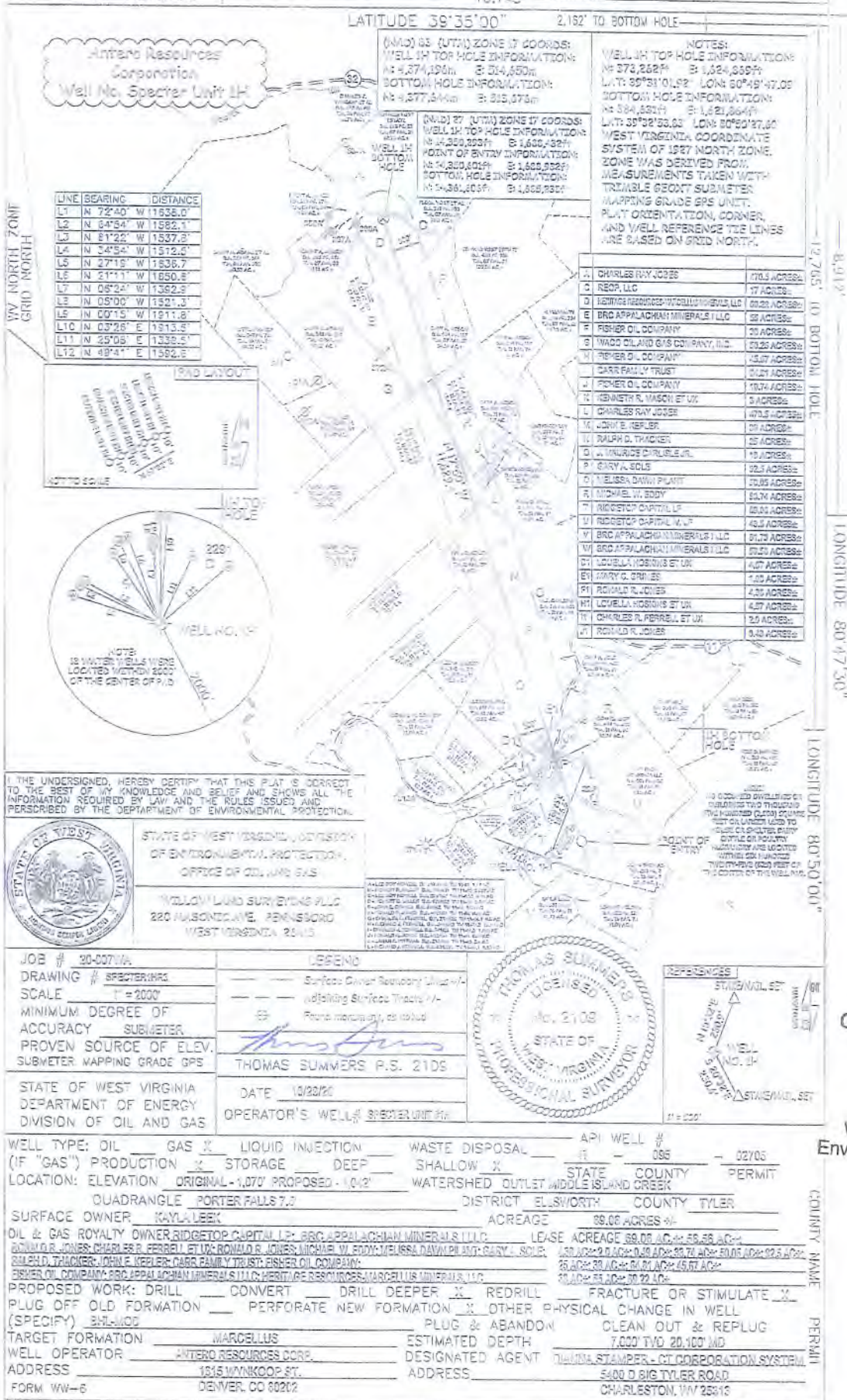


LATITUDE 39°32'30"

10.743

LATITUDE 39°35'00" 2.182' TO BOTTOM HOLE



12.765' TO BOTTOM HOLE  
LONGITUDE 80°47'30"  
LONGITUDE 80°50'00"

COUNTY NAME PERMIT

JCB 10/23/2020

LATITUDE 39°32'30"

10,743'

LATITUDE 39°35'00"

2,162' TO BOTTOM HOLE

Antero Resources Corporation  
Well No. Specter Unit 1H

(NAD) 83 (UTM) ZONE 17 COORDS:  
WELL 1H TOP HOLE INFORMATION:  
N: 4,374,196m E: 514,650m  
BOTTOM HOLE INFORMATION:  
N: 4,377,644m E: 513,676m

NOTES:  
WELL 1H TOP HOLE INFORMATION:  
N: 373,262ft E: 1,624,869ft  
LAT: 39°31'01.92" LON: 80°49'47.09"  
BOTTOM HOLE INFORMATION:  
N: 384,631ft E: 1,621,864ft  
LAT: 39°32'53.83" LON: 80°50'27.60"  
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.

