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west virginia department of environmental protection

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Office of Oil and Gas  
601 57<sup>th</sup> Street, S.E.  
Charleston, WV 25304  
(304) 926-0450  
fax: (304) 926-0452

Harold D. Ward, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Monday, August 7, 2023  
PERMIT MODIFICATION APPROVAL  
Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION  
1615 WYNKOOP STREET  
  
DENVER, CO 80202

Re: Permit Modification Approval for TANGERINE UNIT 1H  
47-095-02866-00-00

**Lateral Extension**

ANTERO RESOURCES CORPORATION

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

If there are any questions, please feel free to contact me at (304) 926- 0450.

A blue ink signature of James A. Martin, Chief, is written over the text.

James A. Martin  
Chief

Operator's Well Number: TANGERINE UNIT 1H  
Farm Name: DAVID E BOWYER  
U.S. WELL NUMBER: 47-095-02866-00-00  
Horizontal 6A New Drill  
Date Modification Issued: 08/07/2023

Promoting a healthy environment.

08/11/2023

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
WELL WORK PERMIT APPLICATION

- 1) Well Operator: Antero Resources Corpora

494507062	095 - Tyler	Lincoln	Paden City 7.5'
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Operator ID County District Quadrangle
- 2) Operator's Well Number: Tangerine Unit 1H MOD Well Pad Name: Dry Run Pad
- 3) Farm Name/Surface Owner: David E. Bowyer Public Road Access: Dry Run Road
- 4) Elevation, current ground: 1007' Elevation, proposed post-construction: \_\_\_\_\_
- 5) Well Type (a) Gas  Oil \_\_\_\_\_ Underground Storage \_\_\_\_\_  
Other \_\_\_\_\_  
(b) If Gas Shallow  Deep \_\_\_\_\_  
Horizontal
- 6) Existing Pad: Yes or No Yes
- 7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):  
Marcellus Shale: 6700' TVD, Anticipated Thickness- 55 feet, Associated Pressure- 2850#
- 8) Proposed Total Vertical Depth: 6700' TVD
- 9) Formation at Total Vertical Depth: Marcellus
- 10) Proposed Total Measured Depth: 26200' MD
- 11) Proposed Horizontal Leg Length: 16013.1'
- 12) Approximate Fresh Water Strata Depths: 382'
- 13) Method to Determine Fresh Water Depths: 47095002750000 Offset well records. Depths have been adjusted according to surface elevations.
- 14) Approximate Saltwater Depths: 1653'
- 15) Approximate Coal Seam Depths: None Anticipated
- 16) Approximate Depth to Possible Void (coal mine, karst, other): None Anticipated
- 17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes \_\_\_\_\_ No
- (a) If Yes, provide Mine Info: Name: \_\_\_\_\_  
Depth: \_\_\_\_\_  
Seam: \_\_\_\_\_  
Owner: \_\_\_\_\_

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Environmental Protection

*Stevenson*  
8/2/23

18)

**CASING AND TUBING PROGRAM**

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20"	New	H-40	79#	100'	100' ✓	CTS, 96 Cu. Ft.
Fresh Water	13-3/8"	New	J/K-55	54.5#	570'	570' ✓	CTS, 594 Cu. Ft.
Coal	9-5/8"	New	J-/K55	36#	2500'	2500' ✓	CTS, 1018 Cu. Ft.
Intermediate							
Production	5-1/2"	New	P-110CY	20#	26200'	26200' ✓	CTS, 5674 Cu. Ft.
Tubing	2-3/8"	New	N-80	4.7#			
Liners							

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	24"	0.375"	2250	50	Class A/L	~1.18
Fresh Water	13-3/8"	17-1/2"	0.38"	2730	1000	Class A/L	~1.18
Coal	9-5/8"	12-1/4"	0.352"	3520	1500	Class A/L	~1.18
Intermediate							
Production	5-1/2"	8-3/4" & 8-1/2"	0.415"	14,360	2500 ✓	Class G/H	~1.8
Tubing	2-3/8"	4.778"	0.19"	11,200			
Liners							

**PACKERS**

Kind:	N/A			
Sizes:	N/A			
Depths Set:	N/A			

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 Environmental Protection

*SM*  
 8/12/23

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Drill a new horizontal shallow well into the Marcellus Shale.

\*Antero will be air drilling the fresh water string which makes it difficult to determine when fresh water is encountered. Therefore, we have built in a buffer for the casing setting depth which helps to ensure that all fresh water zones are covered.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

Antero plans to pump Slickwater into the Marcellus Shale formation in order to ready the well for production. The fluid will be comprised of approximately 99 percent water and sand, with less than 1 percent special-purpose additives as shown in the attached "List of Anticipated Additives Used for Fracturing or Stimulating Well."

