



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

August 21, 2014

WELL WORK PERMIT

Horizontal 6A Well

This permit, API Well Number: 47-9502175, issued to ANTERO RESOURCES CORPORATION, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

James Martin
Chief

Operator's Well No: PURSLEY UNIT 2HD
Farm Name: NALLEY, ROBERT D. & VIRGINIA
API Well Number: 47-9502175
Permit Type: Horizontal 6A Well
Date Issued: 08/21/2014

PERMIT CONDITIONS

West Virginia Code § 22-6A-8(d) allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
7. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
8. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.
9. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.



west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street, SE Charleston, WV 25304
(304)926-0499, Ext 1656

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
dep.wv.org

August 21, 2014

Department of Environmental Protection
Office of Oil and Gas
Charleston, WV 25304

RE: Application for Deep Well Permit – API #47-095-02175

COMPANY: Antero Resources Corporation

FARM: Robert Nalley - Pursley Unit 2HD

COUNTY: Tyler DISTRICT: Lincoln QUAD: Paden City

The deep well review of the application for the above company is **APPROVED FOR POINT PLEASANT– for Point Pleasant completion.** If operator wishes to drill deeper than the Trenton, additional approval must be obtained from the OGCC.

Per OGCC hearing Docket 229/230 Cause 220 Order 1.

The applicant has complied with the provision of Chapter 22C-9, of the Code of West Virginia, nineteen hundred and thirty-one (1931), as amended, Oil and Gas Conservation Commission as follows:

1. Notice of Deviation comments filed? Yes
2. Provided a certified copy of duly acknowledged and recorded consent and easement form from all surface owners; Yes
3. Provided a tabulation of all deep wells within one mile of the proposed location, including the API number of all deep wells, well name, and the name and address of the operator; none
4. Provided a plat showing that the proposed location is a distance of 500 feet from the nearest lease line or unit boundary and showing the following wells drilled to or capable of producing from the objective formation within 3,000 feet of the proposed location.

Sincerely,

Cindy Raines
Executive Assistant

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

1) Well Operator: Antero Resources Corporation 494488557 095- Tyler Lincoln Paden City
 Operator ID County District Quadrangle

2) Operator's Well Number: Pursley Unit 2HD Well Pad Name: Nalley Pad

3) Farm Name/Surface Owner: Nalley, Robert D. & Virginia D. Public Road Access: CR 18

4) Elevation, current ground: ~985' Elevation, proposed post-construction: 971'

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 Associated Pressure(s):
Point Pleasant: 10,800' TVD, Anticipated Thickness- 95 feet , Associated Pressure- 8400#

8) Proposed Total Vertical Depth: 10,800' TVD

9) Formation at Total Vertical Depth: Point Pleasant

10) Proposed Total Measured Depth: 17,800' MD

11) Proposed Horizontal Leg Length: 6391'

12) Approximate Fresh Water Strata Depths: 40', 130'

13) Method to Determine Fresh Water Depths: Offset well records. Depths have been adjusted according to surface elevations.

14) Approximate Saltwater Depths: 1415', 1510', 1745'

15) Approximate Coal Seam Depths: 667', 692', 1132'

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: _____

WW-6B
(9/13)

PERMIT UPDATE - API# 47-095-02175

18) CASING AND TUBING PROGRAM

| <u>TYPE</u> | <u>Size</u> | <u>New or Used</u> | <u>Grade</u> | <u>Weight per ft. (lb/ft)</u> | <u>FOOTAGE: For Drilling</u> | <u>INTERVALS: Left in Well</u> | <u>CEMENT: Fill-up (Cu. Ft.)</u> |
|-------------------------|------------------|--------------------|----------------|-------------------------------|------------------------------|--------------------------------|-----------------------------------|
| Conductor | 26" | New | H-40 | 94# | 90' | 90' | CTS, 220 Cu. Ft. |
| Fresh Water | 18-5/8" | New | J-55/H-40 | 87.5# | 300' | 300' | CTS, 734 Cu. Ft. |
| Coal | 13-3/8" | New | J-55 | 54.5# | 2500' | 2500' | CTS, 2243 Cu. Ft. |
| Intermediate Production | 9-5/8" 5-1/2" | New New | P-110 P-110 | 43.5# 26# | 9000' 17800' | 9000' 17800' | CTS, 2844 Cu. Ft. 2942 Cu. Ft. |
| Tubing Liners | 2-3/8" | New | N-80 | 4.7# | | 10800' | |

