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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)

Thursday, December 5, 2024  
PERMIT MODIFICATION APPROVAL  
Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION  
1615 WYNKOOP STREET

DENVER, CO 80202


Re: Permit Modification Approval for Jessica Unit 2H  
47-095-02900-00-00

**Extended Lateral Length**

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.



James A. Martin  
Chief

Operator's Well Number: Jessica Unit 2H  
Farm Name: Antero Resources Corporation  
U.S. WELL NUMBER: 47-095-02900-00-00  
Horizontal 6A New Drill  
Date Modification Issued: 12/5/2024

Promoting a healthy environment.

12/06/2024

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

1) Well Operator: Antero Resources Corporation 494507062 095 - Tyler Lincoln Paden City  
Operator ID County District Quadrangle

2) Operator's Well Number: Jessica Unit 2H MOD Well Pad Name: Shinn Pad

3) Farm Name/Surface Owner: Antero Resources Corporation Public Road Access: Badger Run Road

4) Elevation, current ground: 1043' Elevation, proposed post-construction: 1036'

5) Well Type (a) Gas  Oil  Underground Storage

Other \_\_\_\_\_

(b) If Gas Shallow  Deep

Horizontal

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):  
Marcellus Shale: 6700' TVD, Anticipated Thickness- 55 feet, Associated Pressure- 2800#

8) Proposed Total Vertical Depth: 6700' TVD

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 18500' MD

11) Proposed Horizontal Leg Length: 9208.4'

12) Approximate Fresh Water Strata Depths: 328

13) Method to Determine Fresh Water Depths: 47-095-02781

14) Approximate Saltwater Depths: 1440

15) Approximate Coal Seam Depths: N/A

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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12/06/2024

WW-6B  
(04/15)

API NO. 47-095 - 02900  
 OPERATOR WELL NO. Jessica Unit 2H MOD  
 Well Pad Name: Shinn Pad

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	94#	100	100	CTS, 96 Cu. Ft.
Fresh Water	13-3/8"	New	J-55	54.5#	378	378	CTS, 394 Cu. Ft.
Coal	9-5/8"	New	J-55	36#	2500	2500	CTS, 1018 Cu. Ft.
Intermediate							
Production	5-1/2"	New	P-110	23#	18500	18500	3734 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"	0.438"	1530	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"	12,630	2500	Lead-HPOZ & Tab - H	H/POZ-1.44 & 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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*Smay*  
11/12/24  
12/06/2024

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

Drill, perforate, fracture a new shallow well and complete Marcellus Shale.

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): 38.08 acres

22) Area to be disturbed for well pad only, less access road (acres): 16.29 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.

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 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.

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SMY  
11/22/24

WW-6B  
(04/15)

API NO. 47-095 - 02900  
OPERATOR WELL NO. Jessica Unit 2H MOD  
Well Pad Name: Shinn Pad

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
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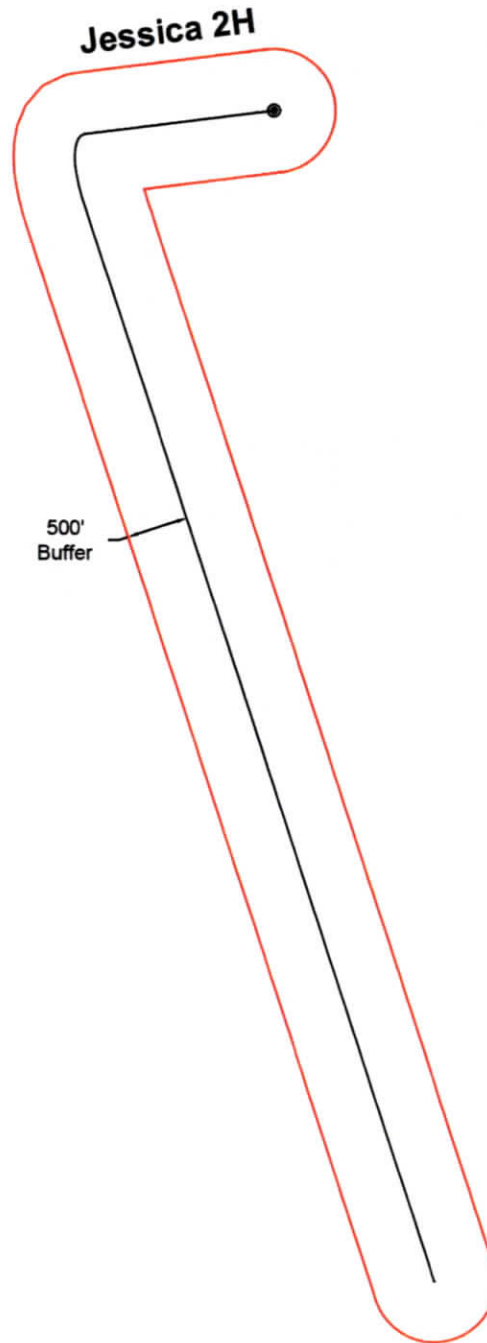
(a) If Yes, provide Mine Info: Name: \_\_\_\_\_  
Depth: \_\_\_\_\_  
Seam: \_\_\_\_\_  
Owner: \_\_\_\_\_