Anticipated Max Pressure - 9300 lbs  
Anticipated Max Rate - 80 bpm

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 22.58 acres

22) Area to be disturbed for well pad only, less access road (acres): 9.70 acres

23) Describe centralizer placement for each casing string:

Conductor: no centralizers  
Surface Casing: one centralizer 10' above the float shoe, one on the insert float collar and one every 4th joint spaced up the hole to surface.  
Intermediate Casing: one centralizer above float joint, one centralizer 5' above float collar and one every 4th collar to surface.  
Production Casing: one centralizer at shoe joint and one every 3 joints to top of cement in intermediate casing.

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24) Describe all cement additives associated with each cement type:

Conductor: no additives, Class A/L cement.  
Surface: Class A/L cement with 2-3% calcium chloride and 1/4 lb of flake  
Intermediate: Class A/L cement with 1/4 lb of flake, 5 gallons of clay treat  
Production: Lead cement- 50/50 Class H/Poz + 1.5% salt + 1% C-45 + 0.5% C-16a + 0.2% C-12 + 0.45% C-20 + 0.05% C-51  
Production: Tail cement- Class G/H + 45 PPS Calcium Carbonate + 1.0% FL-160 + 0.2% ACGB-47 + 0.05% ACSA-51 + 0.2% ACR-20

25) Proposed borehole conditioning procedures:

Conductor: blowhole clean with air, run casing, 10 bbls fresh water.  
Surface: blowhole clean with air, trip to conductor shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate pipe capacity + 40 bbls fresh water followed by 25 bbls bentonite mud, 10 bbls fresh water spacer.  
Intermediate: blowhole clean with air, trip to surface casing shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate 40 bbls brine water followed by 10 bbls fresh water and 25 bbls bentonite mud, pump 10 bbls fresh water.  
Production: circulate with 14 lb/gal NaCl mud, trip to middle of lateral, circulate, pump high viscosity sweep, trip to base of curve, pump high viscosity sweep, trip to top of curve, trip to bottom, circulate, pump high viscosity sweep, trip out, run casing, circulate 10 bbls fresh water, pump 48 bbls barite pill, pump 10 bbls fresh water followed by 48 bbls mud flush and 10 bbls water.

\*Note: Attach additional sheets as needed.

