



Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR

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Richard J. Simmers, Chief

Division of Oil and Gas Resources Management

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Columbus, OH 43229-6693

Phone: (614) 265-6922 Fax: (614) 265-6910

ORDER BY THE CHIEF

November 9, 2015

ORDER NO. 2015-540

TO: Antero Resources Corporation
1625 17th Street
Denver, CO 80202

RE: Application for Unitization
Hall Unit
Noble County, Ohio
Corrected Unit Order

SUBJECT: Order for Unit Operations of the Utica/Point Pleasant Formations

Pursuant to Ohio Revised Code Section 1509.28, the Chief of the Division of Oil and Gas Resources Management (“Chief” or “Division”) makes the following Findings and issues the following Order:

BACKGROUND

- 1) On March 17, 2015, Antero Resources Corporation (“Antero”) filed an application pursuant to Revised Code 1509.28 to operate as a unit the Utica/Point Pleasant Formations at an approximate true vertical depth located from fifty (50) feet above the top of the Utica Shale to fifty (50) feet below the base of the Point Pleasant Formation. Updates to the application were filed on May 16, 2015. The proposed “Unit Area” is 595.653 acres in Seneca and Wayne Townships, Noble County, Ohio. The proposed Unit Area is comprised of a total of sixty five (65) tracts, and known as the “Hall Unit.” The application included a Unit Agreement, Unit Operating Agreement, and relevant exhibits. The application also included the pre-filed testimony of the following Antero employees: Brandon Binford, Geologist; Hal Hogsett, Reservoir Engineer; and Kenneth Vaughn, Landman.
- 2) Pursuant to R.C. 1509.28, the Division held a hearing on July 16, 2015, in Columbus, Ohio at the Ohio Department of Natural Resources (“ODNR”), to consider the need for the operation as a unit of an entire pool or part thereof. At

the hearing, Antero employees Binford, Hogsett, and Vaughn confirmed their pre-filed testimony and answered questions posed by Division staff members.

- 3) Antero's application for unitization of the Hall Unit, as filed, proposed to include three (3) unleased tracts. As of the July 16, 2015 hearing, Antero's application for unitization of the Hall Unit included three (3) tracts owned by the following "unleased mineral owners": Sophia Nora Twarog (2 tracts), 0.579 acre; and Lois J. Halsey, 0.341 acre. As used in this order, "unleased mineral owner" means either Sophia Nora Twarog or any heirs, successors, or assigns of Sophia Nora Twarog, or Lois J. Halsey or any heirs, successors, or assigns of Lois J. Halsey.
- 4) The Division provided notice of the July 16, 2015 hearing, return receipt requested, to all unleased mineral owners. Addresses and title work were provided by Antero. Neither of the unleased mineral owners appeared at the hearing nor did they submit any written comments regarding the unitization application.
- 5) On November 9, 2015, the Division issued to Antero Chief's Order No. 2015-539, authorizing operations in the Hall Unit. Chief's Order No. 2015-539 incorrectly referenced the Seneca Unit in the header and paragraphs 9 (h) and 9 (i) in the order. The Division discovered this error on November 9, 2015. In light of the error, the Division determined that it was appropriate to issue a new order for the Hall Unit.

FINDINGS

- 6) Based on the application submitted by Antero and subsequent testimony by its employees, the Chief finds that Antero has established that is the "owner," as that term is defined in R.C. 1509.01(K), of more than ninety-nine percent (99%) of the land area overlying the pool in the Hall Unit, which is greater than the sixty-five percent (65%) as required by R.C. 1509.28(A).
- 7) Based on the application submitted by Antero, and subsequent testimony by its employees, the Chief finds that the operation of the Hall Unit is reasonably necessary to increase substantially the ultimate recovery of oil and gas ("oil" and "gas" are defined in R.C. 1509.01).
- 8) Based on the application submitted by Antero, and subsequent testimony by its employees, the Chief finds the value of the estimated additional recovery of oil or gas ("oil" and "gas" are defined in R.C. 1509.01) from the Hall Unit exceeds the estimated additional cost incident to conducting the operation of the Hall Unit.