*CK# 4036826*  
*#7500<sup>00</sup>*  
*11/12/2024*

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**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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Bridgeport Office Phone: (304) 848-5035 Fax: (304) 848-5037		172 Thompson Drive Bridgeport, WV 26330	
PARTY CHIEF: C. Lynch		DRAWN BY: B. Miller	
RESEARCH: J. Miller		PREPARED: November 13, 2024	
SURVEYED: Dec. 2016		PROJECT NO: 32-54-L-17	
FIELD CREW: C.L., K.M.	Sheet 1 of 1	DRAWING NO: Jessica 2HAOR	



12/06/2024

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;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
<b><u>A: Raymond B. Heintzman, et ux Lease</u></b>			
Raymond B. Heintzman, et ux	McCombs Conrad & Barrett	1/8	207/136
McCombs Conrad & Barrett	Appalachian Exploration & Development, Inc	Assignment	207/487
Appalachian Exploration & Development, Inc	The Carter-Jones Lumber Company	Assignment	233/563
The Carter-Jones Lumber Company	Applied Mechanics Corporation	Assignment	258/132
Applied Mechanics Corporation	Triad Hunter, LLC	Assignment	385/566
Triad Hunter, LLC	Antero Resources Corporation	Assignment	496/776
<b><u>B: Nevin Porter, et al Lease</u></b>			
Nevin Porter, et al	Antero Resources Corporation	1/8+	464/467
<b><u>C: Virginia A. Nalley Lease</u></b>			
Virginia A. Nalley	SEP Appalachia, LLC	1/8+	315/758
SEP Appalachia, LLC	Antero Resources Corporation	Agreement	JOA
<b><u>F: Virginia A. Nalley Lease</u></b>			
Virginia A. Nalley	SEP Appalachia, LLC	1/8+	315/758
SEP Appalachia, LLC	Antero Resources Corporation	Agreement	JOA
<b><u>G: The Norma T. Long Trust Lease</u></b>			
The Norma T. Long Trust	Antero Resources Corporation	1/8+	276/296
<b><u>H: The Norma T. Long Trust Lease</u></b>			
The Norma T. Long Trust	Antero Resources Corporation	1/8+	276/296
<b><u>J: Helen Heintzman, et vir Lease</u></b>			
Helen Heintzman, et vir	Larry R. Henthorn	1/8	320/672
Larry R. Henthorn	Triad Hunter, LLC	Assignment	439/400
Triad Hunter, LLC	Antero Resources Corporation	Assignment	56/718
<b><u>K: Bounty Minerals, LLC Lease</u></b>			
Bounty Minerals, LLC	Antero Resources Corporation	1/8+	190/450
<b><u>N: Lydle S. &amp; Melodee A. Matheny Lease</u></b>			
Lydle S. & Melodee A. Matheny	Antero Resources Corporation	1/8+	200/90
<b><u>M: David E. Maxwell, et ux Lease</u></b>			
David E. Maxwell, et ux	Antero Resources Corporation	1/8+	329/434
<b><u>S: Violet A. &amp; Jeffrey C. Moore Lease</u></b>			
Violet A. & Jeffrey C. Moore	Antero Resources Corporation	1/8+	288/577
<b><u>T: David E. &amp; Shelley R. Maxwell Lease</u></b>			
David E. & Shelley R. Maxwell	Antero Resources Corporation	1/8+	311/569
<b><u>M: David E. Maxwell, et ux Lease</u></b>			
David E. Maxwell, et ux	Antero Resources Corporation	1/8+	329/434