JM  
8/11/23



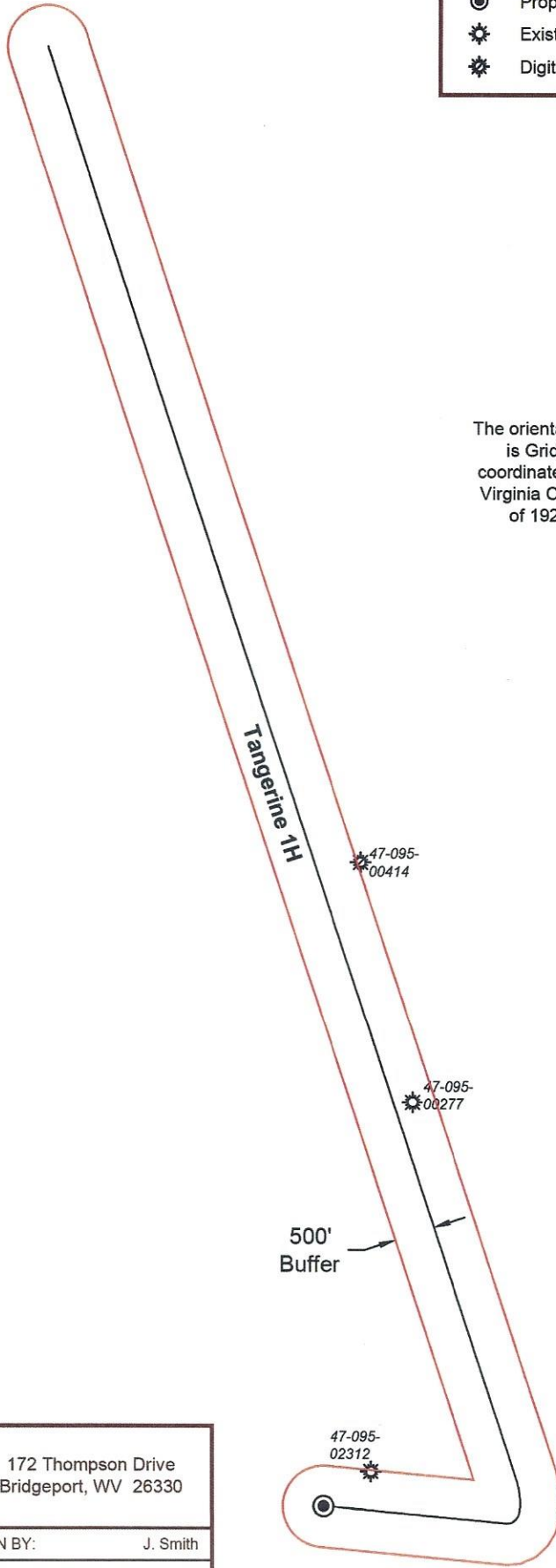
Scale: 1 inch = 2000 feet

**LEGEND**

- ⊙ Proposed gas well
- ⊛ Existing Well, as noted
- ⊛ Digitized Well, as noted



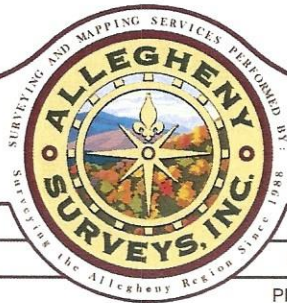
The orientation of this survey is Grid North, and its coordinate base is the West Virginia Coordinate System of 1927, North Zone



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Office of Oil and Gas

**JUL 25 2023**

WV Department of  
Environmental Protection



Bridgeport Office  
Phone: (304) 848-5035  
Fax: (304) 848-5037

172 Thompson Drive  
Bridgeport, WV 26330

PARTY CHIEF: C. Lynch	DRAWN BY: J. Smith
RESEARCH: J. Miller	PREPARED: April 20, 2023
SURVEYED: Dec. 2016	PROJECT NO: 14-54-L-23
FIELD CREW: C.L., K.M.	DRAWING NO: Tangerine 1H BHL MOD AOR

Sheet 1 of 1

08/11/2023

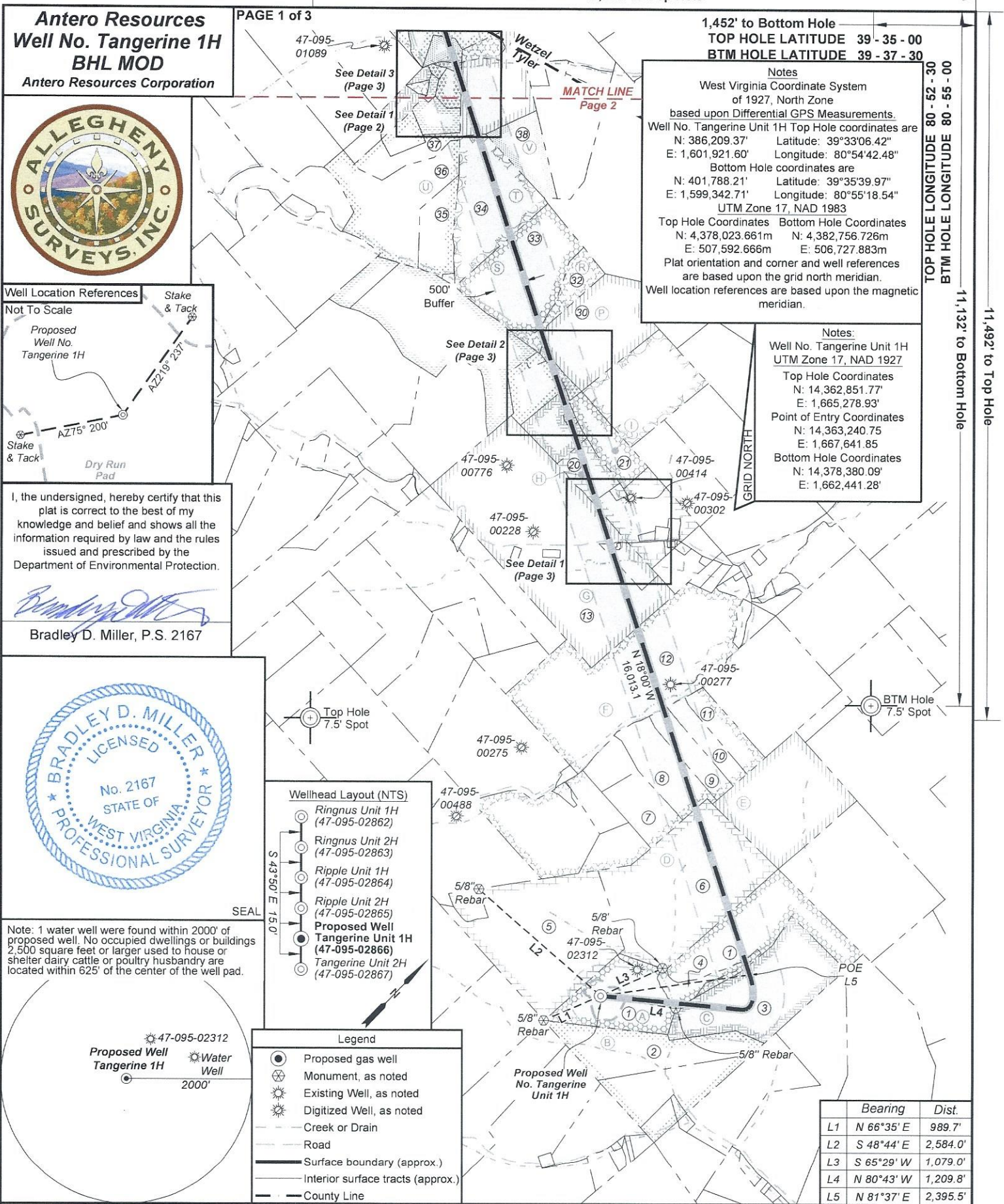
UWI (API Num)	Well Name	Well Number	Operator	Historical Operator	TD	Perforated Interval (shallowest, deepest)	Perforated Formation(s)	Productible Formation(s) not perf'd
4709500270000	J.S BUCK HEIRS	1	CANON OIL	CANON OIL	2,900		Devonian	Berea, Weir, Alexander
4709500414000	H HESLEP	1	ANTERO RESOURCES CORP	MAREVE OIL	3,000	2057 - 2593	Berea, Gantz, Fifth	Weir, Alexander
4709502312000	SCRUB OAK	1 V-1	BOWYER DAVID	ALLIANCE PETR CORP	5,401	4684 - 5212	Big Injun, Benson, Alexander, Rhinestreet	Weir

