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JUL 27 2015

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

API 47-017-06474 County Doddridge District Central
Quad Pennsboro 7.5' Pad Name Alvadore Field/Pool Name ---
Farm name McCloy, Alvadore, Jr., et ux Well Number Leason Run Unit 1H
Operator (as registered with the OOG) Antero Resources Corporation
Address 1615 Wynkoop St. 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 4347126m Easting 510128m
Landing Point of Curve Northing 4346744.72m Easting 510057.51m
Bottom Hole Northing 4344935m Easting 510920m

Elevation (ft) 1057' 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 5/1/2014 Date drilling commenced 6/15/2014 Date drilling ceased 11/13/2014
Date completion activities began 12/7/2014 Date completion activities ceased 2/26/2015
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 332' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 1546', 1571' Void(s) encountered (Y/N) depths No
Coal depth(s) ft None Identified Cavern(s) encountered (Y/N) depths No
Is coal being mined in area (Y/N) No

Reviewed by: _____

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WV GEOLOGICAL SURVEY
MORGANTOWN, WV

WR-35
Rev. 8/23/13

Page ___ of ___

API 47-017 - 06474 Farm name McCloy, Alvadore, Jr., et ux Well number Leason Run 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 | 28" | 20" | 40' | New | 106.5# K-55 | N/A | Y |
| Surface | 17- 1/2" | 13- 3/8" | 444' | New | 48# H-40 | N/A | Y |
| Coal | | | | | | | |
| Intermediate 1 | 12-1/4" | 9-5/8" | 2506' | New | 36# J-55 | N/A | Y |
| Intermediate 2 | | | | | | | |
| Intermediate 3 | | | | | | | |
| Production | 8-3/4" & 8-1/2" | 5-1/2" | 14264' | New | 20# P-110 | N/A | Y |
| Tubing | | 2-3/8" | 6724' | | 5.95# N-80 | N/A | |
| 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 | 195 sx | 15.6 | 1.18 | 38 | 0' | 8 Hrs. |
| Surface | Class A | 590 sx | 15.6 | 1.18 | 308 | 0' | 8 Hrs. |
| Coal | | | | | | | |
| Intermediate 1 | Class A | 921 sx | 15.6 | 1.18 | 785 | 0' | 8 Hrs. |
| Intermediate 2 | | | | | | | |
| Intermediate 3 | | | | | | | |
| Production | Class H | 850 sx (Lead) 1250 sx (Tail) | 14.5 Lead 15.2 Tail | 1.30 Lead 1.86 Tail | 2808 | -500' into Intermediate Casing | 8 Hrs. |
| Tubing | | | | | | | |

Drillers TD (ft) 14264' MD, 6589' TVD Loggers TD (ft) 14214'

Deepest formation penetrated Marcellus Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 5797'

** This is a subsequent well. Antero only runs wireline logs on one well on a multi-well pad (Hudkins Unit 1H API #47-017-06415). Please reference the wireline logs submitted with Form WR-35 for Hudkins Unit 1H. 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 _____

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 _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

API 47- 017 - 06474 Farm name McCloy, Alvadore, Jr., et ux Well number Leason Run Unit 1H

| <u>PRODUCING FORMATION(S)</u> | <u>DEPTHS</u> | |
|-------------------------------|------------------------|-----------------------|
| <u>Marcellus</u> | <u>6425' (TOP)</u> TVD | <u>6812' (TOP)</u> MD |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

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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 2592 mcfpd Oil 4 bpd NGL -- bpd Water 3 bpd GAS MEASURED BY Estimated Orifice Pilot

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

Please insert additional pages as applicable.

Drilling Contractor Precision Drilling Company, LP
Address 2640 Reach Rd. City Williamsport State PA Zip 17701

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 Pike City Clarksburg State WV Zip 26301

Please insert additional pages as applicable.

