

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

API 47-095-02657 County Tyler District McElroy
Quad Shirley 7.5' Pad Name Colorado West Field/Pool Name ---
Farm name Antero Resources Corporation Well Number Nuggets 2H
Operator (as registered with the OOG) Antero Resources Corporation
Address 1615 Wynkoop St City Denver State CO Zip 80202

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4361456m Easting 518111m
Landing Point of Curve Northing 517455.42m Easting 4361367.20m
Bottom Hole Northing 4364257m Easting 516533m

Elevation (ft) 749' GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine

Mud Type(s) and Additive(s)
Air-Foam & 4% KCL

Mud - Polymer

Date permit issued 11/6/2019 Date drilling commenced 12/28/2019 Date drilling ceased 4/8/2020
Date completion activities began 2/2/2021 Date completion activities ceased 4/15/2021
Verbal plugging (Y/N) N/A Date permission granted N/A Granted by N/A

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

Freshwater depth(s) ft 298 Open mine(s) (Y/N) depths N
Salt water depth(s) ft 916 Void(s) encountered (Y/N) depths N
Coal depth(s) ft None Identified Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:
APPROVED
Steve McCoy
3/30/23

API 47-095 - 02657 Farm name Antero Resources Corporation Well number Nuggets 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	24"	20"	105'	New	94#, H-40	N/A	Y
Surface	17-1/2"	13-3/8"	405'	New	54.5#, J-55	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	3230'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"	5-1/2"	17176'	New	20#, P-110	N/A	Y
Tubing		2-3/8"	6988'		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 ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	Class A	284 sx	15.6	1.20	60	0	8 Hrs
Surface	Class A	354 sx	15.6	1.20	75	0	8 Hrs
Coal							
Intermediate 1	Class A	1213 sx	15.6	1.20	257	0	8 Hrs
Intermediate 2							
Intermediate 3							
Production	Class H	792 sx (Lead) 2534 sx (Tail)	13.5 (Lead), 15.2(Tail)	1.4 (Lead), 1.26 (Tail)	587	~500' into Intermediate Casing	8 Hrs
Tubing							

Drillers TD (ft) 17196' MD, 6412' TVD (BHL), 6414' (Deepest Point Drilled) Loggers TD (ft) 17196' MD

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

Plug back procedure N/A

Kick off depth (ft) 6020'

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

Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING _____

Conductor - 0 _____

Surface - 1 above guide shoe, 1 above insert float, 1 over 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 on 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 _____

SM

API 47- 095 - 02657 Farm name Antero Resources Corporation Well number Nuggets 2H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>		
<u>Marcellus</u>	<u>6339' (TOP)</u>	<u>TVD</u>	<u>7038' (TOP) MD</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 2800 psi Bottom Hole --- psi DURATION OF TEST --- hrs

OPEN FLOW Gas 8704 mcfpd Oil 100 bpd NGL --- bpd Water 16 bpd GAS MEASURED BY Estimated Orifice Pilot

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

Please insert additional pages as applicable.

Drilling Contractor Patterson Drilling Company
Address 10713 West Sam Houston Parkway North City Houston State TX Zip 77064

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

Cementing Company Schlumberger Oilfield Services
Address 300 Schlumberger Dr City Sugerland State TX Zip 77478

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 2/7/2023

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

SM

LATITUDE 39°25'00"

11,254'

4,636' TO BOTTOM HOLE

LATITUDE 39°27'30"

Antero Resources Corporation Well No. Nuggets Unit 2H

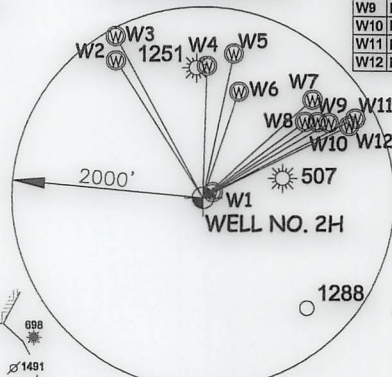
AS DRILLED DATA: WELL 2H TOP HOLE INFORMATION: N: 331,266ft E: 1,635,530ft LAT: 39°24'08.42" LON: 80°47'23.37" BOTTOM HOLE INFORMATION: N: 340,544ft E: 1,630,507ft LAT: 39°25'39.39" LON: 80°48'29.08" WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE GEOXT SUBMETER MAPPING GRADE GPS UNIT. PLAT ORIENTATION, CORNER, AND WELL REFERENCE TIE LINES ARE BASED ON GRID NORTH 2H TOP HOLE

(NAD) 83 (UTM) ZONE 17 COORDS: WELL 2H TOP HOLE INFORMATION: N: 4,361,456m E: 518,111m BOTTOM HOLE INFORMATION: N: 4,364,257m E: 516,533m

Table with 6 columns: TM-Par, Surface Owner, and well numbers (15-28.3 to 16-20.5). Lists various owners like Marvin Kimball, George Hamilton, Mitchell Herrick, etc.

Table with 2 columns: Well ID and coordinates. Lists wells W1 through W12 with their respective N/E coordinates.

