                | 837            | 917               |
| Shale                 | 917             | 1,727              | 917            | 1,727             |
| Sandstone             | 1,727           | 1,787              | 1,727          | 1,787             |
| Shale                 | 1,787           | 1,907              | 1,787          | 1,907             |
| Sandstone/ Trace Coal | 1,907           | 1,987              | 1,907          | 1,987             |
| Sandstone             | 1,987           | 2,127              | 1,987          | 2,127             |
| Sandstone/ Trace Coal | 2,127           | 2,147              | 2,127          | 2,147             |
| Shale/ Sandstone      | 2,147           | 2,237              | 2,147          | 2,237             |
| Big Lime              | 2,237           | 2,335              | 2,237          | 2,335             |
| Big Injun             | 2,335           | 2,794              | 2,335          | 2,794             |
| Gantz Sand            | 2,794           | 2,909              | 2,794          | 2,909             |
| Fifty Foot Sandstone  | 2,909           | 3,007              | 2,909          | 3,007             |
| Gordon                | 3,007           | 3,351              | 3,007          | 3,351             |
| Fifth Sandstone       | 3,351           | 3,403              | 3,351          | 3,403             |
| Bayard                | 3,403           | 3,746              | 3,403          | 3,746             |
| Warren                | 3,746           | 4,121              | 3,746          | 4,121             |
| Speechley             | 4,121           | 4,355              | 4,121          | 4,355             |
| Baltown               | 4,355           | 4,883              | 4,355          | 4,891             |
| Bradford              | 4,883           | 5,348              | 4,891          | 5,392             |
| Benson                | 5,348           | 5,575              | 5,392          | 5,647             |
| Alexander             | 5,575           | 5,738              | 5,647          | 5,832             |
| Elk                   | 5,738           | 6,285              | 5,832          | 6,439             |
| Rhinestreet           | 6,285           | 6,592              | 6,439          | 6,765             |
| Sycamore              | 6,569           | 6,790              | 6,742          | 6,981             |
| Middlesex             | 6,790           | 7,083              | 6,981          | 7,381             |
| Burkett               | 7,083           | 7,112              | 7,381          | 7,428             |
| Tully                 | 7,112           | 7,196              | 7,428          | 7,623             |
| Marcellus             | 7,196           | N/A                | 7,623          | N/A               |

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Quad Smithburg 7.5' Pad Name Revival Pad Field/Pool Name \_\_\_\_\_  
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Landing Point of Curve Northing 4,353,020.34m Easting 527,027.58m  
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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

Date permit issued 06/28/2013 Date drilling commenced 08/01/2014 Date drilling ceased 09/21/2014  
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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 427' Open mine(s) (Y/N) depths No  
Salt water depth(s) ft 1,687' Void(s) encountered (Y/N) depths None  
Coal depth(s) ft None Identified Cavern(s) encountered depths None  
Is coal being mined in area (Y/N) No

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Reviewed by:  
[Signature]  
09/25/2015



# Hydraulic Fracturing Fluid Product Component Information Disclosure

|                                |                              |
|--------------------------------|------------------------------|
| Job Start Date:                | 1/21/2015                    |
| Job End Date:                  | 1/14/2015                    |
| State:                         | West Virginia                |
| County:                        | Doddridge                    |
| API Number:                    | 47-017-06270-00-00           |
| Operator Name:                 | Antero Resources Corporation |
| Well Name and Number:          | Milo Unit 1H                 |
| Longitude:                     | -80.69005300                 |
| Latitude:                      | 39.32413600                  |
| Datum:                         | NAD83                        |
| Federal/Tribal Well:           | NO                           |
| True Vertical Depth:           | 7,318                        |
| Total Base Water Volume (gal): | 9,767,268                    |
| 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                 | Operator     | Carrier          | Water                                      | 7732-18-5                                | 100.00000                                                  | 90.47000                                                   |                   |
| Sand, White, 40/70    | Baker Hughes | Proppant         | MSDS and Non-MSDS Ingredients Listed Below | N/A                                      |                                                            | 5.07581                                                    |                   |
| Sand, White, 20/40    | Baker Hughes | Proppant         | MSDS and Non-MSDS Ingredients Listed Below | N/A                                      |                                                            | 3.31412                                                    |                   |
| Sand, White, 100 mesh | Baker Hughes | Proppant         | MSDS and Non-MSDS Ingredients Listed Below | N/A                                      |                                                            | 0.73900                                                    |                   |
| HCl, 10.1 - 15%       | Baker Hughes | Acidizing        | MSDS and Non-MSDS Ingredients Listed Below | N/A                                      |                                                            | 0.22209                                                    | SmartCare Product |
| FRW-18                | Baker Hughes | Friction Reducer | MSDS and Non-MSDS Ingredients Listed Below | N/A                                      |                                                            | 0.06458                                                    | SmartCare Product |
| GW-3                  | Baker Hughes | Gelling Agent    | MSDS and Non-MSDS Ingredients Listed Below | N/A                                      |                                                            | 0.04003                                                    |                   |
| Calcium Chloride      | Baker Hughes | Salts            | MSDS and Non-MSDS Ingredients Listed Below | N/A                                      |                                                            | 0.01913                                                    |                   |