ORDER

IT IS HEREBY ORDERED:

Pursuant to R.C. 1509.28, Antero is authorized to conduct operations within the Hall Unit in accordance with all of the following:

Plan for Unit Operations

- 1) The Unit Area is comprised of sixty five (65) tracts totaling 595.653 acres in Seneca and Wayne Townships, Noble County, Ohio, as shown on Exhibits A, B, and C.
- 2) Antero proposes to drill two (2) wells from a single pad site in the Hall Unit for the purpose of recovering oil and gas. Drilling operations shall commence in the Unit Area within twelve (12) months from the date of approval of this Order. In order to achieve the stated goal of substantially increasing the ultimate recovery of oil and gas (as those terms are defined in R.C. 1509.01) from the Utica/Point Pleasant Formations within the Unit Area, Antero shall produce from two (2) wells no later than three (3) years after the first well is completed. If Antero fails to drill, complete, and produce at least two (2) wells in the Unit Area, the Chief may amend or terminate this Order. Any additional wells permitted by the Chief for the Utica/Point Pleasant Formations in the Unit Area are subject to this Order.
- 3) Evidence introduced by Antero at the Hall Unit hearing established that the Utica/Point Pleasant Formation uniformly underlies the Unit Area. Therefore, the value of each separately owned tract in the Unit Area shall be determined by calculating the ratio of the surface acreage of a specific tract to the total surface acreage of the Unit Area. This ratio shall be known as the "Unit Participation." The allocated share of production to each tract shall be equal to that tract's Unit Participation.
- 4) All charges and credits made for investments in wells, tanks, pumps, machinery, materials, and equipment shall be allocated among the working interest owners of each tract based on the Unit Participation. For purposes of this Order, any unleased mineral owner is not a working interest owner, and the proportionate share of the expenses allotted to the unleased mineral owners shall be allocated to the participating working interest owners.
- 5) All unit operation expenses shall be charged to, and paid by, the working interest owners of each tract in amounts based on the Unit Participation. All unit operation expenses concerning wells and operating equipment shall be just and reasonable.
- 6) If necessary, Antero and all other consenting working interest owners shall carry, or otherwise finance, any person who is unable to meet that person's financial

obligations in connection with the unit operations. For purposes of this Paragraph, "person" shall mean "non-participating working interest owner." Antero and all other consenting working interest owners' reasonable interest charge for carrying or financing the non-participating working interest owner shall be determined by the terms of Antero's Unit Agreement and Unit Operating Agreement for the Hall Unit. Once a specific cost is charged to the initial well, that same cost cannot be charged to subsequent wells in the Unit Area.

- 7) Antero shall supervise and conduct all unit operations. Each working interest owner shall have a voting interest equal to its Unit Participation. Approval of unit operations shall be subject to the terms of Antero's Unit Agreement and Unit Operating Agreement for the Hall Unit.
- 8) Unit operations may commence as of 7:00 a.m. on the day following the effective date of this Order. Once the initial well is placed into production, operations within the Hall Unit may continue as long as hydrocarbons are produced from any well in the Unit Area without a cessation of more than ninety (90) days, unless otherwise approved by the Chief in writing. The Hall Unit may be terminated if working interest owners owning at least fifty-one percent (51%) of the working interest in the Unit Area determine that the unit operations are no longer warranted. If the unit operations are so terminated, Antero shall provide written notice of the termination to the Division and to all unleased mineral owners. In the event that termination of unit operation occurs prior to drilling and completing for production two (2) wells in the Hall Unit, the Chief may issue an order reducing the Unit Area to the minimum amount of acreage necessary to support those wells that have been drilled and are producing.
- 9) The following additional provisions are found to be appropriate:
 - a) No activity associated with the drilling, completion, or operation of the Hall Unit shall be conducted on the surface of any unleased property without the prior written consent of the owner of the surface rights of the unleased property.
 - b) Unleased mineral owners shall not incur liability for any personal or property damage associated with any drilling, testing, completing, producing, operating, or plugging activities within the Hall Unit.
 - c) Each unleased mineral owner shall receive a monthly cash payment equal to a one-eighth (1/8) landowner royalty interest calculated on gross proceeds. Allocation of the one-eighth (1/8) landowner royalty shall be based on the Unit Participation of each unleased mineral owner's tract. Antero shall make landowner royalty payments to leased and unleased mineral owners at the same time.

