

LATITUDE 39°25'00"

8,183'

4,330' TO BOTTOM HOLE  
LATITUDE 39°25'00"

LONGITUDE 80°52'30"

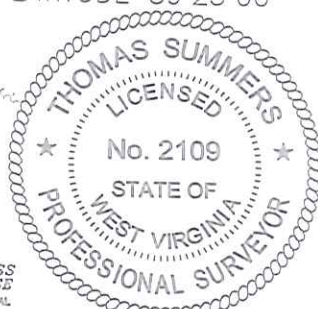
5,998'

LONGITUDE 80°52'30"

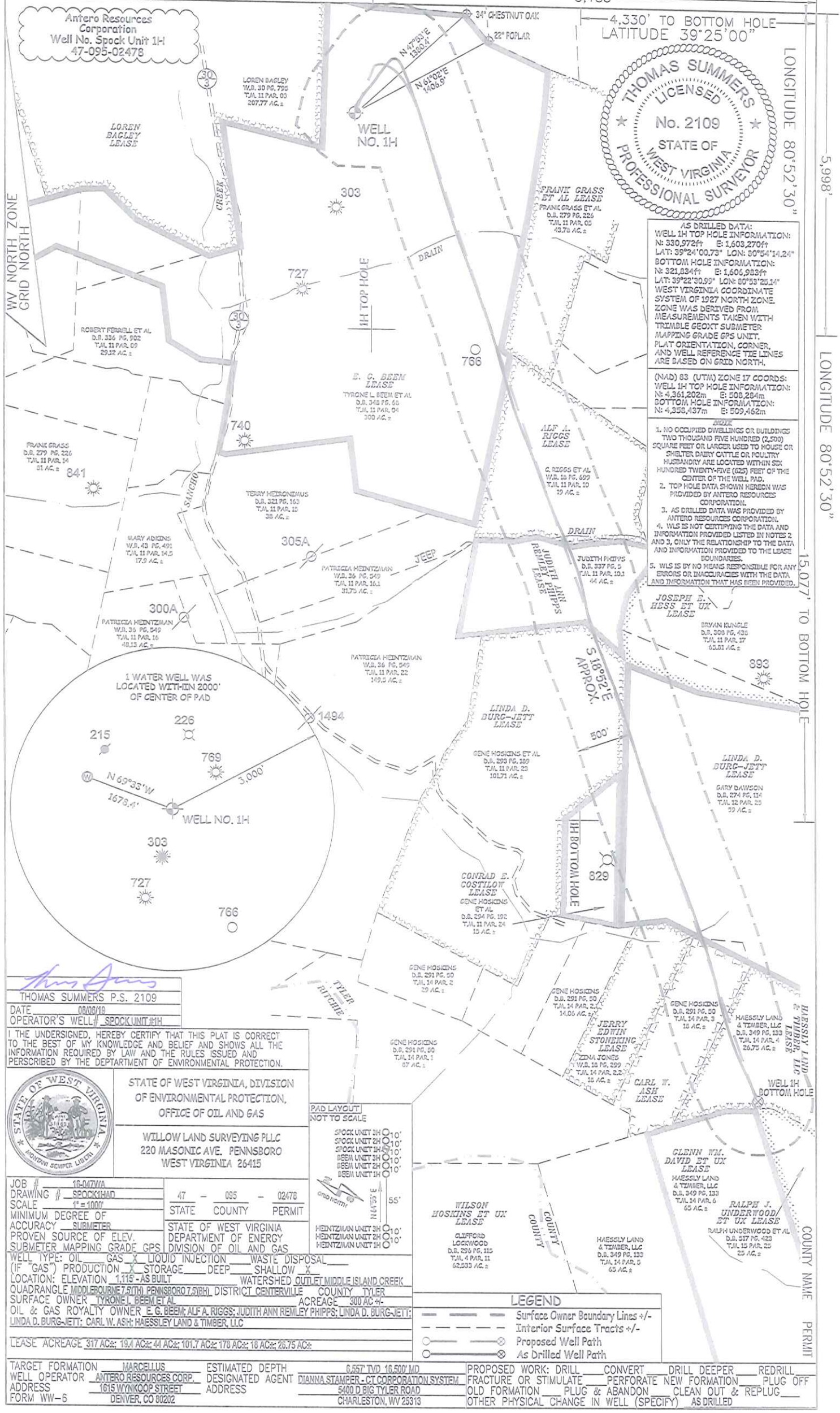
15,077' TO BOTTOM HOLE

COUNTY NAME PERMIT

Antero Resources Corporation  
Well No. Spock Unit 1H  
47-095-02478



WV NORTH ZONE  
GRID NORTH



AS DRILLED DATA:  
WELL 1H TOP HOLE INFORMATION:  
N: 330,972ft E: 1,603,270ft  
LAT: 39°24'00.73" LON: 80°54'14.24"  
BOTTOM HOLE INFORMATION:  
N: 321,834ft E: 1,606,983ft  
LAT: 39°22'30.99" LON: 80°53'25.14"  
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 1H TOP HOLE INFORMATION:  
N: 4,361,202m E: 508,284m  
BOTTOM HOLE INFORMATION:  
N: 4,358,437m E: 509,462m

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.

JOSEPH E. HESS ET UX LEASE  
BRYAN KUNCLE D.B. 308 PG. 435 T.J. 11 PAR. 17 65.91 AC.±  
LINDA D. BURG-JETT LEASE  
GARY DAWSON D.B. 274 PG. 114 T.J. 12 PAR. 25 59 AC.±



*Thomas Summers*  
THOMAS SUMMERS P.S. 2109  
DATE 08/08/19  
OPERATOR'S WELL# SPOCK UNIT 1H

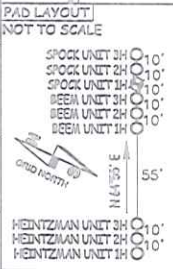
I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAN IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE RULES ISSUED AND PERSCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



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

JOB # 10-017MA  
DRAWING # SPOCK1HAD  
SCALE 1"=1000'  
MINIMUM DEGREE OF ACCURACY SUBMETER  
PROVEN SOURCE OF ELEV. SURFACE OWNER TYRONE L. BEEM ET AL  