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| Scaletrol 720                                                                                                                                      | Baker Hughes | Scale Inhibitor           | MSDS and Non-MSDS<br>Ingredients Listed Below                 | N/A        |           |  |         |  |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------------------|---------------------------------------------------------------|------------|-----------|--|---------|--|--|--|
| Enzyme G-NE                                                                                                                                        | Baker Hughes | Breaker                   | MSDS and Non-MSDS<br>Ingredients Listed Below                 | N/A        |           |  |         |  |  |  |
| Alpha 1427                                                                                                                                         | Baker Hughes | Bioocide                  | MSDS and Non-MSDS<br>Ingredients Listed Below                 | N/A        |           |  |         |  |  |  |
| Ferrotrol 300L                                                                                                                                     | Baker Hughes | Iron Control              | MSDS and Non-MSDS<br>Ingredients Listed Below                 | N/A        |           |  |         |  |  |  |
| GW-3LDF                                                                                                                                            | Baker Hughes | Gelling Agent             | MSDS and Non-MSDS<br>Ingredients Listed Below                 | N/A        |           |  |         |  |  |  |
| CI-39                                                                                                                                              | Baker Hughes | Corrosion Inhibitor       | MSDS and Non-MSDS<br>Ingredients Listed Below                 | N/A        |           |  |         |  |  |  |
| 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. |              |                           |                                                               |            |           |  |         |  |  |  |
| Ingredients in Additive<br>(s) (MSDS and non-<br>MSDS)                                                                                             | Baker Hughes | See Trade Name(s)<br>List |                                                               |            |           |  |         |  |  |  |
|                                                                                                                                                    |              |                           | Crystalline Silica (Quartz)                                   | 14808-60-7 | 100.00000 |  | 9.12751 |  |  |  |
|                                                                                                                                                    |              |                           | Water                                                         | 7732-18-5  | 95.00000  |  | 0.24137 |  |  |  |
|                                                                                                                                                    |              |                           | Guar Gum                                                      | 9000-30-0  | 100.00000 |  | 0.04030 |  |  |  |
|                                                                                                                                                    |              |                           | Hydrochloric Acid                                             | 7647-01-0  | 15.00000  |  | 0.03331 |  |  |  |
|                                                                                                                                                    |              |                           | Calcium Chloride                                              | 10043-52-4 | 100.00000 |  | 0.01995 |  |  |  |
|                                                                                                                                                    |              |                           | Poly (acrylamide-co-acrylic acid)<br>partial sodium salt      | 82649-23-4 | 30.00000  |  | 0.01937 |  |  |  |
|                                                                                                                                                    |              |                           | Hydrotreated Light Distillate                                 | 64742-47-8 | 30.00000  |  | 0.01937 |  |  |  |
|                                                                                                                                                    |              |                           | Ethylene Glycol                                               | 107-21-1   | 45.00000  |  | 0.00739 |  |  |  |
|                                                                                                                                                    |              |                           | Sodium Chloride                                               | 7647-14-5  | 5.00000   |  | 0.00435 |  |  |  |
|                                                                                                                                                    |              |                           | 2-Propenoic, Polymer with<br>Sodium Phosphate, Sodium<br>Salt | 71050-62-9 | 20.00000  |  | 0.00328 |  |  |  |
|                                                                                                                                                    |              |                           | Glutaraldehyde                                                | 111-30-8   | 30.00000  |  | 0.00279 |  |  |  |
|                                                                                                                                                    |              |                           | Ammonium Chloride                                             | 12125-02-9 | 3.00000   |  | 0.00194 |  |  |  |
|                                                                                                                                                    |              |                           | Oleamide DEA                                                  | 93-83-4    | 2.00000   |  | 0.00129 |  |  |  |
|                                                                                                                                                    |              |                           | Alcohols, C12-16, ethoxylated                                 | 68651-12-2 | 2.00000   |  | 0.00129 |  |  |  |
|                                                                                                                                                    |              |                           | Potassium Chloride                                            | 7447-40-7  | 5.00000   |  | 0.00112 |  |  |  |
|                                                                                                                                                    |              |                           | Didecyl Dimethyl Ammonium<br>Chloride                         | 7173-51-5  | 10.00000  |  | 0.00093 |  |  |  |
|                                                                                                                                                    |              |                           | Citric Acid                                                   | 77-92-9    | 60.00000  |  | 0.00090 |  |  |  |
|                                                                                                                                                    |              |                           | Hemicellulase Enzyme<br>Concentrate                           | 9025-56-3  | 5.00000   |  | 0.00064 |  |  |  |
|                                                                                                                                                    |              |                           | Quaternary Ammonium<br>Compound                               | 68424-85-1 | 5.00000   |  | 0.00049 |  |  |  |
|                                                                                                                                                    |              |                           | Ethanol                                                       | 64-17-5    | 5.00000   |  | 0.00047 |  |  |  |
|                                                                                                                                                    |              |                           | Polyoxyethylene Sorbitan<br>Monoolate                         | 9005-65-6  | 0.50000   |  | 0.00032 |  |  |  |
|                                                                                                                                                    |              |                           | Sorbitan Monoolate                                            | 1338-43-8  | 0.50000   |  | 0.00032 |  |  |  |
|                                                                                                                                                    |              |                           | Mineral Oil                                                   | 8042-47-5  | 70.00000  |  | 0.00032 |  |  |  |