- d) In addition to the royalty payment, each unleased mineral owner shall receive a monthly cash payment equal to a seven-eighths (7/8) share of the net proceeds from production. Allocation of the seven-eighths (7/8) share shall be based on the Unit Participation of each unleased mineral owner's tract. After Antero recovers a reasonable interest charge equal to 200% of the cost of drilling, testing, completing, and producing the initial well, Antero shall begin making such monthly payments for that well. For each additional well drilled in the Unit Area, Antero shall begin making monthly payments equal to seven-eighths (7/8) share of net proceeds from production to each unleased mineral owner once Antero has recovered a reasonable interest charge equal to 150% of the cost of drilling, testing, completing, and producing. Once a specific cost is charged to the initial well, that same cost cannot be charged to subsequent wells in the Unit Area.
- e) Nothing in this Order prohibits the unleased mineral owner from entering into a lease agreement with Antero pursuant to terms agreeable to both parties. An unleased mineral owner who enters into a lease with Antero after the issuance of this Chief's Order is no longer an unleased mineral owner under this Chief's Order as of the effective date of the lease. Antero shall notify the Division upon the execution of a lease agreement with any unleased mineral owner who is subject to this Chief's Order.
- f) Except as provided in Paragraph 9(d) of this Order, no expenses shall be paid by an unleased mineral owner for drilling, testing, completing, producing, or operating any well in the Unit Area. However, the unleased mineral owner is not responsible for any costs related to plugging any well in the Unit Area.
- g) If requested in writing by any unleased mineral owner or by any non-participating working interest owner, or in any manner by the Division, Antero shall provide, not later than thirty (30) days after the request, any of the following:
 - i. A monthly statement of all costs incurred, together with the quantity of oil and gas produced, and the amount of proceeds realized from the sale of production during the preceding month; and
 - ii. Any authorization for expenditure (AFE) prepared by Antero; and
 - iii. A statement of all costs and expenses for purposes of Paragraphs 6 and 9(d) of this Order.
- h) Antero shall notify the Division of the assignment or transfer of any of its working interest in the Hall Unit. If Antero assigns or transfers any of its working interest, the assignee or transferee shall comply with this Order.

- i) Antero shall notify the Division if a tract that is leased by Antero, or any other working interest owner, for purposes of operating the Hall Unit becomes an unleased tract. If Antero or the working interest owner is unable to enter into lease agreement for the unleased tract, Antero must submit a request to the Division for an amendment of this Order, which will include a new hearing before the Chief.

- 10) This Order is not effective unless and until Antero provides the Chief with final written approval of the unit operations as prescribed in this Order from Antero, who is required to pay at least sixty-five percent (65%) of the costs of the unit operations, and from the royalty owners or unleased fee owners of sixty-five percent (65%) of the acreage to be included in the unit. Upon receipt of this approval, this Order shall become effective, and unit operations may commence as set forth above. In the event that Antero fails to provide all required approvals within six (6) months after the issuance date of this Order, the Order will be deemed revoked, and the Chief shall provide notice of the revocation to Antero, to the unleased mineral owners, and to the non-participating working interest owners.

- 11) In the event that this Chief's Order is appealed, the time periods as specified in this Chief's Order are tolled pending final determination of the appeal.

- 12) Within twenty-one (21) days of this Order becoming effective, Antero shall file a copy of this Order within the Noble County (Ohio) Recorder's Office, in the records of each of the tracts that are subject to this Order and referenced in Exhibits A, B, and C. Antero shall submit a certification of the filing to the Division within fourteen (14) days of filing. The certification shall include a reference to the volume and page number corresponding to each record where the Chief's Order is recorded.

- 13) The Chief of the Division retains continuing jurisdiction over the Hall Unit as is consistent with the Chief's powers and duties as established by R.C. Chapter 1509 and Ohio Adm.Code 1501:9. The Chief reserves the right to amend this Order subsequent to the commencement of unit operations within the Unit Area.

- 14) Except as specifically set forth in the terms of this Order, nothing herein shall be construed as a waiver of any private right or cause of action that may be brought by or against any party to this Order.

- 15) In the event of a conflict between the Plan for Unit Operations contained in this Chief's Order, and Antero's Unit Agreement and Unit Operating Agreement, this Chief's Order shall take precedence.

- 16) Chief's Order No. 2015-539 is rescinded.

Date 11/9/2015

Scott R. Kill Jr.
Richard J. Simmers

Richard J. Simmers, Chief
Division of Oil and Gas Resources Management

Addressee is hereby notified that this action is final and effective and may be appealed pursuant to Section 1509.36 of the Ohio Revised Code. If the Order is appealed to the Ohio Oil and Gas Commission, the appeal must be in writing and must set forth the Orders complained of and the grounds upon which the appeal is based. Such appeal must be filed with the Oil and Gas Commission, 2045 Morse Road, Building H-3, Columbus, Ohio 43229-6693, within thirty (30) days after receipt of this Order.