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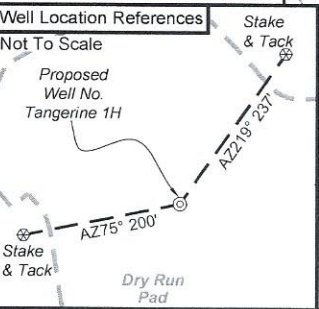
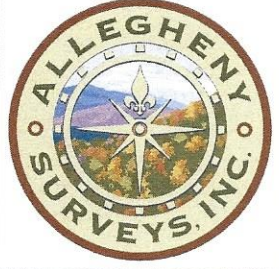


**Antero Resources**  
**Well No. Tangerine 1H**  
**BHL MOD**  
 Antero Resources Corporation

PAGE 1 of 3

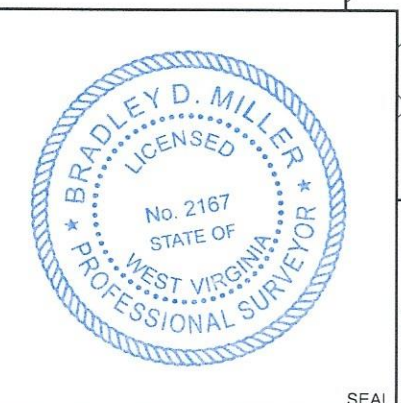
1,452' to Bottom Hole  
 TOP HOLE LATITUDE 39 - 35 - 00  
 BTM HOLE LATITUDE 39 - 37 - 30

**Notes**  
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements. Well No. Tangerine Unit 1H Top Hole coordinates are N: 386,209.37' Latitude: 39°33'06.42" E: 1,601,921.60' Longitude: 80°54'42.48" Bottom Hole coordinates are N: 401,788.21' Latitude: 39°35'39.97" E: 1,599,342.71' Longitude: 80°55'18.54" UTM Zone 17, NAD 1983  
 Top Hole Coordinates Bottom Hole Coordinates  
 N: 4,378,023.661m N: 4,382,756.726m  
 E: 507,592.666m E: 506,727.883m  
 Plat orientation and corner and well references are based upon the grid north meridian.  
 Well location references are based upon the magnetic meridian.

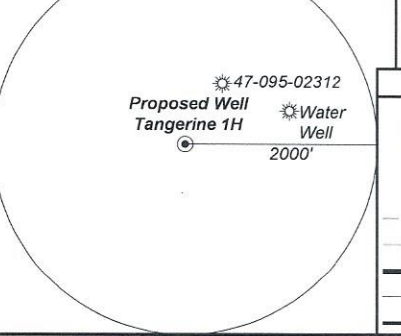


I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

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



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.