NOTE: 12 WATER WELLS WERE LOCATED WITHIN 2000' OF THE PROPOSED WELL

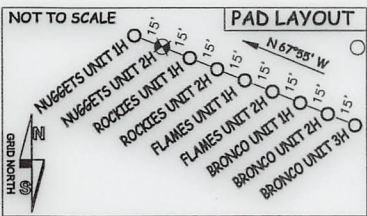
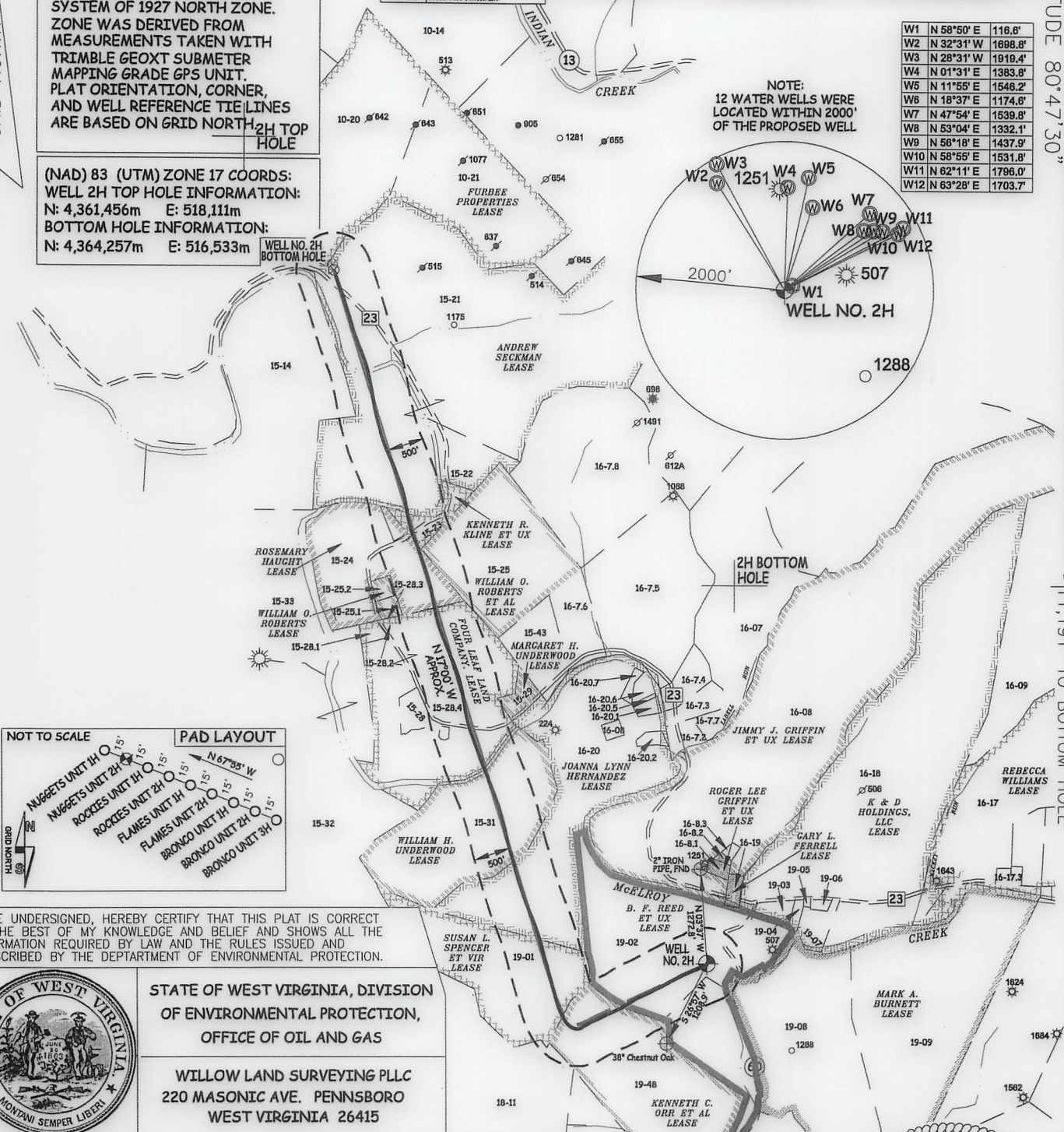


WV NORTH ZONE GRID NORTH

LONGITUDE 80°47'30"

5,219' LONGITUDE 80°45'00"

11,191' TO BOTTOM HOLE



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 PERSCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



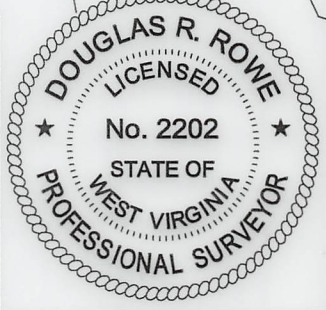
STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

WILLOW LAND SURVEYING PLLC 220 MASONIC AVE. PENNSBORO WEST VIRGINIA 26415

JOB # 19-023WA DRAWING # NUGGETS2HAD SCALE 1" = 2000' MINIMUM DEGREE OF ACCURACY SUBMETER PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS

LEGEND: Surface Owner Boundary Lines +/- Interior Surface Tracts +/- Proposed Well Path As Drilled Well Path DOUGLAS R. ROWE P.S. 2202 DATE 06/09/21 OPERATOR'S WELL# NUGGETS UNIT #2H

NOTE: 1. NO OCCUPIED DWELLINGS OR BUILDINGS TWO THOUSAND FIVE HUNDRED (2,500) SQUARE FEET OR LARGER USED TO HOUSE OR SHELTER DAIRY CATTLE OR POULTRY HUSBANDRY ARE LOCATED WITHIN SIX HUNDRED TWENTY-FIVE (625) FEET OF THE CENTER OF THE WELL PAD. 2. TOP HOLE DATA SHOWN HEREON WAS PROVIDED BY ANTERO RESOURCES CORPORATION. 3. AS DRILLED DATA WAS PROVIDED BY ANTERO RESOURCES CORPORATION. 4. WLS IS NOT CERTIFYING THE DATA AND INFORMATION PROVIDED LISTED IN NOTES 2 AND 3, ONLY THE RELATIONSHIP TO THE DATA AND INFORMATION PROVIDED TO THE LEASE BOUNDARIES. 5. WLS IS BY NO MEANS RESPONSIBLE FOR ANY ERRORS OR INACCURACIES WITH THE DATA AND INFORMATION THAT HAS BEEN PROVIDED.



WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL 47 - 095 - 02657 (IF "GAS") PRODUCTION X STORAGE DEEP SHALLOW X STATE COUNTY PERMIT LOCATION: ELEVATION 749' - AS BUILT WATERSHED MCELROY CREEK QUADRANGLE SHIRLEY 7.5 DISTRICT MCELROY COUNTY TYLER SURFACE OWNER ANTERO RESOURCES CORPORATION ACREAGE 127.86 ACRES +/- OIL & GAS ROYALTY OWNER B.F. REED ET UX; KENNETH C. ORR ET AL; SUSAN L. SPENCER ET VIR; LEASE ACREAGE 130 AC.±; 85 AC.±; 53 AC.±; JOANNA LYNN HERNANDEZ; WILLIAM H. UNDERWOOD; FOUR LEAF LAND COMPANY; 99.5 AC.±; 81 AC.±; 150 AC.±; ROSEMARY HAUGHT; KENNETH R. KLINE ET UX; ANDREW SECKMAN 30 AC.±; 9.08 AC.±; 300 AC.± PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) AS DRILLED PLUG & ABANDON CLEAN OUT & REPLUG TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,412' TVD 17,196' MD WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER - CT CORPORATION SYSTEM ADDRESS 1615 WYNKOOP ST. ADDRESS 5400 D BIG TYLER ROAD DENVER, CO 80202 CHARLESTON, WV 25313