In addition, within three (3) days after the appeal is filed with the Oil and Gas Commission, notice of the filing must be submitted to Richard J. Simmers, Chief, Division of Oil and Gas Resources Management, Ohio Department of Natural Resources, 2045 Morse Road, Building F-2, Columbus, Ohio 43229-6693.

Enclosures

CERTIFIED MAIL TO: 91 7199 9991 7035 85605638

91 7199 9991 7035 8560 5638

Sophia Nora Twarog
182 Oakland Park Avenue
Columbus, OH 43214

91 7199 9991 7035 8560 5645

Lois J. Halsey
1061 Garvey Road
Columbus, OH 43229
Kenneth Vaughn
Landman
Antero Resources Corporation
1625 17th Street
Denver, CO 80202

91 7199 9991 7035 8560 5652

91 7199 9991 7035 8560 5669

Marty Byrd
Eclipse Resources I, LP
2121 Old Gatesburg Road, Suite 110
State College, Pennsylvania 16803

91 7199 9991 7035 8560 5676

Chad Spence
Artex Oil Company
2337 State Route 821
Marietta, OH 45750

91 7199 9991 7035 8560 5683

R. Neal Pierce
Katerina E. Milenkovski
Steptoe & Johnson PLLC
Huntington Center
41 S. High Street, Suite 2200
Columbus, OH 43215