Completed by Kara Quackenbush Telephone 303-357-7233
Signature [Signature] Title Permitting Agent Date 7/17/2015

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API 47-017-06474 Farm Name McCloy, Alvadore, Jr., et ux Well Number Leason Run Unit 1H

EXHIBIT 1

| Stage No. | Perforation Date | Perforated from MD ft. | Perforated to MD ft. | Number of Perforations | Formations |
|-----------|------------------|------------------------|----------------------|------------------------|------------|
| 1 | 7-Dec-14 | 14,005 | 14,173 | 60 | Marcellus |
| 2 | 19-Jan-15 | 13,807 | 13,974 | 60 | Marcellus |
| 3 | 20-Jan-15 | 13,608 | 13,776 | 60 | Marcellus |
| 4 | 21-Jan-15 | 13,409 | 13,577 | 60 | Marcellus |
| 5 | 22-Jan-15 | 13,211 | 13,378 | 60 | Marcellus |
| 6 | 22-Jan-15 | 13,012 | 13,179 | 60 | Marcellus |
| 7 | 22-Jan-15 | 12,813 | 12,981 | 60 | Marcellus |
| 8 | 23-Jan-15 | 12,614 | 12,782 | 60 | Marcellus |
| 9 | 23-Jan-15 | 12,416 | 12,583 | 60 | Marcellus |
| 10 | 24-Jan-15 | 12,217 | 12,385 | 60 | Marcellus |
| 11 | 24-Jan-15 | 12,018 | 12,186 | 60 | Marcellus |
| 12 | 25-Jan-15 | 11,820 | 11,987 | 60 | Marcellus |
| 13 | 25-Jan-15 | 11,621 | 11,789 | 60 | Marcellus |
| 14 | 26-Jan-15 | 11,422 | 11,590 | 60 | Marcellus |
| 15 | 26-Jan-15 | 11,223 | 11,391 | 60 | Marcellus |
| 16 | 27-Jan-15 | 11,025 | 11,192 | 60 | Marcellus |
| 17 | 27-Jan-15 | 10,826 | 10,994 | 60 | Marcellus |
| 18 | 27-Jan-15 | 10,627 | 10,795 | 60 | Marcellus |
| 19 | 28-Jan-15 | 10,429 | 10,596 | 60 | Marcellus |
| 20 | 28-Jan-15 | 10,230 | 10,398 | 60 | Marcellus |
| 21 | 29-Jan-15 | 10,031 | 10,199 | 60 | Marcellus |
| 22 | 29-Jan-15 | 9,833 | 10,000 | 60 | Marcellus |
| 23 | 30-Jan-15 | 9,634 | 9,801 | 60 | Marcellus |
| 24 | 30-Jan-15 | 9,435 | 9,603 | 60 | Marcellus |
| 25 | 30-Jan-15 | 9,236 | 9,404 | 60 | Marcellus |
| 26 | 31-Jan-15 | 9,038 | 9,205 | 60 | Marcellus |
| 27 | 31-Jan-15 | 8,839 | 9,007 | 60 | Marcellus |
| 28 | 1-Feb-15 | 8,640 | 8,808 | 60 | Marcellus |
| 29 | 1-Feb-15 | 8,442 | 8,609 | 60 | Marcellus |
| 30 | 2-Feb-15 | 8,243 | 8,410 | 60 | Marcellus |
| 31 | 2-Feb-15 | 8,044 | 8,212 | 60 | Marcellus |
| 32 | 3-Feb-15 | 7,845 | 8,013 | 60 | Marcellus |
| 33 | 4-Feb-15 | 7,647 | 7,814 | 60 | Marcellus |
| 34 | 4-Feb-15 | 7,448 | 7,616 | 60 | Marcellus |
| 35 | 4-Feb-15 | 7,249 | 7,417 | 60 | Marcellus |
| 36 | 5-Feb-15 | 7,051 | 7,218 | 60 | Marcellus |
| 37 | 5-Feb-15 | 6,852 | 7,020 | 60 | Marcellus |

