

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

API 47-095-02863 County Tyler District Lincoln  
Quad Paden City Pad Name Dry Run Pad Field/Pool Name -----  
Farm name David E. Bowyer Well Number Ringnus Unit 2H  
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 4378033.356m Easting 507583.051m  
Landing Point of Curve Northing 4354080.35m Easting 539266.35m  
Bottom Hole Northing 4383333.838m Easting 505722.005m

Elevation (ft) 1007' 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

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Office Of Oil and Gas


Date permit issued 4/24/2023 Date drilling commenced 5/10/2023 Date drilling ceased 7/23/2023  
Date completion activities began 10/8/2023 Date completion activities ceased 12/13/2023  
Verbal plugging (Y/N) N/A Date permission granted N/A Granted by N/A

FEB 14 2024  
WR-35-2023  
Department of Environmental Protection

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

Freshwater depth(s) ft 382' Open mine(s) (Y/N) depths No  
Salt water depth(s) ft 1653' Void(s) encountered (Y/N) depths No  
Coal depth(s) ft N/A Cavern(s) encountered (Y/N) depths No  
Is coal being mined in area (Y/N) No

**APPROVED**

Reviewed by:  
  
**06/28/2024**

API 47-095 - 02863 Farm name David E. Bowyer Well number Ringnus Unit 2H

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"	125.5'	New	94#, H-40	N/A	Y
Surface	17-1/2"	13-3/8"	623'	New	54.5#, J-55	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	3203'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	25441'	New	20#, P-100	N/A	Y
Tubing		2-3/8"	6474'		4.7#, P-110		
Packer type and depth set		N/A					

Comment Details \_\_\_\_\_

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	209 sx	15.6	1.18	247	0'	8 Hrs.
Surface	Class A	552 sx	15.6	1.20	662	0'	8 Hrs.
Coal							
Intermediate 1	Class A	1092 sx	15.6	1.20	1310	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	4490 sx (Tail)	13.5 (Lead), 15.2(Tail)	1.26 (Tail)	5502	~500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 25441' MD, 6237' TVD (BHL), 6265' (Deepest Point Drilled) Loggers TD (ft) 25441' MD  
 Deepest formation penetrated Marcellus Plug back to (ft) N/A  
 Plug back procedure N/A

Kick off depth (ft) 5426'

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

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FEB 14 2024  
WV Department of Environmental Protection

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06/28/2024

API 47-095 - 02863

Farm name David E. Bowyer

Well number Ringnus Unit 2H

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
<b>*PLEASE SEE ATTACHED EXHIBIT 1</b>					

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
<b>*PLEASE SEE ATTACHED EXHIBIT 2</b>								

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API 47- 095 - 02863 Farm name David E. Bowyer Well number Ringnus Unit 2H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>Marcellus</u>	<u>6198' (TOP)</u> TVD	<u>6602' (TOP)</u> MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface 1654 psi Bottom Hole --- psi DURATION OF TEST --- hrs

OPEN FLOW Gas 5799 mcfpd Oil 300 bpd NGL --- bpd Water 607 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 <sub>2</sub> S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	

**\*PLEASE SEE ATTACHED EXHIBIT 3**


Please insert additional pages as applicable.

Drilling Contractor H & P Drilling  
Address 912 N Eagle Valley Rd City Howard State PA Zip 16841

Logging Company Nine Energy Services  
Address 6500 West Fwy City Fort Worth State TX Zip 76116

Cementing Company Schlumberger US Land  
Address 1080 US-33 City Weston State WV Zip 26452

Stimulating Company Halliburton  
Address 3000 W. Sam Houston Pkwy City Houston State TX Zip 76114

Please insert additional pages as applicable.

Completed by Carly Marvel Telephone 303-357-7373  
Signature Carly Marvel Title Permitting Agent Date 2/6/2024

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

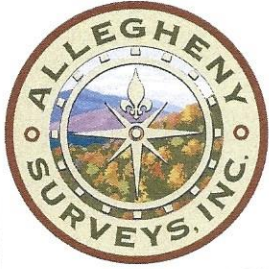
06/28/2024

**Antero Resources**  
**Well No. Ringnus 2H**  
**As-Drilled**  
 Antero Resources Corporation

PAGE 1 of 2

10,408' to Top Hole

4,751' to Bottom Hole  
**TOP HOLE LATITUDE 39 - 35 - 00**  
**BTM HOLE LATITUDE 39 - 37 - 30**



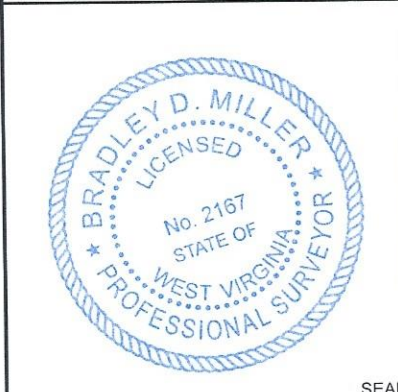
**Notes**  
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.  
 Well No. Ringnus Unit 2H Top Hole coordinates are  
 N: 386,241.71' Latitude: 39°33'06.73"  
 E: 1,601,890.58' Longitude: 80°54'42.88"  
 Bottom Hole coordinates are  
 N: 403,737.18' Latitude: 39°35'58.72"  
 E: 1,596,073.52' Longitude: 80°56'00.70"  
 UTM Zone 17, NAD 1983  
 Top Hole Coordinates Bottom Hole Coordinates  
 N: 4,378,033.356m N: 4,383,333.838m  
 E: 507,583.051m E: 505,722.005m  
 Plat orientation and corner and well references are based upon the grid north meridian.  
 Well location references are based upon the magnetic meridian.

