

LATITUDE 39°20'00"

11,267'

7,597' TO BOTTOM HOLE
LATITUDE 39°17'30"

LONGITUDE 80°57'30"

7,392'

LONGITUDE 80°57'30"

Antero Resources Corporation
Well No. Musgrave Unit 2H
47-085-10191 (AS DRILLED)

REBAR, FOUND

WELL NO. 2H
47-085-10191

AS DRILLED DATA:
WELL 2H TOP HOLE INFORMATION:
N: 299,660ft E: 1,576,124ft
LAT: 39°18'46.94" LON: 80°59'53.36"
BOTTOM HOLE INFORMATION:
N: 288,685ft E: 1,579,617ft
LAT: 39°16'59.05" LON: 80°59'06.62"
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: 4,351,525m E: 500,174m
BOTTOM HOLE INFORMATION:
N: 4,348,199m E: 501,293m

- 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 ALLEGHENY SURVEYS, INC.
 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.

LEGEND

- Surface Owner Boundary Lines +/-
- Interior Surface Tracts +/-
- Existing Fence
- Found monument, as noted
- Proposed Well Path
- As Drilled Well Path

DATE 0716/15

OPERATOR'S WELL# MUSGRAVE UNIT #2H

API WELL #

47 - 085 - 10191

STATE COUNTY PERMIT

JOB # 13-007WA

DRAWING # MUSGRAVE2HAD

SCALE 1" = 1000'

MINIMUM DEGREE OF ACCURACY SUBMETER

PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS

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

WV NORTH ZONE
GRID NORTH

LERROY BAKER ET AL
D.B. 243 PG. 687
T.M. 12 PAR. 18.2
48 AC.±

WALNUT INVESTMENT CO. LEASE
WALNUT INVESTMENT CO.
D.B. 216 PG. 346
T.M. 13 PAR. 14
139 AC.±

MARTHA H. LOWINGS
D.B. 306 PG. 599
T.M. 13 PAR. 11
18.50 AC.±

8880

CHARLEY'S

2H BOTTOM HOLE

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DENCIL D. BAKER ET AL
D.B. 243 PG. 692
T.M. 12 PAR. 18.2
48 AC.±

EMELIA D. KENTZ ET AL
W.B. 19 PG. 751
T.M. 12 PAR. 19.1
12.3 AC.±

MURIEL A. ANDERSON ET AL
D.B. 302 PG. 951
T.M. 18 PAR. 3
121 AC.±

PAD LAYOUT
NOT TO SCALE

NOLAND UNIT 2H 0'30"
NOLAND UNIT 1H 0'30"
SCHMIDLE UNIT 1H 0'30"
MUSGRAVE UNIT 2H 0'30"
MUSGRAVE UNIT 1H 0'30"
MUSGRAVE UNIT 3H 0'30"
MUSGRAVE UNIT 4H 0'30"
MUSGRAVE UNIT 5H 0'30"
N 16°12' E

ANN ANDERSON
ET AL LEASE

8998

REBAR, FOUND

MICHAEL L. DAVES ET AL
D.B. 316 PG. 3006
T.M. 18 PAR. 11
39.2 AC.±

JAY-BEE PRODUCTION COMPANY LEASE
MICHAEL L. DAVIS ET AL
D.B. 222 PG. 356
T.M. 19 PAR. 01.2
137.31 AC.±

KAREN L. GIEBELL ET UX LEASE
DANNY W. BUNNER SR. ET AL
D.B. 289 PG. 557
T.M. 19 PAR. 01
17.23 AC.±

KAREN L. GIEBELL ET UX LEASE

DANNY W. BUNNER SR. ET AL
D.B. 289 PG. 557
T.M. 19 PAR. 20
68.97 AC.±

DANNY W. BUNNER SR. ET AL
D.B. 289 PG. 557
T.M. 19 PAR. 27.1
16.12 AC.±

DANNY W. BUNNER SR. ET AL
D.B. 289 PG. 557
T.M. 19 PAR. 27.2
2.871 AC.±

DANNY W. BUNNER SR. ET AL
D.B. 289 PG. 557
T.M. 19 PAR. 27.3
7.822 AC.±

CHARLES E. GIEBELL ET AL LEASE
KAREN L. GIEBELL
W.B. 39 PG. 407
T.M. 19 PAR. 30
70.34 AC.±

MARANDA J. MCCLASKEY ET AL
D.B. 316 PG. 509
T.M. 19 PAR. 18.6
2.055 AC.±

MARY CIBBS ET AL LEASE
EDGAR DAVIS JR.
D.B. 229 PG. 277
T.M. 19 PAR. 28.4
19.715 AC.±

DONALD McCULLOUGH ET UX LEASE
DONALD McCULLOUGH ET AL
D.B. 207 PG. 202
T.M. 19 PAR. 39
7.57 AC.±

JAMES S. DAVIS ET AL
D.B. 279 PG. 477
T.M. 19 PAR. 42
7.437 AC.±

KESS MOORE
D.B. 189 PG. 782
T.M. 15 PAR. 2
7 AC.±

JAMES E. JONES ET AL
D.B. 257 PG. 629
T.M. 25 PAR. 12
0.81 AC.±

JONAH DAVIS ET AL
D.B. 212 PG. 118
T.M. 19 PAR. 4
12.99 AC.±

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

WILLOW LAND SURVEYING PLLC
266 HUSHERS RUN RD PENNSBORO WEST VIRGINIA 26415

Received
Office of Oil & Gas
JAN 13 2016

WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL
(IF "GAS") PRODUCTION STORAGE DEEP SHALLOW X

LOCATION: ELEVATION 1,142' ORIGINAL - 1,121' AS DRILLED WATERSHED NORTH FORK HUGHES RIVER

QUADRANGLE PENNSBORO 7.5' DISTRICT CLAY COUNTY RITCHIE

SURFACE OWNER WALNUT INVESTMENTS CO. ACREAGE 138 ACRES +/-
OIL & GAS ROYALTY OWNER WALNUT INVESTMENT CO.; DIAN S. CLINE ET AL.; JOSEPH F. SCHMIDLE III ET AL.; JAY-BEE PROD. CO.;

KAREN L. GIEBELL ET UX; KAREN L. GIEBELL ET UX; CHARLES E. GIEBELL ET AL; MARY CIBBS ET AL; DONALD McCULLOUGH ET UX; CINDA FLEMING LEASE; MARY F. DAVIS ET AL; DONALD McCULLOUGH ET UX; DONALD McCULLOUGH ET UX
LEASE ACREAGE 238 AC±; 73.5 AC±; 76.8 AC±; 137.31 AC±;
17.25 AC±; 68.87 AC±; 201 AC±; 25.03 AC±; 9.25 AC±; 1.36 AC±; 49.75 AC±; 44 AC±; 15.08 AC±

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL

(SPECIFY) (X) AS DRILLED PLUG & ABANDON CLEAN OUT & REPLUG
TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,418' TVD 17,847' MD

WELL OPERATOR ANTERO RESOURCES CORPORATION DESIGNATED AGENT DIANNA STAMPER - CT CORPORATION SYSTEM
ADDRESS 1615 WYNKOOP STREET ADDRESS 5400 D BIG TYLER ROAD
DENVER, CO 80202 CHARLESTON, WV 25313

02/05/2016