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 | 19-Jan-15 | 64.0 | 6,364 | N/A | 3,692 | 227,719 | 6,462 | N/A |
| 2 | 19-Jan-15 | 63.0 | 6,394 | 6,069 | 5,045 | 246,613 | 6,617 | N/A |
| 3 | 20-Jan-15 | 64.0 | 6,522 | 5,669 | 5,323 | 245,060 | 6,792 | N/A |
| 4 | 21-Jan-15 | 63.0 | 6,361 | 5,292 | 4,966 | 240,634 | 6,667 | N/A |
| 5 | 22-Jan-15 | 64.0 | 6,524 | 5,510 | 5,301 | 249,263 | 6,609 | N/A |
| 6 | 22-Jan-15 | 63.0 | 6,358 | 5,211 | 5,177 | 245,886 | 6,479 | N/A |
| 7 | 23-Jan-15 | 64.0 | 6,744 | 5,602 | 4,400 | 247,265 | 6,507 | N/A |
| 8 | 23-Jan-15 | 65.0 | 6,658 | 5,391 | 5,271 | 243,697 | 6,442 | N/A |
| 9 | 23-Jan-15 | 67.0 | 6,902 | 5,867 | 5,016 | 246,540 | 6,459 | N/A |
| 10 | 24-Jan-15 | 67.0 | 6,773 | 5,664 | 5,308 | 246,489 | 6,450 | N/A |
| 11 | 25-Jan-15 | 64.0 | 6,413 | 5,674 | 5,300 | 244,770 | 6,386 | N/A |
| 12 | 25-Jan-15 | 64.0 | 6,457 | 5,482 | 5,301 | 243,516 | 6,352 | N/A |
| 13 | 25-Jan-15 | 64.0 | 6,427 | 5,758 | 4,804 | 247,395 | 6,313 | N/A |
| 14 | 25-Jan-15 | 64.0 | 6,429 | 5,652 | 4,864 | 244,352 | 6,344 | N/A |
| 15 | 27-Jan-15 | 64.0 | 6,429 | 5,464 | 5,029 | 243,316 | 6,309 | N/A |
| 16 | 27-Jan-15 | 61.0 | 6,542 | 5,610 | 6,208 | 208,325 | 6,178 | N/A |
| 17 | 27-Jan-15 | 67.6 | 6,709 | 5,453 | 5,831 | 248,690 | 6,346 | N/A |
| 18 | 28-Jan-15 | 65.0 | 6,143 | 5,419 | 5,378 | 176,718 | 6,623 | N/A |
| 19 | 28-Jan-15 | 65.0 | 6,143 | 5,622 | 5,019 | 247,393 | 6,784 | N/A |
| 20 | 29-Jan-15 | 68.0 | 6,960 | 5,597 | 5,621 | 246,939 | 6,266 | N/A |
| 21 | 29-Jan-15 | 68.0 | 6,808 | 5,619 | 5,184 | 232,221 | 5,979 | N/A |
| 22 | 31-Jan-15 | 68.0 | 6,808 | 5,629 | 5,198 | 245,688 | 6,332 | N/A |
| 23 | 30-Jan-15 | 69.0 | 6,284 | 5,614 | 4,207 | 245,805 | 6,234 | N/A |
| 24 | 31-Jan-15 | 67.0 | 6,497 | 5,725 | 5,222 | 247,160 | 6,271 | N/A |
| 25 | 31-Jan-15 | 68.0 | 6,801 | 5,835 | 4,628 | 241,362 | 6,095 | N/A |
| 26 | 1-Feb-15 | 67.9 | 6,684 | 5,501 | 4,603 | 247,838 | 6,281 | N/A |
| 27 | 1-Feb-15 | 68.1 | 6,425 | 5,618 | 5,161 | 243,817 | 6,156 | N/A |
| 28 | 2-Feb-15 | 63.4 | 5,985 | 5,686 | 4,495 | 247,670 | 6,191 | N/A |
| 29 | 2-Feb-15 | 63.0 | 6,299 | 5,414 | 4,731 | 200,879 | 6,499 | N/A |
| 30 | 2-Feb-15 | 67.1 | 6,075 | 5,402 | 5,367 | 244,200 | 6,100 | N/A |
| 31 | 3-Feb-15 | 68.1 | 6,273 | 4,941 | 5,142 | 247,009 | 6,093 | N/A |
| 32 | 3-Feb-15 | 63.8 | 6,195 | 5,395 | 5,107 | 247,221 | 6,041 | N/A |