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Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
<u>AE: Teresa J. Burgey Lease</u> Teresa J. Burgey SEP Appalachia, LLC	SEP Appalachia, LLC Antero Resources Corporation	1/8+ Agreement	303/642 JOA
<u>AK: Rose Ann Lambert Lease</u> Rose Ann Lambert	Antero Resources Corporation	1/8+	185/323
<u>AM: Roy L. Craig Lease</u> Roy L. Craig	Antero Resources Corporation	1/8+	185/328
<u>AN: James Perry &amp; Melissa B. Flesher Lease</u> James Perry & Melissa B. Flesher	Antero Resources Corporation	1/8+	324/271

\*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.

**\*Cotenancy Utilization** - Antero is utilizing the Co-tenancy Modernization and Majority Protection Act to proceed with development of certain royalty owners' interests in this tract.

**\*\*Pooling/Unitization** – Antero has filed a horizontal well unitization application with the West Virginia Oil and Gas Conservation Commission that seeks to pool certain owners in this tract

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**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE**  
**Chapter 22, Article 6A, Section 5(a)(5)**  
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Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
<u>AP: Donald E. Regan Lease</u>	Donald E. Regan	Antero Resources Corporation	1/8+	313/513

**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:

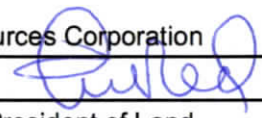
- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

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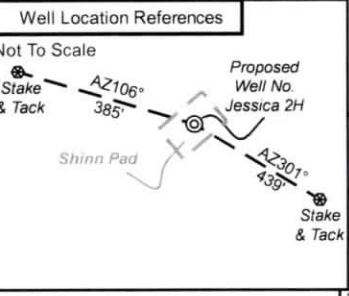
The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity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

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

**Antero Resources**  
**Well No. Jessica 2H**  
**BHL MOD**  
**Antero Resources Corporation**



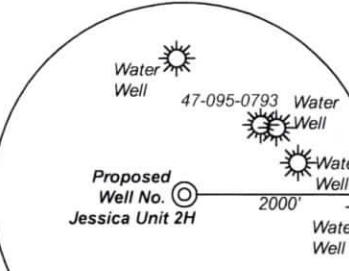
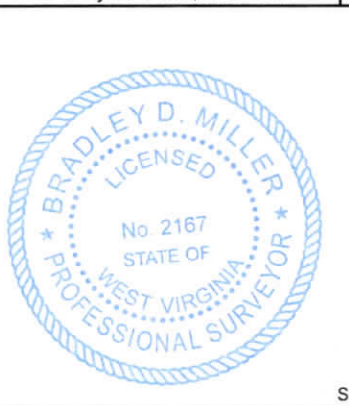
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1 of 2