UKC
7-29-14

| <u>TYPE</u> | <u>Size</u> | <u>Wellbore Diameter</u> | <u>Wall Thickness</u> | <u>Burst Pressure</u> | <u>Cement Type</u> | <u>Cement Yield (cu. ft./k)</u> |
|-------------------------|------------------|----------------------------|-----------------------|-----------------------|----------------------------------|---------------------------------|
| Conductor | 26" | 32" | .7" | 960 | Class A | 1.18 |
| Fresh Water | 18-5/8" | 24" | 0.438" | 1530 | Class A | 1.18 |
| Coal | 13-3/8" | 17-1/2" | 0.38"/0.33" | 2730/1730 | Class A | 1.18 |
| Intermediate Production | 9-5/8" 5-1/2" | 12-1/4" 8-3/4" & 8-1/2" | 0.352" 0.361" | 3520 12630 | Class A Lead-H/POZ & Tail - H | 1.18 H/POZ-1.44 & H-1.8 |
| Tubing Liners | 2-3/8" | 4.778" | 0.19" | 11200 | | |

PACKERS

| | | | | |
|-------------|-----|--|--|--|
| Kind: | N/A | | | |
| Sizes: | N/A | | | |
| Depths Set: | N/A | | | |

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(9/13)

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

Drill, perforate, fracture a new horizontal deep well and complete Point Pleasant.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

Antero plans to pump Slickwater into the Point Pleasant 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."

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 26.60 acres

22) Area to be disturbed for well pad only, less access road (acres): 6.10 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.
 Intermediate 2 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 cement.
 Surface: Class A cement with 2-3% calcium chloride
 Intermediate: Class A cement with 1/4 lb of flake, 5 gallons of clay treat
 Intermediate 2: 100% Low Dense, 3%BWOW Potassium Chloride, Class A, 2%BWOC Gel, 3% BWOW Potassium Chloride
 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.
 Intermediate 2: 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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 MAR 17 2014
 WV Dept of Environmental Protection

WW-9
(9/13)

API Number 47 - 095 - 02175
Operator's Well No. Pursley Unit 2HD

PERMIT UPDATE - API# 47-095-02175

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Antero Resources Corporation OP Code 494488557

Watershed (HUC 10) Pursley Creek of the Ohio River Quadrangle Paden City

Elevation 971' County Tyler District Lincoln

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No

Will a pit be used? Yes No

If so, please describe anticipated pit waste: No pit will be used at this site (Drilling and Fireback Fluids will be stored in tanks. Cuttings will be linked and hauled off site.)

Will a synthetic liner be used in the pit? Yes No If so, what ml.? N/A

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number Future permitted well locations when applicable. API# will be provided on Form WR-34)
- Off Site Disposal (Supply form WW-9 for disposal location) (Meadowfill Landfill Permit #SWF-1032-98)
- Other (Explain _____)

Will closed loop system be used? If so, describe: Yes

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Surface - Air/Freshwater, Intermediate - Dust/Surf Foam, Production - Water & Oil Based Mud

-If oil based, what type? Synthetic, petroleum, etc. Synthetic

Additives to be used in drilling medium? Please See Attachment

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Stored in tanks, removed offsite and taken to landfill.

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) N/A

-Landfill or offsite name/permit number? Meadowfill Landfill (Permit #SWF-1032-98)

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature *Cole Kilstrom*

Company Official (Typed Name) Cole Kilstrom

Company Official Title Environmental Specialist

SAMANTHA MARSH
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20134079428
MY COMMISSION EXPIRES DECEMBER 20, 2017

Subscribed and sworn before me this 15th day of July, 20 14

Samantha Marsh Notary Public

My commission expires December 20, 2017

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Environmental Protection
08/22/2014

Form WW-9

Operator's Well No. Pursley Unit 2HD

Antero Resources Corporation

Proposed Revegetation Treatment: Acres Disturbed 26.60 Prevegetation pH _____

Lime 2-4 Tons/acre or to correct to pH 6.5

Fertilizer type Hay or straw or Wood Fiber (will be used where needed)