- Wellhead Layout (NTS)**
- Ringnus Unit 1H (47-095-02862)
  - Ringnus Unit 2H (47-095-02863)
  - Ripple Unit 1H (47-095-02864)
  - Ripple Unit 2H (47-095-02865)
  - Proposed Well Tangerine Unit 1H (47-095-02866)
  - Tangerine Unit 2H (47-095-02867)

- 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 66°35' E	989.7'
L2	S 48°44' E	2,584.0'
L3	S 65°29' W	1,079.0'
L4	N 80°43' W	1,209.8'
L5	N 81°37' E	2,395.5'

FILE NO: 14-54-L-23  
 DRAWING NO: Tangerine 1H Well Plat  
 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**

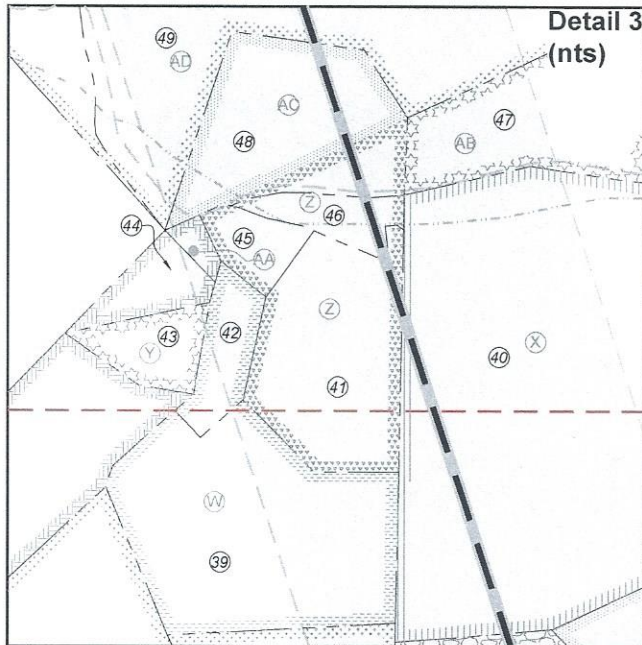
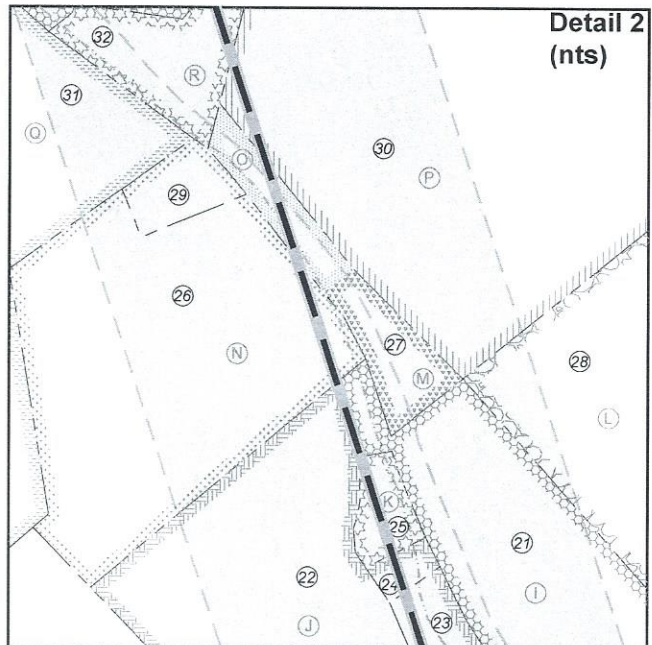
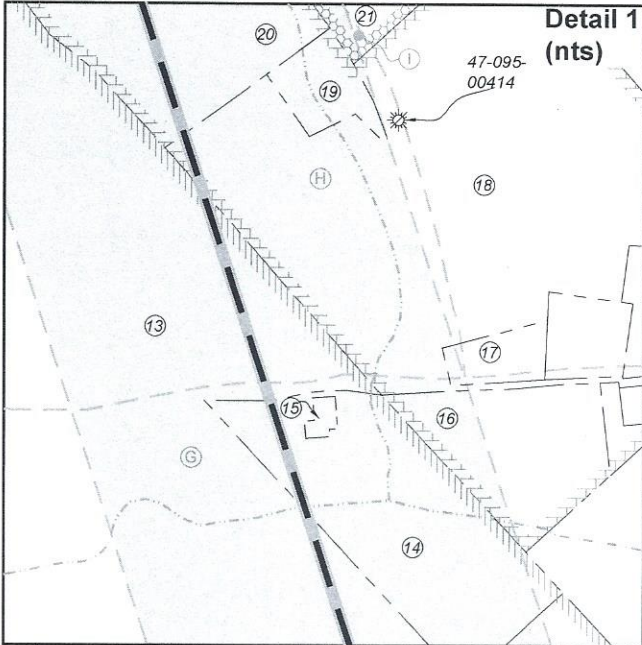
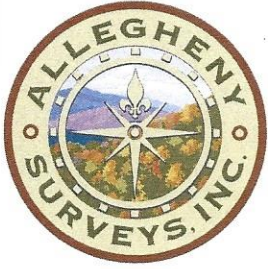
DATE: July 21 2023  
 OPERATOR'S WELL NO. Tangerine 1H  
 API WELL NO  
 47 - 95 - 02866  
 STATE COUNTY PERMIT