| 33 | 4-Feb-15 | 64.0 | 5,857 | 5,021 | 5,016 | 245,837 | 6,411 | N/A |
| 34 | 4-Feb-15 | 68.0 | 5,780 | 5,119 | 5,072 | 245,663 | 5,937 | N/A |
| 35 | 5-Feb-15 | 68.0 | 5,780 | 5,326 | 5,032 | 245,212 | 5,936 | N/A |
| 36 | 5-Feb-15 | 66.0 | 6,108 | 5,396 | 4,982 | 243,928 | 5,902 | N/A |
| 37 | 5-Feb-15 | 65.0 | 5,758 | 5,048 | 3,712 | 236,813 | 5,787 | N/A |
| | AVG= | 65.5 | 6,396 | 5,508 | 5,019 | 8,898,903 | 233,630 | 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 | 332' | N/A | 332' | N/A |
| Shale/ Sandstone | 0 | 207 | 0 | 207 |
| Shale/ Trace Coal | est. 207 | 247 | est. 207 | 247 |
| Sandstone | est. 247 | 467 | est. 247 | 467 |
| Shale/ Limestone | est. 467 | 567 | est. 467 | 567 |
| Sandstone | est. 567 | 627 | est. 567 | 627 |
| Shale/ Trace Limestone | est. 627 | 787 | est. 627 | 787 |
| Siltstone | est. 787 | 812 | est. 787 | 812 |
| Shale/ Limestone | est. 812 | 967 | est. 812 | 967 |
| Sandstone | est. 967 | 1,047 | est. 967 | 1,047 |
| Shale/ Limestone | est. 1047 | 1,147 | est. 1047 | 1,147 |
| Shale/ Trace Coal | est. 1147 | 1,187 | est. 1147 | 1,187 |
| Sandstone/ Trace Coal | est. 1187 | 1247 | est. 1187 | 1247 |
| Shale/ Trace Limestone | est. 1247 | 1327 | est. 1247 | 1327 |
| Sandstone/ Shale | est. 1327 | 1427 | est. 1327 | 1427 |
| Sanstone/ Coal | est. 1427 | 1567 | est. 1427 | 1567 |
| Shale/ Trace Coal | est. 1567 | 1727 | est. 1567 | 1727 |
| Siltstone/ Trace Coal | est. 1727 | 1921 | est. 1727 | 1927 |
| Big Lime | 1921 | 2044 | 1927 | 2050 |
| Big Injun | 2044 | 2422 | 2050 | 2429 |
| Gantz Sand | 2422 | 2595 | 2429 | 2602 |
| Fifty Foot Sandstone | 2595 | 2684 | 2602 | 2690 |
| Gordon | 2684 | 2977 | 2690 | 2983 |
| Fifth Sandstone | 2977 | 3109 | 2983 | 3116 |
| Bayard | 3109 | 3427 | 3116 | 3433 |
| Warren | 3427 | 3810 | 3433 | 3816 |
| Speechley | 3810 | 4084 | 3816 | 4090 |
| Baltown | 4084 | 4505 | 4090 | 4512 |
| Bradford | 4505 | 4920 | 4512 | 4926 |
| Benson | 4920 | 5181 | 4926 | 5188 |
| Alexander | 5181 | 5339 | 5188 | 5346 |
| Elk | 5339 | 5818 | 5346 | 5826 |
| Rhinestreet | 5818 | 6096 | 5826 | 6197 |
| Sycamore | 6096 | 6253 | 6197 | 6452 |
| Middlesex | 6253 | 6363 | 6452 | 6654 |
| Burkett | 6363 | 6397 | 6654 | 6730 |
| Tully | 6397 | 6425 | 6730 | 6812 |
| Marcellus | 6425 | NA | 6812 | 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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Hydraulic Fracturing Fluid Product Component Information Disclosure