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|  |  |  |  |                                                           |            |          |         |
|--|--|--|--|-----------------------------------------------------------|------------|----------|---------|
|  |  |  |  | Oxyalkylated Fatty Acid                                   | 61791-002  | 40.00000 | 0.00018 |
|  |  |  |  | Petroleum Distillates                                     | 64742-47-8 | 30.00000 | 0.00014 |
|  |  |  |  | Paraffinic Petroleum Distillate                           | 64742-55-8 | 30.00000 | 0.00014 |
|  |  |  |  | Formic Acid                                               | 64-18-6    | 30.00000 | 0.00013 |
|  |  |  |  | Aldehyde                                                  | 104-55-2   | 30.00000 | 0.00013 |
|  |  |  |  | Tar Bases, Quinoline Derivs., Benzyl Chloride-Quaternized | 72480-70-7 | 30.00000 | 0.00013 |
|  |  |  |  | Isotridecanol, ethoxylated                                | 9043-30-5  | 5.00000  | 0.00002 |
|  |  |  |  | 1-butoxy-2-propanol                                       | 5131-66-8  | 5.00000  | 0.00002 |
|  |  |  |  | Crystalline Silica: Quartz                                | 14808-60-7 | 5.00000  | 0.00002 |
|  |  |  |  | Isopropanol                                               | 67-63-0    | 5.00000  | 0.00002 |
|  |  |  |  | Sulfurized polyolefin                                     | 68037-13-8 | 5.00000  | 0.00002 |
|  |  |  |  | Potassium Iodide                                          | 7681-11-0  | 2.00000  | 0.00001 |
|  |  |  |  | Polyaklylene                                              | 7756-94-7  | 1.00000  | 0.00000 |
|  |  |  |  | Potassium Acetate                                         | 127-08-2   | 0.50000  | 0.00000 |
|  |  |  |  | 2-butoxy-1-propanol                                       | 15821-83-7 | 0.10000  | 0.00000 |

\* 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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LATITUDE 39°20'00"

6,665'

7,761' TO BOTTOM HOLE

LATITUDE 39°22'30"

LONGITUDE 80°40'00"

LONGITUDE 80°40'00"