91 7199 9991 7035 8560 5690

EXHIBIT A

All Tracts within Hall Unit

Tract	Owner	Address	Parcel Number	Deed Acreage	Unit Acreage	Unit Participation
1	Muskingum Watershed Conservancy District	1319 3rd Street, PO Box 349 New Philadelphia, OH 44663	36-21185.000	30.50000	10.287	1.72701%
2	Muskingum Watershed Conservancy District	1319 3rd Street, PO Box 349 New Philadelphia, OH 44663	36-21174.000	171.00000	29.608	4.97068%
3	Muskingum Watershed Conservancy District	1319 3rd Street, PO Box 349 New Philadelphia, OH 44663	31-21298.000	79.30000	23.493	3.94407%
4	Muskingum Watershed Conservancy District	1319 3rd Street, PO Box 349 New Philadelphia, OH 44663	31-21223.000	78.00000	48.464	8.13628%
5	Muskingum Watershed Conservancy District	1319 3rd Street, PO Box 349 New Philadelphia, OH 44663	31-21224.000	40.00000	25.121	4.21739%
6	Muskingum Watershed Conservancy District	1319 3rd Street, PO Box 349 New Philadelphia, OH 44663	31-21222.000	78.90000	71.911	12.07263%
7	Muskingum Watershed Conservancy District	1319 3rd Street, PO Box 349 New Philadelphia, OH 44663	31-21198.000	17.60000	8.644	1.45118%
8	Carol A. Miller	54590 Lakeland Drive Senecaville, OH 43780	31-13031.000	0.48200	0.162	0.02720%
9	Carol A. Miller	54590 Lakeland Drive Senecaville, OH 43780	31-13032.000	0.20300	0.027	0.00453%
10	Muskingum Watershed Conservancy District	1319 3rd Street, PO Box 349 New Philadelphia, OH 44663	31-21199.000	50.00000	17.625	2.95894%
10A	Muskingum Watershed Conservancy District	1319 3rd Street, PO Box 349 New Philadelphia, OH 44663	31-21199.000	50.00000	24.657	4.13949%
11	Muskingum Watershed Conservancy District	1319 3rd Street, PO Box 349 New Philadelphia, OH 44663	31-21225.000	34.70000	2.771	0.46520%
11A	Muskingum Watershed Conservancy District	1320 3rd Street, PO Box 349 New Philadelphia, OH 44663	31-21225.001	34.70000	26.529	4.45377%
12	Timothy S. Hall	53557 Mud Run Road Senecaville, OH 43780	31-51180.000	0.78200	0.210	0.03526%
13	Timothy S. Hall	53558 Mud Run Road Senecaville, OH 43780	31-51161.000	1.16400	1.164	0.19542%
14	The Caldwell Savings and Loan Company	P.O. Box 320 425 Main Street Caldwell, OH 43724	31-51179.001	0.78000	0.782	0.13128%
15	Timothy S. Hall	53557 Mud Run Road Senecaville, OH 43780	31-51118.000	0.78000	0.782	0.13128%
16	Timothy S. Hall	53557 Mud Run Road Senecaville, OH 43780	31-51179.000	27.67400	11.176	1.87626%
17	Timothy S. Hall	53558 Mud Run Road Senecaville, OH 43780	31-51034.000	0.64000	0.636	0.10677%
18	Robert M. and Rachel M. Warnes	53660 Mud Run Road Senecaville, OH 43780	31-21156.000	0.34000	0.341	0.05725%
19	Paul D. and Susan L. Ferguson	51048 S.R. 145 Jerusalem, OH 43747	31-21157.000	0.34000	0.342	0.05742%
20	Paul D. and Susan Ferguson	51048 S.R. 145 Jerusalem, OH 43747	31-21158.000	0.34000	0.343	0.05758%
21	Thomas Innocenti - 1/5 interest Wendy M. Innocenti - 2/5 interest Charles H. Klein - 1/5 interest Laura J. Klein - 1/5 interest	26595 Joe Day Road Quaker City, OH 43773	31-21159.000	0.34000	0.344	0.05775%
22	Daniel C. Ferguson, Transfer on Death to Daniel Shane Ferguson	53633 Mud Run Road Senecaville, OH 43780	31-51171.000	0.34000	0.341	0.05725%
23	Daniel C. Ferguson, Transfer on Death to Daniel Shane Ferguson	53633 Mud Run Road Senecaville, OH 43780	31-51172.000	0.34000	0.341	0.05725%
24	Margaret A. Cologne	3129 Wilson Ave Ext. Mingo Junction, OH 43938	31-21162.000	0.34000	0.341	0.05725%
25	Margaret A. Cologne	3129 Wilson Ave Ext. Mingo Junction, OH 43938	31-21163.000	0.34000	0.341	0.05725%
26	Sophia Nora Twarog	182 Oakland Park Avenue Columbus, OH 43214	31-21186.000	0.34000	0.341	0.05725%
27	Sophia Nora Twarog	182 Oakland Park Avenue Columbus, OH 43214	31-51035.000	0.34000	0.238	0.03996%
28	Robyn Whipple	196 Savage Street Berea, OH 44017	31-21185.000	0.34000	0.341	0.05725%
29	Paul A. Ferguson	3248 Townhouse Drive Grove City, OH 43123	31-21184.000	0.34000	0.341	0.05725%
30	Lois J. Halsey (widow)	1061 Garvey Road Columbus, OH 43229	31-21164.000	0.34000	0.341	0.05725%
31	Margaret A. Cologne	3129 Wilson Ave Ext. Mingo Junction, OH 43938	31-21161.000	0.45300	0.453	0.07605%
32	Katherine Foster Jorgensen Twarog, Trustee of the Katherine Foster Jorgenson Twarog Trust dated August 8, 2007	182 Oakland Park Avenue Columbus, OH 43214	31-21165.000	0.45300	0.453	0.07605%
33	William H. Jorgensen	182 Oakland Park Avenue Columbus, OH 43214	31-21166.000	0.45300	0.453	0.07605%
34	Timothy P. O'Leary and Amy B. O'Leary	2254 Sandy Plains Road Clarksville, PA 15322	31-51036.000	0.34000	0.341	0.05725%
35	Timothy Patrick and Nancy Ann O'Leary	245 Olympic Road Pittsburg, PA 15236	31-21168.000	0.34000	0.341	0.05725%
36	Timothy Patrick and Nancy Ann O'Leary	245 Olympic Road Pittsburg, PA 15236	31-21168.000	0.34000	0.341	0.05725%
37	Timothy P. O'Leary and Amy B. O'Leary	2254 Sandy Plains Road Clarksville, PA 15322	31-21167.000	0.19000	0.193	0.03240%
38	Shelli Dee Hall	53589 Mud Run Road Senecaville, OH 43780	31-21154.001	2.41400	2.414	0.40527%
39	Timothy S. Hall	53557 Mud Run Road Senecaville, OH 43780	31-21154.000	27.22400	30.158	5.06301%
40	Muskingum Watershed Conservancy District	1319 3rd Street, PO Box 349 New Philadelphia, OH 44663	31-21153.000	60.60000	13.265	2.22697%

EXHIBIT C

Unleased Tracts in Hall Unit

Tract	Owner	Parcel	Unit Acreage	Unit Participation
26	Sophia Nora Twarog	31-21186.000	0.341	0.05725%
27	Sophia Nora Twarog	31-51035.000	0.238	0.03996%
30	Lois J. Halsey	31-21164.000	0.341	0.05725%
TOTAL			0.920	0.15446%