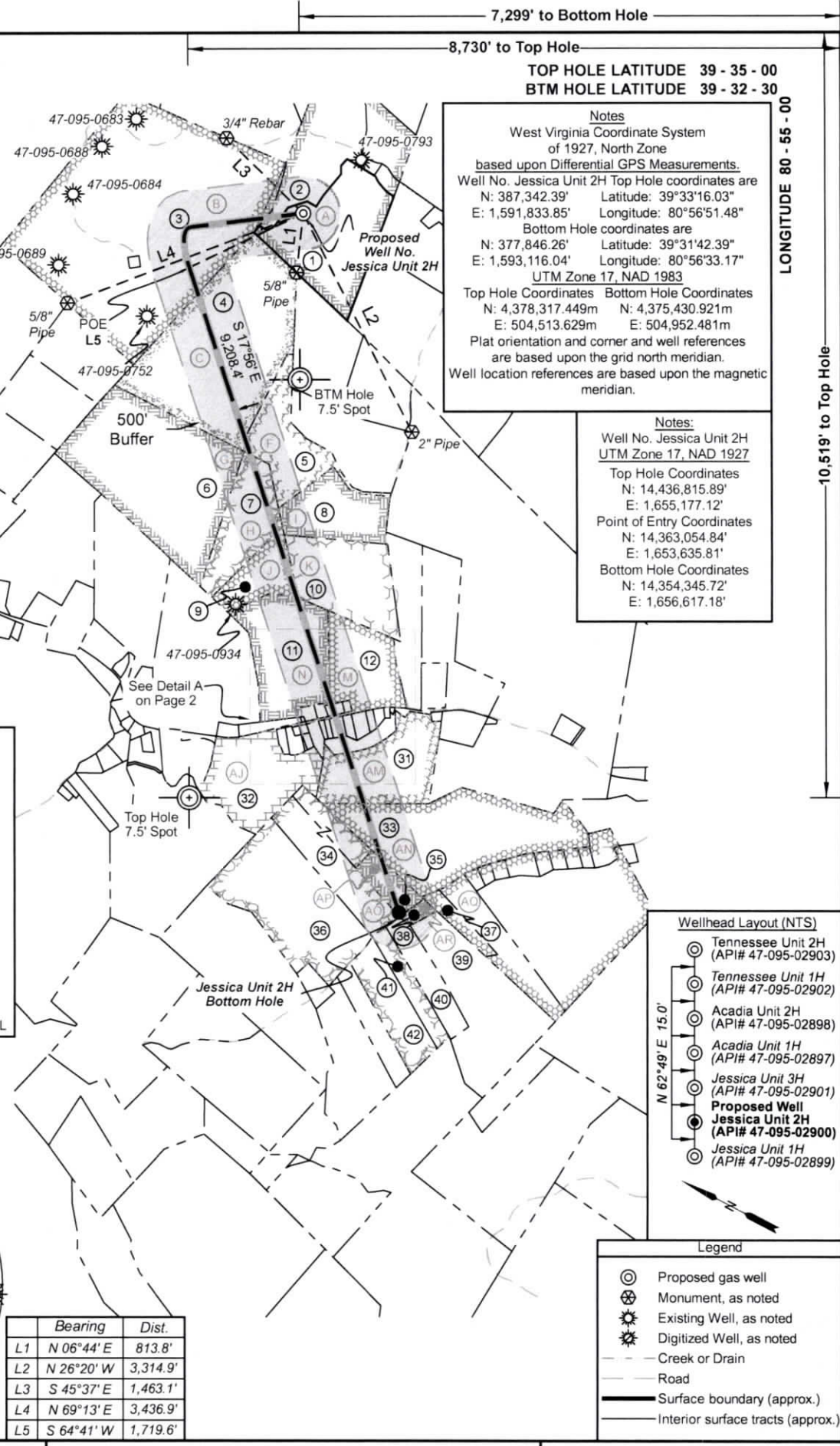
I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

*Bradley D. Miller*

Bradley D. Miller, P.S. 2167

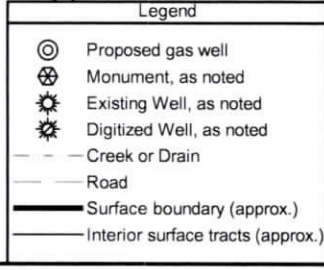
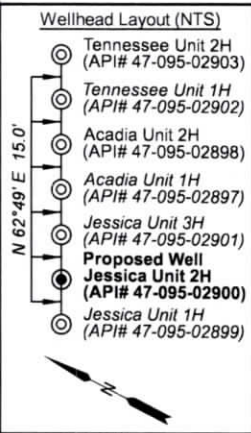


Note: Four water wells were found within 2000' of proposed well. No occupied dwellings or buildings 2,500 square feet or larger used to house or shelter dairy cattle or poultry husbandry are located within 625' of the center of the well pad.



Notes  
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.  
 Well No. Jessica Unit 2H Top Hole coordinates are  
 N: 387,342.39' Latitude: 39°33'16.03"  
 E: 1,591,833.85' Longitude: 80°56'51.48"  
 Bottom Hole coordinates are  
 N: 377,846.26' Latitude: 39°31'42.39"  
 E: 1,593,116.04' Longitude: 80°56'33.17"  
 UTM Zone 17, NAD 1983  
 Top Hole Coordinates Bottom Hole Coordinates  
 N: 4,378,317.449m N: 4,375,430.921m  
 E: 504,513.629m E: 504,952.481m  
 Plat orientation and corner and well references are based upon the grid north meridian.  
 Well location references are based upon the magnetic meridian.