LATITUDE 39°25'00"

11,254'

4,636' TO BOTTOM HOLE

LATITUDE 39°27'30"

Antero Resources Corporation Well No. Nuggets Unit 2H

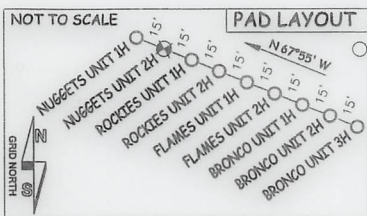
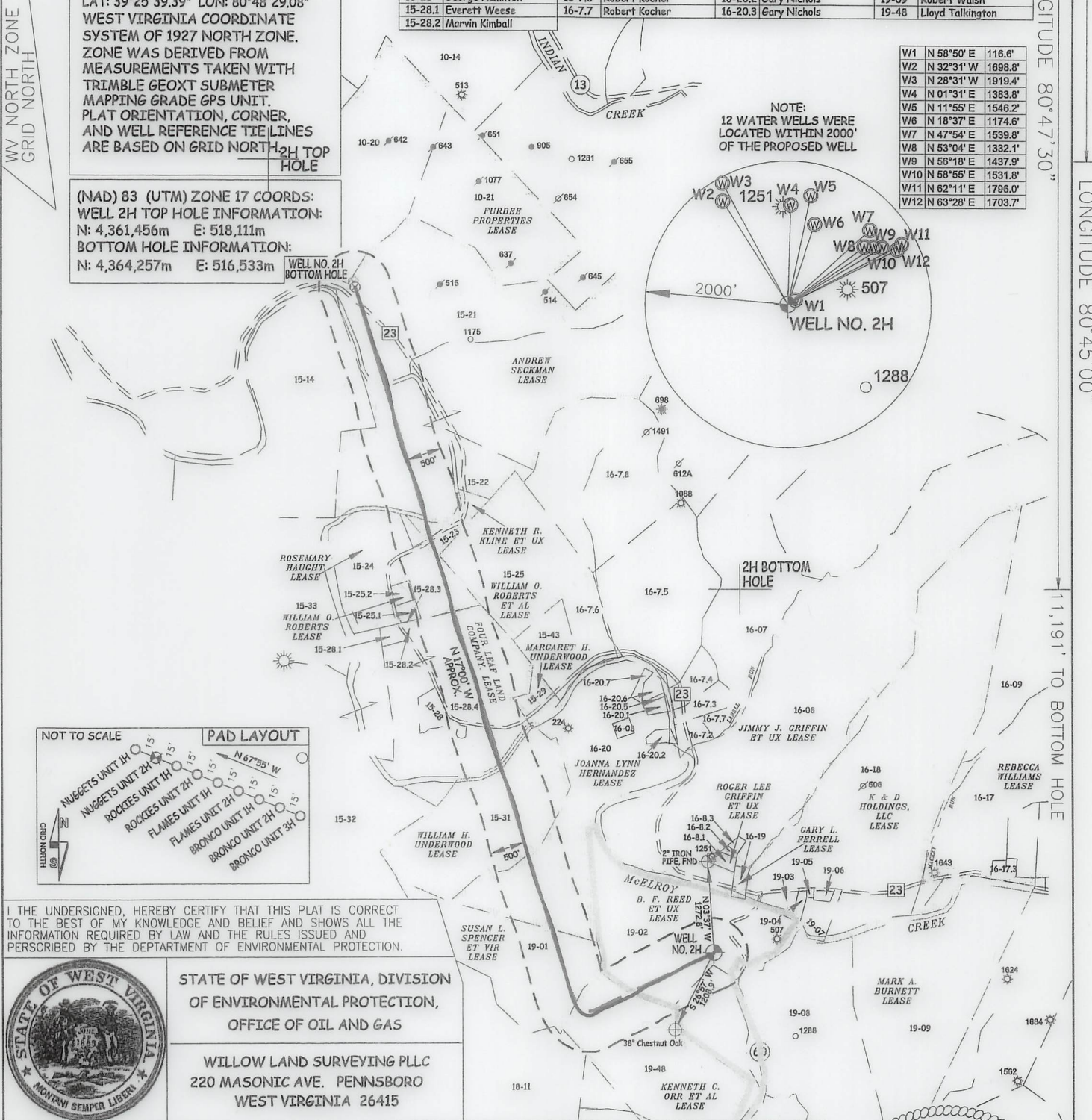
AS DRILLED DATA: WELL 2H TOP HOLE INFORMATION: N: 331,266ft E: 1,635,530ft LAT: 39°24'08.42" LON: 80°47'23.37" BOTTOM HOLE INFORMATION: N: 340,544ft E: 1,630,507ft LAT: 39°25'39.39" LON: 80°48'29.08" WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE GEOXT SUBMETER MAPPING GRADE GPS UNIT. PLAT ORIENTATION, CORNER, AND WELL REFERENCE TIE LINES ARE BASED ON GRID NORTH 2H TOP HOLE

(NAD) 83 (UTM) ZONE 17 COORDS: WELL 2H TOP HOLE INFORMATION: N: 4,361,456m E: 518,111m BOTTOM HOLE INFORMATION: N: 4,364,257m E: 516,533m

Table with 6 columns: TM-Par, Surface Owner, Well ID, Surface Owner, Well ID, Surface Owner. Lists various landowners and well identifiers.

Table with 2 columns: Well ID, Coordinates. Lists well identifiers W1 through W12 and their corresponding coordinates.