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: 85.785  
 ROYALTY OWNER: Timothy L. VanCamp; Bounty Minerals, LLC; BRC Appalachian Minerals I, LLC; J. Maurice Carlisle, Jr.; LEASE NO: ACREAGE: 34.75, 3.85, 39.5

PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BHL MOD  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 26,200' 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



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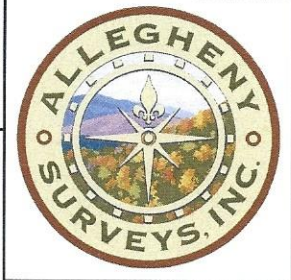
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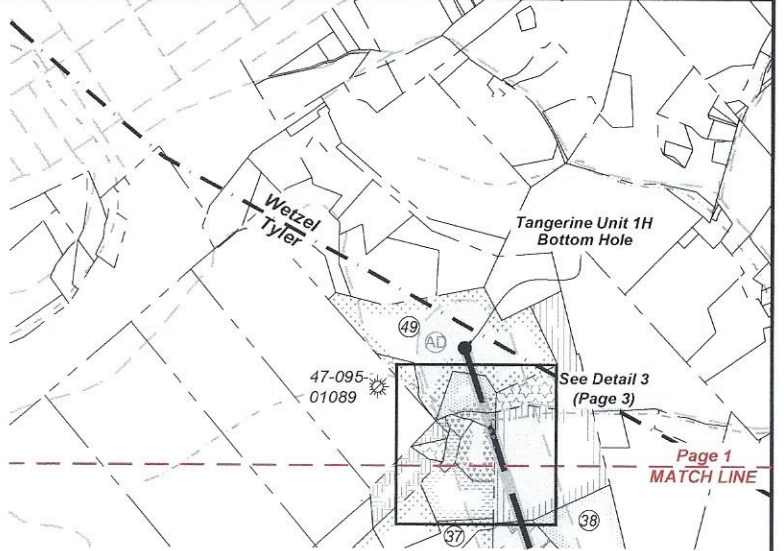
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**Antero Resources**  
**Well No. Tangerine 1H**  
**BHL MOD**  
 Antero Resources Corporation



PAGE 2 of 3



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	9-21	Thomas K. Brotherton	23/310	64.00
4	9-20	Jason & Jessica Greathouse & Laken Curtis	OR59/513	7.38
5	9-17	Ethan A. & Marsha L. Riffle	323/649	90.04
6	9-18	Michael V. & Debra K. Smith	331/94	100.00
7	9-7.3	Larry G. & Joyce Ann Kaprich	375/254	17.23
8	9-8	Tammy Williams & Alf Riggs	372/134	25.24
9	9-8.1	Steven Wayne & Cynthia Dennis	317/540	13.41
10	9-7.4	Terry L. Nelson, et al	456/828	10.78
11	9-7.2	Robert N. & Rita Paulette Christen	339/333	13.05
12	9-7.1	Carl L & Donna M Yoho	320/456	117.00
13	5-19	John P. & Susan Buck	337/634	159.21
14	5-23	John Paul & Susan Buck	337/634	5.00
15	5-22	Church of Christ	171/13	---
16	5-24.6	James G. & Brittany E. Flesher	577/289	3.82
17	5-24.4	Becky L. Anderson	299/173	0.75
18	5-24	Jamie Lee Moore and Cathy Jean Moore	419/556	25.22
19	5-24.2	Todd A. Keller	312/346	1.00
20	5-24.5	Jessica D. & Jonathan L. Moffit	565/511	11.19
21	5-28	Reed J. Davis	175/220	14.00
22	5-29.2	Larry Dale & Kay Lynn Ancell	273/511	11.00
23	5-29.1	Larry & Kay L. Ancell	229/446	1.38
24	5-29	Larry Ancell	WB27 6	---
25	5-29.3	Ray T. & Amy S. Fluharty	452/795	0.83
26	5-30	Timothy J. & Miranda Haynes	OR151/407	13.25
27	5-31.1	Ronnie Tate & Ellen Jane Eddy	304/292	6.00
28	5-27	Robert L. Oldham and Cynthia M. Oldham, et al	OR24/300	45.00
29	5-31	Mary Baker Stewart	212/34	1.01
30	5-32	Meghan E. Britton	OR135/173	48.99
31	5-34	Timothy J. & Miranda Haynes	OR151/407	74.50
32	5-33	George L. & Marie Moore	204/45	20.00
33	5-33.1	Judy K. Chichick	437/566	50.00
34	2-15	Karl F. Evans, et al	576/763	45.80
35	5-39	Jason Phillips	OR164/108	16.29
36	5-41	Cheryl W. Cowen, et al	166/56	36.00
37	2-??	Shawn D. & Tara A. Cross	612/75	---
38	2-21	Clinton Leasure	512/549	13.88
39	2-10	Shawn D. & Tara A. Cross	612/75	6.50
40	2-18	Bernard Jr. & Ellen Lipscomb	163/177	34.75
41	2-9	Shawn D. & Tara A. Cross	612/75	4.01
42	2-13	Shawn D. & Tara A. Cross	612/75	1.35
43	2-14.1	Shirley J. Billiter	434/262	1.12
44	2-14	Shirley Billiter	215/573	7.13
45	2-7	Shawn D. & Tara A. Cross	612/75	0.92
46	2-17	Todd Hadley & Shawna Moore	OR19/499	0.93
47	2-19	Robert Wayne Cross	282/184	4.46
48	2-8	Robert W. & Jean A. Cross	483/582	3.85
49	2-4	Timothy J. & Tiffany D. Michael	575/824	37.50