Notes:  
 Well No. Jessica Unit 2H UTM Zone 17, NAD 1927  
 Top Hole Coordinates  
 N: 14,436,815.89'  
 E: 1,655,177.12'  
 Point of Entry Coordinates  
 N: 14,363,054.84'  
 E: 1,653,635.81'  
 Bottom Hole Coordinates  
 N: 14,354,345.72'  
 E: 1,656,617.18'



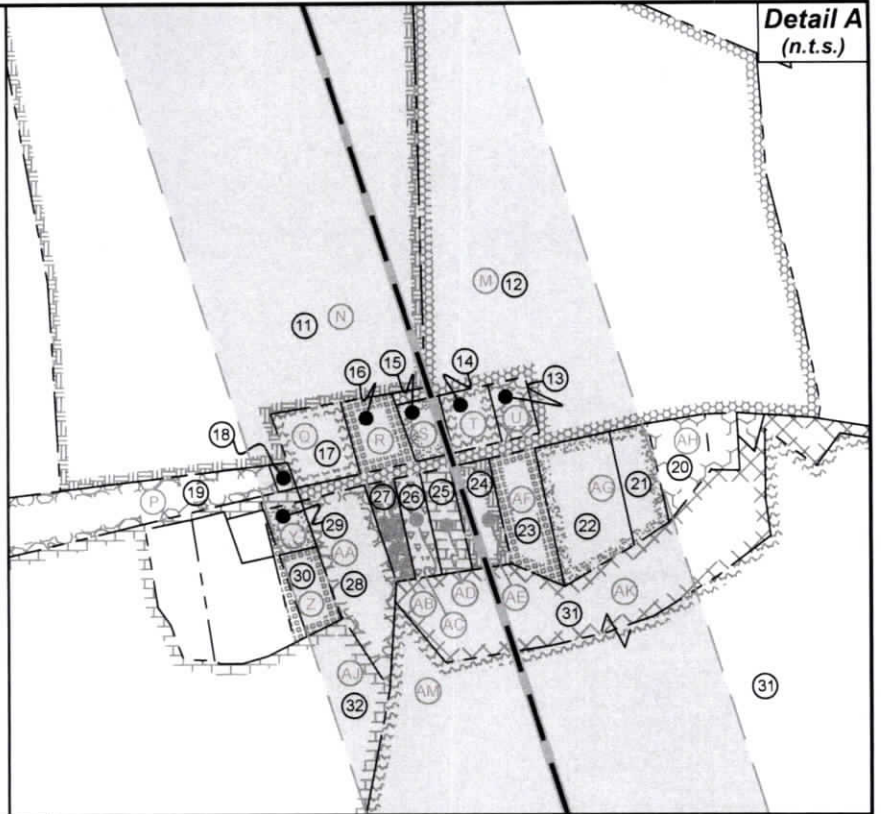
FILE NO: 32-54-L-17  
 DRAWING NO: Jessica Unit 2H BHL MOD  
 SCALE: 1" = 2000'  
 MINIMUM DEGREE OF ACCURACY: Submeter  
 PROVEN SOURCE OF ELEVATION: WVDOT, Harrisville, WV

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

DATE: November 7 2024  
 OPERATOR'S WELL NO: Jessica Unit 2H  
 API WELL NO  
 47 - 095 - 02900  
 STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
 LOCATION: ELEVATION: Proposed Grade 1,036' Existing Grade 1,043' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Paden City  
 DISTRICT: Lincoln COUNTY: Tyler 12/06/2024  
 SURFACE OWNER: Antero Resources Corporation ACREAGE: 52.51  
 ROYALTY OWNER: Raymond B. Heintzman, et ux LEASE NO: ACREAGE: 100  
 PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BHL MOD 6,700' TVD  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 18,500' 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