NOTE: 12 WATER WELLS WERE LOCATED WITHIN 2000' OF THE PROPOSED WELL



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 PERSCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



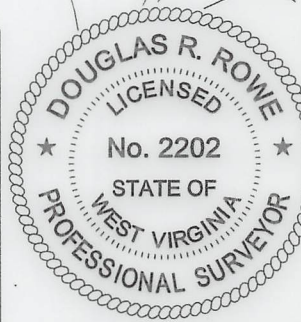
STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

WILLOW LAND SURVEYING PLLC 220 MASONIC AVE. PENNSBORO WEST VIRGINIA 26415

JOB # 19-023WA DRAWING # NUGGETS2HAD SCALE 1" = 2000' MINIMUM DEGREE OF ACCURACY SUBMETER PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS

LEGEND: Surface Owner Boundary Lines +/-, Interior Surface Tracts +/-, Proposed Well Path, As Drilled Well Path. Includes signature of Douglas R. Rowe and date 09/14/20.

NOTE: 1. NO OCCUPIED DWELLINGS OR BUILDINGS TWO THOUSAND FIVE HUNDRED (2,500) SQUARE FEET OR LARGER USED TO HOUSE OR SHELTER DAIRY CATTLE OR POULTRY HUSBANDRY ARE LOCATED WITHIN SIX HUNDRED TWENTY-FIVE (625) FEET OF THE CENTER OF THE WELL PAD. 2. TOP HOLE DATA SHOWN HEREON WAS PROVIDED BY ANTERO RESOURCES CORPORATION. 3. AS DRILLED DATA WAS PROVIDED BY ANTERO RESOURCES CORPORATION. 4. WLS IS NOT CERTIFYING THE DATA AND INFORMATION PROVIDED LISTED IN NOTES 2 AND 3, ONLY THE RELATIONSHIP TO THE DATA AND INFORMATION PROVIDED TO THE LEASE BOUNDARIES. 5. WLS IS BY NO MEANS RESPONSIBLE FOR ANY ERRORS OR INACCURACIES WITH THE DATA AND INFORMATION THAT HAS BEEN PROVIDED.



WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL 47 095 02657 (IF "GAS") PRODUCTION X STORAGE DEEP SHALLOW X STATE COUNTY PERMIT LOCATION: ELEVATION 749' - AS BUILT WATERSHED McELROY CREEK QUADRANGLE SHIRLEY 7.5' DISTRICT McELROY COUNTY TYLER SURFACE OWNER ANTERO RESOURCES CORPORATION ACREAGE 127.86 ACRES +/- OIL & GAS ROYALTY OWNER B.F. REED ET UX; KENNETH C. ORR ET AL; SUSAN L. SPENCER ET VIR; LEASE ACREAGE 130 AC.±; 85 AC.±; 53 AC.±; JOANNA LYNN HERNANDEZ; WILLIAM H. UNDERWOOD; FOUR LEAF LAND COMPANY; 99.5 AC.±; 81 AC.±; 150 AC.±; ROSEMARY HAUGHT; KENNETH R. KLINE ET UX; ANDREW SECKMAN 30 AC.±; 9.08 AC.±; 300 AC.± PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) AS DRILLED PLUG & ABANDON CLEAN OUT & REPLUG TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,412' TVD 17,196' MD WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER - CT CORPORATION SYSTEM ADDRESS 1615 WYNKOOP ST. ADDRESS 5400 D BIG TYLER ROAD DENVER, CO 80202 CHARLESTON, WV 25313

LATITUDE 39°25'00"

11,254'

4,636' TO BOTTOM HOLE

LATITUDE 39°27'30"

Antero Resources Corporation Well No. Nuggets Unit 2H

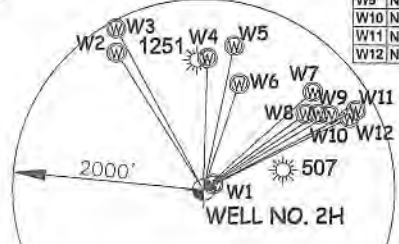
AS DRILLED DATA: WELL 2H TOP HOLE INFORMATION: N: 331,266ft E: 1,635,530ft LAT: 39°24'08.42" LON: 80°47'23.37" BOTTOM HOLE INFORMATION: N: 340,544ft E: 1,630,507ft LAT: 39°25'39.39" LON: 80°48'29.08" WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE GEOXT SUBMETER MAPPING GRADE GPS UNIT. PLAT ORIENTATION, CORNER, AND WELL REFERENCE TIE LINES ARE BASED ON GRID NORTH.

(NAD) 83 (UTM) ZONE 17 COORDS: WELL 2H TOP HOLE INFORMATION: N: 4,361,456m E: 518,111m BOTTOM HOLE INFORMATION: N: 4,364,257m E: 516,533m

Table with 6 columns: TM-Par, Surface Owner, Well ID, Surface Owner, Well ID, Surface Owner, Well ID, Surface Owner, Well ID, Surface Owner. Lists various landowners and well identifiers.

Table with 2 columns: Well ID, Coordinates. Lists well identifiers (W1-W12) and their corresponding coordinates.