SUBMETER MAPPING GRADE GPS  
WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL  
(IF "GAS") PRODUCTION X STORAGE DEEP SHALLOW X  
LOCATION: ELEVATION 1,115 - AS BUILT WATERSHED OUTLET MIDDLE ISLAND CREEK QUADRANGLE MIDDLEBOURNE (7.5TH) PENNSBORO (7.5TH) DISTRICT CENTERVILLE COUNTY TYLER  
SURFACE OWNER TYRONE L. BEEM ET AL ACREAGE 300 AC.±  
OIL & GAS ROYALTY OWNER E. G. BEEM; ALF A. RIGGS; JUDITH ANN REMLEY PHIPPS; LINDA D. BURG-JETT; LINDA D. BURG-JETT; CARL W. ASH; HAESSLEY LAND & TIMBER, LLC

47 - 095 - 02478  
STATE COUNTY PERMIT  
STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS  
HEINTZMAN UNIT 3H 0'0"  
HEINTZMAN UNIT 2H 0'0"  
HEINTZMAN UNIT 1H 0'0"



WILSON HOSKINS ET UX LEASE  
CLIFFORD LOCKWOOD D.B. 259 PG. 115 T.J. 4 PAR. 11 62.533 AC.±

LEGEND  
- - - Surface Owner Boundary Lines +/-  
- - - Interior Surface Tracts +/-  
○ Proposed Well Path  
○ As Drilled Well Path

LEASE ACREAGE 317 AC.±; 19.1 AC.±; 44 AC.±; 101.7 AC.±; 178 AC.±; 18 AC.±; 26.75 AC.±

TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,557' TWD 16,500' MD  
WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER - CT CORPORATION SYSTEM  
ADDRESS 1615 WYNKOOP STREET ADDRESS 5400 D. BIG TYLER ROAD CHARLESTON, WV 25313  
FORM WW-6 DENVER, CO 80202

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL  
FRACTURE OR STIMULATE PERFORATE NEW FORMATION PLUG OFF  
OLD FORMATION PLUG & ABANDON CLEAN OUT & REPLUG  
OTHER PHYSICAL CHANGE IN WELL (SPECIFY) AS DRILLED