ID	TM-Par	Owner	Bk/Pg	Acres
1	8-21.2	Antero Resources Corporation	296/494	35.52
2	8-21	Antero Resources Corporation	296/490	52.51
3	8-19	Olive Branch Animal Rescue	333/804	173.48
4	8-39	Virginia A. Nalley	190/482	70.65
5	8-39.1	Gary G. Jr. & Debbie Ann Phillips	404/299	33.13
6	8-54	Virginia A. Nalley	190/482	63.01
7	8-55	Douglas Ray Carson, Jr.	595/111	25.62
8	8-58	Jerry R. Brightwell & Gwendolyn C. Davies	343/841	20.16
9	8-56	Douglas Ray Carson, Jr.	595/111	14.96
10	8-57	Douglas Ray Carson, Jr.	595/111	33.84
11	12-17	Lylyde S. & Melodee A. Matheny	504/633	36.00
12	12-18	David E. & Shelley R. Maxwell	307/676	29.04
13	12A-12	Terri K. & Brian K. Dennis	OR85/450	0.35
14	12A-11	David E. & Shelley R. Maxwell	564/777	0.46
15	12A-10	Jeffrey C. & Violet C. Moore	348/780	0.37
16	12A-9	Connie M. Vincent	OR85/446	0.60
17	12A-8	James O. & Nancy J. McMullen	341/483	0.79
18	12-40.7	Lylyde S. & Melodee A. Matheny	535/275	0.08
19	12-40.6	Richard D. & Rachel D. Lewis	535/275	2.39
20	12A-23	Kenneth R. Barker	358/801	0.86
21	12A-22	Carolyn A. Landis	WB84/809	0.79
22	12A-21	Carolyn A. Landis	192/451	1.54
23	12A-20	Hannah M. Dennis & Dalton A. Wells	OR138/383	0.96
24	12A-19	Teresa Jean Starcher	336/775	0.64
25	12A-18	Michael E. & Courtney S. Blair	546/725	0.40
26	12A-17	David L. & Janice W. Kelly	627/266	0.40
27	12A-16	Charles B. & Julie L. Yonaley	329/75	0.41
28	12A-15	Shirley G. Wilson	166/81	1.50
29	12A-14	Andrew M. Weekley	427/536	0.29
30	12-40.2	Andrew M. Weekley	427/536	0.49
31	12-41	Shaun M. & Carrie A. Meckley	633/569	43.28
32	12-40	David E. Wells	335/133	34.38
33	12-71.1	James Perry & Melissa Flesher	316/137	63.45
34	12-53.5	Walter J. West	359/817	29.04
35	12-53.8	Daniel J. & Donald E. Regan	372/164	7.80
36	12-53.4	Walter J. West	359/817	52.95
37	12-54.1	Donald Thompson	617/81	5.12
38	12-53.1	Denver R. II & Deborah L. Starcher	475/380	1.95
39	12-68	Denver R. II & Deborah L. Starcher	475/380	51.41
40	12-53.2	Denver R. II & Deborah L. Starcher	475/380	11.96
41	12-53.3	Walter J. West	359/817	9.04
42	12-53	Walter J. West	359/817	18.33

Leases	
A	Raymond B. Heintzman, et ux
B	Nevin Porter, et al
C	Virginia A. Nalley
F	Virginia A. Nalley
G	The Norma T. Long Trust
H	The Norma T. Long Trust
I	Jerry R. Brightwell, et ux
J	Helen Heintzman, et vir
K	Bounty Minerals, LLC
M	David E. Maxwell, et ux
N	Lylyde S. & Melodee A. Matheny
P	Richard D. Lewis, et ux
Q	James O. McMullen, et ux
R	Connie Jo Vincent
S	Violet A. & Jeffery C. Moore
T	David E. & Shelley R. Maxwell
U	Terri K. & Brian K. Dennis
Y	Andrew Weekley
Z	Andrew Weekley
AA	Shirley G. Wilson
AB	Charles B. & Julie Yonaley
AC	David L. & Janice W. Kelly
AD	Michael E. & Courtney S. Blair
AE	Teresa J. Burgey
AF	Teresa J. Burgey
AG	Carolyn A. Landis
AH	Kenneth R. Barker
AJ	David E. Wells, et ux
AK	Rose Ann Lambert
AM	Roy L. Craig
AN	James Perry & Melissa B. Flesher
AO	Walter J. West
AP	Donald E. Regan
AQ	BRC Appalachian Minerals I, LLC
AR	Teresa Jean Burgey