NOTE: 12 WATER WELLS WERE LOCATED WITHIN 2000' OF THE PROPOSED WELL



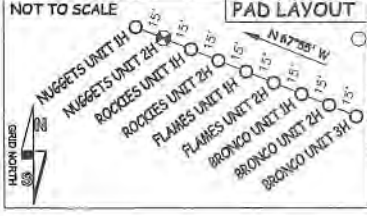
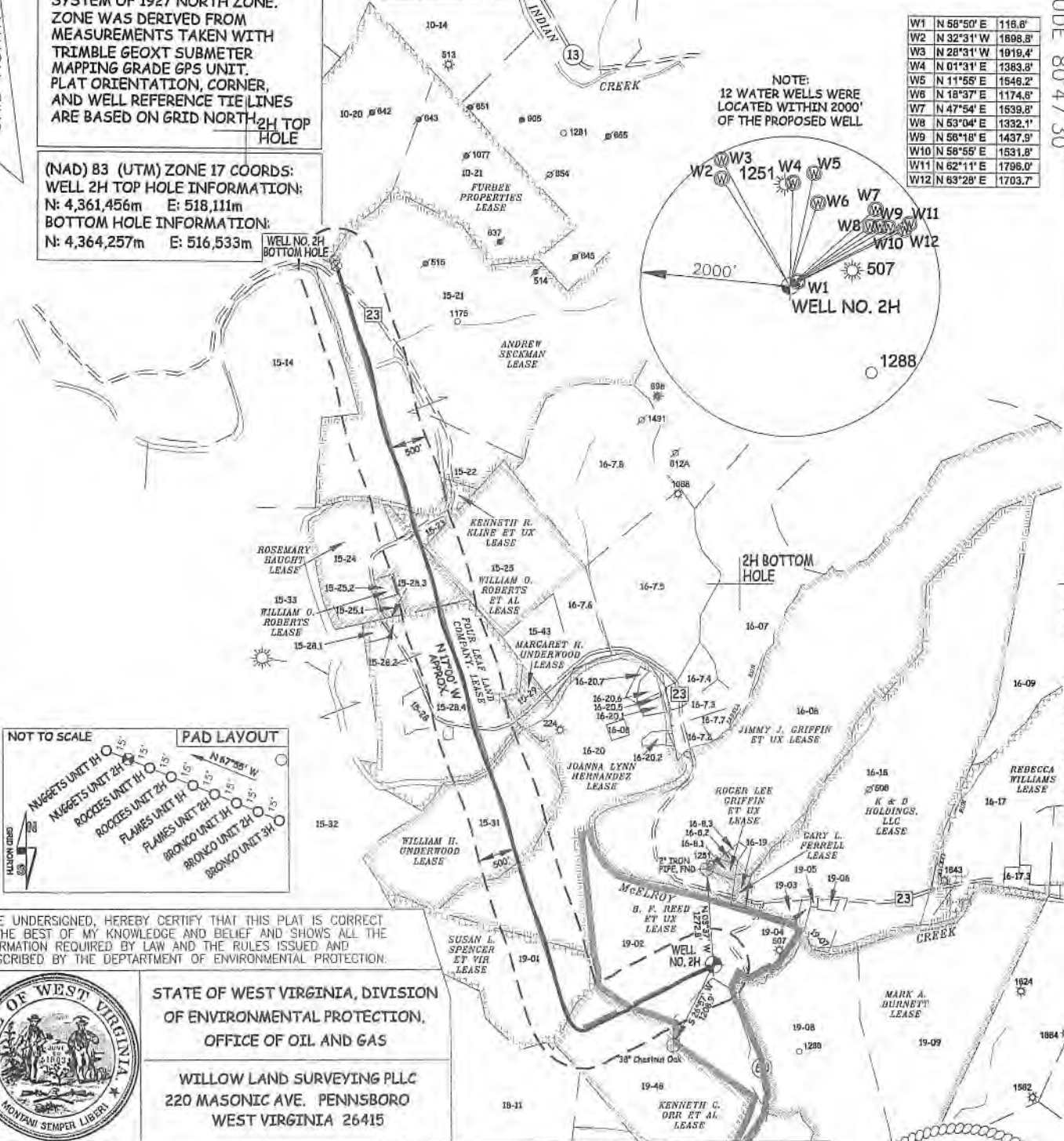
WV NORTH ZONE GRID NORTH

LONGITUDE 80°47'30"

5,219'

LONGITUDE 80°45'00"

11,191' TO BOTTOM HOLE



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 PERSCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS. WILLLOW LAND SURVEYING PLLC, 220 MASONIC AVE. PENNSBORO WEST VIRGINIA 26415

JOB # 19-023WA, DRAWING # NUGGETS2HAD, SCALE 1" = 2000', MINIMUM DEGREE OF ACCURACY SUBMETER, PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS, STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS

LEGEND: Surface Owner Boundary Lines +/-, Interior Surface Tracts +/-, Proposed Well Path, As Drilled Well Path. SIGNED: DOUGLAS R. ROWE P.S. 2202, DATE 06/09/21, OPERATOR'S WELL# NUGGETS UNIT #2H

NOTE: 1. NO OCCUPIED DWELLINGS OR BUILDINGS TWO THOUSAND FIVE HUNDRED (2,500) SQUARE FEET OR LARGER USED TO HOUSE OR SHELTER DAIRY CATTLE OR POULTRY HUSBANDRY ARE LOCATED WITHIN SIX HUNDRED TWENTY-FIVE (625) FEET OF THE CENTER OF THE WELL PAD. 2. TOP HOLE DATA SHOWN HEREON WAS PROVIDED BY ANTERO RESOURCES CORPORATION. 3. AS DRILLED DATA WAS PROVIDED BY ANTERO RESOURCES CORPORATION. 4. WLS IS NOT CERTIFYING THE DATA AND INFORMATION PROVIDED LISTED IN NOTES 2 AND 3, ONLY THE RELATIONSHIP TO THE DATA AND INFORMATION PROVIDED TO THE LEASE BOUNDARIES. 5. WLS IS BY NO MEANS RESPONSIBLE FOR ANY ERRORS OR INACCURACIES WITH THE DATA AND INFORMATION THAT HAS BEEN PROVIDED.



WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL 47 095 02657 (IF "GAS") PRODUCTION X STORAGE DEEP SHALLOW X STATE COUNTY PERMIT LOCATION: ELEVATION 749' - AS BUILT WATERSHED McELROY CREEK QUADRANGLE SHIRLEY 7.5' DISTRICT McELROY COUNTY TYLER SURFACE OWNER ANTERO RESOURCES CORPORATION ACREAGE 127.86 ACRES +/- JOANNA LYNN HERNANDEZ; WILLIAM H. UNDERWOOD; FOUR LEAF LAND COMPANY; ROSEMARY HAUGHT; KENNETH R. KLINE ET UX; ANDREW SECKMAN LEASE ACREAGE 130 AC.±; 85 AC.±; 53 AC.±; 99.5 AC.±; 81 AC.±; 150 AC.±; 30 AC.±; 9.08 AC.±; 300 AC.± PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) AS DRILLED PLUG & ABANDON CLEAN OUT & REPLUG TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,412' TVD 17,196' MD WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER - CT CORPORATION SYSTEM ADDRESS 1615 WYNKOOP ST. ADDRESS 5400 D BIG TYLER ROAD DENVER, CO 80202 CHARLESTON, WV 25313

COUNTY NAME

PERMIT

Handwritten signature/initials: SM 3/30/23

LATITUDE 39°25'00"

11,254'

4,636' TO BOTTOM HOLE

LATITUDE 39°27'30"