Leases	
A	Timothy L. Vancamp
B	Tamara M. Reynolds
C	Bounty Minerals, LLC
D	BRC Appalachian Minerals I LLC
E	Robert N. & Rita Paulette Christen
F	J. Maurice Carlisle, Jr.
G	John Paul Buck, et ux
H	George Heslep, et ux
I	Carolyn J. Davis
J	Larry Dale Ancell, et ux
K	J&N Management Enterprises, LLC
L	Richard A. Slider
M	Mary Evans
N	Heritage Resources - Marcellus Minerals, LLC
O	Antero Minerals, LLC
P	Dena Raye Grimes
Q	Waco Oil & Gas Co Inc.
R	George L. Moore, et ux
S	Ridgetop Royalties, LLC
T	Heritage Resources - Marcellus Minerals, LLC
U	Heritage Resources - Marcellus Minerals, LLC
V	Clinton Leasure
W	Rex S. & Tracy Goddard
X	Bernard Lipscomb, Jr., et ux
Y	Douglas C. Harris, et ux
Z	Lottie Elizabeth Cross
AA	Shirley J. Billiter
AB	Robert W. Cross, et ux
AC	Betty Lou Howell
AD	Michael Dail Stillwagner

FILE NO: 14-54-L-23  
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 Submeter  
 PROVEN SOURCE OF ELEVATION:  
 WVDOT, Harrisville, WV

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 ADDRESS: 1615 Wynkoop Street ADDRESS: 535 White Oaks Blvd.  
 Denver, CO 80202 Bridgeport, WV 26330

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE  
Chapter 22, Article 6A, Section 5(a)(5)  
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
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Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
<b><u>A: Timothy L. VanCamp Lease</u></b>			
Timothy L. VanCamp	Chesapeake Appalachia, LLC	1/8	354/704
Chesapeake Appalachia, LLC	Statoil USA Onshore Properties, Inc	Assignment	423/152
Statoil USA Onshore Properties, Inc	EQT Production Company	Assignment	539/239
EQT Production Company	Antero Resources Corporation	Assignment	134/172
<b><u>C: Bounty Minerals, LLC Lease</u></b>			
Bounty Minerals, LLC	Antero Resources Corporation	1/8+	623/575
RECEIVED Office of Oil and Gas			
<b><u>A: Timothy L. Vancamp Lease</u></b>			
Timothy L. VanCamp	Chesapeake Appalachia, LLC	1/8	354/704
Chesapeake Appalachia, LLC	Statoil USA Onshore Properties, Inc	Assignment	423/152
Statoil USA Onshore Properties, Inc	EQT Production Company	Assignment	539/239
EQT Production Company	Antero Resources Corporation	Assignment	134/172
JUL 25 2023 WV Department of Environmental Protection			
<b><u>D: BRC Appalachian Minerals I LLC Lease</u></b>			
BRC Appalachian Minerals I, LLC	BRC Working Interest Company LLC	1/8	369/300
BRC Working Interest Company LLC	Chesapeake Appalachia, LLC	Assignment	369/784
Chesapeake Appalachia, LLC	Statoil USA Onshore Properties, Inc	Assignment	378/764
Statoil USA Onshore Properties, Inc	SWN Exchange Titleholder, LLC	Assignment	470/668
SWN Exchange Titleholder, LLC	SWN Production Company, LLC	Merger	9/404
SWN Production Company, LLC	Antero Exchange Properties	Assignment	544/242
Antero Exchange Properties	Antero Resources Corporation	Merger	525/315
<b><u>F: J. Maurice Carlisle Jr. Lease</u></b>			
J. Maurice Carlisle, Jr	Antero Resources Corporation	1/8+	229/723
<b><u>G: John Paul Buck, et ux Lease</u></b>			
John Paul Buck, et ux	Antero Resources Corporation	1/8+	233/447
<b><u>H: George Heslep, et ux Lease</u></b>			
George Heslep, et ux	Joseph S. Gruss	1/8	176/240
Joseph S. Gruss	Mareve Oil Corp, Evmar Oil Corp, Jogruss Oil Corp,	Assignment	176/502
Mareve Oil Corp, Evmar Oil Corp, Jogruss Oil Corp,	Jomacare Inc	Assignment	200/152
Jomacare Inc	Quaker State Oil Refining Corporation	Name Change	WVSOS
Quaker State Corporation	Quaker State Corporation	Assignment	311/584
Belden and Blake Corporation	Belden and Blake Corporation	Assignment	321/340
Peake Energy, Inc	Peake Energy, Inc	Name Change	8/702
North Coast Energy Eastern Inc	North Coast Energy Eastern, Inc	Name Change	9/80
EXCO-North Coast Energy Eastern, Inc	EXCO- North Coast Energy Eastern, Inc	Name Change	WVSOS
EXCO Resources	EXCO Resources	Name Change	WVSOS
EXCO Production Company	Antero Resources Appalachian Corporation	Assignment	417/307
Antero Resources Appalachian Corporation	Antero Resources Corporation	Merger	557/430
<b><u>K: J&amp;N Management Enterprises, LLC Lease</u></b>			
J&N Management Enterprises, LLC	Antero Resources Corporation	1/8+	223/540
<b><u>J: Larry Dale Ancell, et ux Lease</u></b>			
Larry Dale Ancell, et ux	Antero Resources Corporation	1/8+	587/623