Fertilizer amount 500 lbs/acre

Mulch 2-3 Tons/acre

ew Access Road A (12.06) + New Access Road B (1.18) + New Staging Area (.82) + New Well Pad (6.10) + New Water Containment Pad (1.62) + New Excess/Topsoil Material Stockpiles (5.82) = 26.60 Acres

Seed Mixtures

Temporary

Permanent

Seed Type Annual Ryegrass lbs/acre 40

Seed Type Tall Fescue lbs/acre 40

See attached Table 3 for additional seed type (Nalley Pad Design Page 21)

See attached Table 4a for additional seed type (Nalley Pad Design Page 21)

*or type of grass seed requested by surface owner

*or type of grass seed requested by surface owner

Attach:

Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided)

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Michael Hoff

Comments: Pre seed & mulch any disturbed areas per WVDEP Regulations. Maintain & upgrade E&S as necessary

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Title: Oil & Gas Inspector Date: 7/16/14

Field Reviewed? () Yes () No

Form WW-9 Additives Attachment**SURFACE INTERVAL**

1. Fresh Water
2. Soap –Foamer AC
3. Air

INTERMEDIATE INTERVAL**STIFF FOAM RECIPE:**

- 1) 1 ppb Soda Ash / Sodium Carbonate-Alkalinity Control Agent
- 2) 1 ppb Conqor 404 (11.76 ppg) / Corrosion Inhibitor
- 3) 4 ppb KLA-Gard (9.17 ppg) / Amine Acid Complex-Shale Stabilizer
- 4) 1ppb Mil Pac R / Sodium Carboxymethylcellulose-Filtration Control Agent
- 5) 12 ppb KCL / Potassium Chloride-inorganic Salt
- 6) Fresh Water 80 bbls
- 7) Air

PRODUCTION INTERVAL

1. Alpha 1655
Salt Inhibitor
2. Mil-Carb
Calcium Carbonate
3. Cottonseed Hulls
Cellulose-Cottonseed Pellets – LCM
4. Mil-Seal
Vegetable, Cotton & Cellulose-Based Fiber Blend – LCM
5. Clay-Trol
Amine Acid Complex – Shale Stabilizer
6. Xan-Plex
Viscosifier For Water Based Muds
7. Mil-Pac (All Grades)
Sodium Carboxymethylcellulose – Filtration Control Agent
8. New Drill
Anionic Polyacrylamide Copolymer Emulsion – Shale Stabilizer
9. Caustic Soda
Sodium Hydroxide – Alkalinity Control
10. Mil-Lime
Calcium Hydroxide – Lime
11. LD-9
Polyether Polyol – Drilling Fluid Defoamer
12. Mil Mica
Hydro-Biotite Mica – LCM

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13. Escaid 110
Drilling Fluid Solvent – Aliphatic Hydrocarbon
14. Ligco
Highly Oxidized Leonardite – Filtration Control Agent
15. Super Sweep
Polypropylene – Hole Cleaning Agent
16. Sulfatrol K
Drilling Fluid Additive – Sulfonated Asphalt Residuum
17. Sodium Chloride, Anhydrous
Inorganic Salt
18. D-D
Drilling Detergent – Surfactant
19. Terra-Rate
Organic Surfactant Blend
20. W.O. Defoam
Alcohol-Based Defoamer
21. Perma-Lose HT
Fluid Loss Reducer For Water-Based Muds
22. Xan-Plex D
Polysaccharide Polymer – Drilling Fluid Viscosifier
23. Walnut Shells
Ground Cellulosic Material – Ground Walnut Shells – LCM
24. Mil-Graphite
Natural Graphite – LCM
25. Mil Bar
Barite – Weighting Agent
26. X-Cide 102
Biocide
27. Soda Ash
Sodium Carbonate – Alkalinity Control Agent
28. Clay Trol
Amine Acid complex – Shale Stabilizer
29. Sulfatrol
Sulfonated Asphalt – Shale Control Additive
30. Xanvis
Viscosifier For Water-Based Muds
31. Milstarch
Starch – Fluid Loss Reducer For Water Based Muds
32. Mil-Lube
Drilling Fluid Lubricant