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

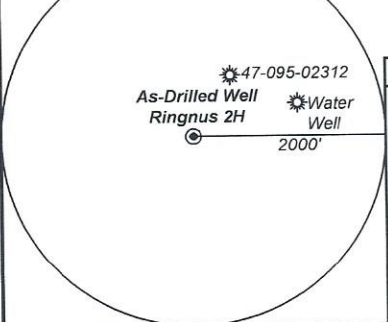
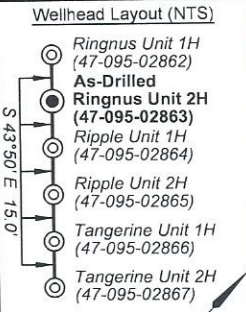
I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

*Bradley D. Miller*  
 Bradley D. Miller, P.S. 2167

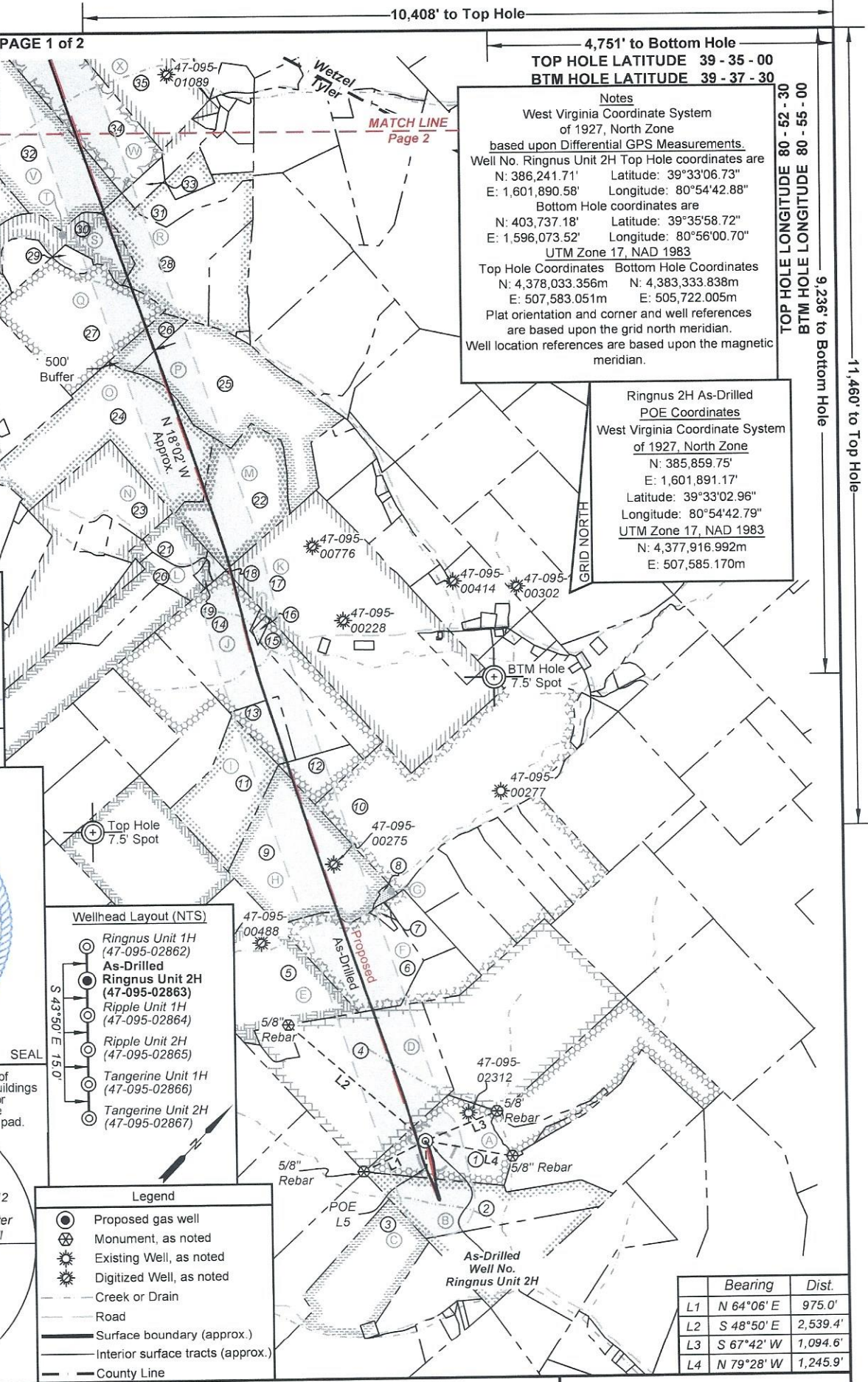
**Ringnus 2H As-Drilled POE Coordinates**  
 West Virginia Coordinate System of 1927, North Zone  
 N: 385,859.75'  
 E: 1,601,891.17'  
 Latitude: 39°33'02.96"  
 Longitude: 80°54'42.79"  
 UTM Zone 17, NAD 1983  
 N: 4,377,916.992m  
 E: 507,585.170m