LINE	BEARING	DISTANCE
L1	N 72°40' W	1638.0'
L2	N 64°54' W	1582.1'
L3	N 81°22' W	1537.8'
L4	N 34°54' W	1512.5'
L5	N 27°19' W	1636.7'
L6	N 21°11' W	1650.6'
L7	N 06°24' W	1392.9'
L8	N 05°00' W	1521.3'
L9	N 00°15' W	1911.8'
L10	N 03°26' E	1913.5'
L11	N 25°08' E	1338.5'
L12	N 49°41' E	1592.6'

(NAD) 27 (UTM) ZONE 17 COORDS:  
WELL 1H TOP HOLE INFORMATION:  
N: 14,350,293ft E: 1,688,432ft  
POINT OF ENTRY INFORMATION:  
N: 14,350,601ft E: 1,688,982ft  
BOTTOM HOLE INFORMATION:  
N: 14,361,606ft E: 1,685,238ft

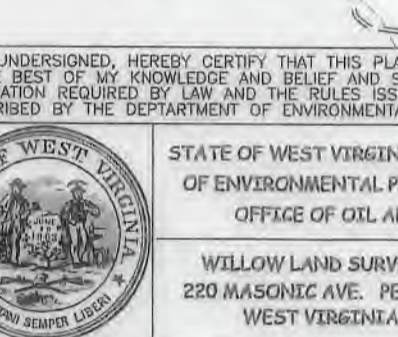
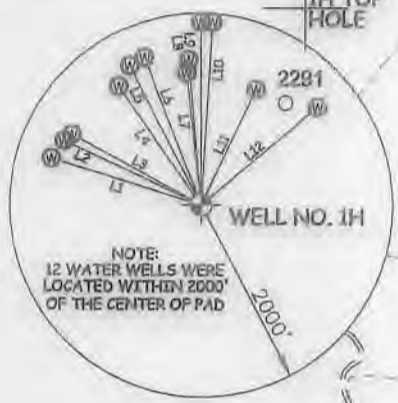
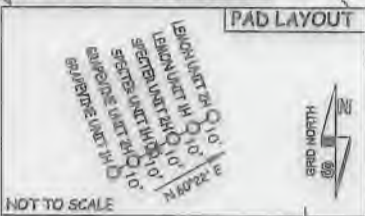
WV NORTH ZONE  
GRID NORTH

12,765' TO BOTTOM HOLE

8,912'

LONGITUDE 80°47'30"

LONGITUDE 80°50'00"



A	CHARLES RAY JOBES	470.5 ACRES±
C	REOP, LLC	17 ACRES±
D	HERITAGE RESOURCES-MARCELLUS MINERALS, LLC	69.22 ACRES±
E	BRC APPALACHIAN MINERALS I LLC	55 ACRES±
F	FISHER OIL COMPANY	39 ACRES±
G	WAGO OIL AND GAS COMPANY, INC.	50.25 ACRES±
H	FISHER OIL COMPANY	45.67 ACRES±
I	CARR FAMILY TRUST	64.81 ACRES±
J	FISHER OIL COMPANY	10.74 ACRES±
K	KENNETH R. MASON ET UX	3 ACRES±
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M	JOHN E. KEPLER	39 ACRES±
N	RALPH D. THACKER	25 ACRES±
O	J. MAURICE CARLISLE JR.	19 ACRES±
P	GARY A. SOLE	92.5 ACRES±
Q	MELISSA DAWN PILANT	50.05 ACRES±
R	MICHAEL W. EDDY	33.74 ACRES±
T	RIDGETOP CAPITAL LP	69.05 ACRES±
U	RIDGETOP CAPITAL IV, LP	43.5 ACRES±
V	BRC APPALACHIAN MINERALS I LLC	61.73 ACRES±
W	BRC APPALACHIAN MINERALS I LLC	59.59 ACRES±
D1	LOUELLA HOSKINS ET UX	4.67 ACRES±
E1	MARY C. GRIMES	1.05 ACRES±
F1	RONALD R. JONES	4.38 ACRES±
H1	LOUELLA HOSKINS ET UX	4.67 ACRES±
I1	CHARLES R. FERRELL ET UX	2.0 ACRES±
J1	RONALD R. JONES	0.49 ACRES±

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAN 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