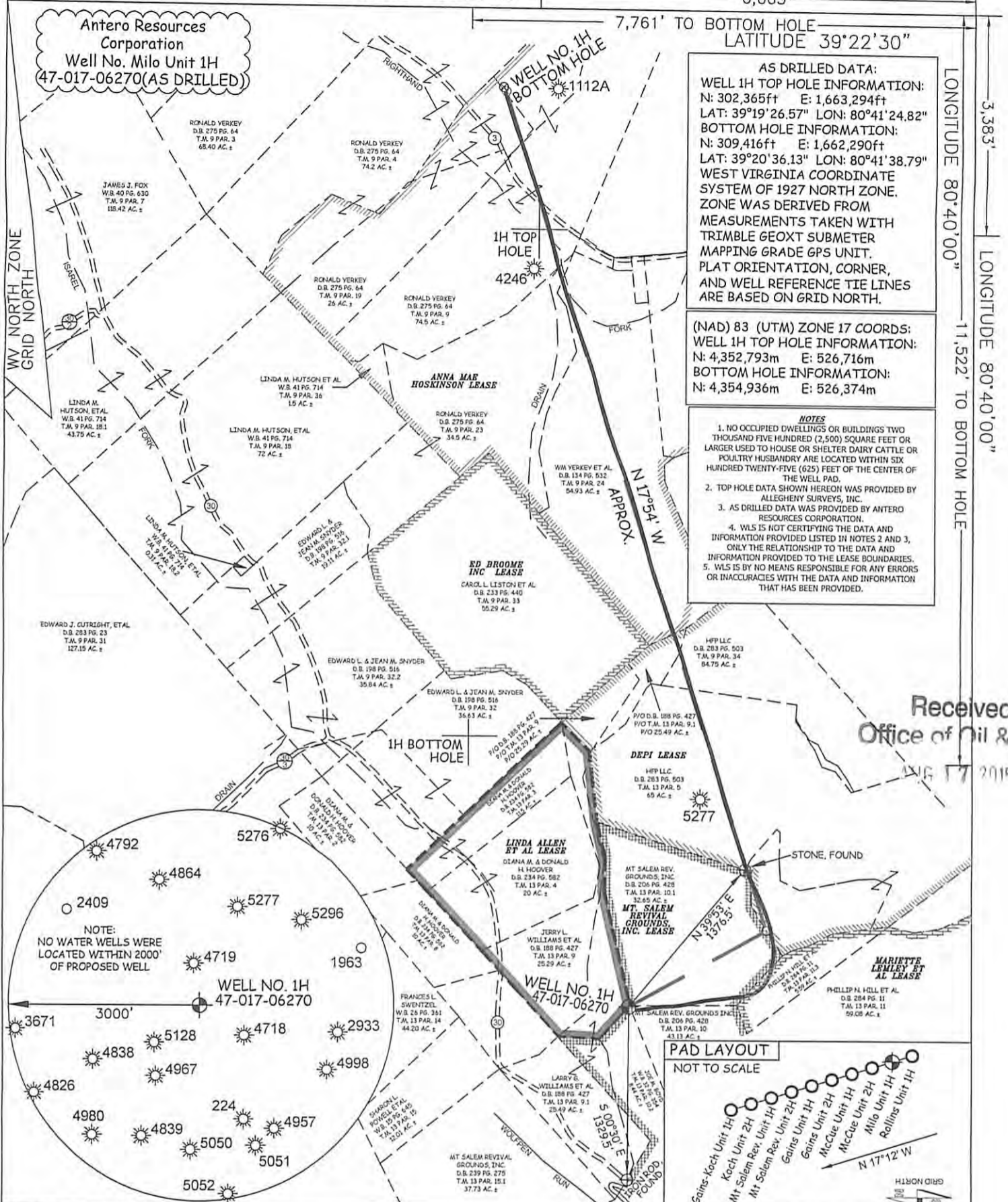
LONGITUDE 80°40'00"

Antero Resources Corporation  
Well No. Milo Unit 1H  
47-017-06270 (AS DRILLED)