Note: 1 water well were found within 2000' of proposed well. No occupied dwellings or buildings 2,500 square feet or larger used to house or shelter dairy cattle or poultry husbandry are located within 625' of the center of the well pad.



- Legend**
- Proposed gas well
  - Monument, as noted
  - Existing Well, as noted
  - Digitized Well, as noted
  - Creek or Drain
  - Road
  - Surface boundary (approx.)
  - Interior surface tracts (approx.)
  - County Line



	Bearing	Dist.
L1	N 64°06' E	975.0'
L2	S 48°50' E	2,539.4'
L3	S 67°42' W	1,094.6'
L4	N 79°28' W	1,245.9'

FILE NO: 20-54-L-18  
 DRAWING NO: Ringnus 2H As-Drilled  
 SCALE: 1" = 2000'  
 MINIMUM DEGREE OF ACCURACY: Submeter  
 PROVEN SOURCE OF ELEVATION: WVDOT, Harrisville, WV

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

DATE: January 17 2024  
 OPERATOR'S WELL NO. Ringnus 2H  
 API WELL NO  
 47 - 95 - 02863  
 STATE COUNTY PERMIT

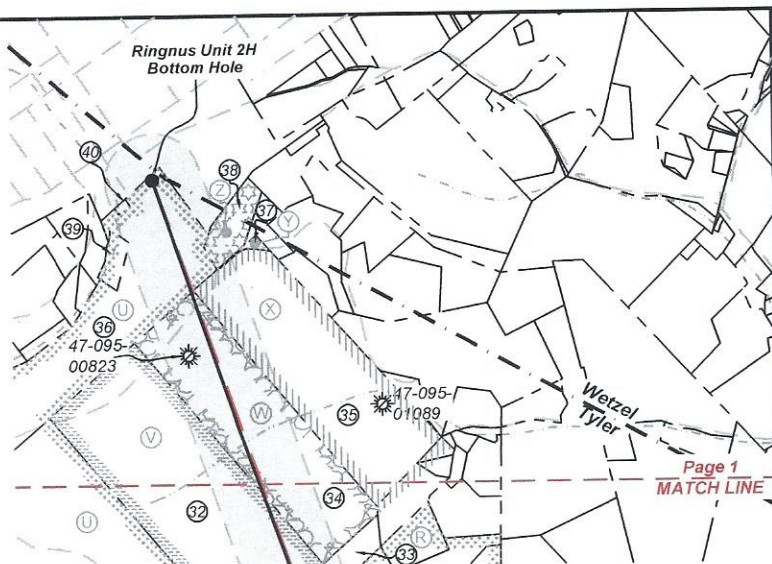
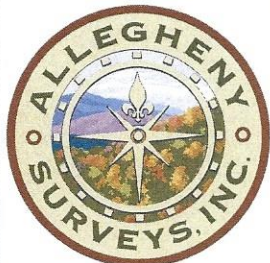
WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION: As-Built 1,007' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Paden City 164.21; 93.167; 47.47;  
 DISTRICT: Lincoln COUNTY: Tyler 190.043; 267.113;  
 SURFACE OWNER: David E. Bowyer LONNIE L. & BETTIE LOU BILLITER, JOHN PAUL BUCK, ET UX; LEE & HALL ROYALTIES, GARY HOLMES, ET UX; BOUNTY MINERALS, LLC; HENRY P. SNYDER, ET AL; WACO OIL & GAS CO. INC.; BRANDON P. MASON, ET UX; HERITAGE RESOURCES MARCELLUS MINERALS, LLC; JANET L. HEINTZMAN, JANE ANN MILLER, DRILLING APPALACHIAN CORPORATION; RICHARD TUTTLE, ET UX; 24,832.00; 2,500.00;  
 ROYALTY OWNER: Timothy L. VanCamp, Tamara M. Reynolds, BRC Appalachian Minerals I, LLC, J. Maurice Carlisle; LEASE NO: ACREAGE: 85.785 58.293; 9.93; 95.4; 2,500.00; 6,237' TVD  
 PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled ESTIMATED DEPTH: 25,441' MD  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale

WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Kevin Ellis  
 ADDRESS: 1615 Wynkoop Street ADDRESS: 535 White Oaks Blvd.  
 Denver, CO 80202 Bridgeport, WV 26330