FILE NO: 32-54-L-17  
 DRAWING NO: Jessica Unit 2H BHL MOD  
 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: November 7 2024  
 OPERATOR'S WELL NO: Jessica Unit 2H  
 API WELL NO  
 47 - 095 - 02900  
 STATE COUNTY PERMIT

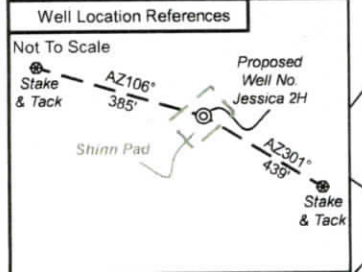
WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
 LOCATION: ELEVATION: Proposed Grade 1,036'  
 Existing Grade 1,043' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Paden City  
 DISTRICT: Lincoln COUNTY: Tyler 12/06/2024  
 SURFACE OWNER: Antero Resources Corporation ACREAGE: 52.51  
 ROYALTY OWNER: Raymond B. Heintzman, et ux LEASE NO: ACREAGE: 100  
 PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BHL MOD 6,700' TVD  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 18,500' 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

**Antero Resources**  
**Well No. Jessica 2H**  
**BHL MOD**  
**Antero Resources Corporation**



Page  
1 of 2



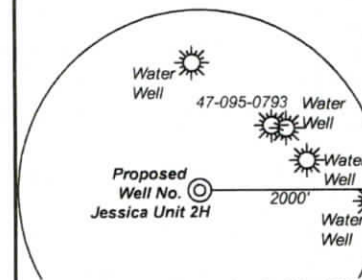
I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

*Bradley D. Miller*

Bradley D. Miller, P.S. 2167



SEAL



Note: Four water wells 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.

	Bearing	Dist.
L1	N 06°44' E	813.8'
L2	N 26°20' W	3,314.9'
L3	S 45°37' E	1,463.1'
L4	N 69°13' E	3,436.9'
L5	S 64°41' W	1,719.6'