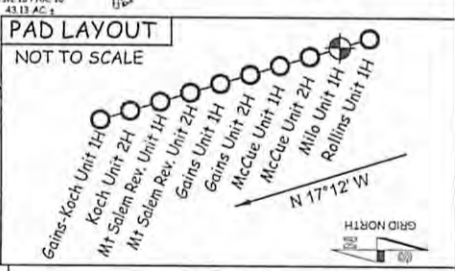
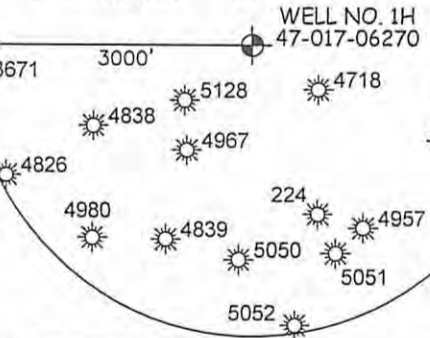
AS DRILLED DATA:  
WELL 1H TOP HOLE INFORMATION:  
N: 302,365ft E: 1,663,294ft  
LAT: 39°19'26.57" LON: 80°41'24.82"  
BOTTOM HOLE INFORMATION:  
N: 309,416ft E: 1,662,290ft  
LAT: 39°20'36.13" LON: 80°41'38.79"  
WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE GEOXT SUBMETER MAPPING GRADE GPS UNIT. PLAT ORIENTATION, CORNER, AND WELL REFERENCE TIE LINES ARE BASED ON GRID NORTH.

(NAD) 83 (UTM) ZONE 17 COORDS:  
WELL 1H TOP HOLE INFORMATION:  
N: 4,352,793m E: 526,716m  
BOTTOM HOLE INFORMATION:  
N: 4,354,936m E: 526,374m

- NOTES
1. NO OCCUPIED DWELLINGS OR BUILDINGS TWO THOUSAND FIVE HUNDRED (2,500) SQUARE FEET OR LARGER USED TO HOUSE OR SHELTER DAIRY CATTLE OR POULTRY HUSBANDRY ARE LOCATED WITHIN SIX HUNDRED TWENTY-FIVE (625) FEET OF THE CENTER OF THE WELL PAD.
  2. TOP HOLE DATA SHOWN HEREON WAS PROVIDED BY ALLEGHENY SURVEYS, INC.
  3. AS DRILLED DATA WAS PROVIDED BY ANTERO RESOURCES CORPORATION.
  4. WLS IS NOT CERTIFYING THE DATA AND INFORMATION PROVIDED LISTED IN NOTES 2 AND 3, ONLY THE RELATIONSHIP TO THE DATA AND INFORMATION PROVIDED TO THE LEASE BOUNDARIES.
  5. WLS IS BY NO MEANS RESPONSIBLE FOR ANY ERRORS OR INACCURACIES WITH THE DATA AND INFORMATION THAT HAS BEEN PROVIDED.



NOTE:  
NO WATER WELLS WERE LOCATED WITHIN 2000' OF PROPOSED WELL



JOB # 12-133WA  
DRAWING # MILO1HAD  
SCALE 1" = 1000'  
MINIMUM DEGREE OF ACCURACY SUBMETER  
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS



STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

WILLOW LAND SURVEYING PLLC  
220 MASONIC AVE. PENNSBORO WEST VIRGINIA 26415

LEGEND  
— Surface Owner Boundary Lines +/-  
- - - Interior Surface Tracts +/-  
- - - Existing Fence  
⊕ Found monument, as noted  
⊙ Proposed Well Path  
⊗ As Drilled Well Path

DATE 04/22/15  
OPERATOR'S WELL # MILO UNIT #1H

API WELL # 47 - 017 - 06270  
STATE COUNTY PERMIT

QUADRANGLE SMITHBURG 7.5' DISTRICT GRANT COUNTY **09/26/2015**  
SURFACE OWNER LARRY WILLIAMS ET AL ACREAGE 25.49 ACRES +/-  
OIL & GAS ROYALTY OWNER LINDA ALLEN ET AL; MT. SALEM REVIVAL GROUNDS, INC.; LEASE ACREAGE 35.11 ACRES +/-; 72.7 ACRES +/-; MARIETTE LEMLEY ET AL; DEPI; ANNA MAE HOSKINSON 66.87 ACRES +/-; 137 ACRES +/-; 214 ACRES +/-

PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE   
PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)  AS DRILLED  PLUG & ABANDON  CLEAN OUT & REPLUG   
TARGET FORMATION MARCELLUS ESTIMATED DEPTH 7,310' TVD 14,537' MD

WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER  
ADDRESS 1615 WYNKOOP STREET ADDRESS 5400 D BIG TYLER ROAD  
FORM WW-6 DENVER, CO 80202 CHARLESTON, WV 25313

COUNTY NAME PERMIT

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