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Well Site Safety Plan

Antero Resources

Well Name: Pursley Unit 1H and Pursley Unit 2HD (Deep Well)

Pad Location: NALLEY PAD
Tyler County/ Lincoln District

GPS Coordinates: Lat 39°32'40.38"/Long -80°57'10.54"(NAD83)

Driving Directions:

From Sistersville, WV:

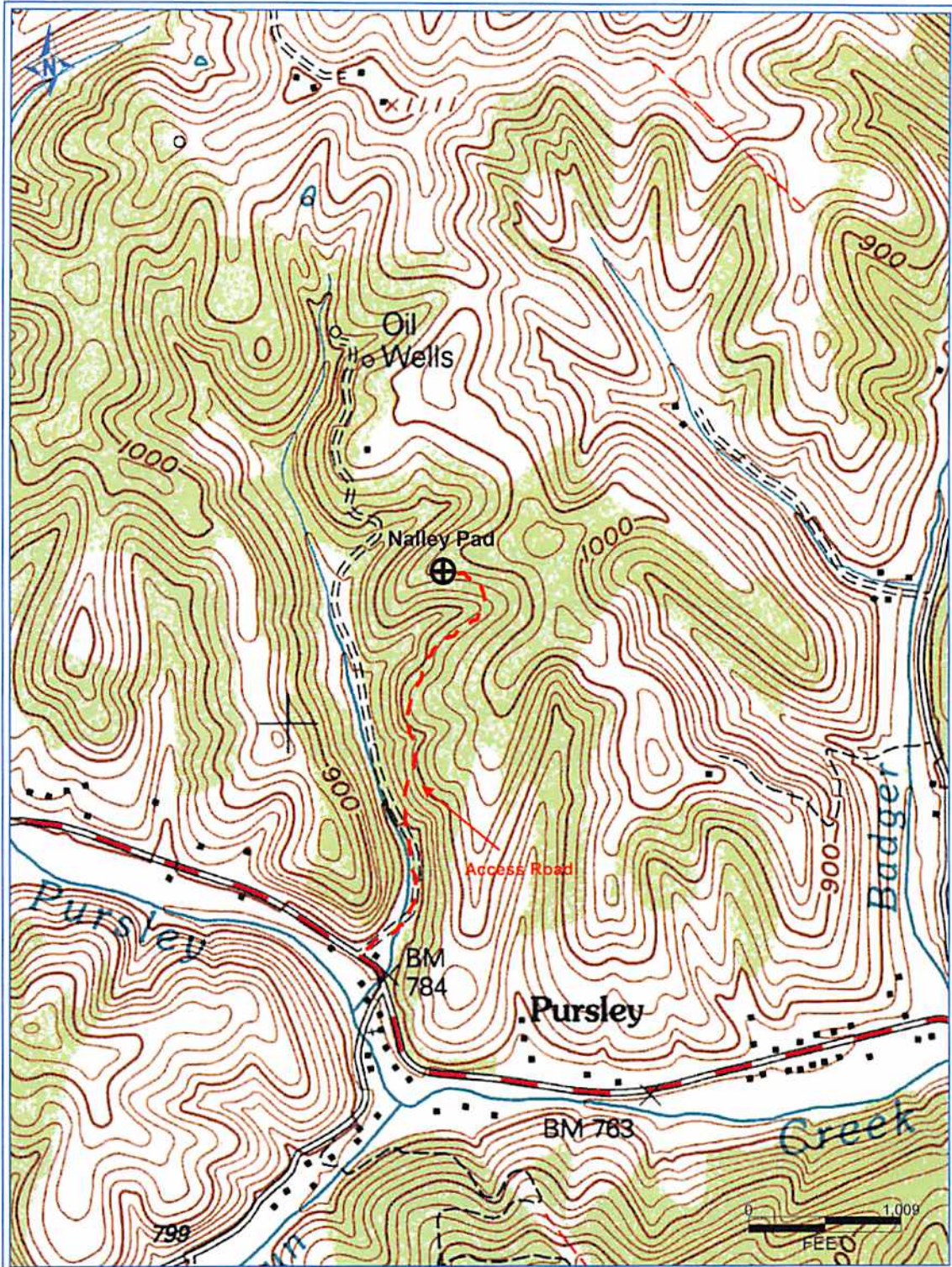
Head south on WV-2/Chelsea street for 1 mile. Turn left onto WV-18 S/Tyler Highway and continue for 2.9 miles. Access road will be on left.