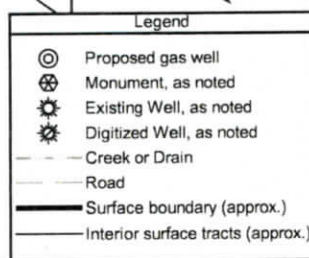
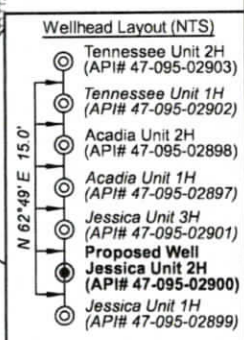
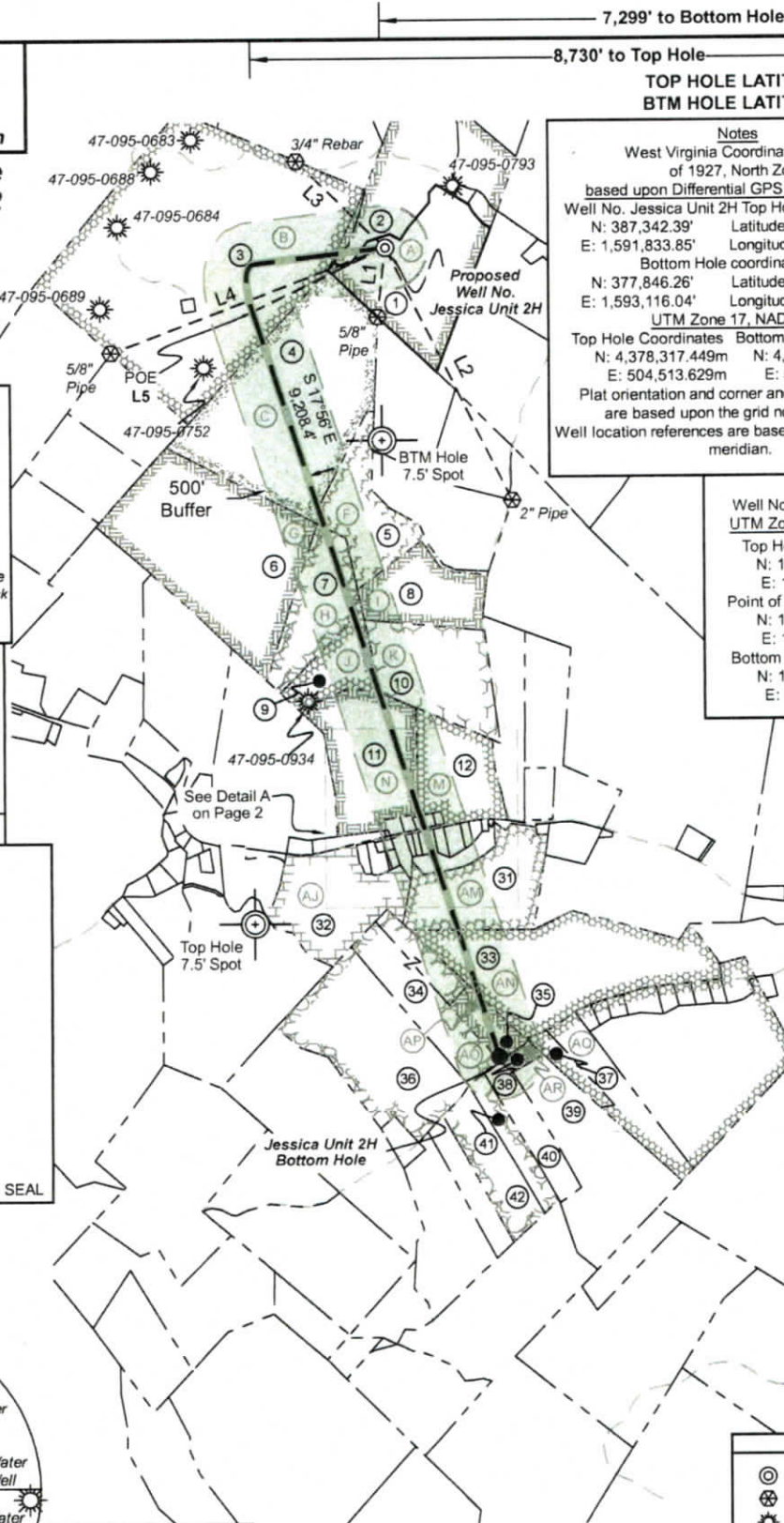
7,299' to Bottom Hole

8,730' to Top Hole

TOP HOLE LATITUDE 39 - 35 - 00  
 BTM HOLE LATITUDE 39 - 32 - 30

**Notes**  
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.  
 Well No. Jessica Unit 2H Top Hole coordinates are  
 N: 387,342.39' Longitude: 39°33'16.03"  
 E: 1,591,833.85' Longitude: 80°56'51.48"  
 Bottom Hole coordinates are  
 N: 377,846.26' Longitude: 39°31'42.39"  
 E: 1,593,116.04' Longitude: 80°56'33.17"  
 UTM Zone 17, NAD 1983  
 Top Hole Coordinates N: 4,378,317.449m E: 504,513.629m  
 Bottom Hole Coordinates N: 4,375,430.921m E: 504,952.481m  
 Plat orientation and corner and well references are based upon the grid north meridian.  
 Well location references are based upon the magnetic meridian.

**Notes:**  
 Well No. Jessica Unit 2H UTM Zone 17, NAD 1927  
 Top Hole Coordinates  
 N: 14,436,815.89'  
 E: 1,655,177.12'  
 Point of Entry Coordinates  
 N: 14,363,054.84'  
 E: 1,653,635.81'  
 Bottom Hole Coordinates  
 N: 14,354,345.72'  
 E: 1,656,617.18'



FILE NO: 32-54-L-17  
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 PROVEN SOURCE OF ELEVATION: WVDOT, Harrisville, WV

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

DATE: November 7 2024  
 OPERATOR'S WELL NO. Jessica Unit 2H  
 API WELL NO  
 47 - 095 - 02900  
 STATE COUNTY PERMIT

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 Denver, CO 80202 Bridgeport, WV 26330

*Handwritten signature and date: 11/21/24*