06/28/2024

**Antero Resources**  
**Well No. Ringnus 2H**  
**As-Drilled**  
 Antero Resources Corporation



ID	TM-Par	Owner	Bk/Pg	Acres
1	9-19	David E. Bowyer	OR16/22	85.79
2	9-31.1	David E. Bowyer	OR16/22	38.04
3	9-28	Constance Heintzman	WB43/505	104.50
4	9-17	Ethan A. & Marsha L. Riffle	323/649	90.04
5	9-16	Donald Grimes	547/631	118.21
6	9-6.1	Larry G. & Joyce Ann Kaprich	326/874	40.51
7	9-6.3	Donna E. Cecil	611/328	1.44
8	9-5.1	Carl L. & Donna M. Yoho	328/400	1.65
9	9-5	Chad & Janet L. Heintzman	330/527	64.35
10	9-7.1	Carl L & Donna M Yoho	320/456	117.00
11	5-18	Melvin S. Stern, et al	222/185	43.50
12	5-17	Kenneth W. & Susan D. Paden	215/390	11.11
13	5-16	Kenneth W. & Susan D. Paden	215/390	11.11
14	5-14	Kenneth W. & Susan D. Paden	215/390	55.22
15	5-15	Kenneth W. & Susan D. Paden	215/390	21.32
16	5-15.1	Joshua K. & Tomela Paden	355/821	1.00
17	5-19	John P. & Susan Buck	337/634	159.21
18	5-7	Jane Buck	42/148	0.87
19	5-9.2	Bryan Scott & Eleanor A. Campbell	350/334	1.23
20	5-9	Sally Anderson	368/92	25.89
21	5-9.3	Franklin G. & Nancy M. Broughman	351/143	8.92
22	5-8	Franklin & Nancy Broughman	338/292	33.17
23	5-2.1	John Goode	OR28/720	27.52
24	5-1	Richard Lee & Linda Tuttle	362/43	88.00
25	5-34	Timothy J. & Miranda Haynes	OR151/407	74.50
26	5-35	Ethel & Timothy Brown	AR45/28	8.50
27	5-36	Brandon P. Mason and Katie E. Mason	396/464	56.86
28	5-41	Cheryl W. Cowen, et al	166/56	36.00
29	5-38	Clegg Family Irrevocable Trust	361/387	3.50
30	5-37	Clegg Family Irrevocable Trust	369/576	19.80
31	2-??	Shawn D. & Tara A. Cross	612/75	---
32	1-8	Gary & Marsha L. Holmes	372/325	95.40
33	2-11	Misty D. Willey	555/467	4.00
34	2-1	Lloyd Wayne & Lottie Cross	188/383	50.00
35	2-2	Betty Lou Billiter Irrevocable Trust	375/476	65.00
36	15-12	Mike Ross Inc.	459/59	69.45
37	2-5	Betty Lou Billiter Irrevocable Trust	375/476	0.60
38	15-4	Linda K Patterson et al	AP97/843	7.17
39	1-27	Lloyd Lewis	295/505	2.50
40	1-22	Monongahela Power Company	184/487	0.28

Leases	
A	Timothy L. VanCamp
B	Tamara M. Reynolds
C	Martha Hayes, et vir
D	BRC Appalachian Minerals I LLC
E	Earl Grimes, et ux
F	J. Maurice Carlisle
G	John T. Goosman, et ux
H	Janet L. Heintzman
I	BRC Appalachian Minerals I, LLC
J	Jane Ann Miller
K	John Paul Buck, et ux
L	BRC Appalachian Minerals I, LLC
M	Drilling Appalachian Corporaion
N	Ralph & Stella Judge
O	Richard Tuttle, et ux
P	Waco Oil & Gas Co Inc.
Q	Brandon P. Mason, et ux
R	Heritage Resources - Marcellus Minerals, LLC
S	Lee & Hall Royalties
T	BRC Appalachian Minerals I, LLC
U	Henry P. Snyder, et al
V	Gary Holmes, et ux
W	Bounty Minerals, LLC
X	Lonnie L. & Bettie Lou Billiter
Y	Betty Lou Billiter Irrevocable Trust
Z	Esther K. Hissam

FILE NO: 20-54-L-18  
 DRAWING NO: Ringnus 2H As-Drilled  
 SCALE: 1" = 2000'  
 MINIMUM DEGREE OF ACCURACY:  
Submeter  
 PROVEN SOURCE OF ELEVATION:  
WVDOT, Harrisville, WV

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

DATE: January 17 2024  
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 API WELL NO  
47 - 95 - 02863  
 STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION: As-Built 1,007' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Paden City  
 DISTRICT: Lincoln COUNTY: Tyler  
 SURFACE OWNER: David E. Bowyer ACREAGE: 85.765  
 ROYALTY OWNER: Timothy L. VanCamp, Tamara M. Reynolds, BRC Appalachian Minerals I, LLC, J. Maurice Carlisle, LEASE NO: \_\_\_\_\_ ACREAGE: 59.50, 50, 65, 200

PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 25,441' MD

WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Kevin Ellis  
 ADDRESS: 1615 Wynkoop Street ADDRESS: 535 White Oaks Blvd.  
Denver, CO 80202 Bridgeport, WV 26330