Emergency (24 Hour) Contact: 1-800-878-1373

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Michael D. Goff
7/28/2014

JUL 28 2014

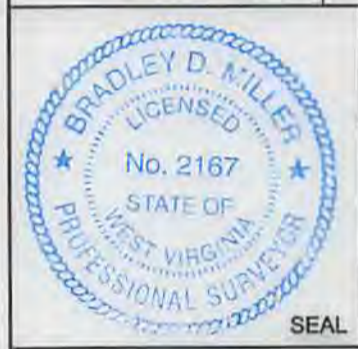
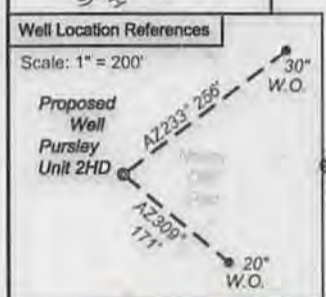
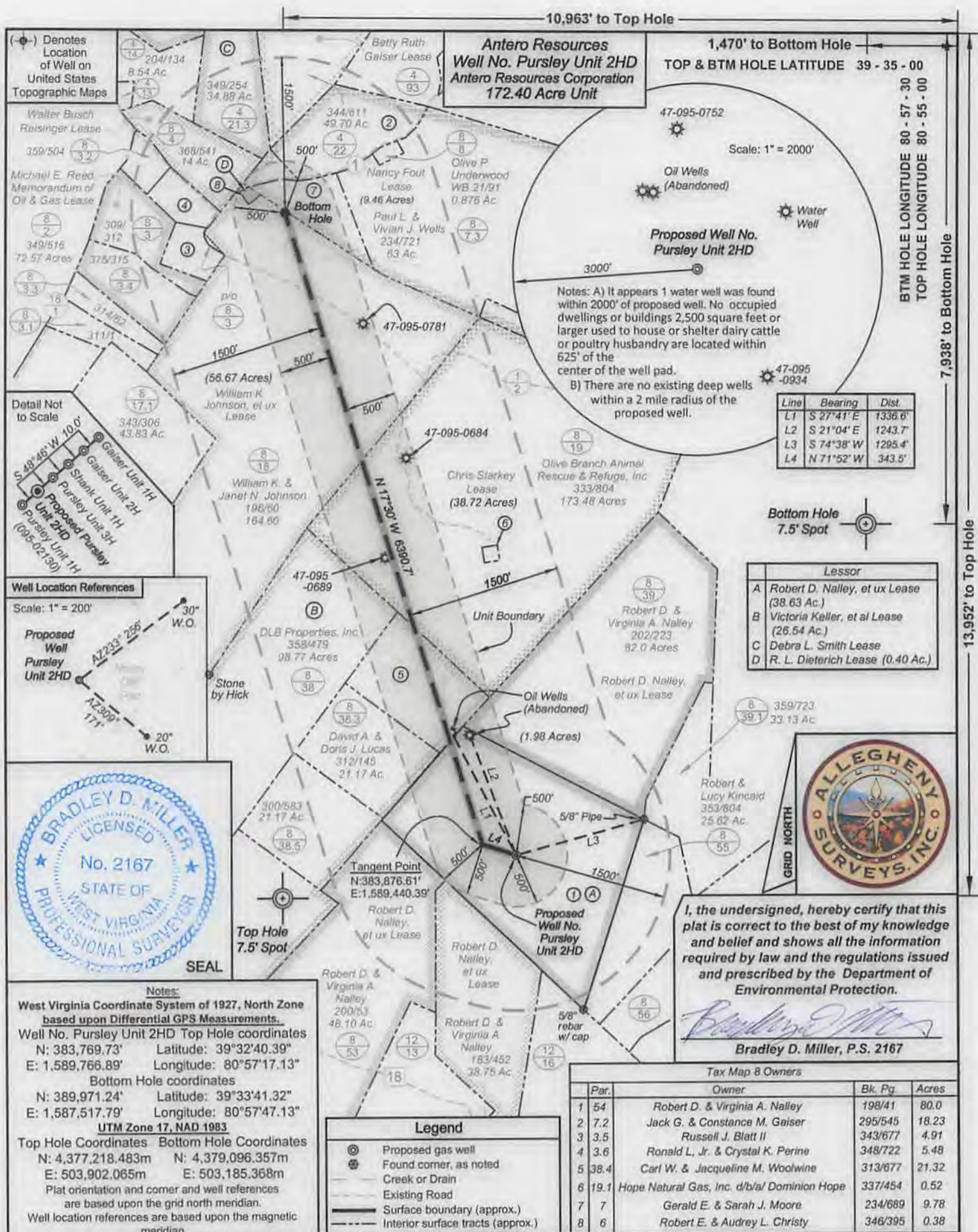