08/11/2023

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE  
 Chapter 22, Article 6A, Section 5(a)(5)  
 IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

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Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
<u>I: Carolyn J. Davis Lease</u> Carolyn J. Davis	Antero Resources Corporation	1/8+	605/139
<u>N: Heritage Resources – Marcellus Minerals, LLC Lease</u> Heritage Resources Marcellus Minerals, LLC	Antero Resources Corporation	1/8+	576/80
<u>O: Antero Minerals, LLC Lease</u> Antero Minerals, LLC	Antero Resources Corporation	1/8+	218/581
<u>P: Dena Raye Grimes Lease</u> Dena Raye Grimes	Antero Resources Corporation	1/8+	205/778
<u>R: George L. Moore, et ux Lease</u> George L. Moore, et ux	Antero Resources Corporation	1/8+	253/627
<u>S: Ridgetop Royalties, LLC Lease</u> Ridgetop Royalties, LLC	Antero Resources Corporation	1/8+	181/483
<u>T: Heritage Resources – Marcellus Minerals, LLC Lease</u> Heritage Resources – Marcellus Minerals, LLC	Antero Resources Corporation	1/8+	196/5
<u>X: Bernard Lipscomb, Jr., et ux Lease</u> Bernard Lipscomb, Jr., et ux	Antero Resources Corporation	1/8+	205/487
<u>Z: Lottie Elizabeth Cross Lease</u> Lottie Elizabeth Cross	Antero Resources Corporation	1/8+	261/649
<u>AC: Betty Lou Howell Lease</u> Betty Lou Howell	Antero Resources Corporation	1/8+	205/484

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 Environmental Protection

\*Partial Assignments to Antero Resources Corporation include 100% rights to extract, produce and market the oil and gas from the Marcellus and any other formations completed with this well.

08/11/2023

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Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
<u>Michael Dail Stillwagner Lease</u>	Michael Dail Stillwagner	Antero Resources Corporation	1/8+	245/405

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Environmental Protection

**Acknowledgement of Possible Permitting/Approval  
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: Antero Resources Corporation  
 By: Tim Rady  
 Its: Senior Vice President of Land



July 24th, 2023

West Virginia Department of Environmental Protection  
Office of Oil and Gas  
Attn: Mr. Taylor Brewer  
601 57<sup>th</sup> Street  
Charleston, WV 25304

Antero Resources  
1615 Wynkoop Street  
Denver, CO 80202  
Office 303.357.7310  
Fax 303.357.7315

Mr. Brewer:

Antero Resources Corporation (Antero) would like to submit the following permit modifications for approved well on the existing Dry Run Pad: Tangerine Unit 1H (47-095-02866) Expedited.

Attached you will find the following:

- AOR
- Revised Form WW-6B
- Revised Form WW-6A1
- Revised Mylar Plat

If you have any questions please feel free to contact me at (303) 357-7373.

Thank you in advance for your consideration.

Sincerely,

A handwritten signature in black ink that reads "Carly Marvel".

Carly Marvel  
Permitting Agent  
Antero Resources Corporation

CHECK# 4021439  
7/6/23  
\$ 7,500.00

Enclosures

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