| | |
|--------------------------------|------------------------------|
| Job Start Date: | 1/19/2015 |
| Job End Date: | 2/5/2015 |
| State: | West Virginia |
| County: | Doddridge |
| API Number: | 47-017-06474-00-00 |
| Operator Name: | Antero Resources Corporation |
| Well Name and Number: | Leason Run Unit 1H |
| Longitude: | -80.88258300 |
| Latitude: | 39.27342500 |
| Datum: | NAD83 |
| Federal/Tribal Well: | NO |
| True Vertical Depth: | 6,589 |
| Total Base Water Volume (gal): | 10,297,140 |
| Total Base Non Water Volume: | 0 |

Hydraulic Fracturing Fluid Composition:

| Trade Name | Supplier | Purpose | Ingredients | Chemical Service Abstract 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 | 90.18180 | |
| Sand, White, 40/70 | Baker Hughes | Proppant | MSDS and Non-MSDS Ingredients Listed Below | N/A | | 5.04815 | |
| Sand, White, 20/40 | Baker Hughes | Proppant | MSDS and Non-MSDS Ingredients Listed Below | N/A | | 3.47427 | |
| Sand, White, 100 mesh | Baker Hughes | Proppant | MSDS and Non-MSDS Ingredients Listed Below | N/A | | 0.78914 | |
| HCl, 10.1 - 15% | Baker Hughes | Acidizing | MSDS and Non-MSDS Ingredients Listed Below | N/A | | 0.21213 | SmartCare Product |
| GW-3LDF | Baker Hughes | Gelling Agent | MSDS and Non-MSDS Ingredients Listed Below | N/A | | 0.08913 | SmartCare Product |
| FRW-18 | Baker Hughes | Friction Reducer | MSDS and Non-MSDS Ingredients Listed Below | N/A | | 0.05830 | SmartCare Product |
| Scaletrol 720 | Baker Hughes | Scale Inhibitor | MSDS and Non-MSDS Ingredients Listed Below | N/A | | 0.01503 | SmartCare Product |

| | | | | | | | | |
|--|--------------|---------------------------|---|------------|-----------|--|---------|-------------------|
| Enzyme G-NE | Baker Hughes | Breaker | MSDS and Non-MSDS Ingredients Listed Below | N/A | | | 0.01316 | SmartCare Product |
| Calcium Chloride | Baker Hughes | Salts | MSDS and Non-MSDS Ingredients Listed Below | N/A | | | 0.01157 | |
| Alpha 1427 | Baker Hughes | Biocide | MSDS and Non-MSDS Ingredients Listed Below | N/A | | | 0.00893 | SmartCare Product |
| Ferrolrol 300L | Baker Hughes | Iron Control | MSDS and Non-MSDS Ingredients Listed Below | N/A | | | 0.00147 | SmartCare Product |
| CI-39 | Baker Hughes | Corrosion Inhibitor | MSDS and Non-MSDS Ingredients Listed Below | N/A | | | 0.00042 | |
| Ingredients shown above are subject to 29 CFR 1910.1200(j) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS. | | | | | | | | |
| Ingredients in Additive (s) (MSDS and non- MSDS) | Baker Hughes | See Trade Name(s) List | | | | | | |
| | | | Crystalline Silica (Quartz) | 14808-60-7 | 100.00000 | | 9.30162 | |
| | | | Water | 7732-18-5 | 95.00000 | | 0.22954 | |
| | | | Mineral Oil | 3042-47-5 | 70.00000 | | 0.06232 | |
| | | | Guar Gum | 9000-30-0 | 60.00000 | | 0.05342 | |
| | | | Hydrochloric Acid | 7647-01-0 | 15.00000 | | 0.03179 | |
| | | | Petroleum Distillates | 64742-47-8 | 30.00000 | | 0.02671 | |
| | | | Paraffinic Petroleum Distillate | 64742-55-8 | 30.00000 | | 0.02671 | |
| | | | Hydrotreated Light Distillate | 64742-47-8 | 30.00000 | | 0.01747 | |
| | | | Poly (acrylamide-co-acrylic acid) partial sodium salt | 62649-23-4 | 30.00000 | | 0.01747 | |
| | | | Calcium Chloride | 10043-52-4 | 100.00000 | | 0.01231 | |
| | | | Ethylene Glycol | 107-21-1 | 45.00000 | | 0.00676 | |
| | | | Crystalline Silica: Quartz | 14808-60-7 | 5.00000 | | 0.00445 | |
| | | | Isotridecanol, ethoxylated | 9043-30-5 | 5.00000 | | 0.00445 | |
| | | | 1-butoxy-2-propanol | 5131-66-8 | 5.00000 | | 0.00445 | |
| | | | Sodium Chloride | 7647-14-5 | 5.00000 | | 0.00364 | |
| | | | 2-Propenoic, Polymer with Sodium Phosphinate, Sodium Salt | 71050-62-9 | 20.00000 | | 0.00300 | |
| | | | Glutaraldehyde | 111-30-8 | 30.00000 | | 0.00268 | |
| | | | Ammonium Chloride | 12125-02-9 | 3.00000 | | 0.00175 | |
| | | | Oleamide DEA | 93-83-4 | 2.00000 | | 0.00116 | |
| | | | Alcohols, C12-16, ethoxylated | 68551-12-2 | 2.00000 | | 0.00116 | |
| | | | Didecyl Dimethyl Ammonium Chloride | 7173-51-5 | 10.00000 | | 0.00089 | |
| | | | Citric Acid | 77-92-9 | 60.00000 | | 0.00088 | |
| | | | Potassium Chloride | 7447-40-7 | 5.00000 | | 0.00073 | |
| | | | Hemicellulase Enzyme Concentrate | 9025-56-3 | 5.00000 | | 0.00066 | |
| | | | Quaternary Ammonium Compound | 68424-85-1 | 5.00000 | | 0.00047 | |
| | | | Ethanol | 64-17-5 | 5.00000 | | 0.00045 | |