Exhibit 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	10/8/2023	25315.0	25270	36	Marcellus
2	10/9/2023	25231.3	25064.6413	36	Marcellus
3	10/9/2023	25028.9	24862.2826	36	Marcellus
4	10/9/2023	24826.6	24659.9239	36	Marcellus
5	10/10/2023	24624.2	24457.5652	36	Marcellus
6	10/10/2023	24421.8	24255.2065	36	Marcellus
7	10/10/2023	24219.5	24052.8478	36	Marcellus
8	10/11/2023	24017.1	23850.4891	36	Marcellus
9	10/11/2023	23814.8	23648.1304	36	Marcellus
10	10/11/2023	23612.4	23445.7717	36	Marcellus
11	10/12/2023	23410.0	23243.413	36	Marcellus
12	10/12/2023	23207.7	23041.0543	36	Marcellus
13	10/12/2023	23005.3	22838.6957	36	Marcellus
14	10/12/2023	22803.0	22636.337	36	Marcellus
15	10/13/2023	22600.6	22433.9783	36	Marcellus
16	10/13/2023	22398.3	22231.6196	36	Marcellus
17	10/13/2023	22195.9	22029.2609	36	Marcellus
18	10/14/2023	21993.5	21826.9022	36	Marcellus
19	10/14/2023	21791.2	21624.5435	36	Marcellus
20	10/14/2023	21588.8	21422.1848	36	Marcellus
21	10/14/2023	21386.5	21219.8261	36	Marcellus
22	10/15/2023	21184.1	21017.4674	36	Marcellus
23	10/15/2023	20981.7	20815.1087	36	Marcellus
24	10/15/2023	20779.4	20612.75	36	Marcellus
25	10/16/2023	20577.0	20410.3913	36	Marcellus
26	10/16/2023	20374.7	20208.0326	36	Marcellus
27	10/16/2023	20172.3	20005.6739	36	Marcellus
28	10/16/2023	19969.9	19803.3152	36	Marcellus
29	10/17/2023	19767.6	19600.9565	36	Marcellus
30	10/17/2023	19565.2	19398.5978	36	Marcellus
31	10/17/2023	19362.9	19196.2391	36	Marcellus
32	10/17/2023	19160.5	18993.8804	36	Marcellus
33	10/18/2023	18958.2	18791.5217	36	Marcellus
34	10/18/2023	18755.8	18589.163	36	Marcellus
35	10/18/2023	18553.4	18386.8043	36	Marcellus
36	10/18/2023	18351.1	18184.4457	36	Marcellus
37	10/18/2023	18148.7	17982.087	36	Marcellus
38	10/19/2023	17946.4	17779.7283	36	Marcellus
39	10/19/2023	17744.0	17577.3696	36	Marcellus
40	10/19/2023	17541.6	17375.0109	36	Marcellus
41	10/19/2023	17339.3	17172.6522	36	Marcellus
42	10/20/2023	17136.9	16970.2935	36	Marcellus
43	10/20/2023	16934.6	16767.9348	36	Marcellus
44	10/20/2023	16732.2	16565.5761	36	Marcellus
45	10/20/2023	16529.8	16363.2174	36	Marcellus
46	10/21/2023	16327.5	16160.8587	36	Marcellus
47	10/21/2023	16125.1	15958.5	36	Marcellus
48	10/21/2023	15922.8	15756.1413	36	Marcellus
49	10/21/2023	15720.4	15553.7826	36	Marcellus
50	10/22/2023	15518.1	15351.4239	36	Marcellus
51	10/22/2023	15315.7	15149.0652	36	Marcellus
52	10/22/2023	15113.3	14946.7065	36	Marcellus
53	10/22/2023	14911.0	14744.3478	36	Marcellus
54	10/23/2023	14708.6	14541.9891	36	Marcellus
55	10/23/2023	14506.3	14339.6304	36	Marcellus
56	10/23/2023	14303.9	14137.2717	36	Marcellus
57	10/23/2023	14101.5	13934.913	36	Marcellus
58	10/23/2023	13899.2	13732.5543	36	Marcellus
59	10/24/2023	13696.8	13530.1957	36	Marcellus
60	10/24/2023	13494.5	13327.837	36	Marcellus
61	10/24/2023	13292.1	13125.4783	36	Marcellus
62	10/24/2023	13089.8	12923.1196	36	Marcellus
63	10/24/2023	12887.4	12720.7609	36	Marcellus
64	10/25/2023	12685.0	12518.4022	36	Marcellus
65	10/25/2023	12482.7	12316.0435	36	Marcellus
66	10/25/2023	12280.3	12113.6848	36	Marcellus
67	10/25/2023	12078.0	11911.3261	36	Marcellus
68	10/26/2023	11875.6	11708.9674	36	Marcellus
69	10/26/2023	11673.2	11506.6087	36	Marcellus
70	10/26/2023	11470.9	11304.25	36	Marcellus
71	10/26/2023	11268.5	11101.8913	36	Marcellus
72	10/27/2023	11066.2	10899.5326	36	Marcellus
73	10/27/2023	10863.8	10697.1739	36	Marcellus
74	10/27/2023	10661.4	10494.8152	36	Marcellus
75	10/27/2023	10459.1	10292.4565	36	Marcellus
76	10/27/2023	10256.7	10090.0978	36	Marcellus
77	10/28/2023	10054.4	9887.73913	36	Marcellus
78	10/28/2023	9852.0	9685.38043	36	Marcellus
79	10/28/2023	9649.7	9483.02174	36	Marcellus
80	10/28/2023	9447.3	9280.66304	36	Marcellus
81	10/28/2023	9244.9	9078.30435	36	Marcellus
82	10/29/2023	9042.6	8875.94565	36	Marcellus
83	10/29/2023	8840.2	8673.58696	36	Marcellus
84	10/29/2023	8637.9	8471.22826	36	Marcellus
85	10/29/2023	8435.5	8268.86957	36	Marcellus
86	10/29/2023	8233.1	8066.51087	36	Marcellus
87	10/30/2023	8030.8	7864.15217	36	Marcellus
88	10/30/2023	7828.4	7661.79348	36	Marcellus
89	10/30/2023	7626.1	7459.43478	36	Marcellus
90	10/30/2023	7423.7	7257.07609	36	Marcellus
91	10/30/2023	7221.3	7054.71739	36	Marcellus
92	10/31/2023	7019.0	6852.3587	36	Marcellus
93	10/31/2023	6816.6	6650	36	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	10/8/2023	76.4	9548.4	8180.16	3657.0	0	0.0	N/A
2	10/9/2023	82.6	9963.3	5069.21	3854.4	396580	7940.9	N/A
3	10/9/2023	85.0	9746.0	4555.82	3755.6	409960	7962.8	N/A
4	10/9/2023	77.9	9713.3	4527.87	3224.0	417280	7891.3	N/A
5	10/10/2023	84.1	9792.3	5036.8	3747.0	421580	10224.4	N/A
6	10/10/2023	82.2	9878.6	4916.34	3763.2	419560	7554.7	N/A
7	10/10/2023	84.4	9901.9	4817.03	3202.7	425540	8076.5	N/A
8	10/11/2023	86.4	9875.6	4586.53	3283.8	422100	8052.7	N/A
9	10/11/2023	85.1	9859.0	4140.94	3251.9	423340	8235.0	N/A
10	10/11/2023	82.5	9601.9	5107.52	3146.7	413420	8043.2	N/A
11	10/12/2023	83.4	9611.9	5088.07	3258.2	422880	8151.8	N/A