PETRA 8/9/2013 9:46:13 AM

Antero Resources Corporation
 Appalachian Basin
 Pursley Unit 2HD
 Tyler County

Quadrangle: Paden City
 Watershed: Pursley Creek
 District: Lincoln
 Date: 8-9-2013

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Notes:
West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
Well No. Pursley Unit 2HD Top Hole coordinates
N: 383,769.73" Latitude: 39°32'40.39"
E: 1,589,766.89" Longitude: 80°57'17.13"
Bottom Hole coordinates
N: 389,971.24" Latitude: 39°33'41.32"
E: 1,587,517.79" Longitude: 80°57'47.13"
UTM Zone 17, NAD 1983
Top Hole Coordinates Bottom Hole Coordinates
N: 4,377,218.483m N: 4,379,096.357m
E: 503,902.065m E: 503,185.368m
Plat orientation and corner and well references are based upon the grid north meridian.
Well location references are based upon the magnetic meridian.

Legend

- ⊙ Proposed gas well
- ⊛ Found corner, as noted
- Creek or Drain
- Existing Road
- Surface boundary (approx.)
- Interior surface tracts (approx.)

Tax Map 8 Owners

| Par. | Owner | Bk. Pg. | Acres |
|--------|---|---------|-------|
| 1 54 | Robert D. & Virginia A. Nalley | 198/41 | 80.0 |
| 2 7.2 | Jack G. & Constance M. Gaiser | 295/545 | 18.23 |
| 3 3.5 | Russell J. Blatt II | 343/677 | 4.91 |
| 4 3.6 | Ronald L, Jr. & Crystal K. Perine | 348/722 | 5.48 |
| 5 38.4 | Carl W. & Jacqueline M. Woolwine | 313/677 | 21.32 |
| 6 19.1 | Hope Natural Gas, Inc. d/b/a/ Dominion Hope | 337/454 | 0.52 |
| 7 7 | Gerald E. & Sarah J. Moore | 234/689 | 9.78 |
| 8 6 | Robert E. & Audrey L. Christy | 346/395 | 0.38 |

FILE NO: 214-54-L-13
DRAWING NO: 214-13 Pursley 2HD Rev 5
SCALE: 1" = 1200'
MINIMUM DEGREE OF ACCURACY: Submeter
PROVEN SOURCE OF ELEVATION: WVDOT, Harrisville, WV

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

DATE: July 23 2014
OPERATOR'S WELL NO. Pursley Unit 2HD
API WELL NO. DEEP
47 - 095 - 02175 HG A
STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
LOCATION: ELEVATION: 971' WATERSHED: Pursley Creek of the Ohio River QUADRANGLE: Paden City
DISTRICT: Lincoln Robert D. & Virginia D. Nalley William K. Johnson, et ux COUNTY: Tyler 08/22/2014
SURFACE OWNER: Robert D. Nalley, et ux; Victoria Keller, et al; Chris Starkey LEASE NO: ACREAGE: 80 164;
ROYALTY OWNER: Robert D. Nalley, et ux; Victoria Keller, et al; Chris Starkey LEASE NO: ACREAGE: 214; 174; 80
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____ 10,800' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Point Pleasant ESTIMATED DEPTH: 17,800' 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