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LATITUDE 39°17'30" 2,194'

11,406' TO BOTTOM HOLE

LATITUDE 39°17'30"

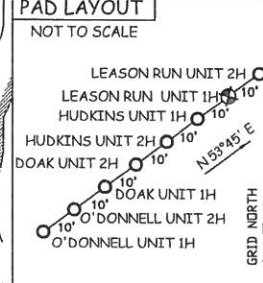
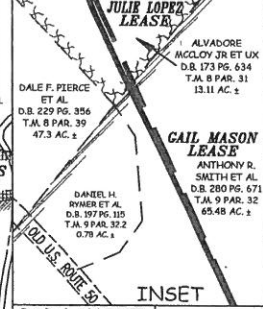
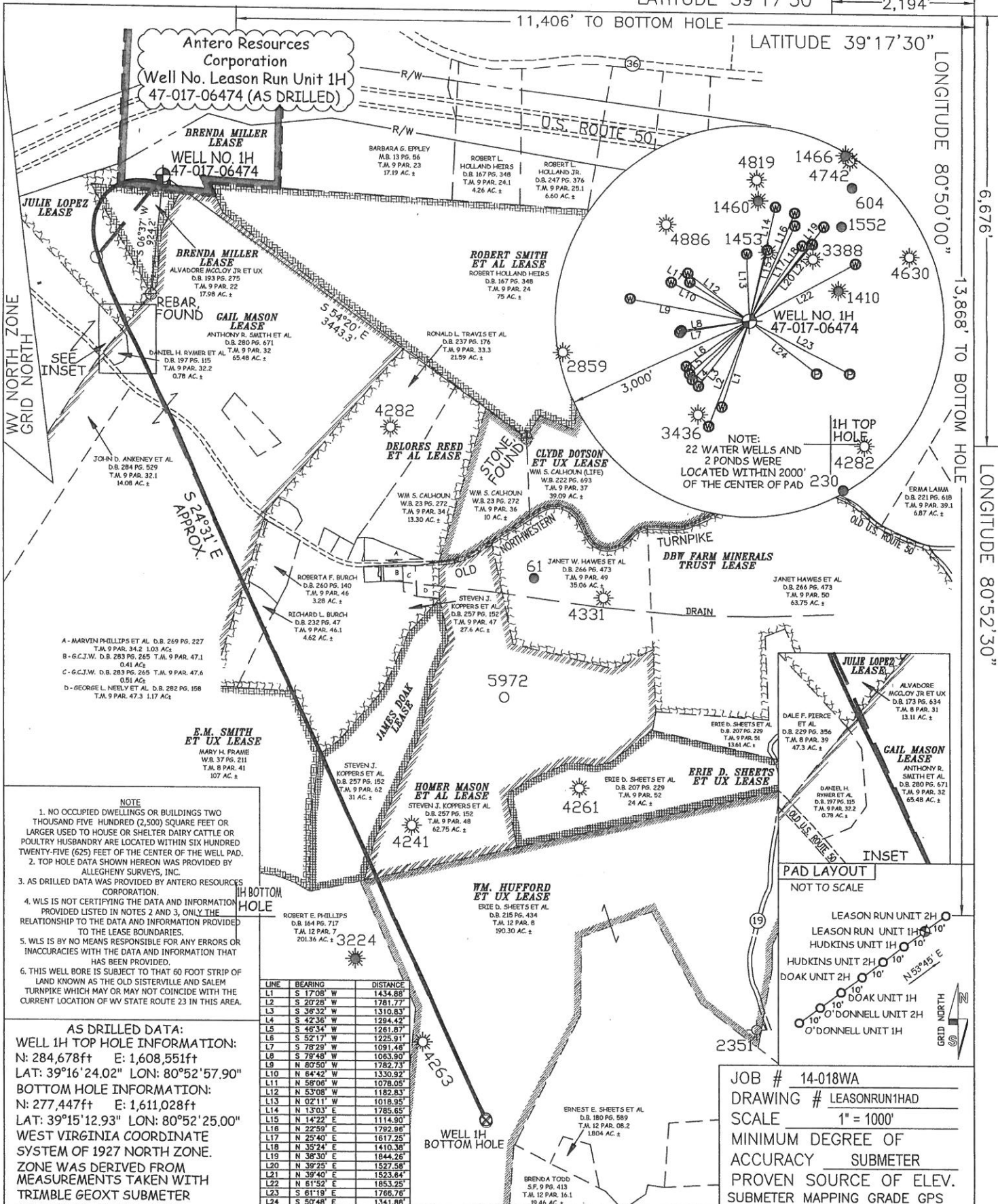
LONGITUDE 80°50'00"