12	10/12/2023	85.3	9860.2	4887.14	3695.0	413940	7804.5	N/A
13	10/12/2023	85.9	9835.1	4624.41	3662.6	405460	7639.6	N/A
14	10/12/2023	83.1	10041.9	4962.97	3450.2	418940	7967.1	N/A
15	10/13/2023	85.5	9916.3	5194.3	3631.0	415460	8003.7	N/A
16	10/13/2023	84.1	9789.8	5028.98	3209.2	417760	7649.3	N/A
17	10/13/2023	83.6	9619.4	4805.02	3351.6	414320	7515.3	N/A
18	10/14/2023	84.7	9786.3	5377.43	3502.7	423880	7825.7	N/A
19	10/14/2023	86.2	10077.8	5277.2	3500.0	413900	7594.3	N/A
20	10/14/2023	86.1	9807.3	4352.83	3350.0	414400	7616.8	N/A
21	10/14/2023	91.7	10138.9	5785.53	3607.5	421180	7561.2	N/A
22	10/15/2023	88.2	10140.6	5435.01	3123.4	417360	7489.9	N/A
23	10/15/2023	92.3	10062.0	5176.91	3340.5	423580	7698.2	N/A
24	10/15/2023	89.4	9543.3	5087.86	3492.4	418500	7905.9	N/A
25	10/16/2023	93.3	10144.4	5658.01	3368.3	418960	7428.9	N/A
26	10/16/2023	88.8	9563.3	5316.63	3381.2	420240	7470.9	N/A
27	10/16/2023	92.3	10016.9	4902.84	3335.0	422340	7629.2	N/A
28	10/16/2023	91.7	9765.7	4754.75	3347.7	416420	7538.0	N/A
29	10/17/2023	93.1	9839.7	5092.49	3426.2	426620	7844.0	N/A
30	10/17/2023	92.2	9798.7	5202.84	3499.3	411800	7849.6	N/A
31	10/17/2023	95.8	10404.0	5300.94	3321.4	417240	7212.4	N/A
32	10/17/2023	88.8	10073.2	5192.52	3288.5	404250	7473.5	N/A
33	10/18/2023	95.9	10005.9	4949.2	3235.2	420120	7710.5	N/A
34	10/18/2023	95.1	9962.1	5320.41	3389.4	413560	7334.6	N/A
35	10/18/2023	97.2	10208.7	5293.55	3603.5	417060	8383.2	N/A
36	10/18/2023	92.3	9968.4	5171.34	3396.3	418980	7221.8	N/A
37	10/18/2023	94.6	9942.4	4639.85	3324.4	419720	7292.4	N/A
38	10/19/2023	94.7	9633.1	3893.19	3319.9	417500	7341.4	N/A
39	10/19/2023	98.7	9659.3	4911.12	3282.6	418820	7224.1	N/A
40	10/19/2023	97.5	9892.1	5041.03	3272.0	420200	7531.3	N/A
41	10/19/2023	96.1	9680.4	4400.53	3414.6	417840	7321.6	N/A
42	10/20/2023	96.6	9469.5	3939.7	3447.1	414600	7259.3	N/A
43	10/20/2023	96.9	9880.1	5246.36	3535.4	415900	7223.0	N/A
44	10/20/2023	94.1	9840.9	5087.61	3535.7	417020	7340.1	N/A
45	10/20/2023	97.0	9435.5	4571.04	3277.2	419900	7549.0	N/A
46	10/21/2023	95.8	9622.3	4944.03	3489.6	417360	7211.9	N/A
47	10/21/2023	95.6	9154.4	4947	3329.9	415960	7283.0	N/A
48	10/21/2023	97.6	9621.0	5221.99	3448.4	418960	7309.9	N/A
49	10/21/2023	96.7	9230.9	5417.62	3629.4	412940	7274.5	N/A
50	10/22/2023	96.8	9136.4	4130.18	3830.7	407460	6981.9	N/A
51	10/22/2023	93.0	9328.4	5151.84	3415.0	413180	7003.3	N/A
52	10/22/2023	97.0	9224.3	4671.72	3417.4	422220	7267.5	N/A
53	10/22/2023	97.4	9040.8	5695.34	3366.1	422740	7160.6	N/A
54	10/23/2023	96.2	9036.5	4969.07	3435.6	415780	7075.5	N/A
55	10/23/2023	97.1	8711.3	4355.25	3567.4	416340	6903.2	N/A
56	10/23/2023	97.7	8878.7	5078.95	3351.0	411180	7039.1	N/A
57	10/23/2023	95.0	8864.3	5034.25	3346.0	418360	7194.2	N/A
58	10/23/2023	97.4	8921.9	4777.2	3276.3	415840.0	7123.6	N/A
59	10/24/2023	97.3	8737.9	4574.0	3402.7	417360.0	6874.1	N/A
60	10/24/2023	96.8	8706.5	4955.5	3380.7	414400.0	6817.7	N/A
61	10/24/2023	97.8	8771.4	5108.0	3293.6	417060.0	6887.8	N/A
62	10/24/2023	97.6	8768.2	5316.5	3371.1	412840.0	6894.4	N/A
63	10/24/2023	95.4	8770.6	5177.8	3329.4	415300.0	6799.6	N/A
64	10/25/2023	97.1	8674.5	4865.1	3431.4	414520.0	6723.0	N/A
65	10/25/2023	97.9	8696.1	4915.8	3306.1	412580.0	7032.7	N/A
66	10/25/2023	97.6	8455.6	5102.6	3247.1	404310.0	6712.8	N/A
67	10/25/2023	97.6	8333.8	4765.7	3166.4	417680.0	6991.9	N/A
68	10/26/2023	96.8	8339.1	4923.0	3224.7	418460.0	6811.2	N/A
69	10/26/2023	96.4	8357.0	4374.5	3222.8	414960.0	6865.7	N/A
70	10/26/2023	97.1	8375.5	4956.9	3260.5	415660.0	6760.6	N/A
71	10/26/2023	98.0	8222.5	4963.9	3244.8	420240.0	6944.0	N/A
72	10/27/2023	96.6	8124.4	5010.9	3463.2	413660.0	6960.8	N/A
73	10/27/2023	97.7	8125.4	5295.9	3320.6	417240.0	6992.4	N/A
74	10/27/2023	96.9	8104.0	4887.8	3336.5	416520.0	6635.5	N/A
75	10/27/2023	97.9	8170.0	5189.8	3337.8	418480.0	6581.7	N/A
76	10/27/2023	97.2	8742.9	5501.1	3434.8	413120.0	6335.4	N/A
77	10/28/2023	97.8	8537.0	4943.7	3349.2	414500.0	6877.0	N/A
78	10/28/2023	98.3	8803.4	5266.2	3280.5	413300.0	6883.5	N/A
79	10/28/2023	97.9	8547.6	4806.7	3294.7	415580.0	6925.0	N/A
80	10/28/2023	97.4	8539.1	5193.3	3236.9	415540.0	6833.8	N/A
81	10/28/2023	98.3	8395.8	5108.6	3399.4	415700.0	6745.5	N/A
82	10/29/2023	98.6	8228.6	5392.9	3391.6	408720.0	6819.5	N/A
83	10/29/2023	97.9	8217.5	5215.4	3286.6	421080.0	7125.4	N/A
84	10/29/2023	97.3	7753.3	4843.6	3254.0	414560.0	7028.0	N/A
85	10/29/2023	98.2	8193.6	5075.1	3273.8	413460.0	6905.2	N/A
86	10/29/2023	98.0	8158.1	5064.8	3391.0	410220.0	6719.9	N/A
87	10/30/2023	97.8	8014.4	4237.1	3298.6	407320.0	6681.5	N/A
88	10/30/2023	97.9	7888.9	4698.9	3257.6	412880.0	6746.4	N/A
89	10/30/2023	97.5	7461.9	4959.1	3255.3	411960.0	7140.9	N/A
90	10/30/2023	96.8	7310.5	5656.6	3194.7	411380.0	6688.1	N/A
91	10/30/2023	98.2	7358.6	5064.8	3171.3	413220.0	6778.2	N/A
92	10/31/2023	98.6	7134.5	4916.9	3360.6	404280.0	7740.8	N/A
93	10/31/2023	96.2	6861.3	4483.2	3047.0	408980.0	6898.5	N/A
AVERAGE		93	9,139	5,001	3,382	38,255,400	672,670	N/A