Antero Resources Corporation Well No. Nuggets Unit 2H

AS DRILLED DATA: WELL 2H TOP HOLE INFORMATION: N: 331,266ft E: 1,635,530ft LAT: 39°24'08.42" LON: 80°47'23.37" BOTTOM HOLE INFORMATION: N: 340,544ft E: 1,630,507ft LAT: 39°25'39.39" LON: 80°48'29.08" WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE GEOXT SUBMETER MAPPING GRADE GPS UNIT. PLAT ORIENTATION, CORNER, AND WELL REFERENCE TIE LINES ARE BASED ON GRID NORTH 2H TOP HOLE

(NAD) 83 (UTM) ZONE 17 COORDS: WELL 2H TOP HOLE INFORMATION: N: 4,361,456m E: 518,111m BOTTOM HOLE INFORMATION: N: 4,364,257m E: 516,533m

Table with 6 columns: TM-Par, Surface Owner, and well numbers (15-28.3 to 16-7.8, 16-7.8 to 16-20.5, 16-20.5 to 16-20.7, 16-20.7 to 19-01, 19-01 to 19-02, 19-02 to 19-03, 19-03 to 19-04, 19-04 to 19-05, 19-05 to 19-06, 19-06 to 19-07, 19-07 to 19-08, 19-08 to 19-09, 19-09 to 19-48). Rows list surface owners like Marvin Kimball, George Hamilton, Mitchell Herrick, etc.

Table with 3 columns: Well ID, Northing, Easting. Lists wells W1 through W12 with their coordinates.

NOTE: 12 WATER WELLS WERE LOCATED WITHIN 2000' OF THE PROPOSED WELL

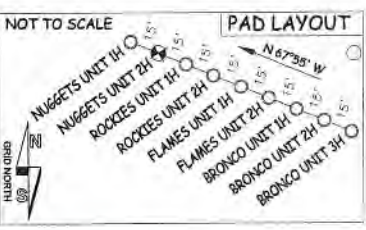
WV NORTH ZONE GRID NORTH

LONGITUDE 80°47'30"

5,219'

LONGITUDE 80°45'00"

11,191' TO BOTTOM HOLE



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.

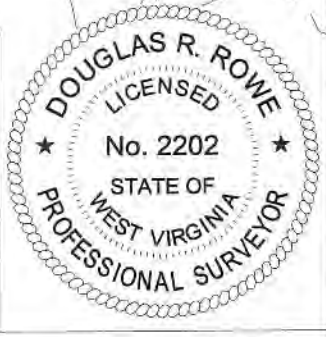


STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS. WILLOW LAND SURVEYING PLLC, 220 MASONIC AVE. PENNSBORO WEST VIRGINIA 26415

JOB # 19-023WA, DRAWING # NUGGETS2HAD, SCALE 1" = 2000', MINIMUM DEGREE OF ACCURACY SUBMETER, PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS, STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS

LEGEND: Surface Owner Boundary Lines +/-, Interior Surface Tracts +/-, Proposed Well Path, As Drilled Well Path. Signature of Douglas R. Rowe, P.S. 2202, DATE 09/14/20, OPERATOR'S WELL# NUGGETS UNIT #2H

NOTE: 1. NO OCCUPIED DWELLINGS OR BUILDINGS TWO THOUSAND FIVE HUNDRED (2,500) SQUARE FEET OR LARGER USED TO HOUSE OR SHELTER DAIRY CATTLE OR POULTRY HUSBANDRY ARE LOCATED WITHIN SIX HUNDRED TWENTY-FIVE (625) FEET OF THE CENTER OF THE WELL PAD. 2. TOP HOLE DATA SHOWN HEREON WAS PROVIDED BY ANTERO RESOURCES CORPORATION. 3. AS DRILLED DATA WAS PROVIDED BY ANTERO RESOURCES CORPORATION. 4. WLS IS NOT CERTIFYING THE DATA AND INFORMATION PROVIDED LISTED IN NOTES 2 AND 3, ONLY THE RELATIONSHIP TO THE DATA AND INFORMATION PROVIDED TO THE LEASE BOUNDARIES. 5. WLS IS BY NO MEANS RESPONSIBLE FOR ANY ERRORS OR INACCURACIES WITH THE DATA AND INFORMATION THAT HAS BEEN PROVIDED.



WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL 47 095 02657 (IF "GAS") PRODUCTION X STORAGE DEEP SHALLOW X STATE COUNTY PERMIT LOCATION: ELEVATION 749' - AS BUILT WATERSHED McELROY CREEK QUADRANGLE SHIRLEY 7.5' DISTRICT McELROY COUNTY TYLER SURFACE OWNER ANTERO RESOURCES CORPORATION ACREAGE 127.86 ACRES +/- OIL & GAS ROYALTY OWNER B.F. REED ET UX; KENNETH C. ORR ET AL; SUSAN L. SPENCER ET VIR; LEASE ACREAGE 130 AC.±; 85 AC.±; 53 AC.±; JOANNA LYNN HERNANDEZ; WILLIAM H. UNDERWOOD; FOUR LEAF LAND COMPANY; 99.5 AC.±; 81 AC.±; 150 AC.±; ROSEMARY HAUGHT; KENNETH R. KLINE ET UX; ANDREW SECKMAN 30 AC.±; 9.08 AC.±; 300 AC.± PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) AS DRILLED PLUG & ABANDON CLEAN OUT & REPLUG TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,412' TVD 17,196' MD WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER - CT CORPORATION SYSTEM ADDRESS 1615 WYNKOOP ST. ADDRESS 5400 D BIG TYLER ROAD DENVER, CO 80202 CHARLESTON, WV 25313

API 47-095-02657 Farm Name Antero Resources Corporation Well Number Nuggets Unit 2H