6,676'

13,868' TO BOTTOM HOLE

LONGITUDE 80°52'30"

Antero Resources Corporation
Well No. Leason Run Unit 1H
47-017-06474 (AS DRILLED)



- NOTE
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.
 6. THIS WELL BORE IS SUBJECT TO THAT 60 FOOT STRIP OF LAND KNOWN AS THE OLD SISTERVILLE AND SALEM TURNPIKE WHICH MAY OR MAY NOT COINCIDE WITH THE CURRENT LOCATION OF WV STATE ROUTE 23 IN THIS AREA.

AS DRILLED DATA:
WELL 1H TOP HOLE INFORMATION:
N: 284,678ft E: 1,608,551ft
LAT: 39°16'24.02" LON: 80°52'57.90"
BOTTOM HOLE INFORMATION:
N: 277,447ft E: 1,611,028ft
LAT: 39°15'12.93" LON: 80°52'25.00"
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.

| LINE | BEARING | DISTANCE |
|------|------------|----------|
| L1 | S 17°08' W | 1434.88' |
| L2 | S 20°28' W | 1781.77' |
| L3 | S 36°32' W | 1310.83' |
| L4 | S 42°36' W | 1294.42' |
| L5 | S 46°34' W | 1261.87' |
| L6 | S 52°17' W | 1225.91' |
| L7 | S 78°29' W | 1091.48' |
| L8 | S 79°48' W | 1063.90' |
| L9 | N 07°50' W | 1782.73' |
| L10 | N 64°42' W | 1330.92' |
| L11 | N 58°06' W | 1078.05' |
| L12 | N 53°08' W | 1182.83' |
| L13 | N 02°11' W | 1018.95' |
| L14 | N 13°03' E | 1785.65' |
| L15 | N 14°22' E | 1114.90' |
| L16 | N 22°59' E | 1792.96' |
| L17 | N 25°40' E | 1617.25' |
| L18 | N 35°24' E | 1410.38' |
| L19 | N 38°30' E | 1844.28' |
| L20 | N 39°25' E | 1527.58' |
| L21 | N 39°40' E | 1523.65' |
| L22 | N 61°52' E | 1853.25' |
| L23 | S 61°19' E | 1766.78' |
| L24 | S 50°48' E | 1341.88' |

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



WILLOW LAND SURVEYING PLLC
P.O. BOX 17
PENNSBORO, WV 26415

JOB # 14-018WA
DRAWING # LEASONRUN1HAD
SCALE 1" = 1000'
MINIMUM DEGREE OF ACCURACY SUBMETER
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS

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

DATE 07/09/15 OPERATOR'S WELL# LEASON RUN UNIT 1H

API WELL # 47 - 017 - 06474
STATE COUNTY PERMIT

QUADRANGLE PENNSBORO 7.5' (TOP HOLE) WEST UNION 7.5' (BOTTOM HOLE) DISTRICT CENTRAL COUNTY DODDRIDGE

SURFACE OWNER ALVADORE MCCLOY JR ET UX ACREAGE 17.98 ACRES +/-
OIL & GAS ROYALTY OWNER BRENDA MILLER; BRENDA MILLER; JULIE LOPEZ; GAIL MASON; LEASE ACREAGE 37.625 ACRES +/-; 6.2 ACRES +/-; 19 ACRES +/-; 148.793 ACRES +/-

DELORES REED ET AL; E.M. SMITH ET UX; JAMES DOAK; HOMER MASON ET AL; WM. HUFFORD ET UX 75.6 ACRES +/-; 108 ACRES +/-; 31 ACRES +/-; 62 ACRES +/-; 141 ACRES +/-

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) (X) AS DRILLED PLUG & ABANDON CLEAN OUT & REPLUG
TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,589' TVD 14,264' MD

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

COUNTY NAME PERMIT