- A-LEE ROY HOWELL D.S. 11841 TO 11841 1.07AC
- B-FORREST O. MILLER D.S. 20871 TO 11-41-21 2.07AC
- C-LEE ROY HOWELL D.S. 20871 TO 11-41-21 2.07AC
- D-FORREST O. MILLER D.S. 20871 TO 11-41-21 2.07AC
- E-LEE ROY HOWELL D.S. 20871 TO 11-41-21 2.07AC
- F-NICHOLAS J. FERRELL D.S. 11841 TO 11-41-21 2.07AC
- G-CHARLES R. FERRELL D.S. 21413 TO 11-41-21 2.07AC
- H-ROBERT J. FERRELL D.S. 20871 TO 11-41-21 2.07AC
- I-ROBERT J. FERRELL D.S. 20871 TO 11-41-21 2.07AC
- J-ROBERT J. FERRELL D.S. 20871 TO 11-41-21 2.07AC
- K-ROBERT J. FERRELL D.S. 20871 TO 11-41-21 2.07AC
- L-RICHARD J. FERRELL D.S. 20871 TO 11-41-21 2.07AC

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.

JOB # 20-007WA  
DRAWING # SPECTER1HR3  
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

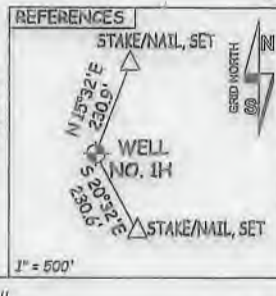
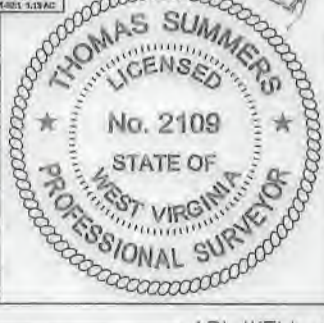
LEGEND

- Surface Owner Boundary Lines +/-
- Adjoining Surface Tracts +/-
- Found monument, as noted

THOMAS SUMMERS P.S. 2109

DATE 10/29/20

OPERATOR'S WELL# SPECTER UNIT #1H



WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_ API WELL # 47 - 095 - 02705 MOD I  
(IF "GAS") PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X STATE COUNTY PERMIT  
LOCATION: ELEVATION ORIGINAL -1,070' PROPOSED -1,042' WATERSHED OUTLET MIDDLE ISLAND CREEK  
QUADRANGLE PORTER FALLS 7.5' DISTRICT ELLSWORTH COUNTY TYLER  
SURFACE OWNER KAYLA LEEK ACREAGE 69.06 ACRES +/-  
OIL & GAS ROYALTY OWNER RIDGETOP CAPITAL LP; BRC APPALACHIAN MINERALS I LLC LEASE ACREAGE 69.06 AC.±; 58.56 AC.±;  
RONALD R. JONES; CHARLES R. FERRELL ET UX; RONALD R. JONES; MICHAEL W. EDDY; MELISSA DAWN PILANT; GARY A. SOLE 4.38 AC.±; 2.0 AC.±; 0.49 AC.±; 33.74 AC.±; 50.05 AC.±; 92.5 AC.±;  
RALPH D. THACKER; JOHN E. KEPLER; CARR FAMILY TRUST; FISHER OIL COMPANY; 25 AC.±; 39 AC.±; 64.81 AC.±; 45.67 AC.±;  
FISHER OIL COMPANY; BRC APPALACHIAN MINERALS I LLC; HERITAGE RESOURCES-MARCELLUS MINERALS, LLC 38 AC.±; 55 AC.±; 69.22 AC.±

PROPOSED WORK: DRILL \_\_\_ CONVERT \_\_\_ DRILL DEEPER X REDRILL \_\_\_ FRACTURE OR STIMULATE X  
PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION X OTHER PHYSICAL CHANGE IN WELL  
(SPECIFY) BHL-MOD PLUG & ABANDON CLEAN OUT & REPLUG  
TARGET FORMATION MARCELLUS ESTIMATED DEPTH 7,000' TVD 20,100' MD  
WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER - CT CORPORATION SYSTEM  
ADDRESS 1615 WYNKOOP ST. ADDRESS 5400 D BIG TYLER ROAD  
FORM WW-6 DENVER, CO 80202 CHARLESTON, WV 25313

COUNTY NAME PERMIT

LATITUDE 39°32'30"

10,743'

LATITUDE 39°35'00"

2,162' TO BOTTOM HOLE

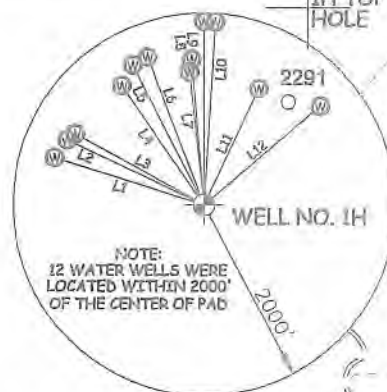
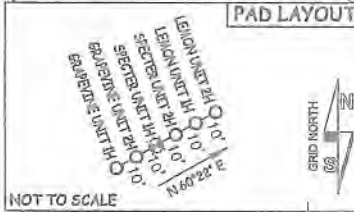
Antero Resources Corporation  
Well No. Specter Unit 1H