Exhibit 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	2/2/2021	17080	17036.7	36	Marcellus
2	2/3/2021	16998.85748	16831.6449	36	Marcellus
3	2/3/2021	16795.80238	16628.5898	36	Marcellus
4	2/4/2021	16592.74728	16425.5347	36	Marcellus
5	2/4/2021	16389.69218	16222.4796	36	Marcellus
6	2/4/2021	16186.63707	16019.4245	36	Marcellus
7	2/5/2021	15983.58197	15816.3694	36	Marcellus
8	2/5/2021	15780.52687	15613.3143	36	Marcellus
9	2/5/2021	15577.47177	15410.2592	36	Marcellus
10	2/6/2021	15374.41667	15207.2041	36	Marcellus
11	2/6/2021	15171.36156	15004.149	36	Marcellus
12	2/6/2021	14968.30646	14801.0939	36	Marcellus
13	2/6/2021	14765.25136	14598.0388	36	Marcellus
14	2/7/2021	14562.19626	14394.9837	36	Marcellus
15	2/7/2021	14359.14116	14191.9286	36	Marcellus
16	2/7/2021	14156.08605	13988.8735	36	Marcellus
17	2/8/2021	13953.03095	13785.8184	36	Marcellus
18	2/8/2021	13749.97585	13582.7633	36	Marcellus
19	2/8/2021	13546.92075	13379.7082	36	Marcellus
20	2/8/2021	13343.86565	13176.6531	36	Marcellus
21	2/9/2021	13140.81054	12973.598	36	Marcellus
22	2/9/2021	12937.75544	12770.5429	36	Marcellus
23	2/9/2021	12734.70034	12567.4878	36	Marcellus
24	2/10/2021	12531.64524	12364.4327	36	Marcellus
25	2/10/2021	12328.59014	12161.3776	36	Marcellus
26	2/10/2021	12125.53503	11958.3224	36	Marcellus
27	2/11/2021	11922.47993	11755.2673	36	Marcellus
28	2/11/2021	11719.42483	11552.2122	36	Marcellus
29	2/11/2021	11516.36973	11349.1571	36	Marcellus
30	2/12/2021	11313.31463	11146.102	36	Marcellus
31	2/12/2021	11110.25952	10943.0469	36	Marcellus
32	2/12/2021	10907.20442	10739.9918	36	Marcellus
33	2/13/2021	10704.14932	10536.9367	36	Marcellus
34	2/13/2021	10501.09422	10333.8816	36	Marcellus
35	2/13/2021	10298.03912	10130.8265	36	Marcellus
36	2/13/2021	10094.98401	9927.77143	36	Marcellus
37	2/14/2021	9891.928912	9724.71633	36	Marcellus
38	2/14/2021	9688.87381	9521.66122	36	Marcellus
39	2/15/2021	9485.818707	9318.60612	36	Marcellus
40	2/15/2021	9282.763605	9115.55102	36	Marcellus
41	2/15/2021	9079.708503	8912.49592	36	Marcellus
42	2/15/2021	8876.653401	8709.44082	36	Marcellus
43	2/16/2021	8673.598299	8506.38571	36	Marcellus
44	2/16/2021	8470.543197	8303.33061	36	Marcellus
45	2/16/2021	8267.488095	8100.27551	36	Marcellus
46	2/16/2021	8064.432993	7897.22041	36	Marcellus
47	2/17/2021	7861.377891	7694.16531	36	Marcellus
48	2/17/2021	7658.322789	7491.1102	36	Marcellus
49	2/17/2021	7455.267687	7288.0551	36	Marcellus
50	2/17/2021	7252.212585	7085	36	Marcellus

SM

API 47-095-02657 Farm Name Antero Resources Corporation Well Number Nuggets Unit 2H

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 (bbbls)	Amount of Nitrogen/ other (units)
1	2/2/2021	50.17	8787	8330	3975	165380	250089	N/A
2	2/3/2021	74.21	8477	7042	4637.76	408500	358235	N/A
3	2/3/2021	83.47	8346.26	6147.29	4349.96	407040	313418	N/A
4	2/4/2021	89.48	8274.97	6163.99	4839.75	407720	312390	N/A
5	2/4/2021	88.15	8274	6093	4572.11	406920	312290	N/A
6	2/4/2021	84.64	8434	6493	4690.56	406240	316829	N/A
7	2/5/2021	90.09	8554.06	7263.17	4492.58	407460	297880	N/A
8	2/5/2021	90.14	8339	8407	4787.55	407700	299505	N/A
9	2/5/2021	92.84	8543	8026	4554.65	403520	308916	N/A
10	2/6/2021	88.76	8611	8626	4663.18	408760	299074	N/A
11	2/6/2021	92.82	8626	8333	4647.24	402580	294949	N/A
12	2/6/2021	93.13	8609	7993	4941.04	408800	296246	N/A
13	2/6/2021	92.73	8526	7903	4636	403600	295039	N/A
14	2/7/2021	92.29	8430	6782	4488.67	409000	291886	N/A
15	2/7/2021	92.08	8654	5911	4516.45	408000	293922	N/A
16	2/7/2021	92.63	8619	8365	4741	412860	290408	N/A
17	2/8/2021	94.59	8532	8601	4468	408680	291901	N/A
18	2/8/2021	93.46	8474	6591	4434.72	415920	294693	N/A
19	2/8/2021	92.97	8566	6354	4383.74	407040	296632	N/A
20	2/8/2021	94.59	8478.14	8083.84	4908.3	412040	288340	N/A
21	2/9/2021	94.09	8479	8462	4693	416660	293500	N/A
22	2/9/2021	94.12	8455	6292	4359	407600	291904	N/A
23	2/9/2021	95.03	8113.55	6187.71	3995.76	403580	289082	N/A
24	2/10/2021	96.37	8315	8876	4178.99	410520	289864	N/A
25	2/10/2021	90.43	8176.28	2674.87	3926.71	412900	295246	N/A
26	2/10/2021	97.55	8496	2654	4168.23	412720	291854	N/A
27	2/11/2021	93.19	8335.82	7986.47	4107.69	412200	300195	N/A
28	2/11/2021	93.91	8570.26	2610.98	4151.36	404480	293143	N/A
29	2/11/2021	95.62	8446	6257	4347.76	406840	287311	N/A
30	2/12/2021	96.69	8543	8881	4274	408920	286814	N/A
31	2/12/2021	83.12	8482.78	2602.45	4024.37	404840	297914	N/A
32	2/12/2021	96.47	8498	8101	4114.96	410260	289876	N/A
33	2/13/2021	95.86	8389	6978	4131	410720	285941	N/A
34	2/13/2021	94.56	8499.09	2686.86	4167.71	403280	289156	N/A
35	2/13/2021	95.31	8458.95	2998.82	4115.84	406680	286981	N/A
36	2/13/2021	96.21	8133	5047	4353	406760	301457	N/A
37	2/14/2021	95.35	8508	7667	3923	408880	284895	N/A
38	2/14/2021	93.01	8435.26	2846.97	4423.77	399660	286683	N/A
39	2/15/2021	94.79	8317	7328	4414	410680	310279	N/A
40	2/15/2021	93.07	8038.77	2822.52	3931.85	400110	281877	N/A
41	2/15/2021	95.41	8263.43	2678.52	4097.43	402440	291276	N/A
42	2/15/2021	94.38	8266.01	7110.19	4326.04	403520	285677	N/A
43	2/16/2021	96.35	8167	6149	4144	413900	288433	N/A
44	2/16/2021	92.23	8507	2807	4117.66	413660	297563	N/A
45	2/16/2021	94.29	8169.84	3166.36	4135.57	401640	290157	N/A
46	2/16/2021	95.85	8000	6355	4136.34	405360	286857	N/A
47	2/17/2021	95.53	7850	7645	4063.63	405340	289999	N/A
48	2/17/2021	94.23	7999.9	7951.92	4156.6	410780	294668	N/A
49	2/17/2021	95.07	7900.15	3038.84	4225.02	409080	292448	N/A
50	2/17/2021	92.79	7594	7199	3635.06	403920	297073	N/A
	AVG=	92	8,371	6,231	4,331	20,145,690	#####	TOTAL