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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
Shaley Sandstone	624	724	624	724
Sandy Shale	724	774	724	774
Shale	774	824	774	824
Sandy Shale	824	874	824	874
Shale	874	1,024	874	1,024
Sandy Shale	1,024	1,124	1,024	1,124
Sandy Shale	1,124	1,224	1,124	1,224
Shaley Sandstone	1,224	1,324	1,224	1,324
Sandstone, Tr Shale	1,324	1,424	1,324	1,424
Shale, Tr Sandstone	1,424	1,524	1,424	1,524
Sandy Shale	1,524	1,624	1,524	1,624
Shale, tr Sandstone	1,624	1,774	1,624	1,774
Sandy Shale	1,774	1,803	1,774	1,803
Big Lime	1,829	2,708	1,803	2,709
Fifty Foot Sandstone	2,708	2,792	2,683	2,792
Gordon	2,792	2,918	2,766	2,918
Fifth Sandstone	2,918	3,170	2,892	3,170
Bayard	3,170	3,860	3,144	3,866
Speechley	3,860	4,100	3,840	4,119
Balltown	4,100	4,548	4,093	4,618
Bradford	4,548	4,856	4,592	4,966
Benson	4,856	5,081	4,940	5,222
Alexander	5,081	6,108	5,196	6,377
Sycamore	5,977	6,082	6,195	6,351
Middlesex	6,082	6,167	6,351	6,516
Burkett	6,167	6,198	6,516	6,602
Marcellus	6,198	NA	6,602	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.

# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	11/09/2023
Job End Date:	11/09/2023
State:	West Virginia
County:	Tyler
API Number:	47-095-02863-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	RINGNUS UNIT 2H
Latitude:	39.5519
Longitude:	-80.9177
Datum:	WGS84
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6280
Total Base Water Volume (gal)*:	30223722
Total Base Non Water Volume:	0



Water Source	Percent
Produced Water	100.00%

## 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
FDP-S1464-22	Halliburton	Friction Reducer					
HAI-501	Halliburton	Acid Corrosion Inhibitor					
HYDROCHLORIC ACID, 22 BAUME	Halliburton	Solvent					
MC B-8614A	MultiChem	Biocide					
OPTIFLO-II DELAYED RELEASE BREAKER	Halliburton	Breaker					
Produced Water	Operator	Base Fluid					
Sand-Common White-100 Mesh, SSA-2	Halliburton	Proppant					
WG-36 GELLING AGENT	Halliburton	Gelling Agent					

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Items above are Trade Names. Items below are the individual ingredients.

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			Water	7732-18-5	100.00000	86.60483
			Crystalline silica, quartz	14808-60-7	100.00000	13.20744
			Water	7732-18-5	100.00000	0.16155
			Hydrochloric acid	7647-01-0	30.00000	0.03744
			Complex amine compound	Proprietary	60.00000	0.02855
			Hydrotreated distillate	Proprietary	30.00000	0.01428
			Guar gum	9000-30-0	100.00000	0.00678
			Glutaraldehyde	111-30-8	30.00000	0.00246
			Ammonium chloride	12125-02-9	5.00000	0.00238
			Ethoxylated alcohol	Proprietary	5.00000	0.00238
			Fatty nitrogen derived amides	Proprietary	5.00000	0.00238
			Sorbitan, mono-9-octadecenoate, (Z)	1338-43-8	1.00000	0.00048
			Sorbitan monooleate polyoxyethylene derivative	9005-65-6	1.00000	0.00048
			Quaternary ammonium compound	68424-85-1	5.00000	0.00041
			Methanol	67-56-1	100.00000	0.00023
			Ammonium persulfate	7727-54-0	100.00000	0.00015
			Ethanol	64-17-5	1.00000	0.00008
			Mixture of dimer and trimer fatty acids of indefinite composition derived from tall oil	61790-12-3	30.00000	0.00007
			Modified thiourea polymer	Proprietary	30.00000	0.00007
			Oxylated phenolic resin	Proprietary	30.00000	0.00004
			Propargyl alcohol	107-19-7	5.00000	0.00001
			Hexadecene	629-73-2	5.00000	0.00001
			Ethoxylated alcohols	Proprietary	5.00000	0.00001
			C.I. pigment Orange 5	3468-63-1	1.00000	0.00000

\* Total Water Volume sources may include various types of water including fresh water, produced water, and 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.

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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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