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N: 4,374,196m E: 514,650m  
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WV NORTH ZONE  
GRID NORTH



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

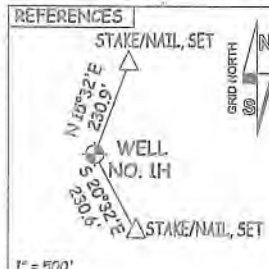
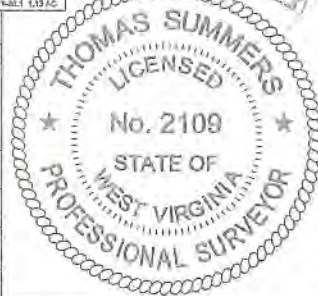
- A-LEE RYD MOWELL, D.B. 10/28/88 T11-41 1,874.0
- B-ROBERT D. MILLER, D.B. 10/28/88 T11-41 2,077.42
- C-LEE RYD MOWELL, D.B. 10/28/88 T11-41 1,874.0
- D-ROBERT D. MILLER, D.B. 10/28/88 T11-41 2,077.42
- E-JOHN E. KEPLER, D.B. 10/28/88 T11-41 1,874.0
- F-ROBERT D. MILLER, D.B. 10/28/88 T11-41 2,077.42
- G-CHARLES R. JONES, D.B. 10/28/88 T11-41 1,874.0
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- L-ROBERT D. MILLER, D.B. 10/28/88 T11-41 2,077.42

A	CHARLES RAY JOBS	470.5 ACRES±
C	REOP, LLC	17 ACRES±
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E	BRC APPALACHIAN MINERALS I LLC	55 ACRES±
F	FISHER OIL COMPANY	38 ACRES±
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O	J. MAURICE CARLISLE JR.	19 ACRES±
P	GARY A. SOLE	92.5 ACRES±
Q	MELISSA DAWN PILANT	70.05 ACRES±
R	MICHAEL W. EDDY	33.74 ACRES±
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V	BRC APPALACHIAN MINERALS I LLC	61.73 ACRES±
W	BRC APPALACHIAN MINERALS I LLC	58.56 ACRES±
D1	LOUELLA HOSKINS ET UX	4.67 ACRES±
E1	MARY C. GRIMES	1.09 ACRES±
F1	RONALD R. JONES	4.39 ACRES±
H1	LOUELLA HOSKINS ET UX	4.67 ACRES±
I1	CHARLES R. FERRELL ET UX	2.0 ACRES±
J1	RONALD R. JONES	0.40 ACRES±

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JOB # 20-007WA  
DRAWING # SPECTER1HR3  
SCALE 1" = 2000'  
MINIMUM DEGREE OF ACCURACY SUBMETER  
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS

LEGEND  
— Surface Owner Boundary Lines +/-  
--- Adjoining Surface Tracts +/-  
⊕ Found monument, as noted  
*Thomas Summers*  
THOMAS SUMMERS P.S. 2109



STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS

DATE 10/29/20  
OPERATOR'S WELL # SPECTER UNIT #1H

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  API WELL # 47 - 095 - 02705 MOD1  
(IF "GAS") PRODUCTION  STORAGE  DEEP  SHALLOW  STATE COUNTY PERMIT  
LOCATION: ELEVATION ORIGINAL - 1,070' PROPOSED - 1,042' WATERSHED OUTLET MIDDLE ISLAND CREEK  
QUADRANGLE PORTER FALLS 7.5 DISTRICT ELLSWORTH COUNTY TYLER  
SURFACE OWNER KAYLA LEEK ACREAGE 69.06 ACRES +/-  
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PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE   
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(SPECIFY) BHL-MOD PLUG & ABANDON CLEAN OUT & REPLUG  
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ADDRESS 1615 WYNKOOP ST. ADDRESS 5400 D BIG TYLER ROAD  
FORM WW-6 DENVER, CO 80202 CHARLESTON, WV 25313

8,912'

LONGITUDE 80°47'30"

LONGITUDE 80°50'00"

COUNTY NAME

PERMIT



PERMIT MODIFICATION API # 47-095-02705

Specter Unit 1H

RECEIVED  
Office of Oil and Gas

NOV 23 2020

WV Department of  
Environmental Protection



Antero Resources Corporation

Specter Unit 1H - AOR



REMARKS

No Wells of Interest

August 13, 2020

JCB  
11/23/2020