JN

EXHIBIT 3

LITHOLOGY/ FORMATION	TOP DEPTH (TVD)	BOTTOM DEPTH (TVD)	TOP DEPTH (MD)	BOTTOM DEPTH (MD)
	From Surface	From Surface	From Surface	From Surface
Shale	0	310	0	310
Silty sandstone	310	460	310	460
Shale	460	700	460	700
Silty Shale	700	820	700	820
Shale with interbedded limestone	820	850	820	850
Shale	850	880	850	880
Shale w/ trace coal	880	910	880	910
Shaley Sandstone	910	1,180	910	1,180
Shale	1,180	1,240	1,180	1,240
Sandstone w/ interbedded coals	1,240	1,330	1,240	1,330
Sandstone w/ trace coal	1,330	1,480	1,330	1,480
Sandstone	1,480	1,510	1,480	1,510
Shale	1,510	1,637	1,510	N/A
Big Lime	1,637	2,366	1,662	2,453
Fifty Foot Sandstone	2,366	2,436	2,453	2,530
Gordon	2,436	2,729	2,530	2,849
Fifth Sandstone	2,729	2,758	2,849	2,881
Bayard	2,758	3,571	2,881	3,766
Speechley	3,571	3,793	3,766	4,007
Balltown	3,793	4,280	4,007	4,536
Bradford	4,280	4,757	4,536	5,051
Benson	4,757	5,009	5,051	5,325
Alexander	5,009	6,152	5,325	6,611
Sycamore	5,971	6,127	6,414	6,586
Middlesex	6,127	6,265	6,611	6,818
Burkett	6,265	6,292	6,843	6,884
Tully	6,292	6,339	6,909	7,038
Marcellus	6,339	NA	7,038	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:	2/2/2021
Job End Date:	2/17/2021
State:	West Virginia
County:	Tyler
API Number:	47-095-02657-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	NUGGETS UNIT 2H
Latitude:	39.40233600
Longitude:	-80.78982500
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,414
Total Base Water Volume (gal):	15,588,297
Total Base Non Water Volume:	0



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
Produced Water	Halliburton	Base Fluid					
			Water	7732-18-5	100.00000	86.45594	Density = 8.34
Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	100.00000	0.05480	

UJ

MC B-8614	Halliburton	Biocide					
				Listed Below			
FLUID Enviro-Syn HCR-7000-WL	Fluid Energy Group	Acid Replacement					
				Listed Below			
Sand-Common White-100 Mesh, SSA-2	Halliburton	Proppant					
				Listed Below			
HYDROCHLORIC ACID, 22 BAUME	Halliburton	Solvent					
				Listed Below			
WG-36 GELLING AGENT	Halliburton	Gelling Agent					
				Listed Below			
Excelerate LX-15	Halliburton	Friction Reducer					
				Listed Below			
HAI-501	Halliburton	Acid Corrosion Inhibitor					
				Listed Below			
OPTIFLO-II DELAYED RELEASE BREAKER	Halliburton	Breaker					
				Listed Below			

Items above are Trade Names with the exception of Base Water . Items below are the individual ingredients.

			Crystalline silica, quartz	14808-60-7	100.00000	13.39716	
			Complex Amine Compound	Proprietary	60.00000	0.02498	
			Proprietary	Proprietary	20.00000	0.01403	
			Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.01249	
			Proprietary	Proprietary	10.00000	0.00701	
			Hydrochloric acid	7647-01-0	30.00000	0.00649	
			Guar gum	9000-30-0	100.00000	0.00519	
			Glutaraldehyde	111-30-8	30.00000	0.00246	
			Surfactant	Proprietary	5.00000	0.00208	
			Sorbitan, mono-9-octadecenoate, (Z)	1338-43-8	5.00000	0.00208	
			Ethoxylated alcohols	Proprietary	5.00000	0.00042	
			Organic chloride compound	Proprietary	1.00000	0.00042	
			Alkoxyated polyhydric alcohol	Proprietary	1.00000	0.00042	
			Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl chlorides	68424-85-1	5.00000	0.00041	
			Methanol	67-56-1	100.00000	0.00012	
			Ammonium persulfate	7727-54-0	100.00000	0.00011	
			Ethanol	64-17-5	1.00000	0.00008	
			Oxylated phenolic resin	Proprietary	30.00000	0.00003	
			Modified thiourea polymer	Proprietary	30.00000	0.00001	
			Mixture of dimer and trimer fatty acids of indefinite composition derived from tall oil	61790-12-3	30.00000	0.00001	
			Phosphoric acid	7664-38-2	0.10000	0.00001	
			Sodium hydroxide	1310-73-2	0.01000	0.00000	
			Nitrated acetate salt	Proprietary	0.01000	0.00000	
			Sodium glycolate	2836-32-0	0.01000	0.00000	

			Organic salt #2	Proprietary	0.01000	0.00000	
			Formaldehyde	50-00-0	0.01000	0.00000	
			Organic salt #1	Proprietary	0.01000	0.00000	
			Acrylamide	79-06-1	0.01000	0.00000	
			Hexadecene	629-73-2	5.00000	0.00000	
			Propargyl alcohol	107-19-7	5.00000	0.00000	
			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%

*** If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)